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BELIEVERS MANTRA

 Democracy in India, a gift and a warning
 Gaps in Births and Deaths Registration (Amendment) Act

- The BRICS test for India's multipolarity rhetoric
- On the moon, over the moon

BRICS

 G-20's Imperative: A Collective Push Towards Climate Resilience

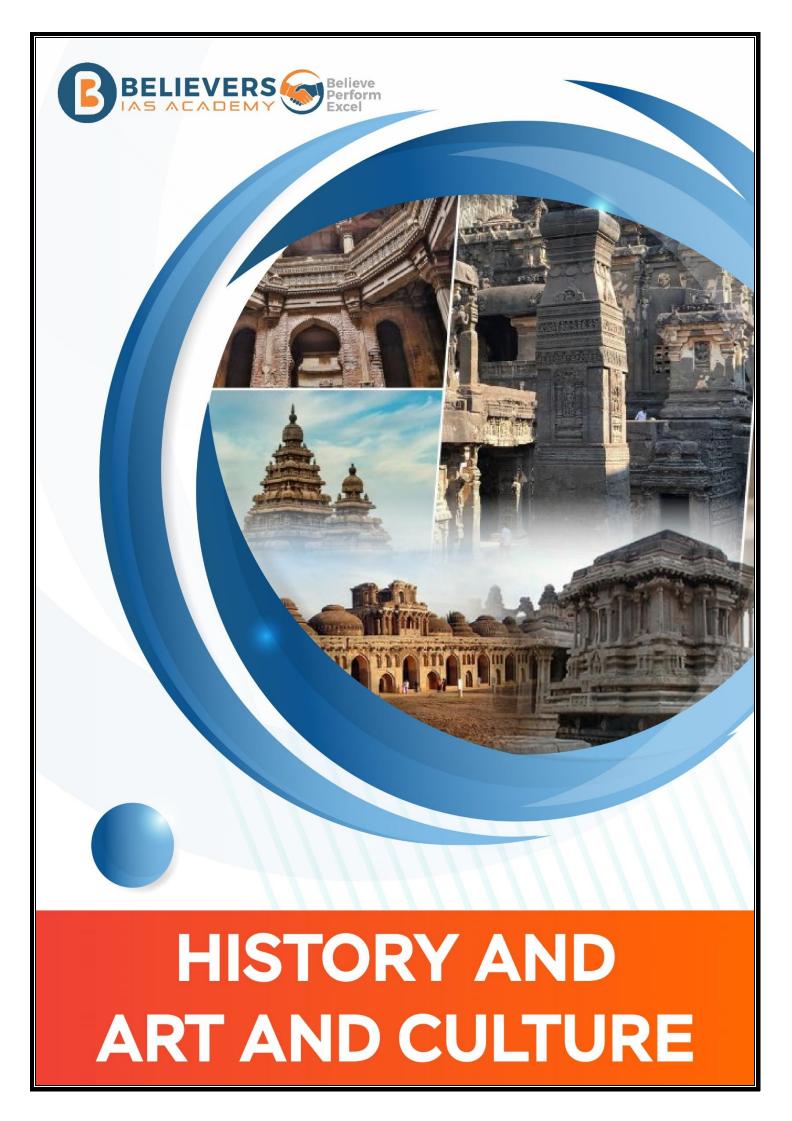
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A brief history of India's present

Context:

The perplexing occurrence of communal clashes within India has been an enduring issue in the country's history. A comprehensive analysis of these clashes reveals the underlying intricacies, shedding light on factors like historical continuities, selective law enforcement, and the influence of the digital age.

Relevance:

GS – 01 (Secularism, Communalism, Salient Features of Indian Society)

Prelims:

- Moplah Rebellion of 1921
- Partition Riots of 1947
- Democracy
- Secularism
- Human Rights

Mains Question:

• Examine the recurring phenomenon of communal riots in India, elucidating their historical context, socio-political aspects, and the role of digital communication. How do these incidents shape societal dynamics and political discourse? (250 words)

Dimensions of the Article:

- Factors Behind Communal Clashes
- Digital Age: Influence and Challenges

Factors Behind Communal Clashes:

- Historical Continuities and Regional Divisions: The history of communal clashes spans across different regions and eras, with a history dating back to events like Partition. These instances often stem from long-standing grievances and regional disparities, creating a volatile environment. The connection between historical events and contemporary clashes is crucial for a holistic understanding.
- Selective Implementation of Laws: A Political Tool: The usage of legal provisions, or lack thereof, has a complex role in these clashes. Section 144, designed to maintain order, can

sometimes be manipulated for political gains. Similarly, laws aimed at safeguarding religious sentiments can be exploited to further political agendas. The politicization of legal measures raises questions about the impartiality of justice.



Digital Age: Influence and Challenges

- Internet Suspension: A Double-Edged Sword: The relatively recent practice of internet suspension poses both advantages and drawbacks. It can be utilized to control information dissemination and curb misinformation. However, its implementation needs to be balanced to avoid impeding legitimate communication. The digital era introduces a fresh set of complexities, where information can be both a catalyst for harmony and a tool for discord.
- Changing Media Landscape and Varied Communication: The evolution of media has led to diverse ways of conveying information, ranging from concise messages to more elaborate narratives. This bursty nature of human communication contrasts with the uniformity often associated with AI-generated content. This diversity in communication style highlights the genuine human touch in narratives.

Way Forward:

- Restoring Communal Harmony: Efforts to address communal clashes should involve a multifaceted strategy. Aside from legal reforms and their consistent application, the focus should be on bridging historical divides and regional imbalances. Education and community engagement can play a pivotal role in dispelling misunderstandings and promoting unity.
- Ethical Digital Engagement: In this era of digital influence, ethical digital practices are pivotal. Striking a balance between information sharing and misinformation containment is crucial.

Promoting media literacy and responsible digital usage empowers individuals to distinguish between reliable information and manipulated content. This approach can contribute to a more harmonious society.

Conclusion:

 As India navigates its intricate historical journey, the recurrence of communal clashes underscores the importance of unity and understanding. The persistence of such incidents necessitates a comprehensive response that addresses historical grievances, encourages informed citizenship, and navigates the digital landscape responsibly. In this delicate equilibrium between complexity and simplicity, India's trajectory will be shaped by its ability to uphold constitutional values and embrace unity in diversity.

Cross the boulders in the Indus Waters Treaty

Context:

The Indus Waters Treaty (IWT), facilitated by the World Bank, has rekindled tensions between India and Pakistan, spotlighting the principle of fair resource distribution over potential harm. This treaty allots distinct water usage rights to both nations, emphasizing their river domains. However, as India's hydel projects come into play, concerns over treaty violations and downstream repercussions have surfaced, giving rise to the need for revisiting the accord in light of contemporary challenges.

Relevance:

GS – 02 (India and its Neighborhood) (Groupings & Agreements Involving India and Affecting India's Interests)

Prelims:

- Kishanganga and Ratle Hydro Electric Projects
- Tributaries
- Article IX of the IWT
- Indus and its tributaries.

Mains Question:

 Examine the challenges arising from India and Pakistan's differing interpretations of the Indus Waters Treaty (IWT) concerning hydel projects. How can the concerns of both nations be addressed to ensure equitable water utilization and mitigate potential harm, while upholding the principles of the IWT? (250 words)

Dimensions of the Article:

- Divergent Perspectives on Treaty Interpretation
- Kishanganga and Ratle issue
- Complications and Arbitration
- India's Stand and PCA's Observations
- Fostering Cooperation Amid Trust Deficits
- Renewal and Adaptation of the Treaty

Divergent Perspectives on Treaty Interpretation:

- The IWT, endorsed by the **World Bank**, hinges on an equitable resource-sharing framework. Exclusive access to specific rivers is granted to each nation to harness water resources without inflicting harm on the other.
- This division allocates the eastern rivers (Ravi, Beas, and Sutlej) to India and the western rivers (Indus, Jhelum, and Chenab) to Pakistan. Consequently, India can store 3.60 millionacre feet (MAF) of water for various purposes. Amidst this arrangement, tensions arise over India's hydel projects, including the Kishanganga and Ratle power plants in Jammu and Kashmir.

Kishanganga and Ratle issue:

- India views these projects as pivotal for regional development and energy needs. Pakistan, on the contrary, raises objections citing treaty violations and potential adverse effects on water supply, invoking Annexure D provisions.
- Concerns were initially raised in 2006 for the Kishanganga project and in 2012 for the Ratle project. In 2010, the dispute over the Kishanganga project reached the Court of Arbitration (CoA), which ruled the project as a run-of-river dam and

permitted India's water diversion. However, Pakistan maintained reservations on three unresolved issues.



Complications and Arbitration:

- Despite the CoA's judgment, only one of the four issues was resolved through talks. Unresolved matters led Pakistan to accuse India of treaty breaches and bring the issue to the World Bank in 2016.
- India requested a neutral expert for arbitration. While the World Bank suspended Kishanganga and Ratle works for resolution attempts, the Kishanganga project continued, triggering tensions.
- In 2018, Prime Minister Narendra Modi inaugurated the project, fueling tensions along the border. The World Bank then appointed Michel Lino as the neutral expert and Professor Sean Murphy as the CoA Chairman.

India's Stand and PCA's Observations:

- In 2023, the Permanent Court of Arbitration (PCA), chaired by Prof. Murphy, confirmed its jurisdiction over Pakistan's disputes with India.
- India abstained from participating in the proceedings, highlighting its non-recognition of parallel and unauthorized proceedings.
- Although India engages with the neutral expert, it refuses to be coerced into accepting proceedings outside the treaty's framework.

Fostering Cooperation Amid Trust Deficit:

- To address the escalating situation, fostering cooperation between India and Pakistan becomes pivotal. Incorporating "equitable and reasonable utilization" and the "no harm rule" within the IWT requires rebuilding trust.
- The involvement of local stakeholders and a collaborative group of experts could offer nuanced solutions to shared water challenges. Article VII of the IWT provides for cooperation arrangements, offering a potential path towards harmonious resource management.

Renewal and Adaptation of the Treaty:

- Given the IWT's 60-year existence, adapting it to contemporary dynamics is prudent. However, modifications require bilateral consent and enhanced mutual confidence.
- Recognizing the mutual interest in optimal river system development is crucial for successful treaty implementation.

Way Forward:

- Revisiting the IWT in light of current challenges demands collective efforts. India and Pakistan must bridge the trust deficit, engaging stakeholders and experts to address shared water concerns.
- By exploring cooperative arrangements and adapting the treaty to present realities, both nations can ensure equitable water distribution and safeguard their interests within a harmonious framework.

Conclusion:

As the Indus Waters Treaty assumes renewed importance, India and Pakistan stand at a crossroads. Balancing their interests while adhering to the treaty's principles necessitates collaborative approaches. By recognizing their common ground and embracing cooperative measures, the nations can navigate the complexities of shared water management and pave the way for a more secure and prosperous future.

KCR demands Bharat Ratna for social reformer Anna Bhau Sathe

Context :

The founder of Bharat Rashtra Samithi (BRS), Telangana Chief Minister K. Chandrasekhar Rao, has urged the Maharashtra government to submit a proposal to the Center and the Telangana government will also write to the Prime Minister with the same request. Anna Bhau Sathe is a social reformer, writer, and folk poet from Maharashtra.

Who is Anna Bhau Sathe?

- Background:
 - On August 1, 1920, in the Indian state of Maharashtra, in the village of Wategaon.
 - Belonged to the untouchable Matang caste, which performed Tamasha performances using traditional folk instruments.
 - limited formal education; barely completed fourth grade.



• Migration to Bombay (Mumbai):

- Due to a drought in the countryside, people moved to Bombay for over six months in 1931 on foot.
- took on a variety of odd jobs to make ends meet in the metropolis.

• Writing Career:

 "Fakira" is among the most well-known of his 35 Marathi books.

- "Fakira" is currently in its 19th issue and won a state government prize in 1961.
- 15 collections of short stories that he wrote have been published, and many of them have been translated into various languages, both Indian and foreign.
- Additionally, he created a play, a travelogue about Russia, 12 scripts, and 10 Marathi Powada-style ballads.
- Utilization of Folkloric Styles:
 - used powada and lavani, two folklore tale forms, in his compositions.
 - These aesthetics contributed to the work's accessibility to a wide spectrum of communities.
- Themes in his writings:
 - The protagonist of "Fakira" rebels against the rural orthodox system and the British Raj to prevent his people from going hungry.
 - His poems frequently portrayed Bombay's metropolitan setting as a dystopian one.

• Political activism:

- Initially motivated by communist philosophy and connected to Lal Bawta Kalapathak, the cultural branch of the Communist Party of India.
- Member of the Communist Party of India's cultural branch, the Indian People's Theatre Association.
- Participated in the Samyukta Maharashtra Movement, which aimed to divide Bombay State linguistically to create a separate Marathi-speaking state.

• Shift towards Dalit Activism:

- Embraced Dalit action in response to B. R. Ambedkar's teachings, which served as inspiration.
- used his tales to highlight the hardships faced by Dalits and labourers.
- in 1958 established the first Dalit Sahitya Sammelan, a literary gathering in Bombay.

The Dalit community and social movements continue to be influenced by and inspired by Anna Bhau Sathe's work and actions. His work has made a significant contribution to the growth of Dalit literature and the struggle for social justice in India.

What is Bharat Ratna and who is eligible for this award?

• Introduction and Objectives

 The Bharat Ratna, the highest civilian honour of the Indian Republic, was founded on 2 January 1954.

- It is given to persons to honour them for their "exceptional service/performance of the highest order" to the country.
- There is no racial, occupational, or gender prejudice in the award's distribution.
- Criteria:
 - When it was first established, the award could only be used to honour contributions to the humanities, sciences, literature, and public service.
 - The Indian government broadened the requirements in December 2011 to cover "any field of human endeavour."
 - As a result, more people might be considered for the prize from a wider range of professions.
- Procedure for Awards and Recommendations:
 - The candidates for the Bharat Ratna are recommended to the Indian President by the Prime Minister of India.
- The President bestows the honour upon the chosen recipients.
 - The Bharat Ratna can only be conferred to a maximum of three nominees in any given year.
- Medal and Acknowledgement:
 - A Sanad (certificate) bearing the President's signature is given to Bharat Ratna recipients.
 - Additionally, they are given a medallion in the form of a peepal leaf, which represents the Jewel of India.

• Financial Grant:

- The Bharat Ratna has no financial gift or award attached to it.
- Order of Priority:
 - In the Indian hierarchy, those who have received the Bharat Ratna are ranked eighth.
 - In the hierarchy of Indian civilian honours, this denotes that they occupy an important place.

• First Beneficiaries:

- Three outstanding people received the first Bharat Ratna in 1954, including C. Rajagopalachari, the final governorgeneral of the Dominion of India.
- The country of India's second president and first vice president was Sarvepalli Radhakrishnan.
- Physicist and Nobel laureate C. V. Raman.
- Awarded posthumously:
 - Posthumous prizes were not permitted by the original statutes, but they were later changed to allow them in January 1955.

- Former Prime Minister Lal Bahadur Shastri received the first posthumous Bharat Ratna.
- Important Recipients
 - 48 people have received the honour so far, including 14 posthumous recipients.
 - Famous recipients include social reformer Dhondo Keshav Karve (awarded on his 100th birthday), cricketer Sachin Tendulkar (youngest recipient), singer M. S. Subbulakshmi (first singer recipient), and actor M. G. Ramachandran (first actor recipient).
 - As a naturalized citizen, Mother Teresa was given the distinction, and Nelson Mandela and Abdul Ghaffar Khan, two non-Indians, were also given the Bharat Ratna.

GI tags are given to crafts from Rajasthan, mangoes grown in Goa

Context:

The Geographical Indications Registry in Chennai awarded the Geographical Indication (GI) label to seven items from all over India, including four from Rajasthan.

The items that received the label included the Jalesar Dhatu Shilp (metal craft), Goa Mankurad mango, Goan Bebinca, Udaipur Koftgari metal craft, Bikaner Kashidakari craft, Jodhpur Bandhej craft, and Bikaner Usta Kala craft.

What are GI tags?

- Identification of Origin: A GI's main purpose is to indicate that a product comes from a specific area of the world. This aids customers in differentiating products depending on their country of origin and helps them make wise purchases.
- Link to Place of Origin: A product's attributes, traits, or reputation should largely be attributed to its place of origin. The distinctive characteristics of the product are influenced by geographical aspects such as climate, soil, conventional wisdom, cultural practices, and others.
- Protection and Regulation: In many nations and regions, geographical indications are legally protected. Laws and regulations specify the requirements for a product to be recognised as a GI and offer safeguards against unauthorised

use, false labelling, or product imitation. The Geographical Indications of Goods (Registration and Protection) Act, 1999 aims to better safeguard geographical indications used in connection with commodities in India by allowing for their registration.

- **Product Categories:** Different product categories, such as agricultural commodities, food and drinks, handicrafts, textiles, and industrial goods, might use geographic indicators. Wines, cheeses, fruits, handicrafts, and textiles are a few examples.
- Information for Consumers: GIs give consumers useful details about the source and calibre of products. Customers can rely on the distinctive qualities, standing, and traditional knowledge connected to items from particular geographical areas.
- Economic Benefits: Geographical indications have a positive economic impact on local and regional economies. By giving local producers a market for their distinctive goods, they support local producers, maintain cultural heritage, and promote and protect traditional knowledge.
- **Cultural and environmental preservation:** GIs contribute to the preservation of regionally specific natural resources, traditional production techniques, and cultural practices. This stimulates biodiversity preservation and sustainable practices.
- International Recognition: Geographical indications may also be given worldwide status using conventions and treaties. Examples include the protection of GIs under the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) of the World Trade Organisation.



What Rights do GI tags provide?

- Geographical indication rights grant the ability to restrict the use of an indication by a third party that doesn't meet the relevant standards.
- Producers with the Darjeeling geographical indication can prevent the use of "Darjeeling" for tea that isn't grown in their gardens or produced according to specified standards.
- Protected geographical indications don't prevent others from using the same techniques outlined in the standards for that indication.
- Obtaining protection for a geographical indication often involves acquiring rights over the corresponding sign or symbol.

What are the types of products that GI tags are used for?

• Geographical indications are typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products.

What are the latest products that have GI tags?

- Jalesar Dhatu Shilp (Metal Craft):
 - Jalesar Dhatu Shilp (Metal Craft) is situated in the Uttar Pradesh district of Etah.
 - Making brassware and ornate metal crafts is considered to be a craft.
 - Meaning: Jalesar is renowned for its long history of metalworking, producing intricately crafted brassware and metal items.
 - GI Tag: The GI tag recognizes the cultural relevance and tradition of Jalesar's metalwork while safeguarding its distinct identity.

Goa Mankurad Mango:

- Goa Mankurad Mango is found in India's Goa.
- Mango of the Mankurad kind, whose name is derived from the Portuguese word "malcorada," which means "poorly coloured."
- Meaning: The mango has a long history with Goa, and the state's fascinating culture is reflected in its unusual name.
- GI Tag: The GI tag helps to maintain the Mankurad mango's traditional cultivation and production methods as well as its authenticity in Goa.
- Goan Bebinca:
 - Goan Bebinca: Found in India's Goa.

- delicacy: This pudding-like dish is a classic Indo-Portuguese delicacy.
- Bebinca is regarded as the "Queen of Goan Desserts" and has strong cultural origins in the local cuisine.
- GI Tag: The GI tag denotes the historical and cultural significance of Goan Bebinca and forbids the misuse of its name and manufacturing.

Udaipur Koftgari Metal Craft:

- Udaipur Koftgari Metal Craft is located in the Indian state of Rajasthan.
- involves the traditional Koftgari craft, which is used to create decorative weapons.
- Process: This involves etching designs into the metal, inserting gold and silver wire, and polishing the finished goods.
- Meaning: The Koftgari workmanship from Udaipur is a representation of the expert craftsmanship of artisans and the age-old metalworking methods handed down through the centuries.
- GI Tag: The Koftgari metal craft of Udaipur is recognized and protected by the GI tag for its exceptional craftsmanship.

• Jodhpur Bandhej Craft.

- Location: Jodhpur, Rajasthan, India.
- Craft: Describes the Rajasthani practice of tying and dying fabric to produce a variety of patterns.
- Importance: Rajasthan's textile tradition includes bandhej craft, which is frequently utilized to produce brilliant and colourful fabrics.
- Bandhej craft from Jodhpur is made using traditional methods and patterns, which are preserved thanks to the GI tag.

• Usta Kala Bikaner Craft:

- Location: Rajasthan, India's Bikaner.
- Craft: It primarily features a golden colour and has a lasting effect. It is also known as gold nakashi work or gold manual work.
- Meaning: The Usta Kala craft of Bikaner is a prime example of the meticulous use of gold in artwork, showcasing the creative legacy of the area.
- GI Tag: The GI tag protects the traditional techniques and designs of Bikaner's Usta Kala craft.

President retains power to scrap Article 370: SC

Context

On Wednesday, the Supreme Court questioned whether the President would still have the authority to declare ineffective Article 370 of the Constitution, which granted Jammu and Kashmir special status, after the Constituent Assembly of the formerly existing State was dissolved on January 26, 1957.

What is 'Article 370?

- The state of Jammu and Kashmir was given special status under Article 370 of the Indian Constitution. It was included as a shortterm solution to Part XXI of the Indian Constitution, which is named "Temporary, Transitional and Special Provisions."
- The purpose of Article 370 was to establish a framework for ties between the Indian government and Jammu and Kashmir, a state that joined India in 1947 following its liberation from British rule.

What is the historical background behind the Jammu and Kashmir annexation?

- Partition of British India: British India was divided into India and Pakistan in August 1947, following its independence from the British Empire. With Pakistan being founded as a country with a majority of Muslims and India having a majority of Hindus, the partition was predicated on religious lines.
- Accession of Princely States: During the partition, around 500 autonomous princely states—regimes ruled by local sultans—were offered the choice to join either India or Pakistan.
 Depending on elements like proximity to another country in terms of geography, religious compositions, and the preferences of the king, the princely realms could choose to join either one.
- The dilemma of the ruler: Jammu and Kashmir was a princely kingdom with a majority-Muslim population that was administered by a Hindu king, which presented a dilemma for Maharaja Hari Singh. Maharaja Hari Singh was hesitant to join either Pakistan or India. He intended to keep his state independent, but he was forced to choose by the political climate and pressure from both India and Pakistan.
- Tribal Invasion and Instrument of Accession (October 1947): In October 1947, Pakistani tribal forces invaded Jammu and Kashmir, igniting a massive riot and wave of carnage. Maharaja Hari Singh requested Indian military assistance in reaction to the

invasion. On October 26, 1947, he formally acceded the state to India by signing the Instrument of Accession. The accession was approved by the Indian government, and Indian forces were sent to defend the country

 Participation of United Nations: The dispute between India and Pakistan over Jammu and Kashmir prompted the UN to step in. The Line of Control (LoC), which divides the area between territories governed by Pakistan and India, was created in 1949 as a consequence of a UN-mandated truce.



 Article 370 and Special Status: Jammu and Kashmir are given special status and certain autonomy under Article 370 of the Indian Constitution, which was included to address the delicate nature of the accession and take into account the state's particular circumstances.

What is Article 35 and what are the provisions?

- The citizens of the state of Jammu and Kashmir were given unique privileges and rights under Article 35A of the Indian Constitution. It was part of the larger structure that gave Jammu and Kashmir special status under Article 370 and was added to the Constitution through a Presidential Order in 1954.
- The provinces of Article 35A are as follows:
 - Protection of Laws: The provision guaranteed the preservation of any state laws now in effect that pertain to long-term inhabitants and their legal rights. It made sure that the state government was free from interference from the federal government to define and control the rights and privileges of its citizens.

 Limitations on Citizenship: Under Article 35A, it was prohibited for those who were not permanent residents of Jammu and Kashmir to become citizens of the state. As a result, they were unable to take advantage of the exclusive rights and benefits accorded to permanent residents.

How was the article altered in the recent past?

- Presidential Order: Under the Government of India's recommendation, the President of India issued a Presidential Order to repeal Article 370 on August 5, 2019. The previous Presidential Order from 1954, which had been extended to the state with the "concurrence" of the state administration, was replaced by this one.
- Parliament Approval: The resolution was introduced by the Indian government in both the Lok Sabha (House of the People) and the Rajya Sabha (Council of States) of the Indian Parliament while the Presidential Order was issued. The resolution asked the Parliament to approve changing Article 370 and reorganising Jammu and Kashmir.
- Reorganization Act: The Jammu and Kashmir Reorganisation Act, 2019, was introduced in Parliament alongside the resolution. The proposal made in this act was to divide the state of Jammu and Kashmir into the Union Territory of Jammu and Kashmir and the Union Territory of Ladakh.
- Parliamentary Approval: Both houses of Parliament considered and approved the resolution and the Reorganisation Act. The Reorganisation Act needed to be approved by a simple majority in the Lok Sabha and a special majority in the Rajya Sabha, whereas the resolution only needed a simple majority to be approved.
- **President's Assent:** The resolution and the Reorganisation Act were sent to the president for his signature after being passed by both chambers of parliament. The modification of Article 370 and the division of Jammu and Kashmir into two union territories were put into effect after gaining the President's approval.

What are the possible issues with removing Article 370?

- **Constitutional and legal challenges:** The Indian Supreme Court has heard arguments against the repeal of Article 370. Critics contend that how Article 370 was repealed calls into doubt the constitutionality and legality of the provision.
- **Concerns about Rights:** Human rights concerns have been raised by the situation in Jammu and Kashmir, especially in light

of the suspension of civil liberties, internet blackouts, and limits on freedom of movement. There have been more civilian casualties and tensions have risen as a result of the region's tightened security

- Regional Tensions: As both India and Pakistan assert sovereignty over the entire region of Jammu and Kashmir, tensions between the two nations have increased since Article 370 was repealed. Since the reforms, hostilities along the Line of Control have risen and strained bilateral relations.
- **Political turmoil:** In Jammu and Kashmir, the repeal of Article 370 has led to political turmoil. The arrest of political figures and the repression of political dissent have made the political climate in the area even more complex.
- Impact on the Economy: The decision to repeal Article 370 has an impact on the local economy. The protracted security measures and communication limitations have had an impact on Jammu and Kashmir's enterprises, tourism, and overall economic activity.
- Social and Demographic changes: Critics of the abrogation claim that because non-residents can now buy land and settle in Jammu and Kashmir, it may cause social and demographic changes in the area. Concerns have been expressed concerning how to protect the local population's rights and cultural identity.

'Kalbelia' dance showcased in National Folk and Tribal Art Festival

What do we know about the Kalbelia tribes?

- The Kalbelia are a snake-taming tribe from Rajasthan, India's Thar Desert. Men and women both participate in the dance, which is an essential component of their culture.
- The Kalbelias are devotees of Sage Kanifnath, who after consuming a bowl of poison was granted mastery over poisonous snakes and animals.
- The Daliwal and Mewara are the two primary groups that make up the community.
- In the past, the Kalbelia people had a history of often travelling from one location to another, and their traditional livelihood was hunting snakes and trading snake venom.

- They raise a variety of animals, such as dogs, hens, horses, donkeys, pigs, and goats, which has an impact on their dance moves and attire, mimicking the serpents they encounter.
- Numerous names, including Sapera, Jogira, Gattiwala, and Poogiwara, are given to them.
- The Pali district has the most Kalbelias, but there are also sizeable populations in the neighbouring districts of Ajmer, Chittorgarh, and Udaipur.
- The scheduled tribes are home to the nomadic Kalbelias.
- In the past, Kalbelias camped outside of their communities in improvised settlements known as deras.
- They acquired a distinctive grasp of the local flora and wildlife over many generations, as well as **information on herbal cures for many illnesses**, which became a secondary source of revenue.
- Due to the intermittent nature of performance chances and the seasonal nature of tourism, some community members must work in fields or herd cattle to make a living.
- The **holy day of Naga Panchami is** observed by Kalbelias, who are Cultural Hindus who practice snake worship, especially of the Nga and Manasa deities.
- In contrast to the majority of Hindus, they follow various practices, such as wearing an apadravya and burying their dead rather than cremating them.
- According to **Kalbelian marriage traditions, the** groom must give the bride's father a price and the groom's father must also contribute to the wedding.

What was their main occupation and livelihood?

- While their women sang, danced, and begged for alms in villages, Kalbelia males used to carry cobras in cane baskets. They support the non-killing of snakes and respect the cobra.
- A Kalbelia would be called if a snake tried to enter a house so that it could be caught and removed without being killed.
- The Wildlife Act of 1972 obliged Kalbelias to give up their long-standing occupation of handling snakes.
- After giving up **snake handling**, they turned to the performing arts as their **main source of revenue**. Their performances were well received both inside and outside of India.

What makes the different from the other dance forms in our country?



The Kalbelia dance is an essential component of Kalbelia culture and is done as a celebration. It serves as a symbol of the Kalbelia people's identity, expressing their distinctive customs and inventive adjustment to shifting socioeconomic realities.

How is the dance form performed what are the attires worn?

- Women perform the Kalbelia dance the majority of the time. The dance's main motif is the movement of a serpent, and the women are dressed in flowing black skirts that convey this idea.
- Additionally, the women dress in a **lehenga (lower body cloth)**, angrakhi (upper body cloth), and odhani (headcloth), all of which have intricate embroidery.
- The female dancers are decked with customary jewellery and wear clothing that has been lavishly embroidered with tiny mirrors and silver threads, which enhances the dance's aesthetic appeal.
- The dancers' traditional tattoos are another distinctive feature of their appearance during performances.
- The Kalbelias execute particular dances on significant occasions like Holi, giving their cultural customs even more diversity and significance.

- These dances enhance the joyous atmosphere of the **Hindu** festival of colours, Holi.
- The music's rhythm picks up speed as the dance performance goes along, as do the dance moves, which get more and more animated.
- This makes Kalbelia dance a visually and aurally compelling type of art, resulting in an intriguing and captivating experience for the spectator.

What is the role of music in their dance forms?

- Male dancers accompany the music with a variety of traditional instruments.
- Pungi (a woodwind instrument historically used for snake charm), duffle, been, khanjari (a percussion instrument), morchang, khuralio, and dholak are some of these instruments.
- These instruments' rhythms set the tempo for the dancers' performance.
- The dance performance includes **kalbelia songs**, which are based on **mythological and folktale tales**.
- The Kalbelias are known for **improvising songs and writing lyrics** on the spot while performing, exhibiting their artistic talent and originality.
- The oral heritage of Kalbelia's dance, songs, and cultural activities is passed down through the centuries.
- Since there are **no official texts or instruction manuals for studying Kalbelia dance**, it is a dynamic and culturally diverse art form.

Is the Kalbelia dance listed on the UNESCO list?

- In 2010, UNESCO added the Kalbelia folk songs and dances of Rajasthan to its list of **Intangible Cultural Heritage.**
- This honour is intended to protect and preserve this traditional art form for upcoming generations and to raise public awareness of its cultural significance.

Rowing to success

Nehru Trophy Boat Race

Introduction to the Kuttanadu Boat Races:

- In Kuttanadu, a region recognized for its lakes and rivers, snake boat racing is a prominent cultural event.
- During August and September, thoughts in the area are dominated by the respected and elegant snake boats.
- These competitions involve synchronized rowing and call for a high level of skill.
- Each person in a single boat forms a sizable team, and their contribution is essential.
- The significance of important water festivals is linked to temples, keeping the essence of traditional Keralan culture.

Background and geography:

- The central Travancore region of Kuttanadu is submerged due to the presence of the Pamba, Achankovil, and Manimala rivers.
- Over many years, the ground was reclaimed for agricultural purposes, and the locals worked the land.
- Due to its geographical characteristics, Kuttanadu's inhabitants place a high value on celebrations.

The Story of Boat Races:

- The history of snake boat racing dates back 400 years, involving battles between rulers of Chempakasseri, Kayamkulam, Thekkumkoor, and Vadakkumkoor.
- Chempakasseri Raja sought to improve his war boats, leading to the creation of the first snake boat.
- The Chempakasseri Raja's boat, with its eel-like design and strategic advantages, proved victorious.
- Kayamkulam Raja attempted to learn the boat's design through deceit but was unsuccessful.

Boat Types:

- In Kuttanadu, a variety of boats, including Kochuvallams, Kettuvallams, Churulans, Chundans, Veppu Vallams, and Oadis, are used for diverse purposes.
- Snake boats, also known as Chundans, are distinguished by their size, speed, and manoeuvrability.
- Chundans may hold 100 to 150 rowers and extend to lengths of 38.5 to 48.5 holes.



Participation of the community:

- Some race boats are jointly owned by neighbourhood communities, while other race boats are rented out by organizations.
- The local population bonds and grows closer together throughout the boat race season.
- Participation in boat races is something to be proud of, and money is raised by donations from the general public.
- Boat races are celebrated locally as events that foster comradery and family get-togethers.

Specific Boat Racing Festivals:

- Festivals dedicated to boat racing: Chambakulam Moolam The placement of Lord Krishna's idol at Ambalapuzha Sree Krishnaswamy Temple is commemorated with the festival of Vallamkali.
- To commemorate the installation of the deity at the Subrahmanya Swamy Temple in Harippad, Payippad Jalotsavam is conducted on Payippad Lake.

Pipeline work leads to the vast megalithic site in Kerala

Context :

During a recent salvage operation by the Kerala State Archaeology Department in Nagaparamba in Kuttippuram village, close to Tirunavaya, in Malappuram district, several megalithic hat stones were discovered from a single location.

Location and Context:

- The Kerala State Archaeology Department excavated Nagaparamba, which is situated in Kuttippuram village close to Tirunavaya in the Malappuram district of Kerala, India.
- The site is interesting because it may include megalithic artefacts that can shed light on regional culture and ancient burial customs.
- What were the findings available from

What were the findings from the excavations? Hat Stones, also known as Thoppikkallu:

- Hemispherical laterite stones are referred to as "hat stones" or "Thoppikkallu" in Malayalam.
- They were used as urn lids throughout the megalithic period, an era characterized by massive stone constructions and burial customs.

Relics and Burial Sites:

- The excavation uncovered a sizable number of megalithic relics and burial sites.
- These included a large number of iron tools and earthen urns, each with its special qualities.

What is the significance of the find in the present-day world?

- The largest collection of hat stones found at an unprotected archaeological site in the state may have been found at the Nagaparamba dig.
- This highlights the find's uniqueness and importance.
- The requirement for thorough documentation of the discoveries and the excavation site is emphasized by archaeologists.
- The preservation of important historical and archaeological data for upcoming study and comprehension is ensured by proper documentation.

What is the historical Insight provided by these findings?

- The findings shed light on the lives, cultures, and customs of those who lived in the area during the megalithic period, more than 2,000 years ago.
- The artefacts offer hints about prehistoric social structures and burial practices.
- The discoveries from the Nagaparamba excavation help to preserve and comprehend the local area's cultural heritage.
- They serve as a concrete link to the past and aid in the reconstruction of the area's history.



What do these findings tell us about that era?

- funeral Rituals and Practices:
 - The abundance of funeral urns and hat stones suggests that the megalithic people of the time had unique burial rituals involving the usage of these stone covers.
 - A degree of respect for the deceased and perhaps a belief in an afterlife can be inferred from the meticulous placement of hat stones as burial urn lids.
- Social structure and community composition:
 - Megalithic burial sites and artefacts are evidence of organized social institutions and groups that practised communal burial.
 - The consistent use of hat stones in various funerals points to a common cultural heritage among the community.

• Technology and handiwork:

- The production of hat stones and other megalithic structures needed both a high level of handiwork and a thorough understanding of stone carving methods.
- The technical prowess of those people is evidenced by their ability to carve stones into hemispherical covers.
- Cultural Beliefs and Symbolism:
 - The megalithic society may have attributed symbolic value to the use of hat stones as lids.
 - These symbols could be a reflection of the people's relationship to nature or their views on the afterlife.
- Material Culture and Economy:
 - The discovery of iron implements among the artefacts indicates the megalithic period's use of metals.
 - This sheds light on the period's technological development and the significance of metallurgy to their economy and way of life.

Conclusion

In conclusion, a sizable collection of megalithic hat stones and other artefacts have been discovered during the recent salvage dig at Nagaparamba in Kuttippuram village, Malappuram district, Kerala. These findings illuminate historical events, cultural practices, and aspects of the history of the area, highlighting the value of accurate documentation and preservation for future generations.

Blood trail from the 1857 war to a flight down south

Context

Professor Chaubey is currently analyzing the remains of the 282 men whose bones were discovered in a historic well in Ajnala, Punjab, close to Amritsar, in February 2014. Scientists were able to determine that the males were from the Gangetic plains because of several markers. When we chatted, Mr Chaubey revealed information that particularly piqued his attention. "After the British killed many of the soldiers, they harassed the families, forcing these people to flee to modern-day Tamil Nadu," he stated.

Background: The Sepoy Mutiny of 1857

- The Sepoy Mutiny was a broad revolt against British colonial control in India. It is sometimes referred to as the Indian Rebellion of 1857 or the First War of Indian Independence.
- Sepoys, or Indian troops, rose in rebellion against British rule for several reasons, including disagreements over religion, cultural issues, and British policies.



Mutiny in Delhi

What happened in Ajnala, Punjab?

- Approximately 500 Indian soldiers participated in the Sepoy Mutiny at the Mian Mir Cantonment in Lahore, which was governed by the British.
- The town of Ajnala, which is situated in the Amritsar area in northwest India, was reached by these rebel warriors swimming across the Ravi River.
- The rebel fighters were chased by the British, who eventually met them at the Dadian Sofian settlement, close to Ajnala.
- Around 218 rebel soldiers were killed in a fierce battle between Indian insurgents and British soldiers.

Mass Execution and Disposal:

- After the conflict, the 282 rebel soldiers who were still alive were imprisoned in a small space.
- Many of these rebel troops perished from asphyxiation and harsh conditions as a result of the congestion and lack of air.
- The last few survivors were killed by gunfire, and their corpses were dumped into a well that was later given the names "Kalianwala Khu" and "Shaheedan da Khu."

Discovery and Recovery:

- The corpses of 22 soldiers were discovered and recovered from the well at Kalianwala Khu in February 2014.
- When it was revealed in prominent publications that this discovery had been made, it received a lot of attention and shed light on the historical significance of the location.
- On March 1, 2014, extra efforts allowed the rescue of an additional 40 bodies from the same well.

Historical Significance:

- The rescue of these soldiers' remains and their discovery serve as a reminder of the difficulties and sacrifices made by those who took part in the 1857 Sepoy Mutiny.
- The location of Kalianwala Khu stands as a reminder of both the bravery shown by individuals who rebelled against British control and the crimes committed during the mutiny.
- The tragedy serves as a reminder of the need to keep looking for and protecting historical sites so that the past's tales are not lost.

Conclusion:

To sum up, Shaheedan da Khu's or Kalianwala Khu's story serves as a powerful reminder of the horrible events that took place during the Sepoy Mutiny of 1857. The killing and subsequent dumping of the bodies of the rebel fighters in the well illustrate the price that those who struggled for freedom from British colonial power paid. The 2014 discovery of the remains serves as further evidence of how crucial it is to preserve historical memory and pay respect to those who came before us.

As many as 189 tribal colonies in Kerala still lack Internet access

Context

Even though Kerala was the first State in the nation to recognize the right to the Internet as a fundamental right, the State still lacked mobile and Internet service in 189 Adivasi ooru (tribal colonies) scattered over 12 districts.

Over 5,000 indigenous students in these colonies have their chances harmed by the absence of access.

What is the background of this issue?

- Even though Kerala was the first State in the nation to recognize the right to the Internet as a fundamental right, the State still lacked mobile and Internet service in 189 Adivasi ooru (tribal colonies) scattered over 12 districts.
- Over 5,000 indigenous students in these colonies have their chances harmed by the absence of access.

What are the statistics of the Tribals who did not receive the fundamental right to the Internet as promised?

- In Kerala, there are 189 Adivasi ooru (tribal colonies) dispersed over 12 districts that don't have access to the Internet or mobile service.
- The most detached tribal colonies are in Idukki, where there are 75 of them and more than 2,000 tribal pupils. Kannur is next with 1,140 kids.

What are the initiatives taken by the government to provide internet access to tribes?

- To deal with this problem, the Scheduled Tribes Development Department has made the first move by following the guidelines of the Forest Rights Act and requesting approval from the Forest Department to erect communication towers inside tribal communities that are situated within forests.
- A project that has received approval from the Union Cabinet includes a plan to offer Internet and mobile connectivity in these tribal colonies. In remote and underserved locations, the project intends to provide 4G mobile services.
- The KFON project was started by the Left Democratic Front (LDF) government in Kerala as a sign of its dedication to digital inclusion and lowering the cost of Internet access.

What is the KFON Project?

- Launched in 2019, the **Kerala Fibre Optic Network (KFON)** initiative seeks to offer inexpensive connections to the general public and free Internet access to families living below the poverty line.
- The importance of connectivity is emphasized by the Kerala High Court's recognition of the right to Internet access as a component of the fundamental rights to privacy and education.

INTERNET - A BASIC RIGHT

Why is it significant to have internet connectivity for the tribes?

- Access to Knowledge: The Internet offers access to a huge collection of knowledge, information, and educational materials. Tribal students have access to internet research, and instructional, and learning platforms that may not be accessible locally.
- Enhanced Educational Opportunities: Connectivity enables tribal students to take part in online courses, webinars, and virtual classes, enhancing their access to higher education beyond what is offered in their surrounding area.
- Digital Literacy and Skills: Digital literacy and skills are becoming more and more important in today's society, and Internet exposure helps tribal people acquire these abilities. These abilities may result in more favourable employment and financial chances.
- Health Information: Especially when medical facilities are far away, tribes may find it easier to obtain healthcare resources and information if they have Internet access to medical information and telehealth services.
- Communication and Networking: Communication and networking are made possible by connectivity, which enables tribal tribes to interact both internally and externally. This makes networking, experience sharing, and establishing relationships for teamwork easier.

What are the Environmental effects of setting up towers in Forest areas?

- Habitat Fragmentation: The installation of towers may necessitate the clearance or modification of portions of the forest, resulting in the disturbance of the habitat. This may affect the movement of wildlife and hasten habitat decline.
- Impact on Biodiversity: A wide variety of plant and animal species can be found in forests. A decrease in biodiversity may result from disturbances caused by tower installation that influence the local flora and animals.
- Ecosystem Services: Forests offer a range of ecosystem services, including the filtration of water, the storage of carbon, and the control of the climate. The building of towers might obstruct these services and throw off the equilibrium of the environment as a whole.
- **Deforestation and Degradation:** The clearing of land for the installation of towers may cause localized deforestation or forest degradation, which will have long-term detrimental effects on the ecosystem.
- Wildlife Disturbance: Tower construction and operation may disturb the behaviour, breeding cycles, and nesting locations of wildlife. The populations of wildlife may be badly impacted by noise, vibrations, and human activity.

Conclusion

In conclusion, Kerala's initiatives to give tribal colonies Internet access demonstrate the state's dedication to closing the digital divide and fostering digital inclusion. The KFON project, the proposed communication tower initiative, and the legislative acknowledgement of Internet rights could all have a big positive impact on tribal people' and students' lives.

Japan releases water from Fukushima plant

Context

China banned all imports of seafood from Japan after Japan released effluent from the Fukushima nuclear plant into the Pacific Ocean.

What is the historical background of Fukushima?

 Nuclear Energy Development in Japan: To meet its energy needs, Japan turned to nuclear power because it lacked large indigenous energy resources. Starting in the 1960s, the nation began an extensive nuclear energy program. A component of this initiative, the Fukushima Daiichi facility grew to become one of Japan's biggest nuclear generating facilities.

- **Construction:** The Fukushima Daiichi plant was built with six boiling water reactors (BWRs) that were intended to generate power through nuclear fusion. The first reactor went online in the early 1970s after construction started in the 1960s. The complex's reactor count has increased over time.
- Nuclear Disaster: On March 11, 2011, a powerful earthquake and tsunami that hit Japan caused the Fukushima Daiichi nuclear disaster. The natural calamity caused the facility to lose power and its cooling systems, which resulted in several explosions, meltdowns, and radioactive material spills.
- Accident: The lack of cooling systems caused the reactor cores to overheat, melting the fuel rods and releasing hazardous fumes. Explosions of hydrogen gas were placed inside the reactor structures. Residents in the neighbourhood had to be evacuated due to radioactive material discharges, and a sizable area around the plant was declared an exclusion zone.



What was the aftermath of the incident?

- Long-Term Effects: Along with the Chornobyl disaster, the Fukushima Daiichi tragedy was one of the worst nuclear accidents in history. The leakage of radioactive isotopes into the air and seas caused extensive environmental contamination and health issues.
- **Decommissioning Initiatives:** After the accident, steps were taken to stabilize the reactors and limit the discharges. The

management of the aftermath and cleaning up the polluted site presented serious difficulties for the Japanese government and Tokyo Electric Power Company (TEPCO), which operated the facility.

 Wastewater Release Plan: Handling the substantial amount of polluted water that accumulated on-site as a result of cooling operations and groundwater intrusion posed one of the biggest problems. As was mentioned in your earlier inquiry, both domestic and international concerns were raised over the decision to discharge treated wastewater into the Pacific Ocean.

What were the concerns raised by China?

- Ocean Contamination: China has raised concerns that the release of treated wastewater containing radioactive isotopes into the Pacific Ocean could lead to contamination of marine ecosystems. Radioactive isotopes, even in trace amounts, have the potential to bioaccumulate in marine organisms and enter the food chain, which could ultimately impact seafood safety and the health of consumers.
- Food Safety: China is particularly concerned about the potential effects on seafood safety, as the contaminated water could potentially affect fish and other seafood species that are caught in the Pacific Ocean. China's ban on Japanese seafood imports was driven by worries about the safety of these products for its population.
- Transboundary Impact: Ocean currents in the Pacific Ocean can transport chemicals over great distances. China is worried about more than just its seas because the spread of toxins may have an impact on other areas of the Pacific Rim as well.
- Environmental diplomacy: Diplomatic and geopolitical considerations also play a role in China's objection to wastewater release. Historical conflicts have existed between Japan and China, and environmental concerns like these may entangle with political factors.

What was the way forward?

- Scientific Evaluation: It is crucial to continuously evaluate the toxins in the treated wastewater, their possible effects on the environment and marine life, and how they may spread across the ocean. Verifying the safety and potential threats can involve independent experts and international organizations.
- Environmental Monitoring: To keep track of any changes in the marine ecology, radiation levels, and potential effects on

aquatic life, it is crucial to establish a thorough and long-term environmental monitoring program. Making wise decisions and resolving issues will depend on this information.

- Mitigation: The right mitigation measures should be put into place once any negative effects on the marine environment or the safety of seafood are found. This can entail altering release procedures, stepping up monitoring, or, if necessary, stopping the release.
- International Cooperation: Adjacent nations, global organizations, and scientific professionals need to work together. A more thorough comprehension of the situation and a coordinated reaction may result from the sharing of data, research results, and best practices.
- Negotiation and Diplomacy: It is crucial to hold diplomatic talks with nearby nations that are concerned, such as China. To address issues, look into potential solutions, and make sure that channels of communication are available, diplomatic channels can be used.

28-ft Nataraja sculpture from Tamil Nadu to grace G-20 venue in Delhi

Context

A 28-foot Nataraja statue from Swamimalai, a small village in Tamil Nadu's Thanjavur district famous for its bronze sculptures, was transported by road on Friday in preparation for the G-20 Leaders' Summit, which will take place in New Delhi next month.

What is the Nataraja Statue?

A famous portrayal of the Hindu god Shiva as the cosmic dancer can be witnessed in the Nataraja sculpture. Hindu culture and philosophy attach great symbolic and spiritual value to this sculpture. It shows Shiva performing the "Tandava," a dynamic and rhythmic dance that represents the universe's cycles of creation, preservation, and destruction.



How is Shiva Depicted in the dance form?

- Shiva is shown as Nataraja, the cosmic dancer who dances creation, preservation, and destruction. Shiva is a Hindu deity who is believed to be a brilliant dancer.
- The two most well-known manifestations of Shiva's dance are the Ananda Tandava (dance of bliss, the strong form of dance), which is connected to the destruction of worn-out worldviews weary attitudes and lifestyles, and the Lasya (the gentle form of dance), which is connected to the creation of the world. The Lasya and the Tandava are just two facets of Shiva's nature since he destroys to create and then rebuilds.
- With its style and proportions created per Hindu writings on art, the sculpture is emblematic of Shiva as the lord of dance and dramatic arts. Shiva is usually depicted dancing in a Natya Shastra pose, holding Agni (fire) in his left backhand, the front hand in gajahasta (elephant hand) or danda hasta (stick hand) mudra, the front right hand holding a wrapped snake in abhaya (fear not) mudra while pointing to a Sutra text, and the backhand holding a musical instrument, usually an Udukai.

- His fingers, ankles, neck, face, head, ear lobes, clothes, and other body parts are all adorned with various symbolic objects, depending on the historical era and geographic location.
- He is depicted as being encircled by a ring of flames, standing on a lotus pedestal, raising his left leg (or, in other instances, his right leg), and balancing or trampling over a demon represented as a dwarf (Apasmara or Muyalaka), who represents spiritual ignorance.
- The swirling hair, which is fanned out behind his head in thin strands like a fan, captures the energy of the vigorous dance.

What does this Nataraja History Symbolize?

- Tandava and Lasya: Nataraja's dance represents the neverending cycle of creation and annihilation by embodying both the Tandava (vigorous, destructive) and Lasya (gentle, creative) parts of Shiva's nature.
- **Dwarf Demon:** Shiva's victory over spiritual ignorance, which opens the door for enlightenment, is symbolized by Nataraja's foot-crushing the dwarf demon (Apasmara or Muyalaka).
- **River Ganges:** The river Ganges that emerges from Nataraja's hair represents the cleansing and life-giving properties of water, uniting the physical and spiritual worlds.
- Chidambaram: The dance of Nataraja, which represents the centre of the universe and has cosmic significance that transcends physical limits, is performed in Chidambaram.
- Flaming Circle: Nataraja performs his dance within a frame of flames that is either circular or elliptical, representing the cosmic fire that both produces and consumes the cosmos, symbolizing both creation and destruction.
- The gesture of Hands: Nataraja's hand gestures have symbolic components. A drum (damaru) stands for rhythm and time, fire for creation and destruction, and the raised foot for freedom from ignorance.

What is the historical background of the statue?

- Nataraja sculptures can be seen in historic rock-cut temples that date back to the sixth century CE, including the Ellora and Badami Caves.
- Pallava Period: Nataraja rose to popularity in Tamil Nadu at this time and was associated with cosmic cycles of creation and destruction.
- Chola Bronzes: Intricate Nataraja bronzes were produced under the Chola dynasty (10th century), which solidified the

representation and highlighted the dynamic attitude and meaning.

What is the spiritual and Philosophical Significance of the artwork?

- Cycle Of Life: Nataraja's dance reflects the cyclical aspect of life, in which creation is followed by preservation, then annihilation, and the cycle is repeated.
- Unity of All: Nataraja represents the harmony of various facets of life, including creation and destruction, joy and sorrow, and birth and death, within the cosmic dance.
- Liberation from Ignorance: Nataraja's dance has a spiritual connotation that represents emancipation from ignorance, pointing followers in the direction of self-realization and enlightenment.
- **Transcendence:** Nataraja's dance transcends temporal and physical boundaries, luring viewers to recognize the deeper spiritual truths hidden behind outward manifestations.

International Recognition for Nataraja Sculpture

- The G-20 Leaders' Summit location in New Delhi will include a 28-foot Nataraja monument in front of it. The Nataraja sculpture in Swamimalai, Tamil Nadu, is thought to be the tallest Nataraja sculpture ever created. It is made of eight metals (Ashtadhatu). It is intended to serve as a cultural and symbolic addition to the G-20 Leaders' Summit, which will take place in New Delhi on September 9 and 10 at Bharat Mandapam.
- At the Geneva-based CERN, the European Center for Research in Particle Physics, a 2-m statue of the dancing Shiva was unveiled in 2004. The statue, which represents Shiva's cosmic dance of creation and destruction, was presented to CERN by the Indian government to honour that country's long relationship with the research facility.

Artists breathe new life into Seethakali folk art; all set to perform outside of Kerala

Context :

Long ago, beginning with Atham, the festival days of old Desinganad used to reverberate with the rhythm of Seethakali. It is a dance drama that features Dalit performers largely from the Veda and Pulaya communities and shows tiny episodes of the Ramayana in each farmhouse.

Origin and Background:

- Seethakali is a centuries-old traditional art style that originated in Perinad in the Kollam region of Kerala, India.
- It was first done by the Vedar and Pulayar populations about 150 years ago.



Depiction of Ramayana:

- The Ramayana, an Indian epic, served as the inspiration for Seethakali.
- Through performances, mythical figures like Rama, Seetha, Ravana, and Hanuman come to life.
- The work of art describes Seetha's journey, from going into the woods with Rama to reaching the heavens.

Performance Occasions:

- Traditionally, this performance took place during the Onam harvest celebration.
- From Atham Star (the first day of Onam) through the 28th day after Onam, performances take place.
- From house to house, performers from the Vedar and Pulayar communities showcase their art.

Natural Materials:

- The props and instruments were made of bamboo and palm leaves, which are examples of natural materials.
- reflects the tight ties between the creative form and the natural world.

Makeup and Costumes:

- Makeup and costumes are colourful and captivating.
- Green is a colour used to represent gods and goddesses in Keralan art, and it is used to represent figures like Rama and Laxmana.

Dynamic Elements:

- Rhythmic movements and dynamic music define performances.
- The energetic atmosphere is enhanced by the usage of traditional instruments.

Folk music and oral tradition:

- Performances are accompanied by folk music.
- The lyrics to these songs have been handed down orally for many generations.

Registered Group and Revival :

- There is now only one officially recognized Seethakali performing ensemble, "Perinad Seethakali Sangham."
- in October 2018 became a member of the Kerala Folklore Akademi.
- The Akademi's participation was crucial in reviving this dying art form.

Cultural Relevance:

- Kerala's creative heritage is rediscovery through seethakali performances.
- demonstrates to the world the state's cultural riches.

Who are Pulayar Communities?

An important caste group largely found in the southern region of India is the Pulayar community, also known as Pulaya, Pulayas, Cherumar, Cheramar, and Cheraman. They hold prominence in Tamil Nadu, Kerala, and Karnataka today.

Characteristics:

Caste and Distribution:

- The Pulayar caste is a distinctive caste that is mostly found in southern India.
- They are regarded as one of the major social groupings in Tamil Nadu, Kerala, and Karnataka.

Skills and Traditions:

- The Pulayars are renowned for their contributions in a variety of fields.
- They are renowned for their skill in music, handicrafts, and particular dances with deep cultural roots.

Kolam-thullal:

- Kolam-thullal is a mask dance that is a component of the exorcism ceremonies of the Pulayar culture.
- In rituals intended to stave off bad spirits, this dance is performed while wearing masks.

Mudi-āttam:

- Another significant dance style performed by the Pulayar population is Mudi-āttam, sometimes referred to as the hair dance.
- Its relationship to customary customs is highlighted by the fact that its roots can be traced to fertility rites.

Conclusion

Seethakali, which originates from Perinad, Kerala, is essentially a centuries-old folk art style that vividly performs scenes from the Ramayana. With its vibrant music, age-old instruments, and folk songs, it is a fascinating cultural treasure, and the Perinad Seethakali Sangham's resurrection of it with assistance from the Kerala Folklore Akademi will ensure its survival for future generations.



GEOGRAPHY

Climate events and an umbrella for urban health

Context:

Amidst the heavy rain and destruction, a cascade of concerns emerges. The spotlight falls not only on the massive damage but also on the complex intricacies intertwined within. From the birth of cyclonic giants like Biparjoy in the Arabian Sea to the floods besieging the northeastern stronghold of Assam, and the horrific rain's havoc in northern regions.

Relevance:

GS - 01 (Physical Geography) GS - 03 (Disaster Management)

Prelims:

- Cyclone
- Types of Rainfall

Mains Questions:

 Elaborate on the necessity of a comprehensive health system's resilience against the backdrop of escalating climate uncertainties, drawing insights from the COVID-19 pandemic's impact on urban health governance and coordination. (250 words)

Dimensions of the Article:

- · Rain's Impact and Disease Challenges
- The Challenge of Disease Control Amidst Chaos
- Enhancing Urban Health Resilience
- Coordinated Efforts: From Pandemic to Climate Response

Rain's Impact and Disease Challenges:



• Urban Vulnerability:

In the array of suffering caused by extreme climate events, the urban population finds itself in a precarious position. Especially, the intricate urban settlements—slums and resettlement areas are the ones most affected. Within these urban mazes, where poverty and informal labor intertwine, resilience is elusive.

The Disease Patterns:

Amidst this chaotic landscape, a recent study sheds light on the perplexing connection between urban life, socio-economic difficulties, and the menacing malaria issue. While vulnerability affects all, urban households stand out, having a higher chance of falling victim to malaria. Moreover, specific regions with high vulnerability to climatic changes emerge as prime candidates for malaria outbreaks.

The Challenge of Disease Control Amidst Chaos

Monitoring Amid Disorder:

As the rain-soaked regions begin their recovery, another issue arises - the spread of diseases. The officials tasked with managing water and vector-borne diseases are facing a tough challenge. The seasonal cycle of diseases now faces an additional layer of complexity; the situation is further complicated by climatic changes. In this intricate dance, coordination becomes crucial, with multiple states sharing the stage, necessitating synchronized efforts despite the uncertainties.

Enhancing Urban Health Resilience:

Building Strong Health Systems: Beyond Rehabilitation:

In the aftermath of climate-related upheavals, a pressing issue emerges: the need to strengthen urban health systems. As the focus shifts from disaster to recovery, urban health resilience takes center stage. This concept thrives on preparedness, agility, and adaptability—traits necessary to counteract the unpredictable effects of climate change. However, more than just a fleeting appearance, it demands a leading role.

Investment and Urban Healthcare

As the revival of urban healthcare gains momentum, financial support becomes crucial. Unfortunately, the lack of investment casts a shadow on the potential progress. Primary healthcare, a cornerstone of resilience, faces neglect. Urban local bodies, armed with limited financial resources, struggle to promote progress. A call echoes for increased investment from institutions like the Finance Commission.

Coordinated Efforts: From Pandemic to Climate Response

Harmony in Complexity: Managing Urban Health

The annals of urban health governance tell tales of complexity and confusion. A variety of actors—the public and private sectors, fragmented care providers, and data repositories—converge in this domain. A significant moment arrives during the COVID-19 pandemic, highlighting the need for unity amidst chaos. Data integration, treatment coordination, and regulation alignment are just a few steps in this intricate dance.

 Transformation Mandate: From Vertical to Comprehensive In the maze of public health management, transformation is necessary. The traditional, vertical approach to disease control must evolve into a comprehensive strategy. A versatile corps of front-line workers emerges as the main characters. This ensemble harmonizes diverse disease management narratives, enhancing accountability to both the public and the health system.

Way Forward:

As the narrative of climate and health intertwines, the call for foresight grows louder. The hint of more frequent climatic changes demands preparedness to adapt to the rhythm of change. A resilient future hinges on integrated investment in health systems, interwoven with urban innovation.

Tiger Conservation and Habitat Enhancement

Context:

The Wildlife Institute of India and the National Tiger Conservation Authority, entrusted with the periodic 'tiger census,' have recently revised their assessments of tiger numbers. Madhya Pradesh (M.P.), accounting for a fifth of the national count, has reported 785 tigers, marking a 50% increase since the last census.

Relevance:

GS Paper – 3 (Conservation, Government Policies & Interventions)

Prelims:

- National Tiger Conservation Authority
- Project tiger
- Forest Conservation Act

Mains Question:

• Discuss the strategies employed by Madhya Pradesh for tiger conservation and the potential challenges associated with such approaches. 150 words.

Dimensions of the Article:

- Strategic Relocations and Prey Enhancement
- Challenges in the Changing Landscape
- Active Prey Management and Habitat Improvement

Strategic Relocations and Prey Enhancement:

- Madhya Pradesh, over the past two decades, has successfully reintroduced species like the swamp deer and the gaur to new habitats like Satpuda and Bandhavgarh.
- The Bandhavgarh and Sanjay-Dubri tiger reserves have seen the return of the gaur.
- The Satpuda and Sanjay tiger reserves, Nauradehi, Kuno, and Gandhisagar wildlife sanctuaries have experienced successful supplementation of prey species such as the spotted deer, achieved through translocations from the densely populated Pench and Bandhavgarh regions.
- These initiatives necessitate intricate processes involving animal tracking, darting, and temporary enclosures until the desired population is achieved.
- Nonetheless, ecological principles underscore the importance of relocating species only to environments that are not overly unfamiliar, to prevent unintended consequences.

Challenges in the Changing Landscape:

• Recent revisions to the Forest Conservation Act have introduced more flexibility in diverting significant portions of forest land for industrial use.

- This development threatens to fragment reserves, increasing reliance on the practice of relocating prey to uphold carnivore numbers.
- This predicament stands in contrast to India's conservation philosophy, which aims to prevent the creation of enclosed, isolated areas and instead seeks to allow species to coexist with human activities.
- The foundational principle of projects like Project Tiger was to augment tiger numbers in a manner that accommodates harmonious cohabitation with humans.
- The challenges of maintaining connected forest landscapes and ensuring peaceful coexistence between humans and animals have prompted a realization that relying solely on natural processes to restore predator-prey equilibrium is unrealistic.

Active Prey Management and Habitat Improvement:

AGENDA FOR THE NEXT 50 YEARS

Tigers fascinate people, mobilise the public

Tiger-range countries must work to conserve cats and biodiversity

Funding from conservation agencies/NGOs must target areas where govts find it difficult

Conserve tiger habitats which are rich in coal and mineral deposits



Balance economic growth with no compromise on conservation

Tackle poaching and preybase depletion

Globally, eradicate demand for wildlife parts and products

 Prevent deliberate electrocution of wild herbivores and carnivores

Increase vigilance along tiger corridors

Push power lines underground in vital corridors

Don't notify protected areas for development projects

Boost wildlife tourism to achieve win-win for communities and conservation

Raise conviction rate of wildlife crime from 5%

Remove encroachments from forest lands • This situation underscores the necessity for more states to embrace active prey management policies.

• Such policies require collaboration with scientific experts and the support of local residents near reserves.

• Importantly, this shift should pivot the focus from merely monitoring carnivore numbers to consistently enhancing the habitat that sustains these animals.

• Upholding this focus would require concerted efforts and a sustained commitment to habitat improvement.

Way Forward:

To preserve the delicate balance between human activities and wildlife, it is imperative for states to adopt strategies that blend scientific insights with community participation. Actively managing prey populations and safeguarding the habitat's health are paramount in this endeavour. It's also vital for policies to be continually adapted to changing circumstances, ensuring the long-term well-being of both tigers and their ecosystems.

Conclusion:

As the population of tigers in Madhya Pradesh and across the nation experiences fluctuations, the spotlight should shine on sustainable strategies. Balancing human needs with ecological well-being remains a challenge. By fostering an environment of collaboration and dynamic adaptation, we can aspire to a future where tigers roam freely amidst a thriving ecosystem.

Climate Anomalies and Development Challenges in Northern India

Context:

In a year marked by the El Niño phenomenon, the anticipation leaned towards a weak monsoon season in northern India. However, the month of July witnessed unprecedented rainfall across Himachal Pradesh, Punjab, and Uttarakhand, with the Yamuna River edging perilously close to overflowing onto the iconic Red Fort in Delhi. This phenomenon can be traced back to an abundance of Western Disturbances (WD), which are tropical storms originating from the Mediterranean region.

Relevance:

GS-01 (Physical Geography, Cyclone)

Prelims:

- Western Disturbances
- El Niño phenomenon
- India Meteorological Department
- Flash Floods
- Landslides
- Cold Wave

Mains Question:

Critically analyse the relationship between erratic Western Disturbances (WD) and the changing Arctic conditions in the context of altered monsoon patterns and extreme weather events in northern India. (250 words)

Dimensions of the Article:

- Unusual Weather Patterns and Himalayan Construction
 - 1. Unanticipated Precipitation Surges
 - 2. Wayward Western Disturbances and their Climatic Ramifications
- The Char Dham Road Project and Ecological Hazards
 - 1. Char Dham Road: A Prelude to Ecological Upheaval
 - 2. Imperative for Deliberate Infrastructure Planning

Unusual Weather Patterns and Himalayan Construction: Unanticipated Precipitation Surges:

- The sudden and pronounced shifts in weather patterns, characterized by unforeseen spikes in precipitation, have underscored the vulnerability of India's northern states to the capriciousness of nature.
- An epitome of this unpredictability was the unexpected overflow of the Yamuna River in Delhi, leaving the historic Red Fort on the brink of inundation. With a staggering death toll of approximately 150 and colossal economic losses of ₹10,000 crore in Himachal Pradesh alone, the severity of the situation cannot be overstated.
- In the aftermath of this deluge, Himachal Pradesh and Uttarakhand encountered successive floods that exacted a grim toll of at least 60 lives within a span of seven days. Additionally, the cascading effect of these floods triggered landslides that not only demolished infrastructures but also obstructed crucial transport arteries.

Wayward Western Disturbances and their Climatic Ramifications:

 The enigma of erratic Western Disturbances (WD) adds an intricate layer to the ongoing meteorological anomalies. Typically originating from the Mediterranean region, WD traditionally offer winter rainfall to the northern expanse of India.

- However, the status quo has been disrupted throughout this year. An intriguing revelation stems from the correlation between the scarcity of WD during December and January and the unprecedented high temperatures witnessed in February, an aberration from historical norms.
- Paradoxically, the narrative takes an unexpected twist as northern India experiences an undue surplus of WD, straying from their anticipated seasonal behaviour. This anomaly could be ascribed, in part, to the warming trends in the Arctic region, which have instigated deviations in the polar jet stream's trajectory—a critical conveyor of moisture.

The Char Dham Road Project and Ecological Hazards: Char Dham Road: A Prelude to Ecological Upheaval:

- The ongoing Char Dham road construction endeavor exemplifies the intricate dynamics between infrastructure development and environmental integrity. Noteworthy is the substantial modification of the mountainous terrains, with considerable chunks of land hewn away, rendering them susceptible to upheaval.
- Recent apprehensions regarding land subsidence in Joshimath, Uttarakhand have offered a tangible manifestation of the perils arising from ill-conceived construction practices. This unsettling scenario underscores the heightened risk confronting the inhabitants of these regions, who now reside in areas that have been disproportionately impacted by reckless developmental projects.

Imperative for Deliberate Infrastructure Planning:

- As governments within the states grapple with the aftermath of these climatic and geological upheavals, the propensity to resort to transient remedies, such as soliciting compensation from the central administration for disaster relief, surfaces.
- However, a more resolute shift in perspective is required—one that places profound contemplation upon the nature of infrastructure expansion. If the larger objective is to mitigate hazards and safeguard stability, it is indispensable to proactively contemplate restrictions on haphazard developmental activities.
- The long-term interests of environmental equilibrium must be prioritized over short-term exigencies.

Way Forward:

- Strategic Infrastructure Planning: Initiate meticulous planning that emphasizes the ecological sensitivity of regions prone to extreme weather events. Development should be harmonized with the natural contours of the terrain.
- Collaborative Governance: Foster collaboration between state and central authorities to facilitate proactive disaster management strategies. Transcending partisan interests will bolster resilience against meteorological adversities.
- Public Awareness: Create public awareness campaigns to engender responsible practices and advocate for sustainable development. An informed populace can play a pivotal role in reinforcing ecological consciousness.

Rainfall Dynamics and Agricultural Resilience: Understanding the Role of Irrigation in India's Crop Production

Context:

Recent reports and experts are raising concerns about India's exceptionally dry August, which could be the driest in a century. Data reveals a 7% deficit in cumulative monsoon rainfall compared to the long-term average. This predicament is anticipated to worsen, with estimates suggesting that this August might witness the lowest rainfall since records began in 1901. This situation's repercussions are already apparent in the reduced sowing of kharif crops, particularly pulses, which have declined by 10% compared to the previous year. The potential consequence of this scarcity is the further escalation of food prices, given the substantial inflation of pulses, notably toor dal, which registered a 34% increase in July.

Relevance:

GS-01 (Physical Geography) GS-03 (Indian Economy)

Prelims:

- Agricultural productivity
- · Cropping patterns and major crops in India
- Inflation

Mains Question:

• Discuss the impact of changing rainfall patterns on agricultural practices in India, considering historical dependence on the monsoon and the role of irrigation improvements. (150 words)

Dimensions of the Article:

- The Interplay of Rainfall and Agricultural Outcomes
- Evolution of Irrigation and Crop Production
- State-Wise Irrigation Changes
- Rainfall and Rice Production in Less Irrigated States
- Rainfall and Foodgrains Production in Well-Irrigated States

The Interplay of Rainfall and Agricultural Outcomes:

- India's agricultural success has long been intertwined with the southwest monsoon. A recent paper highlighted in the Reserve Bank of India's August bulletin dives into the evolving nature of this reliance and how the expansion of irrigation infrastructure has influenced this dynamic.
- While the monsoon remains pivotal for both kharif and rabi crops, there has been a diminishing reliance on it in recent years. Notably, the regions experiencing improved irrigation coverage have experienced a milder impact from erratic monsoon patterns.

Evolution of Irrigation and Crop Production:

A graphical representation, Chart 1,

- illustrates the connection between rainfall deviation from the long-term average and changes in foodgrains production. Intriguingly, despite four out of six years since 2016 observing below-average rainfall (as denoted in the graph), foodgrains and rice production have exhibited consistent growth.
- This shift in trend could be attributed to states progressively enhancing their irrigation coverage over time.

State-Wise Irrigation Changes:

- **Chart 2** provides a comprehensive view of the percentage of net sown area that is irrigated in various states, comparing 1990 and 2020.
- The data demonstrates significant growth in the share of irrigated areas in most states over the past two decades.

• Remarkably, in 2020, nine out of 17 major states had more than half of their net sown area irrigated, a remarkable upswing from merely three states in 1990.

Rainfall and Rice Production in Less Irrigated States:

- Examining the last three decades, **Chart 3** juxtaposes rainfall deviations from the long-term average and changes in rice production in states with limited irrigation like **Assam**, **Karnataka**, **Madhya Pradesh**, **Maharashtra**, **and Odisha**.
- Each data point corresponds to a specific state-year pair, such as 2000-Assam or 1995-Karnataka. In states with inadequate irrigation (where the net irrigated area constituted less than 40% of the net sown area), rice production typically plummeted during periods of insufficient rainfall.
- The chart reveals a clear correlation, as circles in the lower-left quadrant indicate low production aligned with low rainfall.

Rainfall and Foodgrains Production in Well-Irrigated States:

- Chart 4 scrutinizes the relationship between rainfall deviations and changes in foodgrains production in states with superior irrigation like Haryana, Punjab, Tamil Nadu, Uttar Pradesh, and West Bengal.
- In these states, characterized by robust irrigation coverage (where over 40% of the net sown area is irrigated), rice production often demonstrated resilience, even during phases of inadequate rainfall.

Way Forward:

 The evidence presented underscores the necessity of further enhancing irrigation infrastructure to mitigate the detrimental consequences of erratic monsoon patterns on crop production. Strengthening irrigation systems can act as a buffer against the negative effects of insufficient rainfall, fostering a more stable agricultural landscape.

Conclusion:

• The juxtaposition of rainfall patterns and crop production across states provides a nuanced understanding of the evolving dynamics in India's agriculture. As demonstrated, improved irrigation coverage plays a pivotal role in minimizing the adverse impact of irregular monsoon patterns. • The implications are clear: **investing in irrigation infrastructure emerges as a critical strategy** to ensure food security and sustainable agricultural growth in the face of uncertain climatic conditions.

Over nine lakh trees likely to be axed for the Great Nicobar Project

Context

According to a response given by Minister of State for Environment Ashwini Kumar Choubey in the Rajya Sabha on Thursday, the ambitious 72,000 crore Great Nicobar Project could result in the removal of 9.64 lakh trees, not 8.5 lacks, to build a township, an international airport, a transhipment port, and a 450 MVA gas and solar-powered power plant on the Great Nicobar island.

What is Great Nicobar Project?

- The southernmost point of the Andaman and Nicobar Islands will see the implementation of the Great Nicobar Island (GNI) Project.
- The project spans an area of 16,610 hectares on the island and consists of a 450 MVA gas and solar-powered power plant, a township development, an international container transhipment facility, and a greenfield international airport.

What is the need for Great Nicobar Project?

• Economic Reasons

- Marine Connectivity: The region would be able to take part in the marine economy as a significant player in cargo transhipment thanks to the projected port on Great Nicobar Island. The port might act as a vital transhipment hub for products transiting between the eastern and western areas of the world because of its advantageous position.
- Geographical Advantage: Great Nicobar Island is situated approximately halfway between Singapore, Port Klang (Malaysia), and Colombo, three of the world's busiest ports. A strategic benefit for possible maritime businesses is its proximity to the East-West international shipping corridor, which manages a sizeable amount of world shipping commerce.

• Strategic Reasons

- National security: Great Nicobar Island's development is strategically significant for India's national security. India can improve its surveillance capabilities and protect its territorial integrity in the Indian Ocean by maintaining a strong presence in this area.
- Indian Ocean Region Consolidation: Great Nicobar Island's growth can help India's presence and influence in the Indian Ocean region. It gives the Indian Navy and other defence forces a strategic basis from which to protect maritime interests and effectively address security concerns.
- Countering Chinese Influence: India and other countries in the region are very concerned about China's growing assertiveness in the Indian Ocean region. The construction of infrastructure on Great Nicobar Island might be seen as a reaction to China's expanding influence and presence in the area.
- Geographically crucial location: The island's vantage point for observing marine activity in the Bay of Bengal, the Malacca Strait, and the larger Indian Ocean is near the southernmost point of the Andaman and Nicobar archipelago.

What are the advantages of implementing the project?

- **Development of Key Infrastructure:** The project seeks to build key infrastructure, such as a transhipment port, an international airport, and a power plant. These amenities may improve the area's connection, trade, and commerce, luring investments and maybe enhancing economic activity.
- Employment Creation: Local communities may have employment opportunities as a result of the project's many components' construction and operation. This may result in higher income levels and better living conditions.
- Trade and Export Opportunities: With a trans-shipment port established, there may be more chances for trade and exports, which can be advantageous for local businesses and industries.
- Increase in tourism: The construction of an international airport and a township may draw more visitors to the Great Nicobar Island, perhaps increasing the demand for travel-related goods and services.
- Energy Security: The construction of a gas- and solar-powered power plant can improve the region's energy security and lessen its reliance on outside energy sources.

What is the environmental impact when implementing this project?

- Deforestation and Biodiversity Loss: The development of townships and infrastructure may result in the removal of vast tracts of virgin forest. Deforestation, habitat loss, and fragmentation may arise from this, which may have an impact on a variety of plant and animal species, including endangered and endemic ones. The fragile ecological balance of the island could be disturbed by a loss of species.
- **Disturbance of Marine Ecosystems:** Dredging, sedimentation, and increased vessel traffic caused by port building and related activities have the potential to negatively impact marine ecosystems, including coral reefs and marine life.
- Impact on Climate Change: The project's carbon footprint, which includes emissions from building, operation, and transportation, may have a greater impact on the island than previously thought.

What is the way forward?

- Environmental Impact Assessment (EIA): Carry out an environmental impact assessment (EIA) that is complete and transparent that assesses the project's possible effects on the ecosystem, wildlife, water bodies, air quality, and local communities. Stakeholders in the EIA, such as environmental specialists, local people, and indigenous groups, should be involved.
- Sustainable Development Practices: Throughout the project, place a strong emphasis on sustainable development practices. This includes reducing the environmental impact of infrastructure, maximizing resource use, implementing ecofriendly technologies, and incorporating circular economy and green infrastructure principles.
- **Biodiversity conservation:** Identify biologically vulnerable places and important habitats, and safeguard them. To counteract the loss of flora and fauna brought on by deforestation and development, establish solutions for biodiversity conservation and habitat restoration.
- Alternatives and Mitigation: Look at alternative development methods with a lower environmental impact. To address any negative effects, put in place efficient mitigation strategies. For instance, programs for replanting and afforestation can compensate for tree cutting.

Assam's Manas Tiger Reserve 63% short of sanctioned staff, Environment Minister told

Context

Manas National Park and Tiger Reserve in western Assam are moving from a low to high tiger density area, according to the All India Tiger Estimation 2022 published in July. However, the bad news for the national park, which is a UNESCO World Heritage Site alongside the more well-known Kaziranga National Park and Tiger Reserve, is that it is almost 63% staff short.

What is Manas Tiger Reserve and where is it located?

- Location: In the Eastern Himalayan foothills of the Indian state of Assam is where you'll find Manas National Park. Its border is shared with Bhutan's Royal Manas National Park.
- Wildlife Diversity: The Assam roofed turtle, hispid hare, golden langur, and pygmy hog are just a few of the uncommon and endangered endemic animals that call this area home. It is renowned for having a large population of wild water buffalo.
- Conservation Status: Manas National Park is a biosphere reserve and a UNESCO World Heritage Site due to its remarkable biodiversity and importance as a refuge for endangered species.
- Name Origin: The Manas River, a significant tributary of the Brahmaputra River that runs through the centre of the national park, is where the name of the park comes from.
- Background information: A sanctuary was established there on October 1st, 1928, initially covering 360 square kilometres. It underwent several expansions over time, and on February 25, 2008, it was finally extended to 500 square kilometres.
- Geography and Terrain: Manas is a heavily forested region that is located in the Eastern Himalayan foothills. Under the foothills, the park is dispersed over a sizable, low-lying alluvial terrace. India and Bhutan share a boundary along the Manas River, which runs through the western portion of the park.
- Connectivity and Ranges: The park is separated into three ranges: the eastern range at Bhuiyapara near Pathsala, the middle range at Bansbari near Barpeta Road, and the western range at Panbari. Since these mountains are not well connected, travellers typically travel to Bansbari before visiting Mathanguri on the Manas River, close to the Bhutanese border, to explore the forest.

Which animals are protected in the Manas Tiger Reserve?

The fauna of the sanctuary includes Indian elephants, Indian rhinoceros, gaurs, wild water buffaloes, barasingha, Indian tigers, Indian leopards, clouded leopards, Asian golden cats, jungle cat, leopard cat, fishing cat, marbled cat, Indian wolf, dholes, golden jackal, Bengal fox, capped langurs, golden langurs, Assamese macaques, rhesus macaque, grey langur, slow loris, hoolock gibbons, smoothcoated otters, sloth bears, nilgai, four-horned antelope, barking deer, hog deer, black panthers, sambar deer and chitals and large Indian civet, common palm civet, spotted Linsang, yellow-throated marten, black giant squirrel, Indian porcupine, Indian pangolin, Chinese pangolin, wild boar.

What is the current issue faced by the Manas Tiger Reserve recently?

- **Staff Shortage:** Manas National Park is struggling with a serious staffing problem despite the encouraging growth in the tiger population.
- Inadequate Staffing: The park is now functioning with only 109 employees, which represents a shortage of more than 60%. The park is authorized to have 294 posts for foresters and forest guards.
- Positions Unfilled: Out of the 294 authorized postings, roughly 160 positions are still unfilled, which makes the staffing issue worse.



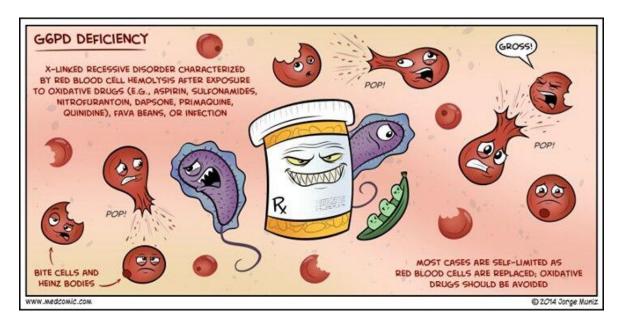
What will this lead to?

- Increased Poaching Vulnerability: Because fewer rangers and forest guards are patrolling the area, poachers can find it simpler to engage in illicit activities like killing endangered species for their body parts or selling wildlife items on the black market.
- Reduced Anti-Poaching Efforts: Due to a lack of staff, frequent anti-poaching patrols and prompt responses to poaching occurrences are less likely to be conducted, which lowers the success rate of stopping illegal operations.
- Habitat Degradation: Lack of monitoring can lead to an increase in human activities that harm wildlife's natural habitats, such as illegal logging, encroachment, and land removal.
- Loss of Biodiversity: Without proper protection for animal populations, there is a greater danger of species extinction or decline, which would upset the ecosystem's delicate balance and result in a loss of biodiversity.
- Inadequate Conservation Planning: Lack of manpower can prevent accurate data gathering, study, and assessment of animal populations and habitats, which makes it challenging to establish successful conservation programs. Inadequate conservation planning.
- Delayed Response to Conflicts: Quick management and response are required in cases of human-wildlife conflicts, such as encounters with dangerous animals close to human settlements. Lack of staff may cause delays in resolving such confrontations, raising worries for the safety of surrounding residents as well as wildlife.
- Impact on Endangered Species: A staffing shortage can seriously impede conservation efforts for endangered species that need specialized care and monitoring, such as translocation initiatives or medical care.

Why no disaggregated data on tribal populations, asks House panel

Context:

The Union government was criticized for not having data that was broken down by the country's tribal people's health status in a report submitted to the House by a parliamentary committee on women's empowerment. The study also recommended significant data gathering in this area.



What did the report by the parliamentary committee on Women's Empowerment portray?

- A report on women's empowerment was delivered in the House by a parliamentary committee.
- The Union government has come under fire for its lack of disaggregated data on the nation's tribal inhabitants' state of health.
- The intention was to provide the Tribal Affairs Ministry more flexibility in how to allocate funds for tribal welfare in the areas of health, education, nutrition, skill development, and subsistence.
- The report of the committee presented a worrying picture of the state of tribal women's health.
- Leprosy and sickle cell anaemia are two conditions that are more common in indigenous populations.
- The committee received a written note from the Health Ministry.
- It brought attention to the rise of genetic disorders in tribal communities, such as sickle cell disease and G-6 PD deficiency.

What is G6PD deficiency?

- Genetic Basis:
 - Mutations in the G6PD gene, which is found on the X chromosome, lead to G6PD deficiency, a genetic condition.
 - Males are more likely to be affected than females since it has an X-linked recessive pattern. If two mutant copies of the gene are inherited, females may be carriers of the gene or, in rare instances, show symptoms.

• Enzyme Function:

- The pentose phosphate pathway, which is essential for generating cellular energy and preserving the proper ratio of antioxidants and oxidants in cells, contains the enzyme G6PD.
- G6PD reduces nicotinamide adenine dinucleotide phosphate (NADP+) to NADPH while catalyzing the conversion of glucose-6-phosphate to 6-phosphogluconolactone. For cells to be protected from oxidative damage, NADPH is necessary.

• Role in Red Blood Cells:

- Red blood cells (erythrocytes) have a high oxygen content and few repair mechanisms, making them particularly susceptible to oxidative stress.
- Red blood cells are kept supplied with NADPH by G6PD, which helps to combat oxidative stress and shields the cells from damage.
- Hemolytic episodes can be brought on by several things, including:
 - Foods: Due to their oxidative propensity, fava beans (favism) might cause hemolysis when consumed.
 - Medicines: Several medications, including certain antibiotics, sulfa medications, and antimalarials, can cause hemolysis.
 - Increased oxidative stress and hemolytic events can both be brought on by infections.
 - Chemicals: Naphthalene, which is a chemical compound present in mothballs, can cause hemolysis when exposed to it.
- Mild to severe symptoms of G6PD deficiency include:
 - When hemolytic episodes occur, mild cases could go unrecognized or just slightly worsen anaemia.
 - Due to the disintegration of red blood cells, severe cases can cause considerable anaemia, jaundice, weariness, and black urine.

• Management:

- Despite the lack of treatment, care focuses on preventing hemolytic episodes:
- Avoiding triggers: Patients are recommended to stay away from certain substances, drugs, and foods that are known to cause oxidative stress.
- Use of drugs with caution: To administer safe medications, doctors must be aware of a patient's G6PD status.

 Monitoring: It's crucial to follow up frequently and keep an eye on your haemoglobin levels.

What is sickle cell anaemia?

• Genetic Mutation:

- Sickle cell anaemia is brought on by a mutation in the HBB gene, which codes for the production of haemoglobin, the oxygen-carrying protein in red blood cells.
- Haemoglobin S (HbS), an aberrant haemoglobin, is produced as a result of the mutation.
- An individual needs two copies of the defective gene (one from each parent) to have the condition because the mutation is inherited in an autosomal recessive manner.

Abnormal Red Blood Cells:

- Haemoglobin S tends to produce insoluble fibres when it releases oxygen, giving abnormal red blood cells a sickle shape.
- Sickle cells are less flexible, sticky, and stretchy than typical red blood cells, which makes them more difficult to flow through blood arteries.

Anaemia and Fatigue:

- Sickle cells have a shorter life span than regular red blood cells, which causes chronic anaemia and fatigue.
- Anaemia causes the blood's ability to carry oxygen to be diminished, which causes weakness, exhaustion, and pallor.

Organ Damage and Complications:

- Blockages that reduce blood flow can harm several organs.
- The spleen can become initially enlarged and then gradually destroyed, resulting in functional asplenia (loss of normal spleen function), which is caused by the filtering and eliminating of old red blood cells.
- Complications from organ damage might include strokes, renal damage, and pulmonary hypertension (high blood pressure in the lungs).

• Diagnosis:

 Blood tests, such as haemoglobin electrophoresis, which looks for unusual haemoglobin types, are used to confirm the diagnosis.

• Treatment:

- Management is a form of treatment that tries to reduce symptoms, avoid complications, and enhance quality of life.
- It's important to manage discomfort during crises, which frequently involves using analgesics (painkillers) and staying hydrated.
- Transfusions of blood can boost oxygen supply and temporarily increase the amount of healthy red blood cells.
- A drug called hydroxyurea can increase fetal haemoglobin synthesis, which lessens the frequency and severity of crises.
- Potentially curative procedures like bone marrow or stem cell transplants are constrained by the dangers involved and the lack of available donors.

What are the possible ways in handling these challenges faced by the tribes?

- Limited Healthcare Access: Access to medical facilities, diagnostic procedures, and specialized treatment for managing these illnesses and their complications may be restricted in tribal communities.
- Genetic counselling and education: To ensure well-informed decisions and appropriate management, it is essential to raise awareness of these disorders, offer genetic counselling, and inform people about the dangers and preventive actions.
- **Community support:** Support networks and community-based interventions can be very helpful in enhancing health outcomes and fostering early detection given the possible frequency of these illnesses within tribal groups.
- Research and Data: To develop efficient healthcare plans and allocate resources, precise data on the prevalence and effects of various illnesses within tribal groups must be collected.

In conclusion, the research underscored the need for more thorough data collecting and policy planning for their welfare and emphasized the absence of information on tribal health conditions. It also expressed concerns about illnesses and anaemia among tribal women. The committee advocated for action to address these health issues in tribal populations and suggested strengthening the Tribal Affairs Ministry.

Change State's name to Keralam, Assembly resolution urges Centre

Context

The Kerala Assembly on Wednesday unanimously approved a motion requesting that the State's name be changed from Kerala to Keralam by the Central Government.

What is the historical background behind the name change?

- Language and Cultural Identity: The Malayalam language, which is the main language used by the inhabitants of Kerala, has the word "Keralam" as the traditional and acknowledged name for the state.
- Historical Importance: Based on linguistic factors, "Keralam" was chosen as the name for the state when it was created on November 1, 1956. It illustrates the linguistic and cultural cohesion of the state's Malayalam-speaking populace.
- Traditional vs. Official Names: The traditional Malayalam name differs from the official representation since the English term "Kerala" became more widely used throughout time.
- **Disconnect and Identity:** The state's official representation and its linguistic and cultural identity were viewed as being at odds because "Kerala" was used in official records.
- Unity and Tradition: The name change to "Keralam" attempts to emphasize the community's unity and historical significance while also being in keeping with the state's linguistic and cultural history.

What is the constitutional procedure for a change?

- Initiation of the bill: The procedure begins with the introduction of a bill to rename a state by either the State Legislative Assembly or the Parliament.
- The President's Recommendations: Before a bill can be introduced in the Parliament if it is launched there, the President must formally recommend it.
- Participation of Affected States: The proposed name change must be accompanied by legislation from the states that will be impacted by it.
- Views of the State Legislative Assembly: The State Legislative Assembly of the affected state has a set amount of time in which to express its opinions and recommendations regarding the suggested name change.

- Non-Binding Nature: It's crucial to remember that the President and the Parliament are not bound by the opinions and recommendations made by the State Legislative Assembly. To sustain the Federalist ideals and guarantee that the viewpoint of the affected state is taken into account, this step is essential.
- Return to Parliament: The bill returns to the Parliament for additional consideration once the State Legislative Assembly's input is received or the allotted period has passed.
- Parliamentary Deliberation: Detailed considerations, discussions, and debates are held in the Parliament over this bill. Parliamentarians thoroughly examine the proposed name change's effects.
- Voting: The Parliament votes on the proposed legislation. It must receive more than 50% of the vote plus one additional vote (50%+1) to approve by a simple majority.
- **President ratification:** If the law is approved by the Parliament, it is next forwarded to the President for ratification. Before making a choice, the President considers the consequences and content of the measure.
- **Presidential Approval:** The President must sign the legislation for the proposed name change to become effective.
- Enforcement of the act: Upon getting the President's approval and signature, the law is put into effect as an Act. The state's name is subsequently legally altered under the Act's provisions, and the Act is then put into effect.

NCM seeks SIT investigation into the death of Kota student

Context:

Days after a 17-year-old NEET applicant was discovered dead in Kota, Rajasthan, under suspicious circumstances, the man's father filed a report with the National Commission for Minorities (NCM) saying that his son was murdered. In response, the NCM wrote to Ashok Gehlot, the chief minister of Rajasthan, requesting that a special investigation team conduct the probe.

What is National Commission for Minorities?

• Under the National Commission for Minorities Act of 1992, the Government of India formed the National Commission for Minorities (NCM), a governmental organization.

• The NCM's main goal is to defend and uphold the rights and interests of India's linguistic and religious minorities. The commission strives to prevent discrimination and the denial of rights for minority communities while also ensuring that they are given equal chances.

What are the functions of NCM?

- Assessment of Minority Development Progress: The NCM is in charge of assessing minorities' development under both the federal and state governments.
- Monitoring Safeguards: The commission keeps an eye on the effectiveness of the protections for minorities' rights included in the Indian Constitution and laws passed by state and federal legislatures.
- **Recommendations:** The NCM makes recommendations for the successful implementation of safeguards and measures for the protection of minority interests to the federal government as well as state governments.
- Addressing Complaints: The commission takes up particular complaints with the competent authorities regarding the denial of minorities' rights and protections.
- Studying Discrimination Issues: The NCM conducts research, analysis, and studies on issues related to discrimination against minorities and suggests solutions.
- Development in Socio-Economic and Educational Aspects: The commission carries out investigations and studies concerning the socioeconomic and educational advancement of minority communities.
- **Suggesting Measures:** The NCM makes recommendations for appropriate actions that the federal and state governments should take to promote the welfare and development of minority populations.
- **Periodical and Special Reports:** The commission provides periodic or special reports on issues affecting minorities, notably the challenges they encounter, to the federal government.
- Other Referred Matters: The NCM handles any other minorityrelated matters that the central government may refer to it.

What is the composition of NCM?

• Chairperson: The Central Government appoints the NCM's chairperson, who is in charge of the organization. This person is in charge of managing the commission's operations and acting as its leader.

- Vice Chairperson: A Vice Chairperson is a member of the NCM who supports the Chairperson in carrying out their responsibilities.
- Members: Five members are chosen by the Central Government to make up the NCM. These individuals are chosen for their greatness, aptitude, and honesty. Furthermore, out of these five members, the Chairperson and at least five other members are chosen from within the minority community itself.

What are the Rights in the constitution used to safeguard minorities?

- **Right to Equality (Article 14):** This right protects individuals from discrimination based on their gender, race, caste, or place of birth and ensures that all citizens, especially minority communities, are treated equally before the law.
- Right to Freedom of Religion(Articles 25-28): Articles 25 through 28 on the right to freedom of religion guarantee both the freedom to practice and the freedom to spread religion. Minority communities are allowed to run their religious institutions and build the schools they want. Additionally, the state is not allowed to have people pay taxes in exchange for supporting a specific faith.
- Cultural and Educational Rights (Articles 29–30): Article 29 stipulates that each group of citizens has the right to maintain their distinctive language, script, or tradition. Religious and linguistic minorities have the freedom to create and run the educational institutions of their choice thanks to Article 30. This safeguards the educational autonomy of institutions serving underrepresented groups.
- Protection of interests of minorities(Article 46): Article 46 of the Constitution mandates that the state advance the economic and educational interests of Scheduled Castes, Scheduled Tribes, and other underprivileged groups, including minorities.
- Right to Representation (Articles 330 and 332): These articles guarantee that a set number of seats in the Lok Sabha and state legislative assemblies be set aside for members of the Scheduled Castes and Scheduled Tribes, which may also include minorities.
- Provisions for Official Languages (Articles 347, 350A, and 350B): The rights of linguistic minorities to protect and advance their languages are acknowledged by these laws. Additionally, they make sure that facilities are available for education in the

home tongue and that specific officers are appointed for linguistic minorities.

Maui wildfires

Context

The lovely resort town was reduced to mounds of smouldering debris by the blaze, which broke out on Tuesday. It destroyed 1,000 buildings and rendered thousands of people homeless, making it the greatest natural disaster in the history of the U.S. state.

What are Wildfires?

- Wildfires, which are frequently referred to as simply "wildfires" or "forest fires," are uncontrolled fires that quickly spread through vegetation, such as forests, grasslands, or shrublands. These flames may start naturally, as in the case of lightning strikes, or they may be intentionally started by humans, as in the case of campfires, discarded cigarettes, equipment sparks, or purposeful acts.
- Wildfires can range in size and severity, from tiny, controlled flames that clear out underbrush and support healthy ecosystem processes to massive, devastating blazes that put people's lives, property, and the environment in danger.

What are the causes of wildfires?

- Fuel: Fuel is the term used to describe the plants, such as trees, grasses, and shrubs, that give a fire fuel to burn. The kind, quantity, and dryness of the fuel all have an impact on how quickly a fire can start and spread.
- Weather: The weather has a big impact on how wildfires behave. Windy and dry weather makes flames more likely to start and spread more quickly. High winds and low humidity might make it more difficult to put out fires.
- **Topography:** How quickly a fire spreads can be impacted by the contour of the land. Slopes with a steep gradient can help fires spread more quickly, whilst valleys and canyons can concentrate and intensify the flames.
- **Ignition sources:** Fire sources include campfires, abandoned cigarettes, power lines, and human activity such as intentional acts or natural occurrences like lightning.

• Fire Behaviour: Wildfire behaviour can vary, including crown flames, which burn through the tops of trees, surface fires, which burn along the ground, and ground fires, which burn in the soil. Terrain, weather, and fuel distribution are a few examples of the variables that affect these behaviours.



What is happening in Maui?

- Wildfires Break Out: Early in August 2023, several wildfires broke out on the Hawaiian island of Maui. Dry and windy circumstances brought on by a potent high-pressure region to the north of Hawaii and Hurricane Dora to the south were the main causes of these flames.
- **Spread and Effect:** Driven by dry vegetation and high winds, the wildfires quickly spread across portions of Maui. As the quickly spreading fires endangered populated areas, evacuations were required, resulting in widespread anxiety and inconveniences.
- **Damage and Deaths:** The Maui wildfires severely damaged homes, infrastructure, and the island's natural surroundings. At least 80 fatalities were tragically reported in the town of Lhain as of early August 2023 as a result of the fires.
- Emergency response: The state of Hawaii's government acted in reaction to the developing scenario. On August 8, a declaration of emergency was signed, approving several actions.

The Hawaii National Guard was activated, the director of the Hawaii Emergency Management Agency took action, and state money was used to support relief efforts.

• State of emergency: On August 9, the state of Hawaii declared a state of emergency for the whole state after realizing the gravity of the situation. With the help of this declaration, the state's numerous counties and agencies might have more easily coordinated their operations.

How can we prevent wildfires from happening?

- Be Fire-Responsible: If you're camping or using an outdoor fire pit, make sure the fire is out before you leave the area. Observe local campfire laws and refrain from starting a fire on windy days.
- **Disposal:** Properly Cigarettes should not be discarded in dry vegetation or from moving cars, and the same goes for matches. Make use of the right ashtrays and containers.
- Maintain Defensible Space: Keep Defensible Space Clear flammable grass, leaves, and other debris from the area around homes and other structures to maintain defensible space. This lessens the possibility of building flames spreading.
- Use Equipment Safely: Be careful when using equipment that produces heat or sparks, such as barbecues, chainsaws, and lawnmowers. Make sure that this equipment is kept up-to-date and used responsibly.
- Educate and Raise Awareness: Raising awareness and educating your community about the value of wildfire prevention. Engage in educational programs that instruct individuals on how to behave responsibly in fire-prone locations.
- Use Fire-Resistant Building Materials: When building or remodelling a home in a fire-prone location, take fire-resistant building techniques and materials into consideration.
- Remove dried Debris: Frequently remove combustible materials like dried leaves, dead plants, and other debris from your property's roof, gutters, and surrounding areas.

275 bird species were counted during the survey at Corbett Tiger Reserve

Context :

At the Corbett Tiger Reserve, 275 bird species were tallied, including two that are severely endangered, four that are vulnerable, and two that are endangered.

What are the Key findings of the Survey taken at Corbett Tiger Reserve?

- **Species Count:** 275 different bird species in all were discovered throughout the survey.
- Threatened Species: The survey discovered two bird species that are both categorized as severely endangered by the International Union for Conservation of Nature (IUCN), the redheaded and white-rumped vultures.
- Endangered species: Pallas's fish eagle and Egyptian vulture were identified as two endangered bird species.
- Four threatened bird species were identified: the great hornbill, the great slaty woodpecker, the grey-crowned prinia, and the river tern.
- Near-Threatened Species: The survey discovered 10 nearthreatened bird species, including the Alexandrine parakeet, black-necked stork, Asian woolly-necked stork, red-breasted parakeet, smaller fish-eagle, Himalayan griffon, great thick-knee, and grey-headed fish-eagle.
- Least Concern Species:256 of the total number of species recorded in the survey were deemed to be of least concern by the IUCN.

What do we know about the Threatened species mentioned in the survey?

- Critically Endangered Species:
 - The White-rumped Vulture (Gyps bengalensis), a big bird of prey that was once common throughout South Asia, is a critically endangered species. Due to the extensive use of the veterinary medication diclofenac in livestock, which results in catastrophic renal failure in vultures who devour the drug-contaminated corpses, they have experienced a quick and severe population drop. Diclofenac use is prohibited, and vulture-safe feeding procedures are established.

 The Asian king vulture is another name for the redheaded vulture (Sarcogyps calvus). They have seen substantial population losses, similar to the white-rumped vulture, partly as a result of diclofenac poisoning. By scavenging and eliminating animal carcasses, these vultures serve a critical part in maintaining the health of the ecosystem.



Endangered Species:

- Pallas's Fish-Eagle (Haliaeetus leucoryphus) is an endangered species. A sizable raptor called the Pallas's fish-eagle can be found in portions of South and Southeast Asia. It lives in wetland environments and mostly eats fish. Some of the dangers this species confronts include habitat loss, pollution, and disturbance to breeding areas.
- Neophron percnopterus, an Egyptian vulture, is a small scavenger bird that lives in a variety of settings, including open spaces, deserts, and cities. They are recognizable by their distinguishing features, which include their small stature and yellow face. Loss of habitat, poisoning, and other human activities put these vultures in danger.
- Vulnerable Species:
 - The Great Hornbill (Buceros bicornis) is a huge, affable bird with a distinctive casque on its bill. In South and Southeast Asia, it lives in woods. The biggest risks to this species are habitat loss and hunting.

- One of the biggest woodpeckers in the world is the Great Slaty Woodpecker (Mulleripicus pulverulentus). In several locations of South and Southeast Asia, it can be found in woods. Significant dangers to its survival include logging and habitat loss.
- The Grey-crowned Prinia (Prinia cinereocapilla) is a tiny passerine bird that inhabits scrubby and grassy areas. This species is impacted by habitat loss brought on by agriculture and urbanization.
- Waterbirds known as river terns (Sterna aurantia) live in rivers, lakes, and coastal environments. They are susceptible to pollution, habitat loss, and disruptions at breeding locations.

What are the steps available to Protect them?

- Habitat Protection and Restoration:
 - Identification of key habitats for these species, such as nesting locations, feeding grounds, and migration routes, should be done to protect them.
 - Through conservation efforts, habitat management, and reforestation, restore damaged habitats.
- Reducing Threats Caused by Humans:
 - Adopt and implement restrictions on dangerous drugs, such as diclofenac, that have an impact on vultures and other scavenging animals.
 - Inform farmers and owners of livestock of the risks associated with employing dangerous substances that can damage birds through tainted food sources.
- Anti-Poaching Measures:
 - Strengthen anti-poaching initiatives to stop the unlawful killing and sale of these birds and their parts.
 - To safeguard these species from poachers, work with law enforcement organizations.
- Programs for conservation breeding:
 - To increase the populations of critically endangered species like vultures, establish and manage captive breeding programs.
 - Reintroduce captive-bred animals into the wild gradually while keeping an eye on how they adjust and fare.
- Community Engagement:
 - Engage local communities in conservation efforts by educating them on the value of these birds for the sustainability of ecosystems and human livelihoods.

- Implement sustainable livelihood initiatives that offer substitutes for practices that endanger these species, such as unauthorized hunting.
- Policy Advocacy:
 - Promote stricter local, national, and international rules and regulations for the protection of wildlife.
 - Ensure that laws protecting animals are properly implemented and enforced by working with government organizations.

The significance of the Corbett Tiger Reserve as a habitat for several bird species, including those that are critically endangered, endangered, fragile, and near-threatened, is highlighted by these studies. Monitoring the populations of different bird species and developing future conservation plans are made possible by the survey, which contributes essential data to ongoing conservation activities in the region.

Raptors make power towers their home

Context

White-bellied sea eagles are starting to establish residences atop power towers that house high-tension cables in India, following the example set by their relatives in Australia and Thailand.

White Bellied Sea Eagles

The white-bellied sea eagle (Haliaeetus leucogaster) is a species classified within the Accipitridae family. Its broad coastal range includes parts of Sri Lanka, coastal Southeast Asia, southern China, and Australia in addition to the Indian coast from Mumbai to eastern Bangladesh. On the IUCN Red List, this extraordinary bird has the conservation rating "least concern." Its behaviours, like being nocturnal and monogamous, as well as its diet, which primarily consists of fish and sea snakes, show how well-adapted it is to a marine environment.

Where do these birds nest usually?

 Near seacoasts, tidal creeks, and estuaries, towering trees are often preferred nesting locations for white-bellied sea eagles (Haliaeetus leucogaster).

- They can construct their nests in these natural environments, which give them convenient access to their main food sources of sea snakes and fish.
- Recent investigations show that these eagles are also becoming accustomed to exploiting man-made objects like powerline towers when good natural nesting places are hard to come by.

What are the effects of birds nesting over towers? Positive Effects

- Predator Protection: Nesting on towers may offer protection against predators that lurk on the ground and may pose a threat to eggs and young in typical tree nests.
- Elevated Viewing Points: Towers provide elevated platforms that can help with hunting and keeping an eye on prey, especially for raptors like eagles.
- Nesting Site Availability: Man-made structures can operate as substitute nesting sites when natural ones are scarce owing to habitat loss or other reasons, potentially boosting the number of bird species that can raise their young.

Negative Effects

- Human Disturbances: Towers are frequently located close to human activity, which might cause interruptions during nesting. Stress caused by people, construction, and noise may cause nesting birds to abandon their nests or have less successful reproduction.
- Risks of Collisions and Electrocution: Birds that nest on powerline towers run the risk of electrocuting themselves if they come into touch with live wires. Nestlings and fledglings run the risk of unintentionally colliding with surrounding structures or falling onto powerlines.
- Limited Nesting Space: Some tower structures might not give birds enough room to nest properly, resulting in smaller or less secure nests that might not fully protect eggs and chicks from the weather.
- Chemical Exposure: Depending on where the tower is located, nesting birds may be exposed to pollutants, chemicals, or other toxins that are nearby. This exposure could have an impact on both the health of the birds and the health of their young.
- Behaviour Modification: Nesting on towers may alter the birds' natural behaviour, including how they interact with other species and how they contribute to the ecosystem.

What is the way forward from this situation?

- Site selection and Design: Designing towers with bird-friendly characteristics can lessen the risk of electrocution and crashes. Site selection. This might entail secure nesting platforms, insulated wire covers, and perch deterrents.
- Regular Monitoring: Keep an eye on nesting areas to evaluate the condition and well-being of the birds and their nests. This can aid in early detection of potential issues and enable prompt response.
- Outreach and Education: To increase public understanding of the value and dangers faced by tower-nesting birds. To reduce disturbances, promote appropriate conduct near nesting locations.
- Environmental Assessments: Before building additional towers, do environmental impact analyses to determine any potential effects on bird populations and nesting habits.
- Mitigation Techniques: Take action to reduce human disruptions around nesting areas, especially during delicate times like reproduction and chick raising.
- Research and Collaboration: Collaborate with academics, environmentalists, and the appropriate authorities to compile information on bird populations, nesting success, and potential dangers. Better management techniques can be informed by this information.

Karnataka starts releasing water on CWMA directives

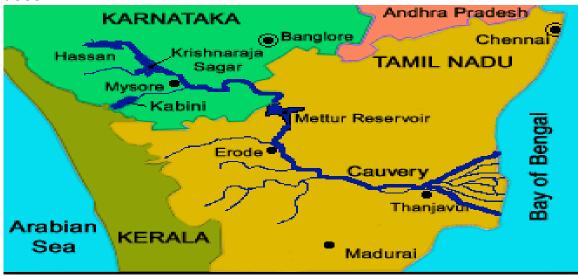
Context

Karnataka has started releasing water from its reservoirs to Tamil Nadu following the instructions of the Cauvery Water Management Authority (CWMA).

On Wednesday morning, there was an outflow of 4,398 cusecs (cubic feet per second) into the Cauvery from the Krishnaraja Sagar (KRS) reservoir in the Mandya district compared to an inflow of 2,300 cusecs.

What is the Cauvery River Dispute?

The Cauvery water dispute is a prolonged and intricate water-sharing dispute between the Indian states of Karnataka and Tamil Nadu, as well as other governments that have stakes in the river's water, including Kerala and Puducherry. The issue is on the fair allocation of water from the Cauvery River, which runs through these states and is a crucial resource for agriculture, drinking water, and several other uses.



What is the Cauvery Water Management Authority?

- The Government of India formed the Cauvery Water Management Authority (CWMA) as a regulatory agency to supervise the Cauvery Water Management Scheme's execution.
- The plan was developed to manage and control the distribution of water from the Cauvery River among the competing interests and previous water-sharing issues between the states of Karnataka, Tamil Nadu, Kerala, and Puducherry.
- The Inter-State River Water Disputes Act, 1956—more particularly, Section 6A—was the legal framework under which the CWMA was established. Its main goal is to make sure that the Cauvery Water Disputes Tribunal's judgments and instructions, as well as any alteration that the Supreme Court of India makes to those judgments, are carried out effectively.

What are the roles and functions of the CMA?

- Allocation and Distribution: The CWMA is in charge of calculating and distributing the amount of water that each state is entitled to receive from the Cauvery River. This distribution is based on variables like historical usage, river flows, and state needs.
- Water Release Control: The Cauvery River Authority controls the release of water from reservoirs and dams, ensuring that the designated amounts are released following the established schedules. This includes controlling water releases at different

times of the year to satisfy needs for agriculture and other purposes.

- Monitoring and Enforcement: The CWMA keeps an eye on the water that is released and makes sure that the states stick to their allotted shares. If there are violations or anomalies in the water releases, it has the power to take action.
- Resolution of Disputes: The CWMA is entrusted with mediating and resolving such matters between the involved governments in cases of disputes or conflicts relating to water sharing.
- **Review and Adaptation:** The authority has the power to review and modify decisions in light of evolving situations to maintain fairness and efficiency in the distribution of water.
- Communication and Reporting: The CWMA informs the concerned states of its decisions, recommendations, and reports, promoting accountability and openness in the process of allocating and distributing water.

What is the role of the Cauvery Water Management Authority (CMA) in resolving the issue?

- Water Release: Karnataka has begun providing water to Tamil Nadu from its reservoirs following CWMA instructions. Water is being released from reservoirs such as Kabini and Krishnaraja Sagar (KRS).
- Release details: Release Information According to reports, the inflow into the Krishnaraja Sagar (KRS) reservoir was 2,300 cusecs, and the outflow from the reservoir was 4,398 cusecs. The Kabini reservoir was said to have an output of 2,000 cusecs. 6,398 cusecs would be the total output from both reservoirs combined.
- **CWMA Order: F**rom September 8 to September 12, the CWMA ordered Karnataka to ensure a daily discharge of 5,000 cusecs of water at Billigundulu on the interstate border. Karnataka claimed it couldn't release this sum, however, the CMWA upheld the recommendation.

What are the difficulties faced by both sides with the release of the water? Karnataka

• Water scarcity: Karnataka frequently claims that it has a water shortage because of little rainfall and low reservoir levels. Releasing water to Tamil Nadu may make the state's

water scarcity worse, impacting agricultural activity and the availability of water for other uses.

- Impact on agriculture: Farmers in Karnataka heavily rely on the Cauvery's water for irrigation, making it a significant industry. When water is released to Tamil Nadu during crucial agricultural seasons, Karnataka's agricultural requirements may suffer.
- Drought Conditions: Karnataka contends that drought conditions exist in its regions, particularly in the Cauvery basin, which makes it challenging to reserve water for states farther downstream. This justification is frequently used to show why prioritizing its own water needs is necessary.
- Local opposition: Communities that depend on the waters of the Cauvery River and agricultural organizations may resist the delivery of water to Tamil Nadu. The administration must strike a balance between these regional issues and its legal commitments.

Tamil Nadu

- Agricultural Dependence: Tamil Nadu, especially the
 Cauvery delta region, primarily relies on the Cauvery's waters
 for irrigation. Water shortages can have a direct influence on
 farmers' livelihoods and agricultural output.
- Legal Requirements: Tamil Nadu frequently invokes the legal requirements established by the Supreme Court's rulings and the Cauvery Water Disputes Tribunal's judgements, asserting that the state is legally entitled to a particular share of the Cauvery's waters. There may be disagreements and legal action if the water allotted is not received.
- Political and Social Pressure: In Tamil Nadu, the desire for Cauvery water is a major political and social issue. The government is under pressure from numerous social groups to maintain a steady flow of water, and any apparent failure to uphold the interests of the state could have political repercussions.
- **Crop Patterns:** The availability of Cauvery water is taken into consideration when designing Tamil Nadu's agricultural techniques and crop patterns. Crop yields and agricultural planning can both be impacted by insufficient water supplies.

What is the way forward to resolve the issue?

• **Negotiations and dialogue**: To address each state's individual water needs, concerns, and potential solutions, all parties should participate in direct and positive negotiations. A cooperative

strategy can promote communication and trust between the parties.

- Scientific Data and Analysis: It is essential for making wellinformed judgments to rely on reliable and current scientific data regarding river flows, rainfall patterns, and water availability. Independent specialists can contribute by offering objective analysis to direct conversations.
- Innovative Water Management: Investigating cutting-edge water management strategies can aid in maximizing the use of water for domestic, industrial, and agricultural uses. This can entail encouraging the use of water-wise farming techniques and making investments in water storage and conservation methods.
- Environmental considerations: It's crucial to acknowledge the river's ecosystems' environmental stability. Practices for managing water sustainably should strive to preserve the overall health of the river basin while taking ecological effects into account.



China's worldview, its postulates and a reality check

Context:

The shifting tides of global dynamics and the prevailing winds of change have thrust the enigmatic leader, Xi Jinping, and his orchestration of 'changes unseen in a Century' into the limelight. Within this discourse lies the assertion that the once unassailable 'rules based order' championed by the West is destined to crumble, yielding ground to an ascendant Chinese-propagated global paradigm. Implicitly, it suggests that a world marred by discord, inequality, and fragmentation is tailor-made for a Chinese-dominated dominion.

Relevance:

GS-02 (International relations)

Mains Questions:

Analyze the factors contributing to the perceived shift in U.S.-China dynamics, considering the evolving geopolitical landscape and its impact on global alliances and security arrangements. (150 Words)

Dimensions of the Article:

- Navigating 'Xi Jinping Thought' and the New Order
- U.S. as the Protagonist of Threat
- Polycentric Competition and Cooperation: The Chinese Perspective
- China's engagement with Contemporary Challenges
- Deciphering China's quest
- Can China Dethrone the 'Rule Based Order'?
- China's Remedial Endeavors
- The problem of Taiwan

Navigating 'Xi Jinping Thought' and the New Order

- The premise of 'Xi Jinping Thought' hinges on the idea that the battle for supremacy is a multifaceted terrain transcending military might.
- Emerging as an indomitable force, China's trajectory is inextricably linked to its technological prowess, cultural influence, and demographic heft.

• Thus, the narrative surges forth, heralding the inevitable triumph of China's ascendancy, catalysed by its technological upsurge and bolstered by economic resilience.

U.S. as the Protagonist of Threat

- Among the myriad colours that shape China's world view, one undeniable fact is that the United States is a formidable adversary.
- The intricacies of polarized American society, coupled with the erosion of global clout, act as a favourable ground that drives tensions between the U.S. and China.
- The global geopolitics witnesses new formations, epitomized by AUKUS and the Quad, emanating from this schism. As the spectre of a more assertive U.S. stance on Taiwan looms, China's countermove involves a robust expansion of its Global Security Initiative (GDI) and the Shanghai Cooperation Organisation (SCO).

Polycentric Competition and Cooperation: The Chinese Perspective

- Perceiving the contemporary global stage through a Chinese prism, scholars enunciate the era of 'Polycentric Competition and Cooperation.'
- China argues that this transformation caught the U.S. unawares, manifesting palpably in regions like West Asia. Here, China's rise usurps U.S. dominance, exemplified by its role in fostering the Iran-Saudi Arabia truce.
- Concurrently, China's influence threads through the international organizations, such as the World Health Organization. Its stratagem of embedding nations within the ambit of Chinese norms and standards imparts further supremacy.
- As China's voice resonates across international standards setting bodies. These standards burgeon, shaping the course for nations, while consequently, China's economic interests and state-subsidized capital never compromises.

China's engagement with Contemporary Challenges

 The COVID-19 pandemic casts a shadow over China's economic canvas, resulting in a tumultuous landscape of economic distress and societal upheaval.

XI JINPING THOUGHT: SOCIALISM WITH CHINESE CHARACTERISTICS FOR A NEW ERA

Second stage (2035 - 2050) To develop China into a great modern socialist country that is prosperous, strong, democratic, culturally advanced, harmonious and beautiful

First Stage (2020 -2035) Realisation of socialist modernisation, including the achievement of the Belt and Road Initiative

XI JINPING'S ECONOMIC AMBITIONS



demands for robust vitality.

• The aftermath of the pandemic reveals the scars of economic policies that have experienced reversals. This upheaval stems partly from Xi's inclination towards orthodox Communist principles, which clashes with the buoyancy of marketoriented strategies.

• The tussle between governmental control and the private sector introduces an element of uncertainty into China's economic framework.

• The economic tumult has prompted multinational corporations to flee, their confidence shaken by China's shifting economic trajectory.

Deciphering China's quest:

• A lot of perplexity unfolds, requiring China to recalibrate its intentions amidst the currents of Polycentric Competition and Cooperation.

• Forging a path to overtake its rivals demands risk taking moves and policy revamps.

• China faces an uphill battle. Anemic GDP growth, languishing around 3%,

- The cases of unemployment looms, as youths grapple with desolate job prospects. The aging population compounds these problems, inviting a dark demographic portrait.
- To overcome this, China must enhance a new economic model. Gazing at the West's unrestricted markets, China seeks to

create an alternate theory of modernity, fostering innovation and liberation from state-driven shackles.

Can China Dethrone the 'Rule Based Order'?

- The main point revolves around whether China can overthrow the West's 'rule-based international order,' discarding it to establish a new order that aligns with worldwide fragmentation.
- A crucial aspect depends on the accuracy of China's assertion about a crumbling West. The situation in Ukraine demonstrates that a divided West can unite under U.S. leadership, outmaneuvering Russia to showcase a 'free will' that outshines 'controlled systems.

China's Remedial Endeavors:

- Propelled by China's redemptive narrative, the Governor of the People's Bank of China assumes an economist's role that enhances the banking sector's reputation which instills confidence worldwide.
- The newly appointed Chinese Premier, Li Qiang, initiates endeavors to revive the private sector, suggesting a potential shift.
- The progression towards a multi-faceted economy, harmonizing with global trade, remains a mysterious path destined to be recorded in history.

The problem of Taiwan:

- Despite increasing tensions, a catastrophic conflict resembling the events in Ukraine appears unlikely.
- The far-reaching consequences of such a clash would severely impact economies worldwide. However, both China and the U.S. find it challenging to detach from Taiwan's significant influence.
- An alternative approach could involve a subtle adjustment of objectives, where Taiwan is repositioned as a symbolic element within a larger array of conflicts.

Conclusion:

Xi Jinping's journey into unexplored territory, marked by challenges, signals an imminent seismic change. The global landscape undergoes a metamorphosis through China's undertakings, and as the eyes of the world remain fixed, the interplay of discord and harmony creates a tableau that surpasses easy understanding.

India's Myanmar quandary, its paradoxical policy

Context:

The events of July 31 and August 1 have etched themselves as crucial milestones in Myanmar's ongoing turmoil. In the first instance, Myanmar's acting President, Myint Swe, prolonged the 'emergency' for another six months, flouting the 2008 Constitution. Simultaneously, the military regime decided to liberate several political detainees, reducing sentences for figures like Daw Aung San Suu Kyi and former President Win Myint.

Relevance:

GS – 02 (India and its Neighbourhood, Effect of Policies & Politics of Countries on India's Interests) (Look East to Act East)

Prelims:

- India-Myanmar Relations
- Rohingya Crisis
- Significance of Myanmar for India
- ASEAN.

Mains Question:

 Discuss the complexities and challenges faced by India in its policy towards Myanmar, considering the interplay of democracy, security concerns, and regional dynamics. (250 words)

Dimensions of the Article:

- The Dynamics of Emergency and Elections
- Complex Implications of Ms. Suu Kyi's Shift
- Symbolic Junta Gestures and India's Role
- India's Approach in the Spotlight

The Dynamics of Emergency and Elections:

 The extension of the emergency postpones the military's proposed elections. Min Aung Hlaing, rationalized this elongation due to the struggle to establish 'normalcy' across significant swaths of the nation.

- However, this pursuit of normalcy has inflicted hardship.
- The Armed Conflict Location & Event Data Project (ACLED) noting that Myanmar's civilians experience two and a half times more violence compared to those in Afghanistan.
- Amidst this, the military's unrelenting campaign includes over 30 airstrikes on average each month this year.
- The Tatmadaw, Myanmar's military, genuinely controls only 30%-40% of the territory, as conceded by the Burmese military itself and affirmed by the Special Advisory Council for Myanmar (SAC-M) making it ironical.
- Conducting a seemingly nationwide election within a mere third of the country would only erode further the credibility of such an endeavour.
- The National League for Democracy's decision to abstain from the upcoming elections, coupled with the exclusion of smaller parties through new party registration laws, leaves the USDP unopposed in a parliament where the military enjoys a practical veto.



Complex Implications of Ms. Suu Kyi's Shift:

- The junta's perplexing move to reduce Ms. Suu Kyi's sentence and transition her from incarceration is a twist that raises questions. Yet, this action is far from a stride toward democracy.
- Ms. Suu Kyi has showcased a willingness to negotiate and collaborate with the military.

- She remains a beacon for political transformation in Myanmar, even amidst international reproach concerning her stance and involvement in the Rohingya crisis.
- While some protests might ease due to these symbolic overtures, the critical point remains:
- The return of Ms. Suu Kyi might splinter the resistance led by the National Unity Government (NUG). A new generation of activists, at the helm of the NUG, has forged alliances with ethnic armed groups and even initiated dialogue with the Rohingya population.

Symbolic Junta Gestures and India's Role:

- These symbolic gestures by the junta, could pacify certain protests, allowing the military to claim progress over global and regional appeals.
- This might pave the way for sanctions to be lifted and economic prospects rejuvenated.
- In addition, they serve as political leverage and a face-saving token for entities engaged with the junta, including India.

India's Approach in the Spotlight:

- At the onset of the COVID-19 pandemic and the coup, India embraced a proactive stance, extending food and vaccine assistance.
- The plight of the Myanmar populace seems to have faded from memory, replaced by accusations of fomenting unrest in Manipur. Communities along the border have dared to defy the Home Ministry by offering refuge to refugees.
- The suspension of the Free Movement Regime in September 2022 due to concerns of trafficking and drug trade in Myanmar has also been a noteworthy development.
- India's External Affairs Minister, S. Jaishankar, voiced concerns over infrastructure projects and border stability when meeting his Myanmar counterpart Than Swe in Bangkok in July.
- Furthermore, India has extended support to the Association of Southeast Asian Nations' 'Five-Point Consensus'. Yet, India's policy toward Myanmar straddles a paradox.
- India's official discourse championing democracy in Myanmar contrasts starkly with its policy constructed through the prism of security apprehensions in northeastern India and its complex rapport with China.

- A case in point is India's announcement of the Sairang-Hmawngbuchhuah railway project near the Myanmar border, conceived under India's Act East Policy to counterbalance China's railway connectivity in Myanmar via Yunnan and the ambitious China-Myanmar Economic Corridor.
- Disturbingly, credible sources like Justice for Myanmar, SAC-M, and the United Nations Special Rapporteur have flagged a surge in India's arms supply to the military post-coup. This supply not only undermines India's stance on restoring democracy but also fans the flames that frequently spill across the border.

Way Forward:

India's policy options concerning Myanmar are intricate but not insurmountable. The reduction of Ms. Suu Kyi's prison term could provide a window for India to engage with her and pro-democracy actors, including the NUG. Additionally, both the government and the media must refrain from an across-the-board militarization and profiling of incoming refugees, many of whom have familial ties in India. This approach is pivotal to curbing further violence and fostering an atmosphere of empathy and benevolence.

India-Japan tech diplomacy

Context:

India and Japan joined hands to collaborate on semiconductors, aiming to bolster the supply chain for this crucial technology. Their objective extends to jointly developing the semiconductor ecosystem, with a focus on five key aspects: semiconductor design, manufacturing, equipment research, supply chain resilience, and talent development. Notably, this collaboration spans both government-level engagement and industry partnerships.

Relevance:

GS – 02 (Government Policies & Interventions, Effect of Policies & Politics of Countries on India's Interests) GS – 03 (Growth & Development, Indigenization of Technology)

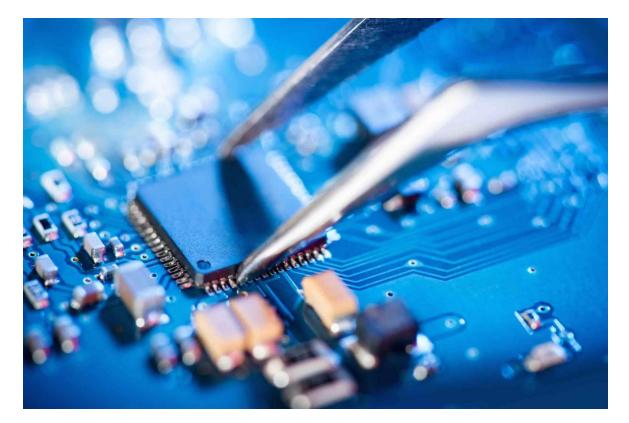
GS – 03 (Growth & Development, Indigenization of Technology)

Mains Question:

• Evaluate the potential impact of the India-Japan collaboration on shaping the global semiconductor landscape. Discuss the relevance of technological advancements such as semiconductor miniaturization, AI integration, and quantum computing in this context. (250 words)

Significance of Semiconductors:

- Semiconductors play a crucial role across various sectors like aerospace, automobiles, communications, clean energy, IT, and medical devices.
- High demand for semiconductors has led to a global chip shortage, impacting growth and jobs in the economy.
- To address this, the government sanctioned ₹76,000 crore under the Production-Linked Incentive (PLI) scheme in December 2021 to encourage domestic semiconductor manufacturing.
- Semiconductors and displays are the backbone of modern electronics, driving the transition to Industry 4.0.



Need to Promote the Semiconductor Industry:

- Semiconductor chips are integral to the digital age, enabling electronic devices to compute and control tasks for convenience.
- These chips are catalysts for ICT development, contributing to the interconnected global landscape.
- Vital infrastructures like communication and power transmission rely on semiconductor chips, affecting national security.
- Fostering the semiconductor and display ecosystem will yield ripple effects across various sectors and deepen integration into the global value chain.
- Limited global chip manufacturers; dominance by countries like the USA, Taiwan, South Korea, Japan, the Netherlands, and emerging presence from Germany.

Dimensions of the Article:

- Uniting for Progress
- Converging Policies
- Harmonizing Strengths
- Meeting Challenges
- Global Engagement: The U.S. Link
- Shaping the Future
- India's Role

Uniting for Progress:

- The partnership's significance becomes apparent when examining the expanding semiconductor industry. The increasing demand for specialized chips necessitates a larger talent pool and additional semiconductor fabrication facilities.
- This partnership entails more than mere collaboration; it involves the exchange of technical expertise, sharing research insights, and fostering innovation.
- By doing so, India and Japan are positioning themselves at the forefront of the ongoing evolution of semiconductors.

Converging Policies:

• India's "Make in India" initiative and Japan's "Society 5.0" vision find common ground.

- Both underscore the importance of leveraging technology for innovation. Importantly, these are not just theoretical concepts; they are translating into concrete actions.
- The agreements encompass technology transfer, collaborative research, and reciprocal trade of semiconductor-related products.
- This represents a tangible embodiment of mutual understanding and cooperation.

Harmonizing Strengths:

- Japan's expertise in chip manufacturing and research pairs with India's burgeoning IT sector and its growing demand for semiconductor products.
- This convergence of capabilities forms the foundation for a mutually beneficial partnership.
- Beyond the economic aspect, the collaboration recognizes the pivotal role semiconductors play in driving both economic progress and national security.

Meeting Challenges:

- The challenges posed by supply chain disruptions and geopolitical tensions, especially in the Indo-Pacific region can be dealt with the initiatives undertaken by India and Japan.
- By pooling resources and expertise, this will address intricate problems in semiconductor design, manufacturing processes, and material science.
- This collaborative approach accelerates innovation and the creation of advanced solutions.
- The partnership places a strong emphasis on human resource development through skill exchange and comprehensive training programs.

Global Engagement: The U.S. Link

- The India-Japan collaboration is not an isolated event. It fits within a broader context of global partnerships.
- The recent alliance between India and the United States, encompassing investment, innovation, and workforce enhancement is laying the groundwork for harmonious semiconductor ecosystems. Moreover, key players like Micron

Technology and Applied Materials are investing in semiconductor production and research facilities, expanding the scope of collaboration.

Shaping the Future:

- As technology continues to evolve, their collaboration remains adaptable, poised to tackle challenges like chip miniaturization, AI integration, and even quantum computing.
- This partnership has implications far beyond technology circles, influencing global technology trends and the dynamics of geopolitical partnerships within the Indo-Pacific.
- The bilateral agreements reflect a response to the changing landscape, characterized by the U.S.'s strategic actions in the semiconductor realm.

India's Role:

- These agreements signify the confidence that both the Quad countries (India, Japan, Australia, and the U.S.) place in India's potential.
- This alignment, coupled with Japan's active involvement, underscores India's advancement in semiconductor technology. By combining Japan's technical acumen with India's innovative capacities, the collaboration lays the groundwork for an era characterized by advanced electronics, enhanced connectivity, and a shared commitment to pushing technological boundaries.

Conclusion:

This partnership, rather than being a transactional affair, signifies the maturation of India's technological prowess. It sets the stage for a future where innovation isn't just a buzzword; it's a shared journey towards redefining the horizons of technology.

The BRICS test for India's multipolarity rhetoric

Context:

New Delhi's resurgence in global geopolitics is evident as it chairs summits, maneuvers complex decisions, and seeks its spot in global governance. The upcoming BRICS summit in South Africa is poised to test Indian diplomacy and signal the direction of future geopolitics.

Relevance:

GS – 02 (Groupings & Agreements Involving India)

Prelims:

- BRICS
- UNSC
- Beijing Declaration

Mains Question:

 Discuss the role of BRICS in reshaping global geopolitics and its potential to address the challenges faced by the international system. (150 words)

Understanding BRICS:

Overview:

- BRICS stands for the alliance of the **foremost emerging** economies globally, namely Brazil, Russia, India, China, and South Africa.
- The term BRIC, initially referring to Brazil, Russia, India, and China, was coined by Jim O'Neill, a British Economist, in 2001.
- The formalization of this grouping occurred during the inaugural meeting of BRIC Foreign Ministers in 2006. Later, South Africa's inclusion in December 2010 led to the adoption of the acronym



BRICS.

BRICS' Collective Impact:

• BRICS brings together the five largest developing nations, collectively representing 41% of the world's population, 24% of the global GDP, and 16% of global trade. Rotational Leadership:

• Leadership of the forum changes annually among the members, aligning with the sequence of B-R-I-C-S. BRICS' Noteworthy Endeavours: At the Sixth BRICS Summit in Fortaleza (Brazil) in 2014, a milestone was achieved as leaders signed the Agreement instituting the New Development Bank (NDB), headquartered in Shanghai, China.

Dimensions of the Article:

- BRICS' Potential and Challenges
- Global Governance Imperfections
- Middle Powers and Geopolitical Uncertainty
- Democratic Imperfections in Global Governance
- India's Complex Geopolitical Position
- Rising Blocs and India's Stand
- Evaluating China's Influence
- India's Dual Goals
- Geopolitical Predicament

BRICS' Potential and Challenges:

- While BRICS might not dramatically reshape the global economy, its capacity to create economic agreements and influence global geopolitics is doubted.
- Despite its shortcomings, BRICS could evolve into a potent entity shaping world politics, fueled by recent geopolitical shifts and challenges faced by the UN system.
- BRICS' wider representation compared to the UNSC and G-7, though less than the G-20, holds significance for the international system's future.

Global Governance Imperfections:

- The inadequacies and undemocratic nature of global governance structures are apparent. In this vacuum, forums like BRICS can step in, driven by the desire to be heard in the global arena.
- The increasing interest of countries in joining BRICS underscores the frustration felt by many nations in the global South regarding their status.

Middle Powers and Geopolitical Uncertainty:

- Amid global uncertainty, middle powers and regional heavyweights gravitate towards forums like BRICS to understand geopolitical trends, secure their positions, and influence geopolitics.
- The Ukraine conflict and China's rise have revitalized BRICS, fostering discussions on enhancing global governance's inclusivity.

Democratic Imperfections in Global Governance:

- While BRICS and SCO won't guarantee democratic global governance, their discussions can spark dialogues on a more representative structure.
- Imperfect institutions reflecting current realities are preferable to an alienating monolithic system. Imperfection is acceptable in international politics, unlike hegemonic dominance.

India's Complex Geopolitical Position:

- India faces intricate geopolitical choices. Its participation in BRICS, SCO, and the global South reflects dissatisfaction with post-World War II institutions. However, India's alignment with the West also complicates its role.
- India's balance between bridging divides and avoiding victimization in emerging geopolitical contests is challenging.

Rising Blocs and India's Stand:

• With China and Russia forming blocs against the U.S. and its allies, India's opposition to bloc politics aligns with its vision of multipolarity based on equity and inclusion. Despite its reluctance, India could be drawn into this dynamic.

Evaluating China's Influence:

 As India pursues multipolarity and alternative global mechanisms, it must assess whether its actions inadvertently boost China's rise. Strengthening non-Western forums aids China's agenda, requiring India to navigate its influence carefully. Balancing China-centric and West-centric orders presents a dilemma.

India's Dual Goals:

 India must prioritize promoting equitable global governance while safeguarding its national interests. While curbing Chinese influence in non-Western forums, India must also avoid alienating other global South countries that support China's expansion efforts.

Geopolitical Predicament:

 India faces the challenge of asserting itself in non-Western forums like BRICS and the SCO while countering China's growing influence. Simultaneously, it must address Western expectations in Eurocentric forums. This complex balance requires multifaceted strategies.

Way Forward:

India should maintain focus on inclusive global governance while ensuring that its actions don't undermine its interests. Strategic moderation of China's influence in non-Western forums, alongside nurturing relationships in the global South, is essential.

Conclusion:

Navigating the geopolitical currents requires India to navigate its course meticulously. Its role in non-Western forums, managing China's ascent, and engaging with Western expectations define India's diplomatic tightrope. Striking a balance amidst these intricacies will determine India's contribution to shaping global geopolitics.

The U.K.-India relationship is alive with opportunity.

Context:

The United Kingdom's unwavering belief in trade as a catalyst for growth and prosperity is evident in its advocacy for fair trade practices at the World Trade Organization. Furthermore, the UK's pursuit of trade agreements with dynamic economies like India, empowered by newly regained powers, exemplifies its commitment to trade-driven progress. The collaborative exploration of issues such as bolstering the resilience of global value chains and digitalizing trade documentation assumes paramount importance in unlocking the full potential of worldwide trade.

Relevance:

GS – 02 (Bilateral Relations, Indian Diaspora)

Prelims:

- Indo-pacific
- FTA

Mains Question:

 Analyze the implications of India's growing role as the host of the G-20 and its potential to shape international cooperation, particularly in the context of fostering trade relations with countries like the United Kingdom. 150 words.

Dimensions of the Article:

- Evolving Dynamics of Trade Relations
- Reciprocal Trade and Investment
- Pursuing a Comprehensive Free Trade Agreement
- Strengthening the Foundation
- The Vibrant Indian Diaspora
- Charting a Dynamic Marketing Initiative

Evolving Dynamics of Trade Relations:

- India's burgeoning middle class, predicted to reach a quarterbillion consumers by 2050, presents an immense opportunity for the U.K.'s business sector.
- The existing trading rapport between the two nations, valued at £36 billion in 2022, could experience substantial enhancements.

Reciprocal Trade and Investment:

 The U.K.'s Department for Business and Trade's latest data underscores India's position as the second-largest source of investment projects for the U.K. Over the last fiscal year, 118 fresh projects led to the creation of 8,384 jobs in the U.K. This symbiotic relationship extends to investment, where the **U.K. stands as India's sixth-largest investor**, contributing \$34 billion in foreign direct investment between April 2000 and March 2023

• U.K. companies operating in India, totaling 618 with a collective turnover of approximately \$50 billion, directly employ around 466,640 individuals.

Pursuing a Comprehensive Free Trade Agreement:

- Engaging in ongoing discussions with Commerce Minister Piyush Goyal, the objective remains to establish an ambitious Free Trade Agreement that would significantly elevate bilateral trade.
- The U.K.'s adeptness in negotiating robust trade accords is evident, yet complexities persist in domains such as goods, services, and investment. These intricate aspects demand thorough deliberation to create a mutually advantageous and equitable deal for both parties.

Strengthening the Foundation:

- Underpinning this partnership are not solely trade and investment but also cultural, sports, educational, and tourism ties. Beyond the realm of trade, the affinity between the two nations is evident in their shared enthusiasm for Bollywood cinema.
- The U.K., being one of the most prominent audiences for Bollywood outside India, has been featured in iconic films like Kabhi Khushi Kabhi Gham. This cinematic connection exemplifies the dynamic cultural bridge that exists between the two nations.

The Vibrant Indian Diaspora:

- The Indian diaspora, surpassing **1.6 million individuals**, significantly contributes to various facets of life in the U.K., spanning education, workforce, and more.
- A substantial number of Indian students comprise one of the largest cohorts of international students in the U.K., reinforcing the interwoven nature of their connection.

Charting a Dynamic Marketing Initiative:

- With a view to fortify the multifaceted bond between the U.K. and India, the launch of the 'Alive with Opportunity' campaign is a source of pride. This £1.5 million marketing endeavor seeks to spotlight the enduring connection between the two nations and amplify the ongoing exchange of ideas, culture, and people.
- As part of the U.K.'s aspirations to double trade with India by 2030, the campaign aims to stimulate interest in U.K. goods and services, foster business growth through bilateral trade, and beckon fresh Indian investments.
- The campaign's comprehensive portrayal of the bilateral relationship across various domains through billboards will serve as a testament to the boundless opportunities that this vibrant connection holds.

Way Forward:

The journey ahead entails navigating intricate negotiations to solidify the Free Trade Agreement and capitalize on the manifold dimensions of the U.K.-India partnership. Balancing economic interests with cultural exchanges will be pivotal in ensuring the sustained growth of this multifaceted relationship.

Conclusion:

As India takes center stage on the global platform, the ties between the United Kingdom and India highlight the resonance of international cooperation in the contemporary world. The commitment to foster trade, investment, and cultural exchanges attests to the enduring vitality of this relationship, brimming with possibilities that extend far beyond economic spheres.

Navigating Africa's Challenges: A Path to Collaboration and Progress

Context:

Africa's growing presence on international platforms like BRICS, the G-20, and the United Nations General Assembly has drawn attention to the continent's complex dynamics. With South Africa as an atypical representative, Africa, comprising 54 countries and a significant part of the "Global South," is making its demands heard. However, amidst this, Africa grapples with a multitude of challenges, disrupting

traditional socio-political structures. These challenges include misgovernance, unplanned development, tribal dominance, and corruption. Moreover, emerging disruptors like Islamic terror, intertribal conflicts, climate change, soaring food prices, urbanization, and youth unemployment have strained the region's fabric, compounding its woes.

Relevance:

GS – 02 (Bilateral Relations)

Prelims:

- G-20
- BRICS

Mains Question:

 India's G-20 opportunity for an African Renaissance. Comment. 150 words

Dimensions of the Article:

- Socio-Political Disorder and Resurgence of Generals
- Efforts to Curb Bonapartism
- International Support Erosion
- BRICS, G-20, and India's Role

Socio-Political Disorder and Resurgence of Generals:

- The intricate web of challenges has led to the resurgence of military generals in power across Africa, overturning the erstwhile era of civilian rule.
- Countries such as Egypt, Burkina Faso, Mali, and Niger have witnessed the return of military influence due to the prevailing socio-political turmoil.
- Notably, Libya and Sudan are witnessing internal strife within their armed forces, vying for supremacy. While these military institutions might lack the strength to counter Islamist and tribal forces, their leadership harbors political ambitions.
- The resurgence of generals stems from complex national circumstances, resulting in their return to power.

Efforts to Curb Bonapartism:

- African political elites struggle to contain the resurgence of military leadership. The approach of delegitimization and containment advocated by regional bodies like ECOWAS is losing effectiveness as military governments proliferate.
- This is evident from the opposition of Mali and Burkina Faso, both under military rule, to ECOWAS' military intervention threat against Niger's junta. Similarly, Sudan's warring generals reject calls for a ceasefire, highlighting the difficulty in restoring stability and civilian rule.

International Support Erosion:

- Africa faces the additional challenge of diminishing international support. China, historically a significant trade partner and investor, has scaled back its engagement due to economic slowdown and reduced trade.
- China's Belt and Road Initiative has led to unsustainable debts for some African nations, necessitating the relinquishment of assets to China. Russia's utilization of the Wagner Group for security purposes has encountered uncertainty following internal upheavals.
- Western powers and former colonial rulers such as France, the United Kingdom, and the United States continue to exploit Africa's mineral resources, but economic constraints limit their involvement. Europe's focus centers on curbing illegal migration from Africa, contributing to Africa's isolation.

BRICS, G-20, and India's Role:

- Amid these challenges, the 15th BRICS summit and the upcoming 18th G-20 Summit present opportunities for addressing Africa's concerns. Themes like "BRICS and Africa" signal acknowledgment of Africa's significance.
- India, with deep-rooted ties to Africa encompassing antiapartheid struggles and peacekeeping efforts, maintains strong relations.
- Despite reduced oil imports and agricultural sales, India-Africa trade reached **\$98 billion**, while investments continue in vital sectors like education, healthcare, technology, and agriculture.
- India's hosting of the G-20 Summit offers a chance to amplify its engagement. Collaborative efforts with like-minded partners and

multilateral organizations could lead to a lasting platform for resolving security and socio-economic issues in Africa.

 India's contributions, including innovations like JAM trinity, DBT, UPI, and the Aspirational Districts Programme, could yield positive impacts, shifting the paradigm from exploitation to cooperation.

Way Forward:

- Addressing Africa's challenges requires a comprehensive approach that combines peacekeeping with socio-political institution building.
- India's involvement, both bilaterally and through multilateral forums, can serve as a model for collaboration.
- Leveraging its strong ties and innovative solutions, India can help shape a more inclusive and less exploitative future for Africa.

Conclusion:

As Africa's demands resonate across international platforms, its struggles demand urgent attention. Amidst diverse challenges and disruptive forces, collaborative efforts, led by countries like India, hold the potential to redefine the trajectory of Africa's development. By fostering an ecosystem of cooperation and mutual benefit, the world can witness a transformation in the Africa-India partnership, setting the stage for a progressive 21st century.

India and China needs to have substantive conversations on ties

Context:

The dynamics between India and China have once again unfolded with divergent interpretations following their recent talks. The discourse between Prime Minister Narendra Modi and Chinese President Xi Jinping, occurring at the sidelines of the BRICS Summit, focused not so much on the content of their discussion, shrouded in the enigma of "informal" exchanges, but rather on the manner of their communication. This narrative delves into the nuances of this encounter, shedding light on the implications that linger beyond the diplomatic rhetoric.

Relevance:

GS-02 (Bilateral relations)

Prelims:

- Line of Actual Control (LAC)
- BRICS Summit in South Africa

Mains Question:

• Examine the evolving contours of India-China relations, considering recent interactions and the broader geopolitical context. 150 words.

Dimensions of the Article:

- Unveiling the intricacies of the conversation
- Contrasting Verbal Expressions
- Shedding light on the historical backdrop
- Highlighting the significance of content over perception
- Skilfully manoeuvring through the lack of transparency for strategic aims:

Unveiling the intricacies of the conversation:

- The latest interaction between Indian and Chinese leaders occurred on the margins of the **BRICS Summit in South Africa**.
- The crux of the matter, however, wasn't the actual discourse shared between Prime Minister Narendra Modi and Chinese President Xi Jinping, for such "informal" dialogues tend to shroud their content in ambiguity.
- Instead, the focus shifted to the manner in which this exchange transpired. Notably, the Ministry of External Affairs (MEA) chose to remain reticent, refraining from issuing any official statement regarding the encounter.

Contrasting Verbal Expressions:

 Foreign Secretary Vinay Kwatra did provide a glimpse into the essence of the conversation, sharing that both leaders emphasized the pivotal nature of maintaining tranquillity along the border regions and respecting the Line of Actual Control (LAC) to normalize India-China relations. Their decision to instruct relevant officials to expedite disengagement and de-escalation further solidified this commitment. In stark contrast, the Chinese Foreign Ministry's statement lacked these specifics. It portrayed Mr. Xi's emphasis on safeguarding the overarching interests of bilateral relations and adeptly handling the border issue.



• The divergent articulations prompted speculation, as India's "official sources" suggested that China had proposed a structured bilateral meeting, which India declined.

Shedding light on the historical backdrop:

 This interaction in South Africa marked only the second known engagement between the leaders since the inception of the Line of Actual Control (LAC) crisis in 2020. Remarkably, it took a span of eight months for the MEA to acknowledge that the border issue was indeed discussed during an initial conversation labeled as mere "pleasantries" exchanged at the G-20 in Bali in November 2022. • Sources suggest that India had earlier expressed reluctance for a more formal exchange at the G-20, although video evidence indicated that Prime Minister Modi initiated the dialogue with President Xi.

Highlighting the significance of content over perception:

- If the Indian government's reticence toward structured dialogue with President Xi stems from concerns of vulnerability to Opposition critique or dilution of its stance on complex ties with China, the contention that engaging in dialogue conveys surrender or victory to Beijing holds limited merit.
- The crux resides in the substance of the discourse itself. Indeed, a structured exchange, potentially at the upcoming G-20 summit in New Delhi, where President Xi is expected to be present, could offer Prime Minister Modi an opportunity to assert India's position emphatically. He could reinforce, at the highest echelons, that the foundation of bilateral relations rests on peace and hinges upon China restoring the previous status quo and respecting India's border patrolling rights.

Skillfully maneuvering through the lack of transparency for strategic aims:

- India's apparent reluctance appears to stem from a regrettable inclination to prioritize political optics over the welfare of the nation in its dealings with China.
- This orientation has further contributed to a persisting lack of transparency regarding the evolving situation along the border. The persistent obscurity in this matter raises pertinent concerns about governmental priorities and its commitment to transparent governance.

Way Forward:

- India's leadership must recognize the significance of forthright dialogue, transcending concerns of optics.
- The forthcoming G-20 summit could serve as an apt forum for Prime Minister Modi to assert India's stance with resolute clarity. This could provide a platform for unequivocally conveying that the future of the India-China relationship hinges upon the restoration of border normalcy and the preservation of India's patrolling prerogatives.

Conclusion:

The recent interaction between Prime Minister Narendra Modi and Chinese President Xi Jinping bears testament to the nuanced art of communication within diplomatic circles. The divergence in expressions underscores the multifaceted dynamics at play in India-China relations. Moving forward, the Indian government must embrace substantive dialogues that prioritize national interests over political theatrics. By fostering transparent and candid discussions, India can navigate the complexities of the region, fortifying its position and upholding the essence of diplomatic integrity.

India's Rohingya refugee children are not criminals

Context:

The heart-wrenching demise of a five-month-old infant born to a Rohingya refugee in a Jammu detention center in July has ignited deep concerns. A viral video, now echoing across digital realms, captures the disturbing sight of police dispersing tear gas in a cramped corner of the center, where women and children huddle together.

Relevance:

- GS 03 (India and its Neighborhood)
- GS 02 (Effect of Policies & Politics of Countries on India's Interests)

Prelims:

- Rohingya
- Myanmar
- United Nations High Commissioner for Refugees (UNHCR)
- Citizenship Amendment Act, 2019 (CAA)
- 1951 Refugee Convention.

Mains Question:

 Examine the challenges and implications of India's approach towards refugees, particularly in light of the Rohingya crisis. Analyze the absence of a comprehensive legal framework for refugees, the consequences of treating them as illegal immigrants, and the impact of such policies on vulnerable populations. 150 words.

Dimensions of the Article:

- The Suffering Six Years Since Their Exodus
- Unanswered Questions
- Detention Under Foreigners Act
- Plight of Registered Refugees
- Trampled Rights of Rohingya Children
- Detained Rohingyas
- Misplaced Custody Under Juvenile Justice Act
- Path Toward Change

The Suffering Six Years Since Their Exodus:

- The calendar marked August 25, commemorating six years since the onset of a brutal campaign by the Myanmar military against the Rohingya minority in Rakhine State.
- This dark chapter commenced in August 2017 and resulted in the flight of over 770,000 Rohingya individuals.
- Over 20,000 of them sought refuge within India. One such haven, now a detention center, houses over 250 Rohingya refugees, including women and children, since March 2021. The majority of them wield UNHCR-issued cards validating their status as 'seekers of refuge.'

Unanswered Questions:

- The incident in Jammu has unfurled inquiries. Why are these refugees, who flee persecution, shackled by the image of criminals? What forces them to dwell within prison-like confines? Why impose restraints on their movements? Above all, the confinement of children in detention centers casts a disquieting shadow.
- These young souls hail from an exceptionally vulnerable cohort, enveloped in the constant dread of ethnic purges. A global responsibility calls upon us to safeguard and nurture them, not to imprison, suffocate, or subject them to tear gas and neglect.



Detention Under Foreigners Act:

- The unsettling power wielded by Indian authorities is partly rooted in the nation's lack of a consistent policy on refugees and asylum seekers. Bereft of adherence to the 1951 Refugee Convention and its 1967 Protocol, India treats refugees as clandestine migrants, grouping them under the Foreigners Act of 1946.
- This legislation furnishes unchecked executive prerogatives against foreign entities, devoid of any provisions for the safeguarding of vulnerable communities such as asylum seekers and refugees.

Plight of Registered Refugees:

- Even with UNHCR's endorsement, registered refugees in India remain ensnared in the clutches of the Foreigners Act. The Act holds provisions for their arbitrary detention, and in some instances, propels them towards criminal imprisonment and deportation.
- Consequently, scores of Rohingya refugees, including numerous children, languish within India's detention centers and prisons.

For these innocents, the external world becomes a mere abstraction, confined within four austere walls.

Trampled Rights of Rohingya Children:

- Article 6 of the UN Convention on the Rights of the Child underscores every child's innate entitlement to life, survival, and growth. India ratified this convention in December 1992, positioning the detention of children in facilities, their exclusion from education, and the curtailment of their liberties as outright violations.
- Closer to home, the Indian Constitution secures the right to life and personal liberty for all individuals, irrespective of citizenship or origin.

Detained Rohingyas:

- Nearly 500 Rohingya refugees, an alarming portion of them being children, endure detention across assorted facilities within India.
- Within the confines of New Delhi's Sarai Rohilla center, a handful of children below the tender age of five gaze upon a gritty alley through iron bars.
- Their existence is cloaked in confinement, their identity as Rohingya refugees sealing their fate.

Misplaced Custody Under Juvenile Justice Act:

- Although some children share detention with their parents, others face separation, banished to juvenile justice institutions under the Juvenile Justice Act.
- These Rohingya children do not tread on the path of criminality; rather, they seek shelter after fleeing for their very lives.
- To label them as anything other than desperate souls seeking solace is a stark miscarriage of justice.

Path Toward Change:

• To prevent the tragic fate of another Rohingya child within Indian detention centers and to honor the essence of life and development, a compelling imperative surfaces: the immediate release of all Rohingya children and their primary caregivers from confinement. Beyond this, adherence to the 2011 internal

guidelines of the Government of India pertaining to refugees must be observed.

- These guidelines advocate release from detention within six months, encompassing biometric details, contingent upon local surety, good conduct, and monthly police reporting.
- In parallel, the collaborative effort of the National Human Rights Commission of India and the Office of the United Nations High Commissioner for Human Rights should appoint an ombudsman with the exclusive mandate to investigate India's refugee detention centers.

Way Forward:

The preservation of humanity's noble ideals hinges upon the treatment of the most vulnerable among us. The path ahead entails a convergence of policy, compassion, and conscientious action, steering us away from darkness and toward the world where every soul, irrespective of origin, is embraced and uplifted.

Conclusion:

The demoralizing death of an infant within the Jammu detention center exemplifies the grievous consequences of treating refugees with disdain, denying them the sanctity of life and dignity. A shift is imperative, refugees deserve not imprisonment and indifference but sanctuary and compassion.

G-20's Imperative: A Collective Push Towards Climate Resilience

Context:

Amidst the intricate web of global greenhouse gas emissions and fossil fuel consumption, the G-20 member nations occupy a central position. This assembly, encompassing major contributors to both emissions and energy production, has embarked on the commendable journey of "net-zero" commitments. However, a critical juncture beckons for the G-20 to not just pledge, but concretely propel its climate ambition through a fusion of collaboration, coordination, and healthy competition. As the G-20 summit convenes in New Delhi, a distinctive opportunity presents itself for these nations to demonstrate collective leadership. This collective endeavor assumes paramount significance in the run-up to the UN Secretary General's Climate

Ambition Summit and the United Nations Framework Convention on Climate Change COP28.

Relevance:

GS – 02, GS – 03 (Groupings & Agreements Involving India and/or Affecting India's Interests)

Prelims:

- G-20 Summit
- Paris Agreement

Mains Question:

• Elucidate the imperative of collaborative action among G-20 nations to expedite the transition towards clean energy and inclusive climate resilience, underscoring its relevance in global climate discourse. 250 words

Dimensions of the Article:

- Pursuit of Clean Energy Odyssey: G-20's Evolving Commitment
- Ensuring Robust Governance Structures for Equitable
 Transitions
- Diversifying Economies: Orchestrating Economic Stability and Sustainability
- Catalysing Transparent and Cohesive International Endeavors

Pursuit of Clean Energy Odyssey: G-20's Evolving Commitment

- A glimpse at recent developments reveals a discernible shift among G-20 members toward embracing cleaner energy criterias. The canvas of renewable energy sources, which contributed to merely **19% of their energy mix** in 2010, has now expanded to encompass **29% in 2021**.
- This trajectory echoes a concerted effort to diverge from fossil fuel reliance. Notably, India stands as a prime example, scaling its renewable energy production to become the world's third-largest producer.
- Pioneering strides have been undertaken, with a firm resolve to steer 50% of energy generation towards renewables by 2030. Nevertheless, as the tide of demand rises and the confines of the world's carbon budget tighten at an accelerated pace, the momentum of change must outpace past trajectories.



Ensuring Robust Governance Structures for Equitable Transitions:

- One pivotal avenue necessitates a holistic revamping of governance at both national and local tiers within G-20 nations. This transformation warrants the establishment of clear-cut structures to orchestrate equitable energy transitions. Inclusivity in the transition process and equitable outcomes stand as nonnegotiable benchmarks. The labyrinthine compartments of government ministries must be bridged to engender harmonious synergy, leaving no room for isolated efforts.
- The linchpin of this transformation lies in delineating roles and responsibilities across governmental echelons. This harmonization of mandates culminates in cohesive delivery plans that entice prospective investments. Delineating progress markers requires an expansion beyond conventional metrics.
- Metrics such as job creation should metamorphose into nuanced facets: the nature of employment generated, accessibility of opportunities, and the resilience and innovation embedded within communities.
- A potent strategy is the establishment of multi-ministerial task forces or collaborative entities between governmental and nongovernmental stakeholders. A case in point is South Africa's Presidential Climate Commission-led just transition framework, potentially paving the way for other G-20 members to catalyze their own transformational journeys.

Diversifying Economies: Orchestrating Economic Stability and Sustainability

- A second prong underscores the significance of leveraging the transition to reinvigorate economies across G-20 nations. By embracing the transition as a vessel for economic diversification, G-20 members can fortify long-term economic stability, livelihoods, and public revenue streams.
- This avenue hinges on the synchronized orchestration of international financial institutions. These institutions wield the potential to channel their investments and risk-taking ventures towards the swift deployment of renewable energy infrastructure.
- Simultaneously, prioritizing support for energy efficiency and low-carbon industrial technologies stands as a formidable catalyst. Take the case of green steel—a burgeoning demand area necessitating a rapid shift towards low-carbon steel production pathways.
- A strategic alignment of mandates for international financial institutions can foster investments in green steel evolution across developing economies, wherein G-20's preeminent role in global steel production comes into play.

Catalysing Transparent and Cohesive International Endeavours:

- A third facet envisions the G-20 as a torchbearer in streamlining international efforts towards just energy transitions. This journey is enriched by heightened transparency and accountability standards.
- Vitalizing existing mechanisms such as the G-20 Energy Transitions and Sustainable Finance Working Groups and the Just Energy Transition Partnerships (JET-Ps), is paramount.
- The roadmap to transparency lies in instituting mechanisms to disclose data relevant to energy transition. In particular, countries endowed with fossil fuel resources must embrace transparency by sharing accurate, comparable, and reliable information pertaining to projects associated with oil, gas, and coal production. The synergy of transparency underpins international alignment and renders the collective pursuit of climate resilience more coherent.

Way Forward:

• By converging governance structures, G-20 nations can forge equitable transitions that transcend compartmentalization.

- A collective push to diversify economies facilitates long-term stability, while the synchrony of financial institutions accelerates clean energy adoption.
- Championing transparency and global collaboration becomes the fulcrum upon which the just energy transition rests.

The Age-Old Bond: India and Greece's Rekindled Relationship

Context:

In the wake of a recent bilateral meeting between Prime Minister Narendra Modi and Greece's Prime Minister Kyriakos Mitsotakis, a renewed Vigor has been infused into the longstanding relationship between India and Greece. Despite the absence of high-level interactions since 1983, the essence of this enduring alliance has remained unscathed. The palpable warmth between the two nations has defied the test of time.

Relevance:

GS-02 (Bilateral relations)

Prelims:

• Indian Diaspora

Mains Question:

 Assess the significance of revitalizing and reshaping the bilateral relationship between India and Greece, considering both historical ties and contemporary geopolitical dynamics. 250 words.

Dimensions of the Article:

- Historical Threads and Future Prospects
- Geopolitical Dimensions and Maritime Security
- Charting the Course Ahead

Historical Threads and Future Prospects:

• Tracing back to **Alexander's historic expedition in 326 BCE**, the threads of connectivity between India and Greece have been

woven across the annals of time. Yet, these connections have predominantly revolved around tourism, trade (amounting to approximately \$2 billion), and labor migration.

 An overarching bilateral strategy has, until now, eluded the two nations. Prime Minister Modi's interaction with Kathimerini, a Greek newspaper, reflects the potential alignment of India's industrial ambitions with Greece's aspirations as a conduit to the EU's economic landscape. This convergence envisions a promising avenue for mutual growth.

Geopolitical Dimensions and Maritime Security:

- Beyond historical nuances, the partnership holds a weighty geopolitical underpinning. Greece's resurgence from economic challenges and its evolving engagement with Israel and Cyprus present an intriguing geopolitical tapestry. This triad, perceived as a counterweight to Turkey, resonates with India's own geopolitical considerations.
- Pertinent tensions between India and Turkey, particularly regarding the **Organization of Islamic Cooperation (OIC)** and the Kashmir issue, could find resonance in this emerging alignment. Furthermore, both India and Greece, with their maritime histories, confront shared concerns related to maritime security.
- Both nations acknowledge their vested interests in upholding international maritime norms and laws. This acknowledgement underscores their mutual commitment to fostering stability in regions spanning the Eastern Mediterranean to the Indo-Pacific.

Charting the Course Ahead:

- The laudable success of **India's Chandrayaan-3 mission** served as a favourable augury for the relationship between these two democratic behemoths. The symbolism inherent in India's accomplishments and Greece's historical legacy imbues a sense of optimism.
- Leveraging this momentum, the leaders envision an era of renewed cooperation. The temporal chasm that marked the interval between their past interactions and the present offers valuable lessons.
- Both countries are poised to harness the prevailing conducive environment and channel it into a multifaceted partnership encompassing economic, geopolitical, and cultural dimensions.



Way Forward:

- With a recalibrated approach, India and Greece must harness the palpable goodwill and historical resonance that underlie their relationship. Prioritizing sustained high-level dialogues, such as those between National Security Advisers, can furnish a structured framework for shared endeavours.
- Embracing their respective roles as contributors to regional stability, the nations must leverage their strategic nexus for fostering peace and security across the Indo-Pacific and Eastern Mediterranean realms.
- The aspiration to augment trade, in tandem with the negotiation of the India-EU Free Trade Agreement, necessitates a wellcoordinated approach. Furthermore, the concerted pursuit of cultural preservation, underpinned by UNESCO's imprimatur, reinforces their commitment to preserving shared heritage.

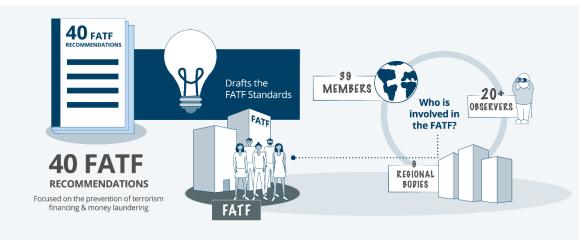
Conclusion:

Prime Minister Narendra Modi's visit to Greece signifies a pivotal moment in the narrative of India-Greece bilateral relations. As the historical ties between these two nations intersect with the imperatives of contemporary geopolitics, a new chapter is being written. The synergy between India's economic ambitions and Greece's aspirations as an EU gateway reflects a convergence of trajectories. This renewed affiliation, born from shared aspirations and historical resonances, stands as a testament to the enduring power of diplomatic engagement. In charting a course forward, India and Greece have the opportunity to steer their relationship towards a trajectory characterized by comprehensive cooperation, strategic synergy, and shared growth.

Pakistan passes Bill to meet FATF demands

Context :

The Financial Action Task Force (FATF)'s "grey list" is a list of nations that have been identified as having a high risk of money laundering and terrorism funding. On Friday, the Pakistani Senate approved a bill to create a new authority to combat these activities.



What is FATF?

- The Financial Action Task Force (FATF) is a global watchdog for financial crimes like money laundering and terror financing.
- After member countries raised worries about growing money laundering operations, it was founded at the **G7 Summit in Paris in 1989 to fix gaps in the global financial system.**
- FATF included terror funding as a key emphasis area in the aftermath of the 9/11 terrorist attacks in the United States. Later, this was expanded to include a ban on the funding of weapons of mass devastation.
- There are presently 39 members of the FATF. The FATF's plenary, or decision-making body, meets three times a year. 206 countries from the global network, including members and observer organisations like the World Bank, attend its meetings.

- The FATF establishes standards or suggestions for countries to follow to close loopholes in their financial systems and reduce their vulnerability to unlawful financial activity.
- It performs frequent peer-reviewed evaluations of countries called Mutual Evaluations (ME) to assess their performance against the standards it sets.
- FATF and FATF-Style Regional Bodies (FSRBs) conduct the reviews, which are then published as Mutual Evaluation Reports (MERs).
- Time-bound action plans are developed for countries that do not meet specific benchmarks. The recommendations for governments vary from analysing criminal threats to establishing legislative, investigative, and judicial tools to prosecute money laundering and terror financing cases.

What are the various types of lists?

- While the terms 'grey' and 'black' lists do not appear in the official FATF lexicon, they denote countries that need to improve their compliance with FATF regulations and those that are not.
- FATF publishes two lists of countries after each plenary meeting. The grey countries have been identified as "jurisdictions under heightened supervision," and they are collaborating with the FATF to combat unlawful financial activity.
- The **watchdog** does not advise other members to take due diligence measures concerning the listed country, but it does advise them to examine the risks that such countries pose. There are now 23 countries on the grey list, including Pakistan.
- The term "**black list**" refers to countries that have been identified as "high-risk jurisdictions subject to a demand for action."
- In this situation, the countries' **AML/CFT** (anti-money laundering and counter-terrorist financing) regimes are very deficient, and the body urges members and non-members to exercise increased due diligence.
- In the most extreme incidents, members are instructed to take countermeasures, such as imposing penalties on the countries on the list. North Korea and Iran are currently on the blacklist.

What is Pakistan doing to stay out of the grey list?

• **Purpose:** The Bill's purpose is to create a new authority in Pakistan to effectively tackle money laundering and terrorism financing. Pakistan wants to do this to increase cooperation among relevant agencies, strengthen its financial regulatory

system, and show its support for global efforts to combat financial crime.

- Legislative process: The Bill underwent the legislative procedure in the Pakistani parliament, where it was first enacted by the National Assembly and then endorsed by the Senate. This two-step approval procedure makes sure that both houses of parliament will support the proposed law.
- Central Authority: The National Anti-Money Laundering and Counter Funding of Terrorism Authority, which will be in charge of coordinating and supervising efforts to stop money laundering and funding of terrorism across various institutions, is to be created as a result of the proposed legislation.
- Under One Command: All Financial Action Task Force (FATF)affiliated institutions will be under a single command thanks to the new authority. In dealing with financial crimes, this unified strategy is anticipated to increase collaboration, information sharing, and effectiveness.

India, Japan studying ways to restart trilateral cooperation with Sri Lanka

Context:

The three nations are looking into methods to resume trilateral cooperation more than two years after Sri Lanka cancelled a joint India-Japan MoU for the East Container Terminal (ECT) project in Colombo, envoys at a conference said on Thursday in New Delhi.

Trilateral relation between India-Japan and Sri Lanka

- Historical ties: Due to their proximity to one another and their long history of contact, India and Sri Lanka have close historical and cultural links. The Indian-born religion of Buddhism is widely practised in Sri Lanka. The northern parts of both countries, particularly in southern India and Sri Lanka, share Tamil ethnic and cultural ties.
- Economic Cooperation: Interest in economic cooperation has been expressed by all three nations. Among Sri Lanka's key trading partners and sources of foreign investment are Japan and India. Infrastructure development initiatives, trade agreements, and help during economic downturns are all part of the relationship.
- Infrastructure Projects: A key component of this partnership has been cooperation on infrastructure projects. Projects

including ports, container terminals, roadways, railroads, and renewable energy programs have all benefited from joint ventures or backing between Japan and India. These initiatives seek to improve regional economic growth, commerce, and connectivity.

- Strategic Interests: Both India and Japan have promoted the idea of a "Free Open and Inclusive Indo-Pacific" (FOIIP). This is in line with their strategic objectives of preserving the Indo-Pacific's peace and stability. Additionally, Sri Lanka's interests in marine security and economic development are aligned with this objective.
- Economic Assistance: India and Japan have both given Sri Lanka economic support, notably during difficult financial times. This help has come in the form of grants, loans, and development initiatives.
- Regional and Multilateral Cooperation: To address shared concerns and advance regional stability, these nations frequently collaborate on regional and multilateral platforms like the South Asian Association for Regional Cooperation (SAARC) and the Indian Ocean Rim Association (IORA).

What is East Container Terminal?

- East Container Terminal, also known as the ECT, is a crucial port expansion project in Colombo, Sri Lanka.
- The project's objective was to build and run a container port at Colombo Port, a significant transhipment hub in the area.
- A memorandum of understanding (MoU) for collaboration on economic projects, including the development of the ECT, was signed by India and Sri Lanka in 2019.
- The MoU prioritized a joint venture for the terminal in recognition of the substantial transhipment-related trade that India conducts through Colombo.
- The Sri Lanka Ports Authority (SLPA) was supposed to own the ECT as its whole.
- Sri Lanka would own 51% of the Terminal Operations Company (TOC), which would be in charge of operations, and the other joint venture partners would possess 49%.
- Japan's involvement was seen as balancing geopolitical factors, and the project's development was anticipated to be funded by a 40-year loan with a low-interest rate of 0.1%.
- Historical sensitivities, labour opposition, and difficulties resulting from shifting political dynamics and regional influences were obstacles.

- Public opinion, political shifts, and worries about sovereignty and national interests all had an impact on the project's fate.
- The ECT project exhibited a nuanced interaction between political agendas, historical factors, economic cooperation, and local geopolitical dynamics.

What are the benefits for India with the re-initiating of ECT?

- Enhanced Trade Connectivity: The construction of the ECT would give India access to a contemporary, effective transhipment centre nearby. This would allow for more seamless trade movements and lower the cost of shipping goods from India to foreign markets.
- Strategic Maritime Presence: India's strategic presence and influence in the Indo-Pacific would be enhanced by the ECT's position in the Indian Ocean region. It contributes to maintaining maritime security and stability and is consistent with India's vision of a "Free, Open, and Inclusive Indo-Pacific."
- Regional Leadership: By collaborating on important projects in the region, India may increase its leadership and influence, which will enable it to work with its neighbours to promote shared economic growth and regional stability.



- Economic Growth: Increased exports and economic growth for India may result from improved trade connections provided by the ECT. More international trade can be attracted to Indian ports by having effective transhipment facilities.
- Counterbalance to Chinese Influence: India's participation in initiatives like the ECT serves as a counterbalance to China's growing influence in the Indian Ocean as a result of the Belt and

Road Initiative. It supports the survival of a multipolar regional environment.

- Maritime Security: Improved marine security can assist protect shipping lanes that are essential to India's trade by giving countries more sway and presence at local ports.
- Strategic Partnerships: Working together on the ECT project with Japan and Sri Lanka can strengthen strategic partnerships, which will promote peace and security in the Indo-Pacific region.

How is it going to help Sri Lanka with its crisis?

- Foreign Direct Investment (FDI): The ECT project includes FDI from abroad, presumably from Japan and India. By generating jobs, fostering economic activity, and luring other types of investment, this FDI infusion has the potential to significantly strengthen Sri Lanka's economy.
- Infrastructure Development: Significant infrastructure development, including the construction of roads, railroads, and utilities, would be needed for the development and construction of the ECT. This might then promote associated industries, create jobs, and support overall economic growth.
- Trade and Transshipment: Sri Lanka's position as a transhipment hub in the area may be enhanced by the ECT's strategic location and state-of-the-art facilities. Higher port earnings, handling fees, and related services can result from increased transhipment activity, which can increase government revenue.
- Trade Diversification: An effective ECT can draw foreign shipping lines, increasing trade volumes and broadening the range of trading partners. By doing this, Sri Lanka can increase its links with other countries and lessen its reliance on a single market.
- **Regional Connectivity:** By enhancing regional connectivity and logistics, a developed ECT can entice manufacturers and exporters to Sri Lanka. Higher exports and foreign exchange revenues may result from this.
- Participation of the Private Sector: The ECT project may be stimulated by the participation of domestic and foreign private sector companies, fostering innovation, competition, and economic growth.

Chinese military ship docks at Colombo Port for a 'formal' visit

Context

The Sri Lankan Navy has announced that a Chinese warship that landed in Colombo on Thursday will be docked there till Saturday, exactly one year after the presence of a Chinese vessel led to diplomatic problems between New Delhi and Colombo.

What is the background on previous tensions?

- The Chinese satellite tracking ship Yuan Wang 5 arrived at Sri Lanka's Hambantota Port.
- The Yuan Wang 5 is a member of China's fleet of tracking and telemetry ships for space operations and satellite launches.
- Concerns and diplomatic tensions between India, Sri Lanka, and China arose as a result of the vessel's arrival.
- Regarding the ship's visit, both India and the US raised their worries.
- Despite the reservations voiced, Yuan Wang 5's visit was not postponed.
- This incident brought to light the intricate geopolitical relationships connecting China's expanding military power and influence in the Indian Ocean region.
- During this occasion, Sri Lanka had to manage its diplomatic relations with both China and India.

What is the recent event happened ?

- The Chinese destroyer Hai Yang 24 Hao arrived at Sri Lanka's Colombo Port.
- The warship came in on an official visit.
- The visit lasted from Thursday through Saturday.
- The anniversary of a previous Chinese vessel's visit, which led to diplomatic problems between India and Sri Lanka, fell on the same day as this one.
- The Chinese People's Liberation Army Navy is home to the warship, which goes by the name Hai Yang 24 Hao.
- Sri Lankan officials made it clear that India did not formally voice any concerns regarding the visit of this vessel.
- According to Sri Lanka, the customary process for foreign vessel visits was followed and involved approval from several government agencies.

• This trip brings to light the delicate geopolitical dynamics in the area involving Sri Lanka, India, and China.

What are the problems faced by India with the Chinese presence in the Indian Ocean?

- Increased Chinese Presence in the Indian Ocean: India's maritime interests and security may be strategically threatened by China's growing naval presence in the Indian Ocean, particularly so near India's coastlines.
- String of Pearls Strategy: China's "String of Pearls" policy, which entails creating a network of friendly ports and infrastructure throughout the Indian Ocean, may cause India some concern. Chinese naval ships' usage of Sri Lankan ports is consistent with this plan and may even improve China's naval strength in the area.
- Naval Encirclement: It is possible to see China's naval presence in Sri Lanka as a component of its larger ambitions to encircle India. Concerns about India's strategic vulnerability could be increased by this.



• Influence in diplomacy: India may be concerned that China's close economic relations with Sri Lanka may give Beijing more sway over the island nation, which may have an impact on India's regional influence.

- Alliance Development: The visit of a Chinese warship to Sri Lanka may be interpreted as a hint that China wants to deepen its defence cooperation with Sri Lanka. A scenario where China and Sri Lanka establish deeper military ties could result from this, which might not be in India's best interests.
- Security and Intelligence Concerns: India may be concerned about the possibility that the Chinese cruiser is gathering intelligence by keeping an eye on India's naval operations and communication networks.
- Impact on Regional Balance: China's military actions in Sri Lanka may have an effect on the region's overall power dynamics, which may affect how other nations perceive their security and their strategic inclinations.
- Allies' Reaction: India may also need to take into account how its steadfast allies and partners feel about China's presence in Sri Lanka. India's efforts to sustain solid ties and regional stability may be hampered by this.
- **Diplomatic Pressure:** If India did indeed initially oppose the warship's visit, this could indicate India's intention to diplomatically voice its concerns and guarantee that its interests are protected.

What is the way forward from these tense situations?

- open Communication and Transparency:
 - Open channels of communication and transparency should be maintained by all parties to ensure rapid resolution of any issues or misconceptions.
 - To avoid rumours and reduce the likelihood of miscommunication, Sri Lanka should keep sharing the reason for and specifics of such trips in a transparent manner.

Diplomatic Engagement:

- To address any potential issues brought up by such visits and identify common ground, India and China should participate in diplomatic conversations.
- Sri Lanka ought to take the initiative in promoting understanding and diplomatic communication between the two countries.
- Observing Sovereignty:
 - All parties should respect Sri Lanka's sovereignty and its right to independently decide on its international relations and visits.

- China and India must respect Sri Lanka's choices and make sure that their objectives line up with the country's overall objectives.
- Regional Cooperation:
 - To solve shared difficulties and foster confidence, all parties might strive to establish regional cooperation organizations like the Indian Ocean Rim Association (IORA).
- fostering economic ties
 - The establishment of economic linkages that aid Sri Lanka's growth, regional stability, and the wealth of Indian Ocean nations might be the main goal for all parties.
- Conflict Management:
 - All parties involved should be aware of activities that could lead to misunderstandings or an escalation of tensions and take precautions to prevent any unintended disputes.

Navies of India and the UAE carry out a military exercise

Context :

As part of initiatives to strengthen maritime security cooperation, the Navies of India and the UAE conducted a military drill.



Overview of the naval exercise

- Navy Exercise Zayed Talwar was performed by India and the UAE.
- The drill's goal was to improve the two navies' ability to operate together.

Dates and Places:

• The exercise was held from August 8 to August 11 off the coast of the United Arab Emirates.

Participating Naval Ships:

- Indian naval ships that took part in the exercise included the INS Trikand and the INS Visakhapatnam.
- One of the Indian Navy's largest operating destroyers is the INS Visakhapatnam.
- A sophisticated stealth frigate named INS Trikand was launched in 2013.

Drill accomplishments:

- The drill sought to enhance communication and cooperation between the UAE and Indian fleets.
- The focus was on collaborative responses to shared problems like piracy, illegal immigration, human trafficking, marine security, and disaster relief efforts.

Growing Military Cooperation:

- The Middle East and India's expanding defence ties reflect a strengthening of their economic and geopolitical ties.
- In the past, India's relationships with the Middle East have been primarily about oil and expatriates, but today, defence cooperation is a crucial factor in the development of tighter ties.

Middle East significance for India:

• Due to issues including energy security, economic routes, geopolitical influence, and marine interests, the Middle East is extremely important to India's defence and geopolitical policy.

Shared Interests:

- The Middle Eastern nations and India both see each other's territories as significant components of their immediate surroundings.
- Their national interests are aligned with increased trust, collaboration, and partnership in the defence sector.

Geographical and economic factors:

• The Middle East is crucial to India's defence and geopolitical strategy because of its position in trade routes, oil security, geopolitical influence, and naval force projection.

advantages of naval exercises

- Joint naval drills improve ties between the fleets, maritime security, regional stability, and interoperability.
- They also convey diplomatic messages of alliance and collaboration.

India's economic growth's effects:

• West Asian nations are drawn to India because of its expanding economic might, which promotes closer involvement and collaboration in defence and security issue

India and ASEAN agree to review goods trade pact by 2025 to fix 'asymmetry'

Context

According to the Commerce Ministry, India and the ASEAN nations agreed to evaluate their free trade agreement for goods and set 2025 as the deadline for finishing the review, which was intended to address the "asymmetry" in bilateral trade.

What is ASEAN-India Trade in Goods Agreement

The ten ASEAN member nations and India have a trade agreement called the ASEAN-India Trade in Goods Agreement (the "Agreement"). At the 7th ASEAN Economic Ministers-India Consultations in Bangkok, Thailand in 2009, ASEAN and India inked the Agreement. The 2010-implemented pact is occasionally referred to as the ASEAN-India Free Trade Agreement.

Background information and agreement signing

- The ten ASEAN (Association of Southeast Asian Nations) members and India have a trade agreement called the ASEAN-India Trade in Goods Agreement (AITIGA).
- It was signed in 2009 in Bangkok, Thailand, during the 7th ASEAN Economic Ministers-India Consultations.
- It is sometimes referred to as the ASEAN-India Free Trade Agreement and went into effect in 2010.

Trade Statistics and Impact:

- Since it was put into effect, AITIGA has increased trade between India and ASEAN.
- Due to the COVID-19 outbreak, commerce between India and ASEAN fell from US\$97 billion in the previous year (2018-19) to US\$86 billion in the 2019–20 year.
- Trade volume had increased over time despite fluctuations, rising from US\$81.3 billion in the 2017–18 fiscal year.

Scope and establishment of free trade area:

- The Agreement only applies to the trade in tangible commodities and products; it does not extend to the trade in services.
- It has its roots in the 2003 Framework Agreement on Comprehensive Economic Cooperation between India and ASEAN, which served as the framework for upcoming trade accords.
- The ASEAN-India Free Trade Area is comprised of the AITIGA, the 2014 ASEAN-India Trade in Services Agreement, and the ASEAN-India Investment Agreement.
- With a population of around 1.8 billion, this FTA constitutes one of the largest free trade zones in the world.

What did the recent review of the agreement portray?

Review of the ASEAN-India Trade in Goods Agreement (AITIGA):

- India and the ASEAN nations have decided to examine their free trade agreement for goods.
- The objective of the review is to resolve the "asymmetry" in bilateral trade, which denotes current inequities in trade flows between the two sides.

Formation of a Joint Committee:

- To manage the evaluation procedure, a Joint Committee has been formed.
- There are probably members of this committee from both India and the ASEAN nations.

Termination of Terms of Reference:

- The Joint Committee debated and concluded the review's terms of reference.
- The negotiations and discussions during the review process will follow these terms of reference.

Conclusion

In summary, the review of the ASEAN-India Trade in Goods Agreement is a planned and structured process to address trade imbalances, enhance trade diversity, and foster mutual benefit. The involvement of high-level meetings and the establishment of a Joint Committee underpin the significance of this endeavour in the economic relations between India and ASEAN countries.

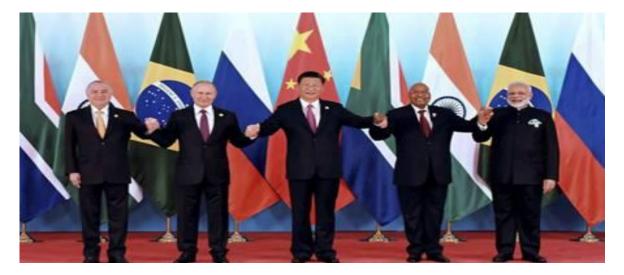
BRICS is now a non-Western grouping

Context

The BRICS grouping has solidified its status as a global force to be reckoned with by quickly increasing from five to eleven members. In addition, the selection of nations, including Ethiopia and Argentina from Africa and South America in addition to Egypt, Iran, Saudi Arabia, and the UAE from the West Asian region, is significant because it signals a change in the foundations of the non-western economic grouping, making it a more politically relevant bloc.

What is the BRICS?

BRICS is a grouping of five major emerging economies: Brazil, Russia, India, China, and South Africa Jim O'Neill, a Goldman Sachs economist, first used the term "BRIC" in 2001 to refer to these four rapidly expanding economies that were expected to have a big impact on the world economy. After South Africa received an invitation to join in 2010, the acronym was changed to BRICS to reflect the inclusion of the other four nations.



Which members were added to the BRICS Grouping?

 Iran, Saudi Arabia, Egypt, Argentina, the United Arab Emirates, and Ethiopia will join the group's current five members, Brazil, Russia, India, China, and South Africa, at the start of the next year.

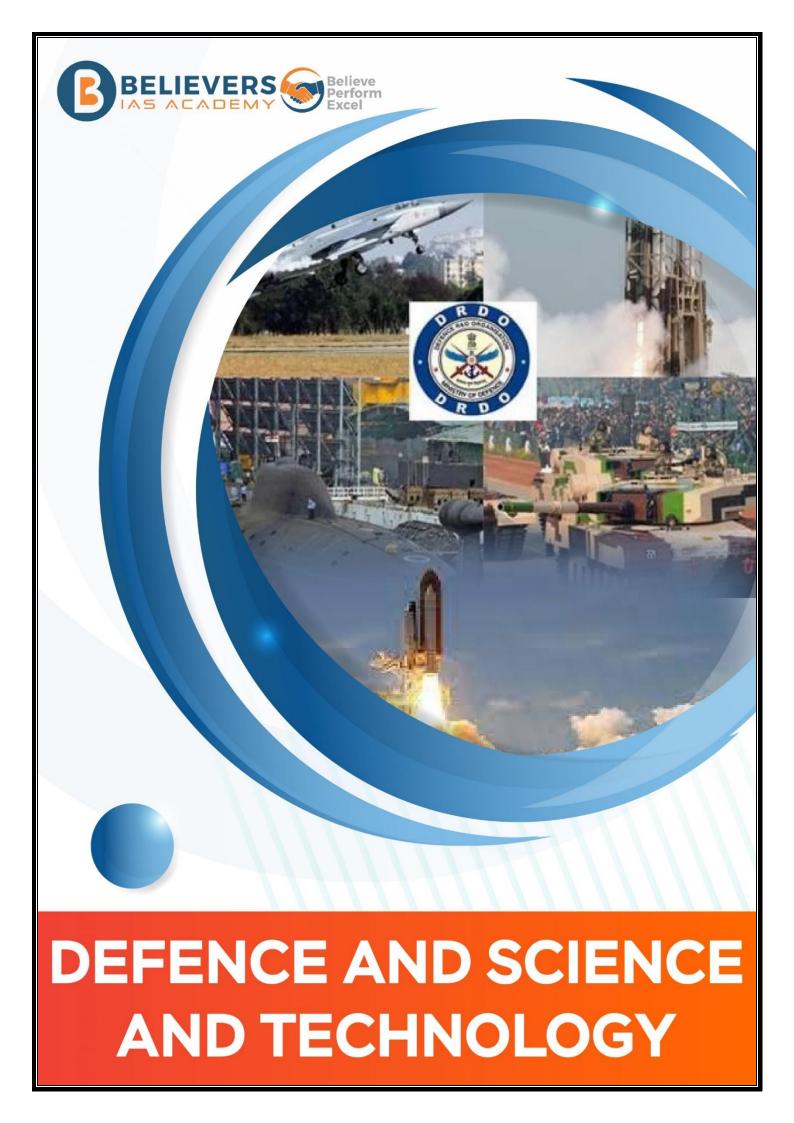
What are the advantages of BRICS adding more members?

- Increased Global influence: Expanding the BRICS organization by accepting new members will increase its global power as additional countries band together to promote shared interests and concerns on the world stage.
- Diversification of Perspectives: Including nations from various regions, such as Argentina, Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates, would enrich debates and policy decisions by bringing a variety of perspectives, experiences, and knowledge to the group.
- Economic Growth and Development: The inclusion of new countries has the potential to expand trade, investment, and economic cooperation between existing BRICS members and the newly included nations.
- Broader Geopolitical Reach: A larger BRICS organization would have a broader geopolitical reach, enabling it to address a wider variety of international issues and possibilities and possibly serve as a counterbalance to the influence of other powerful nations.
- Enhanced Diplomatic Relations: Including nations like Iran and Saudi Arabia in the same grouping may offer a forum for diplomatic collaboration and discussion, which may promote peace and conflict resolution.
- Collective Bargaining Power: The BRICS may have more negotiating leverage if it were to grow, allowing its members to better defend their interests and advance their common objectives.
- Expanded Pool of Resources: By including more BRICS nations, the pool of resources, knowledge, and creative ideas might be increased and then used for collaborative projects and initiatives.

What advantages does India have by this increase in grouping?

- Increased Diplomatic Influence: Since the majority of the new members are India's strategic allies, the expansion may increase India's diplomatic influence and fortify its web of international ties.
- Enhanced Economic Opportunities: By including new nations, India may have access to new markets for trade, funding, and economic collaboration, which might boost economic growth and diversity.

- Leveraging Regional Ties: By including nations from India's near neighbourhood (such as Iran and Saudi Arabia), India might increase the influence of its neighbours and promote peace and cooperation in West Asia and South Asia.
- Support for UN changes: If the BRICS group were to be enlarged to include other poor countries, India might receive more backing for its campaign for UN changes, especially its efforts to win a permanent seat on the UN Security Council.
- Promotion of South-South collaboration: The growth may strengthen South-South collaboration, in which developing nations collaborate to tackle shared issues and advance shared development.
- Security Platform for Energy: Incorporating energy-rich nations like Saudi Arabia and the UAE might improve the group's energy partnerships, hence improving India's energy security.



Homoeopathy in Healthcare: Unravelling Efficacy, Safety, and Decolonization

Context:

The integration of 'AYUSH' medicinal systems into mainstream healthcare with the goal of achieving universal health coverage and "decolonizing medicine" has gained momentum. However, this approach demands that each participating system meets essential safety and efficacy standards. Among these systems, homoeopathy has come under scrutiny for not meeting such criteria. Despite its flaws, proponents of homoeopathy have recently advocated for its expansion, citing demand and decolonization as reasons to overlook its shortcomings.

Relevance:

GS - 02 (Government Policies & Interventions) (Health) (Statutory Bodies) (Issues Relating to Development)

Prelims:

- Ministry of AYUSH
- AYUSH Drugs
- Drug Regulations

Dimensions of the Article:

- Efficacy and Safety of Homoeopathy
- · Homoeopathy and Standards
- Decolonizing Medicine and Homoeopathy

Efficacy and Safety of Homoeopathy





• The evidence surrounding homoeopathy's efficacy is dubious at best. The first comprehensive double-blind randomized controlled trial, the Nuremberg Salt Test in 1835, discredited the claims made by homeopaths, attributing the

observed effects to imagination, self-deception, or even fraud.

 At the pinnacle of the evidence-based medicine hierarchy lie systematic reviews and meta-analyses, which critically evaluate evidence from various studies. Numerous such reviews have consistently shown that homoeopathic treatments lack clinically significant effects across ailments, populations, and treatment approaches. Even the few reviews supporting homoeopathy's efficacy have raised concerns about the low quality of evidence and cautioned against its widespread clinical use.

- Alarming revelations indicate that over half of the 193 homoeopathic trials conducted in the past two decades were not registered. Surprisingly, unregistered trials demonstrated some evidence of efficacy, while registered ones did not, raising questions about the reliability and validity of the generated evidence.
- Furthermore, authoritative institutions like the World Health Organization (WHO) have warned against using homoeopathy to treat serious conditions such as HIV, tuberculosis, and malaria, as well as common ailments like flu and diarrhea in infants. In contrast to popular belief, homoeopathic treatments have been linked to non-fatal and fatal adverse events, causing delays in the application of evidence-based clinical care and, in some instances, leading to injuries and fatalities.

Homoeopathy and Standards

- Advocates of homoeopathy often argue that the standards employed in evidence-based medicine are inadequate to evaluate its "holistic effects." However, this claim does not withstand scrutiny.
- Firstly, these standards are not arbitrarily chosen by allopathic practitioners; they are developed collaboratively by a global community, including epidemiologists, biostatisticians, and quality improvement researchers, beyond just clinicians. These standards have effectively weeded out ineffective practices from allopathic medicine.
- Secondly, proponents of homoeopathy have failed to develop valid alternative evidence synthesis frameworks that could be accepted by critics and prove the efficacy and safety of their practices.
- Thirdly, the allegation that evidence-based medicine is "reductionist" is outdated, as modern practitioners have embraced biopsychosocial approaches endorsed by the WHO.
- Fourthly, evidence-based medicine not only establishes empirical evidence but also strives to understand the underlying mechanisms.

 Regrettably, homoeopathy lacks concrete evidence for its proposed mechanisms of action, unlike many modern medical practices that have adapted based on growing scientific evidence.

Decolonizing Medicine and Homoeopathy

- While embracing a pluralistic approach in medicine can facilitate the decolonization of healthcare, homoeopathy's introduction in India during the colonial period raises concerns. Introduced by Austrian physician J.M. Honigberger in 1839, homoeopathy cannot claim the status of a traditional practice in Indian history.
- The argument to reject homoeopathy is grounded not only in its colonial origins but also on its lack of evidence for efficacy, some evidence indicating potential safety risks, and the absence of significant progress in understanding its mechanisms of action over the last century.
- Citing testimonials from luminaries like Gandhi and Tagore, proponents of homoeopathy attempt to lend support to its cause. However, scant evidence exists to substantiate their claims, and even archival records fail to provide substantial endorsement by Tagore. Therefore, using decolonization as a reason to advocate for homoeopathy lacks a robust foundation.

Way Forward

In the pursuit of universal health coverage, India must prioritize evidence-based and ethics-driven medicine. By upholding practices with proven efficacy and safety, embracing biopsychosocial approaches, and rejecting homoeopathy's unsubstantiated claims, the country can foster a healthcare system that truly meets the needs of its diverse population.

Conclusion

The drive to integrate 'AYUSH' medicinal systems into mainstream healthcare is commendable, but it necessitates stringent adherence to safety and efficacy standards. Homoeopathy, however, falls short in meeting these criteria, as evidence suggests weak efficacy and potential safety risks. India's journey towards universal health care must be guided by evidence-based and ethics-driven principles, leaving behind unproven practices and embracing those that contribute to the wellbeing of its citizens.

Nuclear Signalling: Uncertainty and Escalation

Context:

In the world of nuclear powers, the recent conflict in Ukraine and the resurgent nuclear rhetoric have ignited concerns about managing nuclear escalation between major nations. The once dormant United States-Russia nuclear rivalry is now rearing its head, presenting perplexing challenges in a transformed political landscape.

Relevance:

GS - 01 (Mineral & Energy Resources) GS - 03 (Nuclear Technology)

Prelims:

- Nuclear Power Corporation of India Limited (NPCIL)
- National Thermal Power Corporation Limited (NTPC)
- Indian Oil Corporation Limited (IOCL)
- Non-Proliferation Treaty (NPT).

Mains Question:

 Discuss the factors contributing to deterrence failure and the evolving landscape of nuclear escalation management between major nuclear powers in the context of recent events in Ukraine. 250 words

Dimensions of the Article:

- Deterrence Failure: The Echoes of Ineffective Signalling
- The Grey Zone: Probing Red Lines and Uncertain Responses
- Escalation and Risk: The conflict of Nuclear Deterrence
- Redefining Sovereignty: Ukraine and the Fuzzy Lines
- Uncertain Thresholds and Ambiguity

Deterrence Failure: The Echoes of Ineffective Signalling

- The meeting between U.S. President Joe Biden and Russian President Vladimir Putin in Geneva underscored the urgency of nuclear arms control.
- Attempts to dissuade Russia from its aggressive stance through diplomatic overtures and stern warnings proved futile.
- As the Russian military operation unfolded in Ukraine, the world witnessed the inadequacy of traditional deterrence measures in today's political climate.

The Grey Zone: Probing Red Lines and Uncertain Responses

- Both the U.S. and Russia find themselves operating in an ambiguous realm, where nuclear rhetoric oscillates between caution and belligerence.
- The cold war era, marked by proxy wars in distant lands, no longer provides a blueprint for managing escalation between the two nuclear behemoths.
- In this murky terrain, the concept of deterrence confronts new challenges, necessitating a fresh perspective on escalation management.

Escalation and Risk: The Conundrum of Nuclear Deterrence

- Thomas Schelling's pivotal work on nuclear deterrence during the 1960s and 1970s elucidated the concept's intricacies. He highlighted that while nuclear weapons may be unusable, they possess political utility in preventing conflicts between nuclear powers.
- Schelling's analysis of uncertainty and risk, akin to a calculated game of probabilities, aimed to induce rationality among adversaries. Raising the stakes through escalation while leaving some aspects to chance was crucial to ensuring credible deterrence.

Redefining Sovereignty: Ukraine and the Fuzzy Lines

- Russia's nuclear doctrine emphasizes two scenarios for nuclear weapon use: responding to nuclear or mass destruction weapon usage against it or its allies, and countering aggression that jeopardizes the very existence of the state.
- The blurring of sovereignty between Russia and Ukraine complicates the situation, with Russia perceiving the latter as an extension of its own interests.
- Furthermore, the escalate-to-deescalate approach, relying on tactical nuclear weapons, challenges the U.S.'s commitment to controlled conflict escalation.

Uncertain Thresholds and Ambiguity

- The evolving geopolitical landscape in the wake of the Ukraine conflict has engendered uncertainty in Russia's military objectives and red lines.
- The cautious calibration of weapon supply to Ukraine by the U.S., along with continuous probing of Russian responses, highlights the importance of adapting to Russia's shifting thresholds.

• In this context, loss aversion, as explored by Daniel Kahneman and Amos Tversky, assumes significance, urging nations to refrain from doubling down on poor choices.



Way Forward:

Navigating the complexities of nuclear signalling in today's political environment necessitates a re-evaluation of traditional escalation management strategies. The absence of clear-cut red lines and the asymmetric nature of U.S.-Russia relations demand the formulation of new guard rails to preserve the nuclear taboo and prevent unintended escalations.

Conclusion:

The resurgence of nuclear tensions between major powers demands introspection on the limitations of traditional deterrence and escalation management. As the world grapples with the uncertainties of nuclear signalling and confronts the erosion of historical norms, the imperative for fresh approaches to nuclear stability and peace becomes undeniable. Adapting to this evolving landscape will be pivotal in ensuring the preservation of global security and averting the catastrophic consequences of uncontrolled nuclear escalation.

Controversial Cluster Munitions and International Law

Context:

The recent decision by the United States to provide Ukraine with cluster munitions as a part of a new military aid package aimed at supporting Ukraine's efforts against Russia has ignited a heated debate.

Relevance:

GS – 03, GS – 02 (International Treaties & Agreements)

Mains Question:

 Discuss the implications of the use of "Weapons of Mass destruction" considering the historical context, international legal frameworks, and the potential humanitarian consequences. (150 words)

Cluster munitions:

- Cluster munitions, also known as cluster bombs, are weapons that release multiple explosive submunitions, or bomblets, upon deployment.
- These bomblets detonate upon impact with the ground.
- They cause harm to individuals in the vicinity and around.
- Major concern associated with these are, some bomblets remain inactive for years, behaving like hidden landmines and posing ongoing threats to civilians.
- While the move to provide Ukraine with these weapons is seen as bolstering their war capabilities, it is also raising concerns about the potential humanitarian repercussions.

Dimensions of the Article:

- Cluster Bombs' Checkered History
- The Convention on Cluster Munitions
- International Law and Cluster Bomb Use
- United States' Role and Moral Responsibility

Cluster Bombs' Checkered History:

Cluster bombs have a long history dating back to the Second World War.

- These weapons have been used in various scenarios- the U.S. engagements in Vietnam, Afghanistan, and Iraq.
- According to the Cluster Munition Monitor, the toll of cluster munition-related casualties has reached a staggering figure between 56,000 to 86,000 people since the 1960s.
- Such weaponry has been a source of concern for civil society organizations, prompting the formation of an international treaty known as the Convention on Cluster Munitions (CCM) in 2008.

The Convention on Cluster Munitions:

- The enactment of the CCM was a pivotal milestone in addressing the issue of cluster bombs. Although the treaty boasts participation from 112 countries, including key NATO members such as France, Germany, and the United Kingdom, significant global players like the U.S., Russia, China, Israel, and India have yet to sign the agreement.
- The CCM holds provisions that prohibit the use, production, stockpiling, and transfer of cluster munitions.
- Countries that are party to the treaty are also obliged to dispose of existing stockpiles and establish victim assistance programs.

International Law and Cluster Bomb Use:

- While Russia and Ukraine may argue that they are not bound by the CCM due to non-membership, a closer examination of international law suggests otherwise.
- International law governing armed conflicts prioritizes distinguishing between combatants and civilians and differentiating military objectives from civilian entities.
- A core norm of customary international law is the prohibition of indiscriminate attacks. This means that the use of force must be precise, targeting military objectives rather than civilians.
- Also, the principle of proportionality dictates that the use of force should not cause excessive civilian harm compared to the anticipated military benefits.
- Both Russia and Ukraine, being parties to Additional Protocol I of the 1949 Geneva Conventions, are subject to these fundamental international humanitarian law norms.
- Cluster bombs, given their indiscriminate nature, violate these principles, as they fail to differentiate between combatants and civilians or between military and civilian entities.

United States' Role and Moral Responsibility:

- Regarding the U.S., supplying cluster bombs to Ukraine, despite not being a violation of international law, remains a questionable action.
- Arguments have arisen that U.S.-manufactured cluster bombs have a low dud rate, reducing the likelihood of unexploded bomblets. This, arguably, aligns with the principles of proportionality and discrimination.
- However, the broader point remains that the supply of such weaponry should be universally prohibited, as envisioned by the CCM. This requires all United Nations member-states to join the treaty and eliminate cluster bombs globally.

Conclusion

The decision to supply cluster munitions to Ukraine has brought the controversial issue of these weapons to the forefront. While international legal frameworks do hold countries accountable for their actions, it is imperative to recognize that the use of cluster bombs, whether by signatory or non-signatory states, raises ethical and humanitarian concerns. The international community must continue its efforts to reduce the use of cluster munitions and work towards their complete eradication. This commitment is essential to creating a safer and more secure world for all.

Crafting safe Generative AI systems

Context:

Forecasts, predict that Large Language Models (LLMs) could infuse the global economy with an impressive \$2.6 trillion to \$4.4 trillion annually. As an illustrative embodiment of this potential, the ongoing field test of the Jugalbandi Chatbot in rural India stands as a testament. This chatbot, harnessed by the power of ChatGPT, holds the promise of being a universal translator. It assimilates queries in local dialects, extracts answers from English resources, and delivers responses in the user's native language.

Relevance:

GS-03 (Science and Technology)

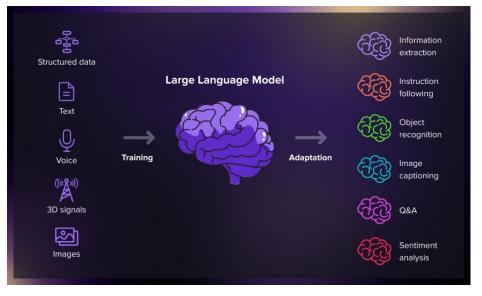
Prelims:

- Generative Artificial Intelligence
- Al
- Generative Adversarial Network
- Variational Autoencoders (VAEs)
- National Strategy for Artificial Intelligence

Mains Question:

 Discuss the potential impact of Generative AI, highlighting its economic and societal implications. What role does the Jugalbandi Chatbot play in extending access to information and fostering economic inclusivity? (150 words)

Jugalbandi Chatbot:



 The Jugalbandi
 Chatbot is aimed at enhancing the accessibility of government services for residents in rural Indian villages.
 This

• This indigenous artificial intelligence chatbot is

designed to streamline interactions between individuals and government programs.

- Presently, the chatbot comprehends 10 out of the 22 officially recognized Indian languages and encompasses a wide spectrum of 171 government initiatives.
- The development of the Jugalbandi Chatbot is a collaborative effort involving both Microsoft Research and Al4Bharat, a government-supported open-source language Al center housed within the Indian Institute of Technology (IIT) Madras and OpenNyAI.

• Through this collaboration, the chatbot intends to provide a platform through which all Indians can conveniently access information in their local languages via mobile phones.

Key Features of Jugalbandi:

- The distinguishing feature of Jugalbandi lies in its fusion of Al capabilities derived from Al4Bharat and Microsoft Azure OpenAl Service. This integration facilitates smooth and coherent conversations between users and the chatbot.
- By harnessing the potential of generative AI models, the chatbot is capable of synthesizing vast volumes of data to generate textual content and other forms of information.

Dimensions of the Article:

- Addressing Concerns
- Deconstructing the Safety Paradigm
- The Identity Assurance Framework
- Information Integrity

Addressing Concerns:

- The emergence of AI-powered tools has blurred the lines between human and artificial entities in the digital world. Whether through speech, text, or video, the capacity for deception poses considerable risks.
- Malicious actors, capitalizing on this capability, can perpetrate various forms of subterfuge, including misinformation, disinformation, security breaches, fraud, hate speech, and public shaming.
- In the United States, an AI-generated image portraying the Pentagon in flames triggered unease in equity markets. On social media platforms like Twitter and Instagram, counterfeit accounts spewing divisive political stances have gained traction, deepening the divisions of online politics.
- The dexterity of cloned AI voices has enabled them to bypass conventional bank security measures. A tragic incident in Belgium, purportedly linked to conversations with an LLM, underscores the potentially profound emotional impact.
- Even electoral processes haven't been immune, as evidenced by AI-generated deepfakes tarnishing recent elections in Turkey. With imminent elections on the horizon across the United States, India, the European Union, the United Kingdom, and Indonesia,

the potential for ill-intentioned actors to manipulate Generative Al for disinformation campaigns looms large.

Deconstructing the Safety Paradigm:

- The crux of the safety discourse revolves around curtailing the misuse of AI tools to propagate misinformation and fabricated identities. Regrettably, the gamut of proposed solutions falls short in robustness.
- One regulatory proposal centers on mandating digital assistants, colloquially known as 'bots,' to self-identify and criminalizing the dissemination of falsified media. While these measures hold potential for fostering accountability, they remain inadequate in tackling the multifaceted challenge.
- While established companies may conform to the selfidentification mandate and disseminate credible information, malevolent actors are likely to flout these regulations, leveraging the reputation of compliant entities to cloak their own devious intentions.

The Identity Assurance Framework:

- As the conversation extends beyond regulation, the imperative is to sculpt a landscape of enhanced internet safety and credibility.
- Drawing insights from recent research at the Harvard Kennedy School, we advocate for an identity assurance framework. This framework, premised on fostering trust among interacting entities, hinges on validating the authenticity of involved participants, thereby endowing them with confidence in their declared identities.
- Crucially, this framework must be adaptable to the plethora of credential types that burgeon across the globe. A key tenet is to remain technology-agnostic, eschewing fixation on a singular technological modality, while steadfastly safeguarding privacy.
- Notably, digital wallets assume a pivotal role, affording users the luxury of selective disclosure and a bulwark against both governmental and corporate surveillance. This framework extends its canopy to encompass humans, AI bots, and commercial enterprises, forming a comprehensive ecosystem of identity assurance.

Information Integrity:

- The bedrock of information integrity lies in affirming the authenticity of content and its alignment with its purported origin.
- This integrity derives strength from three core pillars. First, source validation establishes the provenance of information from recognized sources, publishers, or individuals. Second, content integrity ensures that the information remains untampered. Third, the realm of information validity, while contentious, can be fortified through mechanisms such as automated fact-checking and collaborative reviews by the community.

Way Forward:

- Achieving the twin goals of identity assurance and information integrity presents a formidable challenge. A fine balance between privacy and surveillance, threading the needle between civil liberties and security imperatives, and weighing the merits of anonymity against the demands of accountability is the need of the hour.
- Likewise, the domain of information integrity grapples with issues like censorship and the age-old question of who holds the authority to arbitrate truth. As we walk on the journey of recalibrating these two pillars in the digital expanse, we must acknowledge the divergence in values among nations, and their varying appetites for risks.

Conclusion:

 The mantle of ensuring secure and responsible deployment rests squarely upon the shoulders of global leaders. The endeavour mandates a reimagining of the criteria of safety assurance and the construction of a trust-based edifice. This transcends the confines of regulation, demanding the engineering of a culture of online safety. As we navigate the complexities of an AI-driven future, it is incumbent upon us to chart a trajectory that safeguards the integrity of identities and information, upholding the promise of progress while mitigating the perils that emerge on the horizon.

On the moon, over the moon

Context:

In the vast expanse of space, a significant moment emerged on August 23 at 5.40 p.m. It marked the ascent of Chandrayaan-3, a 1.7tonne amalgamation of metal, plastic, and glass, orbiting around 30 km above the moon. In a mere 23 minutes that followed, history unfurled its pages as the lander gracefully decelerated, reoriented itself, and embarked on a gentle descent, facilitated by a sophisticated array of sensors and actuators. As the clock struck 6 p.m., exultation spread across various Indian Space Research Organisation (ISRO) centers and throughout India. This landmark event cemented India's status as the fourth nation to softly land a spacecraft on the moon, and notably, the first to achieve this feat within the moon's Southern Polar region.

Relevance:

GS – 03 (Space Technology)

Prelims:

- Chandrayaan-3
- Spectro-polarimetry of Habitable Planet Earth
- Satish Dhawan Space Center
- Elliptic Parking Orbit
- LVM3 M4
- Flybys
- Orbiters
- Impact Missions
- NASA's Artemis Program

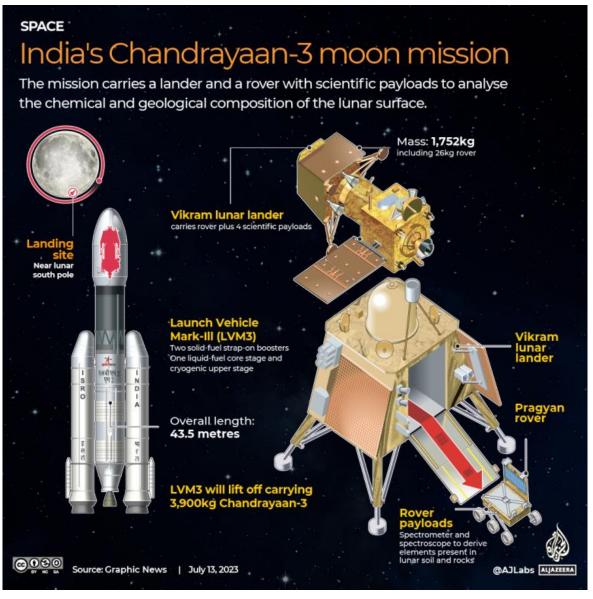
Mains Question:

• What are the implications of India's successful Chandrayaan-3 mission on the country's space exploration trajectory and its role in the global space community? (150 words)

Significance of Landing Near the Lunar South Pole:

 In the historical context of lunar missions, the primary focus has been on the equatorial region of the Moon due to its advantageous terrain and favorable operational conditions.

- Certain polar areas experience limited sunlight, resulting in perpetually shaded areas where temperatures can plummet to an astonishing -230 degrees Celsius. This scarcity of sunlight combined with the extreme cold presents formidable challenges for the functionality and sustainability of scientific instruments.
- The lunar south pole showcases an array of extreme and divergent conditions that not only present obstacles for human exploration but also offer the potential to hold invaluable insights into the early Solar System.
- Exploring this region takes on a paramount role as it can significantly influence the trajectory of future deep space expeditions. The information that can be gleaned from this region has the capacity to reshape our understanding of celestial evolution.



India's Previous Chandrayaan Missions:

- The journey of India's lunar exploration initiatives commenced with Chandrayaan-1 in 2008, a mission geared towards constructing a comprehensive three-dimensional map of the lunar surface and conducting detailed mineralogical assessments. The launch was facilitated by the PSLV-C11 launch vehicle. This mission yielded notable achievements, including the identification of water and hydroxyl on the lunar expanse.
- Following this, Chandrayaan-2 entered the scene, comprising an Orbiter, Lander, and Rover, with the explicit objective of investigating the lunar south pole. This mission utilized the GSLV MkIII-M1 launch vehicle. Although the lander and rover unfortunately experienced crash landings on the lunar surface, the Orbiter triumphantly amassed vital data. Among its significant findings was the detection of water signatures across various latitudes of the Moon, marking a substantial step forward in lunar exploration.

Dimensions of the Article:

- Unravelling Lessons from Adversity
- A Confluence of Time and Space
- Pioneering Science Beyond Borders
- Transition and Continuity

Unravelling Lessons from Adversity:

- Delving deeper, the recent touchdown of Chandrayaan-3 on the lunar surface illuminates ISRO's acumen in gleaning insights from the setbacks of its predecessor, Chandrayaan-2.
- A pivotal juncture emerged in September 2019 when Chandrayaan-2's lander lost contact while merely 2.1 km above the lunar terrain. Drawing from data transmitted thus far, combined with inputs from the Chandrayaan-2 orbiter and other sources, ISRO meticulously identified the root causes of the lander's premature cessation.
- This unravelling culminated in the refinement of 21 subsystems, laying the foundation for the enhanced Chandrayaan-3 lander.
- The latter stands distinguished for its robust redundancies, poised to seamlessly assume control if any component falters.

A Confluence of Time and Space:

- Broadening our perspective, Chandrayaan-3's milestone coincides with a moment of strategic significance. India's participation in the Artemis Accords, an initiative spearheaded by the U.S. to facilitate lunar human presence by 2025 and extend exploratory endeavours within the solar system's precincts, underscores the nation's ascendancy.
- As India strides ahead with pioneering achievements, it assumes a leadership role among fellow Artemis nations aspiring to harness the economic potential of space. While Russia's recent setback involving the Luna-25 spacecraft accentuates its limited role, India's triumph ushers it into the International Lunar Research Station program alongside China, fortifying the parallel trajectory of the Artemis Accords.
- The deployment of Chandrayaan-3 not only underscores India's adeptness in interplanetary ventures but also accentuates the need for astute scientific mission planning and execution.

Pioneering Science Beyond Borders:

- The modest Chandrayaan-3 rover stands as a testament to India's evolving space agenda, pivoting towards scientific exploration. Its pivotal mission entails the physical, chemical, and thermal analysis of the soil, subsoil, and atmosphere surrounding the moon's South Pole.
- The culmination of this mission resonates with India's technological prowess, presenting a compelling opportunity to extend scientific inquiries across the solar system's panorama.
- Despite existing strengths in earth observation and remote sensing, India's scientific aspirations beckon greater investment in research and a mission framework that prioritizes scientific outcomes over engineering benchmarks.

Transition and Continuity:

- The successful landing signifies the culmination of India's second lunar exploration phase and heralds the inception of the third. An alliance with the Japan Aerospace Exploration Agency (JAXA) for the Lunar Polar Exploration (LUPEX) initiative takes center stage.
- LUPEX envisions a lander and rover partnership, dedicated to studying water-ice at the moon's Southern Polar region.

- LUPEX capitalizes on the landing system devised for Chandrayaan-2 and Chandrayaan-3, a testament to ISRO's ingenuity in evolving its capabilities.
- This progress is amplified by the trajectory India embarks upon, encompassing electrically powered satellites, quantum communication, human space endeavors, reusable launch vehicles, planetary habitation, and interplanetary communication.
- The unfolding of space endeavors hinges on the active involvement of the private sector, channeling innovation and opportunities to propel India's holistic development.

Conclusion:

The ascent of Chandrayaan-3 resonates as a historical leap, intertwining human resolve with technological marvels. India, propelled by this triumph, emerges as a vanguard in the cosmic narrative, charting a course that extends beyond boundaries. As ISRO's journey progresses, the orchestration of space endeavors embraces a synergy between the quest for knowledge and the fostering of growth. Thus, India's voyage into the celestial realm exemplifies the symphony of human ingenuity, poised to script chapters of exploration yet to be written.

Cleantech, for an inclusive green future in India

Context:

During his recent speech on India's Independence Day, Prime Minister Narendra Modi highlighted India's global role in addressing climate change. India's experience demonstrates that effective climate action is most successful when aligned with the aspirations of millions and contributes to economic growth.

Relevance:

GS – 03 (Growth & Development)

Prelims:

- GDP
- Green GDP
- Green National Account
- Sustainable Development Goals

Mains Question:

 Discuss the role of the green economy paradigm in aligning development goals with environmental outcomes. Analyze its potential impact on rural livelihoods and economic growth in India. 250 words

Dimensions of the Article:

- Green Economy Pathway for Development
- Ventures in Remote Areas
- Catalyzing a Silent Revolution
- Research Insights into Transformational Cleantech
- Roadmap for Scaling Up

Green Economy Pathway for Development:

- The concept of the green economy offers a promising avenue to bring together development goals and environmental progress.
 For instance, the establishment of solar parks or electric vehicle charging stations serves a dual purpose.
- It not only enhances necessary infrastructure in growing economies but also promotes climate action simultaneously.
- Similarly, the revival of millets doesn't just boost farm incomes in rain-reliant regions but also makes our agriculture resilient to changing climates.

Ventures in Remote Areas:

- Recent efforts have embraced the green economy concept, particularly in India's hinterlands. These initiatives aim to provide access to clean technology solutions for rural livelihoods.
 Examples include solar dryers transforming excess tomatoes into sun-dried versions in Andhra Pradesh. Biomass-powered cold storage units benefit lemon vendors in Maharashtra, yielding profits three to five times higher than the original cost.
- Moreover, solar silk reeling devices in Odisha reduce the labor for silk workers, doubling their earnings. With over 50,000 such examples, clean technology solutions are clearly contributing to the economic wellbeing of rural communities.

Catalyzing a Silent Revolution:

- However, this quiet revolution that spans from Rajasthan's deserts to Nagaland's forests, from Kashmir's snowy peaks to Tamil Nadu's sunny plains, requires further support. India's rural economy, home to 120 million farmers and 34 million microenterprises, grapples with inconsistent power access and reliance on expensive diesel. Cleantech solutions powered by renewable sources can address these issues.
- These solutions can decrease diesel imports, prevent food wastage, enhance rural livelihoods, and provide a \$50 billion investment opportunity for backers.

Research Insights into Transformational Cleantech:

 Thorough research by the Council on Energy, Environment, and Water (CEEW) reveals that a mere dozen such cleantech solutions, ranging from solar pumps to cold storage units, have the potential to impact about 37 million livelihoods approximately 16% of the rural population. To transition from these scattered examples to widespread impact, a comprehensive three-pronged strategy is required.

Roadmap for Scaling Up:

Leveraging Existing Government Initiatives:

- One crucial step is to make use of existing government programs focused on livelihoods. The Pradhan Mantri MUDRA Yojana, offering collateral-free loans to microenterprises, can facilitate the adoption of cleantech solutions.
- Similarly, the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PM-FME) scheme can support the integration of technology in micro food enterprises, enabling the adoption of solutions like solar dryers and energy-efficient food processors.

Enhancing Financial Support:

- Empowering financial institutions with a clear understanding of cleantech solutions is vital. Educating bankers about assessing credit for such innovative solutions is essential for informed decision-making.
- Early risk mitigation through partial guarantees can be crucial in the initial stages of the market. Active engagement with financiers is necessary to design loan products aligned with user cash flow.

• The 'Powering Livelihoods' initiative, a partnership between CEEW and Villgro, demonstrates these principles by securing more than 300 loans for cleantech solutions in rural areas.

Fostering Collaborative Partnerships:

- Effective partnerships involving technology innovators, manufacturers, distributors, service providers, financiers, and market-linkage players create a holistic cleantech ecosystem.
- Manufacturers often struggle with issues like limited product awareness and high customer acquisition costs, while users might face challenges with limited after-sales services and market connections for the final products.
- A well-rounded ecosystem necessitates collaboration among distributors, manufacturers, service providers, and marketlinkage players, ensuring technology access, support, and market connections.

Way Forward:

By weaving together these strategic elements, India can navigate a path toward an ecologically sound and comprehensive future. Focusing on integrating cleantech with livelihoods, especially in rural regions, holds the promise of realizing India's green aspirations.

India passes law allowing private firms to bid for and mine lithium

Context

To increase the mining of the essential component for EV batteries, the Indian Parliament passed a law allowing the government to auction and mine its recently discovered lithium reserves, among other minerals.

What is the latest law passed in favour of Mining?

- Law Passed: A law has been passed by the Indian Parliament allowing the government to mine and auction off recently discovered reserves of vital minerals like lithium, titanium, beryl, niobium, and zirconium.
- Removed from Atomic Minerals List: Lithium and other minerals must be removed from the list of atomic minerals by the

law. These minerals were previously solely accessible to staterun enterprises since they were classified as atomic minerals.

- **Private Sector Participation**: With these minerals being taken off the list of atomic minerals, the private sector will now be able to explore and extract these resources. This action is anticipated to entice private enterprises to contribute to and invest in mining operations.
- New Lithium Reserves: India has benefited greatly from the discovery of lithium reserves in Jammu and Kashmir earlier this year. It gives the nation the chance to use its native lithium resources, lowering dependency on imports and boosting energy security.

What are the uses of these elements in application? Lithium:

- **Batteries:** Due to their high energy density and long lifespan, lithium-ion batteries are widely utilized in a variety of electronic products, including smartphones, laptops, tablets, and electric vehicles (EVs).
- **aircraft**: Lithium is utilized in some types of nuclear reactors as a coolant and for lightweight components in aircraft applications.
- **Pharmaceuticals**: Bipolar illness and other mental health issues are treated with drugs containing lithium molecules.
- Ceramics and Glass: Lithium compounds are used in the production of ceramics and glass due to their distinctive characteristics.

Titanium:

- Aerospace: Titanium is utilized extensively in the aerospace sector because of its high strength-to-weight ratio, resistance to corrosion, and heat resistance. It is utilized in spacecraft, engines, and parts of aeroplanes.
- Medical implants: Titanium's biocompatibility makes it appropriate for implants used in dentistry and joint replacement.
- Chemical Processing: Due to its resistance to chemical corrosion, titanium equipment is employed in the chemical processing sector.

Beryl:

- **Gemstones:** Beryl variations that are utilized in jewellery as precious gemstones include emerald and aquamarine.
- Industrial Use: Beryl is a source of beryllium, which is used in nuclear reactors, the aerospace industry, and other high-tech fields.

How is this mining going to be useful for India?

- Electric Vehicle (EV) Industry: India's efforts to mine and use lithium can considerably aid the expansion of the electric vehicle (EV) sector. Because lithium is a key component of EV batteries, India's customers may find EVs more accessible and affordable if domestic reserves help lessen the country's reliance on imports and slash battery prices. This can support efforts to tackle climate change on a global scale by lowering air pollution, enhancing energy security, and aligning with those efforts.
- Energy Storage Solutions: Effective energy storage solutions are essential given India's growing usage of renewable energy. The power system can be stabilized and excess renewable energy can be stored with the help of lithium-ion batteries. Large-scale energy storage projects may be deployed more easily with access to indigenous lithium sources, improving grid stability and renewable energy integration.
- Aerospace and Defence: Titanium is valuable for aerospace and defence applications because of its strength, low weight, and corrosion resistance. Utilizing native titanium resources can help India's aerospace industry, especially the production of aircraft parts and the improvement of the Indian Armed Forces' capabilities.
- Industrial Development: Beryl, niobium, and zirconium have a variety of industrial uses, including chemical processing, superconductors, and steel alloying. The availability of these minerals domestically can stimulate several industries, fostering domestic production, exports, and economic expansion.
- Energy Security: India can lessen its dependency on imports from other nations by creating domestic sources of essential minerals like lithium. This improves energy security and lessens vulnerability to market and supply chain disturbances.

What issues are there with mining these elements in India?

- Environmental Impact: Mining operations have the potential to seriously harm the environment, notably through deforestation, habitat loss, soil erosion, and water contamination. To reduce these effects and guarantee ethical mining methods, appropriate environmental safeguards and laws must be in place.
- Water Use and Contamination: For processing and extraction, mining operations frequently need a lot of water. Water shortage in the area and a negative impact on the ecosystem might result from excessive water use. Additionally, mining operations have the potential to leak dangerous chemicals and heavy metals into

waterways, contaminating the water and endangering the health of communities downstream.

- Land Use and Displacement: Mining projects may necessitate extensive land acquisition, which could result in the relocation of local communities and the loss of sources of income for native and rural populations. To address these social and economic repercussions, appropriate compensation and resettlement measures must be put in place.
- Deforestation and biodiversity loss: Forest areas may be removed to make room for mining operations, which can result in deforestation and a loss of biodiversity. This could hurt local species, disturb ecosystems, and impair native flora and fauna.
- Safety hazards: Accidents and safety risks can occur during mining operations, putting workers' health and safety at risk. To ensure the safety of persons engaged in mining activities, adequate safety measures and worker protections should be in place.

NHA extends digital health incentive scheme till Dec. 31

Context

The Ayushman Bharat Digital Mission (ABDM)'s Digital Health Incentives Scheme (DHIS) will now run through December 31, according to an announcement made by the National Health Authority (NHA) on Friday.

What is Ayushman Bharat Digital Mission (ABDM)?

- Purpose: The National Health Authority (NHA) launched the ABDM program intending to develop an ecosystem for digital health in India. To increase accessibility and delivery of healthcare across the nation, it aspires to digitize healthcare facilities and services.
- Targeted Facilities: ABDM is made to assist hospitals, clinics, diagnostic centres, laboratories, and other healthcare facilities in implementing digital health solutions.
- Benefits for Citizens: The main objective of ABDM is to ensure that all Indian citizens have access to the advantages of digital health, ensuring effective and seamless healthcare services.
- Growth Potential: Although the use of digital health records has increased significantly, there is still room for growth because a

sizable share of healthcare services are still provided in nondigital form.

 Incentivization: The NHA decided to offer incentives to participants in the digital health ecosystem to promote the adoption of digital health practices.

What is the role of the Digital Health Incentive Scheme (DHIS) in ABDM?

- Purpose: The ABDM initiative's DHIS program intends to provide incentives for healthcare providers and suppliers of digital health solutions to encourage the adoption of digital health practices.
- Effective Date: The DHIS went into effect on January 1, 2023, which means healthcare institutions and solution providers can begin taking part in the program as of that time.
- Policy Update: The NHA updated its DHIS policy to give stakeholders in the digital health ecosystem more incentives.
- Eligibility: Participation in the DHIS is open to all medical facilities that have registered with the Health Facility Registry (HFR) and Digital Health Solution Providers (DSCs).
- Incentive Amount: The amended DHIS policy offers eligible healthcare facilities and solution providers the chance to receive an incentive of up to 4 crore rupees.
- Transaction limitations: To better facilitate the expansion of digital health transactions, the amended policy also included several leniencies, such as lower transaction limitations in the current system.
- Encouragement of Adoption: The DHIS wants to encourage healthcare professionals to adopt digital health practices and inspire vendors of digital health solutions to make their software available at a reasonable price.
- Improved Healthcare Ecosystem: The NHA seeks to develop India's digital health ecosystem by encouraging stakeholders to adopt digital health practices.

How can Ayushman Bharat Digital Mission (ABDM) and the Digital Health Incentive Scheme (DHIS) offer advantages for citizens in India?

 Enhanced Accessibility: Digital health projects give people remote access to healthcare, which aims to make healthcare more accessible. Especially for people residing in rural or remote regions with little healthcare infrastructure, it enables them to effortlessly visit doctors, obtain medical records, and seek health information.

- Efficient Healthcare Services: Healthcare services that are efficient in terms of waiting periods, paperwork, and administrative headaches are provided via digital health solutions. Healthcare services may be delivered to citizens more quickly and effectively, improving the patient experience.
- Better management of health records: Digital health records make it easier to store patient data centrally and securely. With higher data accuracy, fewer medical errors, and access to thorough patient histories, healthcare providers may make more accurate diagnoses and treatment choices.
- Better Health Monitoring: People can regularly monitor their health and follow their vital signs thanks to digital health solutions like wearable technology and health apps. This gives people the power to actively manage their health and well-being.
- Healthcare Services are Better Integrated: The use of digital health solutions encourages more effective integration of various healthcare services. As a result, patients will benefit from a more integrated healthcare system where information can be quickly shared between various healthcare professionals to guarantee continuity of care.

Overall, the implementation of digital health practices via ABDM and DHIS has the potential to completely alter the Indian healthcare system by giving people better access to medical services, better health outcomes, and more control over their health and well-being.

Defence Ministry to switch to locally built OS in computers amid threats

Context :

The Defence Ministry has made the decision to replace the Microsoft Operating System (OS) in all computers connected to the Internet with a new OS, Maya, based on open-source Ubuntu developed locally, in response to the rising number of cyber and malware attacks on the country's defence as well as critical infrastructure.

What are the malware and Ransomware attacks?

- Malware is any software that is used to access IT systems without authorization to steal data, interfere with system functions, or harm IT networks in any other manner.
- Malware called ransomware is made to prevent a user or business from accessing files on a computer. Cyberattackers put businesses in a situation where paying the ransom is the quickest and least expensive option to recover access to their files by encrypting these files and requesting a ransom payment for the decryption key.

What was the motivation behind the development of Maya OS?

- Increasing cyber and malware attacks on defence and critical infrastructure prompted the Defence Ministry to take action.
- The decision to replace Microsoft OS with a new open-source OS called Maya was based on Ubuntu.
- Maya aims to enhance cybersecurity and protect against malware attacks.

What is Maya OS?

- The Indian Union Ministry of Defence developed the operating system known as Maya OS. Its main objective is to strengthen the cybersecurity protections for the nation's computer systems, especially those in the Defense Ministry.
- This operating system uses free and widely accessible software components because it is based on the open-source Ubuntu platform.
- By giving a user interface and features that are familiar to Windows users, Maya OS seeks to provide a strong defence against online threats.
- Users who are used to the Windows environment will migrate more easily thanks to this familiarity.

What are the features of Maya OS?

- Users can move to Maya easily thanks to its Windows-like functionality and interface.
- Maya, which was created domestically, always worries about reliance on foreign software.
- A prompt response to cybersecurity concerns is demonstrated by swift development within six months.
- The ease of switching to Maya on Windows reduces user reluctance.

What are the security enhancements provided by the Maya?

- An additional layer of security is provided by the endpoint detection and protection system "Chakravyuh."
- The function of Chakravyuh is to locate and neutralize any threats within the Defense Ministry's systems.
- Chakravyuh and Maya's implementation together create a thorough defence against online attacks.

Which services implemented Maya OS on a trial basis?

- The Navy has already approved Maya for use within its network.
- The Army and Air Force are evaluating Maya for compatibility with their respective service networks.
- Collaboration among the three Services indicates a unified approach to adopting the new OS.

What are the advantages of the Maya OS?

- Enhanced Cybersecurity: Maya OS is built with cybersecurity in mind, making it more resistant to different cyber threats like malware, viruses, and hacking attempts. By isolating users from potential online threats, the Chakravyuh feature gives an added degree of protection.
- Familiar User Interface: Similar to the widely popular Windows operating system in terms of functionality and user interface is Maya OS. Because of their familiarity, users can switch to Maya OS more easily and quickly, potentially increasing productivity and user happiness.
- Open-Source Foundation: Since Maya OS is based on the free and open-source Ubuntu operating system, it can take advantage of the community's contributions and assistance. This may result in more frequent updates, enhancements, and security patches, as well as lower development costs.
- Data Breach Prevention: The Chakravyuh function of Maya OS, which adds a virtual barrier between users and the internet, can aid in preventing illegal access to important data. This is essential, especially in the defence and government industries where protecting sensitive information is of utmost importance.
- Reduced Dependence on Proprietary Software: Maya OS may be able to lessen reliance on expensive proprietary software licenses by using open-source components. This can result in financial savings for businesses deploying Maya OS.
- Support from the Community: Maya OS's open-source nature can help to create a community of programmers, security specialists, and enthusiasts who work to enhance and secure it.

An operating system that is more safe and stable as a result of this group effort.

• Strengthening of National Cybersecurity: The Union Ministry of Defence in India can improve the nation's overall cybersecurity infrastructure and lessen reliance on potentially risky foreign technologies by creating a safe operating system.

What is the future potential for Maya OS?

- The creation of a domestic OS demonstrates the nation's capacity for innovation in the field of cybersecurity.
- The action demonstrates a dedication to defending national interests and lowering reliance on foreign software.
- Maya's successful implementation could serve as a model for other businesses and government organizations looking to implement comparable security measures.
- The knowledge gained from this attempt may help other sectors enhance their cybersecurity procedures.

In conclusion, the Defence Ministry's choice to switch from Microsoft OS to Maya and adopt the Chakravyuh security system shows that it is taking a comprehensive approach to tackling cybersecurity issues. The Defense Ministry seeks to lessen cyber risks and improve the resilience of vital infrastructure by placing a priority on national security, service collaboration, and innovative solutions.

Develop indigenous Web browser

Context

To encourage the creation of an Indian web browser that can be used worldwide, the Indian Ministry of Electronics and Information Technology has launched a competition.

What is a Controller of Certifying Authorities (CCA)?

- Legal Recognition of Digital Signatures:
 - Digital signatures based on asymmetric cryptosystems are given legal legitimacy under Section 18 of the Information Technology Act of 2000.

- The legal position of digital signatures is the same as that of handwritten signatures.
- Digitally signed electronic documents are equivalent to paper documents in legal terms.



• Role of Certifying Authorities(CA):

- Certificates for digital signatures are issued by Certifying Authorities (CAs), who also play an important role in the process.
- Digital signature certificates are used in a variety of online transactions to electronically authenticate individuals.

• (CCA) Controller of Certifying Authorities:

- The Central Government established it under Section 17 of the IT Act.
- Its main responsibility is to authorize and oversee the operation of Certifying Authorities in India.
- The CCA was founded on November 1st, 2000.

• Promotion of E-Commerce and E-Government:

- By encouraging the broad use of digital signatures, the CCA hopes to further the development of electronic commerce and e-government.
- Online transactions and governmental electronic documents must be secured using digital signatures.
- Root Certifying Authority of India (RCAI):
 - created by the CCA in accordance with Section 18(b) of the IT Act.
 - Digitally signing the public keys of Certifying Authorities working in India is done by the RCAI.
 - complies with the requirements outlined in the IT Act.

• Public Key Certification:

- Using its private key, the CCA accredits the public keys of certifying authorities.
- The legitimacy and validity of digital certificates issued by authorized CAs are guaranteed by this certification process.
- Cyberspace users can check whether a digital certificate is issued by a recognized Certifying Authority.
- Digital certificate repository:
 - The CCA has a repository with all the digital certificates given to Indian Certifying Authorities.
 - This repository acts as a centralized repository for trusted certificates that may be checked.

What are SSL certificates?

- Origins and Goals:
 - Netscape created this technology in 1995 to enhance the security of online communications.
 - aims to guarantee data integrity, privacy, and authentication for data sent over the Internet.
- Encryption:
 - SSL scrambles data before transmission using encryption methods.
 - Because of the encryption, even if the data is intercepted, it will seem like random characters, making it more challenging to decode without the right decryption keys.

SSL, the precursor to today's Transport Layer Security (TLS)

encryption, introduced the foundations for secure online communication. When visiting a website implementing SSL/TLS, the URL begins with "HTTPS," underscoring the secure connection. Through encryption, SSL shields transmitted data, rendering intercepted information indecipherable due to its complex encryption. Notably, SSL initiates a **meticulous handshake** authentication between two devices, confirming their claimed identities. This protocol extends its security measures by digitally signing data, assuring data integrity and confirming unaltered content upon arrival. In summation, **SSL's legacy** lives on in modern security practices, ensuring confidentiality, authenticity, and integrity across digital exchanges.

What was the need for an indigenous website?

• **Iowering reliance on foreign sources:** Many of the widely used web browsers in India, including Google Chrome, Mozilla

Firefox, and Microsoft Edge, were created by foreign firms. This might lead to some reliance on foreign platforms and technologies. The creation of a native web browser intends to lessen this reliance and increase India's technical independence.

- National Security and Data Privacy: Using foreign web browsers could possibly expose users' online actions and data to foreign parties, which could compromise national security and data privacy. An indigenous browser created within the nation's borders might be subject to more stringent data protection laws and improve the security and privacy of online interactions for Indian users.
- Customization for Local Needs: An Indian web browser might be tailored to better meet the requirements and preferences of Indian users. Features, services, and content that are better suited to the Indian environment, linguistic diversity, and regional culture may be included.
- To encourage internet literacy among Indian users, particularly those who are less tech-savvy, a native browser might be created. It might offer simple user interfaces, educational materials, and regionalized information to enable consumers to get the most out of their online interactions.
- **Promoting Innovation:** The creation of a native web browser offers an opportunity for Indian programmers, developers, and tech enthusiasts to be creative and advance their nation's technological landscape. Within the tech industry, it can encourage a culture of innovation and entrepreneurship.

Indian GPS NavIC to be linked to Aadhaar enrolment devices

Context

The Department of Space (DoS) informed the Parliamentary Committee of Science and Technology that the seven-satellite Navigation with Indian Constellation (NavIC), India's equivalent of the American GPS (global positioning system), will soon be integrated into Aadhaar enrollment devices throughout the nation.

What is NavIC?

The Indian Space Research Organization (ISRO) created the autonomous regional satellite navigation system known as NavIC or

Navigation with Indian Constellation. Over the Indian subcontinent and an area that reaches about 1,500 kilometres (930 miles) beyond its borders, it offers precise real-time positioning and timing services. The system is made to provide navigation services to authorized users, including the military and civilians.

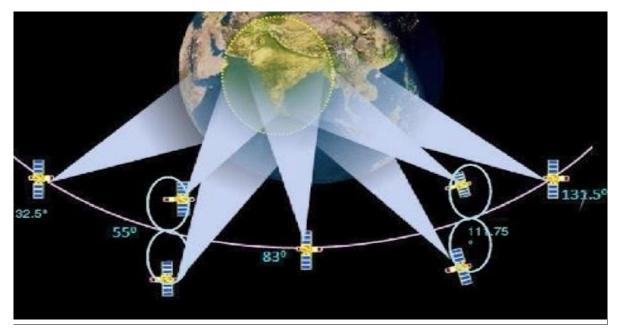
What are the key uses of NavIC?

- Maps and Navigation: The main objective of NavIC is navigation. It facilitates safe and effective transportation by assisting people, things, ships, and aircraft in determining their precise location, speed, and direction. It also helps in the production of precise geographical data and maps.
- **Transportation:** By directing vehicles, such as cars, buses, trucks, and trains, to take the best routes, the system improves transportation networks. As a result, fuel is saved, travel times are shortened, and productivity is increased.
- Agriculture: Based on precise positioning and timing data, NavIC can be utilized in precision agriculture to help farmers optimize crop planting, watering, and harvesting.
- **Disaster Management:** NavIC enables emergency response teams to more efficiently discover affected areas, analyze the situation, and coordinate relief activities during catastrophes or natural disasters.
- time and Synchronization: For telecommunications networks, financial transactions, power grid synchronization, and scientific operations that call for exact time, accurate timing from NavIC is essential.
- Geodesy and surveying: The system helps geodesists, builders, and land surveyors measure angles and distances correctly for mapping, construction, and geodetic surveys.
- Marine Navigation: NavIC aids in maritime navigation by directing boats and ships, improving safety, and lowering the possibility of collisions.
- Aviation: NavIC helps the aviation industry by giving pilots, air traffic controllers, and aviation systems precise navigational information for safe and effective flight operations.
- Fleet management :Fleet management firms, such logistics and transportation firms, can utilize NavIC to plan routes, track the whereabouts of their vehicles, and boost the efficiency of their fleets as a whole.
- Scientific research :Geophysical and environmental research are just two examples of the many scientific investigations that may be conducted using NavIC's accurate **positioning data**.

• Military and Security: The military and authorized security professionals may use the limited service of NavIC for strategic and defense-related purposes.

What is the significance of having NavIC?

- Strategic Independence: In terms of satellite navigation technology, NavIC gives India strategic independence. It lessens reliance on external navigation systems and guarantees that the nation has access to accurate positioning and timing data for a variety of purposes, including defense.
- Sovereignity and security: India's sovereignty and security are improved by having its own navigation system. Even in times of conflict or catastrophe, it makes sure that vital industries like communication, transportation, and defense have access to precise and secure positional data.
- National Development: NavIC promotes national development by enhancing agriculture practices, assisting in disaster management, and supporting infrastructure projects. It improves both the economy and everyone's quality of life.
- Disaster Response: NavIC's precise positioning data is essential for disaster response and relief operations. During natural catastrophes, it facilitates effective coordination of rescue operations, planning of response plans, and localization of impacted areas by emergency services.
- Agricultural Productivity: NavIC supports precision farming in a nation like India that is predominately agrarian. Based on precise geolocation data, farmers may optimize their irrigation, fertilizing, and planting schedules, increasing crop yields.



Other Examples of Navigational Systems:

- GPS: The most well-known and commonly used worldwide satellite navigation system is theWorldwidee Positioning System (GPS), which was created and is maintained by the United States. It is made up of a constellation of satellites that offer precise timing, positioning, and navigational services all over the world.
- GLONASS: Another worldwide satellite navigation system created by Russia is GLONASS. It gives coverage of Russia and the areas around it and offers precise positioning and timing services.
- Galileo:Galileo is a global navigation system created by the European Union that aims to offer accurate location and timing data. It provides services to civilians and authorized users and seeks to outperform current systems in terms of accuracy and coverage.
- BeiDou Navigation Satellite System (BDS): China developed the global satellite navigation system known as the BeiDou Navigation Satellite System (BDS), which provides positioning, navigation, and timing services. To cover China and the entire world, it comprises both regional and global constellations.
- Quasi-zenith satellite system: Regional satellite navigation system QZSS, run by Japan, is created to offer improved coverage across Japan and nearby areas. It collaborates with other worldwide navigation systems to increase availability and accuracy.

Flying fox bats for vigilance while day-roosting Finds study

Context

According to a recent study, the largest species of bats in India, which was given the moniker of a sly canine, spends 7% of its daytime roosting time keeping an eye on the area.

Flying Fox Species and Behavior:

 The largest species of bat found in India is the flying fox, or Pteropus giganteus, which consumes fruit and nectar. It is a crucial species in tropical habitats because of its function in seed distribution. Researchers are interested in this species because of its behaviour and ecological effects.



Keystone Species

• A keystone species is one that, concerning the size of its population, significantly affects its surroundings. The community's diversity and abundance of other species are influenced by the flying fox's contribution to seed dispersal, which also affects different aspects of the environment.

Information about the Study:

• This study examined the environmental and social awareness of a particular subspecies of the Indian flying fox. Researchers from organizations like the Centre for Ecological Sciences and the Wildlife Institute of India participated in the study.

Vigilance Behaviour:

- Bats engage in vigilance behaviour, which entails scanning the area for potential predation or competition threats. While environmental vigilance is keeping an eye out for signals of danger in the environment, social vigilance refers to watching the people around you.
- The flying foxes were on guard for around 7% of the time they were roosting. According to the study, compared to bats in the centre of the roost, those on the edges of the tree where they were roosting displayed a higher level of environmental awareness.

Roosting Behaviour:

- Flying foxes roost in tree canopies, where social organization within the group may result through hierarchy and competition for roosting sites. Based on these variables, vigilance behaviour can change.
- The flying foxes are aware of their surroundings despite resting for roughly 82% of the time they are roosting. They take advantage of aural sense to maintain alertness without entirely forgoing sleep.

Threats and Predators:

 The research region was home to a variety of predatory creatures, including eagles, owls, golden jackals, palm civets, and jungle cats. However, human activities, such as hunting for food and medicine, as well as the possibility for habitat degradation owing to the removal of roost trees, pose the biggest threat to flying foxes.

Where are these animals found?

India is home to the nectar- and fruit-eating flying fox (Pteropus giganteus). The Indian subcontinent is home to this species of flying fox, which is found in places like the Indian peninsula, the foothills of the Himalayas, and other forested locations. They frequently roost on trees, particularly in places with lots of fruit-bearing trees and good roosting locations. These bats are widely distributed throughout India and can be found in a variety of states and environments.

Under which laws is it protected from threats?

 The flying fox (Pteropus giganteus), which consumes fruit and nectar, was initially included under India's Schedule V of the Wildlife (Protection) Act of 1972. The Schedule II of the same Act, which offers a further level of protection, was later added. The Wildlife (Protection) Act of 1972 in India so protects the species. The Act categorizes species into various schedules based on their conservation status and the level of protection they require with the goal of conserving wildlife and its ecosystems.

The first Indian-made MRI scanner to be launched for clinical work in October

Context

In place of liquid helium, a new type of MRI scanner uses the far more accessible, less expensive liquid nitrogen to swiftly chill the magnets. In October, the Sathya Sai Institute of Higher Medical Sciences in Bengaluru will introduce the first clinically validated product of the first made-in-India MRI scanner, which was created by the Bangalorebased Voxelgrids Innovations Private Ltd.

What is the speciality of the Indian MRI scanner?

- Liquid Nitrogen cooling: Liquid nitrogen is used as a cooling agent for the superconducting magnets in the new Indian MRI scanner created by Voxelgrids Innovations Private Ltd.
- Alternative to Liquid Helium: This scanner takes the place of the customary usage of expensive, scarce, and low-boiling-point liquid helium.
- Superconducting Magnets: Similar to conventional MRI scanners, this novel design produces a powerful magnetic field for medical imaging.



What are the advantages of using Liquid Nitrogen?

- **Cost-Effectiveness:** Compared to liquid helium, liquid nitrogen is more affordable and accessible, which can lower operational costs for healthcare facilities.
- Accessibility: Liquid nitrogen is more readily available than liquid helium, making it a sensible alternative, particularly in areas with a limited helium supply.
- **Safety:** Some of the safety risks connected with liquid helium are mitigated by the greater boiling point of liquid nitrogen, which makes it safer to handle and store.
- **Simplicity:** Liquid nitrogen cooling is more straightforward, which could make maintaining and running the MRI scanner easier.

Why is using Helium no longer a viable option?

- Supply and Cost: Helium is a scarce material whose supply is susceptible to uncertainty, which may result in supply problems and price swings. This may make it more expensive to use and less available, especially in areas with scarce helium resources.
- Helium Shortages: Because of its limited supply and high demand in a variety of fields, including medicine, science, and industry, helium has occasionally been in short supply in the past.
- Boiling Point and Handling: Helium has a very low boiling point (about -269°C or -452°F), which makes handling and storing it difficult. Equipment design and operation become more complicated as a result of the need for cryogenic systems to maintain such low temperatures.
- Safety Concern: Helium is typically safe to handle, but the possibility that it could displace oxygen in confined areas and its extremely low temperature pose safety issues to anyone using the equipment.
- Environmental Impact: Concerns concerning helium's longterm sustainability and depletion have been raised because of its limited availability and relevance in numerous scientific and medicinal uses. This has motivated researchers to look for more environmentally friendly solutions.
- Local Production: Due to geopolitical or financial constraints, some nations may only have restricted access to helium. Creating locally producible alternatives, such as liquid nitrogen, can increase technical self-sufficiency.

What is the benefit of having an Indigenous MRI Scanner?

- Technological Self-Reliance: The creation of an in-house MRI scanner demonstrates a nation's capacity for invention, design, and domestic production of sophisticated medical equipment. This lessens reliance on foreign technology and increases reliance on domestic technology.
- Reduced Costs: Because import costs, currency fluctuations, and import taxes are frequently lower with domestic manufacture, there are often cost savings. For patients and healthcare professionals, this may result in more affordable medical supplies and services.
- Customization and Adaptability: Native MRI scanners can be modified to meet the unique needs and specifications of the regional healthcare system. The equipment is more compatible with the infrastructure, medical practices, and patient demographics in the area thanks to this modification.
- Accelerated Innovation: Research, development, and innovation are encouraged by domestic development. Local technological development can result in ongoing enhancements, speedier medical progress adaptability, and faster incorporation of cutting-edge features.
- Economic Development and Job Creation: The development of a local medical technology sector opens up positions in research, engineering, manufacturing, sales, and maintenance. This strengthens the skilled workforce and promotes economic progress.
- Knowledge and Skill Development: There are many different scientific and engineering disciplines involved in creating an indigenous MRI scanner. This procedure strengthens educational programs in linked subjects, fosters research collaboration, and cultivates local knowledge.

Cabinet nod for 10,000 electric buses in 169 cities

Context

The Union Cabinet adopted a plan on Wednesday to increase the number of city bus services nationwide by 10,000 e-buses and to strengthen urban infrastructure as part of green mobility measures, with an emphasis on cities without organized bus services.

What is the PM e-bus Sewa scheme?

- A Public Private Partnership (PPP) model will be used to deploy 10,000 electric buses as part of the "PM-eBus Sewa" program, which is led by Prime Minister Shri Narendra Modi.
- The project is expected to cost Rs. 57,613 crore in total, of which Rs. 20,000 crore will come from the central government.
- For ten years, the program will provide financial support for bus operations.

What are the characteristics of PM e-bus Sewa?

- Coverage and Priority:
 - 1. According to the 2011 census, the program is focused on cities with a population of three lakh people or more.
 - 2. This covers all Union Territory capital cities, the North Eastern region, and the Hill States.
 - 3. Cities without organized bus services will be given preference.
- Employment Creation:
 - 1. By deploying roughly 10,000 buses for city bus operations, the plan is expected to create 45,000 to 55,000 direct jobs.

How are the Sections of the Plan divided?

- Enhancing City Bus Services in Segment A (169 Cities)
 - 1. In this section, 10,000 e-buses will be added to city bus operations as part of a PPP model.
 - 2. The building of power infrastructure for e-buses and depot development and improvements are examples of infrastructure assistance.
- Green Urban Mobility Initiatives in Segment B (181 cities)
 - 1. This component of the plan focuses on environmentally friendly projects such as charging infrastructure, automated fare collection systems, multimodal interchanges, bus priority measures, and more.
 - 2. Operation and Support: States and Cities are in charge of managing bus services and paying bus drivers.

What are the Benefits of the nation?

- Environment-friendly Transport:
 - The launch of 10,000 electric buses encourages clean, green transportation.
 - Compared to conventional diesel-powered buses, electric buses have much lower emissions, which contributes to lowering air pollution and carbon emissions.

- Reduced Pollution and Improved Air Quality:
 - Electric buses have no tailpipe emissions, which helps to enhance the air quality in urban areas while reducing pollution.
 - Public health will benefit from this pollution reduction, especially in densely populated areas.
- Climate Change Mitigation:
 - By lowering greenhouse gas emissions, the switch to electric mobility is in line with the nation's climate goals.
 - Increased use of electric buses can help countries and other nations meet their climate change mitigation obligations.
- Job Creation:
 - The introduction of around 10,000 electric buses is anticipated to result in the creation of 45,000 to 55,000 direct jobs.
 - Bus drivers to maintenance workers will all have job opportunities, which will support social and economic development.
- Economic Growth and Local Development:
 - The plan's emphasis on the expansion of public transportation infrastructure and service delivery can boost economic activity.
 - The development of jobs and an increase in the use of public transportation may have a favourable domino effect on nearby services and businesses.

What is the role between State and Centre in this scheme?

- The collaboration between the Central and state governments emphasizes a planned strategy for the growth of public transportation.
- States can adapt the services to their specific needs while still receiving funding from the Central government.

Conclusion:

In conclusion, the Union Cabinet's plan focuses on boosting urban infrastructure and extending city bus services using electric buses. This program is anticipated to improve public transit, reduce pollution, create jobs, and boost the economy across several parts of India.

No more bulk SIM cards as govt. steps in to curb fraud

Context:

The Department of Telecommunications (DoT) has mandated registration and "indisputable verification" of SIM sellers to decrease cyber-crimes committed using SIM cards obtained fraudulently.

What are the adverse effects of Bulk sims in the market?

- Fraud and cybercrime: The possibility of fraud and cybercrime is one of the biggest worries. Bulk SIM cards can be used by fraudsters and cybercriminals to commit crimes like financial fraud, phishing, and identity theft.
- Anonymity: It is difficult to determine the identity of a user while using bulk SIM cards, which can be used to maintain anonymity. This can be used for evil intent, such as harassment, threatening behaviour, and unlawful acts.
- Spam and Unsolicited Calls: Bulk SIM cards can be used to create a lot of spam calls and messages, annoying legitimate users and clogging up networks. Spam and unsolicited calls are another issue.
- **Regulatory Difficulties:** It can be difficult to regulate the use of bulk SIM cards. Unauthorized use can make it more difficult for law authorities to find and look into criminal activity.
- Market Manipulation: Bulk SIM cards may occasionally be used to influence markets or services, such as by artificially inflating app downloads, website traffic, or social media activity.
- Terrorism: These sims will eventually fall into the wrong hands and spark violence throughout the nation. Numerous terrorist attacks occurred, and subsequent investigations led to bulk sims in the majority of the issues.

What are the steps taken by the government in curbing the issue?

- Indisputable SIM Dealer Verification:
 - 1. The Department of Telecommunications (DoT) will impose stringent SIM Dealer Verification procedures.
 - 2. The purpose of this verification is to make sure that dealers are trustworthy and not complicit in illegal activity.



• Blacklisting of SIM Dealers:

1. Due to allegations that they participated in fraudulent mobile connections, about 67,000 SIM dealers have been placed on a blacklist.

2. The DoT's determination to take tough measures against dealers who support cyber fraud is reflected in this action.

How is curbing these bulk sims going to affect the business field?

Cancellation of Bulk SIM Connections:

- It will no longer be practised to offer SIM connections to businesses in bulk.
- The bulk system will be replaced by a new "business" system that mandates businesses go through Know Your Customer (KYC) procedures to receive SIM cards.

• Transition Period:

- Bulk subscribers will be given some time to adjust to the new verification procedures.
- Companies that were accustomed to buying SIM cards in large quantities will have to adhere to the new verification method at this time.
- Government, military, and law enforcement personnel are exempt.

• Subscribers:

- The new verification procedures will not apply to certain industries, such as those in the public sector, the military, and law enforcement.
- This exemption attempts to maintain security precautions while avoiding interruptions to crucial services.

What is the Sanchar Saathi portal?

 The Department of Telecommunications' Sanchar Saathi portal is a citizen-focused initiative designed to empower mobile customers, enhance their security, and raise public knowledge of government programs that focus on them.

- Sanchar Saathi gives citizens more control by enabling them to see the mobile connections that have been issued in their names, cancel any connections they don't need, block or find lost phones, and confirm the authenticity of devices when purchasing new or used mobile phones.
- There are many modules in Sanchar Saathi, including CEIR and TAFCOP.

The vagaries and dangers of space that Chandrayaan-3 is built to brave

Context

Despite the challenging nature of Chandrayaan 3's mission, several efforts have been made to improve the likelihood of its success, including the design and testing of its instruments. Even a brief trip through space, such as one to the moon, requires the spacecraft's needs to be balanced against the challenging requirements of spaceflight.

What is Chandrayaan 3?

- As part of the Chandrayaan program, Chandrayaan-3 is the third lunar exploration mission that was launched. It has the same parts as Chandrayaan-2, India's second lunar mission, including the Vikram lander and Pragyan rover. It is noteworthy that Chandrayaan-3 is distinct from Chandrayaan-2 in that it lacks an orbiter.
- Relaying Communications via Satellite: Chandrayaan-3's propulsion module acts as a satellite-based relaying communication system. This demonstrates that in addition to giving the spaceship thrust, the propulsion module also enables communication with the lander, rover, and Earth.

What are the challenges faced by Chandrayaan or any other space programme?

- The solar wind is the name for the intense charged particles that the sun releases.
- These particles are redirected toward the magnetic poles by the Earth's magnetic field.
- The northern lights are a result of an interaction between solar wind particles and Earth's atmosphere.

- Spacecraft are susceptible to the impacts of the solar wind because they lack natural defences.
- Spacecraft equipment must be resistant to solar wind particles to prevent malfunction.
- Transients and displacement damage are two effects of solar wind

Radiation-Hardened Electronics:

- Engineers use radiation-hardened electronics to protect against solar wind effects.
- Multiple protective measures are incorporated during chip design, manufacturing, and packaging.
- Techniques include triple modular redundancy to counteract bit corruption.

Other difficulties in space

- Spacecraft must be able to endure rocket launch vibrations.
- In space, extreme temperature variations can harm equipment.
- Equipment performance may be impacted by outgassing due to vacuum conditions in space.
- Failures can be caused by unknown elements like metal whiskers, necessitating cautious material selection.

How does India's space mission success portray the country's growth?

- Innovation in Technology
 - Chandrayaan 3's successful launch, trajectory planning, and navigation show India's proficiency in creating and utilizing cutting-edge space technologies.
 - Innovative engineering solutions are demonstrated by the development of electronics that are resistant to radiation and safeguards against the impacts of solar wind.
- Cross-disciplinary Cooperation:
 - Collaboration between numerous scientific, engineering, and technical disciplines is necessary for space missions.
 - The combined efforts of scientists, engineers, mathematicians, and professionals from various fields are what made Chandrayaan 3 a success.
- Problem-Solving and Risk Reduction:
 - Complex issues including radiation, vacuum, and severe temperatures must be addressed in space exploration.
 - Our capacity to identify issues, create mitigation plans, and design resilient systems is demonstrated by our ability to address these challenges.

Scientific Advancement:

- The mission's objective is to carry out on-Moon research that will advance our knowledge of lunar geology, mineralogy, and other topics.
- The information gathered from such missions advances scientific research and human knowledge.
- Both domestic and foreign prestige:
 - A country's technological prowess and scientific accomplishments are positively reflected by the successful launch and operation of a space mission.
 - It improves a nation's standing in the international space community and shows its dedication to space exploration.

India lights up the dark side of the moon

Context

India has now successfully landed on the moon, becoming the fourth country to do so. On Wednesday, the Chandrayaan-3 lander module's rover achieved a soft landing on the moon's surface.

Key Points of the Chandrayaan-3 Lunar Landing:

- India's Chandrayaan-3 lander module and rover touched down safely on the moon's surface.
- Celebrations were held at the ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru after the landing at 6:03 p.m.
- With this accomplishment, India joins the ranks of the United States, Russia, and China as the fourth nation to successfully land on the moon.
- The lunar landing by India is also notable for being the first successful landing in the moon's polar region.
- The lander met the majority of nominal landing requirements, including the necessary touchdown velocity, according to ISRO Chairman S. Somanath.
- The lander's health and suitability for the intended tests were indicated by the landing velocity, which was less than 2 meters per second.
- The lander and the Mission Operations Complex (MOX) at ISTRAC were able to communicate.

- ISRO revealed pictures taken by the lander's horizontal velocity camera while it was descending.
- The achievement makes up for the Vikram lander failure of Chandrayaan-2 in 2019.

Powered Descent and Landing:

- The powered descent, which was broken up into four phases: hard braking, altitude hold, fine braking, and terminal descent, started at roughly 5:44 p.m.
- The Vikram lander completed each of these phases and landed on the moon's surface at 6:03 p.m.
- The total time for the successful landing was 19 minutes.

Background about the Chandrayaan-3 mission:

- On July 14, the Satish Dhawan Space Center in Sriharikota launched the Chandrayaan-3 mission.
- The mission comprises of a rover, a propulsion module, and an indigenous lander module.
- The main goals are to demonstrate a secure and gentle lunar landing, to show off the rover's mobility on the lunar surface, and to carry out in-situ scientific research.
- During its mobility phase, the rover will perform chemical analyses on the lunar surface.
- The mission life of the lander and rover is one lunar day, which is equal to 14 days on Earth.

Importance and Global Impact:

- India's successful landing on the moon's polar area is a testament to the nation's scientists and engineers' hard work and abilities.
- The triumph of India, according to Prime Minister Modi, paves the way for other nations, including those in the Global South, to pursue similar goals.
- India's moon mission encourages worldwide cooperation in space exploration and advances our understanding of the universe.
- Future space missions will benefit from the successful landing's contributions to science and technology.

Conclusion

In conclusion, India's Chandrayaan-3 lunar landing success is a noteworthy accomplishment that showcases India's advancements in

space exploration, technological prowess, and international collaboration in the field of space science.

'Nod for game-changer jet engine technology transfer expected soon'

Context

U.S. Ambassador Eric Garcetti stated that U.S. Congressional approval for the GE-HAL jet engine deal, the first-ever such technology transfer between the U.S. and India, is anticipated in the coming days and that stronger trade ties might result from India lowering its tariffs and adopting more "predictable regulations". Mr Garcetti stated that the United States would like to assist but would not "compromise" on the language of Ukraine to construct a common declaration before U.S. Vice President Joseph Biden's trip to Delhi for the G-20 conference.

What is the General Electric F414 Engine?

 The General Electric F414 is a 22,000-pound thrust afterburning turbofan engine made in the United States by GE Aerospace. The F414 was developed from GE's popular F404 turbofan and was made bigger and better so that it could be utilized with the Boeing F/A-18E/F Super Hornet.

Which aircraft uses GE F414 Engines?

- Boeing EA-18G Growler
- Boeing F/A-18E/F Super Hornet
- EADS Mako/HEAT
- HAL Tejas Mk2
- HAL TEDBF
- HAL AMCA
- KAI KF-21 Boramae
- Lockheed Martin X-59 QueSST
- Saab JAS 39E/F Gripen



Jet Engine Deal

- Overview of the Agreement: GE and HAL have an ongoing agreement for the production of F414 jet engines for the LCA-MK2 in India. The agreement calls for a sizable technology transfer, with GE giving HAL access to 80% of the engine's technology.
- Technology Transfer: This transfer marks a considerable improvement over the 58% technology transfer percentage of the previous agreement from 2012. The transfer of technology encompasses several engine production-related topics, including welding, composite materials, laser drilling, fabrication of turbine blades, nozzle guiding vanes, black machining, forging, and casing machining.
- **Timeline:** Three years after the contract is signed, the first engine is anticipated to be released. The agreement intends to make it possible for the F414-INS6 engine to be completely manufactured in India, with only a small component being produced overseas.
- Why is it important? : Transfer of Technology Is Important The remarkable 80% technology transfer illustrates the extent of American trust that India inspires. It surpasses earlier agreements between the two countries for the transfer of technology, making it a noteworthy accomplishment.
- Approval Process: International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR) are the regulatory frameworks that must be approved by the U.S.

Congress for the sale to go through. Through their strategic trade conversation, India and the US have made an effort to overcome regulatory concerns.

- Cost and Quantity: Although the ultimate price of the arrangement hasn't been decided, it's anticipated that it will be indexed to the 2012 agreement. According to that deal, the price for 99 engines now should be less than \$1 billion. There will probably be 120–130 LCA-MK2 planes constructed.
- Enhanced Capabilities: The LCA-MK2's capabilities will be greatly improved by the F414 engines. In comparison to the MK1 and MK1A models, the MK2 variant will be longer, have canards, and have a higher payload capacity.
- Additional Co-Development: Talks about co-developing a 110KN engine to power the Advanced Medium Combat Aircraft (AMCA)-MK2 are still ongoing. Although a final choice has not yet been made, GE is also regarded as a contender for this deal.

General Electric F414

- Engine: GE Aerospace (previously GE Aviation) is the designer and manufacturer of the F414 after-burning turbofan engine. This powerful engine, which belongs to the 22,000-pound (98 kN) thrust category, is appropriate for high-performance military aircraft.
- **Derivation**: The F414 engine is a derivative of the GE F404 turbofan engine. The F404 engine, which has been extensively employed in many different aircraft, including the F/A-18 Hornet, is the foundation for the F414 engine.
- **Purpose**: The Boeing F/A-18E/F Super Hornet, an updated and larger version of the F/A-18 Hornet, is the primary application for the F414 engine. The F414 was specially designed to satisfy the Super Hornet's demands for higher thrust and 7670 improved performance.
- Improvements: The F414 engine includes several improvements and upgrades over the F404 engine. These include an afterburner, a bigger fan and core, and increased durability. Increased thrust and better performance as a whole are the results of these advances.
- Afterburner Capability: The F414 engine's afterburner is a notable feature. A secondary burner known as an afterburner injects and ignites fuel after the engine's primary combustion chamber. When needed, it gives an extra surge of push, enabling high-speed operations and better manoeuvrability.

Impact of the Engine on Indian Defence:

- Performance Improvement: A new engine can help military aircraft perform better. It can provide greater speed, range, fuel efficiency, and payload capacity, improving the defence forces' total operational capability.
- Modernization of Equipment: Adding a fresh engine to current military systems can help to bring them up to date. Older machinery's lifespan can be increased through engine upgrades, which also increase their dependability and capacity to handle present-day and foreseeable operational demands.
- Strategic Advantages: By allowing India's defence forces to operate in a wider range of situations, such as high-altitude regions, severe weather conditions, and difficult terrains, the adoption of sophisticated engines can give India a strategic advantage. India's military might and response might be improved as a result.
- Technological Independence: By creating or purchasing cutting-edge engines, India can lessen its reliance on other nations for essential defence technologies. This move toward domestically produced engines can increase self-sufficiency and advance the domestic defence industry.
- Research and development: A new engine's debut frequently necessitates sizable research and development activities. Such programs can promote creativity, progress technology, and improve the nation's scientific and engineering capabilities. Collaboration with international engine manufacturers can also promote skill development and knowledge transfer.

The moon-landing spot is now 'Shiv Shakti'

Context

On Saturday, Prime Minister Narendra Modi declared that the location of Chandrayaan-3's Vikram lander's landing would be known as "Shiv Shakti," and the location of Chandrayaan-2's lunar footprint would be known as "Tiranga."

Naming Lunar Points:

• Two distinct places on the lunar surface have been given names by Prime Minister Narendra Modi.

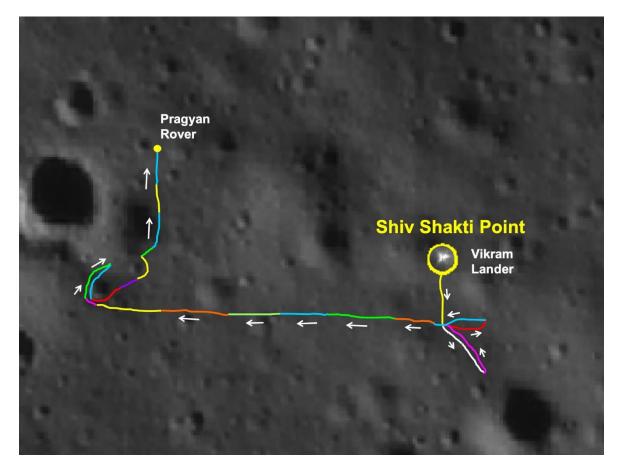
- 'Shiv Shakti' will be the name of the location where Chandrayaan-3's Vikram lander successfully touched down.
- 'Tiranga' will be the name given to the location on the lunar surface where Chandrayaan-2 left its mark.

Significance of Names:

- The name "Shiv Shakti" has symbolic meanings: "Shiv" stands for the resolve to improve humanity, and "Shakti" stands for the power required to carry out those resolutions.
- These lunar sites were given names to create a sense of continuity between the Himalayas in the north and Kanniyakumari in the south of India.
- Tiranga Point serves as a constant reminder that failures and setbacks should not be viewed as the end of an endeavour.

Progress of the Pragyan Rover:

- The Pragyan rover, a part of the Chandrayaan-3 project, has travelled around 12 meters on the lunar surface.
- The rover's movement is intended to take pictures of the Vikram lander that will show off its versatility and capacities.
- A secure landing, rover mobility, and research on the lunar surface are all mission goals.



Recognition and National Pride:

- According to Prime Minister Modi, India's scientific and technological ability has been recognized internationally as a result of the Chandrayaan-3 mission's accomplishment.
- The mission is viewed as a symbol of India's courageous and unyielding attitude, which can confront major world issues and provide solutions.

Encouragement of Scientific Research:

- The Chandrayaan 3's success will foster young people's interest in science and advance our understanding of ancient astronomy.
- He emphasized the need to revisit and confirm the astronomical knowledge contained in the ancient Indian scriptures.
- Students at all levels of education are seen as having a dual responsibility for promoting research and disseminating discoveries.

Role of ISRO:

- The Prime Minister recognized the crucial role that organizations like the Indian Space Research Organisation (ISRO) have played in improving India's standing in space exploration.
- He credited agencies like ISRO with helping India go from a fledgling country to a key participant in the international space community.



POLITICAL SCIENCE

Article 370: The Intricacies of Asymmetric Federalism and the Quest for Constitutional Fidelity

Context:

As the Supreme Court of India gears up for oral arguments commencing on August 2, a significant case concerning Article 370 of the Constitution takes center stage.

Relevance:

GS - 02 (Indian Constitution, Government Policies & Intervention, Federalism, Parliament)

Prelims:

• Article 370 and 35(A)

Mains Question:

• Discuss the implications of the amendments made to Article 370 of the Indian Constitution and their impact on the relationship between the Union and States, with reference to the concept of asymmetric federalism. (250 words)

Dimensions of the Article:

- An Instrument with Qualifications
- · An Instrument with Qualifications
- Alterations via Article 367
- A Colorable Exercise of Power
- Asymmetric Federalism and Constitutional Values

An Instrument with Qualifications:

- The inception of India's independent dominion under the Indian Independence Act, 1947, allowed the Government of India Act, 1935, to serve as an interim constitution until the nation adopted its own. In the case of J&K, the instrument of accession came with qualifications, which were later incorporated into Article 370.
- These caveats outlined that Parliament could legislate for J&K only on matters pertaining to external affairs, defense, and communications. For legislation beyond these agreed subjects, consultation with the State government was necessary. Additionally, enacting laws outside these subjects required ratification by the State's Constituent Assembly.

The Conundrum of Article 370:

- The significance of Article 370 persisted even after J&K's Constitution came into force in 1957, replacing the Constituent Assembly with a Legislative Assembly.
- The original drafter of Article 370, Gopalaswami Ayyangar, considered the State Constituent Assembly's recommendation, mandated by clause (3) of Article 370, as a "condition precedent" for any attempt at abrogating the provision.
- However, with the dissolution of the Constituent Assembly, this clause lost its practical relevance. Consequently, Article 370 became the primary means of governance for J&K.

Alterations via Article 367:

- When changes were proposed to modify this arrangement, the Union government faced limitations within the existing text of Article 370. Turning to Article 367, situated in Part XIX of the Constitution, which contains general rules for interpreting the Constitution, the government found its solution.
- The President's order on August 5, 2019, added a new clause to Article 367, redefining "Constituent Assembly of the State" to refer to the "Legislative Assembly of the State" wherever mentioned in Article 370. This seemingly minor alteration had profound consequences, effectively abrogating the essence of Article 370 without adhering to the conditions Ayyangar deemed necessary.

A Colorable Exercise of Power:

- The repercussions of these actions are significant. While J&K was under President's Rule, the Governor not only assumed the role of the State's Legislative Assembly but also acted as its Constituent Assembly.
- Building on this authority, the President declared under Article 370(3) that all clauses of the said article would cease to be operative from August 6, 2019, and that all provisions of the Indian Constitution would apply to J&K.
- The President's order asserts that it was made with the "government of the state of Jammu and Kashmir's" concurrence. However, with the State under President's Rule, this concurrence came from J&K's Governor.
- Thus, the Union government essentially assented to its own decision, without consulting or securing agreement from the State's democratically elected representatives—a move deemed

as a colorable exercise of power by petitioners in the Supreme Court.

Asymmetric Federalism and Constitutional Values:

- India's Constitution establishes a system of governance with a division of power and authority between the Union and the States, reflecting a form of asymmetric federalism.
- This balance represents a fundamental aspect of the Constitution, and the Supreme Court must consider not just the original version of Article 370 but also the spirit permeating the document's basic structure.

Conclusion:

The impending Supreme Court decision on the legality of the changes made to Article 370 will have far-reaching implications. The case challenges the essence of representative democracy and asymmetric federalism in India. As the court proceedings unfold, the nation awaits a verdict that will shape the course of its constitutional governance.

Digital Personal Data Protection (DPDP) Bill

Context:

The recent uproar saw Opposition members storming out of a Parliamentary Standing Committee meeting, brandishing dissent notes, crying foul over the lack of transparency in the adoption of the Digital Personal Data Protection (DPDP) Bill.

Relevance:

GS - 02 (Government Policies & Interventions) GS - 03(Cyber Security) (IT & Computers)

Prelims:

- Digital Personal Data Protection Bill
- Right to Privacy
- Puttaswamy Judgement
- Data Protection Laws of Other Nations

Mains Question:

Q. Elucidate the potential implications of the Digital Personal Data Protection (DPDP) Bill on India's information regime and its citizens. Discuss the significance of safeguarding both the right to information and the right to privacy in this context. (Word limit: 250)

Significance:

- The Digital Personal Data Protection Bill introduces significant concessions on cross-border data flows, departing from the previous contentious requirement of local data storage within India's borders.
- The Bill adopts a relatively softer stand on data localization, allowing for data transfer to specific global destinations, potentially fostering country-to-country trade agreements.
- It addresses a crucial aspect missing in the previous PDP Bill of 2019 by recognizing the data principal's right to postmortem privacy (Withdraw Consent), as recommended by the Joint Parliamentary Committee (JPC).
- The new Bill holds the promise of enhancing data protection measures in the digital era, offering potential safeguards for individuals' data privacy rights.
- These provisions and departures within the Digital Personal Data Protection Bill highlight its significance in shaping data protection policies and regulations in India, with potential implications for the nation's digital ecosystem and international data exchange.

Dimensions of the article:

- The Conundrum of Data Protection vis-a-vis Right to Information (RTI) Act
- The Empowerment of the Marginalized
- Balancing Transparency and Privacy
- The Pandora's Box of Discretionary Powers
- The problem of Autonomy

The Conundrum of Data Protection vis-a-vis Right to Information (RTI) Act

- The Data Protection Bill of 2022 carries an intriguing provision an amendment to the venerable Right to Information (RTI) Act, an empowering statute that has bestowed countless Indian citizens with the gift of knowledge since its inception in 2005.
- A democracy thrives on the wisdom of its people, and to hold their governments accountable, unfettered access to information, including various facets of personal data, becomes a sine qua non.

 In the annals of jurisprudence, the Indian Supreme Court has unequivocally declared that the right to know extends to disclosing the identities of willful defaulters and the intricate details of Non-Performing Assets (NPAs) in public sector banks.



• What's more, the democratic fabric mandates public disclosure of voter lists, replete with personal information, to thwart electoral malfeasance.

The Empowerment of the Marginalized

- The practical use of the RTI Act has lucidly demonstrated that access to granular information remains the elixir for the masses, particularly the impoverished and marginalized strata of society.
- Navigating the labyrinth of government schemes and welfare programs necessitates access to pertinent, nitty-gritty details. As an illustration, the Public Distribution System (PDS) Control Order recognizes the indispensable need to divulge ration card holders' particulars and ration shop records, for public scrutiny and social audits, to ensure the efficacy of PDS.

Balancing Transparency and Privacy

- The RTI Act judiciously maintains a delicate equilibrium between the citizen's right to information and the sacred sphere of privacy.
- Section 8(1)(j) ingeniously exempts the disclosure of personal information if it bears no relation to any public activity or public interest, and if divulging it would unduly encroach upon privacy, devoid of any larger public interest.

 The pursuit of a data protection law does not necessitate tinkering with the existing RTI law, as the sagacious Justice A.P. Shah Report on Privacy aptly notes. However, the enigmatic DPDP Bill of 2022 seeks to expand the scope of Section 8(1)(j) by exempting all personal information, imperiling the bedrock of transparency and accountability in the nation.

The Pandora's Box of Discretionary Powers

- To curb the misuse of personal data, especially for financial fraud, an effective data protection law must not grant unbridled discretionary powers to the government. Regrettably, the DPDP Bill, 2022, opens the floodgates of executive dominion by bestowing the government with the authority to draft rules and notifications ad infinitum.
- The government's sweeping prerogative to exempt any entity, public or private, from the law's provisions through mere notifications breeds the potential for unjustified privacy violations.
- Will the government favor its cronies and grant immunity to institutions such as the Unique Identification Authority of India (UIDAI)?- The specter of arbitrary exemptions looms large, while smaller non-governmental organizations, research bodies, and opposition parties scramble to comply with onerous data fiduciary obligations.

The problem of Autonomy

- For the DPDP Bill to effectively safeguard personal data, a robust oversight body with unequivocal independence must be enshrined. And the draft Bill falters on this front, for it lacks even a pretense of ensuring autonomy for the Data Protection Board the very bastion of law enforcement.
- The tentacles of government control spreads through every crevice of the institution, with the central government retaining absolute discretion over the board's composition, strength, and the appointment and removal of its chairperson and members.
- A board under government's direct thumb, armed with the power to impose fines up to ₹500 crore, raises grave concerns of it metamorphosing into a caged parrot, ripe for misuse against political adversaries and critics of government policies.

Way Forward:

• The impending enactment of the DPDP Bill necessitates swift redressal of these pressing concerns.

• The stealthy passage of Bills without substantive debate or discussion in the Parliament portends a future where citizens relinquish their democratic right to information, relinquishing the power to hold the mighty accountable.

Conclusion

The DPDP Bill stands at the crossroads, its destiny entwined with the fate of the nation's transparency and privacy ethos. A prudent approach to data protection is a delicate dance between safeguarding citizens' rights and curbing abuse. Striking the right balance calls for a law that stands the test of time, fortifying the tenets of democracy and empowering the people with knowledge. To protect the people's democratic rights, the government must heed the clarion call for change, lest history repeats itself in the throes of data protection enigma.

Threads of Violence and Faith

Context:

In the proximity of the nation's capital, the Nuh district of Haryana has become a stage for a recurring narrative of violence, juxtaposed against religious events that were once markers of communal cohesion. The phenomenon of religious processions has evolved from a platform of shared piety into a theatre of brazen aggression.

Relevance:

GS - 02 (Fundamental Rights, Indian Constitution) GS - 01 (Indian society- Communalism)

Prelims:

- Freedom of Religion
- Article 25-28
- Fundamental Rights
- NIA
- CBI
- Forceful Conversion.

Mains Question:

 Discuss the factors behind the evolution of religious processions from symbols of communal harmony to vehicles of aggression, drawing upon recent instances in Nuh district, Haryana. (150 words)

Dimensions of the Article:

- The Catalysts of Violence
- A New Normal: Open Collusion and Brazenness
- The Unpredictable Play of Provocation
- Changing Dynamics of Communal Dynamics
- The Resonance of History
- · The Shadows of Modernity
- From Unseen Margins to the Frontlines

The Catalysts of Violence:

- In a comprehensive report titled "Routes of Wrath: Weaponizing Religious Processions," a consortium of independent professionals outlined the intricate web of factors that propelled violence across nine States during the observances of Ram Navami and Hanuman Jayanti.
- Senior advocate Chander Uday Singh underscored the consistent catalysts driving these upheavals - religious processions followed by targeted assaults on Muslim-owned establishments and places of worship.

A New Normal: Open Collusion and Brazenness:

- The contemporary landscape witnesses a departure from the past, where "culpable amnesia" served as a veil for authorities' involvement in communal violence.
- Presently, local administrations openly align with riotous mobs, negating the need for covert incompetence. The violence is often orchestrated, marked by exposed weaponry, ear-piercing music, and provocative slogans, while measured restraint is observed from the other side.

The Unpredictable Play of Provocation:

- Nuh district, despite its calm façade over two years, encountered a shift during the Brajmandal Jalabhishek Yatra, attributed to the involvement of a notorious cow vigilante.
- This individual, wanted for murder in a neighboring state, operated unhindered under the protection of Haryana's police.
- Gandhi's observations from 1924 gain renewed significance, as tensions arising from cow slaughter and musical provocations are replaced by more complex triggers.

Changing Dynamics of Communal Dynamics:

• The social fabric of Nuh and the larger Mewat region diverges from the norm.

- The Meo community, drawing inspiration from the Brindavan region, holds diverse traditions and practices.
- Despite communal tensions, the Meo remained focused on shared interests across faiths. Historically, the Congress party's "Muslim mass contact" program sought to bridge communal divides, fostering identities based on shared material concerns.

The Resonance of History:

- Mewat's history, linked to princely states and the Congress party's efforts, reveals deep-seated grievances that shaped the region.
- Acts of violence against the Meo community left indelible scars, suppressed by the consolidation of nationalist sentiment.
- This silence concealed atrocities, a "sociability" imposed by the magnitude of violence.
- Nuh's emergence as Haryana's only Muslim-majority district is marred by disparities in development.
- While Gurgaon thrives on urbanization, Nuh lingers in stagnation. The National Family Health Survey highlights discrepancies, indicating lower female literacy rates and educational opportunities.
- Nuh's relegation to the margins perpetuates cycles of neglect and resentment.

From Unseen Margins to the Frontlines:

- The contestation of faith in Nuh emerges from the assertion of Hindutva forces.
- Empowered and emboldened, these forces push the boundaries of religious authority.
- The Vishwa Hindu Parishad (VHP) propels a narrative that endeavors to legislate religious practices nationwide, transforming assertions into accepted truths.

Conclusion and the way forward:

- The transformation of religious processions from a source of communal harmony to a theater of violence stems from a complex interplay of historical grievances, political machinations, and emerging ideologies.
- The current scenario underscores the need for inclusive policies that address disparities, mitigate grievances, and foster genuine interfaith understanding.

- As the nation's constitutional fabric navigates these tumultuous waters, ensuring the prevalence of law and order over vigilantism becomes a critical pursuit.
- The journey from tradition to turmoil necessitates a recalibration of priorities, forging a new trajectory towards peace and harmony.

The bureaucracy as prosecutor and judge

Context:

The Jan Vishwas Act, 2022 - With its aim of streamlining "ease of doing business," seeks to metamorphose erstwhile criminal sanctions into financial penalties or "compoundable" offenses.

Relevance:

GS - 02, GS - 03 (Government Policies & Interventions)

Prelims:

- Ease of doing business
- Jan Vishwas Bill
- Rule of Law
- Separation of Powers

Mains Question:

 Analyze the historical evolution of separation of powers in India and elucidate the potential constitutional challenges posed by conferring adjudicatory authority upon the bureaucracy. (150 words)

The Jan Vishwas (Amendment of Provisions) Bill, 2023

 The Jan Vishwas (Amendment of Provisions) Bill, 2023 seeks to introduce modifications to existing legislation, covering a broad spectrum of domains such as environment, agriculture, media, industry, trade, information technology, copyright, motor vehicles, cinematography, and food safety. The Bill aims to amend 183 provisions across 42 Central Acts administered by 19 Ministries/Departments. The Bill's central elements involve the elimination of imprisonment clauses and fines in certain provisions, replaced by penalties. These penalties will be determined by appointed adjudicating officers within the relevant Ministries/Departments.



Dimensions of the Article:

- Understanding the Complexity
- The Dilemma of the Arbiter's
- Governing the Separation
- Resisting the Bureaucratic Incursion
- The Regulators and the Adjudicatory backing
- The concept of Penalties
- Eroding Boundaries: The Bureaucratic puzzle

Understanding the Complexity:

- The Jan Vishwas Act moves the authority of the judiciary and empowers designated bureaucrats, Joint Secretaries, to impose penalties as high as ₹15 lakh.
- This shift also impacts environmental jurisprudence, as the Environmental (Protection) Act, 1986, and the Air (Prevention and Control of Pollution) Act, 1981, see penalties replace imprisonment.

The Dilemma of the Arbiter's:

- A fundamental question arises: Does this fiscal retribution shift breach the separation of powers, transcending immediate policy discussions?
- Historical resonance adds weight to the query, as the constitutional compass leans toward compartmentalized power dynamics despite not being dictatorial.

Governing the Separation:

- In constitutional history, the gradual separation of powers emerges.
- The Indian Constitution includes a directive in Article 50, encouraging this demarcation.
- Over time, actions like The West Bengal Separation of Judicial and Executive Functions Act, 1970, deliberately separate criminal magistracy from executive control.

Resisting the Bureaucratic Incursion:

- Amid institutional dynamics, the judiciary faces encroachment from the bureaucratic realm.
- The creation of judicial tribunals handled by ministries strategically empowers bureaucrats, blurring the line between bureaucracy and judiciary.

The Regulators and the Adjudicatory backing:

- Statutory regulators gain authority to fine the private sector, led by senior bureaucrats. This intertwining of bureaucracy and judiciary creates a harmonious yet conflicting regulatory landscape.
- Adjudicatory officers, bureaucrats in judicial roles, navigate legislative penalties. Whether imposing penalties qualifies as a "judicial function" raises debates about the essence of the "rule of law" and separation of powers.

The concept of Penalties:

- The classification of penalties as civil or criminal remains an unexplored legal challenge.
- The concept of a penalty as a "judicial function" lacks clarity in precedent, awaiting resolution.

Eroding Boundaries: The Bureaucratic puzzle

- Apprehensions arise about erosion of constitutional boundaries due to a paradoxical dance between bureaucracy and elected custodians.
- The Republic's trajectory oscillates between convergence and separation, highlighting a larger narrative of erosion.

Way Forward:

• With the idea of pursuit of constitutional alignment, a delicate balance needs to be struck between bureaucratic prerogatives and the sanctity of judicial function.

• Under jurisprudential contemplation, there is a necessity to construct a coherent path that allows the interplay of dynamics to converge into a harmonious resonance.

India's Recent Import Regulations

Context:

In a startling twist within India's foreign trade strategy, the Ministry of Commerce and Industry set forth stringent regulations that pertain to the importation of laptops, personal computers (PCs), tablets, and servers. This bold move mandates importers to acquire licenses prior to engaging in such trade.

Relevance:

GS-02 (Government Policies and Intervention) GS-03 (IT and Computers)

Prelims:

- Harmonized System of Nomenclature
- Directorate General of Foreign Trade
- Production-linked incentive (PLI) scheme for IT hardware

Mains Question:

 Discuss the implications of India's recent decision to introduce import licensing for computing devices, focusing on its potential effects on the IT industry, consumer access, and overall trade policy. 250 words

Dimensions of the Article:

- Exploring the Intricacies of the New Regime
- The Enigma of Licensing Criteria
- Balancing Security and Trade
- Investment Challenges and Global Dynamics
- Impacts at the Grassroots Level

Rapid License Issuance – Easing Concerns, Echoes of the Past.

- In the contemporary landscape of governance, the swift issuance of licenses has garnered attention, generating both intrigue and skepticism.
- This endeavor's resemblance to the formative days of India's IT sphere adds a layer of historical resonance to the proceedings. While the promise of acquiring licenses within mere minutes offers solace to some extent, it also conjures memories of India's initial foray into the IT sector.
- The memory of gradual liberation during the 1970s and 1980s emerges as a touchstone in the discourse surrounding this new regime. These early days were marked by incremental steps towards economic openness, setting the stage for India's subsequent technological ascent.

The Enigma of Licensing Criteria:

- Despite the potential expedience of license acquisition, a cloud of uncertainty hovers over the intricate contours of the eligibility criteria. This uncertainty prompts those vested in various industries to assume precarious positions, perched on the edge of anticipation.
- As the rules of the game remain opaque, industries grapple with the enigma of what it takes to secure these elusive licenses.
- How must importers navigate the complex process of substantiating their requisitions for state-of-the-art devices? Must software enterprises furnish evidence of recent recruitment endeavors or recent export mandates to unlock the doors to these licenses? As these questions remain unanswered, a sense of ambiguity casts a shadow over the entire enterprise.
- As the quest for clarity continues, the absence of definitive answers looms large. The very foundation of this new licensing system remains veiled, leaving stakeholders and observers alike in a state of Confusion.

Balancing Security and Trade:

 Amidst the excitement of rapid license issuance, a pertinent question arises – could the influx of imported devices inadvertently pave the way for surreptitious surveillance activities? This question directs our attention to the delicate balance between trade facilitation and security.

- Drawing parallels with the susceptibility of mobile phones to covert spyware infiltration, the government's proposition gains traction. The potential vulnerability of imported devices to surveillance activities presents a confusion. This unintended consequence raises a red flag and lends credibility to the need for meticulous consideration.
- Amidst these concerns, a pragmatic solution emerges the establishment of rigorous testing protocols. Such protocols would serve as a bulwark against potential security breaches. By subjecting imported devices to rigorous integrity checks, the government could bolster confidence and ensure that only secure devices enter the market.
- The implementation of stringent testing norms can serve as a formidable safeguard against the influx of devices that may compromise national security.

Investment Challenges and Global Dynamics:

- The essence of inducing substantial capital investments within India's borders reveals a complex scenario. The alluring prospect of attracting global giants to commit resources within the country is juxtaposed against multifaceted challenges.
- Beyond the horizon of opportunity, the convoluted landscape of global investments introduces complexities that cannot be underestimated. This facet of the discussion demands a closer examination.
- The narrative shifts to the global stage, emphasizing the importance of harmonizing business-friendly policies with the goal of attracting substantial investments.
- Amidst these challenges, the incentive of facilitating ease in conducting business emerges as a compelling motivator. A harmonious blend of policies that prioritize investment inflow while fostering a conducive business environment is essential.
- This pragmatic approach stands as a bridge between the allure of global investments and the practicalities of creating an attractive business landscape.

Impacts at the Grassroots Level:

• The ramifications of policy alterations inevitably radiate down to the grassroots level. Beyond the strategic decisions, real-world implications become evident. The intricacies of this new regime translate into tangible changes that impact the lives of everyday individuals.

- The shift in cost structures and restrictions on device availability resonates deeply within the corridors of India's consuming populace.
- The conversation expands beyond the realm of technology and policy to encompass the economic realities faced by households and small-scale enterprises. These shifts touch upon more than just the acquisition of gadgets.
- In alignment with the Digital India initiative, these devices serve as conduits to progress, making access to services contingent upon their availability and affordability.

Way Forward:

- The delicate equilibrium between security measures and trade facilitation emerges as a focal point. Striking the right balance is essential to ensure the integrity of the nation's security while fostering an environment conducive to trade.
- Central to the path forward is the harmonization of domestic production and consumer access. This synthesis is not only a desirable objective but also a practical necessity. Balancing the imperative of nurturing domestic industries with the need to provide unhindered access to consumers presents a multifaceted challenge.
- The government should be more careful in commanding scrutiny and refinement. The intersection of security concerns, trade dynamics, and investment aspirations forms a complex issue that demands attention.

Upholding Justice Amidst Clashes and Demolitions

Context:

The recent clashes between Hindu and Muslim communities in the districts of Gurugram and Nuh, Haryana, have sparked concerns about the administration's ability to restore law and order and maintain peace. The clashes have led to loss of life and destruction of public property, further escalating tensions.

Relevance:

GS – 01 (Secularism, Communalism, Salient Features of Indian Society) GS-02 (Judiciary)

Prelims:

- Moplah rebellion of 1921
- Partition riots of 1947
- Democracy
- Secularism
- Human Rights

Mains Question:

Discuss the challenges posed by recent communal clashes and the role of the judiciary in upholding justice and preserving constitutional values. (150 words)

Dimensions of the Article:

- Uneven Responses Highlight Disparity
- Courts' Role and Responsibility
- The Thin Line of Judicial Authority
- Judicial Nominees and Executive Delays
- High Court's Assertion and Unanswered Question

Uneven Responses Highlight Disparity

- In analyzing the prevailing situation, it is evident that competent administrations are not the norm in today's India.
- Drawing parallels from Uttar Pradesh, the Haryana government has resorted to abrupt demolitions of houses, specifically those suspected to be linked with the violence.
- This unilateral approach has raised questions about the government's intention, as the demolitions disproportionately target the Muslim community, leaving many homeless and disregarding the rule of law.
- The constitutional principle of Article 14, ensuring equality before the law, is being compromised for political gains.

Courts' Role and Responsibility

- Amidst the chaos, the role of the courts, entrusted with upholding the Constitution and safeguarding rights, becomes crucial.
- However, their response has been tepid at best. When confronted with the rampant demolitions in Uttar Pradesh, the Supreme Court's reaction lacked the vigor needed to address the situation comprehensively.
- Instead of raising critical inquiries into the selective targeting and hastened demolitions, the Court merely emphasized the importance of due process. A bolder stance, including rebuilding houses, compensating affected individuals, and holding responsible officials accountable, would have set a precedent for other state governments.

The Thin Line of Judicial Authority

- The dynamics of constitutional realpolitik reveal a pressing truth: failing to enforce boundaries and penalize transgressions weakens the authority of the judiciary.
- Instances of leniency, like the repeated extensions for the Director of the Enforcement Directorate, undermine the judiciary's credibility.
- The analogy of drawing the "Lakshman Rekha" aptly signifies the need for a decisive approach. By not consistently holding the powerful accountable, the judiciary risks rendering its authority akin to mere words on a kabaddi field — open to violations without consequences.

Judicial Nominees and Executive Delays

- The appointment of respected legal minds like Somasekhar Sundaresan, Saurabh Kirpal, and S. Muralidhar as High Court judges holds promise.
- However, the government's sluggish response to these nominations raises concerns about executive interference in the judiciary's functioning.
- While the courts are tasked with upholding justice, the government's reluctance to expedite the appointment process undermines the independence of the judiciary.

High Court's Assertion and Unanswered Question

- Amidst this complex web of challenges, a ray of hope emerges from the High Court of Punjab and Haryana. Justices G.S. Sandhawalia and Harpreet Kaur Jeevan's probing question — "Is this ethnic cleansing?" — pierces through the situation's murkiness.
- This question resonates as an indictment of those in power and underscores the significance of an independent judiciary. Their proactive decision to halt demolitions and remind the State Home Minister of Lord Acton's timeless adage on power's corrupting influence showcases judicial activism at its finest.

Way Forward

- To restore faith in the judiciary and justice system, a multipronged approach is essential.
- The courts must assume a more assertive role in holding both state and central governments accountable for their actions.
- They must operate independently, prioritizing constitutional values over political expediency.
- Simultaneously, the government needs to expedite the appointment of qualified judges, ensuring a robust judicial system that can counterbalance the concentration of power.

Conclusion

In a time when the integrity of the judiciary is questioned and the rule of law falters, the actions of the High Court of Punjab and Haryana stand as a beacon of hope. By raising essential questions and halting destructive actions, the judiciary demonstrates its commitment to safeguarding the Constitution and ensuring justice for all. The responsibility now falls on both the courts and the government to collaboratively steer the nation toward a future where constitutional principles are upheld, and justice is accessible to every citizen.

Centre to overhaul British-era laws

Context :

Three bills to repeal the British-era Indian Penal Code (IPC), Indian Evidence Act (IEA), and Code of Criminal Procedure (Cr. PC) were introduced by Union Home Minister Amit Shah on Friday in the Lok Sabha.

What are the bills passed to replace the British-era laws? Bharatiya Nyaya Sanhita Bill, 2023 (Replaces IPC):

- Replaces the IPC, legislation from the British era.
- establishes the death penalty as the ultimate punishment for mob lynching.
- imposes a 10-year prison sentence for having sex with a woman under the pretences of marriage.
- excludes husband and wife's mutually consenting sex, provided that the wife is over the age of 18.
- The section on sedition is removed.
- defines terrorism as well as many crimes involving separatists, armed uprisings, and undermining national sovereignty.

Bharatiya Nagarik Suraksha Sanhita Bill, 2023 (Replaces Cr. PC):

- the Code of Criminal Procedure (Cr. PC) is repealed.
- enacts modifications to the criminal justice system to deliver swift justice.
- imposes a 180-day maximum deadline for filing a chargesheet.
- police must update the complainant on the status of the case within 90 days.
- establishes community service as a possible punishment for particular offences.
- requires video recording of all searches and seizures.
- Establishes deadlines for sentence reductions, especially for people with political clout.

Bharatiya Sakshya Bill, 2023 (Replaces IEA):

- the Indian Evidence Act (IEA) is repealed.
- makes it mandatory to videotape survivors' comments in cases of sexual abuse against women.

• introduces a new classification of crimes for marrying or engaging in sexual activity with a woman under pretences.



What was the requirement for replacing the laws?

- Relevance and Obsolescence: Social norms, values, and problems change throughout time. Old laws may become ineffective in addressing modern problems or technological breakthroughs as they age. To more accurately reflect the social reality of today, new laws can be written.
- Legal Clarity: Old laws may include confusing or vague terminology that makes them difficult to interpret and apply. Clearer standards and definitions can be included in new laws, which will lessen the likelihood of legal challenges.
- Social and Technological changes: Changes in society, culture, and technology might lead to new legal issues that older laws may not be able to appropriately address. New laws could address new problems by considering these modifications.
- Harmonization and simplification: As laws are added to and modified over time, complex legal systems can result. There may be a chance to streamline the legal system and make it more effective and user-friendly by replacing outdated laws with new ones.
- International Standards and Duties: To conform to international standards and duties, nations frequently change their legal systems. This might be in response to agreements, rules, or suggestions made by international organizations.

• Enhancing Effectiveness: New laws may be implemented to improve the efficiency of the criminal justice system as a whole as well as of the legal system. This can involve taking steps to speed up court proceedings, boost conviction rates, and enhance justice access.

What are the challenges the public is going to face due to change?

- Public Education and Acceptance: Bringing in new legislation necessitates educating the populace about the changes and winning their support. A lack of knowledge or misunderstanding of the provisions could result in opposition or confusion.
- Enforcement and Implementation: Effectively implementing new laws can be difficult, particularly when there are resource shortages or capacity difficulties within law enforcement organizations. It can be challenging to guarantee uniform enforcement across the nation.
- Legal Capacity: The ability and knowledge of the legal system to deal with the modifications brought about by the new laws may be a problem. This can entail educating judges, attorneys, and other legal experts on how to comprehend and properly implement the new regulations.
- Transition and Compatibility: Aligning current legal processes and outstanding cases with the new legal framework can be difficult when changing from one set of laws to another. It can be difficult to ensure compatibility and a smooth transition.
- **Resourcing:** New regulations may necessitate the addition of resources in the form of infrastructure, technology, administrative assistance, and training. Effective resource allocation could be difficult.

Government's Disregard for Court's Judgment in ECI Selection Process

Context:

The recent proposal by the Union government to establish a threemember selection panel, tilted towards the executive, for appointing members of the Election Commission raises concerns about safeguarding the commission's autonomy.

Relevance:

GS – 02 (Constitutional Bodies, Transparency & Accountability)

Prelims:

- Chief Election Commissioner (CEC) and Election
 Commissioners
- Supreme Court
- Public Interest Litigation
- Article 324
- Model Code of Conduct.

Mains Question:

Discuss the significance of an independent Election Commission in upholding the integrity of electoral democracy, analyzing recent developments and the need for a balanced selection process. (250 words)

Dimensions of the Article:

- Constitutional Contradictions
- Balancing Legitimacy and Scrutiny
- The Essentiality of Autonomy
- Global Observations

Constitutional Contradictions:

- The government's proposition of a selection committee led by the Prime Minister, the Leader of the Opposition, and a Union Cabinet Minister starkly contradicts a recent judgment of a Constitution Bench.
- This judgment emphasized the inclusion of the Chief Justice of India in the selection committee, aligning with suggestions from the **Dinesh Goswami Committee in 1990** and the Justice Tarkunde Committee in 1975.
- While the Court's order was subject to legislative enactment, sidelining the Chief Justice's role seems to undermine the spirit of these recommendations.

Balancing Legitimacy and Scrutiny:

- One perspective argues that involving the Chief Justice in the selection process could grant premature legitimacy to appointments, potentially hindering judicial assessment of selection errors.
- However, juxtaposed against the Election Commission's dual role as an electoral overseer and a quasi-judicial entity, the need for a selection process that insulates it from executive dominance gains credence.

The Essentiality of Autonomy:

- A non-partisan and independent Election Commission stands as a foundational pillar of a vibrant electoral democracy.
- Over time, the Election Commission of India has played a pivotal role in facilitating elections that exhibit greater public participation due to their transparent, impartial, and accessible nature.
- Prior to the 2019 general elections, the announcement delay, coinciding with government inaugurations, cast a pall over impartiality. The uneven enforcement of the Model Code of Conduct, favoring the ruling party, prompted internal dissent.

Global Observations:

- The V-Dem Institute's classification of India as an "electoral autocracy" underscores the issue's gravity.
- This classification stems from the ECI's diminishing autonomy. This erosion, noted by an international institution that evaluates democracies globally, paints a concerning picture.

Way forward:

• **Constitutional Commitment:** With the upcoming Lok Sabha elections drawing near, the government's fidelity to the Constitution Bench's directive should have been unwavering. The preservation of the Chief Justice's involvement in the selection process aligns with the Constitution's democratic ethos and the Election Commission's crucial role in maintaining electoral integrity.

• **Opposition's Onus:** It now falls on the Opposition to ensure thorough deliberation and modification of the proposed Bill. A robust parliamentary debate would shed light on the concerns surrounding the executive's dominance in the selection process, reaffirming the Constitution Bench's principles.

Conclusion:

The government's recent proposal to establish an executive-skewed selection committee for appointing Election Commission members raises pertinent questions about the commission's independence. A free and impartial Election Commission is indispensable for a robust democratic process, and global observations underscore its significance. Upholding the Constitutional commitment by retaining the Chief Justice's role in the selection process and fostering parliamentary discourse on the matter would restore the equilibrium vital for sustaining India's democratic fabric.

Democracy in India, a gift and a warning

Context:

With reference to India's 76th year of Independence and the Prime Minister's claim of India being the "mother of democracy." It questions whether this claim holds merit and introduces the central theme of the article: the comparison of democratic practices in ancient India and Greece.

Relevance:

GS - 02 (Indian Polity and Governance)

Mains Question:

 Discuss the historical evidence supporting India's claims of democratic governance in ancient times and compare it to the Greek model of democracy. How does this perspective reshape our understanding of democracy's origins and evolution? (250 words)

Dimensions of the Article:

- Ancient Indian Democratic Seeds
- Dr. Ambedkar's Insights
- Theravada Buddhist Scriptures
- The Gana and Sangha Dynamics
- Limitations and Omissions

- Echoes of Omissions
- A Universal Thread
- Safeguarding Democracy

Ancient Indian Democratic Seeds:

- Delving into the antiquity of India's democratic claims, shadows of democratic hues appear. Hints within the Rig Veda, that ageold sacred text, paint a picture of governance that leans towards popular participation.
- Faint references to fair resource sharing, amicable deliberations, and conflict resolution appear. Consider the figures of Gramini, the village head under the king's employ, as well as the Atharva Veda's allusions to sabha, samiti, babhapati, and sabkasad, primarily engaged in judicial tasks.
- Despite these glimpses, tangible evidence remains scarce, and claims of a full-fledged "democracy" find shaky footing. However, Dr. Ambedkar's contentions gain a more solid stance, placing democratic practices in the Buddhist era, contemporaneous with the Greek city-states.

Dr. Ambedkar's Insights:

- Dr. Ambedkar's connection to Western constitutional frameworks is overshadowed by his profound inspiration from India's democratic heritage.
- The man in his three-piece suit, conversing in formal English, draws more from the democratic essence of ancient India, particularly the Buddhist sanghas.
- As the architect of the Constituent Assembly's Drafting Committee, Ambedkar argues that Indian republicanism stretches back into time. Ancient republics like the Lichhavis of northern Bihar and Nepal, the Mallas in Kusinagara, and the Vajji confederation in Vaishali emerge.
- These gana sanghas, present between the 6th and 4th centuries BCE, lay the groundwork.

Theravada Buddhist Scriptures:

- The Vinay-pitaka, a Theravada Buddhist scripture, unfolds a world of democratic rituals in India. Monks, known as Bhikkhus, engage in debates, motions, and secret ballot voting within their sanghas.
- Diodorus Siculus, the Greek historian, casts a lens on India during Alexander the Great's era, revealing independent democratic republics.

• These republics, although hosting a monarch and a deliberative assembly, wielded power collectively. Financial, administrative, and judicial authority found its home in the gana sanghas, contributing to a dynamic governance model.

The Gana and Sangha Dynamics:

- Ancient India's democratic landscape is vividly painted in the Pali Buddhist scriptures, illustrating the city-state of Vaishali in the 5th century BCE. Various groups managed affairs, ranging from warrior formations to economic associations and religious fraternities.
- The terms "gana" and "sangha," evolving from meaning "multitude," transition into representing self-governing collectives. Decisions within these sanghas are internally crafted, solidifying governance conventions. Some stand as sovereign entities akin to republics, akin to the city-states of Greece.

Limitations and Omissions:

- Ambedkar's gaze, while celebratory, turns critical towards the notion of self-governing village republics, popularized by Gandhi.
- Village realms, viewed as reservoirs of caste-based oppression and socio-economic stagnation, dim the romantic light. Ancient Indian villages operated democratically to an extent, as evidenced by Kautilya's Arthashastra, tracing village administration customs in antiquity.
- Mauryan, Chola, and Gupta periods echo the pulse of village panchayats. However, Ambedkar's piercing insight uncovers an unsettling truth - the glaring omission of an entire class- the Untouchables.

Echoes of Omissions:

- In this revelation, Ambedkar uncloaks a parallel in Greece, where slaves and barbarians remained devoid of rights.
- History extends the same exclusion to an even broader
 community women across the globe until the 20th century.
- Within the realm of male citizens, India's ancient village republics align with Greek city-states in democratic essence.

A Universal Thread:

• David Stasavage, the American political scientist, threads together history's fabric, showcasing efforts to counterbalance political power across the globe.

- The pursuit of institutions limiting any singular authority transcends civilizations and eras. Here, Indian democracy and its Greek counterpart stand as elemental manifestations of human governance.
- Democracy, not an invention, but a fundamental pattern woven into humanity's tapestry, arises from diverse corners.

Safeguarding Democracy:

- Amidst reflections on the past, Ambedkar's concerns emerge. He foresees a democratic transformation morphing into dictatorship while retaining a democratic facade.
- His words, a cautionary echo, resonate against self-praise. A
 potent reminder exists democracy, our gift to ourselves,
 necessitates vigilant protection, a treasure that could be wrested
 away if left unguarded.

Way Forward:

 Reshaping historical narratives presents an opportunity to ponder, evolve, and safeguard our democratic values. Recognizing democracy as a shared heritage across civilizations, regardless of origin, enables a more inclusive perspective. As we navigate modern complexities, learning from past triumphs and failures, democracy's essence remains a lodestar.

New Bills and a principled course for criminal law reforms

Context:

The recent introduction of three transformative Bills aimed at overhauling India's criminal laws has sparked a diverse range of reactions. Amid this, the challenge lies in fostering a debate that leads to constructive contributions. These Bills possess the potential to Mold future criminal law, raising crucial concerns about sustainability, effectiveness, adherence to the rule of law, and the capacity for delivering justice.

Relevance:

GS – 02 (Judiciary)

Prelims:

- Criminal laws such as Indian Penal Code
- The Code of Criminal Procedure
- The Indian Evidence Act

Mains Question:

• Discuss the implications of the recent introduction of Bills aimed at reforming India's criminal laws on issues of sustainability, rule of law, and justice delivery capacity. (150 words)

Dimensions of the Article:

- Navigating Struggles within Criminal Law Principles
- Uncertain Trajectory of Proposed Changes
- Reform Measures with Nuances
- Evaluating Reform through Criminal Jurisprudence Lens
- Principles of Criminalization and Equality
- Bridging Rhetoric and Reality
- Role of Criminal Law in Political Context

Navigating Struggles within Criminal Law Principles:

- According to Alan Norrie, criminal law principles serve as a battleground for opposing forces. The task of accommodating collective public aspirations in criminal law reforms proves challenging.
- Striking a balance between polarized popular opinions and the state's perspective is essential. Criminal law, as a tool for social control, exerts significant influence in various aspects of our lives.
- The historical conditioning of stakeholders and actors within the criminal law system adds complexity to reform efforts.

Uncertain Trajectory of Proposed Changes:

• It remains premature to predict the extent of impact these Bills will have on the legal landscape. The success or failure of criminal law reforms hinges on their conception, formulation, resilience, and forward-looking approach. • The proposed alterations may appear significant, but they pale in comparison to the deeply rooted challenges that plague India's criminal justice system. In many ways, the Bills bring attention to missed opportunities for comprehensive change.

Reform Measures with Nuances:

- While some claim that the Bills are excessively harsh compared to their predecessors, such assertions lack justification. These Bills introduce moderate changes that promote gender inclusivity and replace outdated terms with more contemporary language.
- The adjustment of punishments for minor and serious offenses showcases a measured approach. The integration of information technology in criminal justice processes is noteworthy. Although limited, innovations such as trial in absentia and community service deserve commendation.
- Aligning the laws with Supreme Court decisions by excluding attempted suicide and adultery displays a judicious approach. Moreover, the introduction of culpability constraints for offenses like sedition demonstrates balanced reform.
- Additionally, the creation of new offenses like terrorism, organized crime, mob lynching, and negligent acts adds novel dimensions to the legal framework.

Evaluating Reform through Criminal Jurisprudence Lens:

- The focus of the debate should extend beyond identifying positive or negative outcomes. Central to this discourse is whether the fundamental principles of criminal jurisprudence have been upheld throughout the reform process. While the trajectory of these reforms remains uncertain, a systematic examination of their principled foundation is feasible.
- The assessment criteria must prioritize addressing the needs and concerns of those affected by the criminal justice system, ensuring the realization of both fundamental and statutory rights.
- Scrutiny of criminal law reform often originates from concerns about potential infringements on individual liberties. The revised laws must strike a delicate balance between state security imperatives and individual freedoms.
- The efficacy of reforms depends on their ability to prevent potential misuse by those involved in the criminal justice system.

Principles of Criminalization and Equality:

- Creating new offenses necessitates adhering to principles of criminalization. The harm caused by criminalized conduct, both in moral and legal terms, warrants systematic study. Moreover, criminal laws must not further widen the gap between societal classes.
- Ensuring equality and equity becomes vital to check the potential biases of criminal law reform. The erosion of public trust in criminal laws has led to legitimacy issues that need to be addressed.

Bridging Rhetoric and Reality:

- Assuming that the populace universally opposes stringent measures against terrorists or organized criminals lacks a strong foundation. However, enhancing the severity of laws doesn't automatically instill public confidence in the criminal justice system.
- The forthcoming Bills face the challenge of bridging the gap between rhetoric and actual implementation. The effectiveness of these reforms hinges on the criminal justice system's capacity to execute them efficiently.
- Nevertheless, systemic shortcomings render numerous legal provisions unfeasible, regardless of their linguistic merit. Ultimately, the true impact of these reforms will be measured by their effects on vulnerable individuals, victims, and the disadvantaged.

Role of Criminal Law in Political Context:

- Over time, the enforcers of criminal law have diluted its essence. The political executive often wields criminal law as a preemptive tool, making it a strategic asset for the state.
- Concepts like risk, endangerment, and dangerousness continue to influence criminal law jurisprudence. This preventive approach raises legitimate concerns and challenges.

Way Forward:

- As these Bills are presented before the select committee for consideration, there is hope for enhanced engagement to improve their language and substance.
- This opportunity should be seized to include provisions concerning victims' rights, hate crime, bail procedures, sentencing framework, and legal aid in pending Bills.
- The envisioned criminal law reforms must strengthen the rule of law and reinforce the pursuit of justice.

Conclusion:

 The introduction of these Bills presents an opportunity to reshape India's criminal laws. While they evoke mixed responses, their potential impact is profound. The real test lies not only in their passage but also in their successful implementation. The journey toward comprehensive criminal law reform is marked by challenges, complexities, and the pressing need for balance between various interests.

Gaps in Births and Deaths Registration (Amendment) Act

Context:

Recently, a significant development has taken place, where the Registration of Births and Deaths (Amendment) Bill, 2023, has received parliamentary approval and the President's assent. This marks the first amendment to the act since its inception.

Relevance:

GS - 01, GS - 02 (Health)

Prelims:

- National Population Register
- Registrar General of India

Mains Question:

 Critically analyze the implications of the Registration of Births and Deaths (Amendment) Bill, 2023, on the establishment of national and state-level databases, the coordination between central and state authorities, and its potential to streamline public service delivery. (250 words)

Registration of Birth and Death (RBD) Act:

- The Registration of Births and Deaths in India has become obligatory following the introduction of the RBD Act in 1969.
- This process is carried out according to the location where the respective event occurs.
- The responsibility for registering births and deaths falls under the **jurisdiction of the State governments** as stipulated in the RBD Act.
- Each State designates a Chief Registrar, entrusted with the operational enforcement of the Act. This individual holds the authority to oversee the Act's implementation.
- An organized hierarchy of officials operates at various levels within districts and lower administrative tiers to carry out the necessary tasks.
- The RBD Act designates the Registrar General of India (RGI) to assume the role of coordinating and streamlining the execution of the RBD Act across the nation.

Dimensions of the Article:

- Building Comprehensive Databases
- Integration with Existing Databases
- Challenges and Aadhaar Integration
- The Central vs. State Databases Debate
- Sharing Information and Legislative Demeanor
- Cause of Death Certification Challenges
- Addressing Missing Persons and Presumed Deaths

Building Comprehensive Databases:

• The primary objective of the amendment is to establish both national and state-level databases of registered births and deaths.

• These databases are aimed at facilitating the enhancement of various public services and social benefits through improved data accuracy and accessibility.

Integration with Existing Databases:

- The Bill mandates the Registrar General of India to maintain a national database, while State-level databases are to be maintained by Chief Registrars of births and deaths in each state.
- These databases are crucial for updating other prominent databases such as the National Population Register, Aadhaar database, electoral rolls, ration cards, and passports.

Challenges and Aadhaar Integration:

- While the Bill requires collecting the Aadhaar numbers of parents during birth registration, there's no mention of collecting the Aadhaar number of the deceased.
- This omission could hinder the removal of deceased individuals' names from databases, impacting the goal of transparent service delivery.
- The aspiration to enhance public services could remain unrealized without comprehensive data collection.

The Central vs. State Databases Debate:

- The existing registration hierarchy allocates the responsibility of registration to State governments, with the Registrar General of India playing a coordinating role.
- The introduction of a central database under the Registrar General's purview raises questions about its necessity.
- The national database could potentially be a conglomeration of State-level databases, making a unified State-level data flow equally viable.

Sharing Information and Legislative Demeanor:

• The Bill emphasizes making the central-level database available to authorities managing various databases like population registers, electoral rolls, Aadhaar numbers, and more.

- However, the inclusion of certain databases in the Bill, with the possibility of future additions, raises concerns about Parliament's legislative authority.
- Leaving potential database additions to executive decisions might undermine the Parliament's role.

Cause of Death Certification Challenges:

- The amendment mandates the issuance of cause of death certificates for deaths occurring within medical institutions. Yet, this approach faces challenges, including cases where medical practitioners might lack a definitive diagnosis before death.
- Moreover, compatibility issues might arise when practitioners from alternative medicine systems record causes of death, potentially affecting international statistical classifications.

Addressing Missing Persons and Presumed Deaths:

- The Act falls short in addressing **missing persons during natural disasters or accidents**. Although searches are eventually called off by the police, families must wait seven years to request a "presumed dead" certificate.
- This gap could be bridged by introducing provisions that allow for registering presumed deaths in calamities, expediting the issuance of death certificates for affected families.

Way Forward:

To harness the potential benefits of the Registration of Births and Deaths (Amendment) Bill, 2023, effective implementation strategies should be devised. Collaboration between central and state authorities is crucial for ensuring seamless data integration and utilization. Simultaneously, addressing challenges related to Aadhaar integration, cause of death certification, and legislative oversight will strengthen the amendment's impact.

Empowering the Future: Nurturing Comprehensive Sexuality Education

Context:

In the recent past, a disconcerting incident surfaced where a father and his minor son were apprehended for the egregious sexual abuse of a five-year-old relative, spanning a six-month ordeal. Such incidents cast a glaring light on the dire need to curtail child abuse. According to the **National Crime Records Bureau (NCRB)**, a staggering 51,863 cases were reported under The Protection of Children from Sexual Offences Act in 2021. Among these, a substantial 64%—equating to 33,348 cases—pertained to sexual assault.

Relevance:

GS – 02 (Issues Related to Children, Government Policies & Interventions)

Prelims:

- Protection of Children from Sexual Offences Act, 2012
- Indian Penal Code
- National Crime Records Bureau (NCRB)

Mains Question:

• Analyze the significance of comprehensive sexuality education in preventing child abuse and nurturing informed, healthy relationships among youth, while underscoring the hurdles and imperatives in its effective implementation. 250 words.

Dimensions of the Article:

- Comprehensive Sexuality Education
- Consensual Dynamics and Awareness
- Nurturing a Vocabulary of Consent
- Necessity of Holistic Learning
- Implications on Intimate Partner Dynamics
- Empowering Educators

Comprehensive Sexuality Education:

- The quest to stymie the tragic instances of child abuse beckons the spotlight toward comprehensive sexuality education.
- However, a faction of state governments and sections of society in India has chosen a regrettably blinkered path, rejecting this holistic approach. Accusing it of prematurely sexualizing children, these entities have either diluted existing programs or cast them aside under the pretext of safeguarding "Indian values."
- This perpetuation of traditional values often shaped by patriarchal and hierarchical constructs is further exacerbated by mass media, thereby impinging adversely upon the youth of all genders.

Consensual Dynamics and Awareness:

- The judicial corridors of the Madras, Delhi, and Meghalaya High Courts, alongside the Chief Justice of India, have sought to spotlight the frequent criminalization of consensual adolescent relationships.
- Urging the government to contemplate a reduction in the age of consent, these courts have not only elucidated the concept of violation and abuse but also accentuated the essence of understanding sexual consent.
- Beyond its relevance in addressing transgressions, comprehending sexual consent forms the cornerstone of fostering wholesome relationships. However, it is unsettling to discern that the understanding of sexual consent remains nebulous among Indian teenagers and even young adults.
- Evidently, a study by the dating app Tinder unfurled an alarming revelation: more than 64% of young Mumbaikars exhibited hesitancy in granting, requesting, and withdrawing consent while dating. This lacuna is disconcerting.

Nurturing a Vocabulary of Consent:

 In the continuum of comprehending consent, the term itself might have been transplanted from English or other Western lexicons. While The Kama Sutra's translation by Sir Richard Burton does harbor a brief discourse on consensual sexual pleasure, the contextual discourse has historically been scant. • As the non-English-speaking populace burgeons, a pressing exigency for cultivating regionally rooted vocabulary that expounds the nuances of sexual consent becomes imminent.

Necessity of Holistic Learning:

- The robust edifice of comprehensive sexuality education extends beyond students, warranting the active engagement of parents and caregivers. The telling statistics from NCRB emphasize that both male and female children are equally susceptible to sexual abuse.
- In consonance with the United Nations Population Fund (UNFPA), access to comprehensive sexuality education anchors itself in fundamental human rights. It emerges as an empowering mechanism for the youth to shield their health, well-being, and dignity.
- The global UN guidance underscores the proposition of initiating comprehensive sexuality education from the tender age of five, dovetailing with formal education. This signifies that young minds will be inculcated with insights about their bodies, emotions, rudimentary consent principles, and adept strategies to navigate violence, bullying, or abuse.
- Insights from the Journal of Adolescent Health, as presented by the World Health Organization, affirm that the implementation of comprehensive sexuality education furnishes young individuals with better-informed perspectives on their rights and sexuality, fostering a propensity for responsible sexual behavior. Notably, programs centered exclusively around abstinence have proven ineffective.

Implications on Intimate Partner Dynamics:

- The multi-faceted impact of comprehensive sexuality education reverberates in the area of intimate partner violence. The UNFPA Operational Guidance for Comprehensive Sexuality Education underscores the imperative of integrating robust monitoring and evaluation components within CSE programs.
- This dimension encompasses a discerning regard for gender norms, power dynamics within intimate relationships, and intimate partner violence. A noteworthy stride unfolded when the State Council of Educational Research and Training conveyed its intention to incorporate awareness about POCSO (The

Protection of Children from Sexual Offences) within the curriculum from 2024-25.

• Amidst the complex interplay between sexual health and human rights, the anticipation rests on a curriculum that embodies comprehensiveness rather than mere legal compliance.

Empowering Educators:

- The UNESCO 2021 Global Status Report on the expedition toward comprehensive sexuality education underscores the indispensability of equipping educators with the requisite capacities.
- The curriculum's essence necessitates participatory pedagogies that transcend conventional teaching methods. The report highlights the perils of inaccurate information and the stifling of discourse around sexuality and rights. Empowering educators assumes paramount significance.
- A government-NGO collaboration from Jharkhand—a model epitomized by the Udaan program—emerges as an illustrative instance. The program, which originated as an Adolescent Reproductive and Sexual Health initiative led by the State AIDS Control Society, metamorphosed into a mainstream educational pursuit, reflecting a commitment to amplify comprehensive sexuality education.

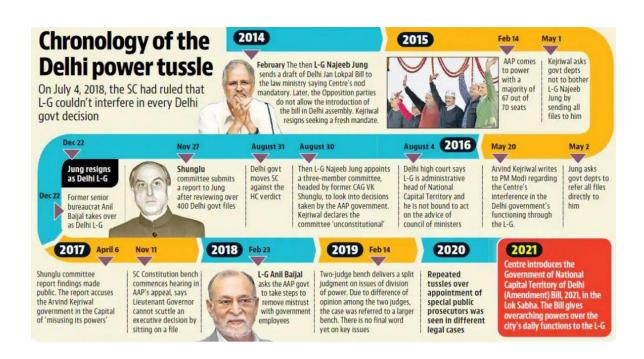
Way Forward:

 As the torchbearers of sexuality education, State governments in India harbor the mantle of responsibility. Within the framework prescribed by the UNFPA, each State enjoys the autonomy to cultivate innovative curricula. The time is ripe to embrace this prerogative.

Delhi services Bill likely to be tabled today in LS

Context

On Tuesday, the Lok Sabha will hear the introduction of the bill that would replace the Delhi Services Ordinance. The Lieutenant-Governor (L-G) would have the last say on all postings and transfers for officials working for the Delhi government under the National Capital Territory of Delhi (Amendment) Act, 2023.



What is the National Capital Territory of Delhi (Amendment) Act, 2023?

- Background: The Act seeks to replace the May 19-promulgated Delhi Services Ordinance. The Supreme Court's ruling on May 11 giving the Arvind Kejriwal-led Aam Aadmi Party (AAP) government in Delhi the authority to enact laws and exercise control over officials working for the Delhi government was virtually overturned by the Ordinance.
- **Objective:** To "give effect to the intent and purpose behind the provisions of Article 239AA of the Constitution," as stated in the bill's aim. The National Capital Territory of Delhi (NCT) is granted specific provisions, and Article 239AA specifies the duties of the Legislative Assembly and the Lieutenant-Governor.
- Designating LG as Authority: The Bill's most important clause designates the Lieutenant-Governor (L-G) as the person who will have the final decision regarding all postings and transfers involving officials working for the Delhi government. This implies that the L-G will exercise major control over Delhi's administrative appointments.
- Creation of Authority: The Bill requires the establishment of a special authority to handle senior officer transfers and postings within the Delhi government. The Bill might include a description of this authority's specifics, such as its structure and methods of operation.
- **Permanent Authority:** The Bill proposes creating a permanent authority to oversee the appointment and transfer of senior executives. Along with the Chief Secretary and the Principal

Secretary, Home, of the Delhi government's National Capital Territory, the planned authority will be led by the chief minister of Delhi. This power will probably be quite important in appointments to the bureaucracy.

What are the changes made to the ordinance?

- Dropping Section 3A: Section 3A of the former Ordinance is repealed by the Bill. This section gave the Delhi Legislative Assembly certain authority to enact laws in accordance with Article 239AA, subject to certain restrictions on topics listed in Entry 41 of List II of the Seventh Schedule of the Indian Constitution and any related or incidental matters.
- Giving L-G Appointment Authority: The Bill gives the Lieutenant-Governor the authority to name the leaders of any boards or commissions that the Delhi Legislative Assembly appoints. As a result, the L-G now has more power to name individuals to important positions in the administration.

What were the problems created by the passing of the ordinance?

- Accountability:
 - In a representative democracy, the "triple chain of accountability" is a crucial system. Civil servants are accountable to the cabinet, which is accountable to the Legislative Assembly, and ultimately, the electorate. This system ensures a fair and just government. The act breaks up this line of responsibility by transferring authority over services, such as official appointments and transfers, from the elected government to the lieutenant governor.
 - This calls into question the fundamental tenet of representative governance and casts doubt on the NCT's ability to operate democratically.

• Power Struggle:

- The ordinance has brought up a conflict of interest between the Lieutenant Governor and the elected government.
- The elected government claims that the ordinance strips it of its power and violates the Constitution by removing its control over the transfer and posting of officials and important administrative jobs.
- The Lieutenant Governor, on the other side, insists that the order is vital to guarantee proper government in Delhi.

• Problems with the Ordinance's Provisions:

- The Ordinance gives Delhi's Lieutenant Governor the authority to nominate people to important administrative positions. This undercuts the elected government's legitimacy to have a voice in who is chosen to carry out its programs.
- The ordinance also transfers and posts officials, which was formerly the sole purview of the elected government, to the Lieutenant Governor. The elected government's capacity to assign officials in accordance with its policy priorities is hampered as a result.

Constitutional Issues:

- The elected government asserts that the law is unconstitutional since the Constitution grants it the authority to select and remove officials.
- The Constitution's embedded federalism principle, which emphasizes a clear division of powers between the federal government and state governments, is thought to have been violated by the Lieutenant Governor's expanded powers under the ordinance.
- Additionally, the ordinance stipulates that the Lieutenant Governor's opinion shall take precedence over that of the elected government in the event of a disagreement, thus reducing the latter's power.

Three Bills passed in the Rajya Sabha in Opposition's absence

Context

Due to the opposition members' boycott of the proceedings due to the violence in Manipur, the Rajya Sabha also cleared three Bills on Thursday without much debate. Similar procedures were used by the Upper House on Wednesday to pass three Bills.

Advocates (Amendment) Bill, 2023

- Recognition of Touts
 - According to the Bill, a "tout" is someone who participates in specific activities connected to attorneys.
 - A tout is a person who, in exchange for payment, either promises to find a legal business for a lawyer or does so.

- Touts are moreover people who frequently visit locations like civil or criminal courts, revenue offices, or train stations to get legal jobs a lawyer.
- Empowered Authorities:
 - The Bill grants the power to frame and publish lists of touts to several authorities, including:
 - High Courts
 - District Judges
 - $_{\circ}$ Sessions Judges
 - District Magistrates
 - Revenue Officers (not below the rank of a district collector)
- Investigation of Suspected Touts:
 - The authorities in charge of compiling the lists of touts have the authority to direct lower courts to look into the behaviour of people who are believed to be touts.
 - The investigation's goal is to gather information and determine whether the subject is indeed involved in dubious activity.
- Due Process and Chance to Present Case:
 - Before a person's name is added to the list of touts, they must be given the chance to do so.
 - The person who is believed to be a tout must be allowed to argue against their exclusion from the list.
 - This guarantees that a fair and transparent process is followed before a person is classified as a tout.
- Refusing to Enter Court Property:
 - Once a person's name appears on the list of touts, they might not be allowed inside the courthouse.
 - This precaution is meant to stop touts from operating on the grounds of the court and interfering with legal procedures.
- Repercussions for Serving as a Tout:
 - People who continue to work as touts after their names have been added to the list are subject to penalties outlined in the bill.
 - Such offenders risk a fine of up to Rs 500 as well as a sentence of up to three months in jail.

The Press and Registration of Periodicals Bill, 2023

• Periodical Registration: The Act requires the cataloguing of books as well as the registration of newspapers, journals, and magazines. The Bill makes registration of periodicals—which includes any publication that incorporates public news or

commentary on public news—explicitly provisional. However, it does not include books or scholarly or scientific publications in its scope of application.

- Online Registration Process: The Bill establishes a more streamlined and contemporary method of acquiring a periodical registration certificate. The publisher can now apply for registration online with the Press Registrar General and the designated local authority rather than submitting a declaration to the District Magistrate (DM).
- **Publisher Disqualification:** The Bill prohibits those who have been found guilty of terrorism, criminal action, or acting against the security of the State from publishing a periodical.
- Reproduction of Foreign magazines: Only with previous central government consent may exact reproductions of foreign magazines be printed in India. The authorities will set down the procedure for registering such foreign journals.
- Press Registrar General: The Bill creates the office of the Press Registrar General of India, who will be in charge of providing registration certificates for all magazines. This official will keep a registry of journals, establish standards for titles' eligibility, check circulation numbers, and have the power to modify, suspend, or revoke registrations.

The Offshore Areas Mineral (Development and Regulation) Amendment Bill, 2023

- **Composite Licence:** A new type of concession known as a "composite licence" that combines exploration and production rights is introduced by the Bill. The licensee is required by this license to finish exploration tasks within three years, with a possible two-year extension upon application. The licensee will be given one or more production leases for the explored region if mineral resources are found during exploration.
- Limits on Maximum Area: The Bill places restrictions on the largest area that may be covered by a single composite licence. The restriction is 15 minutes latitude by 15 minutes longitude for production and 30 minutes latitude by 30 minutes longitude for exploration.
- **Concessions' Duration**: The Bill increases the current 30-year duration of production leases, including those under composite licenses, to 50 years. This gives mining operations longer-term certainty.
- Mandatory Auctions: Under the Bill, private enterprises must participate in competitive bidding to obtain a production lease or

a composite licence. A bidding process has taken the place of the previous administrative allocation for concessions provision.

 Mining in Reserved Areas: According to the Bill, the administering authority may offer production leases or composite licences to the federal government or government-affiliated mining firms for mining in offshore reserves. Under specific restrictions, joint ventures including government-owned businesses will also be acceptable.

Bill seeks to remove CJI from the panel that picks CEC and ECs

Context:

The Chief Justice of India (CJI) was included on a panel to choose the Chief Election Commissioner and Election Commissioners. On Thursday, the Union government introduced a Bill to have the CJI removed from the panel.



What are the Chief Election Commissioner and other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023 all about?

• In order to change the procedure for choosing the Chief Election Commissioner and Election Commissioners, the Union government filed a new bill in the Rajya Sabha.

- The proposed bill aims to replace the Chief Justice of India (CJI) with a Union Cabinet Minister and remove the CJI from the selection panel.
- The Prime Minister, a member of the Union Cabinet, and the head of the opposition in the Lok Sabha will now make up the panel.

What was the need by the government to make the change?

- According to the government, the new structure will simplify the selection procedure and establish a more effective system for choosing Election Commissioners.
- The action is viewed as an effort to reform the selection procedure, giving the political administration more sway over the appointment of important personnel.

How did the opposition respond to the bill?

- The Congress and the CPI(M), two opposition parties, have voiced their strong opposition to the planned move.
- They think that by possibly infusing political bias into the hiring process, the new composition could jeopardize the impartiality and independence of the Election Commission.

What are the potential issues that could rise with the change in the panel?

- The Prime Minister and a Cabinet Minister being members of the panel, according to the bill's detractors, raises the risk of bias in favour of the ruling party while choosing Election Commissioners.
- They contend that rather than guaranteeing an unbiased Election Commission, such a composition would result in the appointment of people whose interests may be more aligned with those of the government.
- The selection procedure's fairness may be questioned in light of the Chief Justice of India's absence from the panel.
- Leaders of the opposition are concerned that this change may jeopardize the credibility of the Election Commission and its ability to supervise free and fair elections.

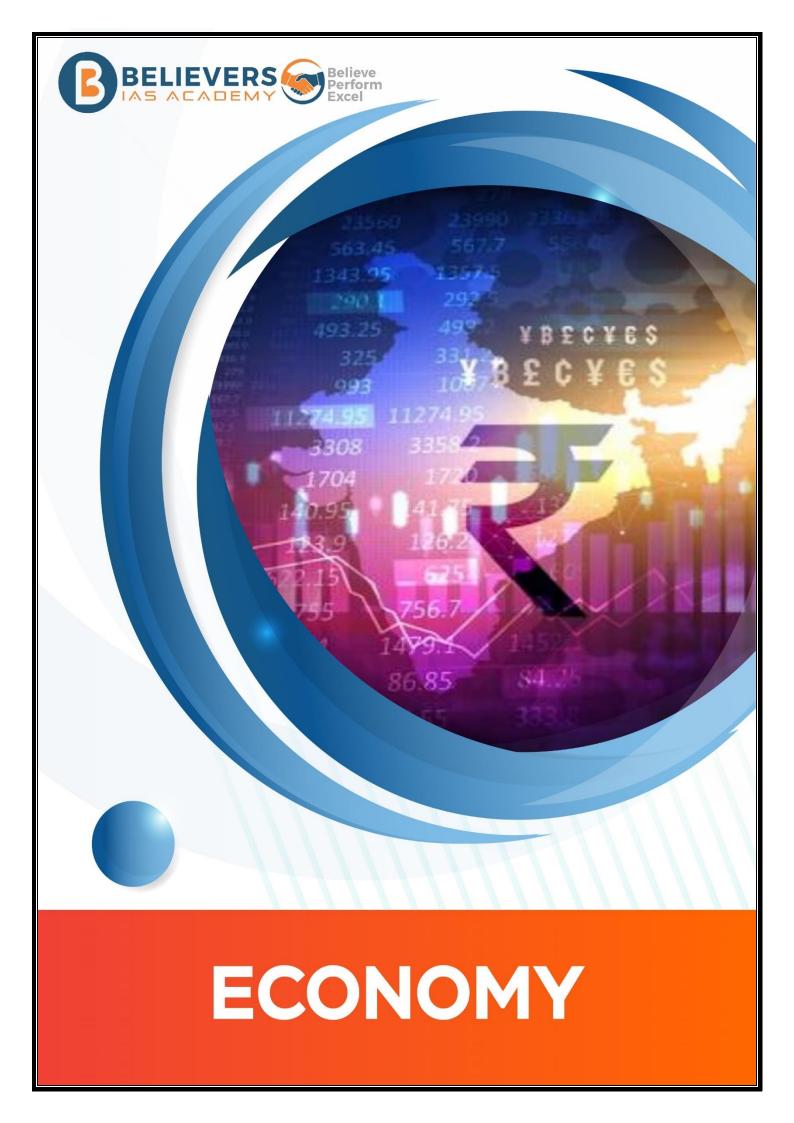
What were the Supreme Court's previous rulings regarding the case?

• The Chief Justice of India, the Prime Minister, and the Leader of the Opposition in the Lok Sabha should make up the selection committee, the Supreme Court has previously declared.

- The goal of the court's decision was to guarantee an impartial and fair selection process for election commissioners.
- The court's ruling highlighted how crucial it is to keep the Election Commission's independence and reputation.

How is this going to impact on the Democracy?

- Critics of the government's action claim that it aims to undermine institutions by changing the selection procedure.
- They contend that this modification may give the ruling party more power to influence how the Election Commission operates.
- The debate serves as a reminder of how important it is to preserve the impartiality and integrity of fundamental democratic institutions.
- The discussion is a reflection of a greater worry regarding the degeneration of democratic values and principles in favour of partisan interests.
- Wider discussions regarding the separation of powers between various branches of government are sparked by controversy.



Beyond Subsidies: Pivoting India's Clean Cooking Journey for a Greener Future

Context:

The Government's initiatives like Grameen Vitrak Yojana and the Pradhan Mantri Ujjwala Yojana (PMUY), have played pivotal roles in expanding the LPG distributor base and providing millions of new households with LPG connections. This administrative and operational feat has resulted in an astounding 71% of Indian households using LPG as their primary cooking fuel in 2020, marking a remarkable shift from a mere 33% in 2011.

Relevance:

GS - 03 (Food Security) GS - 02 (Government Policies & Intervention)

Mains Question:

• Discuss the challenges and opportunities related to the adoption of Liquefied Petroleum Gas (LPG) in Indian households. Analyze the recent trends in LPG consumption and propose viable alternatives to boost adoption beyond subsidization. (150 words)

Dimensions of the article:

- The LPG Story
- Reducing Reliance on Imported LPG
- Diversity in Clean Cooking
- Nudging the Transition
- Financing the Transition: From Subsidies to Clean Air Benefits

The LPG Story:

- The exponential growth in LPG usage, with 71% of Indian households adopting it as their primary cooking fuel, reflected a strong inclination towards clean cooking solutions.
- Unforeseen global events, such as the COVID-19 pandemic and geopolitical conflicts like the Russian invasion of Ukraine, have impacted India's near-term prospects of achieving universal LPG usage.
- The withdrawal of LPG consumption subsidies for all consumers during the pandemic and later the implementation of the Pradhan Mantri Garib Kalyan Yojana, providing three free cylinders to PMUY consumers, created significant shifts in refill rates.

• Despite these efforts, challenges persist, including home delivery and distribution channel issues, requiring greater budgetary allocation for subsidies to entice low-income households into LPG adoption.

Reducing Reliance on Imported LPG:

- India's dependence on imported LPG has surged to over 64% in FY23, emphasizing the need to reduce reliance on foreign supplies. Moreover, the volatility in international prices since the Russian war against Ukraine has added uncertainty to the already complex situation.
- The country's budget heavily relies on petroleum taxation, making it financially impractical to revert to past subsidy levels for LPG consumption. Consequently, diversifying clean cooking technologies beyond LPG becomes a pressing necessity.



Diversity in Clean Cooking:

- To overcome the impasse, India's clean cooking policy should pivot towards embracing a suite of clean-cooking technologies, shifting away from an exclusive reliance on LPG. Electric cooking, particularly through induction cook-tops, emerges as a viable alternative that can offset the need for traditional flamebased cooking.
- The accessibility of electricity connections in rural households opens avenues for specific cooking needs to be met through

electricity, with CEEW studies revealing that even at higher tariffs, e-cooking can be more cost-effective than LPG.

 However, concerns about the rural power distribution grid's capacity must be addressed to support widespread adoption of electric cooking.

Nudging the Transition:

- Drawing inspiration from the approximately 10% of urban households that already use electric appliances for cooking, a strategy to encourage a larger transition in rural areas could be implemented.
- Gradually increasing LPG prices beyond a certain threshold for higher-use groups might drive the demand for new e-cooking technologies, creating a positive bandwagon effect.
- This, in turn, can foster domestic manufacturing of e-cooking technologies, reducing dependence on imported LPG and crude oil and preserving foreign exchange reserves. Policymakers should provide targeted support to manufacturers to enhance efficiency and design tailored solutions for Indian households' needs.

Financing the Transition: From Subsidies to Clean Air Benefits

- Shifting the focus from LPG subsidies alone, the debate must center around financing and business models that recognize the broader benefits of India's clean cooking transition.
- By embracing diverse clean-cooking solutions, including ecooking, India can reduce climate pollutants' release and contribute to clean air.
- Through the newly launched carbon market, the country can monetize the avoided emissions and channel the financial gains to support poorer rural communities' adoption of e-cooking.
- This approach not only complements India's climate goals but also values the transition for its sustainable and healthier outcomes.

Way Forward

 To ensure sustained progress in clean cooking adoption, India needs to embrace a multi-pronged strategy. Policymakers should promote and incentivize the adoption of electric cooking technologies, complementing LPG usage. Moreover, initiatives should be designed to encourage rural households to shift specific cooking needs to electricity, capitalizing on the extensive electricity access. By gradually transitioning higher-use groups from LPG to electric cooking, India can create a robust market for domestic manufacturing of e-cooking technologies. The revenue generated from avoided emissions in the carbon market can be directed towards supporting underprivileged rural communities in adopting these cleaner alternatives.

Conclusion

India's journey towards expanding LPG adoption has been nothing short of remarkable, but recent challenges necessitate a fresh approach. The country must move beyond relying solely on subsidization and instead focus on diversifying clean-cooking technologies. The adoption of electric cooking, in conjunction with LPG usage, can lead to more sustainable and cost-effective solutions while also reducing the reliance on imported LPG and mitigating climate pollutants. By shifting the narrative from LPG subsidies to recognizing the broader clean air benefits, India can secure a greener and healthier future for its citizens.

Government's Infrastructure Efforts Bearing Fruit

Context:

India's infrastructure development has shown encouraging signs of progress, as evident from the robust growth in the eight core sectors. The year-on-year production increase reached a five-month high of 8.2%, with seven sectors, including steel, cement, and electricity, witnessing substantial advancements.

Relevance:

GS - 02, GS - 03(Government Policies & Interventions) (Growth & Development) (Infrastructure)

Prelims:

- Infrastructure Finance Secretariat (IFS)
- PPP
- PM Gati Shakti
- NIP

Mains Question:

• Discuss the impact of government efforts in bolstering infrastructure on the growth of India's core sectors. Analyze the significance of steel and cement industries in the overall

development, and highlight the challenges faced by the oil sector despite the pursuit of Aatmanirbharta. (250 words)

Dimensions of the article:

- Steel and Cement: Powering the Growth
- Electricity: Overcoming Cyclonic Challenges
- Oil Sector: Aatmanirbharta's Pending Triumph

Steel and Cement: Powering the Growth

- The core sector index's standout performers were the steel and cement industries. Steel, accounting for nearly 18% of the index, exhibited an impressive surge of 21.9% in output, driving the overall sectoral growth.
- Similarly, the cement industry posted an almost double-digit increase, emphasizing the persistent demand momentum.
- These positive results can be attributed to the government's focus on enhancing infrastructure spending, particularly in areas like affordable housing, urban renewal, and transportation networks.
- The fiscal first quarter saw steel and cement grow by 15.9% and 12.2%, respectively, showcasing their pivotal roles in the nation's economic expansion.

Electricity: Overcoming Cyclonic Challenges

- Despite facing the impact of a cyclonic storm that significantly affected Gujarat's industrialized regions, the electricity sector managed to achieve its strongest growth in four months.
- Constituting a fifth of the core index, electricity's resilience underscores its significance in India's economic landscape.
- The demand for coal, a key component in electricity generation, also surged, lifting first-quarter production by 8.7%.
- Notably, coal demand extends beyond the electricity sector, benefiting various industrial segments like metal making and process industries, which rely on it for fueling furnaces and boilers.

Oil Sector: Aatmanirbharta's Pending Triumph

- While progress is evident in multiple sectors, India's efforts to achieve self-reliance in the oil sector still face challenges. Crude oil production witnessed a persistent decline for the 13th consecutive month, shrinking by 0.6%.
- This highlights the country's heavy reliance on crude oil imports to meet its fuel needs. Despite the pursuit of Aatmanirbharta

(self-reliance), regulatory inconsistencies continue to hamper the oil sector's growth.

 Policymakers must address these issues to ensure a supportive policy environment, especially in light of the uncertain global demand.

Way Forward:

To sustain the positive momentum in the core sectors, the government should:

- Strengthen Policy Support: Policymakers must ensure consistency and stability in the regulatory environment to encourage private investments and boost industrial growth.
- Focus on Renewable Energy: Given the increasing significance of sustainable practices, promoting renewable energy sources can contribute to both economic development and environmental preservation.
- Invest in Skill Development: Enhancing skill development initiatives will equip the workforce with the expertise needed to meet the demands of a rapidly evolving economy.
- Diversify the Oil Sector: Encouraging research and development in the oil sector and diversifying energy sources can reduce the country's dependence on crude oil imports and bolster energy security.

National Family Health Surveys (NFHS)

Context:

In a time when statistical data holds importance for evidence-based policymaking, the Union government's response to statistical findings has been a cause for concern. The recent suspension of K.S. James, the Director of the International Institute for Population Sciences (IIPS), which prepares the National Family Health Surveys (NFHS) and reports to the Health Ministry, raises eyebrows regarding the underlying motives.

Relevance:

GS - 02 (Government Policies & Interventions) (Health) (Gender) (Issues Related to Children) (Issues Related to Women) (Poverty & Hunger)

Prelims:

About National Family Health Survey (NFHS)

Mains Question:

 Critically analyze the government's response to statistical findings and its impact on evidence-based policymaking in India. 150 words.

Overview of National Family Health Survey (NFHS):

- NFHS is a comprehensive, multi-round survey conducted in India, targeting a representative sample of households.
- The Ministry of Health and Family Welfare (MoHFW) has designated the International Institute for Population Sciences (IIPS) Mumbai as the nodal agency to oversee and provide technical guidance for the survey. IIPS collaborates with various Field Organizations (FO) for the survey's successful implementation.
- Each round of NFHS aims to achieve two primary objectives:
 - To furnish crucial health and family welfare data required by the Ministry of Health and Family Welfare and other organizations for policymaking and program development.
 - To offer insights into emerging health and family welfare concerns.
- The NFHS provides valuable state and national-level information on a range of aspects, including fertility, infant and child mortality, family planning practices, maternal and child health, reproductive health, nutrition, anaemia, and the utilization and quality of health and family planning services.
- The funding for various rounds of NFHS is provided by esteemed organizations such as USAID, the Bill and Melinda Gates Foundation, UNICEF, UNFPA, and the Government of India's Ministry of Health and Family Welfare (MoHFW).

Dimensions of the Article:

- Hostile Approach Towards Data Release
- Burden of Truth Data Suppression
- Undermining Traditional Statistical Institutions
- The problem of Census

Hostile Approach Towards Data Release:

 Recent instances of the government's adversarial stance towards data release from its own agencies have emerged. For instance, the NFHS-5 (2019-21) challenged the government's claim of achieving Open Defecation Free (ODF) status for all villages.

- 19% of surveyed households were found to have no access to toilet facilities, undermining the government's claims.
- Other surveys, including the National Statistical Office survey of October 2018 and the National Annual Rural Sanitation Survey of 2019-20, further exposed the veracity of ODF claims.

Burden of Truth - Data Suppression:

- The Ministry of Statistics and Programme Implementation's decision to discard the 2017-18 Consumer Expenditure Survey (CES) citing data quality concerns raises eyebrows.
- Important indices like inflation and poverty continue to be tied to the CES of 2011-12, leading to a lack of updated and accurate information.
- The Periodic Labour Force Survey by the NSSO, which exhibited a stark increase in unemployment, faced delays in its release, indicating an attempt to conceal unpleasant realities. Such suppression of data undermines the credibility of statistical institutions and affects informed decision-making.

Undermining Traditional Statistical Institutions:

- The involvement of NITI Aayog in releasing GDP growth back series in contrast to an NSC report exemplifies the government's efforts to undermine traditional statistical institutions.
- The interference of political entities in statistical matters raises doubts about the objectivity of the data and questions the integrity of the entire statistical system.
- Moreover, attempts to discredit methodologies used in surveys, such as the NFHS, by influential figures within the government further erode public trust in data-driven policymaking.

The problem of Census :

- The prolonged delay in conducting the decennial Census has cast a shadow on various statistical measures and programs that rely on Census information.
- Such unwarranted delays impede the government's ability to accurately assess demographic trends, leading to ambiguities in policymaking.
- As the digital world expands with a surge of public data, it is imperative to have a robust statistical system.
- The government's actions and decisions in this regard have contributed to strains and challenges within the statistical ecosystem.

Way Forward:

- To ensure data integrity and facilitate effective policymaking, the government must adopt a more transparent and inclusive approach towards statistical data.
- It should embrace constructive criticism and engage in open discussions with statistical institutions to address concerns and improve methodologies.
- Safeguarding the autonomy and credibility of these institutions is essential for fostering an environment of trust and transparency in data analysis.

Conclusion:

The government's response to statistical findings reveals a concerning pattern of evasion and reluctance to accept inconvenient truths. The suppression and delayed release of data, coupled with attempts to undermine traditional statistical institutions, compromise the reliability of information vital for policy making. To steer the nation towards evidence-based governance, the government must prioritize transparency, inclusivity, and the integrity of statistical data.

The Great Indian Startup Boom

Context:

The Great Indian Startup Boom in the past decade has witnessed an extraordinary surge in entrepreneurial fervor, spearheaded by young visionaries and fueled by the government's trailblazing Startup India initiative. This robust ecosystem of entrepreneurship is no longer confined to metropolitan cities but has remarkably permeated the aspirations of entrepreneurs from suburban and rural regions as well. At present, the government has officially recognized over one lakh startups, and surprisingly, nearly half of them have originated from Tier 2 and Tier 3 cities. This monumental growth has emboldened India's youth, endowing them with a profound sense of agency and the liberty to chart their own course towards destiny.

Relevance:

GS - 03 (Employment, Growth & Development, IT & Computers, Mobilization of Resources)

Prelims:

Startup

- National Initiative for Developing and Harnessing Innovations
- NIDHI
- Startup India Action Plan
- Credit Guarantee Scheme for Startups (CGSS)
- National Startup Advisory Council, Startup India Seed Fund Scheme (SISFS)

Mains Question:

1. Discuss the profound impact of the Great Indian Startup Boom on the country's economy, focusing on the proliferation of deep tech startups in various sectors and their potential to drive industrialization and generate employment opportunities. 250 words.

Dimensions of the Article:

- Catalyzing Deep Tech Entrepreneurship
- The Nexus between Deep Tech Startups and S&T Discoveries
- The Promising Path of Deep Tech Startups
- Industrial Investment in R&D and the Deep-Tech Startup Preference
- Nurturing the Risk Appetite of the Startup Ecosystem

Catalyzing Deep Tech Entrepreneurship

- The Startup movement has transcended the realm of consumer Internet and e-commerce, making resolute strides into genuine deep technology domains. These revolutionary sectors encompass a diverse array of cutting-edge fields, such as space and remote sensing, artificial intelligence and robotics, biotech and pharma, electric vehicles, drones, defense, telecommunications, semiconductors, among many others.
- Unquestionably, the impact of these real sectors stretches far beyond the conventional digital marketplaces, embracing seller discovery and information exchange, to ingeniously revolutionize various facets of the economy, ultimately driving profound industrialization in untapped domains and paving the way for enhanced job opportunities.

The Nexus between Deep Tech Startups and S&T Discoveries

 Notably, deep tech entrepreneurship has also unfurled new avenues for scientific and technological (S&T) discoveries to transcend the confines of public sector laboratories and find their way into the market.

- A plethora of success stories emerges from noteworthy institutions like IIT Madras's Research Park, which has nurtured over 200 deep tech companies, collectively valued at a staggering ₹50,000 crore, encompassing space and aviation sectors.
- Similarly, C-CAMP boasts a portfolio of seven pioneering biotech startups, securing a combined funding of over ₹550 crore. Additionally, the Venture Centre at the National Chemical Laboratory exemplifies its indispensable support in patent filing and commercialization of high-quality patents, exemplifying the seamless integration of science from public-funded institutions into the realm of startups, benefitting citizens and consumers alike.

The Promising Path of Deep Tech Startups

- Intriguingly, our discussions with technology leaders in academia and industry have uncovered a fascinating trend - faculty members are increasingly drawn to spinning out their discoveries through startups founded by themselves or their alumni, eschewing conventional licensing or patent reassignments.
- This evolving landscape presents a unique opportunity to harness the extensive historical investments in S&T within public labs and institutions. Consequently, deep tech startups emerge as the main conduit through which India confidently takes on technology risks, an indispensable element in the pursuit of building formidable new capabilities.
- In stark contrast, traditional risk-taking sectors such as government departments and legacy corporates appear to be mired in inertia, perhaps ensnared by the intense scrutiny of their respective stakeholders, voters, and public market investors.

Industrial Investment in R&D and the Deep-Tech Startup Preference

- Regrettably, India's industrial investment in research and development (R&D) continues to languish in most sectors, barring the noteworthy exception of the pharmaceutical industry.
- Notably, the industrial landscape predominantly favors investments in deep-tech startups and the acquisition of successful, scaled technologies. This trend is underscored by numerous instances of Indian legacy corporates acquiring deep

tech startups, such as the Tatas' acquisition of Saankhya and Tejas Networks, Reliance's foray into Faradion, and Hero Motors' equity stake in Ather Motors.

Nurturing the Risk Appetite of the Startup Ecosystem

- Central to the sustained dynamism of the startup ecosystem is the remarkable tenacity displayed in retaining risk appetite. The key to this endurance lies in a system-wide shared approach to assessing risk and progress during frequent rounds of funding negotiations.
- The ecosystem operates with a shared vocabulary of rounds, stages, and product-market-fit, while preserving the autonomy of multiple venture funds and investors. This formidable model has unlocked the true potential of innovation, long eluding the Indian landscape.
- It is incumbent upon the government and industry to amplify this groundbreaking model manifold, birthing enterprises that resonate with India's vast scale and potential.

Way Forward:

- Amplifying Risk Capital for Deep-Tech Startups: The government must channel its focus towards bolstering risk capital for deep tech startups. Emphasizing the aforementioned sectors within the existing SIDBI Fund of Funds can yield fruitful results. Simultaneously, industry players must actively augment their research funds, directing them towards the financing of innovative deep tech startups.
- Enabling Mass Procurement of Indigenous Technologies: Facilitating mass procurement of indigenously developed technologies becomes imperative. Despite nascent attempts across Ministries such as defense, smart cities, and health, there remains a pressing need for a cohesive, concerted push across the entire government machinery. Industry and relevant bodies can significantly contribute to this endeavor by consolidating demand within their sectors and promoting locally-made technologies through co-creation at incubators, expediting testing and certification procedures, and offering support for large-scale procurement of innovative goods.

Conclusion:

The inception of the Startup India movement marked the dawning of an era characterized by innovation, resilience, and tenacity, uniquely defining the Indian entrepreneurial spirit. Embarking on the transformative journey towards Startup India 2.0, the country finds itself at the cusp of monumental growth, driven by the everexpanding horizons of deep tech startups. Nurturing these startups, backed by substantial risk capital and the indomitable spirit of India's entrepreneurs, holds the potential to propel the nation towards unparalleled industrial and public capabilities. Fostering Indian economic growth, generating employment opportunities, ensuring national security, and fortifying various national capabilities converge into the overarching vision of Startup India 2.0, a vision that resonates with the heartbeat of a nation on the cusp of greatness.

GST Council's Rethink on Gaming Bets Taxation

Context:

The Goods and Services Tax (GST) Council's recent reconsideration of gaming bets taxation has stirred controversy, raising concerns about uncertainty in the industry. Initially, the Council proposed a 28% GST on the face value of bets in casinos, horse racing, and the online gaming sector. However, in response to industry outcry and inputs from the Electronics and IT Ministry, the Council decided to revisit the issue. The imposition of this tax was met with strong resistance from online gaming players who argued that it could jeopardize the booming sector, which has attracted substantial investments and generated numerous job opportunities.

Relevance:

GS - 02, GS - 03 (Judgements & Cases) (GST)

Prelims:

- The Lotteries Regulation Act, 1998
- Prize Competitions Act, 1955:
- GST

Mains Question:

 Discuss the recent reconsideration of the Goods and Services Tax (GST) Council regarding the taxation of gaming bets.
 Examine the concerns raised by industry stakeholders and the reasons behind the Council's decision to review the tax. 250 words

Dimensions of the Article:

- Industry Outcry and Global Norms
- Pleas from States and Council's Stand
- Uncertainty and Review Clause
- The Perils of Uncertain Policies

Industry Outcry and Global Norms:

- The gaming industry's vehement opposition to the 28% GST on betting values stems from the fear that such a substantial tax could spell doom for the sunrise sector.
- With billions of dollars in investments and thousands of jobs on the line, stakeholders argued that the proposed tax rate might stifle growth and deter potential investors.
- Comparatively, global norms tend to focus on taxing the gross gaming revenue, a model that many consider more balanced and conducive to industry expansion. Thus, the Council's departure from this established practice has raised eyebrows and fueled concerns about the future of online gaming in India.

Pleas from States and Council's Stand:

- The issue took an interesting turn when States like Sikkim and Goa sought to apply the same tax approach to casinos. However, their pleas were not met with favor by the Centre and most other States.
- Despite resistance, the Council remained steadfast in its stance, showing a willingness to adhere to its original decision.
 Nonetheless, a slight concession was made to address concerns about repeat taxation on reinvested earnings.
- The formulation now ensures that the tax levy remains confined to the initial wager, mitigating some apprehensions from industry players. However, this compromise does not fully alleviate the industry's anxieties over the broader implications of the tax regime.

Uncertainty and Review Clause:

- While the GST Council's ability to make decisions by majority vote is acknowledged, the promise of a review six months after implementing the tax creates an air of uncertainty for businesses and investors.
- Finance Minister Nirmala Sitharaman defended this review clause, possibly as an attempt to placate dissenting States like Goa and Sikkim. However, this move reflects a lack of

confidence in the Council's resolution, raising questions about its conviction in implementing the tax policy.

 As businesses and industry stakeholders await the finer details of legislative changes and subsequent rules notified by the Revenue Department, the potential for a review that could swing either way adds an element of unpredictability to investment plans and business operations.



The Perils of Uncertain Policies:

 The GST Council has occasionally clarified or adjusted tax treatments when warranted by changing circumstances. However, announcing a review from the outset sets a precarious precedent. It sends a signal that the Council's decisions can be influenced easily by industry representations or demands from individual States. This apparent lack of steadfastness in policymaking could jeopardize India's reputation as a reliable investment destination with predictable policies. For the country to attract more significant investments and foster a conducive business environment, it is imperative that policy decisions are well-considered and communicated clearly without room for ambiguity or uncertainty.

Way Forward:

• To restore confidence and stability in the gaming industry and broader investment climate, the GST Council must exhibit greater conviction in its tax policy decisions.

- Avoiding abrupt reviews and maintaining consistency with global norms can provide the much-needed reassurance to investors and stakeholders.
- The Council should engage in constructive dialogues with industry experts, State representatives, and other stakeholders to arrive at a balanced and sustainable taxation model that supports growth and innovation.

Conclusion:

The GST Council's rethinking of gaming bets taxation has raised significant concerns about uncertainty and its commitment to policy decisions. While industry stakeholders welcome the slight concession on repeat taxation, the broader implications of the tax on the gaming sector remain ambiguous. The review clause, though intended to address dissenting voices, introduces a sense of unpredictability, potentially impacting investment plans. To foster a reliable investment climate, the Council must demonstrate conviction in its decisions and ensure policy consistency, thereby reinforcing India's position as an attractive destination for investments.

Emerging Trade Dynamics: Understanding Rupee Diplomacy and the Shifting Currency Landscape

Context:

In the complex dance of global trade, where nations coordinate economic exchanges on the world stage, India's role as a preferred trading partner has become increasingly evident. This fact has gained prominence, particularly since the turning point of March 2018, when 23 diverse nations, spanning the spectrum from advanced to developing, forged currency swap arrangements with India. These arrangements extended lines of credit, facilitating the settlement of transactions and highlighting India's potential as a significant market player.

Relevance:

GS - 03 (Fiscal Policy, Monetary Policy, Capital Market)

Prelims:

- Depreciation of Indian Rupee
- Currency swap agreement
- RBI's framework for Currency swap

- Inflation
- Depreciation Vs Devaluation
- Appreciation Vs Depreciation

Mains Questions:

 How has India's status as a favored trading partner been underscored by currency swap arrangements? What key factors have propelled the use of the Indian rupee for international transactions? (250 words)

Dimensions of the Article:

- Shifting Tides of Trade Settlement
- The Dance of Rupee Diplomacy
- Unraveling the Mechanism: Rupee Vostro Accounts and Beyond
- Challenges and Solutions
- A Multifaceted Dilemma
- Echoes of Bilateral Past
- A Blend of Past and Present: Comparisons and Contrasts

Shifting Tides of Trade Settlement:

- In the changing landscape of global trade, the use of the Indian rupee for international transactions took an unexpected turn.
- The catalyst for this change emerged in the form of the Ukraine-Russia conflict that began in early 2022.
- The resulting turmoil led to sanctions imposed by the United States and the European Union against Russia.
- These sanctions targeted Russian financial institutions directly, adding a straightforward element to the punitive measures.

The Dance of Rupee Diplomacy

- The intricacies of the new trade landscape between India and Russia revealed a unique mechanism for settling payments - a dance of rupee diplomacy, so to speak.
- Amidst the turmoil of global events, a new route was chosen to navigate the complexities of India-Russia transactions.
- The Indian rupee took on a central role as a bridge between these two significant players. This strategic shift was particularly important for Russia, a key supplier of India's substantial crude oil imports, and for India, a significant market for Russian exports.

Unraveling the Mechanism: Rupee Vostro Accounts and Beyond

• Unraveling the mechanics of this transformation, we find the use of Rupee Vostro accounts as the linchpin.

- Authorized dealer banks in India established these accounts in Russian banks to facilitate the settlement of payments between the two nations.
- In this interplay of trade, Indian importers took center stage, following the terms of this arrangement. They engaged in a harmonious exchange of rupees, sending them to the Rupee Vostro account through authorized Indian banks.
- These payments were directed against invoices presented by Russian suppliers, resulting in a harmonious flow of transactions.

Challenges and Solutions

- However, even within this seemingly seamless choreography, challenges emerged, casting shadows on the performance.
- The heart of the matter lay in Russia's persistent trade surplus, which, against the backdrop of global turbulence, remained strong. The figures, staggering in their implications, revealed a trade surplus of \$3.42 billion for 2020-21, followed by subsequent surpluses.
- The central question was how to maintain the rhythm of payments when Russia displayed hesitation in accumulating Indian rupees. This concern stemmed from the rupee's modest status in the global currency hierarchy, inviting worries of potential depreciation.

A Multifaceted Dilemma

- The solution was as complex as the dilemma itself. With the dollar and the Euro rendered impermissible due to sanctions, the path forward seemed intricate.
- A range of options, each with its own unpredictable currents, confronted India. The ruble, a volatile entity in the market, posed a formidable challenge as an exchange vehicle.
- Ingeniously, amidst this complex situation, some payments for Russian oil imports found comfort in the embrace of the Chinese yuan. This orchestration of transactions resonates with the backdrop of China's own oil dealings with Russia, in which yuan payments find alignment.

Echoes of Bilateral Past:

• The memories of similar bilateral trade and clearing arrangements initiated in the 1950s return to the limelight. These arrangements, reminiscent of inter-war clearing mechanisms,

highlight India's efforts to navigate trade waters with the former Soviet Union and its group of nations.

A Blend of Past and Present: Comparisons and Contrasts

- The current dilemma, characterized by the puzzle of selecting a suitable currency for trade surpluses, mirrors a similar challenge faced earlier.
- The initial days of these arrangements saw the rupee serving as the medium for both merchandise and credit-related exchanges. This story spans decades, from the beginning of the Soviet steel plant in Bhilai to the dissolution of the India-Soviet Agreement amidst the shifts in geopolitics.

Way Forward:

- The geoeconomic stage witnesses the emergence of a new paradigm one where the Indian rupee, the Russian ruble, China's yuan, the UAE's dirham, and Indonesia's rupiah converge in pursuit of local currency transactions.
- This gathering of diverse currencies underscores a shift, a geopolitical and economic recalibration, where Southern nations prepare to transact and settle without reliance on the dominant currencies of Northern powers.

Conclusion:

As the curtains draw to a close on this exploration of rupee diplomacy and shifting trade dynamics, a new financial architecture emerges. The culmination of efforts from India, Russia, China, the UAE, and Indonesia heralds a departure from the exploitative dominance of Northern currencies. A new era rises, marked by the South's collective determination to chart its economic course, characterized by transactions that resonate with the chords of cooperation and mutual benefit.

RBI's Dilemma in Taming Inflation

Context:

The intricacies of the Reserve Bank of India's (RBI) response to inflation dynamics pose a conundrum as it grapples with the balancing act of rate stability amid changing forecasts. The recent move by the RBI's Monetary Policy Committee (MPC) to maintain the policy rate unchanged might appear a cautious step, given the backdrop of an increased projection for inflation.

Relevance:

GS-03 (Indian Economy- Inflation, Monetary Policy, RBI)

Prelims:

- Repo rate
- Reverse repo
- Monetary policy
- RBI

Mains Question:

Discuss the factors influencing the RBI's decision-making process in managing inflation while maintaining macroeconomic stability. (150 words)

Dimensions of the Article:

- Shifting Projections and Price Spikes
- Shared Responsibilities and Macroeconomic Balance
- Tackling Liquidity and Balancing Growth
- Risks on the Horizon

Shifting Projections and Price Spikes:

- The MPC's projection of Consumer Price Index-based inflation was initially pegged at an **average of 5.1%** for the fiscal year ending in March 2024.
- This has seen a revision, with the average projection being elevated by 30 basis points to 5.4%.
- The surge in tomato prices, serving as an unexpected jolt, prompted a substantial 100 basis points upward adjustment in the inflation forecast for the July-September quarter, reaching 6.2%.
- RBI Governor Shaktikanta Das acknowledged the transient nature of these shocks, allowing for temporary tolerance of inflation spikes.
- Nevertheless, a consistent recurrence of food price shocks could upset inflation expectations and undermine broader economic stability.

Shared Responsibilities and Macroeconomic Balance:

- A broader divergence from price stability norms could have farreaching repercussions.
- Maintaining alignment with the 4% inflation target and securing stable inflation expectations remains pivotal.
- The MPC's majority decision reinforces their commitment to gradually withdrawing policy accommodation, a stance intended to anchor inflation expectations while fostering sustainable growth.

Tackling Liquidity and Balancing Growth:

- Simultaneously, the RBI instituted a temporary **10% elevation in the cash reserve ratio for banks**.
- This aims to mitigate surplus liquidity and its potential inflationary pressures.
- RBI Governor assured a forthcoming review of this measure, ensuring adequate liquidity, particularly as the festive season approaches.
- Remarkably, the MPC maintains its optimistic outlook on economic growth, reaffirming the forecasted 6.5% expansion of real GDP in 2023-24.
- This conviction extends to all four quarters, substantiating their stance despite the recent inflation surge.

Risks on the Horizon:

- The MPC acknowledges various risks that could sway the inflation trajectory.
- Uneven rainfall patterns, escalating crude oil prices (with the Indian basket recording a sequential 7% rise this quarter), and enterprises' projections of heightened output prices all contribute to the volatile landscape.
- RBI Governor and his MPC colleagues express their readiness to adopt necessary policy measures to reestablish inflation within the target range.

Way Forward:

To strike a harmonious balance between inflation control and growth stimulation, the RBI must swiftly transform rhetoric into action. Timely interventions and policy measures are essential to temper recurrent inflation shocks and maintain the delicate equilibrium of price stability and macroeconomic growth.

India needs a new economic policy.

Context:

The recently released GDP growth rate figures for the fourth quarter of 2022-23 by the National Statistical Office (NSO) paint a less cheerful picture compared to the portrayal by media outlets under the Press Information Bureau.

Relevance:

GS-03(Growth and Development)

Prelims:

- GDP
- National Statistical Office (NSO)
- "Vikas" agenda

Mains Question:

• Discuss the key trends in India's GDP growth rates based on NSO data since 2014-2015 and their implications for the country's economic trajectory. (150 words)

Dimensions of the Article:

- Declining Growth Trajectory
- Reality vs. Rhetoric
- Narasimha Rao and Manmohan Singh's Economic Momentum
- Lingering Decline
- Unfulfilled Predictions and Lack of Structure

Declining Growth Trajectory:

 The trajectory of GDP growth rate since 2015-2016 displays a persistent annual descent, reaching a point reminiscent of the much-discussed "The Hindu Rate of Growth" – a term cynically employed by economists to characterize the 3.5% GDP growth rate.

Reality vs. Rhetoric:

 Delving into the years following 2014, a closer examination reveals that despite the widespread promotion of Prime Minister Narendra Modi's "Vikas" agenda, the reality mirrors the earlier 1950-77 era's "Hindu rate of growth" in GDP – an ironic revelation.

Narasimha Rao and Manmohan Singh's Economic Momentum:

- An exploration of GDP growth rates during the administrations of P.V. Narasimha Rao and Manmohan Singh uncovers a noteworthy upswing from 1991-96 and 2004-2014.
- This period saw GDP growth rates in the range of 6% to 8% annually, signaling a pivotal turning point.

Lingering Decline:

- A troubling trend surfaces the consistent and unrelenting decline in GDP growth rates, which initiated in 2016 and continues its course even now.
- The Modi government's economic policy structuring during the period 2014-2023 falls short, raising concerns.

Unfulfilled Predictions and Lack of Structure:

• While the media frequently showcases optimistic predictions, including Prime Minister Modi's proclamation of a \$5 trillion GDP by 2024 (stated in 2019), these claims remain unaccompanied by substantial policy structuring.

Way Forward:

Creating a structured economic policy involves defining objectives, setting priorities, strategizing incentivization, and pruning non-essential elements. Amidst current economic challenges, abolishing personal income tax and scrapping Goods and Services Tax could stimulate investment and income generation.

- Resource Mobilization and Sectoral Support: Government resources can be mobilized through indirect taxation and increased currency circulation via extensive public works. Elevating annual interest rates on fixed-term bank savings and reducing loan interest rates for small and medium industries could bolster purchasing power and production.
- Modinomics Critique: An assertive critique contends that "Modinomics" lacks structure and falls short of achieving any macroeconomic goals announced thus far. The writer challenges the disjointed public pronouncements from the Finance Ministry, advocating for a more coherent approach.
- The Urgent Need for a New Economic Policy: India's pressing need for a revamped economic policy becomes evident. This policy should encompass defined objectives, strategic priorities, intelligent resource mobilization, and accountability. The Finance Ministry's current hotchpotch approach necessitates transformation.
- Market System and Structure: The market system isn't a haphazard arrangement but rather a regulated structure governed by transaction rules. Capitalism in a market system thrives on incentives and capital deployment, akin to China's realization during Deng Xiaoping's era.
- Balancing Deregulation and Social Safety Nets: While deregulation is essential, it shouldn't disregard government intervention for safety nets, affirmative action, and addressing market failures. Empowering democratic institutions guards against tumult arising from rapid de-regulation, as witnessed in post-1991 Russia.
- Balancing Public Sector and De-Regulation: A delicate balance must be maintained between the public sector, de-regulation, employment enhancement through affirmative action, and social security accessibility. This creates equity within a competitive framework, fostering transparency, accountability, and corporate governance.

Conclusion:

In a nutshell, the NSO's GDP growth rate figures provide a nuanced insight, revealing the decline in growth trajectories, unmet economic predictions, and the call for a more structured economic policy. This analysis underscores the urgency for India to redefine its economic direction with clear objectives, a coherent strategy, and prudent resource allocation, fostering a balanced, competitive, and inclusive market system.

Controversy Surrounding the PM-USHA Implementation

Context:

The Ministry of Education's (MoE) decision to link the implementation of the National Education Policy (NEP) 2020 with the Pradhan Mantri Uchchatar Shiksha Abhiyan (PM-USHA) has sparked debates and raised concerns. This move has stirred discussions around inclusivity, equity, and cooperative federalism, with various States and Union Territories expressing dissent.

Relevance:

GS-02 (Education, Government Policies & Interventions)

Prelims:

• NEP 2020

Mains Question:

• Discuss the implications of mandating NEP 2020 adherence for availing funds under PM-USHA and analyze the reasons behind the dissenting States' refusal to comply. (150 words)

Dimensions of the Article:

- A Central Scheme's Impact on States
- The Conditioned Agreement: Assessing the Memorandum of Understanding
- The Backdoor Diplomacy of NEP 2020: Concerns and Implications
- Concerns: Accessibility and Economic Considerations

A Central Scheme's Impact on States

- The recent guidelines unveiled by the Ministry of Education have set a course that requires States and Union Territories to follow the NEP 2020 to access funds allocated under the PM-USHA.
- However, this approach has triggered concerns of exclusivity, potentially sidelining those States that have reservations about the policy's implications.
- The PM-USHA, essentially an evolution of the Rashtriya Uchchatar Shiksha Abhiyan, strives to enhance the accessibility,

equity, and quality of higher education through central financial support.

 As of now, only 22 out of several States and Union Territories have chosen to participate, signifying a divergence in perspectives.

The Conditioned Agreement: Assessing the Memorandum of Understanding

- The linchpin of the PM-USHA implementation lies in the memorandum of understanding between the States and the Department of Higher Education.
- This memorandum not only emphasizes adherence to the NEP 2020 but also necessitates adopting specific guidelines such as the National Credit Framework and Choice Based Credit System for Four Year Undergraduate Programmes.
- This conditional pact serves as a gateway for accessing a substantial fund allocation of ₹12,926.10 crore spanning 2023-24 to 2025-26. However, this fund-sharing model stipulates that States contribute 40% of the funds, creating a dual financial commitment.

The Backdoor Diplomacy of NEP 2020: Concerns and Implications

- For certain States, NEP 2020 has been a contentious proposition since its inception. The demand to restore education to the State List, coupled with reservations about its content and impact, underscores the complexity of the issue.
- The PM-USHA's conditions appear tailored to enforce NEP 2020 indirectly, raising questions about the true intent behind the scheme.
- Moreover, the call for multiple entry and exit options within degree programs, and alignment with the National Higher Education Qualifications Framework guidelines, introduces a new layer of uncertainty.
- Academic experts caution against the potential rise in dropouts due to these options, casting a shadow on the policy's feasibility.

Concerns: Accessibility and Economic Considerations

- The spotlight on a four-year undergraduate program, though intended to enhance the educational experience, unveils economic and accessibility challenges.
- Economically disadvantaged students might find it daunting to bear the additional financial burden and time commitment that comes with an extended college duration.
- These concerns amplify when considering States like Meghalaya, which is in its nascent stages of operationalizing its state university. Even amidst supportive states, calls for reevaluating funding criteria and expanding beneficiary units are echoing.

Way Forward:

 Navigating through this complexity requires a balanced and cooperative approach. It's paramount for the Ministry of Education to engage in constructive dialogues with dissenting States, respecting the principles of cooperative federalism. The path forward involves acknowledging and addressing the valid concerns expressed by States and Union Territories while aligning the goals of higher education enhancement with the realities on the ground.

Conclusion:

 The intertwining of NEP 2020 with the PM-USHA has given rise to a nuanced discourse within the educational landscape. As the wheels of education turn, it's crucial to recognize that diversity in perspectives enriches policy formulation and implementation. By fostering collaboration, transparency, and mutual understanding, India can pave the way for a harmonious educational growth trajectory that values inclusivity, equity, and the cooperative spirit that binds the nation together.

The Growing Concern of Inflation and Its Implications on Consumption and Economic Growth

Context:

The recent data released by the National Statistical Office (NSO) has drawn attention to a concerning surge in retail inflation, reaching a 15month peak. This revelation follows closely on the heels of the Reserve Bank of India's (RBI) decision to keep interest rates unchanged, coupled with its alert about the potential for a substantial rise in headline inflation in the near future.

Relevance:

GS-03 (Indian Economy- Inflation, Monetary Policy, RBI)

Prelims:

- Repo rate
- Reverse repo
- Monetary policy
- RBI

Mains Question:

 Discuss the recent trends in retail inflation and their potential impact on broader consumption and economic growth. (150 words)

Dimensions of the article:

- Factors Driving Inflation and Their Impact
- Inflation Expectations and Monetary Policy Implications

Factors Driving Inflation and Their Impact

- Food Component Surge: The cornerstone of this inflationary surge is the food component, particularly conspicuous with the Consumer Food Price Index's unprecedented surge. This index has undergone a mind-boggling increase of 696 basis points, reaching 11.51% from June's moderate 4.55%.
- Vegetables at the Forefront: Within the food component, vegetables have staged an astonishing ascent in inflation rates, registering a year-on-year increase of 37.3%, coupled with a month-on-month escalation of 38.1% in July. Tomato prices, in

particular, have catapulted by an astounding 214% from June's rates, making it evident that the surge is reaching vertiginous heights.

 Non-Food Inflation: Beyond the sphere of food, inflation has cast its net over non-food items as well. All five broad groups within the CPI have shown sequential price increases, highlighting the expanded reach of inflation across the spectrum of goods and services consumed in the economy.

Inflation Expectations and Monetary Policy Implications:

- The Reserve Bank of India's optimism regarding the transitory nature of the price shock, allowing for some tolerance towards elevated headline inflation, appears to be tested in the face of these runaway price escalations. The risk of inflation expectations becoming unanchored is now more pronounced than ever.
- With the imminent prospect of El Niño and erratic monsoon patterns casting uncertainty over the forthcoming agricultural produce supply, the RBI's task of steering inflation towards its targeted 4% benchmark becomes a formidable challenge.
- The need for a coordinated effort among all authorities to rein in inflation becomes apparent, as unchecked inflation threatens not only to undermine consumption but also poses a significant risk to overall economic growth.

Way Forward:

- In light of the escalating inflationary pressures, a concerted approach is imperative. Policymakers, regulatory bodies, and the agricultural sector must collaborate to address this mounting challenge.
- Immediate steps should encompass comprehensive measures to stabilize vegetable prices, enhancing production capacities, and diversifying agricultural practices.
- Adopting pragmatic monetary policies that consider the volatile market dynamics and their repercussions is essential to maintain inflationary expectations within reasonable limits.

Conclusion:

• The recent surge in retail inflation, propelled predominantly by surging food prices, signals a cause for concern. The

unprecedented escalation in vegetable prices, combined with the broader reach of inflation, necessitates a collective and proactive response. The Reserve Bank of India, in conjunction with various stakeholders, must navigate the complex terrain of inflation management to secure both consumption patterns and economic growth trajectories. Ultimately, striking this balance will be instrumental in safeguarding the stability and resilience of the economy in the face of mounting inflationary pressures.

Housing Solutions for Urban Areas

Context:

The recent announcement made by Prime Minister Narendra Modi regarding a new scheme to assist urban underprivileged individuals in constructing homes within cities signals a fresh initiative aimed at tackling the persistent issue of housing scarcity in urban areas. This development stands in contrast to the government's stance just five months ago, when it had indicated that no further housing schemes were planned after the extension of the Pradhan Mantri Awas Yojana-Urban (PMAY-U) until December 2024.

Relevance:

GS-02: (Government policies and interventions)

Prelims:

- PM Awas Yojana
- PM SVANidhi Scheme

Mains Question:

 Address the housing shortage crisis in urban areas and discuss the implications of the proposed scheme in light of the ongoing challenges associated with 'housing for all.' (1500 words)

Dimensions of the Article:

Incomplete Progress Under PMAY-U

- Financial Assistance Allocation
- Burden on Beneficiaries
- Implementing Key Recommendations
- Unveiling Housing Challenges
- A Call for Collaborative Deliberation

Incomplete Progress Under PMAY-U

- Over the span of eight years since the inception of PMAY-U, approximately 76.25 lakh out of the sanctioned 1.19 crore houses have been either completed or handed over as of August 14.
- This completion rate of two-thirds raises concerns about the feasibility of achieving the intended targets.

Financial Assistance Allocation

- The financial framework of PMAY-U has been marked by central assistance amounting to ₹1.49 lakh crore, with the Centre's contribution comprising 24.4%, and State governments and urban local bodies contributing 16%.
- The remaining substantial portion, nearly 60%, must be funded by the beneficiaries themselves.

Burden on Beneficiaries

- In view of the proposed scheme, a key objective should be to reduce the financial burden on beneficiaries, as underscored by a parliamentary committee report.
- This is particularly crucial due to the limited income capacity of the urban poor. Many State governments attempt to facilitate bank loans for these beneficiaries, yet financial institutions have displayed hesitancy, citing a lack of evidence for stable income.

Implementing Key Recommendations

• The parliamentary committee has made noteworthy recommendations for the effective implementation of PMAY-U. Among these, a significant proposal involves abandoning the approach of uniform and fixed financial assistance nationwide.

• Instead, a flexible approach that takes into account topographical and contextual factors should be adopted.

Unveiling Housing Challenges

- It is imperative to delve into the underlying reasons for inadequate housing quality and high levels of unoccupancy.
- Factors such as exorbitant land costs, constraints on floor space indices, and the necessity for multiple certifications from diverse agencies all play decisive roles in shaping the success of urban housing initiatives.

A Call for Collaborative Deliberation

- The intricacies of urban housing demand a comprehensive dialogue orchestrated by the central government. Such discussions should involve State governments, local authorities, urban planning experts, financial institutions, and advocacy groups.
- With ample time at hand, this collaborative approach can facilitate the formulation of a robust and foolproof housing scheme.

Way forward:

 In the upcoming period, the priority must be to draft a housing scheme that transcends the realm of mere rhetoric and transforms the aspiration of 'housing for all' into a concrete reality. A comprehensive strategy that addresses the diverse challenges of urban housing in a flexible and inclusive manner is not only essential but also attainable.

Conclusion

• The government's recent initiative to address urban housing scarcity marks a significant step forward, signaling a recognition of the persistent challenges faced by the urban poor. The evolution of the PMAY-U and the proposed scheme underscore the complexities of ensuring housing for all. A concerted effort that reconsiders financial allocations, promotes collaborative dialogue, and adapts strategies to regional contexts can pave

the way for a future where affordable and quality housing becomes an achievable aspiration for every urban dweller.

Easing credit flow

Context:

The Reserve Bank of India's proposal to establish a 'Public Tech Platform for Frictionless Credit' demonstrates a well-meaning effort to simplify the credit process, especially for individuals with limited resources. This initiative, announced in conjunction with the latest monetary policy, aims to function as a digital hub for credit-related data, streamlining the approval and distribution of loans.

Relevance:

GS-03 (Indian Economy)

Prelims:

- Public Tech Platform for Frictionless Credit
- Reserve Bank of India (RBI)
- Credit Appraisal
- Monetary Policy Committee (MPC)
- Frictionless Credit
- Reserve Bank Innovation Hub
- Account Aggregators.

Mains Question:

• Discuss the significance of the Reserve Bank of India's proposal to establish a 'Public Tech Platform for Frictionless Credit' in the context of facilitating credit access for small borrowers, particularly in rural areas. 150 words.

Dimensions of the Article:

- Addressing Credit Inclusivity Gap
- Empowering Borrowers with Data
- Pioneering Credit Delivery Efficiency

Addressing Credit Inclusivity Gap:

- The necessity of a centralized public platform becomes evident when examining the limited reach of formal credit systems, especially within rural regions. Despite more than seventy years of Independence, the challenge of enhancing inclusive rural credit remains unresolved, perplexing both policymakers and economic analysts.
- A notable observation from a National Bank for Agriculture and Rural Development economist in 2021 highlighted the continued disadvantage faced by small and marginal farmers in accessing institutional credit.
- Shockingly, just a fraction of the vast small and marginal farming population, roughly one-fifth, can access formal credit. Consequently, a considerable majority turns to informal sources, such as moneylenders, often enduring exorbitant interest rates.
- The proposed digital platform, if effectively implemented, could be the antidote to this longstanding issue. By capitalizing on modern data digitization advancements, this platform could make small-scale loans promptly and economically available to those who require financial support the most.

Empowering Borrowers with Data:

- The potency of the RBI's initiative lies in its ability to harness data for the betterment of borrowers. The platform's strategic integration of various data sources, ranging from Aadhaar e-KYC to land records digitized by select state governments, fosters a comprehensive understanding of borrowers' profiles.
- Moreover, even data as unconventional as milk pouring statistics from specific dairy cooperatives will contribute to this data-rich ecosystem. This multifaceted approach paints a vivid picture of borrowers' financial credibility, paving the way for lenders to make informed decisions.
- Consequently, the platform could potentially bridge the trust gap between lenders and borrowers, enabling smoother credit evaluations and approvals.

Pioneering Credit Delivery Efficiency:

• Efficiency, often elusive in the traditional credit approval process, emerges as a cornerstone of the proposed platform. Through its

open architecture, the platform's connectivity embraces inclusivity, eliminating the need for cumbersome paperwork and reducing processing times.

 Such transformational shifts could fundamentally alter the credit landscape, especially for marginalized borrowers who often face delays and complexities. With open APIs and standards in place, lenders can seamlessly interact with a wealth of data, optimizing their decision-making processes. Consequently, borrowers can expect timely responses and fairer terms, culminating in a more equitable credit system.

Way Forward:

To ensure the success of this endeavor, several considerations should be taken into account.

- Rigorous testing and refinement during the pilot phase are vital to identify and rectify any potential challenges. Close collaboration with various stakeholders, including government bodies and credit agencies, will be essential to maintain data accuracy and privacy.
- User-friendliness and accessibility should be prioritized to accommodate borrowers with varying degrees of digital literacy.
- A robust feedback mechanism could help continuously improve the platform's performance, ensuring its alignment with the evolving needs of borrowers and lenders.

GST Council retains 28% tax on online gaming

Context

The GST Council held firm to its earlier decision to impose a 28% levy on the full face value of bets made on online gaming, casinos, and horse racing to put it into effect on October 1 despite some technical fumbling on Wednesday.

What is the government's stand on tax on Online Gaming?

- Tax Levy: The GST Council voted to apply a 28% Goods and Services Tax (GST) levy on the full face value of bets made on horse racing, online gambling, and casinos.
- Implementation Date: The 28% GST charge is set to go into effect on October 1st.

Clarification on Valuation Rules: A critical clarification was provided by the Council regarding the valuation rules for the 28% levy. Finance Minister Nirmala Sitharaman explained that the tax would be levied on the entry amount alone, not on any winnings. For example, if someone enters a casino by buying chips worth ₹1,000, plays a round, and wins ₹300, the tax will not be levied on ₹1,300 (the total amount), but only on the entry amount of ₹1,000.

What was the response from the gaming industry and other states?

- Fresh Review: A new review was requested for the online gambling industry by the representative of the Delhi government. The majority of other states, on the other hand, tended to adhere to the Council's prior decision, which was made following three years of debate.
- Industry response on online gaming: The industry of online gaming, which had voiced worries about how the ruling would affect their investments and jobs, praised the clarification of the valuation guidelines. The fact that the tax would only apply to the initial entry amount allayed their concerns about "repeat taxation," according to this clarification.
- Dissension from Sikkim and Goa: Sikkim and Goa expressed disapproval and voiced concerns about the specifics of the levy on casino patrons.
- Impact on Tamil Nadu Ban: Tamil Nadu voiced concern over how the charge might affect the State's ban on online gambling. The state responded by promising that the language of the new regulations would specifically declare that the tax cannot be imposed in locations where a prohibition is in effect.

What is Repeat taxation?

When the same income or transaction is subject to several taxes or levies at various stages or by various authorities within a taxation system, this is referred to as repeat taxation. This may lead to the same economic activity being taxed twice or more, which would increase the tax burden on both individuals and enterprises.

How is the new tax regime going to affect the gaming industry?

 Increased Tax Burden: The industry's tax burden may dramatically increase if a 28% GST is imposed on the face value of bets. Businesses working in the sector may see decreased profitability as a result of this higher tax rate.

- Impact on Consumer Spending: Consumers that partake in online gaming, gambling, and horse racing may incur greater prices as a result of the higher tax rate. As a result of the increased expenses, there may be a decrease in consumer spending in the sector.
- Impact on Investments: The Indian online gaming market is regarded as a sunrise industry because it is attracting major investment and creating job possibilities. Due to the GST levy's possible impact on profitability, more investments may not be made.
- Job Losses: If an industry has lower consumer spending and profitability as a result of higher taxes, job losses may be the result. The industry's job prospects and growth potential could both suffer.
- State-Level Regulations: Regulations at the state level may differ depending on how some states, such as Sikkim and Goa, feel the tax should be levied and governed. The taxation system could become complicated and inconsistent between different locations as a result.
- Influence on Revenue: On the plus side, the GST levy's introduction can bring in more money for the government, which it might put toward various public projects and services.
- **Compliance Issues:** Businesses in the sector may have more difficulties with compliance as a result of the adoption of the GST levy. Administrative burdens would increase as they would have to assure accurate documentation, accurate tax calculations, and timely return filing.
- Potential for the Black Market: A high tax rate can encourage the expansion of the illegal gambling industry or the black market. To escape the additional tax burden, some gamers can choose to partake in unregulated activities.

What is the way forward?

- **Dialogue and advocacy:** Industry participants, such as gaming businesses, trade groups, and players, should have frank discussions with the government about their concerns and the potential effects of the tax. A more balanced tax policy that promotes industrial expansion and guarantees equitable revenue collection for the government can be sought through advocacy initiatives.
- Data and Research: To demonstrate the sector's economic and social influence, the industry can perform and provide research and data-supported studies. Building a case for a more

benevolent tax treatment can be aided by demonstrating the industry's contribution to employment, investments, and economic growth.

- Consultations at the state level: Given the opposition from some states, such as Sikkim and Goa, business representatives can meet with these governments to discuss specific issues and look into possible solutions or exclusions that would be in line with their regulatory systems.
- Efficiency and compliance: Gaming companies should concentrate on streamlining their processes to increase compliance and efficiency with the new tax laws. To avoid any non-compliance difficulties, accurate documentation, tax calculations, and timely filing of returns would be necessary.
- Support for Compliance: To ensure easy compliance with the new tax framework, the government can offer gaming companies advice and support. A better understanding of a company's tax obligations can be achieved through clear and thorough rules.
- Review Process: It may be advantageous to implement a review process that recurrently assesses the effect of the tax on business and the economy. Based on the actual results seen, it enables tweaks or revisions to the tax policy as needed.

Govt. imposes curbs on import of laptops, tablets

Context :

The Union government on Thursday restricted all imports of laptops, tablets, and all-in-one and small-factor personal computers (PCs), requiring licences for these products to be brought into the country and sold to consumers.

Why did the government impose curbs on the import of laptops and other electronic items?

- In general, electronic products, such as laptops, are offered for less than the maximum retail price (MRP). When necessary, producers can immediately modify prices thanks to this pricing method. Manufacturers might find it difficult to preserve this price flexibility in light of the new regulations.
- Promoting the production of electronic goods in the Indian market is another reason. These limitations will allow domestic businesses to explore this industry and compete with foreign companies.

What would be the impact on the market?

- **Restrictions:** The import of laptops, tablets, all-in-one, and small-factor personal computers (PCs) is restricted by the Indian Union government. This indicates that only those with special permissions may export these goods to the nation and sell them to customers.
- Impact on Short-Term Availability: The decision is anticipated to have a significant short-term impact on laptop availability, particularly for companies that depend on overseas assembly. Due to the new limits, companies like Dell, HP, Lenovo, and Apple may have trouble meeting demand.
- Longer Wait Times: According to the notification, it may take longer for specific products to be approved for import and sale in India. Making these items available to consumers may be delayed due to the need to obtain the required licenses and permissions.

What are the exemptions to this curb?

- Baggage Rule Exemption: The restriction does not apply to imports covered by the baggage rules. As a result, passengers might still be able to bring laptops, tablets, and PCs from abroad without risking fines.
- Online Purchase from Outside the U.S.: Online shoppers can still buy laptops from sellers outside the United States. However, because of import taxes and delivery costs, individual purchasers who import computers can find it pricey. They can also be required to pay taxes in the nation where the laptop was purchased.
- Exemptions for Research and Development: These limitations do not apply to devices that are fixed abroad or those that are imported for research and development. The government wants to aid particular initiatives that are vital for upkeep and innovation.

What Is Macroeconomics?

 Macroeconomics is a subfield of economics that focuses on the behaviour of the economy as a whole, including the markets, firms, customers, and governments. Macroeconomics studies trends in the economy as a whole, including inflation, price levels, economic growth rates, national income, GDP, and changes in unemployment.

Is curbing the only way to improve macroeconomic stability?

 Import restrictions alone won't benefit the economy or the electronics manufacturing sector. Governments should implement policy-level adjustments to encourage entrepreneurs in this industry to raise market standards. The macroeconomic environment won't significantly change unless we can increase our export rate.

PM launches revamp of Amrit Bharat stations

Context

The 508 stations are spread across 27 States and Union Territories — 55 each in Uttar Pradesh and Rajasthan (at a cost of ₹4,000 crores), 49 in Bihar, 44 in Maharashtra (₹1,500 crores), 37 in West Bengal, 34 in Madhya Pradesh (₹1,000 crores), 32 in Assam, 25 in Odisha, 22 in Punjab, 21 each in Gujarat and Telangana, 20 in Jharkhand, 18 each in Andhra Pradesh and Tamil Nadu, 15 in Haryana, 13 in Karnataka and others.

The Amrit Bharat initiative will renovate these stations.

About Indian Railways

The government of India's Ministry of Railways owns Indian Railways (IR), a statutory organisation that manages the country's entire train network. With a total route length of 68,043 kilometres (42,280 mi), running track length of 102,831 km (63,896 mi), and track length of 128,305 km (79,725 mi) as of 31 March 2022, it maintains the fourth largest national railway system in the world by size.

What are the challenges faced by the Indian Railways?

- Capacity & Overcrowding: Indian Railways transports a sizable number of passengers each day, which causes congested trains and stations. The power of trains and infrastructure are under a great deal of pressure as a result.
- Infrastructure Improvement: To satisfy the rising demand and enhance safety, the current railway infrastructure must be significantly upgraded and modernized.
- Safety Concerns: Safety concerns are of utmost importance to Indian Railways. Since collisions, derailments, and accidents frequently occur, the railway system requires ongoing modifications to strengthen safety protocols.

- **Delay in timings:** Trains that are late and frequently arrive late are ongoing problems for Indian Railways. Track maintenance, operational inefficiencies, and unforeseen incidents are just a few of the variables that might result in delays.
- Lack of Investment: The growth and development of Indian Railways depend on adequate funding and investments in infrastructure and technology. The execution of modernisation initiatives may be hampered by insufficient investment.
- Passenger Comfort: Despite improvements made to passenger amenities, several stations and trains still fall short of providing sufficient facilities and comfort, particularly in lower-class compartments.
- Financial viability: Because of its low fare structures and rising operating costs, the Indian Railways sometimes encounters financial difficulties. Offering economical travel options while maintaining profitability is a never-ending problem.
- Encroachments and Property Acquisition: The extension of the railway network may be hampered by illegal encroachments on railroad tracks and challenges in acquiring property for infrastructure expansion.
- High Energy Consumption: The railways are working to implement more energy-efficient procedures because rail transportation uses a lot of energy.

What is Amrit Bharat Station Scheme and How is it going to uplift train services?

The Amrit Bharat Station Scheme intends to modernize railway stations into user-friendly centres while promoting sustainable urban development and bettering rail services throughout India.

- Scope: The scheme's overall goal is to upgrade and modernize 1275 railway stations for Indian Railways. It is a comprehensive project to enhance the facilities and services offered to passengers at these stations.
- Master Plans: As part of the plan, each station will receive a Master Plan specifying the precise renovations and enhancements that will be made.
- Implementation in Stages: The station renovation is done in stages to allow for ongoing improvement.
- Amenities Improvement: The emphasis is on improving station amenities, such as better station access, circulation spaces, waiting places, restrooms, lifts and escalators, cleanliness, and free Wi-Fi.

- **Promotion of Local Products:** The program includes programs like "One Station, One Product" to advertise and market local goods at the stations.
- **PIS:** Better passenger information systems must be implemented to improve contact with travellers.
- Executive Lounges: Offering executive lounges for business meetings as well as other amenities for travellers' convenience.
- Multimodal Integration: Attempts to provide seamless connectivity by integrating railway stations with other modes of transportation, such as buses, the metro, etc.

The overall goal of the reconstruction effort is to turn India's railway stations into thriving, well-connected metropolitan centres while simultaneously promoting sustainable practices and improving passenger experiences.

To curb price rise, Centre to release more foodgrain stock by open market sale

Context

Concerned with the rise in foodgrain prices, the Centre decided on Wednesday to sell an additional 50 lakh tonnes of wheat and 25 lt of rice through the Food Corporation of India's stocks' Open Market Sales Scheme.

What is Open Market Sales Scheme?

 An Indian government program called the Open Market Sales Scheme (OMSS) aims to control the supply and costs of basic goods like food grains. A certain amount of goods, including wheat, rice, and other grains, are released by the government under this plan onto the open market for sale to the general public, including wholesalers, retailers, and consumers.

What are the objectives of the Open Market Sales Scheme?

- Price Stabilization: The government can help maintain market prices and prevent unexpected jumps in the cost of necessities by releasing items from buffer inventories during periods of scarcity or rising costs.
- Market Stabilization: The plan aids in stabilizing the market's dynamics of supply and demand. When there is a market deficit,

the government's release of commodities can fill the gap and keep the supply constant.

- Availability: The government guarantees that critical goods are accessible to customers by selling commodities directly to the market, particularly during times of strong demand or crop failures.
- Hoarding Reduction: The availability of goods sold by the government can prevent traders and middlemen from hoarding goods, which can lead to price manipulation.
- **Consumer Welfare:** The program strives to give consumers access to necessary goods at fair pricing, promoting affordability and food security.
- Government Revenue: Sales made through the OMSS bring in money for the government, which is then used toward several initiatives or programs aimed at promoting social welfare.

Why did the government use OMSS recently?

- By selling an additional 25 lakh tonnes of rice and 50 lakh tonnes of wheat through the Open Market Sales Scheme, the Indian government has decided to act.
- The objective is to boost the domestic market's supply of these necessary food commodities and so restrain their rising prices.
- Lowering the Reserve Price:
 - The government is implementing a plan to reduce the reserve price of rice by 200 yen per quintal.
 - The effective price after this reduction will be \$2,900 per quintal.
 - The Department of Consumer Affairs' price stabilization fund will provide the money for this price cut.

How will it benefit the citizens?

- Price Stabilization: Price stabilization is one of the main advantages. The market can be protected against sharp price spikes when the government releases goods from its buffer inventories. This makes sure that people can still purchase basic food items even when there is a scarcity of supplies or a rise in demand.
- Availability: The government guarantees that citizens have access to these things even when there may be a shortage owing to reasons like poor harvests or disruptions in supply chains by making additional quantities of commodities available in the market through OMSS.

- Food Security: By ensuring a steady supply of necessary food grains, OMSS helps to provide food security. This is crucial for vulnerable populations that depend on cheap staples like wheat and rice for their daily meals
- Affordability: The intervention of the system in the form of stable prices aids in containing the expense of living. This is especially important for lower-income households whose income is largely dedicated to purchasing food.
- **Preventing Exploitation:** The plan can deter traders and middlemen from stockpiling and manipulating prices. In turn, this stops consumers from being taken advantage of during times of shortage.
- **Consumer Welfare:** The government supports the welfare of its citizens, particularly those who may find it difficult to afford rising food costs, by assuring a stable supply of food grains at fair rates.

In conclusion, the Indian government is taking several actions in response to the rising cost of food grains. These actions include raising the amount of wheat and rice sold under the Open Market Sales Scheme, lowering the reserve price for rice, and considering wheat import duties. To benefit the population, the general goal is to stabilise prices, provide adequate availability of necessities, and curb food inflation.

'Vishwakarma scheme will aid 30 lakh artisan families'

Context

The "PM Vishwakarma" scheme, which has a \$13,000 crore budget, was approved by the Cabinet Committee on Economic Affairs (CCEA) on Wednesday. The program, which Prime Minister Narendra Modi announced during his speech on Independence Day, would be open to traditional artisans and crafters from 2023–2027.

What is PM Vishwakarma Scheme?

 The Cabinet Committee on Economic Affairs gave its blessing to the "PM Vishwakarma" scheme, an Indian government project with a \$13,000 crore budget. The availability of this program, which Prime Minister Narendra Modi announced during his Independence Day speech, is scheduled to run from 2023–2027. • Through the "Guru-Shishya parampara" or the traditional teacher-student relationship, the scheme's primary goal is to support and foster the traditional skills and crafts used by artists and craftspeople. It strives to improve and maintain the family-based practice of age-old trades that require using hands and tools.

What are the features of the scheme?

- Objective and Focus: The program's main objective is to support and advance the traditional trades that craftsmen and craftspeople engage in. The "Guru-Shishya parampara" (teacher-student tradition) and family-based practice of ancient skills are its key focuses.
- Financial Allocation: The plan has a \$13,000 crore total outlay, which is the budget allotted for its execution over a given time frame.
- **Time Frame: The program is scheduled to be offered for a** specified amount of time, beginning in 2023–2024 and lasting until 2027–2028.
- **Beneficiary Coverage:** The program provides benefits to workers in 18 traditional trades, including carpenters, blacksmiths, potters, goldsmiths, tailors, and others.
- Quality Improvement: Enhancing the quality of the goods and services produced by artisans is one of the program's goals. This entails promoting higher standards, better craftsmanship, and higher-quality goods.
- Market Reach: Another goal of the program is to increase the market reach of artisan-made goods and services. This entails enhancing traditional crafts' visibility in both domestic and international markets.
- Value Chain integration: Integrating craftsmen and crafters into domestic and international value chains is the goal of the program. To do this, they must be linked to broader supply chains and markets, which may result in more lucrative business opportunities.
- **Certification:** Beneficiaries will be issued a PM Vishwakarma certificate and identification card, confirming their identity as traditional artisans under the program.
- **Credit Support:** Access to credit support will be available to artisans and crafters. They are eligible for loans in two instalments, with the first offering up to 1 lakh and the second offering up to 2 lahks. These loans will have an introductory interest rate of 5%.

- Skill Development: The plan covers both basic and advanced skill development programs. Beneficiaries will receive skill development so they can become more knowledgeable and skilled in their particular crafts.
- **Stipend during Training:** Beneficiaries will be paid a stipend of 500 per day while undertaking skill training. This stipend intends to give artists financial assistance while they are in training.

What are the goals that the scheme intends to tackle?

- Improved Quality and Reach: The program aims to improve the goods and services produced by artists and craftspeople in terms of both quality and reach. It seeks to guarantee that the goods are more marketable and of greater quality.
- Integration with Value Chains: The program aims to incorporate local and international value chains for craftsmen and craftspeople. This entails linking them to bigger marketplaces and supply networks so they can take advantage of more opportunities.

Which are the trades that come under this Scheme?

The scheme covers a range of 18 traditional trades, including:

- Carpenter
- Boat maker
- Armourer
- Blacksmith
- · Hammer and tool kit maker
- Locksmith
- Goldsmith
- Potter
- Sculptor
- Stone breaker
- Cobbler
- Mason
- Basket/mat/broom maker/coir weaver
- Traditional doll and toy maker
- Barber
- Garland maker
- Washerman
- Tailor
- Fishing net maker

Conclusion

The government's efforts to promote traditional artists and craftspeople, develop their abilities, and incorporate them into the greater economic environment are included in this initiative. The promotion of historic knowledge and skills while simultaneously linking them to contemporary economic prospects is consistent with the goal of the prime minister.