



# CURRENT AFFAIRS MAGAZINE OCTOBER 2023



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# Current Affairs

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# Chapter- 1

## ART AND CULTURE

### Cheriyal scroll painting

#### Why in News

Cheriyal scroll painting will be presented to the spouses of the heads of state from around the world, who will gather for the upcoming G20 Summit.

#### Important Points

- It is a popular and modified version of Nakashi art, considered highly rich in the local motifs.
- This art form is unique to the state of Telangana and made mostly in Hyderabad currently.
- The Nakashis are the artists of Telangana and the scrolls constitute a key element of the social and cultural setting of Telangana.
- This traditional art form is considered an inseparable part of the profession comprising the story-telling and balladeer community called Kaki Padagollu.



#### Themes:

- These scrolls are painted in a narrative format similar to a film roll or even comic strips and depict stories from Indian mythology as well as the shorter stories related to the Puranas and Epics (Mahabharata, Ramayana, Shiva Puranam, Markandey Puranam)
- The Cheriyal paintings represent a distinct local invention, based mainly on local traditions.
- The ballads and folk stories of Gauda, Madiga and other communities.

#### Characteristics:

- These are painted in vivid hues with mostly primary colors, showing a predominance of red colour in the background.
- The main narrative involves scenes from the common rural life such as women performing kitchen chores, men working in fields or experiencing merry, festival settings, etc.
- Artists have displayed these scrolls which are also accompanied by music and dance.
- The traditional scrolls are mostly of vertical format and illustrate the stories through a series of horizontal panels.
- Compared to the long scrolls in the past, artists have adapted to paint smaller versions of these scrolls that only depict any single episode or few characters from the traditional stories.
- One of the recent innovations is the painting of single pictures instead of a continuous scroll for the purpose of wall decorations.
- This painting also received the Geographical Indication (GI) tag in the year 2007.

### Pulikkali

#### Why in News

The culmination of Onam festivities witnessed the Pulikkali celebration, a traditional folk art form from Kerala, where humans dressed as tigers and leopards paraded through the streets.

#### Important Points

- Pulikkali, also known as Tiger Dance, is a unique folk art of Kerala.

- Celebrated on the fourth day of Onam, artists adorn themselves as tigers with distinctive yellow, red, and black stripes, accompanied by the rhythmic beats of traditional percussion instruments like thakil, udukku, and chenda.
- The central theme revolves around tiger hunting, with individuals playing the roles of both the tiger and the hunter.
- It was introduced by Maharaja Rama Varma Sakthan Thampuran, the former ruler of Cochin, Pulikkali reflects a rich cultural heritage.



### Key Highlights

- Onam, the most significant celebration in Kerala, holds great cultural importance.
- Occurring at the onset of Chingam, the first month of the Malayalam Calendar, it's a harvest festival celebrating prosperity.
- The Onam Carnival extends for four to ten days, with Atham (first day) and Thiruvonam (tenth day) as the most pivotal.
- A popular belief holds that Onam welcomes King Mahabali's spirit, who is believed to visit Kerala during this period.
- The festival includes Vallamkali, a thrilling snake boat race 'Vallamkali' conducted on the Pampa River.
- Onam showcases Kaikotti kali and Thumbi Thullal, graceful dances performed by women, adding elegance to the celebrations.

## TRIFED's Artisanal Treasures

### Why in News

The G20 Summit witnessed a remarkable showcase of India's rich tribal heritage and craftsmanship, curated and presented by TRIFED (Tribal Cooperative Marketing Development Federation of India), Ministry of Tribal Affairs.

### Important Points

#### About TRIFED's Artisanal Treasures:

#### Longpi Pottery:

- Named after the village of Longpi in Manipur, the Tangkhul Naga tribes practice this exceptional pottery style.
- Unlike most pottery, Longpi does not resort to the potter's wheel.
- All shaping is done with the hand and with the help of moulds.
- The characteristic grey-black cooking pots, the stout kettles, quaint bowls, mugs, and nut trays, at times with a handle of fine cane, are trademarks of Longpi.



#### Chhattisgarh Wind Flutes:

- Curated by the Gond Tribe of Bastar in Chhattisgarh, the 'Sulur' bamboo wind flute stands out as a unique musical creation.
- Unlike traditional flutes, it produces melodies through a simple one-handed twirl.
- Beyond music, the 'Sulur' serves utilitarian purposes, helping tribal men ward off animals and guide cattle through jungles.

#### Gujarat Hangings:

- It is curated by the Bhil & Patelia Tribe in Dahod, Gujarat.
- They boast mirror work, zari, stones, and beads, evolving to suit contemporary fashion while preserving tradition.

## Rajasthan Artistry

- Glass Mosaic Pottery captures the mosaic art style, meticulously crafted into lampshades and candle holders. When illuminated, they unleash a kaleidoscope of colours, adding vibrancy to any space.
- Meenakari: It is the art of decorating metal surfaces with vibrant mineral substances, a technique introduced by the Mughals. Delicate designs are etched onto metal, creating grooves for colours to nestle in. Each hue is fired individually, creating intricate, enamel-adorned pieces.
- Metal Ambabari Craft: It is curated by the Meena Tribe and also embraces enamelling, a meticulous process that elevates metal decoration. Today, it extends beyond gold to metals like silver and copper.

## Operation Polo

### Why in News

September 13, 2023, marks the 75th anniversary of Operation Polo, a significant military action undertaken by the Indian Army in 1948 to integrate the princely state of Hyderabad.

### Important Points

- Operation Polo, also known as the “Police Action,” led to the Nizam of Hyderabad’s forces surrendering to the Indian Army by September 18, 1948.

### Historical Background

#### The Nizam’s Stand:

- The Nizam of Hyderabad, Mir Osman Ali Shah, was reluctant to join India or Pakistan after India’s Independence in 1947.
- He exploited the diversion of Indian resources towards the Kashmir conflict, signing a standstill agreement with India in November 1947, maintaining the status quo in Hyderabad.

#### Growing Tensions:

- Hyderabad, a populous and prosperous state in the Deccan, was predominantly Hindu but administered by Muslim rulers.
- The state had no common border with Pakistan, yet the Nizam sought amicable relations with Pakistan.
- The Nizam’s forces, especially the Razakars, escalated tensions with their actions, including cross-border raids and overtures to Pakistan.

#### Military Campaign

- Hyderabad’s military consisted of approximately 25,000 troops, with limited training and readiness.
- The Razakars, though numerous, posed a minor military challenge.

#### Multi-Directional Offensive:

- The primary assault came from the west, led by 1 Armoured Division, supported by forces from the north, south, and east.
- Key elements included the Smash Force, Kill Force, and Vir Force in the western thrust.
- Additional thrusts were launched from Aurangabad, Jabalpur, and the eastern front.
- The southern thrust originated from Vijayawada.



#### Ceasefire and Surrender:

- The Nizam announced a ceasefire on September 17, 1948.
- On September 18, Major General Chaudhuri entered Hyderabad, and Major General El Edroos surrendered to him.
- Major General Chaudhuri was subsequently appointed as the Military Governor of Hyderabad.



Operation polo is the code name for the police action against the Princely State of Hyderabad in September 1948 by the newly independent republic of India.

### BACKGROUND

- By 1948 Hyderabad had chosen to join neither Pakistan nor India.
- Hyderabad ruler, Nizam Mir Sir Osman Ali Khan, Asaf Jah VII presided over a largely Hindu population with an irregular army known as the Razakars.
- Seeing the events happening at Telangana & with the Razakars, the Indian Govt. undertook the military operation to annex Hyderabad.

### AFTERMATH

- The Indian military detained thousands of people, including Razakars, Hindu militants, and communists.
- The Nizam had abdicated upon the surrender of Hyderabad and signed an instrument of accession, joining India.



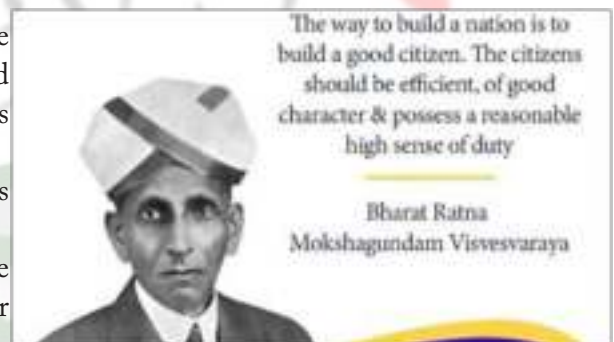
## National Engineer Day 2023

### Why in News

Every year on September 15th, Sir Mokshagundam Visvesvaraya, a prominent Indian engineer and statesman, celebrates National Engineer's Day to mark his birth anniversary.

### Important Points

- National Engineer's Day is an occasion to celebrate the achievements and contributions of engineers in India and highlight the importance of engineering in the country's growth and development.
- It serves as a reminder of the valuable work that engineers do to improve society and the world at large.
- On this day, various events, seminars, and workshops are organized to promote engineering as a career and to honor the memory of Sir Mokshagundam Visvesvaraya.



### History

- Visvesvaraya, who was born in 1861, first studied for a Bachelor of Arts (BA) degree at the University of Mysore.
- But he then switched to studying engineering at the esteemed College of Science in Pune, one of the oldest engineering schools in Asia.
- Visvesvaraya started his career working for the Government of Bombay's Public Works Department, where he undertook challenging projects like creating a patented irrigation system with water floodgates at the Khadakvasla reservoir near Pune and building the Krishna Raja Sagara Dam in Mysore.
- He was appointed the 19th Diwan of Mysore in 1912 and served in that capacity until 1918.
- Visvesvaraya won many honours throughout his life, including the Bharat Ratna, the highest civilian award in India.
- His noteworthy contributions also extended to the Government Engineering College in Bangalore, which was founded in 1917 and later renamed in his honour.
- The Indian government declared his birthday, September 15, National Engineer's Day in 1968 in honour of his outstanding contributions to civil engineering.
- This holiday honours and recognises the efforts of engineers to society.

## National Engineers Day 2023 Theme

- The Engineering Day 2023 theme has not been announced yet officially. It is observed to pay tribute to Sir Visveshvaraya. The Institution of Engineers India, Kolhapur Local Centre hosted the Engineers Day 2022 Celebration last evening at Shahu Smarak Bhavan.
- The program's slogan was "Smart Engineering for Better World."
- The subject for Engineers Day 2021 was "Engineering for a Healthy Planet – Celebrating the UNESCO Engineering Report."
- The decision was made to use cutting-edge developing technology to change the world and address environmental concerns.

## National Engineer's Day Significance

- Engineers Day serves as a timely reminder of the value of the plans and constructions that keep our world running smoothly.
- Here are a few of the most well-known Indian engineers who are honoured on National Engineers Day for their achievements-
  - o P.J. Abdul Kalam
  - o Narayan Murthy
  - o Sreedharan
  - o Satya Nadella
  - o Sundar Pichai
  - o Varghese Kurien
  - o Satyanarayan Gangaram Pitroda

## Visvesvaraya Jayanti 2023

- The birth anniversary of Sir Mokshagundam Visvesvaraya, one of India's greatest engineers, is celebrated each year on September 15th as Visvesvaraya Jayanti.
- The United States observes September 15 as National Engineers Day in his honour.
- King George V awarded Sir MV the honorary title of Knight Commander of the British Indian Empire (KCIE) in recognition of his contributions to the nation's growth.
- In addition, he received the Bharat Ratna in 1955 from an independent India.
- His most well-known accomplishment was leading the engineering team that built the Krishna Raja Sagara dam in Mysuru.

## Santiniketan makes it to UNESCO World Heritage list

### Why in News

Santi Niketan, the town in West Bengal, was included in the UNESCO World Heritage list during the 45th Session of the World Heritage Committee in Saudi Arabia.

### Important Points

- Established in 1901 by the Nobel Laureate Gurudev Rabindra Nath Tagore.
- Location: Birbhum district, West Bengal.
- Current Vice-chancellor of Santiniketan: Bidyut Chakrabarti
- It is the 41st UNESCO World Heritage Site in India and the third in West Bengal, after the Sundarbans National Park and the Darjeeling Mountain Railways.
- Last year (2022), the state's Durga Puja got space in "Intangible Cultural Heritage of humanity" under UNESCO.
- Santiniketan was a residential school and center for art based on ancient Indian traditions and a vision of the unity of humanity transcending religious and cultural boundaries.



- A 'world university' – Visva Bharati – was established at Santiniketan in 1921.
- Santiniketan was the pioneer of the Bengal School of Art. It exhibits the crystallisation of their ideas of internationalism, humanism, inclusiveness, environmentalism and a pan Asian modernism.

### Global art movements parallel to Santiniketan:

#### Bauhaus:

- Founded by architect Walter Gropius in Weimar, the Staatliches Bauhaus, or Bauhaus (German for 'building house'), was a German art school operational from 1919 to 1933 that combined crafts and the fine arts.
- The school became famous for its approach to design, which attempted to unify individual artistic vision with the principles of mass production and emphasis on function.

#### Mingei in Japan:

- The concept of mingei, variously translated into English as "folk craft", "folk art" or "popular art", was developed from the mid-1920s in Japan by a philosopher and aesthete, Yanagi Sōetsu (1889–1961), together with a group of craftsmen, including the potters Hamada Shōji (1894–1978) and Kawai Kanjirō (1890–1966).
- Mingei may be seen as a reaction to Japan's rapid modernization processes.

#### Vienna session in Austria:

- The Vienna Secession is an art movement, closely related to Art Nouveau, that was formed in 1897 by a group of Austrian painters, graphic artists, sculptors and architects, including Josef Hoffman, Koloman Moser, Otto Wagner and Gustav Klimt.

#### Other sites to find place on the prestigious list include:

- Ancient Jericho in Palestine; the Zarafshan-Karakum Corridor of Silk Roads in Tajikistan, Turkmenistan, Uzbekistan; the Gedeo Cultural Landscape in Ethiopia; and the Cultural Landscape of Old Tea Forests of the Jingmai Mountain in China's Pu'er.

## Adi Shankaracharya

### Why in News

The Madhya Pradesh Chief Minister recently unveiled a 108-foot statue of Adi Shankaracharya, an 8th-century Vedic scholar and teacher, in Omkareshwar.

### Important Points

- Adi Shankaracharya, or Shankara, as he was known, was an ancient Indian philosopher and theologian who lived in the early 8th century CE.
- Birth: He was born in Kalady, a village in present-day Kerala.

### Philosophical Contributions:

- He is best known for his role in the development and propagation of Advaita Vedanta, a non-dualistic school of Hindu philosophy.
- He amalgamated the ideologies of 'Advaita Vedanta' and also explained the basic ideas of Upanishads.
- His most important work is his efforts to synthesize the six sub-sects, known as 'Shanmata.' 'Shanmata', which literally translates to 'six religions,' is the worship of six supreme deities.
- Shankaracharya explained the existence of one Supreme Being (Brahman) and that the six supreme deities are part of one divine power.
- He also founded 'Dashanami Sampradaya,' which talks about leading a monastic life.
- While Shankaracharya was a firm believer in ancient Hinduism, he condemned the 'Mimamsa school of Hinduism', which was purely based on ritual practices.
- Four Mathas: He established four prominent monastic centers in India, each associated with one of the cardinal directions: Sringeri in the south, Dwarka in the west, Puri in the east, and Badrinath in the north.

### Commentaries and Writings:

- He wrote 18 commentaries on major religious scriptures like the Bhagavad Gita, Brahmasutras, and 12 major Upanishads.

- His review of 'Brahma Sutra' is known as 'Brahmasutrabhasya', and it is the oldest surviving commentary on 'Brahma Sutra'.
- He wrote 23 books on the principles contained in the Advaita Vedanta philosophy, including Viveka Chudamani, AtmaBodha, Vaky Vritti, Upadesa Sahasri, etc.
- 72 devotional hymns and meditational hymns like Soundarya Lahari, Nirvana Shatakam, Maneesha Panchakam.
- Death: Adi Shankaracharya is believed to have attained Samadhi (a state of deep meditation or realization) at the young age of 32 in Kedarnath in the Himalayas.

### Key Facts about Advaita Vedanta:

- It refers to the non-dualistic school of Hindu philosophy. It is a subschool of Vedanta, which itself is one of six orthodox schools of Hindu philosophy.
- It is derived mostly from the Upanishads and elaborated in detail by eminent scholars like Sri Adi Shankaracharya and Gaudapada.
- Dvaita means duality, and Advaita means nonduality. It emphasizes the fundamental oneness or non-duality of all existence.
- It posits that the ultimate reality, known as Brahman, is the only true, unchanging, and absolute reality.
- Everything else, including the individual self (Atman), the material world (Prakriti), and the gods, is ultimately an illusion (maya) or a temporary manifestation of Brahman.
- In other words, there is no fundamental distinction or separation between the individual self and the ultimate reality.
- Jiva (Individual Soul): In Advaita Vedanta, the individual soul or jiva is seen as an expression of Brahman temporarily bound by the limitations of the physical body and mind.



### Moksha (Liberation):

- Liberation (moksha) is achieved when the jiva realizes its essential identity with Brahman.
- Moksha is the ultimate goal of Advaita Vedanta.
- It is the liberation from the cycle of birth and death and the realization of one's true nature as Brahman.
- Moksha is attained through self-realization (atma-jnana) and the removal of ignorance (avidya).
- Advaita Vedanta offers various paths to realization, including Jnana Yoga (the path of knowledge), Bhakti Yoga (the path of devotion), and Karma Yoga (the path of selfless action).
- While Advaita Vedanta teaches that the world is ultimately an illusion, it acknowledges the relative reality of the empirical world and encourages individuals to fulfill their worldly duties (dharma) while seeking spiritual realization.

### Why is the Mandhata island considered an important religious destination?

- The Mandhata island, nestled on the Narmada River, is home to two of the 12 Jyotirlingas – Omkareshwara (located on the south side of the island) and Amareshwara. The area is close to Mahakaleshwara Jyotirlinga at Ujjain, located 110 km to the northwest.
- The island is dotted with Shaivite, Vaisnavite, and Jain temples dating back to the 14th and 18th centuries. The name 'Omkareshwar' is derived from the shape of the island, which resembles the sacred syllable 'Om', and its name means 'the Lord of Omkara'.
- Puranas say that Lord Shiva pierced the world as an endless pillar of light, called the jyotirlinga. There are 12 jyotirlinga sites in India that are considered a manifestation of Shiva. Besides Mahakal in Ujjain, these include Somnath and Nageshwar in Gujarat, Mallikarjuna in Andhra Pradesh, Omkareshwar in Madhya Pradesh, Kedarnath in Uttarakhand, Bhimashankar, Triyambakeshwar and Grishneshwar in Maharashtra, Viswanath at Varanasi, Baidyanath in Jharkhand, and Rameshwar in Tamil Nadu.

## Bhagat Singh

### Why in News

28th September marked the 116th birth anniversary of Bhagat Singh.

### Important Points

- Bhagat Singh, a prominent figure in India's struggle for independence, is remembered as a fearless patriot, revolutionary, and martyr. His life and actions continue to inspire generations of Indians.

### Early Life and Family

- Birth and Childhood:** Bhagat Singh was born on September 28, 1907, in Banga, a small town in Punjab, British India (now in Pakistan). He came from a Sikh family deeply involved in the freedom struggle.
- Influences:** His family was influenced by the Ghadar Movement and the Jallianwala Bagh massacre, which fueled his early patriotism and revolutionary fervor.



### Involvement in the Freedom Struggle

- Hindustan Socialist Republican Association (HSRA):** Bhagat Singh joined the HSRA, a revolutionary organization dedicated to overthrowing British rule through armed struggle.
- Protest Against Simon Commission:** In 1928, he protested against the Simon Commission, which didn't have Indian representation. During this protest, Lala Lajpat Rai was injured in a police baton charge, leading to his death.
- Assembly Bombing:** In April 1929, Bhagat Singh and Batukeshwar Dutt threw non-lethal smoke bombs in the Central Legislative Assembly in Delhi to protest against repressive laws. They sought to be arrested and used the trial as a platform for revolutionary ideals.
- Lahore Conspiracy Case:** Bhagat Singh was arrested and subsequently involved in the Lahore Conspiracy Case, where he was charged with the killing of J.P. Saunders, a police officer involved in Lala Lajpat Rai's death. He and his associates were sentenced to life imprisonment.
- Hunger Strike:** While in prison, Bhagat Singh went on a hunger strike to protest the mistreatment of political prisoners. His demands included equal rights for Indian prisoners and better living conditions.

### Martyrdom

- Despite widespread protests and demands for clemency, Bhagat Singh, along with Rajguru and Sukhdev, was executed on March 23, 1931, in Lahore Central Jail.
- Their sacrifice deeply moved the Indian masses and intensified the struggle for independence.

### Ideology and Legacy

- Socialism and Secularism:** Bhagat Singh was not only a patriot but also a socialist. He believed in an India where wealth was equitably distributed, and people of all religions lived harmoniously.
- Commitment to Non-Violence:** Although he turned to violence as a means of protest, Bhagat Singh remained committed to non-violence in his personal life and often read the works of Mahatma Gandhi.
- Icon of Sacrifice:** Bhagat Singh's courage, sacrifice, and patriotism made him an icon of the freedom struggle. His famous slogan, "Inquilab Zindabad" (Long Live the Revolution), continues to inspire generations.
- Impact on the Youth:** He remains a role model for young Indians who aspire to bring positive change to society and the nation.
- Cultural Impact:** Bhagat Singh's life has been portrayed in numerous books, films, and documentaries, further popularizing his story.

## Toto Language

### Why in News

A language spoken by barely 1,600 people living in parts of West Bengal bordering Bhutan is to get a dictionary, thanks to the efforts of a professor at the University of Calcutta.

## Important Points

- Toto is a Sino-Tibetan language spoken by the Toto tribal people, primarily in parts of West Bengal bordering Bhutan.
- It is a minority language spoken by approximately 1,600 individuals.
- Toto is traditionally a spoken language, and although a script was developed in 2015 by Dhaniram Toto, many Toto people still write in the Bengali script or use the Bengali language for written communication.
- They inhabit Totopara, West Bengal, near the border with Bhutan. The language is also spoken in other areas along the India-Bhutan border in Jalpaiguri district, West Bengal.

- **Endangered Status:** Toto is considered a critically endangered language by UNESCO, with an estimated 1,000 speakers or fewer. Despite this endangered status, many families within the Toto community still use the language at home. It is often the primary language children learn at home, although they use Bengali when attending school.



- **Language Preservation Efforts:** Researchers and members of the Toto community are aware of the endangered status of the language.

The influence of other languages, particularly Nepali and Bengali, is increasing, posing a threat to Toto. Efforts are being made to document and preserve the language, including the Himalayan Languages Project's work on creating the first grammatical sketch of Toto.

- **Anthropological Study:** The Anthropological Survey of India (AnSI) has conducted a study on the language of the Toto tribe. Despite the tribe's small population, the language is even more endangered. This underscores the urgency of preserving and revitalizing the Toto language.

## Dictionary Project

- The University of Calcutta, in collaboration with Bhakta Toto, a bank employee and poet, has undertaken the initiative to create a trilingual dictionary called "Toto Shabda Sangraha."
- This dictionary aims to document the vocabulary of the Toto language and translate it into both Bengali and English.

## Preservation Efforts

- This dictionary is a significant step in preserving the Toto language, which has been primarily an oral language.
- By putting its vocabulary into print and making it available in multiple languages, the aim is to ensure its survival and accessibility to a wider audience.

## Bengali Script

- Since the Toto script is still in a nascent stage and the Toto community is more familiar with the Bengali script, the dictionary will present Toto words in the Bengali script, making it more accessible to the community.

## Chapter- 2

# POLITY & GOVERNANCE

## Prison Reforms

### Why in News

Supreme Court (SC) seeks views of centre, states on prison reforms report.

### Important Points

- Report was presented by a SC constituted committee (2018) to look at issues involving jail reforms including overcrowding of jails, condition of women and children in jails, transgender prisoners, death row convicts etc.
- Only jails in Goa, Delhi, and Puducherry allow female prisoners to meet their children without any bars or glass separation. Importantly, less than 40% of prisons in the country provide sanitary napkins for female inmates.
- Moreover, 75% of female wards in prisons have to share kitchens and common facilities with male wards. These are some of the key findings of the Supreme Court-appointed committee looking into prison reforms.
- Between 2014 and 2019, Indian prisons witnessed an increase in the population of female prisoners by 11.7%, and by 2019, women accounted for 4.2% of the total prison population.
- Despite this, the report points out that only 18% of women prisoners are allotted exclusive women's prison facilities, as only 15 states and UTs have functional women's prisons.
- It adds that all categories of female prisoners are lodged in the same wards and barracks, whether they are undertrials or convicts.

### Key highlights of the report

- Occupancy rate of jails in India stood at 122% (November 2018).
- Existing legal provisions of sentencing, alternative to imprisonment, such as fines, probation and admonition, are not being used to their full potential.
- Factors contributing to overcrowding: Lack of initiative and drive of expansion or improvement in prison infrastructure, avoidable arrests and incarceration for petty offences, delay in investigation and trial etc.

### Recommendations

- Strengthen Under Trial Review Committee mechanism to address issue of overcrowding in prisons.
- Revising Model Prison Manual of 2016 to include specific provisions in line with Transgender Persons (Protection of Rights) Act, 2019.
- Special fast-track courts to extensively deal with petty offences and for cases pending for five years or more.
- A robust grievance redressal mechanism and telemedicine facilities for women inmates.
- Expanding Open Prison System across entire country, potentially fostering rehabilitation.
- Segregating undertrials and convicts in prisons to curb violence.

### What is Prison reform?

- Prison reform is a process that involves reviewing and restructuring the policies, procedures, and conditions within the prison system to ensure the fair treatment, rehabilitation, and reintegration of inmates. It seeks to address issues such as overcrowding, human rights violations, and the inadequacy of rehabilitation programs in correctional facilities. Prison reform is an essential component of criminal justice reform efforts worldwide.

### Objectives of the reforms

- **Respect for All:** Prison reform promotes the idea that every person, regardless of their criminal history, is entitled to be treated with respect and human dignity. This includes humane treatment, protection from abuse, and the preservation of an individual's inherent worth.

- **Prevention of Cruelty:** It works to prevent any form of cruel, inhumane, or degrading treatment within correctional facilities, ensuring that inmates are not subjected to torture or inhumane conditions.
- **Holistic Rehabilitation:** Prison reform emphasizes rehabilitation through education, vocational training, and psychological support. By addressing the root causes of criminal behaviour and providing inmates with the skills and resources for reintegration, it seeks to reduce the likelihood of reoffending.
- **Enhanced Public Safety:** Successful rehabilitation programs contribute to public safety by reducing the number of individuals who return to a life of crime upon release. This not only protects the community but also eases the burden on law enforcement and the criminal justice system.
- **Skills and Opportunities:** Reform efforts aim to equip inmates with the tools, education, and job skills necessary to reintegrate into society as productive and law-abiding citizens. This helps them secure employment and lead a stable life post-release.
- **Breaking the Cycle:** By facilitating successful reintegration, prison reform breaks the cycle of recidivism and prevents individuals from becoming trapped in a cycle of criminal behaviour, incarceration, and re-incarceration.
- **Equity and Transparency:** Prison reform ensures that the criminal justice system operates equitably and transparently. It upholds the principles of due process, equal protection under the law, and access to legal representation.
- **Public Trust:** By creating a fair and accountable system, reform efforts contribute to building public trust in the criminal justice system. This trust is vital for social cohesion and ensuring that the system is perceived as just and reliable.

## India has taken several important steps toward prison reform

### National Crime Records Bureau (NCRB)

- **Data Collection:** The NCRB plays a vital role in collecting and maintaining data related to prisons and inmates in India. This data provides valuable insights into the conditions, demographics, and trends within the prison system.
- **Informed Decision-Making:** By compiling and analyzing this data, policymakers and authorities can make more informed decisions about prison management, resource allocation, and reform initiatives.

### Justice Amitava Roy Committee

- **Supreme Court Oversight:** The appointment of the Justice Amitava Roy Committee by the Supreme Court underscores the judiciary's commitment to addressing prison reform issues in India.
- **Examination of Overcrowding:** The committee's specific focus on overcrowding in prisons is significant, as overcrowding is a pervasive issue that affects living conditions and access to services for inmates.
- **Access to Justice:** Legal aid programs in India ensure that inmates have access to legal representation, which is essential for a fair trial and the protection of their legal rights.
- **Fair Proceedings:** These programs help ensure that inmates are aware of their rights and have the opportunity to present their cases effectively, contributing to the overall fairness of the criminal justice system.
- **Skill Development:** Vocational training programs offered in some Indian prisons are crucial for equipping inmates with practical skills that can improve their employability upon release.
- **Rehabilitation:** These programs align with the rehabilitation aspect of prison reform, helping inmates build a better future and reduce the likelihood of recidivism.

## One Nation-One Election

### Why in News

The government set up a committee under former President Ram Nath Kovind to examine the feasibility of simultaneous elections or one nation-one election.

### Important Points

- Over the years, current government has pushed for the idea of simultaneous Lok Sabha and state assembly polls.
- Assembly polls are due in five states in November-December of 2023 and they will be followed by the Lok Sabha elections in May-June next year. However, the recent moves by the government have thrown open the possibility of advancing the general elections and some state polls, which are scheduled after and with the Lok Sabha contest.



### What are the arguments around holding simultaneous elections?

- Making polls simultaneous would address various concerns, such as reducing the cost of holding elections and limiting all elections to a single season.
- At present, there is an election in one state or the other at almost any given time, and those who favour simultaneous polls argue that the Model Code of Conduct gets in the way of the government announcing projects or policy plans.
- Against the idea, the arguments include the complexity of such an exercise, the widely held view that simultaneous polls would benefit the nationally dominant party at the cost of regional players, and the complications that would arise if any of the governments were to collapse before completing its term.
- Leave alone state legislatures, even the central government could fall.
- Of the Lok Sabhas since 1952, many were dissolved ahead of schedule — such as in 1971, 1980, 1984, 1991, 1998, 1999 and 2004.
- There would also be logistical issues, requiring about twice as many electronic voting machines and Voter Verifiable Paper Audit Trail machines.

### But when elections were first held in independent India, were they not simultaneous to begin with?

- Yes. However, a series of political changes in different states changed this cycle.
- Lok Sabha and state legislatures went to polls together in 1952 and 1957, with the Congress initially comfortably placed all over the country.
- The synchronised cycle was first broken in Kerala, in July 1959, when the Centre invoked Article 356 of the Constitution to dismiss the ministry headed by E M S Namboodiripad of the Communist Party, which had assumed power after elections in April 1957. This was followed by state elections in February 1960.
- As the Congress's popularity declined, it suffered major setbacks in several states — Bihar, UP, Rajasthan, Punjab, West Bengal, Orissa, Madras and Kerala — in the 1967 elections. Consequently, Samyukta Vidhayak Dal governments, comprising Bharatiya Kranti Dal, SSP, PSP, Swatantra Party, Jana Sangh and Congress defectors, came to power. Defections and counter-defections ultimately led to the dissolution of Assemblies, which separated the poll cycles of many states from the central one.
- At present, Assembly elections in Andhra Pradesh, Odisha, Arunachal Pradesh and Sikkim are held together with Lok Sabha polls.
- In recent years, Assemblies have been completing their tenures, mainly because of the anti-defection law of 1985 and Supreme Court judgments on invoking Article 356.
- The Supreme Court had held that the President can put a state Assembly in suspended animation, but cannot dissolve it without the concurrence of Parliament.
- Further, the validity of the proclamation of President's rule may be examined by the judiciary.

### Has the idea of simultaneous polls been explored before?

- The Election Commission had suggested back in 1983 that such a system be worked out.
- The Law Commission headed by Justice B P Jeevan Reddy, in its 170th Report in May 1999, stated, "We must go back to the situation where the elections to Lok Sabha and all the Legislative Assemblies are held at once".
- In 2003, then Prime Minister Atal Bihari Vajpayee took up the issue with Congress president Sonia Gandhi. She appeared initially receptive, but the idea did not take off from there.

### How have matters moved on 'One Nation, One Election' after the NDA came to power?

- In 2015, the Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice, headed by E M Sudarsana Natchiappan, compiled a report on 'Feasibility of Holding Simultaneous Elections to House of People (Lok Sabha) and State Legislative Assemblies'.

### The report observed

#### The holding of simultaneous elections to Lok Sabha and state assemblies would reduce:

- i. the massive expenditure that is currently incurred for the conduct of separate elections;
- ii. the policy paralysis that results from the imposition of the Model Code of Conduct during election time;
- iii. impact on delivery of essential services and

- iv. burden on crucial manpower that is deployed during election time.
  - However, the Congress told the committee it was “impractical” and “unworkable”.
  - The Trinamool Congress said it was anti-democratic and unconstitutional, while the CPI and the NCP said it was “not feasible”. The CPI(M) too pointed at “practical problems”.

### Has there been an effort to address the concerns that would arise?

- In a draft report on August 30, 2018, the Law Commission headed by Justice B S Chauhan held that simultaneous elections could not be held within the existing framework of the Constitution.
- These could be held together “through appropriate amendments to the Constitution, the Representation of the People Act 1951, and the Rules of Procedure of Lok Sabha and state Assemblies”.
- At least 50% of the states may ratify the constitutional amendments.
- The Commission recommended that all elections due in a calendar year be conducted together.
- Since a no-confidence motion, if passed, may curtail the term of Lok Sabha or an Assembly, the Law Commission recommended replacing the “no-confidence motion” with a “constructive vote of no-confidence” through appropriate amendments — a government may only be removed if there is confidence in an alternative government.

## Digital birth certificates

### Why in News

According to a government notification, all reported births and deaths in the country will be digitally registered on the Centre’s portal from October 1.

### Important Points

#### Registration of Births and Deaths (Amendment) Act, 2023:

- A single document (digital birth certificate) is to be used for admission to educational institutions, applications for driving license, government jobs, passports or Aadhaar, voter enrolment, and registration of marriage, among others.
- The power is conferred to the central government by subsection (2) of Section 1 of the Registration of Births and Deaths (Amendment) Act, 2023.
- Notification released by: Registrar-General and Census Commissioner, Mritunjay Kumar Narayan.

### Key features of the act:

- The Act grants authority to the Registrar General of India to oversee a national registry of births and deaths. State-appointed Chief Registrars and Registrars will be obligated to contribute data to this national database, while Chief Registrars maintain similar databases at the state level.
- Earlier, there was a requirement for certain persons to report births and deaths to the Registrar.
- The rule also applied to cases of births in a jail, a hotel or lodge. Herein, the jailor and the hotel manager need to provide all the relevant information.
- Under the new Act, the list has been further expanded and will now include adoptive parents for non-institutional adoption, biological parents for births through surrogacy, and the parent in case of birth of a child to a single parent or unwed mother.
- The new legislation allows sharing of the national database with authorized authorities like population registers, electoral rolls, and others, subject to central government approval. Similarly, state databases can be shared with state-approved authorities.
- As per the Act, any person aggrieved by any action or order of the Registrar or District Registrar may appeal to the District Registrar or Chief Registrar, respectively. Such an appeal must be made within 30 days from receipt of such action or order. The District Registrar or Chief Registrar must give their decision within 90 days from the date of appeal.
- It will be compulsory for States to register births and deaths on the Centre’s Civil Registration System (CRS) portal and share data with the RGI which functions under the Union Home Ministry.
- The Act authorizes the government to “collect Aadhaar numbers of parents and informants, if available, in case of birth registration.” Presently, either parent voluntarily provides an Aadhaar number for a newborn’s birth certificate generated through the CRS.

## National Population Register (NPR):

- The centralized database will also update the National Population Register (NPR), ration cards, property registration and electoral rolls.
- NPR, first collected in 2010 and updated in 2015 through door-to-door enumeration, already has a database of 119 crore residents.
- NPR is the first step to the creation of the National Register of Citizens (NRC), as per the Citizenship Act.

## “Bharat: The Mother of Democracy” Portal

### Why in News

On the eve of the G20 leadership summit, the Ministry of Culture launched a portal of the mega exhibition—‘Bharat: The Mother of Democracy’.

### Important Points

- This portal serves as a comprehensive digital exhibition chronicling the rich history of democracy in India, spanning an astonishing 7,000 years – from the Sindhu-Saraswati civilization to the year 2019.

### Key Highlights of the “Bharat: The Mother of Democracy” Portal:

#### Historical Perspective:

- The portal provides an in-depth exploration of the history of democracy in India.
- Covers 7,000 years of democratic evolution, beginning with the Sindhu-Saraswati civilization.

#### Multilingual Accessibility:

- Available in 16 languages, ensuring a global audience can access its content.
- Supported languages include German, French, Spanish, Arabic, Portuguese, Italian, Turkish, Russian, English, and Hindi.

#### Structured Sections:

- The portal is thoughtfully organized into five main sections, each with 22 sub-sections.
- These sections encapsulate different eras and aspects of India’s democratic journey.
- **Sindhu-Saraswati Civilization (6000-2000 BCE):** Explores the democratic ethos of ancient India during this period.
- **Mahajanapada and Gantantra (7-8 BCE):** Delves into the emergence of republics and democracy in early India.
- **Vijaynagar Empire (14-16 century):** Sheds light on the democratic practices of the Vijaynagar Empire.
- **Mughal Emperor Akbar Reign (1556-1605):** Highlights the democratic elements during Akbar’s rule.
- **Constitution of India (1947):** Covers the making of India’s constitution, a pivotal moment in its democratic history.
- **Elections in Modern India (1952 Onwards):** Explores the democratic electoral processes post-independence.
- **Curatorial Expertise:** The portal is meticulously curated by the Indira Gandhi National Centre for the Arts (IGNCA), ensuring the accuracy and richness of the content.

## National Judicial Data Grid

### Why in News

Recently, the Supreme Court has enrolled in the National Judicial Data Grid (NJDG) portal

### Important Points

- It’s a comprehensive database of orders, judgments, and case details from District and subordinate Courts and High Courts across the country.
- It was built as part of Phase II of the e-Courts Integrated Mission Mode Project.
- Developed by: National Informatics Centre (NIC) in coordination with the Computer Cell, Registry of the Supreme Court (SC).
- The portal is in consonance with the National Data Sharing and Accessibility Policy (NDSAP).
- NDSAP was formulated by the Ministry of Science and Technology in 2012.
- NDSAP is empowered by the Section 4(2) of the Right to Information (RTI) Act, and makes it the responsibility of every public authority to share their data Suo motu at regular intervals.

**Significance:**

- It works as a monitoring tool to identify, manage & reduce pendency of cases.
- It also facilitates better monitoring of court performance and systemic bottlenecks, and, thus, serves as an efficient resource management tool.

**Progress:**

- All High Courts have joined the NJDG through web services.
- To track land dispute cases, Land Records data of 26 States have been linked with NJDG.
- World Bank praised the National Judicial Data Grid in the Ease of Doing Business report for 2018.

**About the e-Courts Integrated Mission Mode Project**

- Conceptualised on the basis of “National Policy and Action Plan for Implementation of Information and Communication Technology (ICT) in the Indian Judiciary – 2005”.
- It was a part of the National e-Governance Plan, which was launched to make all government services available to the citizens of India via electronic media.

**Main objectives of the project:**

- To provide efficient & time-bound citizen-centric service delivery.
- To develop, install & implement decision support systems in courts.
- To automate the processes to provide transparency of Information access to its stakeholders.
- To enhance judicial productivity, to make the justice delivery system affordable, accessible, cost effective & transparent.
- The e-Committee of the Supreme Court is charged with overseeing the e-Courts Project.
- The Chief Justice of India (CJI) is the patron-in-chief and chairperson of the e-committee.

**Phases:** Phase I was implemented during 2011-2015 & Phase II was started in 2015.

**Important initiatives undertaken by the project:**

- E-Courts services mobile application.
- Virtual courts.
- National Judicial Data Grid (NJDG).
- E-Sewa Kendras.
- Video-Conferencing (VC) of court proceedings.

**Delimitation Commission****Why in News**

The Union Home Minister said that the next government will carry out the delimitation exercise soon after the 2024 Lok Sabha polls.

**Important Points**

- Delimitation is the act of redrawing boundaries of Lok Sabha and state Assembly seats to represent changes in population.

**Objectives of Delimitation:**

- To provide equal representation to equal segments of a population.
- Fair division of geographical areas so that one political party doesn't have an advantage over others in an election.
- To follow the principle of “One Vote One Value”.

**Constitutional provisions:**

- **Article 82:** This provides the Parliament with the authority to enact a Delimitation Act after every Census.
- **Article 170:** This provides for the States to get divided into territorial constituencies as per the Delimitation Act after every Census.

## Delimitation Commission

- Delimitation is carried out by an independent Delimitation Commission.
- The delimitation commission is a high-power body whose orders have the force of law.
- **Composition:** The delimitation Commission is appointed by the President of India includes following members:
  - o Retired Supreme Court judge
  - o Chief Election Commissioner
  - o Respective State Election Commissioners

### Functions:

- To determine the number and boundaries of constituencies.
- To identify seats reserved for Scheduled Castes and Scheduled Tribes.

### Powers:

- The Constitution mandates that the Commission's orders are final and cannot be questioned before any court as it would hold up an election indefinitely.
- The copies of its orders are laid before the House of the People and the State Legislative Assembly concerned, but no modifications are permissible therein by them.

### The process of delimitation:

- After the delimitation commission determining the number and boundaries of constituencies, the draft proposals of the Commission are published for public feedback.
- The Commission also holds public sittings. After hearing the public, it considers objections and suggestions, and carries out changes, if any, in the draft proposal.
- The final order is published in the Gazette of India and the State Gazette concerned and comes into force on a date specified by the President.

### History of delimitations in India:

- In India, delimitation commissions have been set up four times — 1952, 1963, 1973 and 2002 under the Acts of 1952, 1962, 1972 and 2002.
- The last delimitation exercise that changed the state-wise composition of the Lok Sabha was completed in 1976 and done on the basis of the 1971 census.
- 91st Constitutional Amendment Act, 2003 frozen the delimitation exercise till 2026.

### Controversy around delimitation

- The Constitution mandates that states receive seats based on a population ratio.
- This unintentionally implied that states (mostly in North India) with lower population control efforts may claim a larger share of Lok Sabha seats.
- And the southern states that promoted family planning faced the possibility of having their seats reduced.
- The impact of delimitation on inter-state seat distribution is a strong reason for political tussles and controversies.
- That is why the strength of Lok Sabha has remained frozen at 543 since the 1970s.
- In 1976, the then government brought the 42nd Amendment and suspended the redrawing of seat boundaries and seat allocation until 2001.
- This suspension was further extended till 2026 by enacting 84th Amendment Act in 2002.
- The year 2026 was chosen because, according to the National Population Policy, by 2026, there should be a roughly equal number of births and deaths in India.

## Preamble of the Constitution

### Why in News

The principal opposition party in the Lok Sabha has claimed that the words “socialist” and “secular” were missing in the Preamble of the Constitution of India in the copies which were given to the Members of the Parliament.

## Important Points

- The term 'Preamble' refers to the introduction or preface to the Constitution. It contains the summary or essence of the Constitution.
- N. A. Palkhivala, an eminent jurist and constitutional expert, called the Preamble as the 'identity card of the Constitution.'
- The American Constitution was the first to begin with a Preamble. Many countries, including India, followed this practice.
- The Preamble to the Indian Constitution is based on the 'Objectives Resolution', drafted and moved by Jawaharlal Nehru, and adopted by the Constituent Assembly on January 22, 1947.
- The Preamble of the Constitution puts in words the ideal contained in the Objectives Resolution.

## Significance of the Preamble of the Constitution:

- The Preamble embodies the basic philosophy and fundamental values—political, moral and religious—on which the Constitution is based.
- It contains the grand and noble vision of the Constituent Assembly, and reflects the dreams and aspirations of the founding fathers of the Constitution.
- It serves as an introduction to the Constitution, and contains its basic principles and goals.

**Text of the Original Preamble of the Constitution: WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN DEMOCRATIC REPUBLIC and to secure to all its citizens:**

- JUSTICE, social, economic and political;
- LIBERTY of thought, expression, belief, faith and worship;
- EQUALITY of status and of opportunity;
- and to promote among them all FRATERNITY assuring the dignity of the individual and the unity of the Nation;
- IN OUR CONSTITUENT ASSEMBLY this twenty-sixth day of November, 1949, do HEREBY ADOPT, ENACT AND GIVE TO OURSELVES THIS CONSTITUTION.

## Ingredients of the Preamble:

- The Preamble reveals four ingredients or components:
- Source of authority of the Constitution: The Preamble states that the Constitution derives its authority from the people of India.
- Nature of Indian State: It declares India to be of a sovereign, socialist, secular democratic and republican polity.
- Objectives of the Constitution: It specifies justice, liberty, equality and fraternity as the objectives.
- Date of adoption of the Constitution: It stipulates November 26, 1949, as the date.

## Amendment to the Preamble:

- Through the 42nd Constitutional Amendment Act (1976), three new words i.e., "Socialist", "Secular" & "Integrity" were added to the Preamble of the Constitution.

## Addition of Socialist word:

- The then Union government, headed by Prime Minister Indira Gandhi, ran pro-poor images with slogans like "garibi hatao" as part of their campaign.
- During this period, the word Socialist was included in the Preamble to highlight socialism as a goal and philosophy of India.
- It needs to be stressed, however, that the socialism envisaged by the Indian state was not the socialism of the USSR or China of the time — it did not envisage the nationalisation of all of India's means of production.

## Addition of Secular word:

- While the citizens of India practice numerous faiths, and endorse unity in diversity, hence, 'secularism' aimed to embrace that unity and fraternity in the face of differences in class, caste, culture, religion and the like.
- The inclusion of 'secular' in the Preamble implied that the state protects all religions and every citizen equally while maintaining impartiality towards all.

- A secular Indian state was founded on the idea that the relationship between humans takes precedence over one between a human being and God- essentially a matter of individual and personal choice.
- Secularism, is hence, a question of law. The secular nature of the Indian state is secured by Articles 25-28 of the Constitution.

## 33% reservation for women in the Lok Sabha and all state Legislative Assemblies

### Why in News

Recently the Lok Sabha has passed the Constitution (128th) Amendment Bill, 2023 that was introduced by the Central Government.

### Important Points

- The passage of the women's reservation bill in the Lok Sabha almost three decades after it was first tabled in Parliament is a welcome move that can finally shatter a political glass ceiling.
- With women Members of Parliament comprising only about 15% of the strength of the Lok Sabha, the gender inequality in political representation is stark and disturbing.
- The 128th Constitution Amendment Bill, or the Nari Shakti Vandan Adhiniyam, seeks to amend this by reserving a third of the seats in the Lok Sabha and legislative Assemblies for women.
- It has a 15-year sunset clause for the quota, that can be extended.
- 15% of the total members of the 17th Lok Sabha are women while in state legislative assemblies, women on average constitute 9% of the total members.
- In 2015, the Report on the Status of Women in India noted that the representation of women in state assemblies and Parliament continues to be dismal.
- It noted that decision making positions in political parties have negligible presence of women. It recommended reserving at least 50% seats for women in local bodies, state legislative assemblies, Parliament, ministerial levels, and all decision-making bodies of the government.<sup>6</sup>
- The National Policy for the Empowerment of Women (2001) had stated that reservation will be considered in higher legislative bodies.

### Background

- Bills amending the Constitution to reserve seats for women in Parliament and state legislative assemblies have been introduced in 1996, 1998, 1999, and 2008.
- The first three Bills lapsed with dissolution of their respective Lok Sabhas.
- The 2008 Bill was introduced in and passed by Rajya Sabha but it also lapsed with the dissolution of the 15th Lok Sabha. The 1996 Bill had been examined by a Joint Committee of Parliament, while the 2008 Bill was examined by the Standing Committee on Personnel, Public Grievances, Law and Justice.

### Both Committees agreed with the proposal to reserve seats for women. Some of the recommendations given by the Committees include:

- considering reservation for women belonging to other backward classes at an appropriate time,
- providing reservation for a period of 15 years and reviewing it thereafter, and
- working out the modalities to reserve seats for women in Rajya Sabha and state legislative councils.

### Key features of the Bill

- **Reservation for women:** The Bill reserves, as nearly as may be, one-third of all seats for women in Lok Sabha, state legislative assemblies, and the Legislative Assembly of the National Capital Territory of Delhi. This will also apply to the seats reserved for SCs and STs in Lok Sabha and states legislatures.
- **Commencement of reservation:** The reservation will be effective after the census conducted after the commencement of this Bill has been published. Based on the census, delimitation will be undertaken to reserve seats for women. The reservation will be provided for a period of 15 years. However, it shall continue till such date as determined by a law made by Parliament.
- **Rotation of seats:** Seats reserved for women will be rotated after each delimitation, as determined by a law made by Parliament.

## Issues to Consider

- The issue of reservation of seats for women in legislatures can be examined from three perspectives:
- whether the policy of reservation for women can act as an effective instrument for their empowerment,
- whether alternate methods of increasing representation of women in legislatures are feasible, and
- whether there are any issues with the proposed method for reservation in the Bill.

## Purpose of reservation

- If a group is not represented proportionately in the political system, its ability to influence policy-making is limited.
- The Convention on the Elimination of All Forms of Discrimination Against Women provides that discrimination against women must be eliminated in political and public life.
- While India is a signatory to the Convention, discrimination in matters of representation of women in decision-making bodies has continued.
- The number of women MPs has increased from 5% in the first Lok Sabha to 15% in the 17th Lok Sabha; but the number continues to be quite low.
- A 2003 study about the effect of reservation for women in panchayats showed that women elected under the reservation policy invest more in the public goods closely linked to women's concerns.
- The Standing Committee on Personnel, Public Grievances, Law and Justice (2009) had noted that reservation of seats for women in local bodies has enabled them to make meaningful contributions.
- It also noted that concerns regarding women being proxies to men in local bodies have turned out to be baseless.
- The Inter-Parliamentary Union (2022) has noted that legislated quotas have been a decisive factor in women's representation.

## Opposition of reservation

- Opponents of the reservation policy argue that separate constituencies for women would not only narrow their outlook but lead to perpetuation of unequal status because they would be seen as not competing on merit.
- For instance, in the Constituent Assembly, Renuka Ray argued against reserving seats for women: "When there is reservation of seats for women, the question of their consideration for general seats, however competent they may be, does not usually arise. We feel that women will get more chances if the consideration is of ability alone."
- Opponents also argue that reservation would not lead to political empowerment of women because larger issues of electoral reforms such as measures to check criminalisation of politics, internal democracy in political parties, and influence of black money have not been addressed.

## Alternate methods of representation

- Reservation of one-third of seats for women in Parliament would restrict the choice of voters in the reserved constituencies.
- Two alternatives have been suggested by some experts: reservation for candidates within political parties and dual member constituencies where some constituencies shall have two candidates.
- Initially, India had multi-member constituencies which included an SC/ST member.
- A 1961 Act converted all constituencies into single member constituencies.
- The reasoning was that the constituencies were too large and SC/ST members felt that they would gain in importance in single-member reserved constituencies.

## Provide more democratic choice to voters

- Allow more flexibility to parties to choose candidates and constituencies depending on local political and social factors
- Can nominate women from minority communities in areas where this will be an electoral advantage
- Allow flexibility in the number of women in Parliament
- No guarantee that a significant number of women would get elected
- Political parties may assign women candidates to constituencies where they are weak
- Might lead to resentment if a woman is accommodated to the disadvantage of a stronger male candidate

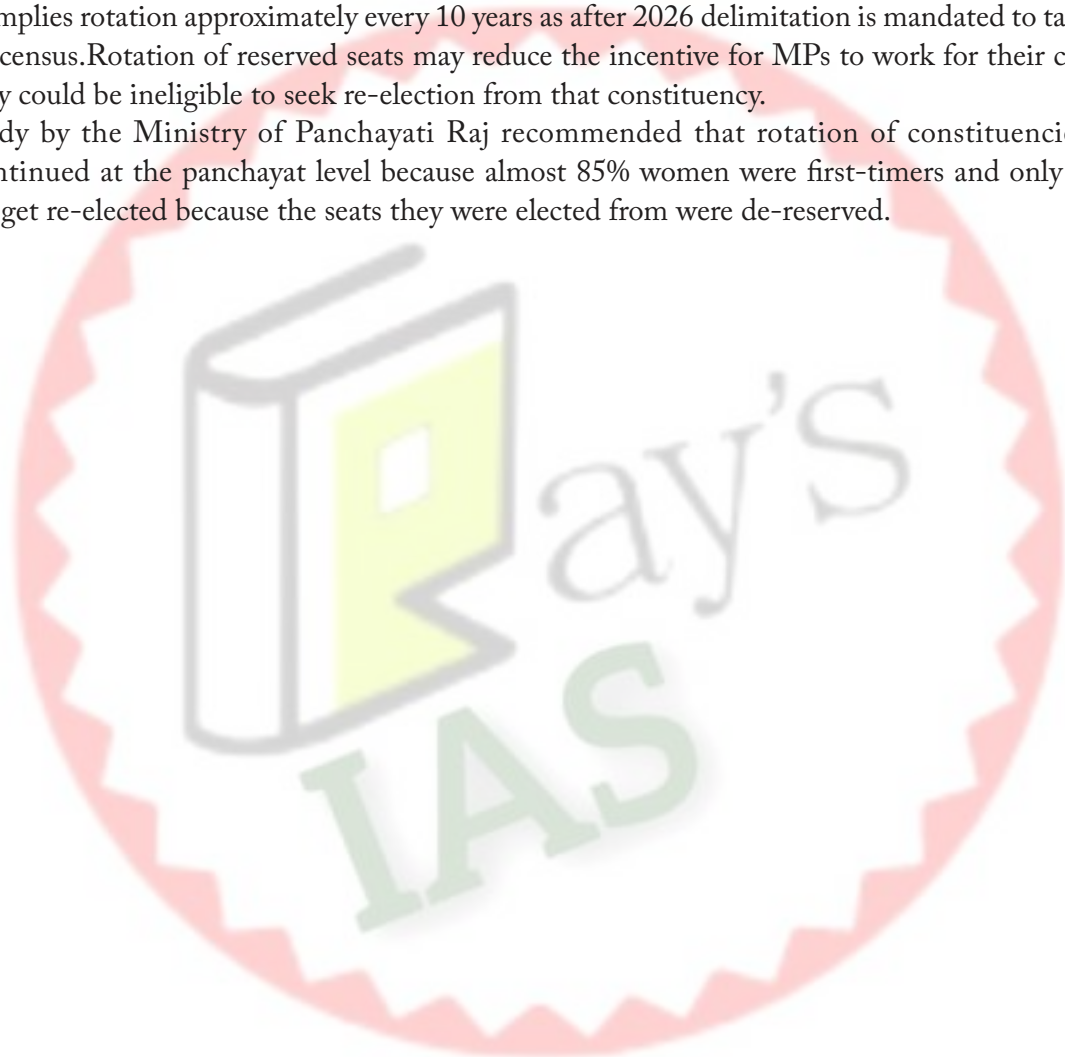


### Dual- member constituencies

- Does not decrease the democratic choice for voters
- Does not discriminate against male candidates
- Might make it easier for members to nurture constituencies whose average size is about 2.5 million people
- Sitting members may have to share their political base
- Women may become secondary persons or add-ons
- To fulfil criteria of 33% women, half of the seats need to be dual constituencies.
- This would increase the total number of MPs by 50%, which could make deliberation in Parliament more difficult.

### Rotating constituencies

- The Bill states that reserved seats shall be allotted by rotation after every delimitation exercise.
- This implies rotation approximately every 10 years as after 2026 delimitation is mandated to take place after every census. Rotation of reserved seats may reduce the incentive for MPs to work for their constituencies as they could be ineligible to seek re-election from that constituency.
- A study by the Ministry of Panchayati Raj recommended that rotation of constituencies should be discontinued at the panchayat level because almost 85% women were first-timers and only 15% women could get re-elected because the seats they were elected from were de-reserved.



## Chapter- 3

# ENVIRONMENT AND ECOLOGY

## ISA

### Why in News

International Solar Alliance (ISA) hosted its 5th regional meeting in Kigali, Rwanda.

### Important Points

Various solar initiatives like solarization of a rural healthcare centre, and school buildings were launched for African Countries. During the meeting, a report titled “Roadmap of Solar Energy for Universal Energy Access”, was unveiled.

### Highlights of the Report:

- The report outlines a strategic approach to effectively and economically tackle the global energy access challenge using solar-powered solutions.
- It encompasses case studies, real-world examples, and innovative policies aimed at bringing about a transformative shift in the implementation of solar mini-grids.
- The report’s conclusions hold significant relevance for Africa, especially the Sub-Saharan region and rural areas.
- It identifies a range of electrification strategies centred on solar energy, particularly focusing on solar mini-grids and Decentralised Renewable Energy solutions.
- These approaches offer effective solutions to address diverse energy access challenges.



### Importance of African Continent for ISA

- Abundant sunlight makes it well-suited for solar power generation.
- Home to over 40% of the global reserve of critical minerals (essential to low-carbon technologies).
- Energy access challenge is more acute in Sub-Saharan Africa providing remarkable opportunity to tackle energy deficits and combat climate change. Solar mini-grids and Decentralized Renewable Energy solutions can be deployed.

### About ISA

- **Headquarter:** Gurugram, India
- **Genesis:** Launched jointly by India and France on the side-lines of the UNFCCC COP-21.
- **Aim:** Mobilizing more than USD 1000 billion of investment needed by 2030 for deployment of solar energy.
- **Members-** 116 Member and Signatory countries (India –ag) All member states of the United Nations are eligible to join.
- **Current President:** India

### Key Initiatives

- One Sun One World One Grid (jointly launched by India and UK) to provide power to about 140 countries through a common grid.
- ‘STAR-C’, ‘SolarX Startup Challenge’, and ‘Global Finance Facility’ for capacity building and investment in solar sector

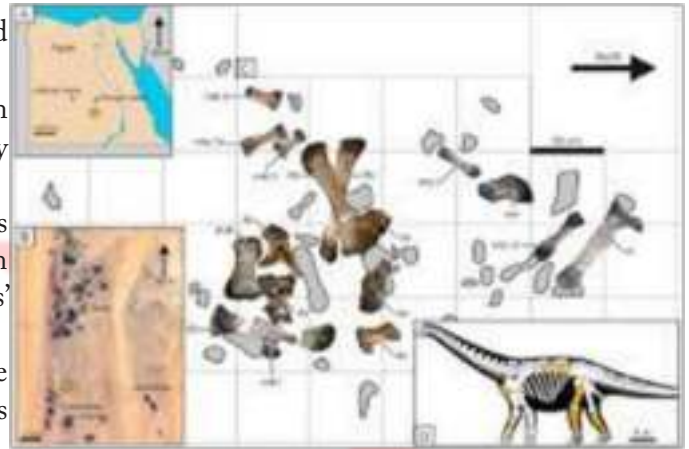
## Lgai Semkhu

### Why in News

A new genus and species of titanosaurian dinosaur being named Igai semkhu has been recently described by researchers from Midwestern University, USA.

### Important Points

- It belongs to a diverse group of long-necked plant-eating dinosaurs called Titanosauria.
- Igai semkhu roamed the earth during the Campanian age of the Late Cretaceous epoch, approximately 75 million years ago.
- The group is known for large body sizes, long necks and wide stance. It includes species ranging from the largest known terrestrial vertebrates to 'dwarfs' no bigger than elephants.
- Igai semkhu constitutes one of the most informative dinosaurs yet recovered from the latest Cretaceous of Afro-Arabia.



### What is Cretaceous epoch?

- It is the third and final period of the Mesozoic Era, which is often referred to as the "Age of Dinosaurs."
- The Cretaceous Epoch lasted from approximately 145 million years ago to about 66 million years ago, making it one of the longest geological epochs.

### Mass Extinction:

- The Cretaceous-Paleogene (K-Pg) mass extinction event marks the end of the Cretaceous Epoch.
- It occurred around 66 million years ago and resulted in the extinction of approximately 75% of Earth's species, including the non-avian dinosaurs.
- This event is believed to have been triggered by a combination of factors, including the impact of a large asteroid or comet and massive volcanic activity.

## Swachh Vayu Sarvekshan 2023 Rankings

### Why in News

Union Environment, Forest and Climate Change Minister Bhupender Yadav recently announced awards under the Swachh Vayu Sarvekshan 2023 (clean air survey).

### Important Points

- In September 2022, the Union Ministry of Environment, Forest and Climate Change released guidelines on 'Swachh Vayu Sarvekshan- Ranking of Cities' under the National Clean Air Programme (NCAP).
- The aim of launching Swachh Vayu Sarvekshan is to give ranking to 131 cities in the country for implementing City Action Plans prepared as part of NCAP for reducing air pollution up to 40% by 2025-26.

### Methodology for Swachh Vayu Sarvekshan:

- 131 cities are categorized into three groups based on population.
- 47 cities are in the first group having population more than 10 lakh.
- 44 cities are in the second group having population between 3 to 10 lakh.
- Third group consists of 40 cities having population less than 3 lakh.
- Cities are required to do the self-assessment as per the framework provided on PRANA online portal.
- 'PRANA' is the acronym for Portal for Regulation of Air-pollution in Non-Attainment Cities.

### Major Components of Assessment:

- o solid waste management,
- o road dust management,
- o management of construction and demolition waste,

- o control of vehicular emissions and industrial pollution.
- 3 best performing cities in each group will be given cash award in the spirit of competitive federalism.
- This Sarvekshan provides a tool to cities to plan their actions in order to improve the air quality.
- It is not based on the measurement of the air quality parameters to rank the cities.
- It is based on the actions taken by the cities to improve the air quality in different domains.

### About Swachh Vayu Sarvekshan 2023:

- Union Environment, Forest and Climate Change Minister Bhupender Yadav recently announced awards under the Swachh Vayu Sarvekshan 2023 (clean air survey).
- Under the 1st category (more than 10 lakh population) Indore ranked first followed by Agra and Thane.
- Indore received the highest score of 187 out of 200.
- In second category (between 3-10 lakhs population), Amravati secured first rank followed by Moradabad and Guntur.
- Similarly, for third category (less than 3 lakhs population) Parwanoo (Himachal Pradesh) secured first rank followed by Kala Amb (Himachal Pradesh) and Angul (Odisha).

SWACHH VAYU SARVEKSHAN 2023			City Name	Assessment by city	Assessment by CPCB	Rank
CATEGORY	CITIES	CPCB SCORE (OUT OF 200)	Category I: Population above 10L			
Category 1 (>10 Lakh Population)	1 <sup>st</sup> Indore	187	Indore	191	187	1
	2 <sup>nd</sup> Agra	186	Bhopal	187	181	5
	3 <sup>rd</sup> Thane	185.2	Jabalpur	172	172	12
Category 2 (3-10 Lakh Population)	1 <sup>st</sup> Amravati	194	Gwalior	171	114	41
	2 <sup>nd</sup> Moradabad	186.2	Category II: Population ranging from 3 to 10L			
	3 <sup>rd</sup> Guntur	185.5	Ujjain	189	182	5
Category 3 (<3 Lakh Population)	1 <sup>st</sup> Parwanoo	193.6	Sagar	188.2	170.7	9
	2 <sup>nd</sup> Kala Amb	193	Category III: Population less than 3L			
	3 <sup>rd</sup> Angul	187.5	Dewas	181	180	6

### Scores were given in eight categories:

- o Biomass and municipal solid waste and burning,
- o Road dust,
- o Dust from construction and demolition waste,
- o Vehicular emissions,
- o Emissions from industries,
- o Other emissions,
- o IEC activities or public awareness,
- o Improvement in PM10 concentrations.
- The assessment was done based on submission of self-assessment report, along with supporting documents, by urban local bodies.
- In the 2022 survey, Lucknow, Prayagraj and Varanasi were ranked top 3 cities in the million plus population category. However, all three have been ranked lower this year.

CITY LAGS IN AIR QUALITY		Swachh Vayu Sarvekshan is an initiative by MoEF&CC to rank cities on the basis of implementation of activities approved under city and air quality action plans in 131 NCAP cities	
<b>Category 1 Cities with population over 10 lakh</b>		<b>CRITERIA</b>	
City	Rank	<b>Category 1</b> Population over 10 lakh No. of cities <b>47</b>	<b>Category 2</b> Population 3-10 lakh No. of cities <b>44</b>
Indore	1	<b>Category 3</b> Population under 3 lakh No. of cities <b>40</b>	
Agra	2		
Thane	3		
Srinagar	4		
Bhopal	5		
Trichy	6		
Vadodara	7		
Ahmedabad	8		
Delhi	9		
Mumbai	10		

### National Clean Air Programme:

- National Clean Air Programme (NCAP), launched in 2019, is India's flagship program for better air quality.
- It was launched as a long-term, time-bound, national level strategy to tackle the air pollution problem across the country in a comprehensive manner.
- Goal: 20% to 30% reduction in Particulate Matter concentrations by 2024 keeping 2017 as the base year.
- Under NCAP, 132 non-attainment cities have been identified across the country based on the Air Quality data from 2014-2018.
- Non-attainment cities are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.
- Nodal Ministry: Ministry of Environment, Forest and Climate Change

## Global Stocktake Report

### Why in News

Amid the gathering of world leaders in New Delhi for the G-20 summit, the UN climate secretariat unveiled a 'synthesis report' summarizing progress made by nations towards the goals of the 2015 Paris Agreement.

## Important Points

- Known as the ‘global stocktake,’ this report is a vital component of global climate action, assessing efforts to combat climate change every five years.

## Insights from the Report

- **Overall Assessment:** The 45-page synthesis report delivers 17 key findings that collectively convey that the world is falling short of its Paris Agreement targets. However, it highlights a narrowing window of opportunity for countries to align their efforts.
- **Echoing Previous Concerns:** The report echoes concerns raised in the 2022 UN synthesis report, which analyzed the NDCs of 166 countries and found them inadequate to meet Paris Agreement goals. It reiterates the findings of the United Nations Emissions Gap Report, emphasizing the vast shortfall in reducing CO2 emissions compared to the Paris targets.

## Crucial Findings

- **Galvanized Global Response:** The Paris Agreement has spurred countries to set climate goals and acknowledge the urgency of addressing the climate crisis. Governments must support the transition away from fossil fuels, ensuring it is equitable and inclusive.
- **Ambitious Goals:** Much greater ambition is needed to achieve global greenhouse gas emission reductions of 43% by 2030 and 60% by 2035, leading to net-zero CO2 emissions by 2050.
- **Renewable Energy Transition:** Scaling up renewable energy is imperative, while unabated fossil fuels must be phased out rapidly.
- **Environmental Conservation:** Efforts to halt deforestation, reverse land degradation, and promote emission-reducing agricultural practices must be encouraged.
- **Adaptation and Loss Management:** Comprehensive risk management and support for impacted communities are essential for averting, minimizing, and addressing loss and damage due to climate change.
- **Financial Commitment:** Transparent adaptation reporting and the rapid scaling up of financial support are needed to align global financial flows with climate-resilient development.

## Influence on Global Climate Discussion

- The global stocktake report serves as a foundational document for the upcoming UN Climate Conference of Parties (COP).
- It notably influenced the G20 Leaders Declaration, which officially acknowledged the substantial financial requirements for transitioning to a renewable energy economy.
- This acknowledgement sets the stage for intensified efforts, emphasizing the need for trillions of dollars to support climate action, renewable technologies, and the path to net-zero emissions by 2050.

## About Global Stocktake

- The Global Stocktake is a crucial component of the Paris Agreement.
- It is a process designed to assess and evaluate progress made by countries in achieving the goals of the Paris Agreement.
- It is conducted periodically, typically every five years.
- It looks at various aspects of climate action, including emissions reductions, adaptation measures, and financial support for developing countries.
- The Global Stocktake provides an opportunity for countries to identify gaps and areas where additional efforts are needed to meet the Paris Agreement’s goals.



## About the Paris Agreement

- The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at the UNFCCC’s COP21 in Paris in 2015.

- It aims to address climate change by limiting global warming to well below 2 degrees Celsius above pre-industrial levels, with an ambition to limit it to 1.5 degrees Celsius.
- It works on a five- year cycle of increasingly ambitious climate action carried out by countries.
- Every five years, each country is expected to submit an updated national climate action plan – known as Nationally Determined Contribution, or NDC.

## High Atlas Mountains

### Why in News

The epicenter of the recent devastating earthquake in Morocco was in the High Atlas Mountains, about 71 kilometres southwest of Marrakesh.

### Important Points

- The High Atlas Mountains are a prominent mountain range in North Africa, primarily located in Morocco.

### Location:

- o The High Atlas Mountains are part of the Atlas Mountain Range, which stretches across Morocco, Algeria, and Tunisia.
- o It extends northeastward for 1000 km from the Atlantic Coast to the Moroccan-Algerian border.



### Geography:

- o They are characterised by their rugged and steep terrain.
- o They are known for their high peaks, deep valleys, and extensive plateaus.
- o The range includes several peaks over 4,000 metres (13,000 feet) in elevation, with Mount Toubkal being the highest at approximately 4,167 metres (13,671 feet).
- **Cultural Significance:** They have cultural significance in Morocco. The region is inhabited by Berber communities, and traditional Berber villages can be found throughout the mountains.
- **Climate Divide:** Its saw-toothed Jurassic peaks act as a weather barrier between the mild Mediterranean climate to the north and the encroaching Sahara to the south.

### About Morocco:

- It is located in the northwest corner of Africa and is bordered by the North Atlantic Ocean and the Mediterranean Sea.
- **Land Borders:** It shares land borders with Algeria to the east and southeast and Western Sahara to the south.
- The High Atlas Mountains separate the mild coastline from the harsh Sahara.
- **Sahara Desert:** A significant part of Morocco is covered by the Sahara Desert.
- **Climate:** Morocco has a diverse climate, ranging from the Mediterranean along the coast to desert in the interior. The country experiences hot summers and mild winters in most regions.
- It was a French protectorate between 1912 and 1956.
- **Capital:** Rabat, which is located on the Atlantic coast.
- **Largest City:** Casablanca is the largest city in Morocco and serves as its economic and business hub.
- **Official Languages:** Arabic and Amazigh (Berber) are the official languages of Morocco. French is also widely spoken and used in business and government.

### Government:

- Morocco is a constitutional monarchy with an elected parliament.
- King Mohammed VI has been the reigning monarch since 1999.

## M.S. Swaminathan

### Why in News

Agricultural scientist Mankombu Sambasivan Swaminatha (Dr. M.S. Swaminathan), the man behind India's Green Revolution, passed away.

## Important Points

- He was known as the “Father of Economic Ecology” by the United Nations Environment Programme.
- He had done groundbreaking work in the 1960s and 1970s revolutionised Indian agriculture, helping the country to stave off widespread famine and achieve self-sufficiency in food production.
- India was importing close to three million tonnes of food grains in 1949-50, spending ₹150 crore at current prices.
- Swaminathan’s pioneering efforts involved the development and introduction of high-yielding varieties of wheat and rice, which significantly increased food grain production across India.
- Swaminathan’s key role was in recognising the potential of the new genetic strains or “plant type” responsive to increased fertiliser and water application, and devising a coherent strategy for their introduction and large-scale planting by farmers.
- He was equally right about aiming for an “Evergreen Revolution”, which, in his words, was an “improvement of productivity in perpetuity without ecological harm”.



## Awards Given for his Contribution

- In recognition of his monumental contributions, Swaminathan was awarded the first World Food Prize in 1987. He used the prize money to establish the MS Swaminathan Research Foundation in Chennai, further cementing his commitment to sustainable and inclusive agricultural practices.
- His other notable accolades include the Ramon Magsaysay Award in 1971 and the Albert Einstein World Science Award in 1986.
- He was the Padma Vibhushan awardee, and was Director General of the Indian Council of Agricultural Research and headed the International Rice Research Institute in the Philippines.

## The Green Revolution

- The Green Revolution was an endeavour initiated by Norman Borlaug in the 1960s. He is known as the 'Father of Green Revolution' in world.
- It led to him winning the Nobel Peace Prize in 1970 for his work in developing High Yielding Varieties (HYVs) of wheat.
- In India, the Green Revolution was mainly led by S. Swaminathan.
- The Green Revolution resulted in a great increase in production of food grains (especially wheat and rice) due to the introduction into developing countries of new, HYV seeds. Its early dramatic successes were in Mexico and the Indian subcontinent.
- The Green Revolution, spreading over the period from 1967-68 to 1977-78, changed India’s status from a food-deficient country to one of the world's leading agricultural nations.

## Benefits of the Green Revolution

- It has positive effects on the overall food security in India. It led to an increase in agricultural production, especially in Haryana, Punjab, and Uttar Pradesh.
- The Green Revolution led to the high productivity of crops through adapted measures, such as
- Increased area under farming,
- Double-cropping, which includes planting two crops rather than one, annually,
- Adoption of HYV of seeds,
- Highly increased use of inorganic fertilizers and pesticides,
- Improved irrigation facilities, and
- Improved farm implements and crop protection measures.

## The side effects and Concerns of the Green Revolution

- Despite its landmark role in achieving food sufficient in India, the Green Revolution has been criticised on multiple counts, such as benefiting the already prosperous farmers as it was introduced in states with higher productivity.

- **Water-intensive crops:** The crops introduced during the green revolution were water-intensive crops. To take Punjab's example, the state extracts 28 billion cubic metres (bcm) of groundwater annually, while its annual recharge is 19 bcm, which is unsustainable.
- **Imbalanced & unsuitable production:** Punjab, Haryana and west Uttar Pradesh were chosen or led to produce wheat and rice for the nation. These states were relatively suitable for wheat, but not rice. The three northern states were incentivized for growing rice along with wheat because they had good irrigation, unlike the eastern states which were largely rainfed.
- **Air pollution:** Air pollution introduced due to the burning of agricultural waste is a big issue these days. (For example: Issue of Stubble Burning)
- **Extinction of Indigenous Varieties of Crops:** Since the time of the green revolution, there was reduced cultivation of indigenous varieties of rice, millets, lentils, etc. In turn, there was increased harvest of hybrid crops, which would grow faster. Due to the green revolution, India lost almost 1 lakh varieties of indigenous rice.

## Conocarpus Plants

### Why in News

The Gujarat government has banned the planting of ornamental Conocarpus trees “in forest or non-forest areas”, citing their “adverse impacts on environment and human health”.

### Important Points

- Conocarpus is a genus consisting of two species of flowering plants within the Combretaceae family.
- These plants are commonly found in tropical regions across the world.

### Two Distinct Species

#### Conocarpus erectus (Buttonwood or Button Mangrove)

- A mangrove shrub that thrives along tropical and subtropical shorelines globally.
- Popularly used in landscaping for gardens, parks, and indoor settings.
- Exhibits rapid growth and minimal leaf shedding, making it suitable for creating natural green walls when pruned skillfully.

#### Conocarpus lancifolius

- A tree species native to coastal and riverine areas in Somalia, Djibouti, and Yemen.
- Found in various regions, including the Horn of Africa, the Arabian Peninsula, and South Asia.

### Ban on Conocarpus Planting

- The Gujarat government has imposed a ban on planting ornamental Conocarpus trees in both forest and non-forest areas.
- Conocarpus, a fast-growing exotic mangrove species, had gained popularity in Gujarat for enhancing greenery.

### Reasons for the Ban

- Research reports have revealed adverse environmental and health impacts associated with Conocarpus.
- The species blooms in winter, releasing pollen that leads to health issues like colds, coughs, asthma, and allergies in nearby areas.
- The extensive root system of Conocarpus damages telecommunication lines, drainage systems, and fresh water networks.
- The leaves of Conocarpus are unappetizing to plant-eating animals, affecting local ecosystems.

### Similar Cases of Unfavorable Plant Species

#### Vilayati Kikar in Delhi

- In 2018, the Delhi government initiated the removal of Vilayati Kikar from the Central Ridge, Delhi's green lung.
- This non-native tree was introduced in the 1930s by the British and quickly overtook native species, harming local biodiversity and water tables.

#### Eucalyptus in Kerala

- British introduction of Eucalyptus to Munnar, Kerala, for use as fuel in tea plantation boilers had detrimental effects.
- In 2018, Kerala's forest department ceased acacia and eucalyptus cultivation in forests due to their negative impact on fodder availability and forest habitats.



## National Payments Corporation of India

### Why in News

Recently, the National Payments Corporation of India (NPCI) unveiled several new products with an aim to create an inclusive, resilient, and sustainable digital payments ecosystem.

### Important Points

- **While Credit Line:** It would enable pre-sanctioned credit lines from banks via UPI.
- UPI LITE X
  - It would facilitate offline payments, and UPI Tap & Pay would enhance QR Code and Near Field Communication (NFC) technology adoption for digital payment.
  - In addition to the conventional Scan and Pay method, users now have the option to simply tap NFC-enabled QR codes at merchant locations to complete their payments.
- **Hello UPI:** Conversational Payments on UPI would enable users to make voice-enabled UPI payments via UPI Apps, telecom calls, and IoT devices in Hindi and English and will soon be available in several other regional languages.
- **BillPay Connect:** Conversational Bill Payments can be made across India through a nationalised number made available by Bharat BillPay.



### About National Payments Corporation of India:

- It is an umbrella organisation for operating retail payments and settlement systems in India.
- It is an initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, to create a robust Payment & Settlement Infrastructure in India.
- It has been incorporated as a "Not for Profit" Company under the provisions of Section 25 of the Companies Act 1956 (now Section 8 of the Companies Act 2013).
- It is promoted by ten major banks, including the State Bank of India, Punjab National Bank, Citibank, Bank of Baroda, and HSBC.
- The regulatory board of the NPCI, headquartered in Mumbai, includes nominees from the RBI along with nominees from ten core promoter banks.

## Incremental Cash Reserve Ratio (I-CRR)

### Why in News

The Reserve Bank of India (RBI) announced the phased discontinuation of the Incremental Cash Reserve Ratio (I-CRR) on September 8, 2023.

### Important Points

- This measure aimed to absorb surplus liquidity created by factors such as the return of Rs 2,000 notes to the banking system.
- RBI conducted a review and decided to discontinue I-CRR in stages.

- The central bank aims to release the impounded amounts gradually to avoid sudden shocks to the system's liquidity, ensuring orderly money market functioning.

### Cash Reserve Ratio (CRR)

- CRR is a fundamental concept before delving into Incremental Cash Reserve Ratio (ICRR).
- Banks are mandated to maintain a certain portion of their deposits and specific liabilities in liquid cash with the RBI.
- CRR serves as a crucial tool in the RBI's arsenal for managing liquidity in the economy and acts as a safety net during times of banking stress.
- Currently, banks are required to uphold 4.5% of their Net Demand and Time Liabilities as CRR with the RBI.



### Introduction to ICRR

- I-CRR was introduced on August 10, 2023, as a temporary measure by RBI to absorb surplus liquidity.
- Banks were required to maintain an I-CRR of 10% on the increase in their Net Demand and Time Liabilities (NDTL) between May 19, 2023, and July 28, 2023.
- It came into effect from the fortnight starting August 12, 2023.
- The RBI has the authority to implement an additional measure called Incremental Cash Reserve Ratio (ICRR), in addition to the standard CRR.
- ICRR is employed during periods characterized by excess liquidity in the financial system.
- Essentially, ICRR mandates that banks park even more liquid cash with the RBI than what is required under CRR.
- This serves as a means to further manage and control liquidity in the banking system.

### Reason for I-CRR

- Excessive liquidity emerged due to factors like the return of Rs 2,000 banknotes, RBI's surplus transfer to the government, increased government spending, and capital inflows.
- The daily liquidity absorption by RBI in July reached Rs 1.8 lakh crore.
- Managing surplus liquidity was necessary to maintain price and financial stability.

### Impact on Liquidity Conditions

- I-CRR was expected to absorb over Rs 1 lakh crore of excess liquidity from the banking system.
- It temporarily shifted the banking system's liquidity from surplus to deficit on August 21.
- Factors like GST outflows and central bank selling of dollars contributed to tight liquidity.
- However, liquidity conditions reverted to surplus from August 24.
- On September 8, RBI absorbed Rs 76,047 crore of surplus liquidity from the system.

### Why is I-CRR Discontinued?

- The banking system's liquidity turned deficit for the first time in the current fiscal on August 21 after the RBI's I-CRR mandate.
- The liquidity, as reflected by the amount of money injected by the RBI into the system, stood at Rs 23,644.43 crore on August 21.
- However, the banking system liquidity again turned to surplus from August 24 and the RBI absorbed Rs 76,047 crore of surplus liquidity from the system on September 8.
- The tight liquidity condition was also contributed by outflows on account of goods and services tax (GST) and the selling of dollars by the central bank to stem the rupee's fall.
- The I-CRR was a temporary measure, and after a review, the RBI has decided to discontinue the I-CRR in a phased manner.

### Assets under management (AUM)

#### Why in News

Life Insurance Corporation of India (LIC) recently said its exposure to the Adani Group was less than 1% of the total assets under management (AUM) at book value.

## Important Points

- UM is the total market value of investments a financial institution (such as a bank, mutual fund, or hedge fund) owns or manages on behalf of its clients.
- AUM can be calculated in different ways, depending on the firm's discretion.
- The calculation is done on the basis of either the total capital that the firm handles or calculating the Individual client's money.
- AUM fluctuates daily reflecting the variable returns from stocks, mutual funds and change in prices of fixed investment.



## Importance of AUM:

- AUM helps to build the market value of the firm.
- It can be used as a market tool to attract potential new customers. The higher a firm's AUM is, the more likely people are to trust them and invest with them.
- A fund's management fees and expenses are often calculated as a percentage of AUM.

## What is Book value and Market value of a company?

- A company's book value is the amount of money shareholders would receive if assets were liquidated and liabilities paid off.
- The book value of an asset is strictly based on the company's balance sheet
- The market value is the value of a company according to the markets based on the current stock price and the number of outstanding shares.
- When the market value is less than book value, the market doesn't believe the company is worth the value on its books.
- A higher market value than book value means the market is assigning a high value to the company due to expected earnings increases.

## Overnight Index Swap

### Why in News

Recently, Indian overnight index swap (OIS) rates rose to their highest levels in 10 months due to offshore payments and triggering of stop losses.

### Important Points

#### About the Overnight Index Swap:

- It is a derivative instrument where returns under a fixed-rate asset are swapped against a predetermined published index of a daily overnight reference rate for an agreed period of time.
- The primary purpose of an OIS is to manage interest rate risk, particularly the risk associated with fluctuations in the overnight lending rate.
- An overnight index swap rate is calculated each day.
- This rate is based on the average interest rate institutions with loans based on the overnight rate have paid for that day.

#### How does an OIS work?

- These are instruments that allow financial institutions to swap the interest rates they are paying without having to refinance or change the terms of their existing loans.
- Typically, when two financial institutions create an overnight index swap, one of the institutions is swapping an overnight (floating) interest rate, and the other institution is swapping a fixed short-term interest rate.
- To get the swap rolling, both firms would agree to continue servicing their loans, but at the end of a specified time period, whoever ends up paying less interest will make up the difference to the other firm.

## What is a derivative?

- It refers to a type of financial contract whose value is dependent on an underlying asset, group of assets, or benchmark.
- Common derivatives include futures contracts, forwards, options, and swaps.

## Significance of a rise in the OIS rates:

- An increase in the OIS rate typically means that borrowing costs for financial institutions and other market participants will rise.
- An increase in the OIS rate may be seen as an indicator of tightening liquidity or a more restrictive monetary policy stance in the broader financial markets.

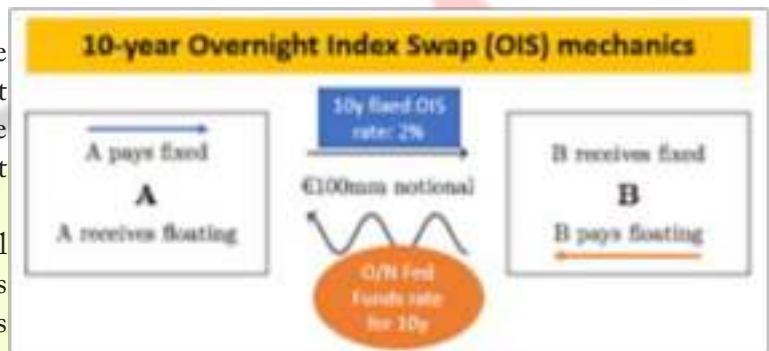
## MIBOR

The Mumbai InterBank Overnight Rate, or MIBOR, is the overnight lending offered rate for Indian commercial banks.

- MIBOR is calculated based on input from a panel of 30 banks and primary dealers.
- MIBOR was first established in 1998 and modeled after the more famous London InterBank Overnight Rate (LIBOR).

## About LIBOR

- The London Interbank Offered Rate (LIBOR) is a benchmark interest rate at which major global banks lend to one another in the international interbank market for short-term loans.
- LIBOR is administered by the Intercontinental Exchange, which asks major global banks how much they would charge other banks for short-term loans.
- In the United States, LIBOR was replaced by the Secured Overnight Financing Rate (SOFR) in June 2023.
- SOFR is published by the Federal Reserve Bank of New York and is based on actual transactions in the U.S.
- In India, the RBI advised banks to stop entering LIBOR-linked contracts latest by December 31, 2021.



## Nifty

### Why in News

The NSE Nifty 50 recently managed to cross the 20,000 mark for the first time.

### Important Points

- NIFTY is a market index introduced by the National Stock Exchange (NSE).
- It is a blended word – National Stock Exchange and Fifty coined by NSE.
- Nifty was established in 1996 under the name CNX Nifty. Further, in 2015, it was renamed Nifty 50.
- NIFTY 50 is a benchmark-based index and the flagship of NSE.
- It represents the performance of the 50 largest and most actively traded stocks listed on the NSE.
- These 50 largest companies are from different industrial sectors and collectively represent the Stock Market and Economic Trends of India.
- It is one of the two main stock market indices in India, the other being SENSEX, a product of the Bombay Stock Exchange (BSE).



## What is a Stock Index?

- A stock index is a measurement of the changes that take place in the stock market.
- It measures price movement and market performance.
- To create an index, one has to group some stocks from a list of stocks with similar characteristics.
- This grouping of stocks can be based on the type of industry, total market capitalization, or size of the company.

## Calculation:

- To calculate the value of the stock market index, one can use the values of the underlying group of stocks.
- Any change in the value of the underlying stock also leads to a change in the stock index value.
- If the price of most of the stocks rises the indexes will again rise and vice-versa.
- Thus, an index is indicative of changes in the market.
- It reflects the overall market's investment sentiment and price movements.

## Non-performing assets (NPAs)

### Why in News

The Reserve Bank of India (RBI) proposed that lenders should classify a borrower as a “wilful defaulter” within 6 months of their account being declared a non-performing asset (NPA).

### Important Points

#### What are Non-Performing Assets (NPAs)?

- A NPA is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.
- For banks, a loan is an asset because the interest paid on these loans is one of the most significant sources of income for the bank.
- When customers, retail or corporates, are not able to pay the interest, the asset becomes ‘non-performing’ for the bank because it is not earning anything for the bank.
- Therefore, the RBI has defined NPAs as assets that stop generating income for banks.
- Banks are required to make their NPAs numbers public and to the RBI as well from time to time.

### Classification of assets

#### As per the RBI guideline, banks are required to classify NPAs further into:

- **Substandard assets:** Assets which have remained NPA for a period less than or equal to 12 months.
- **Doubtful assets:** An asset that has remained in the substandard category for a period of 12 months.
- **Loss assets:** It is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some recovery value.
- **NPA Provisioning:** Provision for a loan refers to a certain percentage of loan amount set aside by the banks.
- The standard rate of provisioning for loans in Indian banks varies from 5-20% depending on the business sector and the repayment capacity of the borrower.
- In the cases of NPA, 100% provisioning is required in accordance with the Basel-III norms.

### GNPA and NNPA

- There are primarily two metrics that help us to understand the NPA situation of any bank.
- **GNPA:** It is an absolute amount that tells about the total value of gross NPAs for the bank in a particular quarter or financial year as the case may be.
- **NNPA:** Net NPAs subtracts the provisions made by the bank from the gross NPA. Therefore, net NPA gives the exact value of NPAs after the bank has made specific provisions for it.
- **NPA Ratios:** NPAs can also be expressed as a percentage of total advances. It gives us an idea of how much of the total advances is not recoverable. For example,
- GNPA ratio is the ratio of the total GNPA of the total advances.
- NNPA ratio uses net NPA to find out the ratio to the total advances.

## Impact of NPAs and Current Situation and Future Prediction for India:

### Impact of NPAs:

- Banks don't have sufficient funds for lending for other productive activities in the economy.
- In order to maintain their profit margins, banks will be forced to increase interest rates.
- Due to curb in investments, there may be a rise in unemployment rates.
- Banks can either keep the NPAs in their books in the hope to recover it or make provisions for it, or write off the loans entirely as bad debt.

### Current Situation of NPAs in India:

- According to the latest edition of RBI's Financial Stability Report, scheduled commercial banks' (SCB) gross NPA ratio fell to a 10-year low of 3.9% in March 2023.
- Gross and net NPA ratios have fallen from a high of 11.5% and 6.1% in March 2018 to 3.9% and 1.0% in March 2023 respectively.
- One of the reasons for the fall in gross NPA in 2022-23 was large write-offs by banks.

### Outlook for India:

- As per the stress test results, the GNPA ratio of all SCBs may improve to 3.6% by March 2024.
- However, if the macroeconomic environment worsens to a medium or severe stress scenario, the GNPA ratio may rise to 4.1% and 5.1%, respectively.

### Recent RBI Proposal on NPA Tag:

- The RBI identifies wilful defaulters as those who have the ability to pay a bank's dues but do not or divert bank funds.
- A large defaulter means a defaulter with an outstanding amount of Rs 1 crore and above, and whose account has been classified as doubtful or loss.
- A wilful defaulter means a borrower or a guarantor who has committed wilful default and the outstanding amount is Rs 25 lakh and above.

### According to the RBI's draft norms proposed:

- The lender shall examine the 'wilful default' aspect in all accounts with outstanding amount of Rs 25 lakh and above or as may be notified by the RBI from time to time, and
- Complete the process of classification/ declaring the borrower as a wilful defaulter within six (6) months of the account being classified as NPA.
- The evidence of wilful default needs to be examined by an Identification Committee, to be set up by lenders.
- Lenders should complete the investigation from a wilful default angle in every case before transferring the credit facility to other lenders or asset reconstruction companies (ARCs).

### Other aspects of the RBI's draft norms proposed:

- No additional credit facility be granted by any lender to a wilful defaulter or any entity with which a wilful defaulter is associated.
- The bar on additional credit facility shall be effective up to a year after the name of wilful defaulter has been removed from the List of Wilful Defaulters (LWD) by the lenders.
- As per the norms, wilful defaulters will not be eligible for restructuring of credit facility.
- The revision of norms comes after a review of the instructions and consideration of various judgments and orders from the SC and HCs.

### Letter of Comfort

- A letter of comfort is a support document issued to a borrower that adds some strength to the transaction when giving loans.
- Letter of comforts are usually issued by a third party or a stakeholder in the transaction.
- For instance, a holding company can give a letter of comfort on behalf of its subsidiary or a government can issue a letter of comfort for public sector enterprises.
- The letter of comfort can also be issued by banks, NBFCs and auditors.

## Obligation status of LoCs

- The letter of comfort is not legally binding or an obligation by the holding company to repay the loans.
- It is just an assurance to the lender that the holding company is aware of the transaction, the policies of the subsidiary and its intentions in seeking a loan.
- This provides some comfort to the financial institution to lend money for short term or long term.
- One can say that the letter of comfort could become a moral obligation and not a legal one.



## Social Bonds

### Why in News

The National Bank for Agriculture and Rural Development (NABARD) recently issued its inaugural social bonds with a total size of Rs 1,040.50 crore.

### Important Points

- Social bonds are a type of financial instrument designed to raise capital for projects and initiatives that have a positive social impact on society.
- They emerged as part of the broader sustainable finance movement, alongside green bonds, to address pressing social issues.
- Social bonds are typically issued by governments, international organizations, or corporations and are characterized by their commitment to funding projects related to healthcare, education, affordable housing, poverty alleviation, and environmental sustainability.
- The Pimpri Chinchwad Municipal Corporation (PCMC) in Maharashtra's Pune and United Nations Development Programme (UNDP) in 2020 co- created India's inaugural SIB.



### Features of Social Bonds issued by NABARD:

- This is the first externally certified AAA-rated Indian Rupee-denominated SIB in the country. The bonds have been rated 'AAA' by CRISIL and ICRA.
- The base issue size of the social bonds was Rs1,000 crore, with an option to retain oversubscription up to Rs2,000 crore, thereby aggregating up to Rs 3,000 crore.
- The face value of each bond is Rs 1lakh.
- Maturity: 5 years
- Coupon Rate: 7.63 per cent.

### Sustainability Bond Framework:

- NABARD recently announced a Sustainability Bond Framework, which seeks to finance and refinance new or existing eligible green and social projects.
- Eligible social projects include affordable basic infrastructure, access to essential services, affordable housing, employment generation, food security, socioeconomic advancement, and empowerment.
- Projects that promise energy efficiency, including green buildings, energy storage, and smart grids, would also be eligible to get funding through the new breed of bonds that NABARD is rolling out.

### About NABARD:

- It is a financial institution that was set up by the Indian government to promote sustainable agriculture and rural development in the country.
- It is the main regulatory body in the country's rural banking system.

### Formation:

- It was established in 1982 as a central regulating body for agriculture financing and the rural sector.
- The government of India established NABARD under the outlines of the National Bank for Agriculture and Rural Development Act 1981.
  - **Objective:** Promoting agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development for securing prosperity.

### Some of the activities undertaken by NABARD for rural development include:

- Provision of refinance support
- Improving rural infrastructure
- Supervision of Regional Rural Banks (RRBs) and Cooperative Banks
- Training artisans to develop handicraft activities and offering them help in marketing their produce
- Preparation of credit plans at a district level and encouraging banks to achieve these targets
- Development of sound banking practices within the economically backward sections of India.

## Foreign Contribution Regulation Act (FCRA)

### Why in News

The Ministry of Home Affairs (MHA) recently amended rules pertaining to the filing of annual returns by Non-Government Organisations (NGOs) registered under the Foreign Contribution Regulation Act (FCRA).

### Important Points

#### Key points from the notification

- The amendment aims to enhance transparency and accountability in the utilization of foreign contributions received by NGOs.
- NGOs are now required to furnish details of movable assets created using foreign contributions as of March 31 of the financial year.
- NGOs must also provide details of immovable assets created using foreign contributions as of March 31 of the financial year.
- These amendments are made under the powers conferred by section 48 of the Foreign Contribution (Regulation) Act, 2010.
- The Foreign Contribution (Regulation) Amendment Rules, 2023 came into force on the date of their publication in the Official Gazette.



### Registration under FCRA:

- It is mandatory for all such NGOs to register themselves under the FCRA.
- The applicant should not be fictitious or benami and should not have been prosecuted or convicted for indulging in activities aimed at conversion through inducement or force, either directly or indirectly, from one religious faith to another.
- The registration is initially valid for five years, and it can be renewed subsequently if they comply with all norms.
- Registration can be cancelled if an inquiry finds a false statement in the application. Once the registration of an NGO is cancelled, it is not eligible for re-registration for three years.
- The ministry also has the power to suspend an NGO's registration for 180 days pending inquiry and can freeze its funds.
- All orders of the government can be challenged in the High Court.

### About Foreign Contribution Regulation Act (FCRA):

- It is a law enacted by Parliament to regulate foreign contributions (especially monetary donations) provided by certain individuals or associations to NGOs and others within India.
- The Act, in its consolidating form, was originally passed in 1976 and majorly modified in 2010.



- The Act aims to prevent foreign organisations from influencing electoral politics, social, political, economic, or religious discussions in India for wrong purposes and activities detrimental to the public interest.
- The Act falls under the purview of the Ministry of Home Affairs (MHA).

## India Post Payments Bank (IPPB)

### Why in News

Recently, the customers of India Post Payments Bank have been receiving an SMS claiming that their accounts will be blocked if they fail to update their PAN card details, which the Press Information Bureau called fake.

### Important Points

- India Post Payments Bank (IPPB) is a financial institution that was launched in 2018, with 100% equity owned by the Government of India. The government's backing ensures its stability and reliability as a financial institution.
- One of IPPB's primary goals is to make banking services accessible to every Indian citizen, especially those who have limited or no access to traditional banking services.
- IPPB offers a wide range of banking and financial products and services, including savings accounts, current accounts, remittances, and access to third-party financial products such as insurance and mutual funds.
- IPPB's focus on financial inclusion aligns with the government's vision of a less cash economy and the Digital India initiative. By providing access to banking services, it helps individuals and businesses participate in the formal financial system.
- Through its network of post offices across the country, IPPB brings banking services closer to people's homes and communities, making it easier for them to save, invest, and transact digitally.



### What are Payments Banks?

- A payments bank is like any other bank but operates on a smaller scale without involving any credit risk.
- It was set up on the recommendations of the Nachiket Mor Committee.
- Objective: Widen the spread of payment and financial services to small businesses, low-income households, and migrant labor workforce in a secured technology-driven environment.
- They are registered under the Companies Act 2013 but are governed by a host of legislations such as the Banking Regulation Act, 1949; RBI Act, 1934; Foreign Exchange Management Act, 1999, etc.
- It needs to have a minimum paid-up capital of Rs. 100,00,00,000.

### Activities that can be performed:

- It can take deposits up to Rs. 2,00,000. It can accept demand deposits in the form of savings and current accounts.
- The money received as deposits can be invested in secure government securities only in the form of Statutory Liquidity Ratio (SLR). This must amount to 75% of the demand deposit balance.
- The remaining 25% is to be placed as time deposits with other scheduled commercial banks.
- It can offer remittance services, mobile payments/transfers/purchases, and other banking services like ATM/debit cards, net banking, and third-party fund transfers.

### Activities that can be performed:

- It cannot issue loans and credit cards.
- It cannot accept time deposits or NRI deposits.
- It cannot set up subsidiaries to undertake non-banking financial activities.

## Kakrapar Nuclear Power Plant

### Why in News

Largest indigenously developed N-plant unit in Gujarat starts ops at full capacity

### Important Points

- The third unit of the indigenously developed 700-megawatt electric (MWe) nuclear power reactor at the Kakrapar Atomic Power Project (KAPP3) in Gujarat has commenced operations at full capacity.
- This comes a little over three years since the unit achieved its ‘first criticality’ – a technical term that signifies the initiation of a controlled, but sustained nuclear fission reaction – in July 2020.
- The PHWRs, which use natural uranium as fuel and heavy water as moderator, constitute the mainstay of India’s nuclear power fleet.
- Till now, the biggest reactor of indigenous design was the 540 MWe PHWR, two of which have been deployed in Tarapur, Maharashtra.
- For India, the operationalisation of its first 700MWe reactor is a significant scale up in technology, both in terms of the optimisation of its PHWR design — the new 700MWe unit addresses the excess thermal margins (thermal margin refers to the extent to which the operating temperature of the reactor is below its maximum operating temperature) — and also marks an improvement in the economies-of-scale, without significant design changes to the 540 MWe reactor.
- Four units of the 700MWe reactor are being constructed at Kakrapar (KAPP-3 and 4) and Rawatbhata (RAPS-7 and 8) site in Rajasthan currently.
- The 700MWe reactors are slated to be backbone of a new fleet of 12 reactors that the NDA government accorded administrative approval and financial sanction in 2017 and that are to be set up in fleet mode.
- As India works to ramp up its existing nuclear power capacity of 7,480 MWe to 22,480 MWe by 2031, the 700MWe capacity would constitute the biggest component of this expansion plan.
- Currently, nuclear power capacity constitutes around 2 per cent of the total installed capacity of 4,17,668 MW (May 31).
- Significantly, as India’s civilian nuclear sector gears up to its next frontier — building a 900 MWe Pressurised Water Reactors (PWRs) of indigenous design – the experience of executing the larger 700MWe reactor design would come in handy, especially with respect to the improved capability of making large-size pressure vessels, alongside India’s own isotope enrichment plants being developed to supply a part of the required enriched uranium fuel to power these new generation reactors over the next decade or so.



### KAPP-3:

- KAPP-3 is the country’s first 700 MWe (megawatt electric) unit, and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor (PHWR).
- Until now, the biggest reactor size of indigenous design was the 540 MWe, two of which have been deployed in Tarapur, Maharashtra.
- A PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel, that uses heavy water (deuterium oxide D<sub>2</sub>O) as its coolant and moderator.
- PHWR technology was started in India in the late 1960s with the construction of the first 220 MWe reactor, Rajasthan Atomic Power Station (RAPS-1).

- State-owned Nuclear Power Corporation of India Ltd (NPCIL) had awarded the reactor-building contract for both KAPP-3 and 4 in 2010.

### Significance:

- KAPP-3 addresses the issue of excess thermal margins.
- Thermal margin refers to the extent to which the operating temperature of the reactor is below its maximum operating temperature.
- KAPP-3 would constitute the biggest component in the nuclear power capacity expansion plan.
- India is working to ramp up its existing nuclear power capacity of 6,780 MWe to 22,480 MWe by 2031.
- It will also help for the future construction for the PHWRs.

### Nuclear Power Corporation of India Limited

- The Nuclear Power Corporation of India Limited (NPCIL) is an Indian public sector undertaking, Headquartered at Mumbai.
- It is wholly owned by the Government of India and is responsible for the generation of nuclear power for electricity.
- NPCIL is administered by the Department of Atomic Energy (DAE).

### India's Draft Guidelines on Dark Patterns

#### Why in News

The Indian government has invited public feedback on draft guidelines aimed at preventing and regulating “dark patterns” on the internet, particularly within e-commerce platforms.

#### Important Points

- These guidelines target deceptive tactics such as false urgency, basket sneaking, confirm shaming, forced action, subscription traps, and other manipulative practices.

#### Dark Patterns

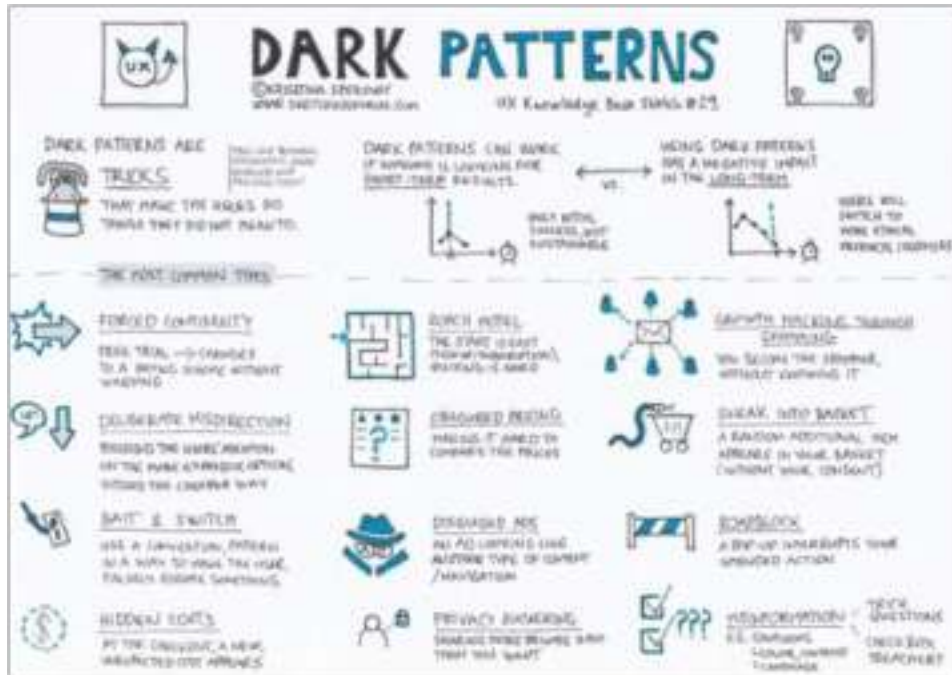
- The draft guidelines define dark patterns as deceptive design practices that utilize user interface and user experience interactions on any platform.
- These practices are designed to mislead or trick users into actions they did not initially intend or want to take.
- Dark patterns undermine consumer autonomy, decision-making, and choice, potentially constituting misleading advertising, unfair trade practices, or violations of consumer rights.

#### Types of Dark Patterns

- “False urgency” involves falsely conveying or implying a sense of urgency to users.
- “Basket sneaking” entails adding additional items to a user’s cart during the checkout process without their consent.
- “Confirm shaming” uses phrases, videos, audio, or other means to evoke fear, shame, ridicule, or guilt in users.
- “Forced action” compels users to take actions that necessitate purchasing additional goods.
- “Subscription trap” makes it nearly impossible or overly complex for users to cancel paid subscriptions.
- “Interface interference” manipulates the user interface for deceptive purposes.
- “Bait and switch” advertises a specific outcome based on user actions.
- “Drip pricing” conceals elements of prices until later in the transaction.
- “Disguised advertisement” and “nagging” are also defined in the guidelines.

#### Scope of Application

- The Ministry states that these guidelines will apply to all individuals and online platforms, including sellers and advertisers.



## Challenges in Enforcement

- Legal experts appreciate the introduction of the draft guidelines but raises concerns about enforcement.
- They highlight the challenge of conclusively proving whether certain practices qualify as dark patterns.
- Famous is the example of the “false category” and the difficulty regulators may face in determining if claims like “only 2 rooms remaining – book now!” are genuinely accurate or misleading due to a lack of context.
- Some categories of dark patterns, such as e-retail sites adding items to users’ carts without their consent, are seen as easier to regulate, while others like “disguised advertisements” may require further clarification.

## Lab-Grown Human Embryos

### Why in News

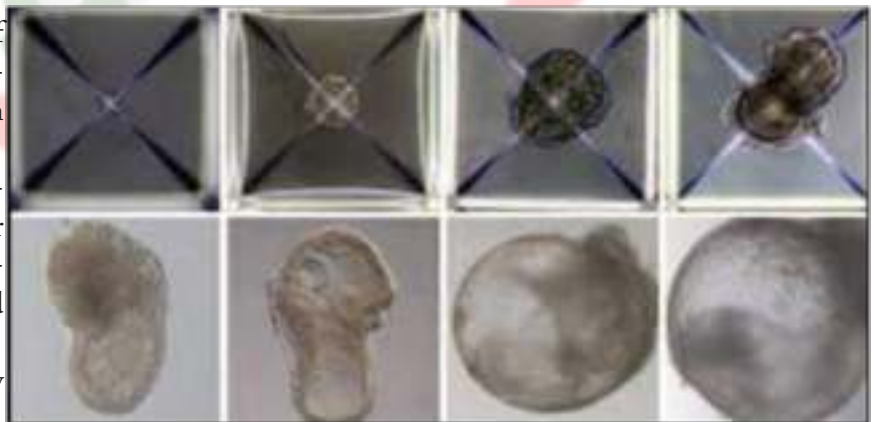
Scientists have successfully developed a “human embryo” in a laboratory without using traditional egg or sperm cells.

### Important Points

- The model was constructed using a combination of stem cells, which possess the ability to differentiate into various cell types, resulting in a structure resembling an early human embryo.

### Human Embryo artificially

- This model is considered one of the most comprehensive representations of a 14-day-old human embryo.
- Multiple research teams worldwide have been working on similar embryo-like models, with approximately six such models published in the current year.
- While none fully replicate early embryo development processes, they collectively contribute to scientific understanding.



### Challenges in Creating the Model

- Researchers in Israel utilized stem cells and chemical components, but only a small fraction spontaneously assembled into different cell types.
- Approximately 1% of the mixture exhibited this spontaneous assembly, making the process inefficient.

## Importance of Embryo Models and Research

- Ethical constraints prevent direct research on early embryo development after implantation in the uterus.
- Understanding early stages of embryo development is crucial as most miscarriages and birth defects occur during this period.
- Such research aids in the comprehension of genetic and hereditary diseases.
- Insights into why some embryos develop normally and implant successfully can enhance in vitro fertilization success rates.

## Potential of Embryo-Like Models

- These models enable the study of genetic, epigenetic, and environmental influences on embryo development.
- They facilitate the investigation of genetic defects and the development of potential genetic therapies.

## Limits of Lab-Grown Embryos

- Lab-grown embryos are solely for studying the early stages of foetal development.
- Implantation attempts are prohibited, and these models are typically destroyed after 14 days.
- Originating from a UK committee proposal in 1979, the 14-day limit aligns with natural embryo implantation completion.
- Beyond this point, embryos begin exhibiting characteristics of individuality and cannot split into twins.
- The ethical considerations shift as embryos progress from a clump of cells to entities with individual potential, often marked by the Primitive Streak.

## Insights from Embryo Models

- Models like the one developed in Israel shed light on DNA duplication errors and chromosome imbalances.
- These errors are now understood to occur earlier in the development process, during ongoing DNA duplication.
- Such models aid in identifying the roles of various genes in fetal development, enabling gene manipulation for research purposes.

## Erg chech 002

### Why in News

Recently some unusual Erg Chech 002 rocks with distinctive green crystals have been found in the sea.

### Important Points

#### About Erg Chech 002:

- Upon closer inspection of this rock, it was found that these rocks came from outer space. These are billions of years old piles of debris, which were left over from the beginning of the solar system.
- They were fragments of a meteorite called Erg Chech 002, the oldest volcanic rock ever found, melted in the fires of a long-gone ancient protoplanet
- These rocks are known as "ungrouped achondrites".
- Achondrites are rocks formed from molten planetesimals, which we call solid lumps in the cloud of gas and debris from which the Solar System formed.
- Erg Chech 002 has been found to contain abundant amounts of lead 206 and lead 207, as well as large amounts of undissolved uranium 238 and uranium 235.
- Aluminum-26 was distributed quite unevenly in the cloud of dust and gas that formed the Solar System.



#### Erg Chech 002 Importance of rock.

- The data could reveal secrets about the solar system's early state during the birth of the planets.
- It could also help scientists better determine the ages of the oldest meteorites that have fallen to Earth.

## Dinkinesh asteroid

### Why in News

Recently, NASA's Lucy spacecraft has captured its first images of the main belt asteroid Dinkinesh, marking the beginning of a 12-year voyage.

### Important Points

#### About Dinkinesh asteroid:

- It was discovered in 1999 by the LINEAR survey.
- Dinkinesh is a slow rotator with a moderately large light-curve amplitude.
- It is an S-type asteroid, which means it is composed mainly of silicates and some metal.
- It will be the first fly-by target of the Lucy mission on November 1, 2023, during its cruise to the Trojan Clouds.
- The observations were made by Lucy's high-resolution camera, the Lucy Long Range Reconnaissance Imager (LLORRI instrument).

### Lucy Mission

- It was launched by NASA from the Cape Canaveral Space Force Station in Florida in 2021.
- It is a 12-year mission which will take close observations of nine of Jupiter's Trojans and two main belt asteroids along with that.
- It is the first spacecraft sent to study the Trojan asteroids, which orbit the Sun in the same path that the planet Jupiter takes.
- The asteroids are in two swarms, one trailing and one lagging ahead and behind the planet on its orbit around the Sun, located in the fourth and fifth Lagrange points in the Sun-Jupiter system.
- It has recently captured images of Eurybates, Polymele, Leucus and Leucus asteroids.

## Hybrid Nanoparticles

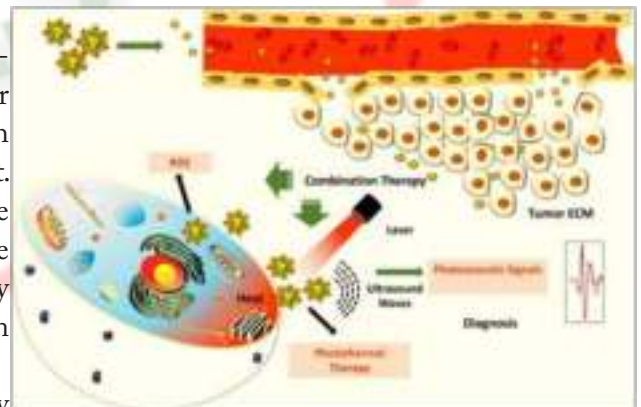
### Why in News

Researchers at the Indian Institute of Science (IISc) have pioneered a novel approach with the potential to detect and eradicate cancer cells, particularly those forming solid tumour masses.

### Important Points

#### Gold and Copper Sulfide Nanoparticles

- **Innovative Nanoparticles:** IISc scientists have engineered hybrid nanoparticles that blend gold and copper sulfide, resulting in multifunctional nanoparticles with promising implications for cancer detection and treatment.
- **Photothermal and Oxidative Properties:** These nanoparticles exhibit photothermal capabilities, where they absorb light and convert it into heat, effectively killing cancer cells. Moreover, they produce singlet oxygen atoms, which further contribute to the cells' toxicity.
- **Combining Mechanisms:** The nanoparticles employ both photothermal and oxidative mechanisms to target and eliminate cancer cells effectively.



### Revolutionizing Cancer Diagnosis

- **Ultrasound Waves:** Beyond cancer treatment, these hybrid nanoparticles hold potential for cancer diagnosis. Their photoacoustic property enables them to absorb light and generate ultrasound waves.
- **High Contrast Detection:** The ultrasound waves enhance the contrast for detecting cancer cells once the nanoparticles reach them. This method offers superior image resolution compared to traditional CT and MRI scans.
- **Clarity and Oxygen Saturation Measurement:** Scans generated through ultrasound waves boast greater clarity and the ability to measure oxygen saturation within tumors, enhancing cancer detection accuracy.

- **Integration with Existing Systems:** The nanoparticles can be seamlessly integrated with current detection and treatment systems. For instance, endoscopes used for cancer screening can trigger nanoparticle-induced heat generation with focused light.

### Overcoming Size Limitations

- **Size Advantages:** These hybrid nanoparticles, measuring less than 8 nm, possess a critical advantage in terms of mobility within tissues and their ability to reach tumors.
- **Potential Safe Elimination:** Due to their diminutive size, researchers anticipate that these nanoparticles can exit the human body naturally without accumulating. However, extensive safety studies are essential to confirm their suitability for internal use.
- **Successful Lab Testing:** In laboratory settings, the researchers conducted successful tests using these nanoparticles on lung and cervical cancer cell lines, demonstrating their potential.
- **Clinical Development:** The promising outcomes from this study propel the nanoparticles closer to clinical development.

## Monoclonal Antibodies

### Why in News

India recently reached out to Australia, seeking to restock monoclonal antibody doses to combat the Nipah virus.

### Important Points

- Monoclonal antibodies (also called moAbs or mAbs) are proteins made in laboratories that act like proteins called antibodies in our bodies.
- Antibodies are parts of our immune system. They seek out the antigens (foreign materials) and stick to them in order to destroy them.
- The word “monoclonal” refers to the fact that the antibodies created in the laboratory are clones. They are exact copies of one antibody.

### Production:

- They are produced by cloning a single type of immune cell, known as a B cell, to generate large quantities of identical antibodies.
- This process creates highly specific antibodies that target a particular antigen, which could be a virus, bacteria, cancer cell, or other disease-related molecule.
- **Specificity:** They can be designed to recognize and bind to a particular target molecule with great precision. This specificity reduces the risk of unintended side effects.
- They are used in a variety of medical applications, including the treatment of cancer, autoimmune diseases, and infectious diseases.

### Monoclonal antibodies vs. Polyclonal antibodies:

- Monoclonal antibodies are clones of just one antibody, and they bind to one antigen only.
- Polyclonal antibodies come from several different types of immune cells and will bind to more than one antigen.

### Nipah virus:

- Nipah virus infection is a zoonotic illness that is transmitted from animals to humans.
- The organism that causes Nipah Virus encephalitis is an RNA or Ribonucleic acid virus of the family Paramyxoviridae, genus Henipavirus, and is closely related to Hendra virus.
- It first broke out in Malaysia and Singapore in 1998 and 1999.
- It first appeared in domestic pigs and has been found in several species of domestic animals, including dogs, cats, goats, horses, and sheep.

### Transmission:

- The disease spreads through fruit bats, or ‘flying foxes,’ of the genus Pteropus, who are natural reservoir hosts of the Nipah and Hendra viruses.
- The virus is present in bat urine and, potentially, bat faeces, saliva, and birthing fluids.
- **Symptoms:** Typically, the human infection presents as an encephalitic syndrome marked by fever, headache, drowsiness, disorientation, mental confusion, coma, and potentially death.

- **Mortality Rate:** 40% to 70%
- **Treatment:** There is no definitive treatment available for the virus.

## Monkey Pox

### Why in News

Recently, the World Health Organization (WHO) has declared the monkeypox a global health emergency.

### Important Points

Monkeypox, or Mpox, is a viral disease caused by the monkeypox virus.

Monkeypox virus is an enveloped double-stranded DNA virus of the Orthopoxvirus genus in the Poxviridae family, which includes variola, cowpox, vaccinia and other viruses.

### Symptoms: Common symptoms of mpox are:

- o rash
- o fever
- o sore throat
- o headache
- o muscle aches
- o back pain
- o low energy
- o swollen lymph nodes.

### Spread: Anyone can get mpox. It spreads from contact with infected:

- persons, through touch, kissing, or sex
- animals, when hunting, skinning, or cooking them
- materials, such as contaminated sheets, clothes or needles
- pregnant persons, who may pass the virus on to their unborn baby.

**Treatment:** Getting an mpox vaccine can help prevent infection. Several antivirals, such as tecovirimat, originally developed to treat smallpox have also been used to treat mpox.

### Global Concern:

- In the European region, new cases have been reported from Spain and the U.K.
- The African region has also experienced a surge in cases in Cameroon, the Democratic Republic of the Congo, and Nigeria.
- China, Sri Lanka, Thailand, Taiwan, Pakistan and Japan have also reported cases of mpox.
- Incidentally, several cases have a travel history to the Middle East, however, reports from Middle East do not indicate an increase in the number of cases.
- Genomic surveillance of the monkeypox pathogen allows for contact tracing and monitoring of its evolution. There is a noticeable lack of genomic data from developing countries, particularly in Asia.
- Amidst increased globalisation and travel, the need for global public health efforts, cooperation, and resource sharing is needed.

## Aditya L1

### Why in News

India's solar mission, Aditya L1, has started studying energetic particles in the solar wind from space with the help of a device named Supra Thermal & Energetic Particle Spectrometer (STEPS).

### Important Points

- After India's solar mission Aditya L1 began its journey towards Lagrange point 1 following a key manoeuvre, it has started studying energetic particles in the solar wind from space, and will continue to do so for the rest of its life, a senior astrophysicist said.
- The study of the solar wind, the continuous flow of charged particles from the sun which permeates the solar system, will be carried out with the help of a device named Supra Thermal & Energetic Particle Spectrometer (STEPS), a part of the Aditya Solar wind Particle EXperiment (ASPEX) payload.





- The key aim of STEPS is to study the environment of energetic particles from the spacecraft's position on the L1 point till it will function
- STEPS was developed by the PRL with support from the Space Application Centre (SAC) in Ahmedabad.

### About the Supra Thermal & Energetic Particle Spectrometer (STEPS):

- It is a sub-system of the ASPEX (Aditya Solar Wind Particle Experiment) payload on the spacecraft.
- The key aim of STEPS is to study the environment of energetic particles from the spacecraft's position on the L1 point till it will function.
- The data from STEPS in the long term will also help us understand how space weather changes.
- It comprises six sensors, each observing in different directions and measuring supra-thermal and energetic ions.
- The data collected during the Earth's orbit helps scientists analyse the behaviour of particles surrounding the planet, especially in the presence of its magnetic field.
- It was developed by the Physical Research Laboratory (PRL) with support from the Space Application Centre (SAC) in Ahmedabad.

### Key facts about Aditya L1

- Aditya (which in Sanskrit means sun) is a planned coronagraphy spacecraft to study the solar atmosphere (solar corona, - outermost part).
- It has been designed and developed by ISRO and various other Indian research institutes.
- It is the first dedicated Indian mission to observe the Sun and will be launched aboard a PSLV-XL launch vehicle.
- The suits of Aditya L1's payloads are expected to provide crucial information for understanding the phenomenon of:
  - coronal heating, coronal mass ejection (CME), pre-flare and flare activities and their characteristics, the dynamics of space weather, propagation of particles and fields, etc.

### Lagrangian points:

- These are specific locations in space where the gravitational forces of two large bodies, such as the Earth and the Moon or the Earth and the Sun, balance the centrifugal force experienced by a smaller object, such as a satellite.
- Lagrange points are named in honor of Italian-French mathematician Joseph-Louis Lagrange.
- There are five Lagrangian points, labelled L1 through L5, in the three-dimensional space surrounding two large bodies in orbit around each other.
- L1, L2, and L3 are located on a line that connects the two large bodies and are unstable equilibrium points, meaning an object placed there will not stay in that position without continuous propulsion.
- L4 and L5, on the other hand, are located at the third corners of a tetrahedron formed by the two large bodies and their barycenter, and are stable equilibrium points, meaning an object placed there will remain in that position without propulsion.
- The L1 point of the Earth-Sun system affords an uninterrupted view of the sun and is currently home to the Solar and Heliospheric Observatory Satellite (SOHO)
- The L2 point in the Earth-Sun system is a strategic location for spacecraft like WMAP, Planck, and the James Webb Space Telescope. It offers advantages for astronomy, as it allows for easy communication with Earth, provides uninterrupted solar power, and offers a clear view of deep space.
- The L1 and L2 points are unstable on a time scale of approximately 23 days, which requires satellites orbiting these positions to undergo regular course and attitude corrections.
- Stable orbits at L4 and L5 Lagrange points require a mass ratio greater than 24.96, seen in Earth-Sun and Earth-Moon systems, as well as elsewhere in the solar system.
- Objects found orbiting at the L4 and L5 points are often called Trojans after the three large asteroids Agamemnon, Achilles and Hector that orbit in the L4 and L5 points of the Jupiter-Sun system.

## Initiatives for persons with Disabilities

### Why in News

Recently, the Minister of State, Ministry of Social Justice and Empowerment, unveiled five transformative initiatives for persons with Disabilities at the Dr. Ambedkar International Centre (DAIC)

### Important Points

#### MOU with Council of Architecture:

- Department of Empowerment of Persons with Disabilities (DEPwD ) has joined hands with the Council of Architecture (COA) to introduce universal accessibility courses within Bachelor of Architecture programs.
- This collaboration extends to the development of a certified course for architects and civil engineers, equipping them with the skills to conduct accessibility audits in built environments, thereby ensuring compliance with accessibility standards.



#### Releasing of Anonymous Data of UDID:

- DEPwD's release of anonymous data through the Unique Disability ID (UDID) portal for research purposes represents a significant leap in data-driven decision-making within the disability sector.
- This initiative provides invaluable insights at various levels, facilitating a deeper understanding and informing targeted interventions.

#### PM Daksh Portal:

- It is a comprehensive digital platform designed to empower Persons with Disabilities in their pursuit of skill training and employment opportunities.
- The portal offers seamless registration through UDID, access to location-based skill training options, a wide array of job listings from across India, and streamlined administrative processes.

#### Pathways to Access:

- Courts on Disability Rights: DEPwD has compiled notable judgements from India's Supreme Court and High Courts concerning disability rights into a comprehensive booklet.
- This resource serves as a valuable reference guide for persons with disabilities and stakeholders in the disability sector.

#### Online Case Monitoring Portal by CCPD:

- The Chief Commissioner for Persons with Disabilities (CCPD) has adopted a cutting-edge application for handling grievances filed by persons with disabilities.
- This initiative streamlines the entire process, making it paperless and efficient. Key features include seamless online complaint filing, automated reminders, and simplified hearing scheduling.

## TB Vaccine

### Why in News

A new Tuberculosis (TB) vaccine candidate of Bharat Biotech International is on the verge of entering phase III clinical trials.

### Important Points

- Two separate Phase II trials of Mycobacterium Tuberculosis Vaccine (MTBVAC) of Bharat Biotech have been completed,

- With the completion of phase II trials, Bharat Biotech is now planning to take up Phase II safety/immunogenicity study of the vaccine in people living with HIV (PWHIV)
- The phase III trials of it will follow.
- Of the two trials, one was supported by The European & Developing Countries Clinical Trials Partnership (EDCTP) and was sponsored by Biofabri in infants in South Africa, while the other was sponsored by International AIDS Vaccine Initiative (IAVI) and supported by the US National Institutes of Health and the US Department of Defence through its Congressionally Directed Medical Research Program.
- TB infects more than 20 per cent of the global population and is the second leading cause of deaths from infectious disease after Covid19. TB is a highly contagious disease where vaccines are seen as the 'best' solution to prevent disease, reduce transmission and combat multi-drug resistant strains.
- If successful, the collaboration between Bharat Biotech and Biofabri (which was announced last year) is expected to result in the worldwide production and the supply of the future vaccine in more than 70 countries with a high TB incidence, such as India, country with the highest TB burden in the world, with a 25 per cent of all cases.
- "MTBVAC is being developed for two purposes – as a more effective vaccine than Bacille Calmette-Guerin (BCG) for newborns and for the prevention of TB disease in adults and adolescents, for whom there is currently no effective vaccine. It has a unique feature of preventing transmission or spread of the disease
- MTBVAC is being seen by the industry is one of the 'promising' vaccine candidates in the current global TB vaccine pipeline.
- The only currently available TB vaccine, the Bacillus Calmette-Guérin vaccine (BCG), was developed 100 years ago and has limited efficacy in preventing pulmonary TB in adults, who, along with adolescents, are the biggest spreaders of the disease.
- Apart from Bharat Biotech's Mycobacterium Tuberculosis Vaccine, currently there is only one vaccine candidate developed by GSK along with Aeras and the International AIDS Vaccine Initiative (IAVI)- M72- is likely to enter phase III trials in 2024
- The development of new medicines and medical practices is at the forefront of medical research, with researchers endeavouring to find the best thing or way to manage or treat various conditions and diseases. Clinical trials are at the core of this process, especially when humans are the designated recipients of such innovation. These trials ensure that any medicine, surgical method, or, more broadly, an intervention is safe, well-tolerated, and efficacious.
- Simply speaking, in a clinical trial, investigators enrol participants who meet certain qualifying criteria, then administer the intervention being tested, and finally measure the outcomes – all according to a predetermined plan.
- Trials can test drugs, medical devices, and even procedures. They may compare a course of treatment to existing regimens or a placebo; they may be blinded or double-blinded; in fact, there are several types of clinical trials depending on the investigators' needs.
- A clinical trial is a systematic study to generate data for discovering or verifying the clinical and pharmacological profile (including pharmacodynamic and pharmacokinetic) or adverse effects of a new drug on humans.
- It is the only way of establishing the safety and efficacy of any drug before its introduction in the market for human use and is preceded by animal trials where the efficacy and side effects are observed in animals and an estimated drug dose is established.

### Phases of Clinical Trials

- Clinical trials are carried out in four phases. Clinical trials of drugs developed in India have to undergo all four phases of trials in India.
- Phase I or clinical pharmacology trials or "first in man" study: This is the first time where the new drug is administered to a small number, a minimum of 2 healthy, informed volunteers for each dose under the close supervision of a doctor. The purpose is to determine whether the new compound is tolerated by the patient's body and behaves in the predicted way.
- Phase II or exploratory trials: During this phase, the medicine is administered to a group of approximately 10-12 informed patients in 3 to 4 centers to determine its effect and also to check for any unacceptable side effects.

- Phase III or confirmatory trials: Purpose is to obtain sufficient evidence about the efficacy and safety of the drug in a larger number of patients, generally in comparison with a standard drug and/or a placebo as appropriate. In this phase, the group is between 1000-3000 subjects. If the results are favorable, the data is presented to the licensing authorities for a commercial license to market the drug for use by the patient population for the specified and approved indication.
- Phase IV trials or post-marketing phase: Phase of surveillance after the medicine is made available to doctors, who start prescribing it. The effects are monitored on thousands of patients to help identify any unforeseen side effects.

## Regulatory Mechanism in India

### Clinical trials in India are governed by the acts:

- o Drugs and Cosmetics Act, 1940,
- o Medical Council of India Act, 1956 and
- o Central Council for Indian Medicine Act, 1970.
- o Prerequisites of conducting a clinical trial in India are:
  - o Permission from the Drugs Controller General, India (DCGI)
  - o Approval from respective Ethics Committee where the study is planned
  - o Mandatory registration on the ICMR maintained website.
- In India, the Indian Council of Medical Research maintains an online public-record system called the Clinical Trials Registry-India. All clinical trials in India are required to register themselves here.
- In a clinical trial, investigators enrol participants who meet certain qualifying criteria, then administer the intervention being tested, and finally measure the outcomes – all according to a predetermined plan.
- Trials can test drugs, medical devices, and even procedures. They may compare a course of treatment to existing regimens or a placebo; they may be blinded or double-blinded; in fact, there are several types of clinical trials depending on the investigators' needs.
- In India, the Indian Council of Medical Research maintains an online public-record system called the Clinical Trials Registry-India. All clinical trials in India are required to register themselves here.

## 'State of Working India' Report 2023

### Why in News

The 'State of Working India 2023' report, released by Azim Premji University's Centre for Sustainable Employment

### Important Points

- The report highlights the impact of India's economic slowdown from 2018-2020 and the subsequent Covid-19 pandemic on the labor market.
- It uses data sources like the National Statistical Office, including Employment-Unemployment Surveys and the Periodic Labour Force Surveys



### Major Findings:

- **Faster structural change:** Between 2004 and 2017, around 3 million regular wage jobs were created annually. Between 2017 and 2019 this jumped to 5 million per year. Since 2019, the pace of regular wage job creation has decreased due to the growth slowdown and the pandemic.
- **Upward mobility has increased:** In 2004 over 80% of sons of casual wage workers were themselves in casual employment. This was the case for both SC/ST workers and other castes. For non-SC/ST castes, this fell from 83% to 53% by 2018 and incidence of better quality work such as regular salaried jobs increased. It fell for SC/ST castes as well, but to a lesser extent (86% to 76%).
- **Caste-based segregation has reduced:** Between 1983 and 2021, the proportion of regular wage workers belonging to the SC category has increased. In 2021, 32% of general caste workers were in regular wage employment as compared to 22% of SC workers. The report also looks at firm ownership data to conclude that general castes are over-represented to a greater degree in larger enterprises.
- **Gender-based earnings disparities have reduced:** In 2004, salaried women workers earned 70% of what

men earned. By 2017 the gap had reduced and women earned 76% of what men did. Since then, the gap has remained constant till 2021-22.

- **Women in job:** Between 1983 and 2021, the degree of women's representation in industries like tobacco, education, health and social work, and textiles has increased whereas in waste management & sewerage, it has decreased. Still, in all these sectors, women are over-represented in comparison to men.
- **Unemployment is falling but remains high:** Post-Covid the unemployment rate is lower than it was pre-Covid, for all education levels. But it remains above 15% for graduates and more worryingly it touches a huge 42% for graduates under 25 years.
- **The connection between growth and good jobs remains weak:** Since the 1990s year-on-year non-farm GDP growth and non-farm employment growth are uncorrelated with each other suggesting that policies promoting faster growth need not promote faster job creation. However, between 2004 and 2019, on average growth translated to decent employment.
- **Male Breadwinner Norm:** Due to the "male breadwinner" norm, as the husband's income increases the probability of the wife being employed also reduces. In rural areas, the fall in probability slows down as the husband's income increases.

## International Week of the Deaf

### Why in News

The Department of Empowerment of Persons with Disabilities (DEPwD), is celebrating International Week of the Deaf (IWDeaf) from 18th-24th September, 2023.

### Important Points

#### Background:

- In 1958 International Day of Deaf was celebrated first as an initiative of the World Federation of the Deaf (WFD).
- Later the day extends to an International Week of the Deaf.
- International Week of the Deaf is celebrated annually by the global Deaf Community in the week of September.
- International Day of Sign Languages: It is celebrated on 23 September.
- The choice commemorates the date that the WFD was established in 1951.

### International Week of the Deaf: 2023

- During this period the Indian Sign Language Research and Training Centre (ISLRTC) has been conducting various theme-based activities.
- ISLRTC is an autonomous organization under the DEPwD and the nodal institute for research, development, training and spreading awareness about Indian Sign Language (ISL) across the country.
- The theme for 2023 for International Day of Sign Languages is A World where Deaf People Everywhere can Sign Anywhere!
- These flagship programs include Video Relay Services, Sign videos of financial and banking terms, ISL course at Special schools for Speech and Hearing Impaired, etc.

### World Federation of the Deaf (WFD)

- WFD is an international non-profit and non-governmental organization of deaf associations from 133 countries.
- Established: 23 September 1951 in Rome, Italy, at the first World Deaf Congress.
- Headquarters: Helsinki, Finland
- It promotes the human rights of deaf people in accordance with the principles and objectives of the United Nations Charter, Universal Declaration of Human Rights, UN Convention on the Rights of Persons with Disabilities (CRPD), 2030 Agenda and Sustainable Development Goals (SDGs), and other Human Rights Treaties.
- The WFD has a consultative status in the United Nations and is a founding member of the International Disability Alliance (IDA).

## Declaration on Pandemic Prevention, Preparedness, and Response

### Why in News

The United Nations member states recently adopted a historical political declaration to ensure that the world is better prepared for future pandemics, at a High-Level Meeting during the ongoing UN General Assembly.

## Important Points

### Objectives of Declaration:

- Prevent catastrophic health and socio-economic impacts that were experienced during COVID-19.
- Address the global shortfall of health workers in accordance with the Global Strategy on Human Resources for Health: Workforce 2030 by investing in education and employment.
- Health workers should be protected from all forms of violence, attacks, harassment, and discriminatory practices.
- Utilise innovative technologies, including remote mental health services, by promoting equitable access to telemedicine.
- Support developing countries in building expertise by building on efforts under the COVID-19 Vaccine Global Access Facility.
- Member nations should take measures to counter the effect of health-related misinformation especially on social media platforms.
- Governments should continue their work on amending the International Health Regulations (2005), the only legally binding global rule in existence for health emergencies.
- Countries should conclude negotiations on a formal agreement on pandemic prevention, preparedness and response, known also as the Pandemic Accord, by May 2024.



### Critical Analysis:

- Since it is a non-binding declaration, critics have also called the text “rhetorical without commitments”.
- While Paragraph 32 calls for equity, social justice, and social protection, there is no mentioned pathway on how to achieve these goals.

## Social Audit

### Why in News

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) Scheme social audit unit in a state of paralysis in several States in India.

### Important Points

- The social audit units flag the cases of misappropriation and the onus is on the State governments to make the recoveries.
- The social audit units, inbuilt mechanism to combat corruption in MGNREGS, meant to detect any cases of malpractice which has not been backed by the effective recovery mechanism.
- As per the statistics available with the Union Rural Development Ministry in the ongoing financial year, less than 14% of the amount flagged by the auditors has been recovered so far. The figures for the previous financial years are equally dismal.

### Poor recovery

- In the ongoing financial year, the social audit units have flagged misappropriation to the tune of Rs 27.5 crore. After action was taken in some of these cases, the amount came down to Rs 9.5 crore out of which only Rs 1.31 crore has been recovered so far, merely 13.8% of the total.
- The financial year 2022-23 has a similar story; after taking rectifying measures, the recoverable amount was pegged at Rs86.2 crore but the recovery amounted to only Rs18 crore, just 20.8% of the total. In 2021-22, one of the social audit units flagged one of the highest amounts of misappropriation at Rs171 crore but only Rs26 crore, 15% of the total, was recovered.

## Malpractice in MGNREGS and Lack of Fund:

- The social audit unit's sole responsibility is to flag cases of malpractice. Recovering the money, and reprimanding the officials responsible, is up to the State governments.
- These units are working without training or adequate personnel.
- A dismal recovery rate threatens the credibility of the audit process, since it makes the entire exercise futile.

## What is Social Audit?

- It is a process of reviewing official records and determining whether state reported expenditures reflect the actual amount spent on the ground.
- Social audits examine and assess the social impact of specific programmes and policies, and act as a powerful tool for social transformation, community participation and government accountability.

## It is different from Financial Audit.

- Financial audits involve inspecting and assessing documents related to financial transactions in an organisation to provide a true picture of its profits, losses and financial stability.

## Section 17 of the MGNREGA:

1. The gram sabha 'shall monitor the execution of works', and has mandated Social audit of all Works executed under the MGNREGA.
2. Each State has social audit units which are supposed to work independent of the implementing authorities.

## Key Features of Social Audit:

- Fact finding not fault finding;
- Opportunity for awareness building on entitlements and processes;
- Creating the space and platform for dialogue among various levels of stakeholders;
- Timely grievance redressal;
- Strengthening the democratic process and institutions;
- Building people's pressure for better implementation of programmes.

## Benefits of Social Audit:

- Informing and educating people about their rights and entitlements;
- Providing a collective platform for people to ask queries, express their needs and grievances;
- Promoting people's participation in all stages of implementation of programmes;
- Transparency and accountability in government schemes;
- Strengthening decentralised governance;

## Lancet Report

### Why in News

The Lancet report titled 'Women, Power and Cancer' sheds light on the gender disparities in cancer diagnosis, treatment, and outcomes in India.

### Important Points

#### Key points from the report and expert opinions

#### Preventable and Treatable Deaths

- The report highlights that a significant number of cancer deaths among women in India are preventable (6.9 million) and treatable (4.03 million). This suggests that many women are not receiving timely and adequate care.

#### Global Gender Disparities

- Despite women being at a lower overall risk of cancer compared to men, cancer incidence and mortality rates among women are still high globally. Women make up 48% of new cancer cases and 44% of cancer deaths worldwide. Some cancers that primarily affect women, such as breast and cervical cancers, are highly preventable and treatable.

## Barriers Faced by Women

- Women face various challenges in accessing cancer care, including a lack of knowledge, decision-making power, and financial resources. They also often lack access to primary healthcare services closer to their homes. Additionally, they are more likely to experience financial hardships due to cancer.

## Underrepresentation and Discrimination

- Women are underrepresented in leadership roles in cancer care, face gender-based discrimination, and may experience sexual harassment. They also constitute a significant unpaid workforce in cancer care, with their contribution estimated at 3.66% of India's national health expenditure.

## Societal Changes Needed

- Experts emphasize the need for societal changes, such as promoting healthcare-seeking behaviour among women, addressing cultural taboos related to certain cancers, and encouraging early diagnosis and treatment.

## Importance of Screening

- Early screening for common cancers in women, such as breast and cervical cancers, is crucial. Self-examination of breasts, clinical examinations by doctors, mammography for women over 40, and regular pap smear tests for cervical cancer are recommended.

## Government Interventions

- The government can play a significant role in raising awareness about cancer prevention and screening. Expert opinions suggest that campaigns similar to COVID-19 vaccination drives can help increase participation in screening programs. Additionally, the introduction of an HPV vaccination program can reduce cervical cancer incidence.

## Primary Health Centers

- To improve early diagnosis and treatment, primary health centres and sub-centres should be equipped to provide cancer care, particularly for cervical cancer. Trained nursing staff can play a crucial role in performing simple procedures to remove precancerous or cancerous lesions.

## Data Collection and Research

- The report emphasizes the importance of collecting gender and social demographic data in cancer health statistics. It calls for the development and enforcement of policies to reduce known cancer risks and for greater equity in access to cancer research resources, leadership positions, and funding opportunities for women.

## Cancer

- Cancer originates from genetic mutations that disrupt the normal regulation of cell growth and division. These mutations can be caused by various factors, including exposure to carcinogens such as tobacco smoke, radiation, certain chemicals, and genetic predisposition. These genetic changes lead to the uncontrolled growth of cells, resulting in the formation of a tumour.

## Transmission of Cancer

- Cancer is not a contagious disease and cannot be transmitted from person to person like infectious diseases. It is a result of internal cellular changes and external factors that cause genetic mutations. However, some cancers may have a hereditary component, meaning that certain genetic mutations can be passed down from one generation to another, increasing the risk of developing cancer within a family.

## Symptoms of Cancer

- Sudden and unexplained weight loss can be a sign of several types of cancer.
- Persistent and unrelenting fatigue that doesn't improve with rest.
- Ongoing pain that is not attributed to a specific injury or condition.
- Skin changes such as darkening, yellowing, or changes in moles.
- Persistent changes in bowel or bladder habits, such as blood in the stool or frequent urination.
- The presence of lumps, bumps, or masses that can be felt or seen.
- A chronic cough, hoarseness, or persistent respiratory symptoms.



- Difficulty swallowing or persistent indigestion.
- Changes in the menstrual cycle in women, including heavy bleeding or irregular periods.
- Neurological symptoms such as headaches, seizures, or changes in vision.

#### Cure for Cancer varies depending on the type, stage, and location of the cancer

- **Surgery:** Removal of the tumour or affected tissue.
- **Chemotherapy:** Use of drugs to kill cancer cells or stop their growth.
- **Radiation Therapy:** Use of high-energy radiation to target and destroy cancer cells.
- **Immunotherapy:** Boosting the body's immune system to fight cancer.
- **Targeted Therapy:** Medications that specifically target cancer cells.
- **Hormone Therapy:** Used for hormone-related cancers to block or alter hormone production.
- **Stem Cell Transplant:** Replacement of damaged bone marrow with healthy stem cells.



# Chapter- 7

## INTERNATIONAL RELATION

### 20th ASEAN-India Summit

#### Why in News

Prime Minister Modi visited Jakarta, Indonesia at the invitation of Joko Widodo, President of the Republic of Indonesia.

#### Important Points

- During his visit, PM attended the 20th ASEAN-India Summit and 18th East Asia Summit being hosted by Indonesia as current Chair of ASEAN.
- The current ASEAN-India Summit was the first Summit since the elevation of India-ASEAN relations to a Comprehensive Strategic Partnership in 2022.



#### About ASEAN

- The Association of Southeast Asian Nations (ASEAN) is a regional grouping that aims to promote economic and security cooperation among its ten members:
- Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- Timor-Leste joined the ASEAN in 2022 as an Observer. ASEAN has agreed in principle to accept Timor-Leste as its 11th member.
- The decision was made in Phnom Penh, Cambodia, where the 40th and 41st ASEAN summits were held.
- ASEAN countries have a total population of 662 million people and a combined gross domestic product (GDP) of \$3.2 trillion as of 2022.
- ASEAN has an anthem, a flag and biannual summits (twice a year) with a rotating chairmanship.
- Establishment: It was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the founding fathers of ASEAN: Indonesia, Malaysia, Philippines, Singapore and Thailand.
- Aim: The motto of ASEAN is “One Vision, One Identity, One Community”.
- Secretariat: ASEAN Secretariat is located in Jakarta, Indonesia.

#### India's link with ASEAN

##### 1. ASEAN and Act East Policy

- ASEAN is central to India's Act East policy, which focuses on the extended neighbourhood in the Asia-Pacific region.
- India among the dialogue partners
- India is part of the ASEAN Plus Six grouping, which includes China, Japan, South Korea, New Zealand and Australia as well.

##### 2. Trade and Investment

- In 2010, India-ASEAN FTA in goods were signed. FTA in services were signed in 2014.
- ASEAN is India's 4th largest trading partner. Total trade stood at \$110.4 billion in 2021-22.

##### 3. Institutional cooperation

- India – ASEAN summit-level partnership in 2002;
- The year 2022 marked 30 years of ASEAN-India relations and it was designated as ASEAN-India Friendship Year.
- Ties were elevated to a strategic partnership in 2012 and Comprehensive Strategic Partnership in 2022.
- India and ASEAN have strengthened defence cooperation by the ASEAN Defense Ministers' Meeting Plus (ADMM+).

## Key Outcome of the 20th ASEAN-India Summit

- o At the ASEAN-India Summit in Jakarta, India's PM announced a decision to establish an Indian Embassy in Dili, Timor-Leste.

### 1. Two Joint Statements were adopted:

- o Maritime Cooperation, and
- o Food Security and Nutrition

### 2. Joint Statement on strengthening food security and nutrition in response to crises

- o It recognised the inter-connectedness and vulnerabilities of the Indo-Pacific region in the face of the regional and global challenges.
- o In this context, it recognised the importance of joint efforts and mutual support in the region and beyond to strengthen food security and nutrition.
- o Millets found a prominent place in the document.
- o It acknowledged nutritional richness, climate resilience, health benefits and ecological sustainability of millets, considering that millets are good for the consumer, cultivator and climate.
- o It supported ASEAN-India preparedness for long-term resilience and sustainability of agrifood system.

### 3. Joint statement on maritime cooperation

- o In maritime cooperation, areas such as safety and security of maritime areas, maritime domain awareness, disaster management etc. have been covered.

## A12-point proposal for strengthening India – ASEAN cooperation:

- The proposal covered connectivity, digital transformation, trade and economic engagement, addressing contemporary challenges, people-to-people contacts and deepening strategic engagement, as follows:
- Establishing multi-modal connectivity and economic corridor that links South-East Asia-India-West Asia-Europe
- Offered to share India's Digital Public Infrastructure Stack with ASEAN partners
- Announced ASEAN-India fund for Digital Future focusing on cooperation in digital transformation and financial connectivity
- Announced renewal of support to Economic and Research Institute of ASEAN and East Asia (ERIA) to act as knowledge partner for enhancing our engagement.
- Called for collectively raising issues being faced by Global South in multilateral fora
- Invited ASEAN countries to join Global Centre for Traditional Medicine being established by WHO in India
- Called for working together on Mission LiFE
- Offered to share India's experience in providing affordable and quality medicines to people through Jan-Aushadhi Kendras
- Called for collective fight against terrorism, terror financing and cyber-disinformation
- Invited ASEAN countries to join Coalition for Disaster Resilient Infrastructure
- Called for cooperation in disaster management
- Called for enhanced cooperation on maritime safety, security and domain awareness

## India-Greece Relations

### Why in News

Recently India's PM visited Greece to elevate bilateral ties to the level of strategic partnership.

### Important Points

- Greece awarded the Indian PM with "The Grand Cross of the Order of Honour" (its second highest civilian award).
- No Indian PM has visited Greece since 1983.



## Historical Background

- India's engagement with Greece spans over 2500 years, marked by trade, literature, and art interactions.
- Trade links and cultural exchanges existed between Mauryan Kings and Greece, evidenced by coinage and writings.
- Alexander the Great's invasion in 326 BC led to interactions with Indian rulers, including battles with Raja Porus and Ambhi.
- Chanakya's writings mention Megasthenes, an ambassador, in Chandragupta's court.
- The fusion of Greek and Indian influences is visible in Gandhara Art.

## Modern Diplomatic Ties

- Diplomatic relations established in 1950.
- Embassies set up in Athens and Delhi, reflecting mutual cooperation.
- Greece respected India's decisions on various internal matters and the Non-Alignment Movement (NAM).
- Collaboration on nuclear issues and international platforms showcased strong ties.
- Greece's support for India on geopolitical and global matters.

## Areas of Collaboration

### 1. Defence and Security

- Enhancing collaboration in maritime security, counter-terrorism, cyber security, and defence industry.
- Establishment of an India-Greece dialogue framework at the level of National Security Advisors (NSAs) for comprehensive discussions.

### 2. Maritime Security and International Law

- A shared vision for a free, open, and rules-based Mediterranean Sea and Indo-Pacific.
- Pledged adherence to the United Nations Convention on the Law of the Sea (UNCLOS) and respect for sovereignty, territorial integrity, and freedom of navigation.

### 3. Culture and Tourism

- Commitment to promoting art exchanges and cooperation.
- Joint efforts to preserve and safeguard ancient sites are bolstered through collaboration within UNESCO.

### 4. Trade and Investment

- The ambitious goal of doubling bilateral trade by 2030.
- Exploration of opportunities in sectors including renewable energy, infrastructure, pharmaceuticals, agriculture, and innovation.

### 5. Mobility and Migration Partnership Agreement (MMPA)

- Recognition of the mutual benefits of an early finalization of the MMPA.
- Aims to facilitate the free movement of the workforce between the two nations.

## Importance of Visit to Greece

- PM Modi's visit marked the first by an Indian Prime Minister in 40 years.
- Collaborative efforts focused on military cooperation, counter-terrorism, and cybersecurity.
- National Security Advisor-level dialogue was held to facilitate comprehensive discussions on mutual concerns.
- Both nations committed to maritime security, promoting free and open seas in the Mediterranean and Indo-Pacific.
- Adherence to UNCLOS, sovereignty, territorial integrity, and navigation freedom are emphasized.
- Strengthening cooperation across defence, science, culture, tourism, and agriculture sectors.
- Greek membership in the International Solar Alliance and Coalition for Disaster Resilient Infrastructure.
- Both leaders stressed cultural exchanges and people-to-people connections.
- PM Modi invited PM Mitsotakis to India, highlighting further deepening of relations.
- India-Greece ties play a significant role in the broader India-Europe commercial corridor plans.
- Shared vision for progress and commitment to diplomatic resolutions.
- Strengthening civilizational bonds through cultural interactions.

## Earthquake strikes Morocco

### Why in News

A devastating earthquake struck Morocco, resulting in significant casualties and damage.

### Important Points

- **Shallow Epicenter:** The quake's epicentre was near the town of Ighil, approximately 70 km southwest of Marrakech. It was considered fairly shallow, with varying depth estimates.
- **Higher Energy:** Shallow earthquakes are typically more dangerous as they carry more energy, making them more destructive compared to deeper quakes.



### Major Causes

- **Tectonic Convergence:** The earthquake resulted from the northward convergence of the African plate with the Eurasian plate along a complex plate boundary.
- **Faulting:** The USGS attributed the quake to oblique-reverse faulting at a shallow depth within the Moroccan High Atlas Mountain range.
- **Fault Classification:** Oblique-slip faults exhibit characteristics of both dip-slip and strike-slip faults, occurring in areas of compression where tectonic plates converge.

### Earthquake

- An earthquake is an intense shaking of the ground caused by movement under the earth's surface.
- It happens when two blocks of the earth suddenly slip past one another.
- This releases stored-up 'elastic strain' energy in the form of seismic waves, which spreads through the earth and cause the shaking of the ground.

### What exactly causes Earthquakes?

- As we know, the earth's outermost surface, crust, is fragmented into tectonic plates.
- The edges of the plates are called plate boundaries, which are made up of faults.
- The tectonic plates constantly move at a slow pace, sliding past one another and bumping into each other.
- As the edges of the plates are quite rough, they get stuck with one another while the rest of the plate keeps moving.
- Earthquake occurs when the plate has moved far enough and the edges unstick on one of the faults.
- The location below the earth's surface where the earthquake starts are called the hypocenter, and the location directly above it on the surface of the earth is called the epicentre.

### National Disaster Management Authority of India

- The National Disaster Management Authority (NDMA) is the apex statutory body for disaster management.

- The National Disaster Management Authority (NDMA) was formally established on September 27, 2006, in compliance with the Disaster Management Act of 2005, with the Prime Minister as its Chairperson and nine additional members, one of whom was named as Vice-Chairperson.
- Its main goal is to coordinate emergency response, both natural and man-made, as well as to enhance disaster resiliency and crisis response capabilities.
- It is also the top body for establishing Disaster Management policies, plans, and recommendations to ensure a fast and effective response to disasters.
- At the national, state, and district levels, the Disaster Management Act of 2005 established the legal and institutional framework for disaster management in India.
- The central government establishes plans, rules, and guidelines, as well as provides technical, financial, and logistical support, while the district administration oversees the majority of activities in coordination with central and state agencies.

### National Disaster response force (NDRF)

- The National Disaster Response Team (NDRF) is a specialist disaster response force that works under the general supervision and administration of the National Disaster Management Agency (NDMA).

### State Disaster Management Authority (SDMA)

- SDMA, which is led by the Chief Minister, establishes policies and plans for disaster management in the state.
- It is in charge of coordinating the state Plan's implementation, recommending funding for mitigation and preparedness measures, and reviewing the state's developmental plans to ensure that prevention, preparedness, and mitigation measures are all integrated.
- The State Executive Committee (SEC), which is chaired by the state's Chief Secretary, is responsible for coordinating and monitoring the execution of the DM Act's National Policy, National Plan, and State Plan.

## World Spice Congress (WSC)

### Why in News

Recently, the 14th edition of the World Spice Congress (WSC) began at Vashi in Navi Mumbai.

### Important Points

- It was planned and conceived in 1990 as a forum for discussion and interaction between the importers and exporters of spices.
- It is the conglomeration of the global spice industry that has become the most apt platform to deliberate the concerns and considerations of the sector over its three-decades-long presence.
- Since its inception, it has been Organized under the leadership of the Spices Board, Ministry of Commerce and Industry, Government of India.
- The theme of the WSC 2023 is VISION 2030: S-P-I-C-E-S, which stands for sustainability, productivity, innovation, collaboration, excellence and safety.



### Key facts about the Spices Board of India

- It was constituted on 26th February 1987 under the Spices Board Act 1986 with the merger of the erstwhile Cardamom Board (1968) and Spices Export Promotion Council (1960).
- It is functioning under the Ministry of Commerce & Industry.
- It is responsible for the export promotion of the 52 scheduled spices and the development of Cardamom (Small and large).
- The Board is a link between the Indian exporters and the importers abroad.

### Main Functions

- Research, Development and Regulation of domestic marketing of Small & Large Cardamom
- Post-harvest improvement of all spices

- Promotion of organic production, processing and certification of spices
- Development of spices in the North East
- Provision of quality evaluation services

## Belt and Road Initiative

### Why in News

Italy has been planning to step out of China's Belt and Road Initiative (BRI)

### Important Points

- Prime Minister of Italy outlined Italy's plan to pull out of the Belt and Road Initiative (BRI) during a meeting with Chinese Premier Li Qiang at the G20 summit, Italian media reported recently.
- Italy, seeking to minimise any backlash from the decision from Beijing, would as a replacement aim to revitalise a strategic partnership agreement with China, aimed at fostering economic cooperation, it first signed in 2004.
- Italy is the only G7 nation to sign up to the BRI, a global trade and infrastructure plan modelled on the old Silk Road that linked imperial China and the West.
- Italy is the only G7 country (the grouping of advanced economies of US, the United Kingdom, Canada, France, Germany, Italy, and Japan, with the European Union as a "non-enumerated" member) to sign up for the BRI, which it did in 2019.

### Why does Italy want to leave the BRI?

- Italy had joined the BRI at a time it was desperate for investment and infrastructure building, having survived three recessions in 10 years. Its government at the time did not share warm relations with the EU, and was happy to turn to China for the funds it could pump in.
- Four years later, the agreement hasn't done much for Italy.
- According to figures from Council on Foreign Relations, Chinese FDI in Italy dropped from \$650 million in 2019 to just \$33 million in 2021. In fact, the country invested far more in non-BRI countries in Europe.
- In terms of trade, since joining BRI, Italy's exports to China increased from 14.5 billion euros to a mere 18.5 billion euros, while Chinese exports to Italy expanded from 33.5 billion euros to 50.9 billion euros.

### Is this the first time Italy has indicated it may leave BRI?

- No. Sections of Italian political leaders have complained that the agreement has benefitted China more than Italy. Earlier this year, Italian Defence Minister had told that the country wanted to "walk back [from the BRI] without damaging relations with Beijing".

### BRI amid changing geopolitics

- For China, a G7 country joining the BRI had been a big diplomatic win, and Rome walking out just ahead of the initiative's 10th anniversary will be a loss of face. This will be in line with Europe's increasingly cautious stand towards China.
- Many countries in Europe continued to maintain close economic and trade links with the Asian economic giant. The Russia-Ukraine war, China's perceived staunch support of Russia, and geopolitical rivalries taking the form of trade sanctions have forced a rethink.
- Recently, the EU-China Comprehensive Agreement on Investment (CAI) collapsed.
- Last year, Estonia and Latvia quit the 17+1, China's diplomatic push in Central and Eastern European countries. Lithuania had walked out in 2021.
- Italy too has been gradually hardening its stance against Beijing.
- Italy has the G7 presidency next year, and walking out of the BRI will sit well with its Western allies.
- The BRI, too, has attracted negative press over the years. Many countries that joined it enthusiastically now find themselves staring at a massive debt burden to China.
- An analysis by the Associated Press "of a dozen countries most indebted to China — including Pakistan, Kenya, Zambia, Laos and Mongolia" found that paying back the debt "is consuming an ever-greater amount of the tax revenue...and draining foreign currency reserves.
- Behind this, is China's reluctance to forgive debt and its extreme secrecy about how much money it has loaned and on what terms, which has kept other major lenders from stepping in to help."

- Recently, the West has come out with its own initiative for funding infrastructure projects across the world, seen as a counter to the BRI —the Partnership for Global Infrastructure Investment (PGII).

### Belt and Road Initiative (BRI)

- The Belt and Road Initiative (BRI) is a large-scale infrastructure development programme launched by China in 2013.
- The initiative aims to connect Asia with Europe and Africa, through a network of railways, highways, ports, airports, and other infrastructure projects with the intent to promote trade, investment, and economic growth in participating countries. Hence, this has been described by Chinese officials as a "new model of globalisation" that benefits all parties involved.
- The BRI comprises two main components: The Silk Road Economic Belt and the 21st century Maritime Silk Road. The Silk Road Economic Belt focuses on improving connectivity and cooperation between China and countries in Central Asia, Europe, and West Asia, while the 21st century Maritime Silk Road focuses on strengthening maritime cooperation between China and countries in Southeast Asia, South Asia, and Africa.



### BRI and India

- India does not support the BRI, and has declined to join the project. The major reason for this is that the BRI passes through Indian territory illegally held by Pakistan.
- The arm of the BRI project that links mainland China to the Arabian Sea runs from Kashgar in China's Xinjiang Uighur Autonomous Region to Gwadar port in southwestern Baluchistan in Pakistan.
- The project enters Indian territory occupied by Pakistan in Gilgit Baltistan, and traverses the entire length of Pakistan from north to south before reaching the Arabian Sea.
- This arm of the BRI is called the China-Pakistan Economic Corridor, or CPEC, and consists of multiple modern highway and railway projects.
- India has repeatedly voiced its concern and opposition to the CPEC, and flagged the violation of international law in its building by China and Pakistan.

### Indian government on BRI:

- The Indian Government firmly believes that connectivity initiatives must be based on the universally recognized international norms, good governance, rule of law, openness, transparency, and equality, and must be pursued in a manner that respects sovereignty and territorial integrity.
- India is of the opinion that the inclusion of the so-called CPEC which passes through parts of the Indian state of Jammu & Kashmir under illegal occupation of Pakistan as a flagship project of BRI, reflects lack of appreciation of India's concerns on the issue of sovereignty and territorial integrity.
- Earlier, in 2015, the then Indian Foreign Secretary S. Jaishankar had categorically stated that, as far as India is concerned, BRI is a Chinese national initiative. The Chinese devised it, created a blueprint and it has been devised with Chinese national interests in mind.
- In the background of growing debate on BRI, and India's own plans of regional connectivity, the 2016 Raisina Dialogue had focussed on Asian connectivity. Although government officials did not mention BRI, it was clear what was being discussed. At the dialogue, the then Indian External Affairs Minister late Sushma Swaraj had underlined the importance of cooperative rather than unilateral approach to connectivity. She had underlined the need for creating an environment of trust and confidence, as a prerequisite for a more interconnected world.
- The same position was repeated in 2018 when India participated for the first time as a full member of SCO (Shanghai Cooperation Organisation). It was then expected that India might soften its stand on BRI. On the contrary, India was the only member country that did not endorse the BRI project. At the summit, Prime Minister Modi asserted that India welcomes new connectivity projects that are inclusive, sustainable, and transparent and respect countries' sovereignty and territorial integrity.



- In the Joint Declaration of the recently held SCO also India did not support BRI, ostensibly as it violates India's sovereignty and territorial integrity as the CPEC passes through POK.

## Nagorno-Karabakh

### Why in News

Azerbaijan launches operation against Nagorno-Karabakh and demands surrender

### Important Points

- The separatist ethnic Armenian forces agreed to a Russian proposal of ceasefire almost 24 hours after Azerbaijan's army launched an offensive in Nagorno-Karabakh to take control of the autonomous region.
- Under the agreement, ethnic-Armenian forces in Nagorno-Karabakh will be disbanded and completely disarmed.
- The territory is recognised internationally as part of Azerbaijan but large areas of it have been controlled by ethnic Armenians for three decades.
- It is at the heart of one of the world's longest-running conflicts.
- For the past nine months, Azerbaijan has imposed an effective blockade on the only route into the enclave from Armenia, known as the Lachin Corridor.
- Azerbaijan said it had launched its operation in response to the deaths of six people, including four police officers, in two landmine explosions.

### History:

- Azerbaijan and Armenia first went to war in the early 1990s after the fall of the Soviet Union.
- Then in 2020 Azerbaijan recaptured areas in and around Nagorno-Karabakh before a truce was agreed and monitored by Russian peacekeepers.
- Since the end of 2020, 2,000 Russians have monitored the fragile truce but Moscow's attention has been diverted by its full-scale invasion of Ukraine.

### Where is Nagorno-Karabakh?

- The territory lies in the mountainous South Caucasus region of Eastern Europe and Asia between the Black Sea and the Caspian Sea.
- Azerbaijan and Armenia fought a bloody war over Nagorno-Karabakh in the late 1980s and early 1990s, and it has been the trigger for further violence in the years since.
- The last major escalation in the conflict took place in 2020 when thousands of people were reported killed in six weeks of fierce fighting.
- The deployment of Russian peacekeepers brought the fighting to a halt at the time, but tensions had been ratcheting up for months ahead of the latest military operation.

### Strategic Significance:

- The energy-rich Azerbaijan has built several gas and oil pipelines across the Caucasus (the region between the Black Sea and the Caspian Sea) to Turkey and Europe.
- Some of these pipelines pass close to the conflict zone (within 16 km of the border).
- In an open war between the two countries, the pipelines could be targeted, which would impact energy supplies and may even lead to higher oil prices globally.

### What led to the latest fighting?

- Fears of fresh violence came when Azerbaijan mounted an effective blockade of a vital route into the enclave in December 2022.
- The Lachin Corridor is the only road that connects the Republic of Armenia to the roughly 120,000 ethnic Armenians in Nagorno-Karabakh.
- It is a key artery for supplies, and residents in Nagorno-Karabakh reported severe shortages of basic food items and medication in recent months.
- Azerbaijan accused Armenia of using the road to bring in military supplies, which Armenia denied.
- Observers reported a build-up of Azerbaijani troops during the blockade, but that was in turn denied in Baku.

- Hopes that tensions might ease came when a small number of aid trucks operated by the International Committee of the Red Cross were allowed into Nagorno-Karabakh in mid-September through the Lachin Corridor and, separately, the Aghdam Road from Azerbaijan.
- But keeping these transport links open, in particular the Lachin Corridor, relied heavily on the presence of Russian peacekeepers deployed in the area since 2020.
- And Moscow's attention and military resources have been diverted by its invasion of Ukraine. The Armenian prime minister said recently that Russia was "spontaneously leaving the region".

### Armenia-Azerbaijan: Nagorno-Karabakh map



### What led to war?

- Modern-day Armenia and Azerbaijan became part of the Soviet Union in the 1920s.
- The area designated Nagorno-Karabakh had a majority ethnic-Armenian population but was controlled by Azerbaijan.
- Nagorno-Karabakh's regional parliament voted to become part of Armenia when the Soviet Union began to collapse in the late 1980s.
- Azerbaijan sought to suppress the separatist movement, while Armenia backed it.
- This led to ethnic clashes and - after Armenia and Azerbaijan declared independence from Moscow - a full-scale war.
- In February 1992, residents of the Azerbaijani town Khojaly, situated in the Nagorno-Karabakh area, were killed by Armenian forces, helped by some of the Russian military. More than 600 people died, according to Azerbaijan. Armenia disputes the account and the number of deaths.
- Over the years, tens of thousands of people were killed and more than a million displaced amid reports of ethnic cleansing and massacres committed by both sides.
- The first Nagorno-Karabakh war ended with a Russian-brokered ceasefire in 1994, after Armenian forces had gained control of Nagorno-Karabakh and areas adjacent to it.
- Under the deal, Nagorno-Karabakh remained part of Azerbaijan, but since then it has mostly been governed by a separatist, self-declared republic, run by ethnic Armenians and backed by the Armenian government.

### What happened in 2020?

- The situation has been volatile ever since, with bouts of fighting interrupting periods of relative calm.
- The biggest military confrontation since the early 1990s happened three years ago during six weeks of heavy fighting.
- Azerbaijan won back territory and by the time both sides agreed to sign a Russian-brokered peace deal in November 2020, it had recaptured all the territories surrounding Nagorno-Karabakh held by Armenia since 1994.

- Under the agreement, Armenian forces had to withdraw from these areas and have since been confined to a smaller part of the region.

### Who do Russia and Turkey support?

- Regional powers have been heavily involved in the conflict over the years.
- Nato-member Turkey was the first nation to recognise Azerbaijan's independence in 1991 and has remained a staunch supporter of the country.
- Turkish-made Bayraktar drones are said to have played a crucial role in the fighting in 2020, allowing Azerbaijan to make territorial gains.
- Armenia, on the other hand, traditionally had good relations with Russia.
- There is a Russian military base in Armenia, and both are members of the Collective Security Treaty Organization (CSTO) military alliance of six former Soviet states.
- But relations between Armenia and Russia have soured since Nikol Pashinyan, who led huge anti-government protests in 2018, became Armenia's prime minister.
- Armenia's reliance on Russia as its single source for security was a "strategic error".
- Armenia then announced that it was hosting joint exercises with US forces which were criticised by Moscow as "unfriendly steps".
- Russia denied Armenia had broken off its alliance with Russia, but declared that Yerevan had "essentially recognised" Azerbaijan's sovereignty over Nagorno-Karabakh.
- The two countries have never signed a peace deal and despite negotiations over the years do not have formal diplomatic relations.

## EU Enlargement

### Why in News

France and Germany backed report pushes for EU enlargement, four tier membership

### Important Points

- France and Germany, the two largest economies in the European Union, pushed new proposals for the enlargement of the 27-member bloc.
- The policy paper, put together by a group of 12 experts commissioned by the Europe ministers of France and Germany but not representing the countries' official views, was presented along the fringes of a European ministerial meeting.
- The paper, commissioned early this year, is in response to growing calls for expanding the EU, partly in response to Russia's invasion of Ukraine.
- Along with the group's enlargement, the paper looks at strengthening the rule of law and increasing the EU's capacity to act, proposing four different tiers of participation in the union.
- While Ukraine, the Western Balkans and Moldova are frontrunners for membership, a total of ten countries are in the process of integrating EU law into their own laws.
- A paper which was published by Politico, revealed that the EU is neither institutionally nor policy-wise ready right now to introduce new members. It therefore recommended a flexible approach to EU enlargement as well as reform.
- The report also looks at how the EU can function more effectively with 30 plus members. Its proposals include capping the number of EU legislators, changing the voting mechanism by expanding majority voting (as opposed to unanimity) and enhancing the bloc's budget.
- In the absence of unanimous support to change the EU Treaty (which is needed for enlargement), the paper suggests a supplementary treaty among a willing subset of members, which would permit for differentiation across the EU.

### European Union

- It is a group of 27 countries in Europe.
- These countries came together to make things better, easier, and safer for people.
- Background: The idea to make the European Union came after two big wars happened in Europe.
- Countries in Europe saw that it was better to work together than to fight against each other.

- **Purpose:** All countries that are part of the European Union work together to make sure that:
  - There is peace in Europe
  - People have good lives
  - Things are fair for all people and nobody is left out
  - The languages and cultures of all people are respected
  - There is a strong European economy and countries use the same coin to do business together.
- **Role and Achievements:** The European Union made it easier for people to move freely from one country to another.
- The European Union made the ‘Schengen Area’ which is an area without borders.
- In this area, people can travel from country to country freely and easily.
- The European Union sells many things and services to other countries.
- Also, it buys things from other countries.
- This way it helps the world economy keep going.
- Most countries that are part of the European Union use the same coin.
- This coin is called ‘Euro’.
- **Awards:** In 2012, the European Union won the Nobel Peace Prize for its good work keeping peace in Europe.

## India and EU Relations

- The EU works closely with India to promote peace, create jobs, boost economic growth and enhance sustainable development across the country.
- The 1994 EU-India Cooperation Agreement provides the legal framework for EU-India relations and boosted political, economic, and sectoral cooperation.
- India and the EU are two of the world’s largest economies having shared synergies and offering significant trade and investment opportunities.
- The Partnership for Global Infrastructure Investment (PGII): The infrastructure plan was first announced in June 2021 during the G7 (or Group of Seven) summit in the UK.
- The G7 countries include the United Kingdom, the United States, Canada, France, Germany, Italy, Japan, and the European Union
- In 2023 the EU and India also set up a new Trade and Technology Council (TTC).
- The TTC will deepen strategic engagement in trade and technology between both partners.
- On the sidelines of the G20 Summit in New Delhi, a Memorandum of Understanding (MoU) was signed between the Governments of India, the US, Saudi Arabia, the European Union, the UAE, France, Germany, and Italy to establish the India – Middle East – Europe Economic Corridor (IMEC).
- The IMEC is envisioned as a network of transport corridors, including railway lines and sea lanes, that is expected to aid economic growth through integration between Asia, the Arabian Gulf, and Europe.

## India-Middle East-Europe Corridor

### Why in News

Global leaders came together at a global summit in New Delhi on September 10 to establish the India-Middle East-Europe Economic Corridor (IMEC).

### Important Points

- India’s presidency of G20 saw two major initiatives in the field of developmental finance that were announced as part of the Delhi Declaration.
- The first is the launching of an alternative model for inter-continental infrastructure creation through the proposed India-Middle East-Europe Corridor (IMEC).
- Second is building an early consensus on strengthening multilateral development banks (MDB).
- The two initiatives may address partly the reasons behind the worldwide debt crisis and may create a framework to bail out debt-ridden nations. Both will bring major strategic benefits to India vis-à-vis China.



## What is IMEC?

- The India-Middle East-Europe Economic Corridor is an economic initiative aimed at creating a strategic trade and transportation corridor that connects India with the Middle East and Europe.
- It was established through a memorandum of understanding (MOU) signed by the leaders of India, the United States, Germany, Saudi Arabia, the UAE, Italy, and the EU on September 10 in New Delhi.
- IMEC envisions the development of a reliable and cost-effective transport network, including railways and ship-to-rail transit, to facilitate the movement of goods and services between India, the United Arab Emirates (UAE), Saudi Arabia, Jordan, Israel, and the European Union (EU).
- It seeks to offer an alternative route for trade between Asia and Europe, reducing transit times and logistics costs compared to existing maritime routes like the Suez Canal.

## Significance of IMEC:

- IMEC is a bigger proposition. Apart from rail and shipping options, IMEC would also offer electricity and energy (gas and hydrogen) pipeline connectivity options.
- India, Saudi Arabia, European Union, India, the UAE, France, Germany, Italy and the US have entered an MoU, on the sidelines of the G20 summit, to create the corridor.
- The possibility for success is high as IMEC banks on India's thriving bilateral relations with Saudi Arabia, UAE have healthy bilateral relations with Saudi Arabia, UAE and Israel to get the project through.
- Like its success in bringing Russia and the US to a consensus at G20, India may also help IMEC connect with the International North-South Corridor (INSTC). It would help trade in the vast region between the Caspian and the Mediterranean seas.
- Most critically, IMEC would open new connectivity options to debt-ridden Africa without much extra cost and ensure better utilisation of assets already built.

## Potential of IMEC to Reshape Global Trade

- **Shorter Routes:** IMEC offers shorter and more cost-effective trade routes compared to the congested Suez Canal and Mediterranean routes. This can significantly reduce transit times and logistics costs for global trade.
- **Multimodal Connectivity:** IMEC envisions a reliable railway and ship-to-rail transit network, complementing existing maritime and road routes. This multimodal connectivity enhances trade efficiency and reliability.
- **Regional Trade Boost:** IMEC enhances regional trade by connecting major ports and facilitating the movement of goods between India, the UAE, Saudi Arabia, Jordan, Israel, and the EU. This fosters regional economic integration.
- **Standard Gauge Infrastructure:** IMEC's adoption of a standard gauge throughout the corridor eliminates the need for gauge changes, ensuring smoother and more efficient transportation of goods.

## Challenges to counter through IMEC

- **Infrastructure Development:** Building the necessary rail links, terminals, and inland container depots (ICDs) at major Gulf and Mediterranean ports is a complex and extensive endeavor.
- **Cross-Border Connectivity:** Ensuring seamless connectivity across borders, especially in the Middle East, demands cooperation between multiple countries. This includes extending rail networks from the Gulf to Israel through Jordan.
- **Environmental Considerations:** IMEC's commitment to green and sustainable growth involves addressing environmental challenges, including reducing greenhouse gas emissions.
- **Coordination and Financing:** Coordination among participating countries and securing financing are crucial to overcome financial barriers and ensure the corridor's viability.

## Military leaders of Mali, Niger, and Burkina Faso sign mutual defence pact

### Why in News

Mali, Burkina Faso, and Niger signed the Liptako-Gourma Charter, forming the Alliance of Sahel States (AES).

### Important Points

- The goal of the pact is to establish collective defense and mutual assistance, primarily focused on combating terrorism within these countries.

## Political Turmoil and Coups

- All three nations have experienced political turmoil and coups since 2020.
- Following the recent coup in Niger, tensions arose with the West African regional bloc ECOWAS, which threatened military intervention.
- Mali and Burkina Faso warned that such intervention would be viewed as a “declaration of war”.

## Commitments Under the Liptako-Gourma Charter

- The charter obligates signatory countries to assist each other, including military support, in case of an attack.
- It also mandates cooperation to prevent or resolve armed rebellions.

## Tuareg Armed Groups and Other Threats

- In addition to jihadist threats, Mali has experienced renewed hostilities by predominantly Tuareg armed groups.
- These groups had previously signed a peace agreement with the state in 2015 but have resumed military activities.
- The region faces threats, primarily from the Al-Qaeda-linked jihadist alliance Support Group for Islam and Muslims (GSIM).

## Withdrawal of Foreign Troops

- Mali's junta removed France's anti-jihadist force in 2022.
- The UN peacekeeping mission MINUSMA was withdrawn in 2023.
- French troops were also withdrawn from Burkina Faso.
- Niger's coup leaders canceled several military cooperation agreements with France.



## Region of Liptako-Gourma

- **Location:** It is a region in West Africa, straddling parts of Mali, Burkina Faso, and Niger.
- **Mali:** Northern Mali, particularly the Gao and Menaka regions, is part of Liptako-Gourma and has been affected by conflict and jihadist groups.
- **Burkina Faso:** The eastern part of Burkina Faso, has experienced violence and terrorism.
- **Niger:** The western region of Niger, faces security threats, including attacks by extremist groups.

## Standoff in India-Canada Ties

### Why in News

Amid the diplomatic tensions between India and Canada, India has suspended its visa services in Canada.

### Important Points

- Hardeep Singh Nijjar took on a key role in groups like Sikhs for Justice and founded the Khalistan Tiger Force. India designated the KTF as a terrorist organization.
- In 2018, his name was on a list of wanted criminals handed to the Canadian Prime Minister. In June, Nijjar was shot dead in Canada outside a Sikh cultural centre.
- Recently, the Canadian Prime Minister made the remarks in the parliament that the country's intelligence agencies were investigating “credible allegations of a potential link between agents of the government of India and the killing of a Canadian citizen, Hardeep Singh Nijjar” and that Canada had made its concerns clear to the Indian government.
- Following which Canada expelled an Indian diplomat and in retaliation India expelled a Canadian diplomat.
- India suspended visa services in Canada and E-visa services were stopped too, and Canadian citizens who apply from other countries will also not get a visa for India.



## What is the Khalistan Movement?

- **Origin:** The Khalistan movement seeks the creation of an independent Sikh state, separate from India. Its origins trace back to the time of India and Pakistan's Independence in 1947 when negotiations leading to the partition of the Punjab region fueled the idea.
- Over the years, this demand has resurfaced, with one of its most violent periods occurring during an insurgency in the 1970s and 1980s that gripped Punjab for more than a decade.
- **Operation Blue Star:** Then-Prime Minister Indira Gandhi ordered the military's entry into the Golden Temple, the holiest Sikh shrine, to remove armed separatist leader Jarnail Singh Bhindranwale and his supporters.
- This move incited outrage among Sikhs worldwide.
- **Events followed after Operation Blue Star:** A few months later, Prime Minister was assassinated by her Sikh bodyguards.
- In 1986 and 1988, the Indian army undertook operations to root out militants from Punjab.
- Militants were also held responsible for the 1985 bombing of an Air India Boeing 747 en route from Canada to India, resulting in the tragic loss of all lives on board.
- **Khalistan Movement in foreign land:** Although the Khalistan movement has dwindled in support within India, it continues to find pockets of backing among sections of the Sikh diaspora in Canada, which houses the largest Sikh population outside of Punjab, as well as in Britain, Australia, and the United States.
- **India's Stand:** The Indian diplomatic community in Canada has consistently emphasized Canada's failure to address "extremism" and the ongoing harassment of Indian diplomats and officials by Khalistani elements.
- This has become a major source of foreign policy tension between the two nations.

## Concerns

- **Trade Relations:** Canada has temporarily halted discussions on a proposed trade treaty with India.
- Additionally, the Canadian Trade Minister has postponed a planned trade mission to India.
- **Diaspora:** Canada is home to over 1.2 million Persons of Indian Origin (PIO) who comprise more than 3% of its population. The tensions between both the nations will create fear and anxiety among the people residing in the country.
- **Impact on Student community:** Since 2018, India has been the largest source country for international students in Canada.
- In 2022, their number rose 47% accounting for about 40% of total overseas students.
- Fear of rejection from the Canadian educational institutions is high among the student community.
- **Remittances:** In 2022, India received nearly \$859.83 million in personal remittances from Canada.
- The worsening ties could affect the economic interests of thousands of Sikh families in Sikh-majority state of Punjab, since they have relatives in Canada, who remit millions of dollars back home.
- **Hospitality Sector:** Tour operators in India had been expecting a large number of tourists from Canada to visit this winter. For Kerala, Canada is one of the top 10 countries to contribute to foreign tourist arrivals in the State.
- The strained diplomatic ties between India and Canada are a major cause for concern for the hospitality sector.

## What need to be done?

- Relations are at a low point, but long-term strategic interests will likely force an improvement in time.
- India is critical to the West's geopolitical goal of containing China. Canada's top allies, including the United States and Britain, are unlikely to disrupt their own relationships with India.
- In the meantime Indo-Canadian relations might further deteriorate. But this is as it should be. Even realist foreign policies need be set aside when states face egregious violations of domestic and international law.

## 'Five Eyes'

### Why in News

The recent allegations by the Canadian Prime Minister linking the killing of a Khalistani leader on Canadian soil to the Indian government have put the spotlight on the intelligence-sharing alliance 'Five Eyes'.

## Important Points

- The 'Five Eyes' is a multilateral intelligence-sharing network of five countries, Australia, Canada, New Zealand, the U.K., and the U.S.
- It is both surveillance-based and tracks signals intelligence (SIGINT).
- Intelligence documents shared between the member countries are classified as 'Secret—AUS/CAN/NZ/UK/US Eyes Only,' which gave the group its title 'Five Eyes.'
- Evolution: The alliance between the U.S. and the U.K. evolved around the Second World War to counter the Cold War Soviet threat.
- The two countries forged a collaboration to share intelligence related to signals such as radio, satellite and internet communications.
- In 1946, the alliance was formalised through an agreement for cooperation in signals intelligence.
- The treaty was called the British-U.S. Communication Intelligence Agreement, or BRUSA (now known as the UKUSA Agreement).
- The arrangement was later extended to 'second party' countries —Canada joined in 1948, while Australia and New Zealand became part of the alliance in 1956.
- **Scope:** The Five Eyes have become involved in ocean and maritime surveillance, scientific and defence intelligence analysis, medical intelligence, geospatial intelligence, counterintelligence, counterterrorism, and the continuous sharing of intelligence products via a secret collective database known as 'Stone Ghost'.



## Concerns

- There have been several concerns regarding the privacy, security, and methods of working of the intelligence alliance, which remained shrouded in mystery for a long.



## Haryana's Parivar Pehchan Patra Scheme

### Why in News

The Parivar Pehchan Patra (PPP), introduced in 2020 and rolled out in September 2021 in Haryana, has evoked both attention and criticism.

### Important Points

- The PPP assigns a unique 8-digit identity number to each family unit residing in Haryana.
- Enrolment in the PPP is obligatory for accessing government services and social security schemes.
- Families can register through Common Service Centers, SARAL Kendras, or registered PPP operators, with verified data collected based on self-declarations and strict procedures.



### Key Functions

- The PPP streamlines access to various public welfare programs, including subsidized rations, Old Age Samman Allowance, Divyang Pension, educational admissions, government exams, and more.
- It gathers extensive data, encompassing family members' details, Aadhaar numbers, demographics, educational and occupational information, immovable property ownership, and social status.

### PPP with Aadhaar

- The scheme's proponents note that PPP leverages Aadhaar's digital framework but offers a more intricate delivery.
- While Aadhaar focuses on unique identity information, PPP encompasses socio-economic data, validated through specific procedures.

### Concerns and Criticisms

- A former CM highlighted data collection errors leading to people being denied subsidies and benefits.
- A legislator raised multiple objections, alleging misuse of data for voter profiling, and criticized the depth of personal information required.
- Concerns were raised about the need for Aadhaar details, caste, PAN card, bank account, and property information. It was asserted that social security doesn't necessitate caste identification.
- The criticism extended to the potential exploitation of caste-based and socio-economic data for electoral advantages.

## Battery Energy Storage Systems (BESS) scheme

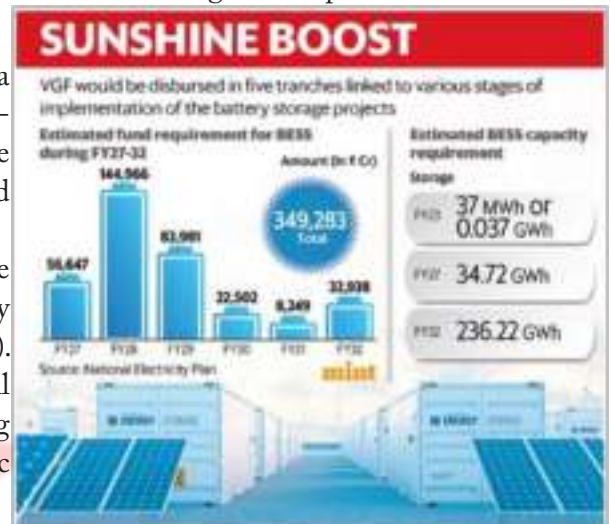
### Why in News

Recently, the Union Cabinet, chaired by the Hon'ble Prime Minister of India, approved the Scheme for Viability Gap Funding (VGF) for the development of Battery Energy Storage Systems (BESS).

### Important Points

- The approved scheme envisages the development of 4,000 MWh of BESS projects by 2030-31.
- Funding: Financial support of up to 40% of the capital cost as budgetary support in the form of Viability Gap Funding (VGF) is provided by the union government.

- The VGF shall be disbursed in five tranches linked with the various stages of implementation of BESS projects.
- By offering VGF support, the scheme targets achieving a Levelized Cost of Storage (LCoS) ranging from Rs. 5.50-6.60 per kilowatt-hour (kWh), making stored renewable energy a viable option for managing peak power demand across the country.
- To ensure that the benefits of the scheme reach the consumers, a minimum of 85% of the BESS project capacity will be made available to Distribution Companies (Discoms).
- The selection of BESS developers for VGF grants will be carried out through a transparent, competitive bidding process, promoting a level playing field for both public and private sector entities.



### Significance:

- This will not only enhance the integration of renewable energy into the electricity grid but also minimise wastage while optimising the utilisation of transmission networks.
- This will reduce the need for costly infrastructure upgrades.
- The competitive bidding process approach will foster healthy competition and encourage the growth of a robust ecosystem for BESS, attracting significant investments and generating opportunities for associated industries.
- This scheme is designed to harness the potential of renewable energy sources such as solar and wind power; the scheme aims to provide clean, reliable, and affordable electricity to the citizens.

### What is battery storage?

- Battery storage, or battery energy storage systems (BESS), are devices that enable energy from renewable, like solar and wind, to be stored and then released when the power is needed most.

## Ayushman Bhav Campaign

### Why in News

The President of India, Mrs. Murmu, virtually launched the Ayushman Bhav campaign and the Ayushman Bhava portal.

### Important Points

- The Ayushman Bhav campaign aims to deliver healthcare services to the remotest corners of India, playing a pivotal role in achieving the campaign's ambitious objectives.
- It is designed to ensure that every individual receives essential health services, aligning with the overarching goals of Ayushman Bhav.



### The campaign's goals, include-

- o Facilitating access to Ayushman cards
- o Generating ABHA IDs
- o Raising awareness about critical health schemes and disease conditions, such as non-communicable diseases, tuberculosis, and sickle cell disease.

### Components of Ayushman Bhav:

#### President highlighted the three integral components of Ayushman Bhav:

- Ayushman – Apke Dwar 3.0
- Ayushman Melas at Health and Wellness Centres (HWC) and Community Health Clinics (CHC)
- Ayushman Sabhas in every village and panchayat
- These components are expected to accelerate the delivery of healthcare services at grassroots levels, contributing to the creation of a healthier nation.

## Skill India Digital (SID) Platform

### Why in News

The Ministry of Skill Development recently launched the Skill India Digital (SID) platform.

### Important Points

- SID serves as India's Digital Public Infrastructure (DPI) for the skill development, education, employment and entrepreneurship ecosystem.
- SID Platform aims to bring all skilling initiatives under a single umbrella and provide skill development and entrepreneurial support to people.
- Built by the National Skill Development Corporation (NSDC) in collaboration with multiple industry players, the platform is part of the World Bank-assisted Skill Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP) programme.
- The platform aligns with the vision articulated in the G20 framework for building Digital Public Infrastructure (DPI) and the digital economy.



### Features:

- More than 264 skilling courses from 42,623 centres across the country will be available on the platform.
- The SID Platform application can be downloaded from the App Store and Google Play Store.
- It supports multiple Indian languages for inclusivity and uses Aadhaar-based eKYC for secure access.
- It is committed to being user-friendly, with an easy-to-use interface adaptable to various devices for accessibility.
- The platform incorporates Aadhaar-enabled facial recognition technology as well as artificial intelligence and machine learning algorithms to recommend customised courses to students.
- The platform also integrates government training programmes from both Central and State governments, creating a unified hub for skill development initiatives.
- It has introduced Digitally Verified Credentials (DVCs), a secure and tamper-proof way to showcase skills and qualifications. Users can confidently present their qualifications in a digital format that is inherently authentic.
- Additionally, SID offers Digital CVs through personalised QR Codes for easy access to an individual's skills and experiences.

## Unified Portal for Agricultural Statistics (UPAg)

### Why in News

Recently, the Unified Portal for Agricultural Statistics developed by the Ministry of Agriculture and Farmers' Welfare (DA & FW) was launched by NITI Aayog members.

### Important Points

- This innovative platform is designed to streamline and enhance data management in the agricultural domain.
- It marks a significant step towards a more efficient and responsive agricultural policy framework.
- It is a crucial component of the Digital Public Infrastructure for Agriculture.
- It is an initiative by the Department of Agriculture and Farmers' Welfare to streamline data management in the agriculture sector.
- It aims to provide real-time, standardised, and verified data on agricultural commodities, facilitating data-driven decision-making for policymakers, researchers, and stakeholders.
- This initiative aligns with the principles of e-governance, bringing smartness, transparency, and agility to India's agriculture sector.



## Key Features of the UPAg Portal

- **Data Standardization:** The portal standardises data on prices, production, area, yield, and trade, making it accessible in one location eliminating the need to compile data from multiple sources.
- **Data Analysis:** The UPAg Portal will perform advanced analytics, offering insights such as production trends, trade correlations, and consumption patterns, aiding policymakers in making informed decisions.
- **Granular Production Estimates:** The portal will generate granular production estimates with increased frequency, enhancing the government's ability to respond to agricultural crises swiftly.
- **Commodity Profile Reports:** Commodity profile reports will be produced using algorithms, minimising subjectivity and providing users with comprehensive insights.
- **Plug and Play:** Users will have the flexibility to use the portal's data to prepare their own reports, promoting data-driven decision-making.

## Vishwakarma Scheme

### Why in News

PM Modi launches Vishwakarma Scheme for traditional artisans and craftsmen, urges people to be 'vocal for local'

### Important Points

- This initiative is designed to provide crucial support to traditional craftsmen and artisans by offering them low-interest loans without requiring collateral.
- With a substantial financial allocation of Rs 13,000 crore over a five-year period, this scheme aims to benefit approximately 30 lakh families of traditional artisans and craftsmen, including weavers, goldsmiths, blacksmiths, laundry workers, and barbers.
- The primary objective is to enhance the accessibility and quality of products and services provided by these skilled individuals.



### Key Features of PM Vishwakarma Scheme:

#### Collateral-Free Enterprise Development Loans:

- The scheme offers collateral-free enterprise development loans, including:
  - First tranche: Rs 1 lakh with an 18-month repayment period.
  - Second tranche: Rs 2 lakh with a 30-month repayment period.
- Beneficiaries will enjoy a concessional interest rate of 5%, with the Ministry of Micro Small and Medium Enterprises providing interest subvention capped at 8%.

#### Artisan Recognition and Skill Development:

- Artisans will receive recognition as a Vishwakarma through a certificate and ID card.
- Skill verification followed by 5-7 days (40 hours) of basic training is part of the scheme.
- Interested candidates can enroll for 15 days (120 hours) of advanced training, with a stipend of Rs 500 per day provided.

#### Toolkit Incentive:

- Artisans will receive a grant of Rs 15,000 as a toolkit incentive to support their craft.

#### Digital Transaction Incentive:

- An incentive of Rs 1 per transaction for up to 100 transactions monthly will be provided for digital transactions.

#### National Committee for Marketing (NCM):

- The NCM will offer various services, including Quality Certification, Branding & Promotion, E-commerce linkage, Trade Fairs advertising, publicity, and other marketing activities to boost the reach and visibility of artisan products.

### Eligibility Criteria:

- An artisan or craftsman engaged in one of the 18 family-based traditional trades mentioned in the scheme.
- Working with hands and tools.
- Operating in the unorganized sector on a self-employment basis.
- Minimum age of the beneficiary should be 18 years at the time of registration

## Bharatiya Bhasha Utsav and Technology & Bharatiya Bhasha Summit

### Why in News

The Union Minister for Education and Skill Development & Entrepreneurship recently launched a two-day Bharatiya Bhasha Utsav and Technology & Bharatiya Bhasha Summit, at New Delhi.

### Important Points

- The Government of India has proposed to celebrate the birthday of renowned Tamil poet and freedom fighter Mahakavi Chinnaswami Subramania Bharati as Bharatiya Bhasha Divas (11 December).
- The Bharatiya Bhasha Utsav will be held from 28th September 2023 to 11th December 2023.

### Bharatiya Bhasha Summit

- The Bharatiya Bhasha Utsav will be held from 28th September 2023 to 11th December 2023.
- It is about to set the course for a technologically enriched future for Bharatiya languages in education.
- The summit, organized as part of the Bharatiya Bhasha Utsav, will encompass three pivotal thematic sessions:
  - i. Technology FOR Bharatiya Languages,
  - ii. Technology IN Bharatiya Languages, and
  - iii. Technology THROUGH Bharatiya Languages.
- These themes will emphasize the integration of technology in promoting Bharatiya Bhasha, including its role in teaching, training, examination, and translating educational materials.
- The summit aims to facilitate a seamless transition from the current education ecosystem to one rooted in Bharatiya Languages, in line with the NEP-2020 vision.

## National Service Scheme Awards

### Why in News

The President of India presented the National Service Scheme Awards for the year 2021-2022 at Rashtrapati Bhavan recently.

### Important Points

- The NSS Awards, instituted by the Union Ministry of Youth Affairs and Sports, are presented every year to the NSS Volunteers, Programme Officers, NSS Units and the Universities/+2 Councils to recognize their voluntary service.
- These awards were instituted in the year 1993-1994. Since then, these awards are given away every year at various Levels.
- Objectives: To recognize outstanding contribution by NSS student volunteers, NSS Programme Officers and the Programme Coordinators in community service

### National Service Scheme (NSS)

- The National Service Scheme (NSS) is a Central Sector Scheme of Government of India, Ministry of Youth Affairs & Sports.
- It provides opportunity to the student youth of 11th & 12th Class of schools at +2 Board level and student youth of Technical Institution, Graduate & Post Graduate at colleges and University level of India to take part in various Government led community service activities & programmes.
- Motto: The motto of the National Service Scheme is "NOT ME BUT YOU."
- The primary objective of developing the personality and character of the student youth through voluntary community service. 'Education through Service' is the purpose of the NSS.
- Progress: NSS was launched in 1969 in 37 Universities involving about 40,000 volunteers which has now spread over 657 Universities and 51 +2 Councils/Directorates, covering 20,669 Colleges and 11,988 Senior Secondary Schools.



## Major Activities:

- National Integration Camp (NIC): It is organized every year and the duration of each camp is 7 days.
- NSS Republic Day Parade Camp: The camp takes place in Delhi between 1st and 31st January every year with 200 NSS selected volunteers who are good in discipline, March-past and cultural activities.
- A Contingent of selected NSS volunteers participates in the Republic Day Parade at Rajpath, New Delhi on 26th of January every year in accordance with the guidelines and requisition of the Ministry of Defence.

## National Youth Festivals:

- They are organized every year from 12th to 16th January by the Government of India, Ministry of Youth Affairs & Sports in collaboration with the State Governments in different parts of the country.

## Sankalp Saptah

### Why in News

### Important Points

- The Prime Minister launched a unique week-long programme for Aspirational Blocks in the country called 'Sankalp Saptah' at Bharat Mandapam, New Delhi

### Sankalp Saptah:

- It is closely tied to effective implementation of Aspirational Blocks Programme (ABP).
- The goal of this initiative is to enhance governance at the block level, thereby improving the quality of the life of citizens.
- It is being implemented in 500 Aspirational Blocks across 329 districts in the country.
- Each day is dedicated to a specific development theme on which all blocks will work.
- The themes for the first six days include 'Sampoorna Swasthya', 'Suposhit Pariwaar', 'Swachhta', 'Krishi', 'Shiksha', and 'Samridhi Diwas'.
- The last day of the week will be a celebration of the work conducted during the entire week, as 'Sankalp Saptah – Samavesh Samaroh'.



### The Aspirational Block Program (ABP):

- The Programme aimed at improving performance of blocks lagging on various development parameters by enhancing governance and public services delivery in those areas.
- It was announced in the Union Budget 2022-23.
- It will initially cover 500 districts across 31 states and Union Territories, with over half of these blocks located in six states – Uttar Pradesh, Bihar, Madhya Pradesh, Jharkhand, Odisha and West Bengal.
- To execute this, Chintan Shivirs were organized at both village and block levels across the country.
- The 'Sankalp Saptah' is a culmination of these chintan shivirs.

## Chapter- 9

# MISCELLANEOUS

## EAC-PM

### Why in News

The 2023 India cluster panorama research paper released by economic advisory council to the prime minister (EAC-PM)

### Important Points

- Clusters, the geographic concentrations of related economic activities connected through local linkages and spillovers, are a critical driver of locational competitiveness.
- They exist in many parts of the economy, and engage most sophisticated industries and firms, including activities of multinationals.
- Traded (presence in national and international trade), local (serving local market) and agriculture are the broad categories of clusters in India.

### Significance of Clusters

- Strong clusters can enhance the competitiveness and productivity of different regions and sectors.
- Knowledge about appropriate clusters for each location enables policy makers to devise location-specific growth strategies.
- Helps promoting policies that support women participation in labour market.



### Key highlights of research paper

- Maharashtra, Tamil Nadu, Gujarat, Karnataka, UP, West Bengal, Haryana have strong cluster strength.
- Composition of workforce: 57% workers are low and semi-skilled and 15% are high-skilled workers, half of the employed workforce in India is self-employed.
- Local clusters controlled by government have comparatively high wages, and wages that seem least responsive to local circumstances.
- Although urban areas offer higher wages on average, approximately twice that of rural areas, majority of employment (70%) is concentrated in rural areas.

### About EAC-PM

- It is an independent body to advise the government, especially the Prime Minister, on economic and policy-related matters.
- Set up in September 2017 with a term of two years, replacing the erstwhile PMEAC, which was headed by former Reserve Bank of India governor C Rangarajan during the terms of former prime minister Manmohan Singh.
- Function & Mandate: Analysing any issue, economic or otherwise, referred to it by the Prime Minister and advising him thereon.
- Addressing issues of macroeconomic importance and presenting views thereon to the Prime Minister, either on its own or upon reference.
- Presenting to the PM from time to time reports on “macroeconomic developments and issues with implications for economic policy”.

## Bharat Drone Shakti 2023

### Why in News

The Indian Air Force (IAF) is teaming up with the Drone Federation of India to co-host ‘Bharat Drone Shakti 2023’.

## Important Points

- The Indian Air Force (IAF) is collaborating with the Drone Federation of India to co-host 'Bharat Drone Shakti 2023.' This upcoming event, scheduled for the 25th and 26th of September 2023, will take place at the IAF's airbase in Hindan (Ghaziabad). It is anticipated to be a pioneering exhibition highlighting the prowess of the Indian drone industry, with more than 50 live aerial demonstrations.

## Diverse Array of Demonstrations

- 'Bharat Drone Shakti 2023' is set to impress attendees with a diverse array of live aerial demonstrations. The event will encompass a wide range of drone applications, including survey drones, agriculture drones, fire suppression drones, tactical surveillance drones, heavy-lift logistics drones, loitering munition systems, drone swarms, and counter-drone solutions. This comprehensive exhibition will underscore the versatility and innovation present within the Indian drone sector.



## A Gathering of Innovators and Enthusiasts

- Anticipated to attract approximately 5,000 attendees, 'Bharat Drone Shakti 2023' will bring together a diverse audience. This includes representatives from central government bodies, state departments, public and private industries, armed forces, paramilitary forces, as well as delegates from friendly nations. The event will also be a platform for academicians, students, and drone enthusiasts to engage with cutting-edge developments in the field.

## India's Aspiration to Become a Global Drone Hub

- Above all, 'Bharat Drone Shakti 2023' serves as a testament to India's commitment to becoming a global drone hub by 2030. Through collaborations, competitions, and events like this, India aims to position itself at the forefront of drone technology, fostering innovation and strengthening its capabilities in both civil and defense applications. The event will not only showcase the present potential of the Indian drone industry but also pave the way for a future where drones play a pivotal role in India's technological landscape.

## IAF's Utilization of Remotely Piloted Aircraft

- The Indian Air Force (IAF) has been at the forefront of integrating drone technology into its operations. Remotely Piloted Aircraft (RPA) have become indispensable tools for Intelligence Surveillance & Reconnaissance (ISR) operations. The IAF's confidence in the emerging drone design and development capabilities within India is exemplified by initiatives such as the Meher Baba Swarm Drone competition, which aimed to tap into indigenous drone potential. Ongoing iterations of this competition are currently in progress, nurturing innovation in the Indian drone ecosystem.

## International Literacy Day 2023 (57th)

### Why in news

International Literacy Day is celebrated every year on 8 September by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

### Important Points

- The United Nations Educational, Scientific and Cultural Organization (UNESCO) is responsible for overseeing and promoting International Literacy Day.
- A conference, both in-person and online, will be held in Paris and France on September 8, 2023 as a global event.





- During this global event, outstanding literacy promotion programs will be recognized by UNESCO by presenting the International Literacy Award.
- Literacy Day is also celebrated at various levels including global, regional, national and local.

### Theme of International Literacy Day 2023:

- The theme of International Literacy Day 2023 is 'Promoting literacy in a changing world: building the foundation for sustainable and peaceful societies'.
- Under this theme, Literacy Day will be celebrated at various levels including global, regional, national and local.
- So the theme of 2022 was kept as 'Transforming Literacy Learning Space'.

### Objective of International Literacy Day:

- The main purpose of celebrating this day is to educate all people in the world by highlighting the importance of literacy individually, community and socially.

### Importance of celebrating Literacy Day:

- Literacy is also a key component of the United Nations Sustainable Development Goals.
- This day is celebrated to encourage people to continuously pursue education and to understand their responsibilities towards family, society and country.
- Literacy not only helps people to live a better life but also helps in eradicating poverty, controlling population, reducing child mortality rate etc.

### Status of literacy in the world:

- According to the United Nations data, about four billion people are literate in the world.
- Presently there are about one billion people in the world, who do not know how to read and write.
- Out of these, more than 77 crore youth are also affected by lack of literacy i.e. one out of every five youth is still not literate. Two-thirds of whom are women.
- Apart from this, there are 6-7 crore children who never reach schools, while many children lack regularity or they leave school midway due to some reason or the other.
- According to statistics, there are 101 countries in the world, which are still far from the goal of achieving full literacy, in which India is included.

### Literacy status of India:

- The total literacy rate of India in the year 2011 was 74.4%, whereas in 1947 the literacy of the country was only 18%.
- Currently, Kerala is the state with the highest literacy rate in the country with 96.2% and Bihar is the least literate among all the states in India with 61.8%.
- According to the report published by the National Survey of India, the literacy rate of India in 2023 is 77.7 percent.
- At the national level the gap between men and women is 12.9 percent, with male literacy at 84.7% and female literacy at 70.3%.
- The gap between male and female literacy is lowest in Kerala at just 2.2% and highest in Rajasthan at 23.3%.

### Background of celebrating Literacy Day:

- Celebrating Literacy Day was started in 1966. Literacy Day was celebrated for the first time this year.
- The decision to celebrate this day was taken by UNESCO at its 14th session on 7 November 1965.
- The first attempt at international level regarding literacy was made for the first time in the year 1965 during the World Conference of Education Ministers in Tehran, Iran, from 8 to 19 September to discuss the education program at the international level.

## World Duchenne Muscular Dystrophy Day

### Why in News

Recently, World Duchenne Muscular Dystrophy Day was observed by the Department of Empowerment of Persons with Disabilities (DEPwD).

## Important Points

### World Duchenne Muscular Dystrophy Day:

- It is observed on the Seventh of September each year to raise awareness about Duchenne muscular dystrophy.
- The purpose of the day is to support efforts that will improve the quality of life for those who have dystrophinopathies through education, advocacy, and social inclusion.

### What is Duchenne Muscular Dystrophy?

- It is a rare genetic disorder that results from an X-chromosome mutation.
- It was first described by the French neurologist Guillaume Benjamin Amand Duchenne in 1860.
- It is characterised by progressive muscle degeneration and weakness due to alterations of a protein called dystrophin that helps keep muscle cells intact.
- It is a multi-systemic condition affecting many parts of the body, that results in the deterioration of the skeletal, heart, and lung muscles.
- It primarily affects males, while females are typically carriers.



### Symptoms

- It can begin as early as age 2 or 3, first affecting the proximal muscles (those close to the core of the body) and later affecting the distal limb muscles (those close to the extremities).
- Usually, the lower external muscles are affected before the upper external muscles.
- The affected child might have difficulty jumping, running, and walking.
- Other symptoms include enlargement of the calves, a waddling gait, and lumbar lordosis (an inward curve of the spine).
- Later on, the heart and respiratory muscles are affected as well.

**Treatments:** Presently available treatments are gene therapy, exon skipping, stop codon read-through and gene repair.

## C-295 Transport Aircraft

### Why in News

In a significant milestone, the Indian Air Force (IAF) received its inaugural C-295 transport aircraft during a ceremony held in Seville, Spain.

### Important Points

- IAF's fleet of C-295s is set to become the largest globally, with an initial order for 56 aircraft.

### About C-295

- The C-295MW is a transport aircraft with a carrying capacity ranging from 5 to 10 tonnes.
- It can accommodate up to 71 troops or 49 para-troopers, offering significant flexibility.
- The aircraft boasts a maximum cruise speed of 260 knots, ensuring rapid deployment.
- Its exceptional low-level flight characteristics enable tactical missions, even at slow speeds as low as 110 knots.
- The C-295 is equipped with a rear ramp door, facilitating swift troop and cargo deployments.
- Each aircraft is outfitted with an indigenous Electronic Warfare Suite developed by Bharat Electronics Ltd and Bharat Dynamics Limited.
- Two Pratt & Whitney Canada PW127G turboprop engines propel the aircraft.
- The C-295 exhibits short take-off and landing (STOL) capabilities, enabling the use of unprepared airstrips.



## Significance of the aircraft

- India's entry into aircraft production will place it among a select group of nations with the capability to manufacture C-295 aircraft.
- This group includes countries like the US, UK, Russia, France, Italy, Spain, Ukraine, Brazil, China, and Japan.
- The project will stimulate India's aerospace ecosystem, involving numerous MSMEs across the country in the manufacturing of aircraft components.
- This includes areas of strategic importance, such as the border with China and the Andaman and Nicobar archipelago.

## Multi-Utility Legged Equipment (MULE)

### Why in News

The Indian Army unveiled the Multi-Utility Legged Equipment (MULE) at the North Tech Symposium 2023 held recently in Jammu.

### Important Points

- It is an autonomous load-bearing robot developed for the Indian Army.
- It has been manufactured for human-less intervention to locate and eliminate terrorists.

### Features:

- It is embodied with 360-degree cameras and radars that would help the operator to detect any threat and use the firing platform to shoot it down.
- It is an analog-faced machine, built with four legs and with a payload capacity of 12 kg.
- The equipment can be either operated on Wi-Fi or Long-Term Evolution (LTE), making it workable for distances up to 10 km from the location.
- It is controlled by an easy-to-operate remote control.
- A firing platform can also be integrated into it.
- It is capable of taking up projects with pre-fed missions and is viable to be used in all terrains; it can be easily operated in snow and mountains as well.
- It can climb mountains hassle-free at upto 45 degrees and climb steps as high as 18 cm.



### North-Tech Symposium 2023:

- It was jointly organised by the Indian Army's Northern Command, the Society of Indian Defence Manufacturers (SIDM) and IIT-Jammu.
- The event comprised exhibitions, product launches, one-on-one structured interactions, technical seminars, ideas and innovation displays, as well as military equipment displays.

## Vidya Samiksha Kendras (VSKs)

The Education Ministry has been persuading the States to open Vidya Samiksha Kendras (VSKs) under the National Digital Education Architecture (NDEAR).

### Important Points

- It is an initiative by the Ministry of Education. Vidya Samiksha Kendras which are data repositories that will have data from all schemes run by the Ministry.

### This will include regularly updated data from:

- The PM-POSHAN mid-day meal programmes;
- Teacher training data from the National Initiative for School Heads' and Teachers' Holistic Advancement portal;
- Textbook content from the Digital Infrastructure for Knowledge Sharing;

- School dropout and attendance-related data on the Unified District Information System for Education (UDISE+);
- Vidya Samiksha Kendras from the National Achievement Survey; and Performance Grading Index which evaluates school education system at the State and Union Territory (UT) level.

### Objectives:

- To monitor the real-time status of various projects/ activities under the ambit of Samagra Shiksha.
- To keep track of enrolled students including learning outcomes, Dropouts, support required by teachers and schools, etc.
- To monitor and track field level academic and non-academic activities at state level and also empower administrators and teachers in the field to take data driven decisions.
- To identify and analyse improvement areas for decision making and implementation that needs urgent attention.
- To improve the academic performance of students and to enhance the accountability of teachers in schools and effective utilisation of the available resources.
- To setup centralized helpdesk for grievance redressal mechanism for stakeholders of School ecosystem.
- To develop Centralized dashboard providing the real-time performance indicators of Schools.
- Increase accountability among all the field level staffs / administrators & monitor the real-time status towards various projects components / activities under the ambit of School Education.

### Implementation:

- Currently, at the Central level, a VSK is housed in the Central Institute of Educational Technology building in NCERT campus, with multinational IT company Ernst and Young (EY) managing its operations.
- It is an open-source platform run on C-Qube software.
- Finance: The Centre has allocated funds ranging from Rs 2 crore to Rs 5 crore to each State.

### Importance:

- The idea of bringing all data on one platform is to employ analytics for correlation. Currently the NCERT has data from different schemes that cater to 15 lakh schools, 96 lakh teachers, and 26 crore students, but it is irrelevant if it cannot be correlated or analysed.
- For instance, in certain schools, Gujarat has employed biometrics to capture attendance patterns of students and teachers.
- The attendance gets recorded and reported at State level.
- This can be mapped with trends of student dropout data to analyse any correlation between both data sets.
- Another instance would be correlating data from the mid-day meal scheme, or PM-POSHAN, with attendance.
- This will give insight on whether in those demographical areas where mid-day meals are provided regularly, students are more incentivised to attend schools.
- The idea of developing VSKs is also to map the school location layer with the population layer to assess the Gross Access Ratio, which can help plan for new schools, or for industry clusters to understand skilling requirements of the area, and help plan higher educational institutions based on demand and future scenarios.



## UN General Assembly 2023

### Why in News

The United Nations member states adopted September 20, 2023 a historical political declaration to ensure that the world is better prepared for future pandemics, at a High-Level Meeting during the ongoing UN General Assembly.

### Important Points

- Declaration title: Pandemic Prevention, Preparedness, and Response
- Aim of the declaration is to prevent catastrophic health and socio-economic impacts that were experienced during COVID-19.

- The declaration encourages, “fair, equitable, and timely sharing of benefits of pathogens with pandemic potential, including genomic sequences and information, through a multilateral system.”
- It resolved to address the global shortfall of health workers in accordance with the Global Strategy on Human Resources for Health: Workforce 2030 by investing in education and employment.
- The declaration emphasized that health workers should be protected from all forms of violence, attacks, harassment, and discriminatory practices.
- The declaration also called on member nations to take measures to counter the effect of health-related misinformation, disinformation, hate speech and stigmatisation, especially on social media platforms, on people’s physical and mental health, including vaccine hesitancy.
- The declaration emphasized the need for a Pandemic Accord.

### Climate Action Summit (CAS):

- CAS organized by: United Nations Secretary- General.
- Held at: New York, USA
- Aim: To accelerate action by governments, business, finance, local authorities and civil society, and hear from “first movers and doers”.
- The design and outcomes of the Summit will be delivered on three distinct but interrelated acceleration tracks – ambition, credibility and implementation.
- China, the United States and India — who collectively account for about 42% of global greenhouse gas emissions and are the top three emitters in that order — were all absent from the CAS.
- The criteria for countries to be considered for a speaking slot at the summit were: that they would be expected to present updated pre-2030 Nationally Determined Contributions (as agreed in Glasgow); updated net-zero targets; energy transition plans with commitments to no new coal, oil and gas; fossil fuel phase-out plans; more ambitious renewable energy targets; Green Climate Fund pledges; and economy-wide plans on adaptation and resilience.

### India’s transition plans:

- India last updated its climate pledges in 2022 of reducing emissions intensity — or the volume of emissions per unit of gross domestic product (GDP) — by 45% from 2005 levels by 2030, a 10% increase from what it agreed to in 2015.
- The government committed to meet 50% of its electric power needs from renewable, non-fossil fuel energy sources — up from 40% committed at the Paris agreement.
- It is assured to create an additional carbon sink of 2.5 to 3bn tonnes of CO<sub>2</sub>-equivalent [GtCO<sub>2</sub>e] through additional forest and tree cover by 2030.
- In 2021, Prime Minister of India committed to India achieving net zero by 2070.
- The scientific assessment is that India’s commitment, alongside similar commitments by G-20 economies, are insufficient to keep temperatures from keeping below 2oC by the end of the century.
- India’s low per capita emissions and contribution to the carbon already in the atmosphere has led other analysts to suggest that India has committed “more than its fair share” to keeping to the Paris-agreed limits.

## CRIIO 4 GOOD

### Why in News

The Union Minister for Education and Skill Development & Entrepreneurship recently launched ‘CRIIO 4 GOOD’, a new online, life skills learning module, to promote gender equality among girls and boys.

### Important Points

- The programme was launched in association with the International Cricket Council, UNICEF, and the Board of Control for Cricket in India at the Narendra Modi Stadium, Ahmedabad.
- Through CRIIO 4 GOOD, the power of sports and the popularity of cricket can be used as a medium to empower the girl child and spread awareness about gender equity.



## CRIIO 4 GOOD Module:

- The modules are highly engaging, and they use the power of cricket to talk about essential life skills and gender equity, among girls and boys in a funny and interactive way.
- 'CRIIO 4 GOOD' is a series of 8 cricket-based animation films to promote gender parity, equip girls with life skills and encourage their participation in sports.
- The programme can be accessed free of cost on [criio.com/criio4good](http://criio.com/criio4good) in three languages: English, Hindi and Gujarati.
- The themes of the eight modules are: leadership, problem-solving, confidence, decision-making, negotiation, empathy, teamwork and goal setting.
- They are visualized through state-of-the-art animation using cricketing examples. In-depth research into local nuances has made these films real and relatable.

## Global Innovation Index 2023

### Why in News

Recently Global Innovation Index 2023 rankings published by the World Intellectual Property Organization (WIPO).

### Important Points

- India retains 40th rank out of 132 economies in the Global Innovation Index 2023 rankings published by the World Intellectual Property Organization (WIPO).
- The index tracks the innovation ecosystem performance of 132 global economies and the most recent global innovation trends.
- The ranking was topped by Switzerland, followed by Sweden and the USA.
- The GII has recognized India's growing innovation ecosystem, including knowledge capital, a vibrant startup community, and the collaborative efforts of public and private research organizations.
- The Global Innovation Index (GII) project was launched by Soumitra Dutta in 2007.
- WIPO's association with the GII started in 2011 and it began co-publishing the GII in 2012.



### India's Performance

- India has been on a rising trajectory, over the past several years in the Global Innovation Index (GII), from a rank of 81 in 2015 to 40 in 2023.
- In the report, WIPO noted that, apart from India, only four other middle-income economies are among the top 40, namely, China (12th), Malaysia (36th), Bulgaria (38th), and Türkiye (39th).
- The GII listed India as among the 21 economies that outperformed for a 13th consecutive year on innovation relative to level of development.
- Apart from infrastructure, India was the top performer in all other criteria within the Central and South Asian region.

### Factors

- o immense knowledge capital,
- o the vibrant start-up ecosystem, and
- o the work done by the public and private research organizations.
- All Departments of the Government, including Department of Science and Technology; the Department of Biotechnology; the Department of Space; and the Department of Atomic Energy have played a pivotal role in enriching the National Innovation Ecosystem.

- Most importantly, the Atal Innovation Mission has played a major role in expanding the Innovation ecosystem.
- Further, NITI Aayog has been working tirelessly to ensure the optimization of the national efforts for bringing policy-led innovation in different areas such as electric vehicles, biotechnology, nanotechnology, space, alternative energy sources, etc.
- It has also played a role in expanding the innovation ecosystem in states and districts.

### Facts about the World Intellectual Property Organisation

- It works with the vision of encouraging creative activity and promoting the protection of Intellectual Property throughout the world.
- WIPO is one of the 15 specialised agencies of the United Nations.
- Currently, there are 193 members of the World Intellectual Property Organisation.
- Headquarter: Geneva.

### Sastra Ramanujan Prize 2023

#### Why in News

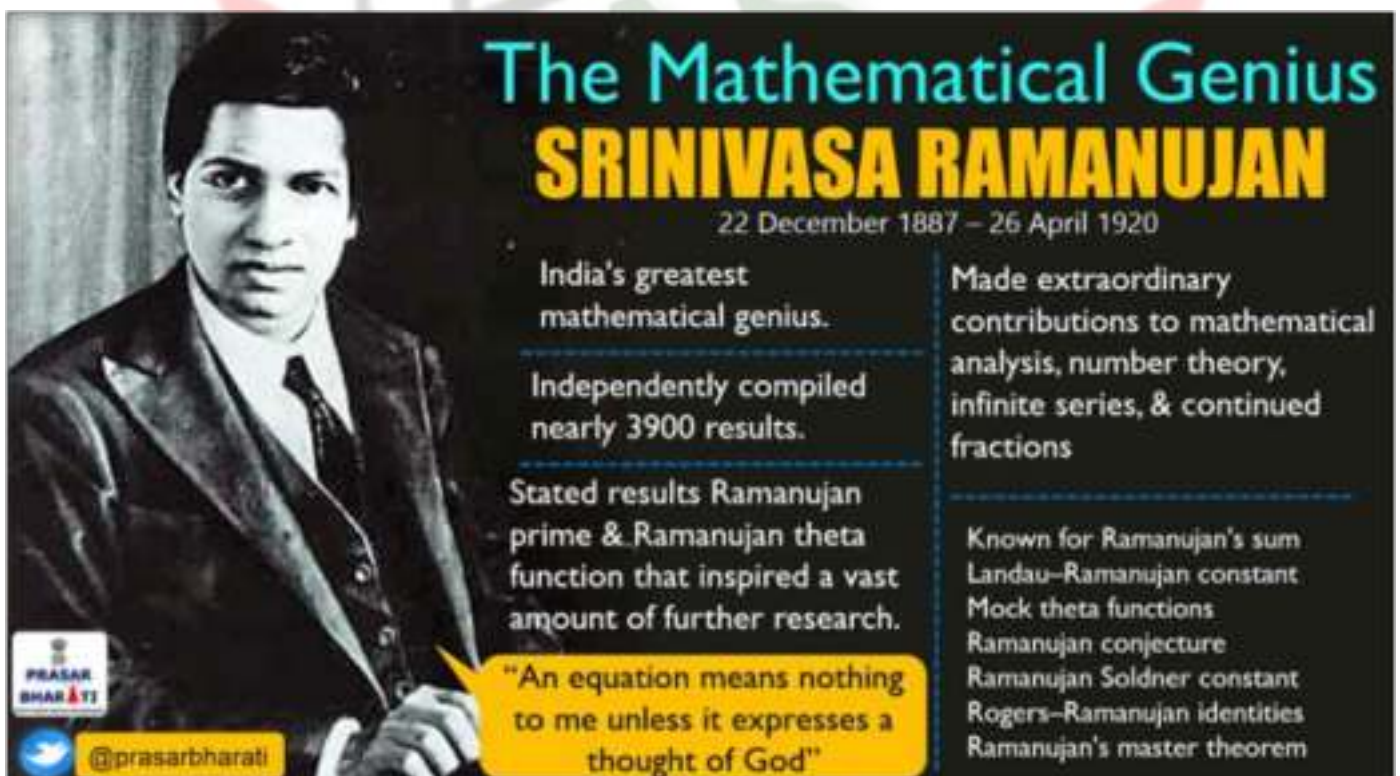
Mathematician Ruixiang Zhang Professor of University of California to receive 2023 Sastra Ramanujan Prize.

#### Important Points

- SASTRA 2023 award has been instituted with a view to embolden young minds to pursue cutting-edge research in Mathematics influenced by Srinivasa Ramanujan and increase the visibility of Mathematics both at the national and international levels.
- The prize has established itself as one of the most prominent and coveted international awards.

#### About the Award:

- The award, instituted by the Shanmugha Arts, Science, Technology & Research Academy (SASTRA) in 2005.
- SASTRA 2023, with a cash prize of \$10,000 and a citation for outstanding researchers all over the world, will be given at an international conference in Number Theory during December at SASTRA University in Kumbakonam, in Tamil Nadu.
- The prize is given every year on 22nd December.
- Age limit: Under the age of 32 which is influenced by Ramanujan's achievements in his brief life of 32 years.



**The Mathematical Genius**  
**SRINIVASA RAMANUJAN**  
22 December 1887 – 26 April 1920

India's greatest mathematical genius.

Independently compiled nearly 3900 results.

Stated results Ramanujan prime & Ramanujan theta function that inspired a vast amount of further research.

Made extraordinary contributions to mathematical analysis, number theory, infinite series, & continued fractions

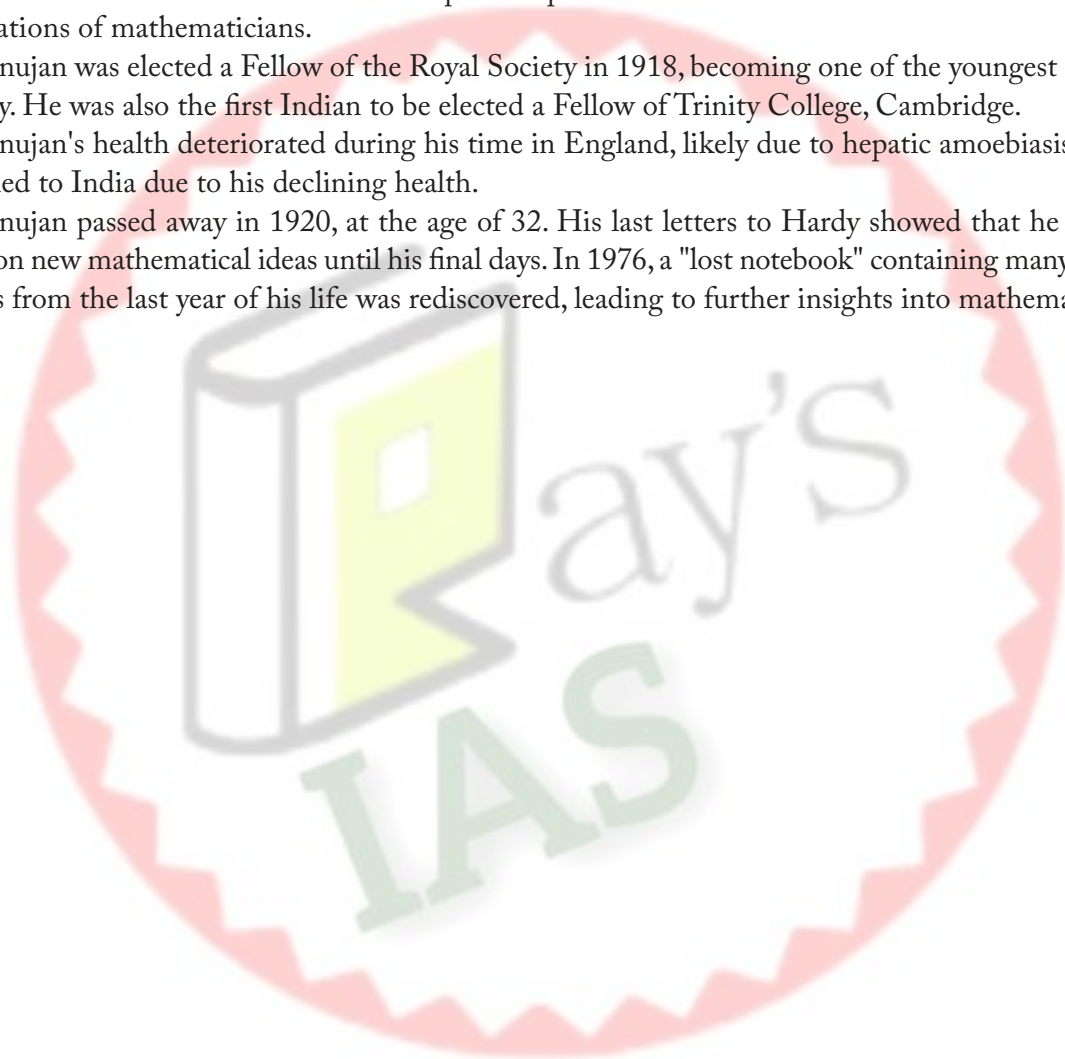
Known for Ramanujan's sum  
Landau–Ramanujan constant  
Mock theta functions  
Ramanujan conjecture  
Ramanujan Soldner constant  
Rogers–Ramanujan identities  
Ramanujan's master theorem

"An equation means nothing to me unless it expresses a thought of God"

PRASAR BHARATI  
@prasarbharati

## Srinivasa Ramanujan

- He was an exceptional mathematician whose contributions to mathematics continue to inspire and influence the field to this day. Despite his lack of formal training in mathematics, Ramanujan's innate talent and deep intuition led him to discover numerous groundbreaking results and theorems.
- In 1913, Ramanujan initiated a correspondence with the British mathematician G. H. Hardy, who was a leading figure in number theory at the University of Cambridge. Recognizing Ramanujan's exceptional talent, Hardy invited him to Cambridge in 1914.
- During his time at Cambridge, Ramanujan collaborated with Hardy and made significant contributions to areas such as number theory, infinite series, and mathematical analysis. His work on partition functions, mock theta functions, and modular forms was particularly notable.
- Ramanujan left behind a vast body of work, including nearly 3,900 results, many of which were highly original and unconventional. His contributions opened up new areas of research in mathematics and inspired generations of mathematicians.
- Ramanujan was elected a Fellow of the Royal Society in 1918, becoming one of the youngest Fellows in its history. He was also the first Indian to be elected a Fellow of Trinity College, Cambridge.
- Ramanujan's health deteriorated during his time in England, likely due to hepatic amoebiasis. In 1919, he returned to India due to his declining health.
- Ramanujan passed away in 1920, at the age of 32. His last letters to Hardy showed that he continued to work on new mathematical ideas until his final days. In 1976, a "lost notebook" containing many unpublished results from the last year of his life was rediscovered, leading to further insights into mathematics.





## 1. Making of a Bureaucrat (Civil Service Reforms)

### Introduction

- The term ‘bureaucrat’, coined in France by Jacques Gournay in the 18th century and whose European form evolved in Frederick the Great’s Prussia, invokes Max Weber and the characteristics identified by him. Hence, in its modern shape, it is seen as formal, impersonal, rule-bound, and hierarchical— often a negative imputation.
- India’s Civil Service was influenced by these and the ideas of the 1854 Northcote-Trevelyan report, which resulted in the 1858 Queen’s Declaration, and has ever since been organised on the meritocratic principle of open competitive examinations.
- Part XIV of India’s Constitution provides for efficient ‘public services’ by creating the Union Public Service Commission and the State Commissions, together with elaborate safeguards that support professionalism. Under this schema, the Indian ‘bureaucrat’ is a creature of the executive, subject to discipline, control, and complete superintendence.



### Mission Karmayogi

- Mission Karmayogi acknowledges the heterogeneity and complexity of the civil service architecture and makes incremental gains through capacity building at the interface point of civil servant-citizen.
- The mission focuses on (a) the individual through its emphasis on the three-dimensional skills of behaviour, functional knowledge, and domain; (b) the nature of the Civil Service by rendering it adept and adaptive through continuous upskilling; and (c) the quality of services delivered through a shift from Rule to Role.

There exist certain challenges and implications related to the shift from a rule to role-based transformation.

- Moving away from top-led supervision, monitoring, and guidance will need effective command structures at the middle and bottom; hence there must be emphasis on capability creation at the level of every individual civil servant.
- Identification of every job level, function level, and task level skill is articulated by a model named FRAC (Framework of Roles, Abilities, and Competencies), which is the mapping out of these multitudinous actions at the various levels of the bureaucratic structure.
- While all the focus is at the citizen level, all the micro-steps must converge into a national whole. A synergy needs to be brought via the annual capacity-building plans of ministries and their eventual alignment with the national direction.
- There needs to be an overarching governance framework for the mission. The Prime Minister-led Human Resource Council, supported by its secretariat- the Cabinet Secretariat Coordination Unit is a step in this direction.





- The transformation of a traditional rule-bound ‘bureaucrat’ into a role-driven ‘civil servant’ is a long- needed reform that augurs well for public welfare.
- In a youthful democracy, with a higher proportion of the population dependent on government services, any improvements at the grassroots will have exponential impacts. Therefore, the government’s increasing emphasis on the spirit of Bhagidari, on plugging the trust deficit between citizens and government processes, on innovation, and on impactful delivery signals a citizens-first approach. This, in other words, is a declaration of discomfort with a ‘Rule Orientation’, and a preference for improved role delivery. The Spirit of the Civil Servant, repurposed under the ‘National Programme for Civil Services Capacity Building’, is that of the ‘Karmayogi’ serving during the Amrit Kaal of independent India’s journey towards increased prosperity.
- No longer a static rule-bound bureaucrat but a driven, dynamic, empathetic, able, and compassionate civil servant.

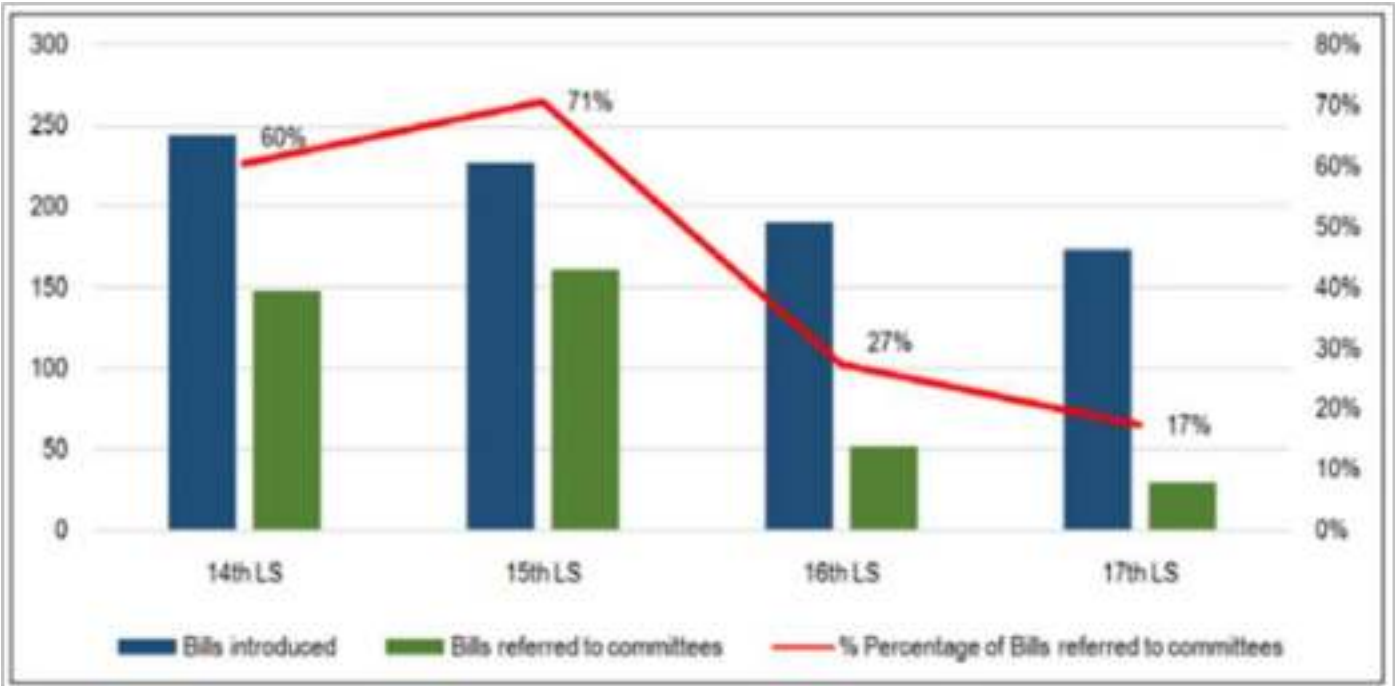
## 2. Parliamentary Committees (Strengthening the Scope and Role)

### Introduction

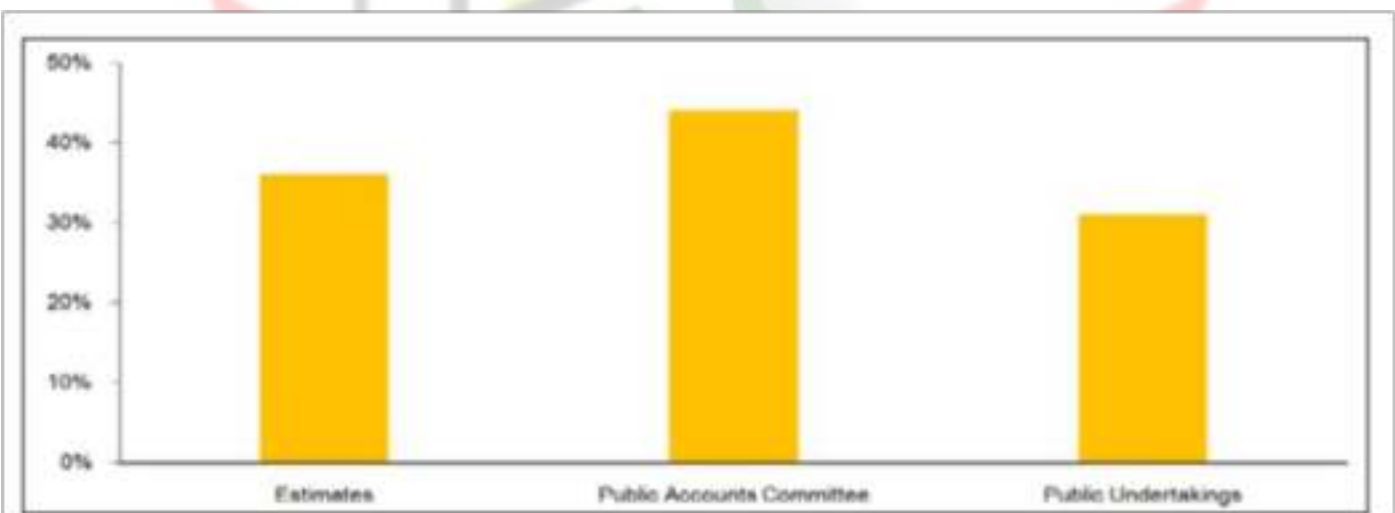
- Parliamentary Committees serve an important role in scrutinizing the work of the Government and improving the quality of Bills brought before Parliament. The effectiveness of Parliamentary Committees is crucial to the effective functioning of Parliament. Reports submitted by the Committees allow for informed debate in the Parliament. Additionally, Committees provide a forum to build consensus across party lines, develop subject expertise, and consult with experts and stakeholders.

Report type	No. of Reports				% of Total Reports			
	14 <sup>th</sup> LS	15 <sup>th</sup> LS	16 <sup>th</sup> LS	17 <sup>th</sup> LS*	14 <sup>th</sup> LS	15 <sup>th</sup> LS	16 <sup>th</sup> LS	17 <sup>th</sup> LS*
Bills**	134	145	41	21	13%	14%	4%	2%
DFG	333	285	331	343	32%	28%	31%	38%
Topics	158	159	194	118	15%	16%	18%	13%
ATR	416	423	504	404	40%	42%	47%	45%
Total	1,041	1,012	1,070	892				

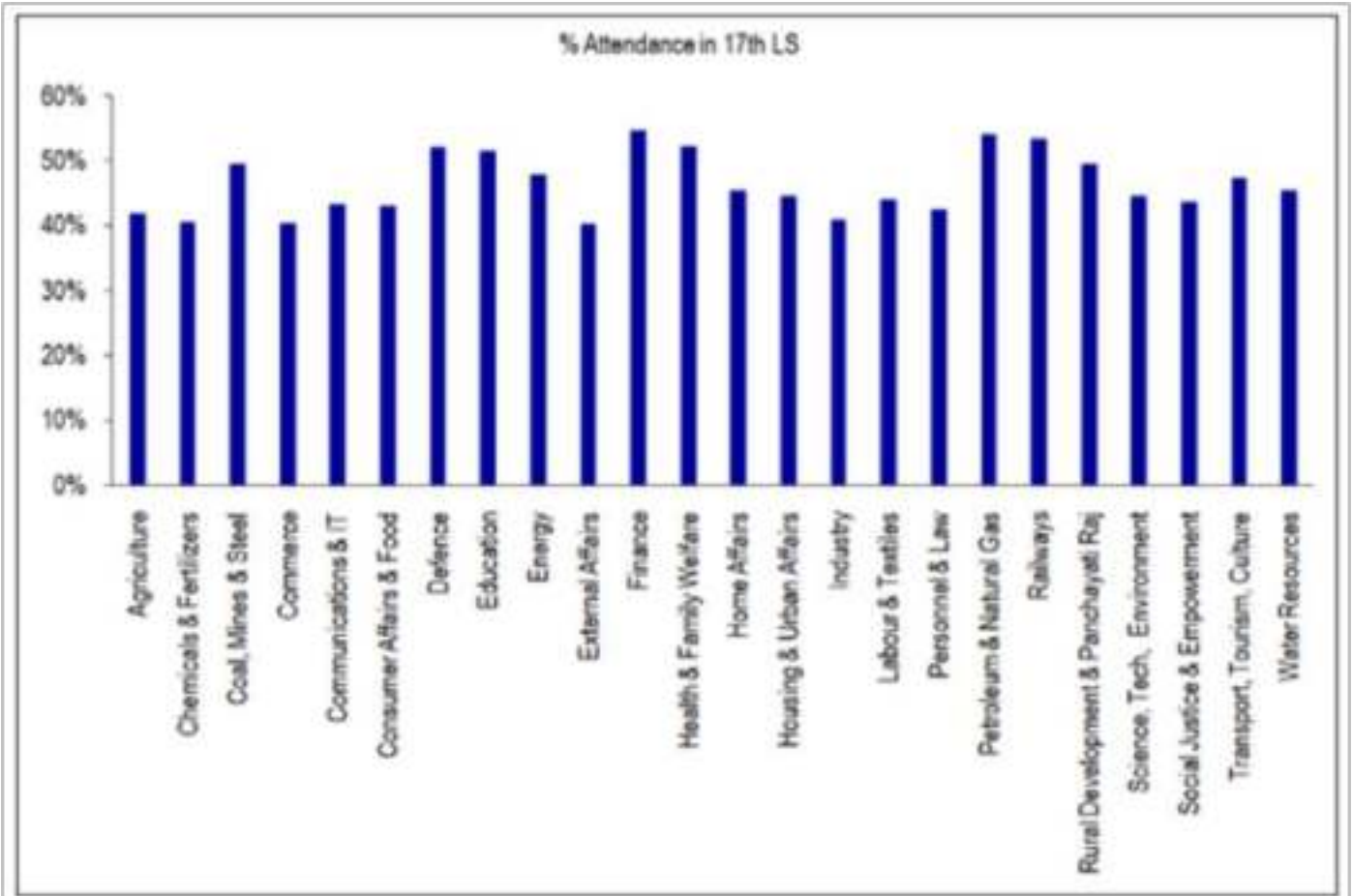
- **Standing Committees can be broadly categorized into four types:** (i) subject, (ii) financial, (iii) accountability, and (iv) administrative. Parliament may also form Ad hoc Committees from time to time. For instance, the Jan Vishwas (Amendment of Provisions) Bill, 2022 was referred to a Joint Parliamentary Committee, which is an Ad-hoc Committee. Such Committees are disbanded after submitting the report.



- Department-related Committees, or subject Committees, ensure oversight over each ministry. A Minister is not eligible to be a member. There are 24 subject Committees, and each Committee has 31 members, with 21 from the Lok Sabha and 10 from the Rajya Sabha. Membership in Committees is allocated to parties in proportion to their strength in the House. Subject Committees review proposed laws, select subjects for closer examination, and scrutinise the allocated budget for each ministry.
- To ensure proper scrutiny of Bills before passage, they can be referred to a subject Committee for detail examination. Committees have contributed to improving laws passed by Parliament. For instance, the Anti-Maritime Piracy Bill, 2019, mandated the death penalty if an act of piracy caused death. The Standing Committee on External Affairs noted that the Supreme Court had ruled that the mandatory death penalty violated the fundamental rights to equality and liberty. It recommended that the penalty be modified to life imprisonment or death.



- **Financial Committees consist of three Committees:** Estimates, Public Undertakings, and Public Accounts. A minister is not eligible to be a member. The Estimates Committee examines pre-budget estimates of ministries; the Committee on Public Undertakings (CoPU) examines the functioning of public undertakings; and the Public Accounts Committee (PAC) reviews the government's spending statement approved by Parliament.



### Referring all Bills to Committees:

- Currently, Bills are not automatically referred to a Committee.
- The decision of whether a Bill should be referred to a Committee depends on the decision of the Speaker or Chairman, in consultation with the Minister presenting the Bill. Referring all Bills to a Committee would ensure that all laws go through a minimum level of Parliamentary scrutiny. For instance, the Motor Vehicles Act, 1988, requires the owner of every motor vehicle to take third-party insurance, which will cover compensation awarded to any person in case of an accident.
- During the 17th Lok Sabha, until the end of the Monsoon Session of 2023, 17% of Bills have been referred to Committees. This number has been declining over the last three Lok Sabhas. Discussing the recommendations made by the Committees or specifying the reasons for rejecting certain recommendations is also not mandatory. However, discussing these details in the House could help make laws robust.

### Attendance of MPs:

- The attendance of MPs in Committee meetings is low.
- In the 17th Lok Sabha, as of July 2023, the average attendance for subject Committees meetings was 47%.
- The attendance in financial Committees drops further to 37%. In comparison, attendance in Parliament was 79% for the same time period.
- The quorum for a Committee meeting is one-third of the Committee members, which is around 10 members for a subject Committee.

### Shortage of technical staff and experts:

- The role of Committees includes examining selected matters in greater depth than is possible in the House and reporting any conclusions of those examinations to the House. Parliamentary Committees can consult with expert witnesses, stakeholders, and the public to better understand complicated issues and the potential impact of policies or legislation.
- The National Commission to Review the Working of the Constitution (2002) recommended that funds be secured to assist these Committees in conducting inquiries, holding public hearings, and collecting data. Currently, technical support available to Parliamentary Committees is limited to a secretariat that helps with scheduling meetings and taking notes.

### Public transparency:

- Committee reports are usually made public, but the internal workings of the Committee may not be transparent.
- As a measure of transparency, the minutes of Parliamentary Committee meetings are included within Committee reports. However, the meetings themselves are held behind closed doors. While closed door meetings allow for greater room to reach party consensus, they may hinder public awareness of key findings of Parliamentary Committees.

### 3. The Digital Personal Data Protection Act, 2023

#### The Act protects digital personal data by providing for the following:

- o The obligations of Data Fiduciaries for data processing;
- o The rights and duties of Data Principals; and
- o Financial penalties for breaches of rights, duties, and obligations.

#### The Act also seeks to achieve the following:

- o Introduce data protection law with minimum disruption while ensuring necessary change in the way Data Fiduciaries process data;
- o Enhance the Ease of Living and the Ease of Doing Business;
- o Enable India's digital economy and its innovation

#### Seven principles:

- o The principle of consented, lawful, and transparent use of personal data;
- o The principle of purpose limitation;
- o The principle of data minimisation;
- o The principle of data accuracy;
- o The principle of storage limitation;
- o The principle of reasonable security safeguards; and
- o The principle of accountability

#### Innovative features:

#### The Act is concise and SARAL, that is, Simple, Accessible, Rational & Actionable Law as it—

- o Uses plain language;
- o Contains illustrations that make the meaning clear;
- o Contains no provisos (“Provided that...”); and
- o Has minimal cross-referencing.

#### The Act provides for following rights to the individuals:

- o The right to access information about personal data processed;
- o The right to correction and erasure of data;
- o The right to grievance redressal; and
- o The right to nominate a person to exercise rights in case of death or incapacity.

#### Obligations on the data fiduciary:

- o To have security safeguards to prevent personal data breach;
- o To intimate personal data breaches to the affected Data Principal and the Data Protection Board;
- o To erase personal data when it is no longer needed for the specified purpose;
- o To erase personal data upon withdrawal of consent;

### 4. Law Commission of India

The Law Commission of India is a non-statutory body and is constituted by a notification of the Government of India, Ministry of Law & Justice, and Department of Legal Affairs with definite terms of reference to carry out research in the field of law, and the Commission makes recommendations to the Government (in the form of Reports) as per its terms of reference.

The Government has constituted the 22nd Law Commission of India for a period of three years, with effect from 21 February 2020. The term of the 22nd Law Commission has since been extended up to 31 August, 2024.



## The composition of the 22nd Law Commission of India is as follows:

- i. a full-time Chairperson;
- ii. four full-time Members (including Member-Secretary);
- iii. Secretary, Department of Legal Affairs, as ex officio Member;
- iv. Secretary, Legislative Department as ex officio Member; and
- v. not more than five part-time Members.

### Function:

1. The Commission works on projects based on references received from the Central Government and/or from the Supreme Court and High Courts.
2. At times, keeping in view the importance of the subject matter, the Commission initiates studies on specific subjects, suo moto.



### Methodology

- o On receipt of references for examination, priorities are decided and preparatory work is assigned to the Member/Member-Secretary of the Commission.
- o Depending on the nature and scope of the topic, research, methodologies for the collection of data and views are formulated keeping the scope of the proposal for reform in mind.
- o Discussion at Commission meetings during this period helps not only in articulating the issues and focusing on the research but also in evolving a consensus among members of the Commission.
- o At times, the paper is sent out for circulation among the public and concerned interest groups/stakeholders with a view to eliciting objections and suggestions.
- o The Law Commission makes every effort to ensure that the widest section of people/stakeholders are consulted in formulating proposals for law reforms.



### Final Report

- o Once the data and views/suggestions are assimilated, the Commission evaluates them, and the information is utilised for appropriate incorporation in the report, which is written under the guidance of the Chairman, Members, and Member-Secretary of the Commission.
- o Once the Report and summary are finalised, the Commission may decide to prepare a draft amendment or a new bill, which may be appended to its report. Thereafter, the final report is submitted to the Central Government for consideration.

## Follow-Up

- o The Reports of the Law Commission are laid before Parliament from time to time by the Department of Legal Affairs, Ministry of Law and Justice, and forwarded to the concerned administrative Departments/ Ministries for implementation.

## 5. Direct Tax Reforms

### Introduction:

Direct tax is a crucial source of government revenue, playing a vital role in developing infrastructure, fostering economic growth, and achieving social objectives such as providing education, healthcare, housing, and other basic amenities.

### Tax Reform four pillars:

- i. Removing exemption/deduction and reducing tax rates
- ii. Widening and deepening tax base through various measures
- iii. Using technology to increase efficiency in the income tax department
- iv. Reducing litigation by providing tax certainty

The infographic features logos for the Ministry of Finance, 75th Anniversary of India, and G20. It is titled 'DELIVERY ON BUDGET PROMISES (2022-23)' and 'Central Board of Direct Taxes'. The main heading is 'Reduction of Alternate Minimum Tax rate for Cooperatives'. A section titled 'Progress so far' states: 'Finance Act, 2022 has reduced the rate at which the cooperative societies are required to pay Alternate Minimum Tax to 15% bringing them at par with companies.' The 'Announcement' section states: 'Currently, cooperative societies are required to pay Alternate Minimum Tax at the rate of eighteen and one half per cent. However, companies pay the same at the rate of fifteen per cent. To provide a level playing field between co-operative societies and companies, I, propose to reduce this rate for the cooperative societies also to fifteen per cent.'

### Removing Exemptions and Reducing Tax Rates:

- o **Corporate tax reduction:** The corporate tax rate for existing domestic companies was reduced from the previous 30% to 25.17% (inclusive of surcharges and cess).
- o **Tax incentives for new companies:** A lower direct tax rate of 17.16% (inclusive of surcharges and cess) is applicable to new domestic manufacturing companies established after October 1, 2019, and commencing production before March 31, 2024.
- o **Reduced tax rates for cooperatives:** The Finance Act of 2022 reduced the Alternative Minimum Tax rate for cooperatives to 15%.
- o **Personal income tax rebate:** In 2020, a new personal income tax regime with lower rates was introduced, and these rates were further reduced in the Finance Act of 2022.

### Widening and Deepening of Tax Base:

1. Addition of Tax Deduction at Source (TDS) and Tax Collection at Source (TCS) for various payments like rent, e-commerce operations, virtual digital assets, online games, and car purchases to broaden the tax base.
2. The Black Money (Undisclosed Foreign Income & Assets) & Imposition of Tax Act, 2015, was enacted to make provisions to deal with the problem of black money.

3. The Benami Transactions (Prohibition) (Amendment) Act, 2016 was enacted to prohibit Benami transactions with consequent provisions to recover properties held as Benami.
4. The third-party information collection mechanism has been strengthened to collect information on undeclared income/assets.
5. Various amendments have been made to encourage the use of digital transactions in place of cash transactions.

Financial Year	GDP at current price (Rs lakh crore)	Direct Tax collection (Rs lakh crore)	GDP growth	Direct tax growth
2014-15	125.41	6.96	10.4%	8.96%
2015-16	135.67	7.42	8.25%	6.63%
2016-17	153.62	8.50	13.23%	14.53%
2017-18	170.98	10.03	11.30%	18.00%
2018-19	188.87	11.38	10.46%	13.46%
2019-20	200.75	10.51	6.29%	-7.65%
2020-21	198.00	9.47	-1.36%	-9.85%
2021-22	236.64	14.12	19.51%	49.12%
2022-23	272.41	16.61	15.12%	17.63%

#### Technology to Enhance Tax Department Efficiency:

- o A Faceless Scheme for e-assessment and appeal was introduced to improve the efficiency of tax collection and bring convenience to taxpayers.
- o E-filing systems, refund bankers' schemes, and online tax payments for quicker processing of tax returns and speedy issuance of refunds.

#### Reducing Litigation through Tax Certainty:

- o Advance Pricing Agreements (APA) were introduced to decrease transfer pricing litigations, resulting in the signing of 95 APAs in FY 2022.
- o An E-verification scheme, coupled with the ability to update tax returns, reduced the issuance of reassessment notices.

### 6. Women Empowerment

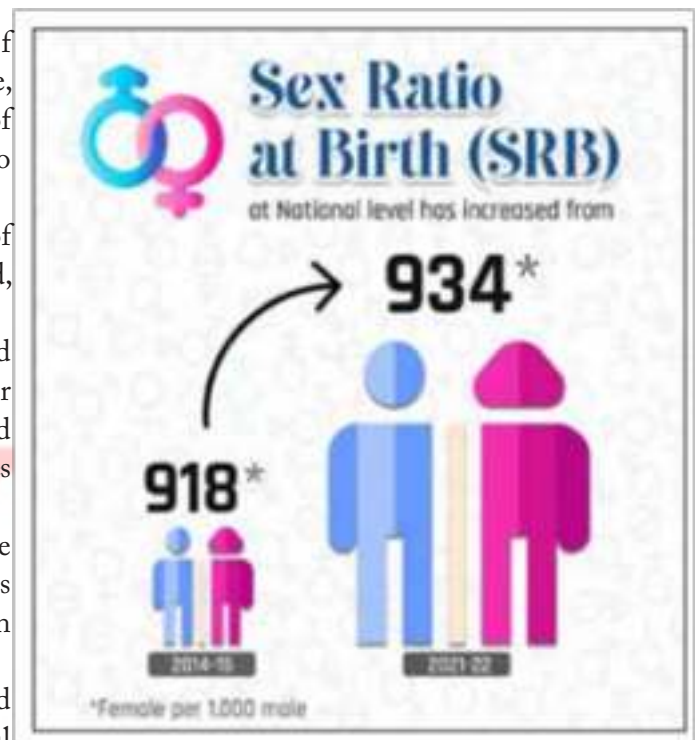
- o The National Commission for Women has been working to change the narrative of gender inequality at every level and foster a culture where everyone has an equal, free, and fair opportunity to engage in social, political, and economic activities.
- o The government is also aiming to empower women through various schemes and amendments/enactments of laws.
- o The Supreme Court (SC) of India released the 'Handbook on Combating Gender Stereotypes' which renews the discussion on gender justice.





## Reforms

- **Gender Inequality:** Ensuring equality of gender remains a pressing issue worldwide, with women experiencing various forms of violence, discrimination, and limited access to opportunities.
- **Ending Child Marriage:** The persistence of child marriage robs girls of their childhood, education, and future prospects.
- Efforts should focus on implementing and enforcing laws that set the minimum age for marriage, promoting girls' education, and raising awareness about the harmful consequences of early marriage.
- **Political Empowerment:** Governments have adopted affirmative action policies, such as quotas, to increase women's participation in decision-making processes.
- **Economic Empowerment:** Governments and businesses should promote equal pay for equal work, establish maternity leave and childcare policies, and provide access to finance and entrepreneurship training for women.
- **Sexual and Reproductive:** Governments should prioritise comprehensive sex education, family planning services, and safe abortion services where legal.
- **Gender Budgeting:** Governments must allocate sufficient resources to address the specific needs and challenges faced by women and monitor the effectiveness of these investments. Transparent and accountable systems will ensure progress towards gender equality goals.



## Government Schemes:

1. **Beti Bachao, Beti Padhao:** Launched in 2015, this initiative aims to address the declining child sex ratio and promote the education and welfare of girls.
2. **Pradhan Mantri Matru Vandana Yojana (PMMVY):** Introduced in 2017, this maternity benefit scheme provides financial assistance to pregnant and lactating women for improved health and nutrition during pregnancy and childbirth.
3. **Mahila e-Haat:** This online platform was launched in 2016 to facilitate women entrepreneurs and artisans in showcasing and selling their products. It provides a digital marketplace for women to reach a wider customer base and promote their businesses.
4. **Ujjwala Yojana:** Launched in 2016, this scheme provides free LPG connections to women from below-poverty-line households. It aims to improve their health, reduce indoor air pollution, and empower them by enabling clean cooking fuel access.
5. **Stand Up India:** Introduced in 2016, this scheme encourages entrepreneurship among women and Scheduled Caste or Scheduled Tribe individuals. It offers bank loans between Rs 10 lakh and Rs

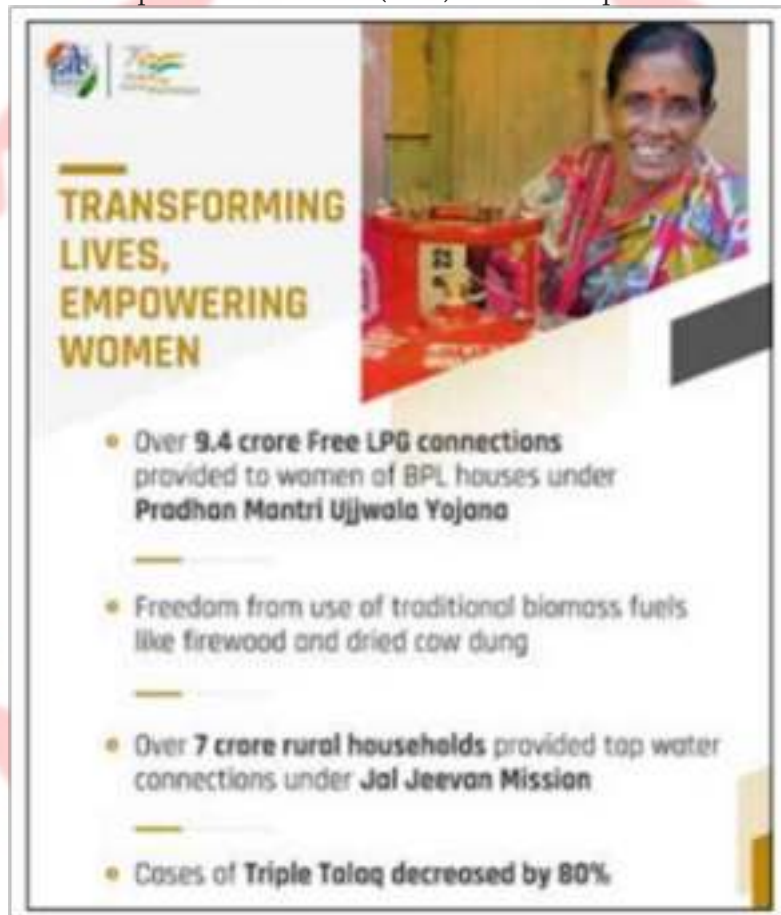


1 crore to set up greenfield enterprises, promoting women's economic empowerment and self-employment opportunities.

6. **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** While not exclusively for women, this skill development scheme, introduced in 2015, aims to provide industry-relevant training to enhance employability.

#### Various laws empowering women:

- o **Criminal Law (Amendment) Act, 2013 (Nirbhaya Act):** Concerning sexual offences.
- o Nirbhaya Fund was established for women's safety and empowerment. Used for one-stop centres, helplines, infrastructure, etc.
- o **Maternity Benefit (Amendment) Act, 2017:** Maternity leave period increased from 12 to 26 weeks.
- o The Protection of Children from Sexual Offences (Amendment) Act, 2019
- o The Muslim Women (Protection of Rights on Marriage) Act, 2019
- o Criminalised instant triple talaq (divorce)
- o Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013
- o Establish Internal Complaints Committee (ICC) in the workplace.



## 1. Make in India (Challenges, opportunities and Outcomes)

### Introduction

The Government of India introduced several reform measures to ensure an enabling growth environment by creating possibilities for attracting both domestic as well as foreign investment, and fostering effective business partnerships with efficiency.

### Make in India

- 'Make in India' was launched on 25 September 2014.
- This timely and appropriate international marketing slogan, aimed at encouraging companies and individuals across the globe to facilitate investment, foster innovation, build world-class infrastructure, and build a hub for manufacturing, design, and innovation in India.
- Unique 'vocal for local' interventions within the activities of this initiative envisaged promoting India's manufacturing domain to transform the nation into a global manufacturing centre.

### Scope and Sectoral Coverage

- A total of 27 economic sectors were identified to give a big push during the entire life cycle of business activities within the respective sector. Out of these, 15 were related to manufacturing, and 12 were associated with service sectors.

### Pillars of Make in India

#### New Process:

- Ensuring an enabling environment to attract both domestic and foreign investment.
- Improving the ease of doing business to promote entrepreneurship.

#### New infrastructure:

- Developing industrial corridors, smart cities, and high-speed communication network amenities.
- Simplifying procedures for registering intellectual property rights.
- Providing training and education to create a skilled workforce.

#### New sectors:

- 'Make in India' initiative identified 25 sectors to begin with, followed by two additional sectors. While investment gaps were removed in certain sectors, restrictions for expansion were either removed or relaxed for some other sectors, considering their growth potential and their share in national economic development.

#### New Mindset:

- Make in India brought about a paradigm shift in the way the Government interacts with various industries.
- Attempts were made to transform the Government's outlook towards the industrial growth by making it a partner in the economic development of the country along with the development of the corporate sector.

Manufacturing revival is based on several policy judgements, viz.

- Guarantee basic production inputs – power, minerals and water at competitive prices.
- Make modern transport, logistic, and communication infrastructure accessible.



- Ensure accessibility to domestic and international markets.
- Develop entrepreneurship and improve the capacity of entrepreneurs.
- Extend support for bringing in EoDB through access to venture capital, strong industrial delicensing and deregulating environment, etc.

### Attracting FDI into India

**The Government has taken various steps to boost domestic and foreign investment in India. These, inter alia, include:**

- (a) Introduction of Goods and Services Tax
- (b) Reduction in Corporate Tax
- (c) Innovation to improve EoDB
- (d) FDI policy reforms
- (e) Measures for reduction in compliance burden
- (f) Policy measures to boost domestic manufacturing through public procurement orders
- (g) Phased manufacturing programmes

### Advantages of Make in India

- A massive increase in employment will enhance the purchasing power of the citizen
- Expand the consumer base for companies and address the problem of poverty
- Improved education and training infrastructure
- Skilled workforce will help to reduce brain drain
- Positive balance of payments will address volatility in the global economy

## 2. Renewable Energy- Making India Self-Sufficient

### Introduction

- India is the fastest-growing economy globally and has overtaken the UK to become the 5th largest economy in the world. The country imports more than 80% of its crude oil for energy requirements from outside sources and is the 4th largest emitter of CO<sub>2</sub>. India has a target to cut carbon emissions by 1 billion ton by 2030 and achieve net-zero emission status by 2070. As India needs to work on the carbon-intensive sector, it is taking steps in the same direction by using new technology and working on it to achieve net zero emissions, and also the goal of integrating 500 GW of non-fossil fuel-based capacity by 2030.

### India's Position

- India stands 4th globally in Renewable Energy Installed Capacity (including Large Hydro).
- 4th in Wind Power capacity
- 4th in Solar Power capacity (as per the REN21 Renewables 2022 Global Status Report).
- The country has set an enhanced target at the COP26 of 500 GW of non-fossil fuel-based energy by 2030.
- The flagship National Solar Mission, launched in 2010, aimed at installing 100 GW of solar power by 2022, which was later increased to 450 GW by 2030.
- The Centre has also launched a wind energy programme with the target of achieving a capacity of 60 GW by 2022.
- The country is a pioneer in floating solar technology, with the world's largest floating solar power plant located in Kerala. The plant has a capacity of 500 kilowatts and is expected to generate 7.5 lakh units of electricity per year.
- India is also home to the world's largest solar park, the Pavagada Solar Park in Karnataka, which has a capacity of 2 GW. The park has attracted significant investment, with companies such as Softbank, Canadian Solar, and Adani Green Energy investing in the project.



### Important steps taken by Government are as :

- Permitting Foreign Direct Investment up to 100 per cent under the automatic route.
- Waiver of inter-state transmission charges on transmission of electricity generated from solar and wind sources of energy, for projects commissioned up to 30 June 2025.

- Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to renewable energy developers on a plug and play basis.
- Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power.
- Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar PV and Wind Projects.
- Announcement of National Green Hydrogen Mission.
- ESO targets as a percentage of total consumption of electricity has been laid down for the year up to 2029-30.
- ‘Must-run’ status to solar and wind power as per clause 5.2(u) of Central Electricity Regulatory Commission Regulations, 2010.
  - **Hydrogen based FCV:** Hydrogen in technology is likely to change the landscape of renewables, shifting towards Hydrogen Based Fuel Cells Vehicles (FCV) is another area of focus.
  - **Grid Integration:** It is the practice of developing efficient ways to deliver variable renewable energy (RE) to the grid. Identifying the demands that are in tune with the characteristics of the renewables, focussing on the characteristics of the renewables mainly solar and wind, and considering their variability as a strength rather than a weakness
  - **24\*7 Power Supply:** A sustainable, round-the-clock power supply, along with the storage system, is a big challenge ahead. Agricultural Sector: Much power is consumed in the agricultural sector. The challenge is to provide sufficient power and energy to every household and to the agricultural sector as well.

### 3. Leveraging Vocal for Local

- Amidst the crisis of the COVID-19 pandemic, ‘vocal for local’ has emerged as a new path for development. A robust ‘vocal for local’ framework can strengthen the rural economy and usher the Indian economy towards the path of becoming the third largest economy in the world.

#### The Rationale for Vocal for Local:

- Inclusive growth, rural transformation and steady recovery are the primary objectives of the “vocal for local” call. The larger objectives are to encourage the development of rural areas in line with Mahatma Gandhi’s vision of self-sufficient and self-reliant communities based on local resources and employing decentralised, eco-friendly technologies so that the basic needs are met locally.
- The ‘Vocal for Local’ strategy aims to make local products competitive with those of international brands by promoting local production, supply networks, and brands in addition to Make in India. The fundamental idea behind this is to help and promote small businesses with constrained resources and markets.
- The strategy aims to help and encourage small businesses with constrained resources and markets. Additionally, “Vocal for Local” would tend to encourage Indians to develop a taste for buying and consuming local items.
- The Ministry of Textiles has tied up with India Post to leverage 4,00,000 Common Service Centres (CSCs), which have been primarily set up to offer government e-services to enable artisans to go online with their products and become competitive.

#### Framework to leverage ‘Vocal for Local’:

- (a) efficient planning practices with strong coordination among various line departments working in the rural areas;
- (b) skill and economic development planning covering the issues and opportunities for strengthening the local economy;
- (c) aligning local plan with national and sub-national development strategy;
- (d) local institutions, such as panchayats in coordination with other stakeholders creating a system of visiting local businesses periodically to discuss their needs, challenges, and opportunities and also helping both aspiring and existing enterprises to get benefits from schemes and programmes.





## 4. Cultural Heritage- Tradition to Innovation

### Introduction

- India's cultural heritage is a tapestry of unparalleled diversity, shaped by a history spanning thousands of years and influenced by various civilisations, religions, and regions. It encompasses a myriad of art forms, including classical and folk dances, music, traditional festivals, architecture, literature, and craftsmanship. Cultural heritage plays a pivotal role in shaping India's global perception. It acts as a powerful soft power tool, drawing tourists, scholars, and enthusiasts from around the world.

### Revitalising Traditional Art Forms

- Make in India help fosters a creative ecosystem that ensures, for artisans, an expansion of the horizons of their craft through the blend of modern tools with uncompromised authenticity.
- Artisan workshops and design camps ensure the assemblage of master craftsmen and designers, resulting in an exchange of ideas and a fusion of traditional techniques with contemporary aesthetics.
- Support for research on traditional art forms guarantees the retention of the quintessential soul of our heritage while embracing technological advancement.
- In 2015, the Indian Government not only dedicated 7 August for the celebration of National Handloom Day but also envisioned the sequence of 5F - Farm-to-Fiber, Fiber-to-Fabric, Fabric-to-Fashion and Fashion-to-Foreign (thereby promoting the entire value chain of the textile sector).

### Leveraging Technology for Cultural Heritage - The Potential and Future

- The benefits of technology are visible in the permanent storage of all artefacts in databases.
- Digitisation plays a pivotal role in the establishment of virtual museums and online exhibitions.
- Virtual museums offer lifelike exploration, allowing users to view 3D models and access detailed information about each exhibit.
- Multimedia elements, such as videos, audio guides, and interactive features, enhance the understanding and appreciation of cultural artefacts.
- E-commerce platforms have revolutionised the way traditional artisans and craftspeople sell their products.

### Cultural Tourism and Experiential Learning

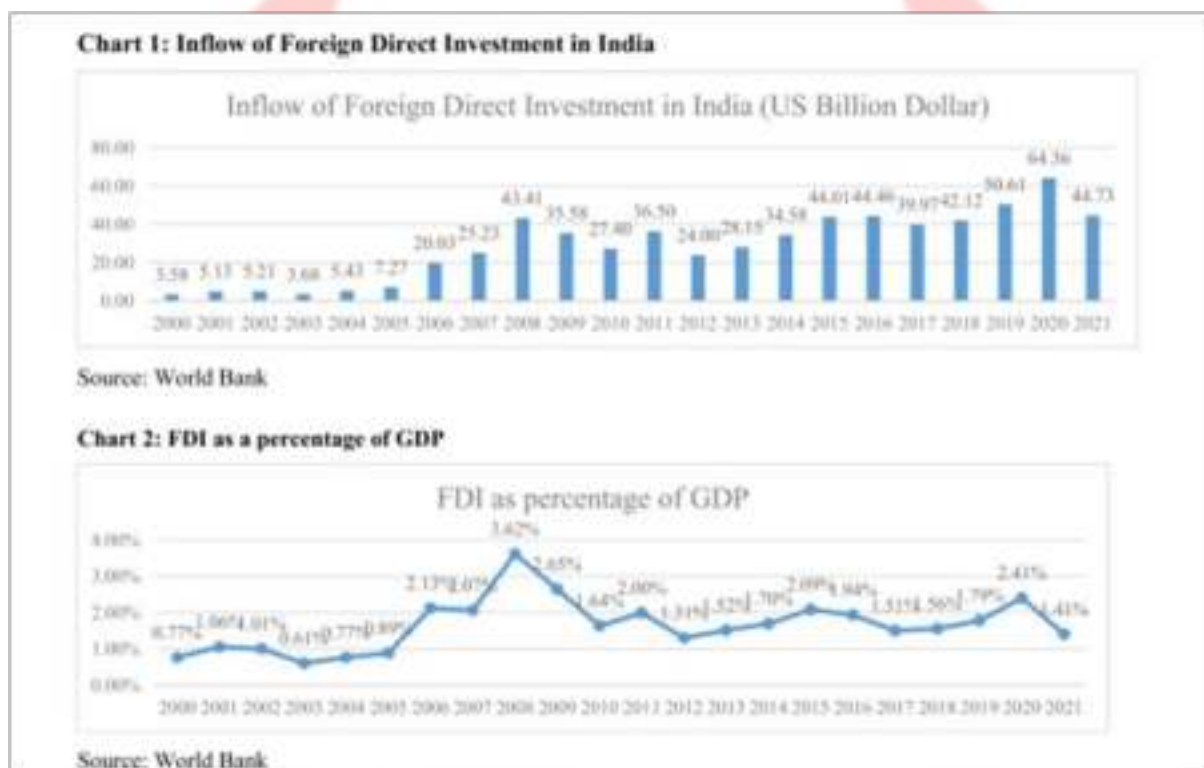
- The Swadesh Darshan scheme, was launched by the Indian Tourism Ministry in 2015. It aims to develop theme-based tourism circuits that showcase India's rich cultural heritage.
- The Incredible India! campaign, launched by the Ministry of Tourism in 2002 aims to promote India as a tourist destination and highlight the country's rich cultural heritage.
- The Indian Council for Cultural Relations (ICCR), is a government organisation that promotes Indian culture abroad. The ICCR organises a number of cultural events and programmes that offer tourists the opportunity to learn about and experience Indian culture.

## 5. Changing Paradigm of Foreign Direct Investment

- The International Monetary Fund (IMF) defines Foreign Direct Investment (FDI) as the acquisition of at least ten per cent of ordinary shares or voting power in a public or private enterprise by non-resident investors.
- In simpler terms, FDI refers to foreign companies or individuals investing in a host country to establish or expand their business operations.

### There are two types of FDI:

- **Horizontal FDI:** This involves investments to produce the same or similar goods in the host country as in the home country, driven by factors like profitability and lower labour costs.
- **Vertical FDI:** It aims to exploit raw materials or be closer to consumers by acquiring distribution outlets, leading to cost-effective production.
- FDI methods include Greenfield investments, Mergers and Acquisitions, and Joint Ventures.
- Recent research indicates an inverted U-relationship between a country's income level and FDI's impact on growth.
- Impact is more significant as a country moves from low to middle income, but diminishes as it becomes a higher-income nation.



## FDI in India

### In India, FDI enters through three main routes:

- **Automatic Route:** Foreign investors can invest without prior government approval.
- **Government Route:** Foreign investors require government approval in cases where there are strategic interests.
- **Merger and Acquisition:** Foreign companies acquire existing Indian companies.
- FDI in India has seen steady growth since 2005, increasing from 0.7% of GDP to over 2.4% by 2020.
- Top countries with FDI investment in India in 2022-23 include Mauritius (26%), Singapore (23%), the USA (9%), the Netherlands (7%), and Japan (6%).

## FDI: Change in Policy Paradigm

### Single-Brand Retail Trading (SBRT):

- **100% FDI under the automatic route:** In January 2018, the government allowed 100% FDI in singlebrand retail trading, permitting foreign retailers to own 100% of their Indian subsidiaries without government approval.
- **Relaxation of local sourcing norms:** The local sourcing requirement was relaxed for entities undertaking SBRT. For the first five years, entities can offset the local sourcing requirement against their incremental sourcing from India.

## Construction Sector

- In November 2019, the Government revised the definition of “real estate business” to include the development of townships, housing, builtup infrastructure, and construction development projects.
- **Relaxation of minimum capitalisation norms:** The minimum capitalisation requirement for FDI in the construction development sector was reduced from USD 10 million to USD 5 million within six months of the commencement of the project.

## Digital Media

- **26% FDI allowed:** In September 2019, the Government allowed 26% FDI under the Government approval route for digital media entities engaged in uploading/streaming news and current affairs content.

## Contract Manufacturing

- **Contract manufacturing under SBRT:** In August 2019, contract manufacturing was included in the definition of SBRT, allowing manufacturers to undertake contract manufacturing for entities engaged in SBRT.

## Civil Aviation

- **100% FDI in scheduled airlines:** In March 2016, the Government allowed 100% FDI in scheduled airlines under the automatic route.

## Defence Sector

- **Increase in FDI limit:** In February 2021, the FDI limit in the defence sector through the automatic route was increased from 49% to 74%.
- **Offset guidelines relaxed:** Offset guidelines, requiring foreign defence companies to invest a portion of the contract value in India, were relaxed to encourage more significant investments and improve ease of doing business.

## Insurance Sector

- **Increase in FDI limit:** In February 2021, the FDI limit in the insurance sector was increased from 49% to 74% under the automatic route.

## E-Commerce

- **Tightening of rules for online marketplaces:** In December 2018, the Government introduced new FDI norms for e-commerce companies, including restrictions on exclusive deals, control over inventory, and equity participation in vendors

## Impact of FDI in India's Manufacturing Sector and Make in India

- Annual FDI inflow into India has increased considerably with the launch of the Make in India initiative.
- FDI supports the Make in India program by providing the necessary capital, technology and expertise to set up modern and efficient manufacturing units.
- The manufacturing sector in India contributes about 17.3% of India's Gross Domestic Product (GDP) and employs around 12% of the country's workforce.
- The automobile industry experienced remarkable growth, with a 25.47% increase from 2017-18 to 2018-19, coinciding with a substantial FDI equity inflow of 2.09 billion USD.
- Similarly, the textile sector attracted significant FDI investments totalling 1522 million USD from 2017 to 2022. This sector contributes 4% to India's total GDP and accounts for over 14% of the country's export earnings.





**Odisha Civil Services**

**prelims**

**On 15th October 2023  
Best Wishes to aspirants**

**Interested students can  
join new batch from  
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