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HORNBILL FESTIVAL
NAGALAND
Festival of Festivals
THE 23RD Hornbill Festival 2022

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DEFENCE & SECURITY

Why in News?
- Bengal village Lalbazar is not only a hub but also moving towards becoming a centre for dokra, a metal craft.

About the craft
- Dokra (also spelt Dhokra) is non–ferrous metal casting using the lost-wax casting technique.
- This sort of metal casting has been used in India for over 4,000 years and is still used. One of the earliest known lost wax artefacts is the dancing girl of Mohenjo-daro.
- The lost wax technique for casting of copper based alloys has also been found in China, Egypt, Malaysia, Nigeria, Central America, and other places.
- Dhokra Damar tribes are the main traditional metalsmiths of West Bengal and Odisha. Their technique of lost wax casting is named after their tribe, hence Dhokra metal casting.
- The tribe extends from Jharkhand to West Bengal and Odisha; members are distant cousins of the Chhattisgarh Dhokras.
- A few hundred years ago, the Dhokras of Central and Eastern India travelled south as far as Kerala and north as far as Rajasthan and hence are now found all over India.
- Dhokra, or Dokra, a craft from Dwariapur, West Bengal, is popular.
- Recently Adilabad Dokra from Telangana got Geographical Indication tag in 2018.

Why in News?
- The Mizoram Cabinet has approved the setting up of temporary shelters and other amenities for Bangladeshi Kuki-Chin refugees.

About
- The Kuki-Chin people share ethnic ties with the Mizos. They are collectively called the Zo people.
- The Kuki Chin people are settled in the Chittagong Hill Tracts, the only extensive hill area in Bangladesh that lies in the southeastern part of the country.
- It borders – Myanmar on the southeast, Tripura on the north, Mizoram on the east and the Chittagong — district on the west.
- The refugee influx began after clashes broke out between the Kuki-
- Chin National Army and Bangladesh's Rapid Action Battalion. The refugees had fled to escape being caught in the crossfire.

Why in News?
- In Nagaland, the 10-day long Hornbill Festival 2022 will begin on December 1, at Naga heritage village Kisama.

About
- The first festival was held in 2000.
- It is held at Naga Heritage Village, Kisama which is about 12 km from Kohima in Nagaland.
- It is organized by the State Tourism and Art & Culture Departments of the Government of Nagaland.
- To encourage inter-tribal interaction and to promote cultural heritage of Nagaland.

Key highlights of festival
- Festival highlights include the traditional Naga Morungs exhibition and the sale of arts and crafts, food stalls, song and dance shows, indigenous games etc.
- One of the major highlights of this festival is the Hornbill International Rock Festival where local and international rock bands perform.

Divya Kala Mela

Why in News?
- Recently, The Union Minister for Social Justice and Empowerment has inaugurated the Divya Kala Mela in Kartavya Path at India Gate, Delhi.

About
- Organized by Ministry of Social Justice & Empowerment.
- To provide a platform for the products and craftsmanship of Divyang(person with disability) artisans, craftsmen and artisans from across the country.
- This type of platform will bring self-reliance to the lives of Divyangjan. It will provide them with a big platform to display and sell their products. Further, it will give them an opportunity to connect with big businessmen.

Kumbhalgarh Fort

Why in the news?
- The Sherpas of the G20 countries and invitees from countries and international organisations recently visited the famous Kumbhalgarh Fort in Udaipur.

About
- Kumbhalgarh is the second most important citadel after Chittorgarh in the Mewar region.
- The fort was built in the 15th century AD by Rana Kumbha.
- The massive fort is 3,600 feet tall and 36 kilometres long, and it surrounds the city of Udaipur.
- It is the second-longest wall of the world after the Great Wall of China.
- The fort has also been designated a UNESCO World Heritage Site as part of the group of Hill Forts of Rajasthan.
- It is strategically located on the western Aravalli hills.
- The fort contains seven fortified gateways and several Jain temples, as well as the Lakhola Tank, the most famous tank within the fort, which was built by Rana Lakha.
- It is the birthplace of Mewar's legendary king Maharana Pratap.
- Its defences could be breached only once by the combined armies of the Mughal and of Amber primarily for scarcity of drinking water.

Meitei Script

Why in the news?
- Newspapers in Manipur are working towards replacing the Bengali script that's currently in use with Meitei or the Manipuri script.

About
- The Meitei script was once patronised by Meitei rulers, but which fell into disuse with the advent of Hinduism and eventually disappeared.
- The earliest epigraphic record of the script is a stone inscription from Khoibu village which was erected on the orders of Meidingu Kiyamba (1467-1508).
- The Meitei Mayek or Meitei script evolved with time and this led to conflict between various proponents. The inscriptions on the coins of the 7th and 8th Century were perhaps in the 18-letter script, which, with the advent of Hinduism in the 17th century during the reign of Meidingu Pamheiba (1709-1748), was perhaps expanded to the 36-letter script.
- With the advent of Hinduism, Bengali scripts became so popular that stone inscriptions in the 18th and 19th century were in Bengali script.

Recent developments
- The Manipur Official Language Act, 1979, was enacted with the definition of Manipuri language as "Meiteilon written in Bengali script and spoken by the majority of Manipuri population"
- By an Amendment Act of 2021, the definition of "Manipuri language" was modified as "Meiteilon in Meetei Mayek and spoken by the majority of Manipur population" with a proviso that for 10 years, both the Bengali and Meitei Mayek scripts shall be allowed.

Panini

Why in the News?

- A grammatical problem by Panini that has defeated Sanskrit scholars since the 5th Century BC has finally been solved by an Indian Ph.D. student at the University of Cambridge.

About panini

- Panini was a Sanskrit philologist, grammarian, and revered scholar in ancient India, variously dated between the 6th and 4th century BCE.
- Since the discovery and publication of his work by European scholars in the nineteenth century, Panini has been
- considered the "first descriptive linguist" and even labelled as "the father of linguistics".
- Panini's grammar was influential on such foundational linguists as Ferdinand de Saussure and Leonard Bloomfield.

Major literary works

- Panini is known for his texts- Astadhyayi, a sutra-style treatise on Sanskrit grammar, verses or rules on linguistics, syntax and semantics in "eight chapters" which is the foundational text of the Vyakarna branch of the Vedanga.
- His text attracted numerous bhashya (commentaries), of which Patanjali's Mahabhashya is the most
- famous.
- His ideas influenced and attracted commentaries from scholars of other Indian religions such as Buddhism.

Indian Historical Records Committee (IHRC)

Why in the news?

- The 63rd Session of the IHRC will be organized on 18-19 December 2022 at Uttar Pradesh State Archives.

About

- It was set up in 1919.
- IHRC is an all-India Forum of creators, custodians and users of records which was set up to advice the Government of India on all issues connected with the management of records and their use for historical research.
- The National Archives of India, New Delhi is the Secretariat of Indian Historical Records Committee (re-designated Indian Historical Records Committee in 1911).
- The IHRC is headed by the Union Minister of Culture and comprises 134 members including agencies of the Government of India, nominees of the Government of India, representatives from the State/UT Archives, Universities and Learned Institutions. The IHRC has so far held 62 sessions.

Hanukkah

Why in News?

- Prime Minister Narendra Modi greeted the people of Israel on the festival of Chag Hanukkah Sameach.

About

- Hanukkah is also known as Chanukah.
- It is a Jewish Festival of Lights that lasts for eight days and nights in honor of a 2,000-year-old miracle in which light won out over darkness.
- It marks the rededication during the second century BC of the Second Temple in Jerusalem, where according to legend, Jews had risen up against their Greek-Syrian oppressors in the Maccabean Revolt.
- According to the Jewish religious calendar, Hanukkah begins on the 25th day of the month of Kislev and continues until the second day of the month of Teslev — a date known as Zos Chanukah that is particularly holy.

Why in the news?
- Gujarat's Vadnagar town, the iconic Sun Temple at Modhera and the rock cut sculptures of Unakoti in Tripura have been added to the tentative list of UNESCO World Heritage Sites.

About Vadnagar
- It is a municipality under Mehsana district of Gujarat. The history of Vadnagar stretches back to nearly 8th century BCE.
- The town has evolved with time and has an early historic fortified settlement, hinterland port, centre for industries of shells and beads, late medieval town, religious centre/temple town, a significant junction on trade routes and mercantile town.
- Vadnagar was visited by a Chinese traveler named Hiuen Tsang, who wrote about the township in his travelogue 1400 years ago.

Unakoti
- It is located in northeastern region of Tripura. It is known as an ancient holy place associated with Shaiva worship.
- The site is a massive gallery set in a forested area displaying a number of towering low relief images in a unique style, making it a masterpiece of human creative genius.

Sun Temple of Modhera
- The Sun Temple of Modhera is located in Gujarat. It is a Hindu temple dedicated to the solar deity Surya.
- It is situated on the bank of the river Pushpavati.
- It was built after 1026-27 CE during the reign of Bhima I of the Chaulukya dynasty(Solanki dynasty).
- The temple complex is built in Māru-Gurjara style (Solanki style). The temple consists of the main temple shrine (garbhagriha), a hall (gadhamandapa), an outer hall or assembly hall (rangamandapa) and a sacred pool (Kunda) which is now called Ramakunda. This east-facing temple is built with bright yellow sandstone.
- The temple is the Monument of National Importance and is maintained by the Archeological Survey of India.

Why in the news?
- 14 ancient sites have been declared protected by the Archaeological Survey of India over the last three years.

About ZCC
- The Zonal Cultural Centres (ZCCs) were set up to develop the cultures of various regions under the Ministry of Culture.
- The Zonal Cultural Centres has been set up as registered autonomous bodies under the Societies Registration Act.
- The mandate behind setting up the ZCCs was to bind the nation culturally while retaining the individuality of the regions that comprise them.
- There are seven Zonal Cultural Centres in India across geographic and linguistic boundaries.
- The 7 ZCCs and their headquarters are
  - North Zone Cultural Centre (NZCC), Patiala
  - Eastern Zonal Cultural Centre (EZCC), Kolkata
  - West Zone Cultural Centre (WZCC), Udaipur
  - North Central Zone Cultural Centre (NCZCC), Prayagraj
  - North East Zone Cultural Centre (NEZCC), Dimapur
  - South Central Zone Cultural Centre (SCZCC), Nagpur
  - South Zone Cultural Centre (SZCC), Thanjavur.
- Each ZCC is governed by a governing body.
- Each ZCC is headed by the Governor of the state in which the Zonal Cultural Centre has it's headquarter.
- The ZCCs were required to concentrate on the folk arts, dance and music.
- ZCCs are provided regular annual grant-in-aid by the Government. No State/UT-wise funds are released by the Ministry of Culture for the purpose.

Why in the news?

- Experts and conservationists have raised concerns over the proposed location for a mega oil refinery in Barsu village of Maharashtra's Ratnagiri district.

About Geoglyphs

- Geoglyphs are a form of prehistoric rock art, created on the surface of laterite plateaus.
- They are made by removing a part of the rock surface through an incision, picking, carving or abrading.
- They can be in the form of rock paintings, etchings, cup marks and ring marks.

Significance of this prehistoric rock art

- Clusters of geoglyphs are spread across the Konkan coastline in Maharashtra and Goa, spanning around 900 km. Porous laterite rock, which lends itself to such carving, is found on a large scale across the entire region.
- It has more than 1,500 pieces of such art, also called "Katal Shilpa," spread across 70 sites.
- This is evidence of the continued existence of human settlements from the Mesolithic (middle Stone Age) to the early historic era.
- UNESCO's tentative world heritage list mentions seven sites with petroglyphs in Ratnagiri district — Ukshi, Jambharun, Kasheli, Runde Tali, Devihsol, Barsu and Devache Gothane, one in Sindhudurg district –Kudopi village, and nine sites at Phansamal in Goa.
- The figures depicted in the geoglyphs include humans and animals such as deer, elephant, tiger, monkey, wild boar, rhinoceros, hippopotamus, cattle, pig, rabbit, and monkey.
- They also include a high number of reptilian and amphibian creatures such as tortoises and alligators, aquatic animals such as sharks and sting rays, and birds like peacocks.

Why in the news?

- Prime Minister of India had recently announced that 26th December will be observed as 'Veer Bal Diwas', to mark the martyrdom of Sri Guru Gobind Singh's sons.

About Veer Bal Diwas:

- On December 26, 1707, Sahibzada Zorawar Singh and Sahibzada Fateh Singh attained martyrdom when they were executed on the orders of Aurangzeb.

About Guru Gobind Singh:

- He was the 10th Sikh guru.
- He was born at Patna, Bihar, India, on December 22, 1666. His birthday sometimes falls either in December or January or even both months in the Gregorian calendar. The annual celebration of the Guru's birthday is based on the Nanakshahi calendar.
- He became the Sikh guru at the age of nine, following the demise of father, Guru Tegh Bahadur, the ninth Sikh Guru.
- He is known for his significant contributions to the Sikh religion, including the introduction of the turban to cover hair.
- He also founded the principles of Khalsa or the Five 'K's.
- He is also responsible for establishing the highest order in the Sikh community.
- He fought against the Mughals later in the battle of Muktsar in 1705.
- Guru Gobind Singh was killed by a Mughal assassin in 1708, a year after the death of Aurangzeb.
- He named Guru Granth Sahib, the religious text of the Khalsas and the Sikhs, as the next Guru of the two communities.

Why in the news?

- Recently, the President of India inaugurated PRASAD project at the tourism facilitation centre in the pilgrim town of Srisailam in Andhra Pradesh.

About

- PRASAD stands for Pilgrimage Rejuvenation and Spirituality Augmentation Drive (PRASAD).
- The scheme was launched in the year 2014-2015.
- It is 100% Centrally Sponsored Scheme under Tourism Ministry.
- This scheme focuses on developing and identifying pilgrimage sites across India for enriching the religious tourism experience.
- It aims to integrate pilgrimage destinations in a prioritised, planned and sustainable manner to provide a complete religious tourism experience.
- For improved sustainability, it also includes a Public-Private Partnership (PPP) and Corporate Social Responsibility(CSR).
- Cities Identified Under PRASAD Scheme: Amritsar (Punjab), Kedarnath (Uttarakhand), Mathura (Uttar Pradesh), Ajmer (Rajasthan), Varanasi (Uttar Pradesh), Gaya (Bihar), Kamakhya (Assam), Dwaraka (Gujarat), Puri (Odisha), Amaravati (Andhra Pradesh), Kanchipuram(Tamil Nadu), Velankanni (Tamil Nadu).

Why in news?

- The International Union for Conservation of Nature (IUCN) has released the Restoration Barometer Report recently.

About Restoration Barometer

- Restoration Barometer was launched in 2016 as the Bonn Challenge Barometer.
- The Barometer has eight indicators that build a comprehensive picture of a country's restoration progress.
- It records the size of the area being brought under restoration as well as the corresponding climate, biodiversity and socio-economic benefits, and covers the enabling policies and funding structures at the heart of successful restoration.

Key highlights of the report

- The IUCN flagship (a first-of-its-kind report)Restoration Barometer report is based on data submitted by 18 countries to the IUCN Restoration Barometer from 2021 to 2022.
- This report demonstrates the progress that reporting countries are making on their restoration targets – and the flow of tangible benefits.
- As per the report, investments of USD 26 billion across 18 countries have restored 14 million hectares of degraded landscapes,an area about the size of Greece, created 12 million jobs and over 145 million tonnes of carbon sequestered.
- India is among four countries, including Ecuador, Pakistan, and Uzbekistan, which are still in the process of finalising the data.
- The report details how 18 countries are using the Restoration Barometer tool to track progress on their restoration commitments under global agreements, which total 48 million hectares by 2030.
- At present, only the restoration of inland waters, terrestrial habitats and coastlands are covered by the Barometer.
- Next year, the Barometer will be further extended to include restoration efforts relating to several key marine solutions and habitats including kelp, seagrasses and shallow reefs.
- Endorsed by over 50 Governments, the Restoration Barometer was developed by IUCN with the support of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection.
- It is the only tool that is already being used by Governments to track restoration and its benefits across all terrestrial ecosystems, including coastal and inland waters, and report on their commitments against global frameworks such as the UN Decade on Ecosystem Restoration, Bonn Challenge, Paris Agreement
- It will also allow countries to track progress against restoration commitments under the forthcoming post-2020 Global Biodiversity Framework targets leaders will set at COP15.
- The 18 countries which have submitted their progress report are Colombia, Costa Rica, El Salvador, Guatemala, Mexico, Peru, Cameroon, Ghana, Kenya, Malawi, Mozambique, Rwanda, Uganda, Bangladesh, Sri Lanka, Europe, Central Asia and the Caucasus: Kazakhstan, Kyrgyzstan and Tajikistan.

Why in the news?

- NITI Aayog released a study report on the Policy Framework of Carbon Capture, Utilisation, and Storage (CCUS).

About the storage

- **Carbon Capture Utilisation and Storage (CCUS)** is the technology for decarbonising carbon dioxide (CO_2) from high polluting sectors such as steel, cement, oil, gas, petrochemicals, chemicals and fertilisers, has a critical role to play for the country to halve CO_2 emissions by 2050
- The **purpose of CCUS policy framework** is to develop and implement a practicable framework to accelerate research and development on carbon capture, utilisation and storage in India.
- It is key to ensuring sustainable development and growth in India, particularly for the production of clean products and energy, leading to an **Atmanirbhar Bharat.**
- CCUS also has an important role to play in enabling **sunrise sectors** such as coal gasification and the nascent hydrogen economy in India.

- CCUS projects will also lead to a **significant employment generation**. It estimates that about 750 mtpa of carbon capture by 2050 can create employment opportunities of about 8-10 million on full time equivalent (FTE) basis in a phased manner.
- On the policy framework, the NITI Aayog report suggested that in the near term, **CCUS policy should be carbon credits or incentives based**, to seed and promote the CCUS sector in India through tax and cash credits.
- As India is the third largest emitter of CO2 in the world after China and the US about 2.6 gigatonne per annum, carbon capture utilisation and storage is an essential imperative for India to reach its Decarbonisation Goals.

About Carbon storage
- It is a way of reducing carbon emissions, which could be key to helping to tackle global warming.
- It's a three-step process, involving: capturing the carbon dioxide produced by power generation or industrial activity, such as steel or cement making; transporting it; and then storing it deep underground.
- It involves the **capture of carbon dioxide (CO2) emissions from industrial processes**, such as steel and cement production, or from the burning of fossil fuels in power generation.
- This carbon is then transported from where it was produced, via ship or in a pipeline, and stored deep underground in geological formations.
- **The Intergovernmental Panel on Climate Change (IPCC)** highlighted that, if we are to achieve the ambitions of the Paris Agreement and limit future temperature increases to 1.5°C (2.7°F), we must do more than just increasing efforts to reduce emissions – we also need to deploy technologies to remove carbon from the atmosphere.
- **Carbon Capture & Storage is one of these technologies** and can therefore play an important role in tackling global warming.

The Arctic Report Card 2022   Environment

Why in news?
- **NOAA has released the Arctic Report Card 2022 recently.**

About Arctic Report Card
- Issued annually since 2006 by the National Oceanic and Atmospheric Administration is an American scientific and regulatory agency, the Arctic Report Card is a timely and peer-reviewed source for clear, reliable and concise environmental information on the current state of different components of the Arctic environmental system relative to historical records.

Key highlights
- Following are some of the Highlights of the report card for 2022:
- The average surface air temperature over the Arctic for this past year (October 2021-September 2022) was the 6th warmest since 1900. The last seven years are collectively the warmest seven years on record.
- In 2022 Arctic sea ice extent was similar to 2021 and well below the long-term average.
- Satellite records from 2009 to 2018 show increasing maritime ship traffic in the Arctic as sea ice declines.
- The most significant increases in maritime traffic are occurring from the Pacific Ocean through the Bering Strait and Beaufort Sea.
- Low pressure across the Alaska Arctic and northern Canada sustained warm summer temperatures over the Beaufort Sea and Canadian Archipelago.
- August 2022 mean sea surface temperatures continued to show warming trends for 1982-2022 in most ice-free regions of the Arctic Ocean.
- The report card said that Between October 2021 and September, air temperatures above Arctic lands were the sixth warmest since 1900, noting that the seven warmest years have been the last seven.
- Rising temperatures have helped plants, shrubs and grasses grow in parts of the Arctic tundra, and 2022 saw levels of green vegetation that were the fourth highest since 2000, particularly in the Canadian Arctic Archipelago,northern Quebec and central Siberia.
- The Greenland Ice Sheet experienced its 25th consecutive year of ice loss.In September 2022, unprecedented late-season warming created surface melt conditions over 36% of the ice sheet, including at the 10,500 ft ice sheet summit.
- A new chapter in this year's report deals with Arctic precipitation. Measuring snow, rain and freezing rain is tricky there: In the northernmost reaches of the region, there aren't many weather gauges.

- It says that precipitation levels have increased significantly in the Arctic since the mid-20th century. 2022 was the region's third-wettest year since 1950.
- Because of warmer temperatures, though, extra snow doesn't necessarily remain on the ground. Snow accumulation in the Arctic was above average during the 2021-22 winter.

The Wild Life (Protection) Amendment Bill, 2022   Environment

Why in news?
- **Rajya Sabha has passed the Wild Life (Protection) Amendment Bill, 2022, which seeks to strengthen the protection of endangered species and enhance punishment for illegal wildlife trade.**

About the bill
- **Key Highlights:**
  - The Bill will amend the Wild Life (Protection) Act, 1972 to increase the protection of species under the law.
  - In India, illegal animal trade is regulated under Customs Act, Foreign Trade Development Regulation Act, Exim Policy and Wildlife Protection Act.
  - However, the bill is brought since CITES requires an independent framework for Wildlife protection.
  - The Bill is also beneficial for local tribal communities as it provides for certain permitted activities to them such as grazing, movement of livestock, and bona fide use of drinking and household water.
- **Major features of the proposed bill:**
  - The bill inserts a new Schedule for specimens listed in the Appendices under CITES.
  - An amendment to Section 6 is done to constitute a Standing Committee to exercise such powers and duties as may be delegated to it by the State Board for Wildlife.
  - Amendment to Section 43 to permit elephants, a Schedule I animal, to be used for 'religious or any other purpose'.
  - Insert Section 49E to empower the Central government to designate a Management Authority to grant export or import permits for trade of specimens.
  - Insert Section 49F to empower the Central government to designate a Scientific Authority to advise on aspects related to the impact on the survival of the specimens being traded. These provisions are set to ensure the "sustainable" exploitation of flora and fauna.
  - It provides that the Chief Wildlife Warden shall act in accordance with the management plans for the sanctuary, to be prepared as per Central guidelines.
  - It also empowers both Central and State governments to declare areas adjacent to national parks and sanctuaries as a conservation reserves, for protecting flora and fauna, and their habitat.
  - The Bill also empowers the Central government to regulate and stop the import, trade or possession of invasive plant or animal alien species.
  - It further requires every person possessing live specimens of scheduled animals to obtain a registration certificate from the Management Authority. It provides that people may "voluntarily surrender" any captive animals to the Chief Wildlife Warden, and such surrendered animals will become the property of the state government.
- **Concerns**
  - Violates federalism : The proposed amendment bill renders the State Boards for Wildlife chaired by Chief Minister defunct. It provides for establishing a Standing Committee of the Board for Wildlife to be headed by the Forest Minister with maximum 10 nominated members.
  -
  - Issues associated with captive elephants: The bill allows the transfer or transport of a captive elephant for a religious or any other purpose. The conservationists have recommended limiting it only to temple elephants kept for religious purposes as the sweeping ambit of "any other purpose" will empower elephant traders to put wild populations at greater risk of capture and defeat the very purpose of WLPA.

> **About Wildlife (Protection) Act, 1972**
> - WPA provides for the protection of the country's wild animals, birds and plant species, in order to ensure environmental and ecological security.
> - It provides for state wildlife advisory boards, regulations for hunting wild animals and birds,
> - establishment of sanctuaries and national parks, regulations for trade in wild animals, animal products and trophies, and judicially imposed penalties for violating the Act.

- The act provides for the protection of wild animals, birds and plants.
- It provides for protection of hunting rights of the Scheduled Tribes in Andaman and Nicobar Islands.
- It has provisions for the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- It regulates the trade of wild animals, birds and plants.
- It has six schedules which give varying degrees of protection.
  - Species listed in Schedule I and part II of Schedule II get absolute protection — offences under these are prescribed the highest penalties.
  - Species listed in Schedule III and Schedule IV are also protected, but the penalties are much lower.
  - Schedule V includes the animals which may be hunted.
  - The plants in Schedule VI are prohibited from cultivation and planting

Great Indian Bustard   Environment

Why in the news?
- The Supreme Court of India recently requested the Union ministry of environment, forest and climate change to consider launching 'Project Great Indian Bustard (GIB)' like one for tigers.

About great Indian Bustard
- Habitat
  - Arid grasslands, untamed.
  - Most GIBs were discovered in Jaisalmer and the Indian Army-controlled field firing range near Pokhran, Rajasthan.
  - Gujarat, Maharashtra, Karnataka, and Andhra Pradesh are among the other states.
  - The species is found in the Indian Subcontinent, with former strongholds in the Thar desert in the northwest and the Peninsula's Deccan tableland.
  - This species lives in flat or gently undulating arid and semi-arid grasslands with scattered short scrub, bushes, and low-intensity cultivation.
- **Distribution:**
  - Its population of about **150 in Rajasthan accounts for 95% of its total world population.**
  - They are mainly in Jaisalmer district of Rajasthan, including the Desert National Park which is the natural habitat of the species.
  - Grasslands of Kutch in Gujarat which is home to second-largest bustard population in India.
  - Arid regions of Maharashtra (Solapur), Karnataka (Bellary and Haveri) and Andhra Pradesh (Kurnool)
  - It is the **State bird of Rajasthan.**
- **Conservation status:**
  - Listed in Schedule I of the Indian Wildlife (Protection)Act, 1972,
  - Listed in Appendix I of CITES,
  - Listed as **Critically Endangered on the IUCN Red List.**
- **Extinction:**
  - According to the International Union for Conservation of Nature's (IUCN) 2021 report, they are on the verge of extinction, with only 50 to 249 remaining.
  - Ardeotis nigriceps (scientific name)
  - It's a large bird with brown and white feathers and a black crown and wing markings. It is one of the world's heaviest birds.
  - Males have whitish necks and underparts with black breast bands that are narrow.
  - Females are smaller, have a greyer neck, and usually have no or an incomplete breast band.

Kanger Valley National Park

Why in the news?
- Chhattisgarh's first-ever inter-state bird survey was conducted in the Kanger Valley National Park.

About the national park
- Kanger Ghati National Park derived its name from the **Kanger River**, which flows in its length.
- The national Park is located in the **Bastar district of Chhattisgarh**.
- The landscape of Kanger Valley can potentially host species **found in the Himalayas**, **the Northeast**, **the Eastern and Western Ghats**.
- It is a **mixed humid deciduous** type of forest.
- Fauna found are **Malabar Giant Squirrel**, **Spotted Deer**, **Rhesus Macaque**, **Grey Langur**, **scat of Sloth Bear** and **Indian Wolf**.
- It is known for the underground limestone caves and stalagmites and stalactites - **Kutumbasar**, **Kailash** & **Dandak**.
- **Tirathgarh waterfall** and **Kanger dhara waterfall** are located inside the National Park.
- The Kanger Valley National Park is also home to a population of Chhattisgarh's state bird, **the Bastar hill myna** (Gruncula dhariosoa).

Koundinya Wildlife Sanctuary

Why in the news?
- An 18-member herd of all female elephants from the forests of Gudiyattam and Pernambattu of Tamil Nadu are currently on the prowl in the Koundinya wildlife sanctuary zone in Chittoor district, apparently "in search of mates".

About the sanctuary
- Kaundinya Wildlife Sanctuary is a wildlife sanctuary and an elephant reserve **situated in Andhra Pradesh**.
- It is the only sanctuary in Andhra Pradesh with a **population of Asian elephants** which migrated after 200 years from neighbouring regions.
- The Kaundinya sanctuary has **dry deciduous forests** with **thorny scrubs** interspersed with trees. The sanctuary is situated in the region where the **Kolar Plateau ends and slopes down** into the plains of Tamil Nadu creating many valleys and ghats.
- The sanctuary is covered by **southern tropical dry deciduous and thorn forests**. Some of the important flora consist of **Albizia amara**, **Acacia**, **Lagerstroemia**, **Ficus**, **bamboo**, and a species which is a regeneration of **Santalum** album.
- The sanctuary is primarily an **elephant reserve** and is home to about **78 Indian elephants**. The vulnerable **yellow-throated bulbul** is present in the sanctuary.

United Nations-Water Summit on Groundwater 2022

Why in the news?
- The United Nations-Water Summit on Groundwater 2022 was held in Paris, France recently.

About the summit
- It was organised by UN-Water, UNESCO and the International Groundwater Resources Assessment Centre.
- The five pillars of the SDG 6 Global Acceleration Framework released in June 2020 — data and information, capacity development, innovation, finance and governance — were the main themes of the discussions.
- The summit aims to raise awareness on groundwater conservation at the global stage will mark the completion of the "Groundwater: Making the invisible visible" campaign run by UN-Water throughout 2022.
- The campaign highlighted the role of groundwater in alleviating poverty, food and water insecurity and other socio-economic development hurdles.
- Groundwater management is imperative to meet the UN-mandated Sustainable Development Goal 6 of providing clean water and sanitation for all.
- The key takeaways from the summit will be presented at the UN 2023 Water Conference to be held in New York in March 2023.

Why in news?

- Representatives from 175 countries at fifth session of the United Nations Environment Assembly (UNEA-5.2) agreed to end plastic pollution and formulate an internationally binding treaty by 2024.
- About the committee
- The resolution establishes an Intergovernmental Negotiating Committee to complete a draft global legally binding agreement by the end of 2024
- The INC is expected to present a legally binding instrument, which would reflect <u>diverse alternatives to address the full lifecycle of plastics, the design of reusable and recyclable products and materials and the need for enhanced international collaboration to facilitate access to technology, capacity building and scientific and technical cooperation.</u>
- Under the legally binding agreement, <u>countries will be expected to develop, implement and update national action plans reflecting country-driven approaches to contribute to the objectives of the instrument.</u>
- They will be expected to promote national action plans to work towards the prevention, reduction and elimination of plastic pollution and to support regional and international cooperation.
- INC's mandate does not grant any stakeholder a two-year pause. UNEP will work with any willing government and business across the value chain to shift away from single-use plastics, as well as to mobilise private finance and remove barriers to investments in research and in a new circular economy.

Weasels **Environment**

Why in the news?

- The logo of the UN biodiversity conference that opened in Montreal features a human reaching to embrace a panda - but from an ecological perspective, a weasel or badger would be a more appropriate choice.

About the weasels

- Weasels are **small mammals** that are closely related to ermine, ferrets, polecats and minks - all members of the
- **Mustela genus** - and are in the same family (Mustelids) as badgers, wolverines and otters.
- Weasels are **adaptable and live all over the world**.
  - Their homes include **marshes**, **scrubs**, **hedgerows**, **alpine meadows**, **riparian woodlands** and **riverbank habitats**, according to the IUCN.
  - Some weasel types are **long-tailed weasel**, **short-tailed weasel**, **tropical weasel**, **Mountain weasels**, **African striped weasel**, etc.,
  - The most common weasel is the **short-tailed weasel**. It can be found in North America, Europe and Asia, in regions as far north as the Arctic.
  - They are **nocturnal animals**. Most of a weasel's time awake consists of hunting, storing excess food and eating.
  - Their bodies **don't store fat**, so they need a **constant supply of food** to provide enough energy. They **eat 40 to 60% of its body weight every day**.
  - Though weasels can **dig their own burrows quite quickly**, they sometimes take over other animals' burrows and make them their own.

Conservation status

- Most weasels are listed as **least concern** by the IUCN's Red List of Threatened Species. There are a **few exceptions**.
  - The **mountain weasel and Japanese weasel** are listed as **near threatened** because their population has had a significant decline.
  - The **Colombian weasel** is listed as **vulnerable** because of "a continuing decline in population due to ongoing deforestation".
  - In **New Zealand**, the weasel is considered an **invasive species** and a threat to native wildlife. In 2016, it **planned to eradicate them by 2050.**

Why in News?

- The Union Minister of Power has introduced the Energy Conservation (Amendment) Bill 2022 in Rajya Sabha.

Key provisions of the Energy Conservation (Amendment) Bill 2022

- The Bill amends the Energy Conservation Act, 2001to empower the central government to specify a carbon credit trading scheme.
- Designated consumers may be required to meet a proportion of their energy needs from non-fossil sources.
- The Energy Conservation Code for buildings will also apply to office and residential buildings with a connected load of 100 kilowatts or above.
- Energy consumption standards may be specified for vehicles and ships.
- The Bill empowers the central government to specify a carbon credit trading scheme. Carbon credit implies a tradeable permit to produce a specified amount of carbon dioxide or other greenhouse emissions. The central government or any authorised agency may issue carbon credit certificates to entities registered and compliant with the scheme.
- Obligation to use non-fossil sources of energy: The Act empowers the central government to specify energy consumption standards. The Bill adds that the government may require designated consumers to meet a minimum share of energy consumption from non-fossil sources.
- Designated consumers include:
  - Industries such as mining, steel, cement, textile, chemicals, and petrochemicals,
  - Transport sector including Railways, and
  - Commercial buildings, as specified in the schedule.
- Energy conservation code for buildings: The Act empowers the central government to specify Energy Conservation Code for buildings.
- The code prescribes energy consumption standards in terms of area.
- The Bill amends this to provide for an 'Energy Conservation and Sustainable Building Code'.
- Standards for vehicles and vessels:
- Under the Act, energy consumption standards may be specified for equipment and appliances which consume, generate, transmit, or supply energy.
- The Bill expands the scope to include vehicles (as defined under the Motor Vehicles Act, 1988), and vessels (including ships and boats).
- Composition of the governing council of BEE: The Act provides for the setting up of the Bureau of Energy Efficiency (BEE).

Why in the news?

- Three medicinal plant species found in the Himalayas have made it to IUCN Red List of Threatened Species.

About Meizotropis pellita

- It is commonly known as **Patwa**. It is a **perennial shrub** with restricted distribution that is **endemic to Uttarakhand**.
- The **essential oil extracted** from the leaves of the species possesses **strong antioxidants** and can be a promising natural substitute for synthetic antioxidants in pharmaceutical industries
- IUCN Status: **Critically Endangered**.
- Threats : The species is threatened by **deforestation**, **habitat fragmentation** and **forest fires**.

Environment Education, Awareness and Training (EEAT)

Why in the news?
- Recently the Environment Education scheme has been revamped into Environment Education Programme.

About EEAT
- It is a **Central Sector scheme** implemented by Ministry of Environment, Forest and Climate Change .
- It aims to **promote environmental awareness** and mobilize students' participation for environment conservation.
- Under this Scheme there are two major programmes namely **Green Corps (NGC) Programme** and
- **National Nature Camping Programme** (NNCP).

> **Green Corps (NGC) Programme**
> - Under this scheme more than **1 lakh Eco-clubs** have been **formed in schools and colleges to educate student**s and to spread awareness on environmental
> - A **financial assistance of Rs 5,000/- per Eco-club** used to be provided under this programme with a **ceiling of 500 school Eco-clubs per district** and **100 college Eco-clubs per State**.
>
> **National Nature Camping Programme (NNCP)**
> - Under this scheme, **organization of field visits**/ **nature camps** in different Protected Areas/ Nature Parks/ Tiger Reserves of the country **for students were supported**.
> - These camps provided **'nature experience' to students** and had huge potential to trigger their sensitivity towards nature and its conservation.

India Water Impact Summit

Why in News?
- Union Minister for Jal Shakti recently inaugurated the 7th Edition of India Water Impact Summit.

About
- It is organized **National Mission for Clean Ganga**(NMCG) along with the Centre for Ganga River Basin Management and Studies(c-Ganga).
- Aims to impart impetus towards **developing water and environmental infrastructure** to protect rivers and water bodies in India.
- '**Restoration and Conservation of Small Rivers in a Large Basin**' with emphasis on 'Mapping and Convergence of 5Ps' – People, Policy, Plan, Programme and Project.

c-Ganga
- Centre for Ganga River Basin Management and Studies (cGanga) was established **at the Indian Institute of Technology, Kanpur (IITK) in 2016**.
- Purpose   The Centre is a **Centre of Excellence for data collection**, the creation and dissemination of knowledge and information for the sustainable development of the Ganga River Basin.
- The centre acts in the capacity of a comprehensive think-tank to the National Mission for Clean Ganga (NMCG).

Tal Chhapar Sanctuary

Why in the news?
- Recently, the Tal Chhapar blackbuck sanctuary in Churu district of Rajasthan has received a protective cover.

About the santuary
- The Tal Chhapar Sanctuary is known as the **home of blackbuck** and **a variety of birds in Rajasthan**.
- The sanctuary is flanked by the **Great India Desert**, **Thar** and boasts a unique ecosystem and is an important birdwatching destination in India.
- Migratory birds in the sanctuary : **Harriers**, **eastern imperial eagles**, **tawny eagle**, **short-toed eagle**, **sparrow**, and **little green bee-eaters**, **black ibis and demoiselle cranes**, **whereas skylarks**, **crested larks**, ring doves, and brown doves are seen round the year.
- Fauna includes **Desert fox and desert cat** can be spotted in the sanctuary.

Why in the news?
- The 15th Conference of Parties (COP15) to the UN Convention on Biological Diversity (CBD) adopted the Kunming-Montreal Global Biodiversity Framework (GBF). The framework has 23 targets that the world needs to achieve by 2030.

About Global Biodiversity Framework
- The world must accomplish 23 tasks according to the framework by 2030. Given the terrible state of biodiversity, the goals are somewhat lofty.
- The Aichi Targets, the most recent set of goals, were not achieved by 2020. Countries would have to make sure that this time was successful.
- The 30-by-30 goal, which calls for safeguarding 30% of the world's land and oceans by the end of the decade, was the deal's most ambitious objective.
- The 30-by-30 goal, which calls for safeguarding 30% of the world's land and oceans by the end of the decade, was the deal's most ambitious objective.
- A Special Trust Fund ("GBF Fund") has been requested from the Global Environment Facility to support the Global Biodiversity Framework's implementation. This will guarantee effective implementation.
- The agreement also requires nations to set about $200 billion annually for public and commercial sector biodiversity programs.

Aim and objective:
- It aims to stop the steady loss of marine and terrestrial biodiversity. It means that people worldwide can have hope for genuine advancement in the efforts to stop the loss of biodiversity, protect and restore our lands and seas, and do it in a way that both protects the environment and upholds the rights of local communities and indigenous peoples.
- **30 by 30**
  - A crucial proposal being discussed at the COP15, the "30 by 30" aim, which would grant 30% of the Earth's land and oceans protected status by 2030, was mentioned in the declaration.
  - Along with this, there is a discussion about the need to reduce the use of chemicals in agriculture by half and to stop producing plastic trash.

Major Facts of Global Biodiversity Framework:
- The Biodiversity 2050 Vision is "Living in Harmony with Nature."
- The 2050 Vision for Biodiversity and the 2030 Agenda for Sustainable Development, and their significance for achieving the goals of the CBD.
- "Urgent action on Biodiversity for Sustainable Development" will be the subject of the September 2020 UN Summit on Biodiversity.
- Importance of biodiversity for preserving all ecological functions, as well as for promoting sustainable development, economic prosperity, and human and planetary health.
- Worry that the continued loss of biodiversity will make it more difficult to achieve the Sustainable Development Goals (SDGs) and other global objectives.
- While acknowledging the advancements made over the past ten years under the 2011-2020 Strategic Plan for Biodiversity, questions have been raised about its inadequacy to meet the Aichi Biodiversity Targets.
- Recognizing the existential danger posed by the unprecedented and connected problems of biodiversity loss, climate change, land degradation and desertification, ocean degradation, pollution, and rising dangers to human health and food security.
- Recognizing that the primary direct causes of biodiversity loss—land/sea use change, overexploitation, climate change, pollution, and alien invasive species—share many common underlying causes of change.

Asian Giant Tortoise

Why in News?

- Recently, 10 captive-bred juvenile Asian Giant tortoises were soft-released inside a protected area in Nagaland.

About

- Asian Giant Tortoises (Manouria emys) are the **largest tortoises in mainland Asia**.
- They are found in **Bangladesh**, **India**, **Indonesia**, and **Malaysia** among other places.
- **Bamboo shoots**, **tubers** and **other juicy vegetation** and some invertebrates and frogs.
- **Conservation Status**
  - IUCN - **Critically Endangered**
  - CITES - **Appendix II**
  - Indian Wildlife (Protection) Act of 1972 - **Schedule IV**.

About the Asian Giant Tortoise

- The **Asian Giant tortoise** (Manouriaemys), also known commonly as the **Mountain tortoise,** is a species of tortoise in the family **Testudinidae.**
- The species is **endemic to Southeast Asia.**
- It is believed to be among the **most primitive of living tortoises,** based on molecular and morphological studies.
- **Asian Giant Tortoises** are found in **Bangladesh, India, Indonesia,** and **Malaysia** among other places.
- Listed as 'critically endangered' under the **International Union for Conservation of Nature Red List** of Threatened Species.
- **Threats include** Over-exploitation and unsustainable use for consumption by local communities resulting in the species being pushed to the brink of extinction.
- **Conservation efforts:** The **Joint Asian Giant Tortoise Recovery Project** started in **2017** with the **Nagaland Zoological Park (NZP)** and **Turtle Survival Alliance (TSA).**

> **About the Ntangki National Park**
> - **Ntangki National Park** is a national park located in the **Peren District** of **Nagaland,** India.
> - It was first designated as a national park in **1993.**
> - Among the species that inhabit the park are the rare hoolock gibbon, golden langur, hornbill, Asian palm civet, black stork, tiger, white-breasted kingfisher, monitor lizard, python and sloth bear.
> - The name **"Ntangki"** is derived from the **Zeme dialect** of the **Zeliangrong Nagas.**

Lion @ 47: Vision for Amrutkal

Why in News?

- The Central Government has prepared the Project Lion document titled 'Lion @ 47: Vision for Amrutkal' for Lion
- conservation.

About the Lion

- Project Lion envisages landscape ecology based conservation of the Asiatic Lion in Gujarat by integrating conservation and eco-development.
- The Project is being implemented in the Gir landscape in Gujarat which is the last home of the Asiatic lion.

Objectives-

- Following are the objectives of the document:
  - To secure & restore lions' habitats for managing its growing population.
  - Scale up livelihood generation and participation of local communities.
  - Become a global hub of knowledge on big cat disease diagnostics and treatment.
  - Create inclusive biodiversity conservation through project lion initiative.

About Asiatic Lion

- The **Asiatic lion** is a population of Panthera leo leo that today survives in the wild only in India.

- Since the turn of the 20th century, its range has been restricted to Gir National Park and the surrounding areas in the Indian state of Gujarat.
- Historically, it inhabited much of southwest Asia to northern India.
- The lion is a large cat of the genus Panthera native to Africa and India.
- The lions were once found throughout Africa, Asia and Europe but their numbers have dwindled over the years in these continents.
- These majestic cats that symbolise courage, ferocity, and power are threatened by extensive habitat loss.
- The lion is an apex and keystone predator. It inhabits grasslands, savannas and shrublands.
- The lion is one of five pantherine cats native to India, along with the Bengal tiger (P. tigris tigris), Indian leopard (P. pardus fusca), snow leopard (P. uncia) and clouded leopard (Neofelis nebulosa).
- It is sexually dimorphic; adult male lions are larger than females and have a prominent mane.
- It is a social species, forming groups called prides. A lion's pride consists of a few adult males, related females, and cubs.
- In the 19th and 20th centuries, several lion type specimens were described and proposed as subspecies, with about a dozen recognised as valid taxa until 2017.
- Between 2008 and 2016, IUCN Red List assessors used only two subspecific names: P. l. leo for African lion populations, and P. l. persica for the Asiatic lion population.
- IUCN list: Asiatic lion(Panthera leo leo)- Endangered & Panthera leo- Vulnerable.

Integrated Development of Wildlife Habitats(IDWH) Scheme
- IDWH is a **Centrally Sponsored Scheme** started in **2008-09**.
- It aims to **provide support** to protected areas (national parks, wildlife sanctuaries, conservation reserves, and community reserves except for tiger reserves), protection of wildlife outside protected areas and 3) recovery programs for saving critically endangered species and habitats.

Green Methanol   Environment

Why in the news?
- Recently, the NTPC (National Thermal Power Corporation) has signed a non-binding MOU with Tecnimont (Italy) to explore production of green methanol.

About green menthol
- Green methanol is methanol that is **produced renewably and without polluting emissions**, one of its variants being generated from green hydrogen.
- It is a **low-carbon fuel** that can be made from either **biomass gasification or renewable electricity** and **captured carbon dioxide** (CO_2).
- This chemical compound can be used as a **low-carbon liquid fuel** and is a **promising alternative to fossil fuels** in areas where decarbonisation is a major challenge, such as maritime transport.

Invasive species of Mussel   Environment

Why in the news?
- For the first time the invasive species of mussel has been found in the Eastern coast of India.

About mussel
- Known as kakka aazhi among the fishermen, they say it is a South American mussel species that is spreading due to the discharge of ballast waters from ships visiting the ports of Kattupalli
- The problem mussel is Mytella strigata or Charru mussels.
- Native to South America, these mussels have invaded tidal wetlands in several parts of the world, including Vembanad in Kerala, by travelling across continents in the ballast waters of ships.
- This is the first time this invasive species has been found in the Eastern coast.
- The mussels were first spotted some two decades ago in the Ennore wetlands by local fishers. Human interference in the wetlands, pollution and nature's actions have turned this insignificant incidence into a full-fledged infestation.

Biodiversity Heritage Sites

Why in the news?
- Tamil Nadu issued a notification declaring Arittapattiand Meenakshipuram villages in Madurai district the first biodiversity heritage site in State.

About Biodiversity Heritage Sites (BHSs):
- They are well defined areas that are unique, **ecologically fragile ecosystems**. They are spread over terrestrial, coastal and inland and marine waters having rich biodiversity.
- BHS may be identified and notified as per the provisions of the **Section 37** of the **Biological Diversity Act.**
- As per this section, the State Governments are empowered to notify in the official gazette, in consultation with '**local bodies**', areas of biodiversity importance as BHSs.
- State Government in consultation with Central Government may frame rules for the **management and conservation of BHS**.
- Creation of BHSs **may not put any restriction** on prevailing practices and usages of local communities, other than those **voluntarily decided by them**.
- State Governments are also empowered to frame schemes for compensating or rehabilitating any person or section of people economically affected by such notification.
- State Biodiversity Boards (SBB) may invite suggestion for declaration of BHSs through relevant **community institutions** (Gram sabhas, panchayats, urban wards, forest protection committees, tribal councils).
- **Nallur Tamarind Grove** in Bengaluru, **Karnataka** was the **first Biodiversity Heritage Site** of India, declared in **2007**.

Global Carbon Budget 2022 Report

Why in the news?
- Released by: Global Carbon Project (GCP).

About
- Established in **2001**, GCP is shared partnership between International **Geosphere-Biosphere Programme**, **International Human Dimensions Programme on Global Environmental Change**, **World Climate Research Programme** and **Diversitas**.
- Aim is to develop **complete picture of global carbon cycle**.
- Key highlights of the **Report Global CO2 concentrations** set new record of 417.2 parts per million.
- Atmospheric CO2 concentrations are now **51% above pre-industrial levels**.
- Projected CO2 emissions decrease in **China and European Union**, but increase in US, India (6%), and **rest of world**.

Coastal Red Sand Dunes

Why in the news?
- Recently, geologists have suggested to protect the site of Coastal Red Sand Dunes, of Visakhapatnam, Andhra Pradesh.

About the dunes
- The site is located **along the coast and is about 20 km northeast of Visakhapatnam city** and about 4 km southwest of Bheemunipatnam.
- This site, spread across an area of about **20 sq km**, was declared as a **geo-heritage site** by the Geological Survey of
- India (GSI) in 2014 & the Andhra Pradesh government has listed it under the category of '**protected sites**' in 2016.
- This site needs to be protected to study the **impact of climate change, as Erra Matti Dibbalu** have seen both the glacial and the warm periods.
- The site is probably **about 18,500 to 20,000 years old** and it can be related to the last glacial period.
- The late quaternary geologic age is represented by the red sediments, which are part of the earth's evolution.
- They have badland topography with various geomorphic landforms and features, such as gullies, sand dunes, buried channels, beach ridges, paired terraces, the valley in the valley, wave-cut terrace, knick point, and waterfalls.

About Geo Heritage Site
- The <u>Geological Survey of India</u> (GSI) designated this site as a geo-heritage site in 2014, and the Andhra Pradesh government added it to the list of "protected sites" in 2016.
- This site is geologically, archaeologically, and anthropologically significant, and it should be preserved for future study and evaluation.

Vizhinjam Port   Environment

Why in the news?
- The Kerala government has agreed to the opposition's demand for an adjournment debate in the Legislative Assembly on the Latin Catholic Church-backed fishers' agitation against the Vizhinjam port.

About the port
- Vizhinjam Port is an **ambitious project** taken up by the Government of Kerala. The port is being built by **Adani Vizhinjam Port Private Limited**.
- It is designed primarily to **cater container transhipment besides multi- purpose and break bulk cargo**.

Significance
- The port is located on the **southern tip of the Indian Peninsula**, just 10 nautical miles from the major international sea route and east- west shipping axis.
- Hence, the port is expected to **leverage the growth of minor ports in Kerala and other regional ports**, creating thousands of employment opportunities.

Issues with the port
- **Vizhinjam is financially not viable even with a significant financial participation of the Kerala government.**
- **The container transhipment terminal at Vizhinjam has high global competition.**
- **Colombo which is situated just 202 nautical miles from Vizhinjam is now the 25th largest container port in the world,**
- **By the time Vizhinjam becomes operational in 2019, Colombo port will be in more developed because of the Chinese investments.**
- **Vizhinjam did not attract port investors mainly because of the heavy risks involved in the transhipment business.**

Why in news ?

- **Union Minister for Commerce and Industry Minister has introduced the Jan Vishwas (Amendment of Provisions) Bill, 2022 recently.**

Features of the bill

- The bill seeks to **decriminalise minor offences to promote ease of business**.
- Besides the decriminalisation of minor offences, the **bill envisages the rationalisation of monetary penalties**, depending on the gravity of the offence, bolstering trust-based governance.
- For example, under the **Agricultural Produce (Grading and Marking) Act, 1937**, counterfeiting grade designation marks is punishable with imprisonment of up to three years and a fine of up to five thousand rupees. The Bill replaces this with a penalty of eight lakh rupees.
- Over 100 provisions in different laws pertaining to 19 Ministries are sought to be decriminalised by this Bill.
- A unique feature of the proposal is an increase of 10% of the minimum amount of fine and penalty levied, after the expiry of every three years, once the bill becomes a law.
- It **amends 42 Acts** to reduce the compliance burden on individuals & businesses and ensure ease of doing business.
- Some Acts that are amended by the Bill include:
  - The Press and Registration of Books Act 1867.
  - The Indian Post Office Act, 1898.
  - The Boilers Act 1923.
  - The Indian Forest Act 1927.
  - The Public Debt Act 1944.
  - The Environment (Protection) Act, 1986.
  - The Public Liability Insurance Act, 1991.
  - The Information Technology Act, 2000.
- As per the Bill, the central government may appoint one or more adjudicating officers for the purpose of determining penalties. The adjudicating officers may:
  (i) summon individuals for evidence, and
  (ii) conduct inquiries into violations of the respected Acts.
- These Acts include: **the Agricultural Produce (Grading and Marking) Act, 1937, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, and the Public Liability Insurance Act, 1991.**
- The Bill also specifies the appellate mechanisms for any person aggrieved by the order passed by an adjudicating officer. For instance, in **the Environment (Protection) Act, 1986,** appeals may be filed with the National Green Tribunal within 60 days from the order.
- The bill was later referred to a 31-member joint committee of Parliament for scrutiny.

Acid attacks and Laws

Polity

Why in the news?

- According to data compiled by the National Crime Records Bureau (NCRB), West Bengal, UP consistently record the highest number of such cases generally accounting for nearly 50% of all cases in the country year on year.

Law on acid attacks

- Until 2013, acid attacks were not treated as separate crimes. However, following amendments carried out in the IPC, acid attacks were put under a **separate section (326A) of the IPC and made punishable with a minimum imprisonment of 10 years which is extendable to life along with fine**.
- **The law also has provisions for punishment for denial of treatment to victims or police officers refusing to register an FIR or record any piece of evidence**.
- **Denial of treatment (by both public and private hospitals) can lead to imprisonment of up to one year and dereliction of duty by a police officer is punishable by imprisonment of up to two years.**
- In 2013, the Supreme Court took cognizance of acid attacks and passed an order on the regulation of sales of corrosive substances. Based on the order, the MHA issued an advisory to all states on how to regulate acid sales and framed the **Model Poisons Possession and Sale Rules, 2013 under The Poisons Act, 1919**. It asked states to frame their own rules based on model rules, as the matter fell under the purview of states.

- According to the MHA's directions and the model rules, over-the-counter sale of acid was not allowed unless the seller maintains a logbook/register recording the sale of acid. This logbook was to also contain the details of the person to whom acid is sold, his address , the quantity sold and also specify the reason for procuring acid.
- The sale is also to be made only when the buyer produces a photo ID containing his address issued by the government. The buyer must also prove he/she is above 18 years of age.
- Sellers are also required to **declare all stocks of acid with the concerned Sub-Divisional Magistrate (SDM)** within 15 days and in case of undeclared stock of acid. The SDM can confiscate the stock and suitably impose a fine of up to Rs 50,000 for a breach of any of the directions.
- The rules ask educational institutions, research laboratories, hospitals, government departments and the departments of Public Sector Undertakings, which are required to keep and store acid, to maintain a register of usage of acid and file the same with the concerned SDM.
- In August 2021, MHA issued another advisory to all States/ UTs to review and ensure that the retail sale of acids and chemicals is strictly regulated in terms of the Poison Rules so that these are not used in crime.

Victim compensation and care-
- Based on Supreme Court directions, the MHA asked states to make sure acid attack victims are paid **compensation of at least Rs. 3 lakhs by the concerned State Government/Union Territory** as the aftercare and rehabilitation cost. Out of this, a sum of Rs 1 lakh is to be paid to the victim within 15 days of the occurrence of such an incident to facilitate immediate medical attention and expenses in this regard. The balance sum of Rs. 2 lakhs is to be paid "as expeditiously as may be possible and positively within two months thereafter".
- States are supposed to ensure that treatment provided to acid attack victims in any hospital, public or private, is free of cost. The cost incurred on treatment is not to be included in the Rs 1 lakh compensation given to the victim.
- Apart from this, MHA suggested states should also extend social integration programs to the victims for which NGOs could be funded to exclusively look after their rehabilitative requirements.

eGramSwaraj   Polity

Why in the News?
- eGramSwaraj and AuditOnline of Ministry of Panchayati Raj have won the GOLD AWARD under the category "Excellence in Government Process Re-engineering for Digital Transformation" of the National Awards for e-Governance.

About eGramSwaraj
- It is a **user-friendly web-based portal** launched to strengthen e-Governance in Panchayati Raj Institutions (PRIs) across the country. It is Launched by **Ministry of Panchayati Raj** (MoPR).
- It aims to bring in **better transparency and strengthen the e-Governance in Panchayati Raj Institutions** (**PRIs**) across the country through decentralized Profiling, Planning, Physical Progress, Reporting and Work-Based Accounting.

AuditOnline
- AuditOnline is an online application developed **under the e-panchayat Mission Mode Project (MMP)** initiated by the Ministry of Panchayati Raj(MoPR).
- To **facilitate the financial audit of accounts at all three levels of Panchayats** viz District, Block and Village Panchayats, Urban Local Bodies (ULB) and Line department by Auditors (State AG/LFA).
- This application not only facilitates the auditing of Panchayat accounts but also provides for **maintaining audit records**.

Exit Polls   Polity

Why in the news?
- Exit polls are conducted for the Gujarat and Himachal Pradesh state assembly elections.

About
- An exit poll is a **poll of the voters at the exit of the polling station**.
- It is **conducted immediately** after people have voted, and assesses the support for political parties and their candidates.

- Exit polls in India are **conducted by a number of organisations**, often in tie-ups with media organisations.
- These surveys can be conducted **both in person and online**.
- Historically in **1957**, **during the second Lok Sabha elections**, the Indian Institute of Public Opinion had conducted an exit poll.

Rules
- In 2010, **Section 126(A)** was introduced to the Representation of Peoples Act of 1951.
- Under the Section 126(A) of RPA 1951 , **restrictions were imposed on exit polls**.
- Exit polls **can't be telecasted from before voting begins** till the last phase concludes.

Conjugal Rights   Polity

Why in the news?
- The State of Punjab has furthered the cause of the right to life and personal liberty of prisoners by allowing conjugal visits for inmates.

About the rights
- Conjugal rights are rights **created by marriage**, that is, the right of the husband or the wife **to the company of their spouse**.
- In the context of prisons, however, conjugal visits refer to the concept of **allowing a prisoner to spend some time in privacy with his spouse within the precincts of a jail**.

Impacts
- It is often argued that conjugal visits can have **positive impacts** in the form of **psychological health benefits** for prisoners, **preservation of marital ties** and, reduction in the rates of homosexuality and sexual aggression within prisons.
- Aside from the above, it is also argued that conjugal visits are a **fundamental right** of the spouses of the prisoners.
- Prisoner rights are internationally recognised through the **United Nations Standard Minimum Rules for the Treatment of Prisoners**, **the Universal Declaration of Human Rights**, **the International Covenant on Civil and Political Rights** etc.
- Through such instruments, prisoners are **guaranteed the right to life and inherent dignity**.
- The **right to maintain family relations** including conjugal visits are included in these treaties.
- Most prison Acts and Rules across the country **accept the importance of maintenance of continuity in family and social relations**.

Ranganath Mishra Commission   Polity

Why in News?
- In the Supreme Court, the Central government informed that it had taken a decision to not accept Justice Ranganath Mishra Commision's report.

About
- Ranganath Mishra Commission is the **name of the National Commission for Religious and Linguistic Minorities** that was constituted by the Government of India in 2004.
- It was constituted to **look into various issues** related to the linguistic and religious minorities in the country.
- Chaired by former **CJI Ranganath Misra**, the Commission submitted its report in 2007.
- The report recommended that **SC status be completely delinked from religion** and be made religion-neutral like STs.
- It had recommended **permitting Dalits who converted** into Islam and Christianity **to avail Scheduled Caste status**.

Why in News?

- The Aam Aadmi Party(AAP) has got 5 seats in Gujarat but its vote share was close to 13%, which meant it is on track to be recognised as a national party by the Election Commission of India (ECI).

About national party

- The ECI has laid down the **technical criterion** for a party to be recognised as a national party.
- A party **may gain or lose national party status** from time to time, depending on the fulfilment of these laid-down conditions.
- Criteria to be recognized as National Party   A political party would be considered a national party if: a) It is 'recognised' as **state party in four or more states**; or b) if its candidates polled **at least 6% of total valid votes** in any four or more states in the last Lok Sabha or Assembly elections and have at least four MPs in the last Lok Sabha polls; or c) if it has **won at least 2% of the total seats** in the Lok Sabha from not less than three states.

Benenfits of National Party in India

- The election symbol of the National parties can't be used by any other political party in voting across India.
- National Parties get the time slot on national and state television and Radio to address the people and convey their message to people.
- National parties receive land or building from the government to establish their party office.
- National parties require only one proposer to file a nomination.
- National Parties are given two sets of electoral rolls free of cost by the Election Commission.
- The candidates contesting on the ticket of a National party get a copy of the electoral roll free of cost during the general elections.
- National parties can have up to 40-star campaigners while others can have up to 20-star campaigners.

> **List National Parties:**
> - All India Trinamool Congress (TMC)
> - Bahujan Samaj Party (BSP)
> - Bharatiya Janata Party (BJP)
> - Communist Party of India (CPI)
> - Indian National Congress (INC)
> - Marxist Communist Party CPI (M)
> - Nationalist Congress Party (NCP

Definition of National party

- The ECI has laid down some criteria for a party to be recognised as a National party, it's not a permanent tag and a party may gain or lose national party status from time to time, depending on the fulfilment of the conditions.
- As per the ECI's Political Parties and Election Symbols, 2019 handbook, a political party would be considered a national party if it meets any one of the following conditions:
  - It is a 'recognised' party in four or more states, or
  - If its candidates polled at least 6% of total valid votes in any four or more states in the last Lok Sabha or Assembly elections and have a minimum of four MPs in the last Lok Sabha polls, or
  - If it has won at least 2% of the total seats in the Lok Sabha from not less than three states.
- To be recognized as a state party, a party needs to meet any one of the following conditions:
  - At least 6% vote-share in the last Assembly election and have at least 2 MLAs, or
  - Have a 6% vote share in the last Lok Sabha elections from that state and at least one MP from that state; or
  - At least 3% of the total number of seats or three seats, whichever is more, in the last Assembly elections; or
  - At least one MP for every 25 members or any fraction allotted to the state in the Lok Sabha; or
  - Have at least 8% of the total valid votes in the last Assembly election or Lok Sabha election from the state.

Why in the news?

- The Central government has recently notified the appointment of two additional judges of the Chhattisgarh High Court as permanent judges.

About

- Additional Judges can be **appointed by the President** under clause (1) of Article 224 of the Constitution.
- The President **can appoint duly qualified persons** as additional judges of a high court for a temporary period **not exceeding two years** when

- there is a **temporary increase in the business** of the high court; or
- there are **arrears of work** in the high court.
- **No person appointed** as an additional or acting Judge of a High Court shall hold office **after attaining the age of sixty-two years**.
- The Chief Justice of the High Court, however, should **not make a recommendation** for appointment of an Additional Judge **when a vacancy of a permanent Judge is available** in that High Court.

Zonal Councils   Polity

Why in the news?
- Recently, the 25th Eastern Zonal Council meeting was held in Kolkata which was presided over by the Home Minister.

About
- Zonal Councils are the **statutory (and not the constitutional) bodies**.
- They are established by an **Act of the Parliament**, that is, States Reorganisation Act of 1956.
- The act divided the country into **five zones**- **Northern**, **Central**, **Eastern**, **Western** and **Southern** and provided a zonal council for each zone.
- In addition to the above mentioned Zonal Councils, a **North-Eastern Council** was created by a separate Act of Parliament, the North-Eastern Council Act of 1971.

Composition
- **The Northern Zonal Council**: It comprises the States of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, National Capital Territory of Delhi and Union Territory of Chandigarh,
- **The Central Zonal Council**: It comprises the States of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh,
- **The Eastern Zonal Council**: It comprises the States of Bihar, Jharkhand, Orissa, Sikkim and West Bengal,
- **The Western Zonal Council**: It comprises the States of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli,
- **The Southern Zonal Council**: It comprises the States of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry.

Organizational Structure
- Chairman: The **Union Home Minister** is the Chairman of each of these Councils.
- Vice Chairman: The **Chief Ministers** of the States included in each zone act as Vice-Chairman of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time.
- Members: **Chief Minister and two other Ministers** as nominated by the Governor from each of the States and two members from Union Territories included in the zone.
- Advisers: **One person nominated by the Planning Commission** (now NITI Aayog) for each of the Zonal Councils, Chief Secretaries and another officer/Development Commissioner nominated by each of the States included in the Zone.

Functions of the Councils
- **Any matter of common interest** in the field of economic and social planning,
- Any matter concerning **border disputes**, **linguistic minorities** or **inter-State transport**,
- Any matter connected with or arising out of, **the reorganization of the States** under the States Reorganisation Act.

Why in the news?

• Rule 267 of the Rajya Sabha rulebook has become a bone of contention in the Upper House as not a single notice under the rule moved by the Opposition has been accepted in the Winter Session.

About the rule book

• The Rule **gives special power to a Rajya Sabha member to suspend the pre-decided agenda of the House,** with the approval of the Chairman.

• The Rajya Sabha Rule Book says, "**Any member, may, with the consent of the Chairman, move that any rule may be suspended in its application to a motion related to the business listed before the Council of that day** and if the motion is carried, the rule in question shall be suspended for the time being: provided further that this rule shall not apply where specific provision already exists for suspension of a rule under a particular chapter of the Rules".

• **Any discussion under Rule 267 assumes great significance in Parliament simply because all other business would be put on hold to discuss the issue of national importance**.

• **No other form of discussion entails suspension of other business.** If an issue is admitted under Rule 267, it signifies it's the most important national issue of the day.

• Also, **the government will have to respond to the matter** by replying during the discussions under Rule 267.

Gram Nyayalayas **Polity**

Why in the news?

• Recently, a Parliamentary panel said the state government's apathy has made Gram Nyayalayas almost defunct and recommended to the Department of Justice to seriously ponder over the further continuation of this scheme.

About Gram Nyayalayas

• The Gram Nyayalayas shall be the court of Judicial Magistrate of the first class and its **presiding officer (Nyayadhikari)** shall be appointed by the state government in consultation with the High court.

• The Gram Nyayalaya shall be established for **every panchayat and intermediate level**.

• The Gram Nyayalaya shall be a **mobile court a**nd shall **exercise the powers of both Criminal and Civil courts.**

• The seat of the Gram Nyayalayas will be located at the headquarters of the intermediate panchayat, they will go to villages, work there and dispose of cases.

• The Gram Nyayalaya shall try **criminal cases, civil suits, claims or disputes.**

• The Gram Nyayalaya shall exercise the **powers of a civil court** with certain modifications and shall follow the **special procedure as provided in the act.**

• The Gram Nyayalaya shall try to settle the disputes as far as possible by **bringing about conciliation between** the parties and for this purpose, it shall make use of the conciliation to be appointed for this purpose.

• Thye Gram Nyayalaya shall be guided by the principles of **natural justice** and subject to any **rule made by the High court.**

• In criminal proceedings, an **appeal must be filed with the Court of Sessio**n, which must hear and decide the case within six months of the date of filing.

• The appeal in civil matters shall lie to the District Court, which shall be heard and disposed of within **six months from the date of filing of the appeal.**

• A person charged with committing a crime **can apply for plea bargaining.**

Jurisdiction, Powers and Authority

• The Gram Nyayalaya shall be a mobile court and shall exercise the powers of both Criminal and Civil Courts.

• The Gram Nyayalaya shall try criminal cases, civil suits, claims or disputes which are specified in the First Schedule and the Second Schedule to the Act.

• The Gram Nyayalaya shall exercise the powers of a Civil Court with certain modifications and shall follow the special procedure as provided in the Act.

• The Gram Nyayalaya shall try to settle the disputes as far as possible by bringing about conciliation between the parties and for this purpose. It shall make use of the conciliators to be appointed for this purpose.

• Gram Nyayalaya can try criminal cases, civil suits, claims or disputes which are specified in the Act. For e.g. Offences not punishable with death, imprisonment for life or imprisonment for a term exceeding two years.

- Gram Nyayalaya is not bound by the Indian Evidence Act, 1872 but is guided by the principles of natural justice and is subject to any rule made by the HIGH COURT.

Role of gram nyayalaya in dispute resolution:
- Gram Nyayalaya is a mobile court and exercises the powers of both Criminal and Civil Courts.
- It can try criminal cases, civil suits, claims or disputes which are specified in the First Schedule andthe Second Schedule to the Gram Nyayalaya Act.
- The Gram Nyayalaya are supposed to try to settle the disputes as far as possible by bringing about conciliation between the parties and for this purpose, it can make use of the appointed conciliators.
- The judgment and order passed by the Gram Nyayalaya are deemed to be a decree and to avoid delay in its execution, the Gram Nyayalaya can follow summary procedure for its execution.
- The Gram Nyayalaya are not bound by the rules of evidence provided in the Indian Evidence Act, 1872 but are guided by the principles of natural justice and subject to any rule made by the High Court.
- Gram Nyayalays aim to provide a cost-effective forum at the grass-root level for the poor living in villages to settle legal matters. These are established for speedy and easy access to justice system in the rural areas of India and are aimed at providing inexpensive justice to people in rural areas at their doorsteps, with emphasis on mediation as a major way to resolve the disputes.

Article 200 - Assent to Bills   Polity

Why in the news?
- The Governors of various Opposition-ruled States takes advantage of Article 200 of the Indian Constitution.

About
- The article 200 provides for the **powers of the Governor over the bills passed in the state legislature**.
- When a Bill has been passed by the Legislative Assembly of a State or, in the case of a State having a Legislative Council, has been **passed by both Houses** of the Legislature of the State, **it shall be presented to the Governor** and the Governor shall declare either :
  - that he assents to the Bill or
  - that he withholds assent therefrom or
  - that he reserves the Bill for the consideration of the President.

Timeline for assent
- Article 200 does **not prescribe a timeline** for the Governor to provide assent to Bills sent by the Legislative Assembly.
- Under **Article 201**, there is **no timeline prescribed for the President to grant assent** to the Bills reserved by the Governor for the consideration of the President.
- There is a **timeline of 6 months applicable to the State Assembly to reconsider the Bill** if the President decides to refer it back to the House.
- The Governors of various Opposition-ruled States **takes advantage of Article 200** of the Indian Constitution to give assent to the bills.

Multi-State Cooperative Societies (MSCS) Bill, 2002   Polity

Why in the news?
- **The Bill to amend the Multi-State Cooperative Societies (MSCS) Act, 2002, was introduced in the Lok Sabha recently.**

Key features of the bill
- To plug the "loopholes" in the MSCS Act, the Centre introduced a Bill seeking to amend the 2002 law for more "transparency" and increase the "ease of doing business".
- The amendments have been introduced to improve governance, reform the electoral process, strengthen monitoring mechanisms and enhance transparency and accountability.
- The Bill also seeks to improve the composition of the board and ensure financial discipline, besides enabling the raising of funds in MCSCs.

- The Bill provides for the creation of a central Co-operative Election Authority to supervise the electoral functions of the MSCSs.
- The Authority will have a chairperson, vice-chairperson, and up to three members appointed by the Centre.
- Another provision makes it possible to override the board of directors of the society and the appointment of an administrator, not necessarily a member of the collective.
- The Bill seeks to amend Section 17 of the principal act to allow the merger of any State cooperative society with an existing MSCS. Opposition members argued that this was beyond the Centre's legislative competency as State cooperatives are not its domain.
- It envisages the creation of a Co-operative Rehabilitation, Reconstruction and Development Fund for the revival of sick MSCSs, financed by existing profitable MSCSs which will have to deposit either Rs. 1 crore or 1% of their net profit.
- In order to make the governance of these societies more democratic, transparent and accountable, the Bill has provisions for appointing a Cooperative Information Officer and a Cooperative Ombudsman.
- To promote equity and inclusiveness, provisions relating to the representation of women and Scheduled Caste/Scheduled Tribe members on MSCS boards have been included.
- The Bill makes only members eligible to be elected to the board or as office bearers of the cooperative society.
- Active members have been defined as those who are availing a minimum level of services from the society or have attended at least three consecutive general meetings.
- The Bill also increases the penalty amount for violation of the law to Rs. 1 lakh and potential imprisonment from six months to a year.

Apex Court on MSCSs-
- Notably, the constitutional domain of States in regulating cooperative societies was upheld by the Supreme Court in 2021 when it struck down a part of the **97th Constitution Amendment**.
- The court held that the Centre required the ratification of the Amendment by 50% of the state legislatures as it sought to give a framework for State legislation on cooperative societies.
- The top court upheld only the part of the amendment that related to MSCSs, for which Parliament was competent to enact laws.

Delimitation Commission   Polity

Why in the News?
- Recently, the Election Commission of India said that it has begun the process of delimitation of Assembly and Parliamentary constituencies in Assam.

About the commission
- **Delimitation** is the redrawing of **boundaries of an assembly or Lok Sabha constituency** to reflect changes in the population of a region.
- **Conducted by:** The Parliament enacts a Delimitation Act under Article 82 of the Constitution and an independent high-powered panel known as the Delimitation Commission is constituted by the President of India to carry out the exercise.
- **Composition**: Retired Supreme Court judge, Chief Election Commissioner and Respective State Election Commissioners.
- **Associate members**: Members of Parliament and Legislative Assemblies of states for which the Delimitation Commission is set up, are nominated as associate members to help the commission in its task.
- **Powers**: The Delimitation Commission is a high power body whose orders have the **force of law and cannot be called in question before any court**.

Delimitation Commission:
- The Delimitation Commission is appointed by the **President of India** and works in collaboration with the **Election Commission of India.**
- **Composition:**
  - Retired Supreme Court judge
  - Chief Election Commissioner
  - Respective State Election Commissioners

- **Functions:**
  - To determine the **number and boundaries of constituencies** to make the population of all constituencies nearly equal.
  - To identify seats **reserved for Scheduled Castes and Scheduled Tribes,** wherever their population is relatively large.
  - Delimitation Commissions have been **set up four times —** 1952, 1963, 1973 and 2002 under the Acts of 1952, 1962, 1972 and 2002.
  - The Delimitation Commission in India is a high power body whose orders have the **force of law** and cannot be **called in question before any court.**

84th Constitutional Amendment:
- The 84th Amendment to the Constitution in 2002 had put a freeze on the delimitation of Lok Sabha and State Assembly constituencies till the first Census after 2026.
- The current boundaries were drawn on the basis of the 2001 Census, the number of Lok Sabha seats and State Assembly seats remained frozen on the basis of the 1971 Census.
- The population according to the last census preceding the freeze was 50 crore, which in 50 years has grown to 130 crore, causing a massive asymmetry in the political representation in the country.

Triple Test Survey	Polity

Why in the news?
- The Allahabad HC recently ordered the Uttar Pradesh government to hold urban local body elections without reservation for OBCs as the 'triple test' requirement for it had not been met.

About
- The 'triple test' formula was **suggested by the Supreme Court in 2010** to provide OBC reservation in urban local body (ULB) elections.
- The 5-member commission will conduct a survey to ensure that the **OBCs are provided reservation on the basis of the triple test**, as mandated by the Supreme Court.
- The triple test requires the government to **complete three tasks** (triple conditions) for finalisation of reservation to OBCs in the local bodies. These include :
  - To set up a **dedicated commission to conduct a rigorous empirical inquiry** into the nature and implications of the backwardness in local bodies;
  - To **specify the proportion of reservation** required in local bodies in light of recommendations of the commission, so as not to fall foul of overbreadth;
  - To ensure reservation for SCs/STs/OBCs taken together **does not exceed an aggregate of 50%** of the total seats.
  - These triple test/conditions were outlined by the Supreme Court in the case of **Vikas Kishanrao Gawali vs. State of Maharashtra and others**, decided on March 4, 2021.

Police Commissionerate System	Polity

Why in the news?
- Agra, Ghaziabad and Prayagraj to get Police Commissionerate System (PCS).

About the system
- In the commissionerate system, the Commissioner of Police (CP) is the head of a unified police command structure, is responsible for the force in the city, and is accountable to the state government.
- The office also has magisterial powers, including those related to regulation, control, and licensing.
- Under the new system, a commissioner does not have to report to the district magistrates. And, the judicial and executive powers from inquiries to granting license, permits and permissions — will be shifted to police officers from magistrates.
- The CP is drawn from the Deputy Inspector General rank or above, and is assisted by Special/Joint/Additional/Deputy Commissioners.
- In the arrangement in force at the district level, a 'dual system' of control exists, in which the Superintendent of Police (SP) has to work with the District Magistrate (DM) for supervising police administration.

- It is supposed to allow for faster decision-making to solve complex urban-centric issues.
- Under the 7th Schedule of the Constitution, 'Police' is under the State list, meaning individual states typically legislate and exercise control over this subject.
- The sixth National Police Commission report, which was released in 1983, recommended the introduction of a police commissionerate system in cities with a population of 5 lakh and above, as well as in places having special conditions.
- The British brought the system first in Kolkata and followed it in Mumbai and Chennai presidencies. Delhi turned into a commissionerate during the Morarji Desai regime.

Need for such system
- Various committees constituted to suggest police reforms have recommended implementation of a police commissioner system in cities which have witnessed rapid urbanisation and have a population of more than 10 lakhs.
- 6th report of the National Police Commission noted that as compared to police in districts, police in commissionerate in small areas had a better account of themselves.
- In districts where the SPs and DMs do not have an understanding, orders to swiftly act are rarely issued in time which aggravates the situation.
- Additional powers: Police officers under this commissionerate system will be given additional powers by amending certain sections of the Code of Criminal Procedure (CrPC), Police Act, Motor Vehicles Act, National Security Act, State Security Act (externment from districts), Prisoners Act, Immoral Traffic Prevention Act, Government Secrets Act etc.

Aadhaar rules updated   Polity

Why in News?
- Government amended Aadhaar rules.

About
- It specifies that supporting documents may be updated "**at least once**" by Aadhaar holders on completion of **10 years** from enrolment date.
- Updation would ensure **continued accuracy** of **Aadhaar-related information** in CIDR.
- CIDR is **centralised database** containing all Aadhaar numbers issued to Aadhaar holders along with **corresponding demographic** and **biometric information** of such individuals etc.

Maternal Mortality Ratio

Why in News?
- India has improved its maternal mortality ratio (MMR) to 97 deaths per lakh in 2018-2020 from 130 deaths per lakh in 2014-2016.

About MMR
- The Maternal Mortality Ratio (MMR) is defined as the **number of maternal deaths during a given time period per 100,000 live births**.
- The **Registrar General of India** released a Special Bulletin on MMR.
- India has accomplished the **National Health Policy** (NHP) target for MMR of **less than 100/lakh live births**.
- India is on the right track to achieve the **SDG target of MMR less than 70/ lakh live births by 2030**.
- **8 States have achieved** Sustainable Development Goal (SDG) target for MMR.
- Institutional births across the country have **increased to 88.6% in 2019-2021 from 78.9% in 2014-2016**.
- Anaemia levels among women between the ages of 19 and 49 have **increased to 57% in 2019-2021 from 53.1% in 2015-2016**.

Highest MMR (SDG 3.1 achieved states)	Lowest MMR
Kerala (19)	Assam (195)
Maharashtra (33)	Madhya Pradesh (173)
Telangana (43)	Uttar Pradesh (167)
Andhra Pradesh (45)	Chhattisgarh (137)
Tamil Nadu (54)	Odisha (119)
Jharkhand (56)	Bihar (118)
Gujarat (57)	Rajasthan (113)
Karnataka (69)	Haryana (110)

eSanjeevani Initiative

Why in the news?
- Government-free telemedicine service, eSanjeevani has recently crossed another milestone by clocking eight crore teleconsultations.

About the initiative
- The e-Sanjeevani OPD is a flagship telemedicine platform of the Government, developed by the Centre for Development of Advance Computing (C-DAC), Mohali under the aegis of Ministry of Health & Family Welfare (MoHFW).
- It provides free consultations to Indian citizens and is functioning extremely well.
- However, due to the surge in COVID-19 cases, the demand for doctors is up while the supply has reduced as doctors are being pulled out for COVID ward duties.
- This is where the defence veterans are stepping in to help.

Section 10 A of the Divorce Act, 1869

Why in News?
- Kerala high court (HC) struck down the one-year waiting period (the cooling-off period) for couples seeking divorce through mutual consent, holding it unconstitutional.

About the act
- The couple moved the High Court under Section 151 of the **Code of Civil Procedure.**
- The couple also filed another petition to declare that the waiting period of one year fixed under Section 10A (1) of the Act is unconstitutional.
- The order said the provision contained in Sec 10A of the Divorce Act(1869) robbed people of their **right to liberty.**
- The right to a judicial remedy if curtailed by statutory provisions, the court will have to strike it down as it is violative of a **fundamental right.**

Divorce Act 1869
- It is the only codified law governing personal laws of Christian community.
- Section 10A of the Divorce Act (1869)
- It mandated a one-year wait from the marriage date to file the plea.
- It requires the couple to be separated for at least tw

Scheme for Providing Education to Madrasas/ Minorities (SPEMM)　　Society

Why in News?
- The Parliamentary Standing Committee on Social Justice and Empowerment criticised the Union government for the delay in approving the continuance of the Scheme for Providing Education to Madrasas/Minorities (SPEMM).

About the scheme
- SPEMM provides financial assistance to madrasas and minority institutes.
- In 2021, the scheme was transferred from the Ministry of Minority Affairs to the Ministry of Education.
- The Parliamentary Standing Committee noted that the government has yet to approve the draft Expenditure Finance Committee (EFC) memorandum for its continuation.
- The Committee noted that even the NITI Aayog had recommended that the scheme be continued beyond March 31, 2022.
- The committee mentioned that despite the NITI Aayog's recommendation to continue the scheme, the EFC memorandum was "still under finalisation".

> **Scheme for Providing Quality Education to Madrasas/Minorities (SPEMM)**
> - Department of School Education and Literacy is implementing an Umbrella Scheme for Providing Quality Education to Madrasas/Minorities (SPEMM) which comprises two schemes;
> - Scheme for Providing Quality Education in Madrasas (SPQEM).
> - Infrastructure Development of Minority Institutes (IDMI).
> - Both schemes are voluntary.

Atal Vayo Abhyuday Yojana　　Society

Why in the News?
- The Minister of State Social Justice and Empowerment has informed Lok Sabha about Atal Vayo Abhyuday Yojana.

About the scheme
- Nodal Ministry is **Ministry of Social Justice & Empowerment**.
- It is a type of **Central Sector Scheme.**
- It aims to **improve the quality of life of the Senior Citizens** by providing basic amenities like shelter, food, medical care and entertainment opportunities and by encouraging productive and active ageing through providing support.
- Sub Schemes/Components are Integrated Programme for Senior Citizens (**IPSrC**), State Action Plan for Senior Citizens(**SAPSrC**), Rashtriya Vayoshri Yojana(**RVY**), Senior Able Citizens for Re-employment in Dignity(**SACRED**),

District Disability Rehabilitation Centres(DDRC)　　Society

Why in the news?
- Parliamentary Standing Committee on Social Justice and Empowerment has recently stated that the Union government is "somewhat casual" in its approach to complete District Disability Rehabilitation centres (DDRC).

About DDRC
- District Disability Rehabilitation Centre (DDRC) is an initiative by the **Ministry of Social Justice and Empowerment**.
- It aims to **facilitate comprehensive services** to Persons with Disabilities in rural areas.
- These centers have a group of rehabilitation professionals for providing services like **identification of Persons with Disabilities**, **Awareness Generation**, **Early Detection**, and **repairing of Assistive Devices among others**.
- It is set up by DDRC is a **joint venture of Central and State Governments** wherein Central Government will establish, initiate, implement the centre for three years involving funding for manpower contingencies as well as required equipment and coordination.

- The **State Government** will provide provisions for **rent-free**, **well-connected building**, **monitoring**.
- These centres are run jointly by **District Management Team** headed by DM/Collector and a reputed NGO (Usually the Indian Red Cross Society).

PM Virasat Ka Samvardhan   Society

Why in the News?
- The Pradhan Mantri Kaushal Ko Kaam Karyakram (PMKKK) has been named as Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme.

About the scheme
- It is a **Central-sector scheme** under Ministry of Minority Affairs.
- PM VIKAS focusses on the **skilling**, **entrepreneurship and leadership training** requirements of the minority and artisan communities across the country.
- PM VIKAS is an **integrated scheme** that converges five erstwhile schemes of the Ministry of Minority Affairs viz. Seekho aur Kamao, USTTAD, Hamari Dharohar, Nai Roshni and Nai Manzil.
- The scheme has been approved by the Cabinet for the **period of 15th Finance Commission** (**up to 2025-26**).
- The Scheme aims to **improve livelihoods of the minorities**, particularly the artisan communities.
- The scheme **has 4 components**.
- Skilling and Training Component
- Traditional Training (earlier Hamari Dharohar and USTTAD)
- Non-traditional Skilling (earlier Seekho aur Kamao)
- Leadership and Entrepreneurship Component (earlier Nai Roshni)
- Education Component (earlier Nai Manzil)
- Infrastructure Development Component (through Hub and Spoke Villages).

Social Progress Index   Society

Why in the news?
- Economic Advisory Council to Prime Minister (EAC-PM) released the Social Progress Index (SPI) for states and districts of India.

About
- The Social Progress Index (SPI) is a comprehensive tool intended to be a **holistic measure of the Social Progress made by the country** at the national and sub-national levels.
- **Economic Advisory Council to the Prime Minister of India** (**EAC-PM**).
- **Institute for Competitiveness** and the Social Progress Imperative and submitted to **EAC-PM**.
- The report will act as a **critical enabler and tool** for policymakers in the coming years **for achieving sustained socio-economic growth**.
- A special section of the report **highlights progress made by the 112 aspirational districts** in the country leading to a broader understanding of the social progress at the grassroots level.

Top 3 Best-performing States		Top 3 Best-performing Districts
Puducherry	(SPI - 65.99)	Aizawl (Mizoram)
Lakshadweep	(SPI - 65.89)	Solan (Himachal Pradesh)
Goa	(SPI - 65.53)	Shimla (Himachal Pradesh)

- The index assesses states and districts based on **12 components across 3 critical dimensions** of social progress -
  - **Basic Human Needs** - Assesses the performance in terms of Nutrition and Basic Medical Care, Water and Sanitation, Personal Safety and Shelter.
  - **Foundations of Wellbeing** - Evaluates the progress across the components of Access to Basic Knowledge, Access to Information and Communication, Health and Wellness, and Environmental Quality.
  - **Opportunity** - Focuses on aspects of Personal Rights, Personal Freedom and Choice, Inclusiveness, and Access to Advanced Education.

AYURSWASTHYA Yojana

Why in the news?
- Currently, the Ministry of Ayush is running a Scheme namely, AYURSWASTHYA Yojana.

About the yojana
- It is a **Central Sector Scheme**.
- it is a nodal ministry is **Ministry of Ayush**
- This scheme was launched by **merging two erstwhile schemes** (i) Central Sector Scheme of Grant-in-Aid for Promotion of AYUSH Intervention in Public Health Initiatives(PHI) and (ii) Central Sector Scheme for assistance to AYUSH organizations engaged in AYUSH Education/ Drug Development & Research for upgradation to Centre of Excellence (CoE).

Components of the scheme
- **AYUSH and Public Health (PHI):** Under this, AYUSH interventions are rolled out **for common public health issues** related to communicable diseases, non-communicable diseases, MCH, Geriatric care, mental health etc.
- **Centre of Excellence (CoE)**: Under this, **financial assistance** is provided to eligible individual organizations/institutes for establishing and **upgrading their functions & facilities** and/or **for research & development activities** in AYUSH.

Nai Roshni Scheme

Why in the news?
- The Minister of Minority Affairs has informed Lok Sabha about the Scheme.

About the scheme
- Nodal Ministry is **Ministry of Minority Affairs**.
- It aims to **empower and enhance confidence in Minority women** by providing knowledge, tools, and techniques for the Leadership Development of Women.

Features of the scheme
- Under the scheme, a **six-days non-residential/five-days residential training program** is conducted for women belonging to minority communities between the age group of 18 years to 65 years.
- The **training modules cover areas** related to programs for women, Health and Hygiene, Legal rights of women, Financial Literacy, Digital Literacy, Swachch Bharat, Life Skills, and Advocacy for Social and Behavioral changes.
- The scheme is being implemented through **Programme Implementing Agencies**/**Non Governmental Organizations**.
- Beneficiaries having annual income **not exceeding Rs.2.50 lakh** from all sources are given preference in selection for training under the scheme.

Scheme for Economic Empowerment of DNTs (SEED)

Why in the news?
- A Parliamentary panel has pulled up the Centre over the "very slow" process to categorize over 260 Denotified,nomadic and semi-nomadic tribes (DNTs) under either the SC/ST/OBC lists.

About the scheme
- **The Scheme** will **have the following four components** with an approximate cost of Rs 200 crore to be spent over a period of 5 years starting Financial Year 2021-22 to 2025-26.
- **To provide coaching of good quality for DNT/NT/SNT candidates to enable them to appear in competitive examinations.**
  - A component of **free Coaching for DNT Students** has been envisioned for the educational empowerment of these communities.
  - The selection of the candidates for each course will be based on a system generated merit list through the portal.
  - Approximately, 6250 students will be provided free coaching under this component in five years.

- **To provide health insurance to DNT/NT/SNT Communities**
  - The primary objective is to provide **financial assistance to National Health Authority (NHA) in association with State Health Agencies (SHAs)** for undertaking providing a health insurance cover of Rs.5 lakhs per family per year to DNT, NT and SNT families as per norms of "Ayushman Bharat Pradhan Mantri Jan Arogya Yojana.
  - Approximately, 4,44,500 families will be covered under health insurance in five years.
- **To facilitate livelihoods initiative at community level to build and strengthen small clusters of DNT/NT/SNT Communities institutions**
  - Its primary objective is to **provide financial assistance to National Rural Livelihood Mission (NRLM)** for undertaking institution building in association with State Rural Livelihoods Mission (SRLM) of state Governments/UTs at community level.
  - Approximately 2,000 clusters will benefit under this component in five years.
- **To provide financial assistance for construction of houses to members of the DNT/NT/SNT Communities**
  - Considering the shortage of houses for DNTs, it has been proposed to earmark a separate outlay for PMAY to support specific importance in providing houses only for DNTs living in rural areas who have not taken benefits of the Pradhan Mantri Awas Yojana as SC, ST, OBC and are living below poverty line.
  - The admissible support is Rs 1.20 lakhs in plains and 1.30 lakhs in hilly areas (per unit assistance).
  - Approximately, 4,200 houses will be constructed under this component in five years.

National Commission for Protection of Child Rights (NCPCR) — Society

Why in the news?
- NCPCR warns NGOs about the depiction of vulnerable children for fundraising. The practice of civil society organisations using representative visuals for fundraising activities concerning development issues such as malnutrition now faces new scrutiny NCPCR.

About
- About National Commission for Protection of Child Rights:
- The National Commission for Protection of Child Rights (NCPCR) is a statutory body established under the Commission for Protection of Child Rights (CPCR) Act, 2005.
- It is under the administrative control of the Ministry of Women and Child Development.
- Under the act, a Child is defined as a person in the 0 to 18 years age group.
- It aims to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in harmony with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.
- Composition: This commission has a chairperson and six members of which at least two should be women.
  - All of them are appointed by the Central Government for 3 years.
  - The maximum age to serve in commission is 65 years for Chairman and 60 years for members.
- The salary and allowances payable to, and other terms and conditions of service of, the Chairperson and Members, shall be such as may be prescribed by the Central Government.

The Gender Snapshot 2022 — Society

Why in in News?
- Report is published by UN Women and the UN Department of Economic and Social Affairs.

About Key findings
- World is not on track to **achieve gender equality by 2030**.
- 380 million women and girls live in extreme poverty.
- **Nearly 1 in 3 women face** food insecurity.
- **Unsafe abortion** is a leading but preventable cause of **maternal mortality**.
- In India, in a quarter of **rural households'** women and girls devote more than **50 minutes per day** to collecting water.

Cities Alive: Designing Cities that work for Women' Report

Why in News?

- Released by United Nations Development Programme.

About

- Report stresses the need to directly engage women in **decision-making processes**, across all aspects of **urban planning and development**.
- Key challenges faced by women:
  - Safety and security: Unsafe streets and public spaces, **reduced mobility** due to safety concerns, **disproportionate exposure to climate hazard**.
  - **32% of women survey** respondents feel unsafe in public spaces at night.
  - Justice and equity: **Limited gender equity** in urban governance, limited voice in decision-making and leadership.
  - Just 29% of women in business globally are in **senior decision-making positions**.
  - Health and wellbeing: **Inadequate public spaces**, Inadequate healthcare, water, hygiene etc.

Atal new India Challenge (ANIC)

Why in News?

- Atal Innovation Mission (AIM) has launched women centric challenges under its ANIC program to address the major issues faced by women from all spheres of life.

About

- ANIC is a **flagship program of AIM, NITI Aayog**.
- It aims to seek**, select, support and nurture technology-based innovations** that solve sectoral challenges of national importance and socieal relevance.
- It provides **funds up to ₹1 crore** through a **grant-based mechanism** and open for: Any Indian Company incorporated
- under the Companies Act.
- Any company registered as a **Start-up**, recognized by **Department for Promotion of Industry and Internal Trade**.

Why in news?
- The Department for Promotion of Industry and Internal Trade (DPIIT) has sought the views of 16 departments and ministries on its draft national retail trade policy, which is aimed at the overall development of all formats of the sector.

Key highlights of the policy
- The policy focuses on formulating strategies to provide a globally competitive and sustainable environment for the overall development of retail trade through targeted efforts.
- The objectives of the policy include
  - Ensuring easy and quick access to affordable credit.
  - Facilitating modernization and digitisation of retail trade by promoting modern technology and superior infrastructural support.
  - Development of physical infrastructure across the distribution chain.
  - Promotion of skill development and improve labour productivity.
  - Providing an effective consultative and grievance redressal mechanism for the sector.
- This will be the third industrial policy after the first in 1956 and the second in 1991.
- The retail industry is likely to see 10 per cent annual growth to reach about USD 2 trillion by 2032.
- India is the world's fifth-largest global destination in the retail space and a cohesive national retail policy can help generate 30 lakh more jobs by 2024.

SHAKTI Policy
Economy

Why in News?
- Ministry of Power recently launched scheme for Procurement of Aggregate Power of 4500 MW for five years under SHAKTI Policy.

About SHAKTI Policy
- Ministry of Power (MoP) in **2017** cleared the **Coal Linkage Policy** known as **SHAKTI** (Scheme to Harness and Allocate Koyla Transparently in India).
- The Policy provides **coal linkages to power plants** which lack fuel supply agreements (FSAs) through coal auctions.

Objectives
- The aim of the Shakti scheme is to **ensure the availability of coal to all the Thermal Power Plants in India**, in a way that is transparent and objective.
- The scheme is supposed to be beneficial not just for the **infrastructure sector**, but also for the **public sector banks** which have huge loans unpaid at the end of the power companies.
- The scheme also aims to **reduce the dependence** on imported coal and promote domestic industries.

Digi Yatra
Economy

Why in News?
- Union Minister for Civil Aviation recently launched Digi Yatra from the Indira Gandhi International Airport, New Delhi for three airports in the country, namely New Delhi, Varanasi and Bengaluru.

About the mechanism
- Digi Yatra is conceived to **achieve contactless**, **seamless processing of passengers** at airports based on Facial Recognition Technology(FRT).

Face value
A step-by-step process to enable yourself for facial scans at airports:

Step 1 Register your name, e-mail, mobile number, ID proof on a designated portal

Step 2 One-time verification at an airport is a must and if you use Aadhaar as ID proof, then verification can be done online

Step 3 Your photo has to be added to your Digi Yatra profile and an ID number should be generated

Step 4 This ID number is needed while booking tickets
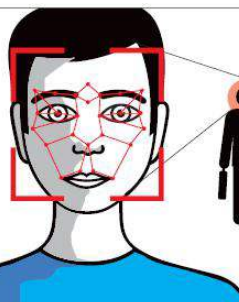
Step 5 Scan QR code and undergo facial recognition before entering airports. Facial ID along with ticket PNR is made into a single token

Step 6 Carry out self check-in, drop baggage & access security and embarkation area with a facial scan

- With this, passenger data will be processed automatically based on a **facial recognition system** at various checkpoints at the airport.
- The project is being implemented by the **DigiYatra Foundation** — a joint-venture company registered under the Companies Act, 2013.

First Loss Default Guarantee(FLDG) System Economy

Why in the news?
- Reserve Bank issued guidelines on digital lending, banks, non-banking financial companies and fintech players are still awaiting clarity on several aspects including the First Loss Default Guarantee(FLDG) system.

About the scheme
- FLDG is a **lending model between a fintech and a regulated entity** in which a third party guarantees to compensate up to a certain percentage of default in a loan portfolio of the regulated entities(RE).
- Under these agreements, the fintech originates a loan and promises to **compensate the partners up to a pre-decided percentage** in case customers fail to repay.
- The bank/NBFC partners **lend through fintech but from their own books**. FLDG helps expand the customer base of traditional lenders but relies on the fintech's underwriting capabilities.
- In the report by the RBI-constituted **working group on digital lending**, the group laid down the risks of FLDG agreements with **unregulated entities**. The other concern is that **FLDG costs are often passed on to customers**.

Issues with FLDG
- A report by an RBI-constituted working group on digital lending has laid down risks of FLDG agreements with unregulated entities.
- The other concern is that FLDG costs are often passed on to customers

Social Stock Exchange Economy

Why in news?
- National Stock Exchange of India (NSE) has received in-principle approval from the SEBI to set up the Social Stock Exchange as a separate segment of the NSE.

About Social Stock Exchange (SSE)
- An SSE allows the listing of non-profit or non-government organisations on stock exchanges, providing them with an alternative fund-raising structure.
- Setting up the SSE is on the lines of a proposal made by the government in the Union Budget of 2019-20 (April-March) to create a platform for listing social enterprises and voluntary organisations.
- Through this exchange, such **organisations can raise capital through equity or debt instruments**.
- Peer BSE had received in-principle approval for setting up an SSE in October.
- To enable fundraising for not-for-profit organisations, the government had announced **a new security called "zero coupon zero principal"** under the Securities Contracts Regulations Act.
- This instrument can be publicly or privately issued by these organisations upon registering with SSE to raise funds.
- **Currently, the regulations allow minimum issue size as Rs 1 crore and minimum application size for subscription at Rs 2 lakh.** Subscription to this instrument would be like a philanthropic donation.
- **SSE provides a unified funding channel to listed social enterprises** that are at the bottom of the socio-economic pyramid.
- The **concept gained momentum, particularly in India during the pandemic,** as the need for social capital for enterprises and voluntary organisations became essential.
- **Countries like Brazil, Portugal, South Africa, the UK, Canada and Singapore already have established Social Stock Exchanges.**

National Bamboo Mission (NBM)

Why in the news?

- The Union Agriculture Minister had approved the formation of an Advisory Group for streamlining the development of the Bamboo sector.

Objectives of the mission:

- **To increase the area under bamboo plantation** in non-forest Government and private lands. This is to supplement farm income and contribute towards resilience to climate change.
- **To improve post-harvest management** through the establishment of innovative primary processing units. These units were particularly located near the source of production, primary treatment, and seasoning plants, and market infrastructure.
- **To promote product development** at micro, small and medium levels and feed bigger industry.
- **To rejuvenate** the underdeveloped bamboo industry in India.
- **To promote skill development,** capacity building, awareness generation for the development of the bamboo sector.
- **To reduce dependency** on the import of bamboo and bamboo products.
- **Implementation:** It is being implemented through the **state nodal department** which is nominated by the State/UT governments concerned.
- **The selection of beneficiaries:** The selection of beneficiaries and delivery of assistance are being carried out **by the State Bamboo Mission/State Bamboo Development agency** stationed at the State/UT nodal department for implementing the National Bamboo Mission.

Agriculture Investment Portal

Why in the news?

- The Union Minister for Agriculture and Farmers Welfare has inaugurated the Agriculture Investment Portal (Krishi Nivesh Portal).

About the portal

- It is launched by **Ministry of Agriculture and Farmers Welfare**.
- The portal is a **one-stop solution for all investors** who are looking to invest in India in agriculture and allied sectors.
- The portal **highlights the steps for ease of doing business in India**, the market entry strategies and the regulatory frameworks that are involved in setting up the operations.
- Objectives of the portal
  1) **Boost investments** in the agriculture sector of India,
  2) **To ease the hand holding process** for the investors,
  3) **Tap the potential** of all the sub sectors in Agriculture,
  4) **To guide and assist the investors** with the major infrastructure available in India,
  5) **Support investors and companies** with the schemes, policies and incentives given by the State and the Central Government.

Social Progress Index

Why in news?

- Economic Advisory Council-Prime Minister (EAC-PM) along with the Institute for Competitiveness and Social Progress Imperative has released the Social Progress Index(SPI) recently.

About the the index

- SPI is a comprehensive tool that can serve as a holistic measure of a country's social progress at the national and sub-national levels.
- The index assesses states and districts based on 12 components across three critical dimensions of social progress - Basic Human Needs, Foundations of Wellbeing, and Opportunity.
  - Basic Human Needs assess the performance of states and districts in terms of Nutrition and Basic Medical Care, Water and Sanitation, Personal Safety and Shelter.
  - Foundations of Wellbeing evaluates the progress made by the country across the components of Access to Basic Knowledge, Access to Information & Communication, Health & Wellness, and Environmental Quality.

- Opportunity focuses on Personal Rights, Personal Freedom and Choice, Inclusiveness, and Access to Advanced Education.
- Based on the SPI scores, states and districts have been ranked under six tiers of social progress.

Key highlights of the index
- Puducherry, Lakshadweep, and Goa emerge as best-performing states.
- Aizawl (Mizoram), Solan (Himachal Pradesh), and Shimla (Himachal Pradesh) are the top 3 best-performing districts.
- Puducherry has the highest SPI score (65.99) in the country, attributable to its remarkable performance across components like Personal Freedom and Choice, Shelter, and Water and Sanitation.
   - Jharkhand and Bihar scored the lowest, 43.95 and 44.47, respectively.
- For the dimension of Basic Human Needs; Goa, Puducherry, Lakshadweep, and Chandigarh are the top four states with the best performance in Water and Sanitation and Shelter as compared to the other states and union territories.
- Goa has the highest component score for Water and Sanitation.
- Kerala scored the highest across the Nutrition and Basic Medical Care components.
- Delhi has topped the list for Access to Information and Communication.
- For Health and Wellness, Rajasthan has the highest score.
- Tamil Nadu has achieved the highest component score for the Opportunity dimension.
- Andaman and Nicobar Islands have the highest component score for Personal Rights.
- Sikkim has topped the list for Inclusiveness.

Districts as Export Hub (DEH) Initiative   Economy

Why in News?
- One District One Product Initiative (ODOP) is operationally merged with 'Districts as Export Hub (DEH)' Initiative.

About
- **Initiative of:** DEH is an **initiative of the Directorate General of Foreign Trade** (DGFT), Department of Commerce, with the Department for Promotion of Industry and Internal Trade (DPIIT) as a major stakeholder.
- Under the initiative, **products and services** (including GI products, agricultural clusters, toy clusters etc.) **with export potential have been identified in all districts**.
- Districts Export Action Plans are being prepared **for identified products and services for overseas markets**.
- These plans **improves supply chains**, **market accessibility** and handholding for increasing exports of identified products.
- Under DEH, **State Export Promotion Committee** (**SEPC**) and **District Export Promotion Committee** (**DEPC**) has been constituted in all the 36 States/UTs.

One District One Product (ODOP) Initiative
- Central Government has initiated One District One Product (ODOP) **in all States/UTs** of the country.
- It is a **transformational step towards realizing the true potential** of a district, fuelling economic growth, generating employment and rural entrepreneurship, taking us to the goal of Aatmanirbhar Bharat.
- ODOP has been identified for the **prestigious Prime Minister's Award for Excellence** in Public Administration in
- Holistic Development in April, 2022.

PM Adi Adarsh Gram Yojana   Economy

Why in the news?
- Ministry Of Tribal Affairs has revamped the existing Scheme of 'Special Central Assistance to Pradhan Mantro Adi Adarsha Gram Yojana.

About the scheme
- **It aims Transforming villages** with significant tribal population **into model village** (Adarsh Gram)covering about population of 4.22 crore (About 40% of the total Tribal Population).

Objective
- To **achieve integrated socio-economic development** of selected villages through convergence approach.
- **Improving the infrastructure** in vital sectors like health, education, connectivity and livelihood.
- It includes **maximizing the coverage of individual / family benefit schemes** of the Central / State Governments.
- The scheme envisions to **mitigate gaps prominently in 8 sectors of development** viz. Road connectivity , Telecom connectivity , School, Anganwadi Centres, Health Sub-Centre, Drinking water facility.

Revised Guidelines of the scheme
- The Scheme was revised to capture the Gaps in critical socio-economic '**Monitorable Indicators**' as part of various sectors/domains namely;water and sanitation, education, health and nutrition, agricultural best practices etc.
- New Approach for implementation
    - The **identification of needs or Gaps** with regard to the '**Monitorable Indicators**' are based on a Need Assessment exercise.
    - The '**Village Development Plan**' (VDP) is based on the data collected as part of the Need Assessment exercise.
    - PMAGY **provids the platform for convergent implementation** of other Schemes with the aim to achieve saturation in the various domains.

India Internet Governance Forum (IGF)   Economy

Why in the news?
- The India Internet Governance Forum (IGF), a multi stakeholder platform, is conducted a three-day hybrid event from December 9 to December 11, 2022.

India Internet Governance Forum 2022
- The India Internet Governance Forum (IIGF) 2022 was recently addressed by the Minister of State for Electronics & Information Technology and Skill Development & Entrepreneurship.
- "Leveraging technology for empowering Bharat" is the theme for 2022.
- The purpose of the event is to discuss the roadmap to the digitization and to reaffirm India's position on the international stage by highlighting its significance in the development of global internet governance policies.

India Internet Government Forum (IIGF)
- The India Internet Government Forum is an initiative associated with the UN Internet Governance Forum (UN-IGF) project.
- The UN-IGF is a multi-stakeholder forum that brings together representatives from various groups, believing that all of them are on an equal footing to discuss public policy matters pertaining to the Internet.
- The World Summit on the Information Society, which took place in 2005, produced the Tunis Agenda, which gave rise to the Internet Governance Forum.
- In accordance with the mandate outlined in the Tunis Agenda for the Information Society, the IGF meeting is held annually by the Secretary-General of the United Nations since its inaugural meeting in 2006.

About Tunis Agenda:
- The Tunis Agenda is the final document adopted at the conclusion of the second phase of the World Summit on the Information Society, (a UN Summit) in 2005.
- The document contains provisions on financial mechanisms for bridging the digital divide, Internet governance which encompasses not only technical issues related to the management of the Internet technical resources (names and addresses) but also public policy issues; and that the various stakeholders (private sector, civil society, the academic and technical communities) have roles and responsibilities in Internet governance.
- Although the Tunis Agenda is not a legally binding instrument, it outlines a series of recommendations regarding the implementation of the WSIS objectives and action lines at national, regional, and international levels.

India's Strategy
- India is in favour of a multi-stakeholder strategy for Internet governance.
- The Government will continue to exercise absolute authority and control over matters pertaining to national security.
- India's industry and human resource, which can be used in a multi-stakeholder approach, are its strengths in the sector.

- Challenges include the internet's ongoing evolution, the concentration of digital power in a small number of nations and companies, the digital divide, the lack of infrastructure in rural areas, the gender divide, and decision-making that is more pro-supply than pro-demand.

OXFAM Digital Divide Report

Why in news?
- Oxfam has published the India Inequality Report 2022: Digital Divide recently.

Key highlights of the report
- Oxfam India's flagship publication—The India Inequality Report—is produced yearly to bring the attention of the public, policy makers and the government to the ongoing inequality crises in the country.
- The 2022 issue of the inequality report highlights the extent of the digital divide in India and its impact on essential services such as education, health and financial inclusion.
- As per the report, reach of digital technologies remains limited to largely male, urban, upper-caste, and upper-class households and individuals.
- **Eight per cent of the General caste have a computer or a laptop** whereas less than 1 per cent of the Scheduled Tribes (ST) and 2 per cent of the Scheduled Castes (SC) have it.
- The report revealed a digital divide based on employment status where 95 per cent of the salaried permanent workers have a phone whereas only 50 per cent of the unemployed (willing & looking for a job) have a phone in 2021.
- It has found that **less than 32 per cent of women in India own a mobile phone –** compared to over 60% of men.
- The report says women generally have handsets that cost less and are not as sophisticated as those used by men, and that their usage of digital services is usually limited phone calls and text messages.
- It stated that women use digital services less often and less intensively, and they access the internet less frequently, for fewer reasons.
- Citing Observer Research Foundation data, the Oxfam report said **India accounts for half the world's gendered digital divide given that only a third of all internet users are women.**
- Oxfam said gendered social benchmarks tend to dictate what is 'appropriate' for men and women in this scenario, and that this has led to a relatively lower level of use and assimilation of digital services for women when compared to men.
- In addition, the report also **highlights stark digital inequality based on region, income, caste, education,** after analysing **data from the Centre for Monitoring Indian Economy (CMIE)** and the National Sample Survey (NSS).
- According to data presented in the report, there are only 57.29 internet subscribers per 100 people in the country and that number is significantly lower in rural areas than urban.
- **In rural areas internet subscribers per 100 are less than 34.** It is over 101 in urban centres.

Tulip Programme

Why in newS?
- The Centre launched an urban learning internship programme — TULIP (The Urban Learning Internship Programme), for fresh engineering graduates, who will get an opportunity to work for 4,400 urban local bodies and 100 smart cities in the country.

About the programme
- The Urban Learning Internship Programme, will provide internships to graduates and fresh engineers.
- The TULIP portal has been developed by
- Under the internship programme students will get to work for 100 smart cities under ministry of housing and urban development.
- According to the TULIP portal, there are a total of 295,200 internships under 23,970 companies.
- It will allow applicants internship for up to one year in areas like urban planning, financing, environmental engineering, sanitation and infrastructure.
- The online portal would provide a common platform to interested candidates, ULBs and smart cities, who would post details of their requirements.
- A Steering Committee chaired by Secretary, HUA, including AICTE chairman and other officials from the MoHUA and the AICTE, has also been constituted to review the progress of the programme on a periodical basis.

- **Objective of the scheme**
- TULIP interns would get exposure in a large number of areas including but not limited to urban planning, urban design, different branches of engineering, information and technology, mobility, finance, social sector issues and environmental issues.
- The program will provide them with insight into policy formulation and implementation.
- On a day-to-day basis, they will interact with city officials/ members of the civil society. They will be oriented towards best practices, knowledge sharing and project implementation on ground.
- The interns will carry with them a rich experience in urban governance which will help them in their future endea

Public Financial Management System   Economy

Why in the news?
- The Public Accounts Committee (PAC), in its report found that the tasks related to the implementation of the PFMS appeared to have been dealt with a casual approach and there was no proper financial planning.

About PFMS
- PFMS is an online platform developed and implemented by the **office of the Controller General of Accounts (CGA)** under the Union Ministry of Finance.
- The PFMS portal is used to **make direct payments** to beneficiaries of government schemes.
- PFMS initially started as a Plan scheme named **CPSMS of the Planning Commission in 2008-09** as a pilot in four States of Madhya Pradesh, Bihar, Punjab and Mizoram.
- It was for four Flagship schemes e.g. **MGNREGS**, **NRHM**, **SSA** and **PMGSY**.
- In **December 2013** the Union Cabinet approved the national **roll out of PFMS for all States**.

Mandate of PFMS
- It acts as a **financial management platform for all plan schemes** and allows for **efficient and effective tracking** of fund flow to the lowest level of implementation for the planning scheme of the Government.
- It is mandated to **provide information on fund utilization** leading to better monitoring, review, and decision support system to enhance public accountability in the implementation of plan schemes.
- To result in effectiveness and economy in Public Finance Management through **better cash management** for Government **transparency** in public expenditure and **real-time information** on resource availability and utilization across schemes.

Public Accounts Committee
- The PAC is a committee of selected members of parliament constituted for the purpose of **auditing the revenue and the expenditure** of the Government of India.
- **Establishment:** The Public Accounts Committee was introduced in 1921 after its first mention in the **Government of India Act, 1919** also called **Montford Reforms**.
- **Members:** It presently comprises **22 members** (15 members elected by the Lok Sabha Speaker, and 7 members elected by the Rajya Sabha Chairman) with a **term of one year only**.
- **Appointment:** The Chairman of the Committee is **appointed by the Speaker of Lok Sabha**.
- PAC is one of the parliamentary committees that **examine the annual audit reports of CAG**, which the President lays before the Parliament of India.
- It seeks to **examines public expenditure**.
- Those three reports submitted by CAG are Audit report on appropriation accounts, Audit report on finance accounts, Audit report on public undertakings.

Why in News?

- Union Minister for Road Transport and Highways recently launched one of India's first-ever Surety Bond Insurance product.

About Surety Bond Insurance

- Surety bonds are a contract or a three-way agreement that are guarantees of payment, which insurers issue.
- The surety (insurance companies/banks) provides the financial guarantee to the obligee (government) that the principal (contractor) will fulfil their obligations as per the agreed terms.
- Surety bonds will aid in developing an alternative to bank guarantees for the construction of infrastructure projects. However, these are different from bank guarantees as in this a considerable amount of the project funds of contractors does not get frozen.
- Surety Bond Insurance will act as a security arrangement for infrastructure projects and will insulate the contractor as well as the principal.
- The product will cater to the requirements of a diversified group of contractors, many of whom are operating in today's increasingly volatile environment.
- The Surety Bond Insurance is a risk transfer tool for the Principal and shields the Principal from the losses that may arise in case the contractor fails to perform their contractual obligation.
- The product gives the principal a contract of guarantee that contractual terms and other business deals will be concluded in accordance with the mutually agreed terms. In case the contractor doesn't fulfil the contractual terms, the Principal can raise a claim on the surety bond and recover the losses they have incurred.
- Unlike a bank guarantee, the Surety Bond Insurance does not require large collateral from the contractor thus freeing up significant funds for the contractor, which they can utilize for the growth of the business. The product will also help in reducing the contractors' debts to a large extent thus addressing their financial worries. The product will facilitate the growth of upcoming infrastructure projects in the country.

Significance

- Surety bonds will ensure the efficient use of working capital and reduce the requirement of collateral, which construction companies need to provide.
- Insurers will work in tandem with financial institutions to share risk information. This will assist in releasing liquidity in the infrastructure space without compromising on risk aspects.

IRDAI Surety Insurance Contracts Guidelines, 2022

- The **IRDAI Surety Insurance Contracts Guidelines, 2022** came into effect on April 1, 2022. As per the guidelines, the premium charged for all surety insurance policies underwritten in a financial year, including all instalments due in subsequent years for those policies, should not exceed 10% of the total gross written premium of that year, subject to a maximum of Rs 500 crore.
- Also, insurers can issue contract bonds, which assure the public entity, developers, subcontractors, and suppliers that the contractor will fulfil its contractual obligation while undertaking the project.
- Bonds that surety insurance covers include contract bonds, bid bonds, performance bonds, advance payment bonds, custom and court bonds and retention money.
- The limit of the guarantee should not exceed 30% of the contract value. Finally, surety insurance contracts should be issued only to specific projects and not clubbed for multiple projects.

District Mineral Foundation Scheme   **Economy**

Why in the news?

- Odisha's Keonjhar district is India's highest recipient of funds under the District Mineral Foundation (DMF) scheme, and has spent ₹3,000 crore under the scheme over the past seven years.

About DMFS

- As per the Mine and Minerals Development Regulation (Amendment) Act, 2015, in **every district affected by mining-related operations**, the state government shall, by notification, **establish a trust as a non-profit body** to be called the District Mineral Foundation.

- **DMF Funds**
  - Funds every mining lease holder of will **pay a fraction of royalty**, **not exceeding one-third of the royalty**, to the DMF as per rates prescribed by Central Government.
  - This fund will be **used for welfare of the people** affected in the mining affected areas.
  - In **Keonjhar**, the total DMF fund collection has **touched an astounding ₹8,840 crore**, the highest for any district in India.
- The idea behind the contribution is that **local mining-affected communities**, mostly tribal and among the poorest in the country, also have the **right to benefit from natural resources extracted from where they live**.
- The functioning of the DMF trusts and the fund use governed by **states' DMF Rules** incorporate the mandates of a central guideline, **Pradhan Mantri Khanij Kshetra Kalyan Yojana** (**PMKKKY**).

National Testing House (NTH)   Economy

Why in the News?
- National Testing House will begin testing facilities for EVs and EV charging systems by next fiscal at its Mumbai and Kolkata facilities.

About the NTN
- The Government Test House (Today known as National Test House) is a 109-year-old government quality assurance laboratory that provides material testing facilities for the industry, consumers and government agencies **in all domains of engineering.**
- It was created in the year 1912 at Alipore in South Calcutta and now is **a subordinate office under the administrative control of Department of Consumer Affairs,** Ministry of Consumer Affairs, Food & Public Distribution.
- It has grown into a laboratory of national importance in the field of testing, quality evaluation and ensure the quality of almost all sorts of industrial and consumer products **except drugs, arms and ammunition** by issuing test certificate in accordance with the national / international or customer standard and specification.
- It serves as a vital link between industrial research and manufacture of finished products under rigid quality control.

Tandur Red Gram   Economy

Why in the news?
- The Tandur red gram of Telangana has got geographical indication (GI) tag. With this, the total number of GI registrations in the country has reached 432.

About tandur red gram
- Tandur red gram is a **local variety of pigeon pea** which is mainly grown in the **rainfed tract of the Tandur and nearby region of Telangana**.
- The specific quality traits of Tandur Red Gram has been attributed to the **fertile deep black soil with huge deposits of Attapulgite clay mineral** specifically in Tandur region along with huge limestone deposits.
- It contains about **22-24% protein**, which is almost **three times** that of the protein content in cereals. It has **good taste**, **better cooking quality** as well as enhanced storage quality.
- Benefit of GI Tag Now with the GI tag and registration, individual farmers and dal mill owners of Tandur will have to **register themselves as authorized users** and **start branding Tandur** red gram with GI tag to get better prices as the tag is an assured symbol of quality.

The Urban Learning Internship Program   Economy

Why in the news?
- The Minister for Housing & Urban Affairs (MoHUA) recently said more than 5,000 internships have been offered under the TULIP.

About the program
- The **Ministry of Housing & Urban Affairs**(MoHUA) in collaboration with the Ministry of Education (**MoE**) and All India Council of Technical Education (**AICTE**).

- It is a **platform to provide internships** to students and graduates in Urban Local Bodies (ULBs), Smart Cities, Parastatals of States/UTs.
- To fulfill the twin goals of providing a **hands-on learning experience to recent graduates** as well as **benefiting States, ULBs, and Smart Cities with the infusion of fresh energy** and ideas to solve critical challenges.
- The internships under TULIP are **open to Indian Citizens** who graduate from an undergraduate program and can apply within 18 months of graduating.

Startup India Seed Fund Scheme (SISFS) | Economy

Why in the news?
- The Minister of State in the Ministry of Commerce and Industry recently said that 656 Startups are Supported by Approved Incubators under Startup India Seed Fund Scheme (SISFS).

About the scheme
- The Department for Promotion of Industry and Internal Trade (DPIIT) constituted **an Experts Advisory Committee(EAC)** which will be responsible for the overall execution and monitoring of the Startup India Seed Fund Scheme.
- **Funding:**
  - Eligible incubators throughout India will hand out funding to eligible startups across India.
  - Grants of up to Rs 5 Crores shall be provided to the eligible incubators selected by the EAC.
  - The selected incubators shall provide grants of up to Rs 20 lakhs for validation of Proof of Concept, or prototype development, or product trials to startups.
  - After that, Startups will further receive investments of up to Rs 50 lakhs for market entry, commercialization, or scaling up through convertible debentures or debt-linked instruments.
- **Duration:** The scheme will have a corpus of Rs. 945 Crore. This will be divided over the next 4 years.
- **The Scheme will also create a robust startup ecosystem** particularly in Tier 2 and Tier 3 towns of India. These towns lack adequate funding facilities for startups.
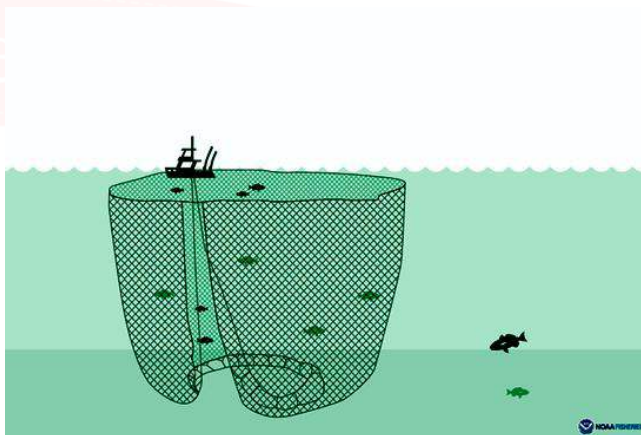
Purse Seine Fishing | Economy

Why in the news?
- The Centre has told the Supreme Court that a ban imposed by certain coastal States on purse seine fishing, which is known to disadvantage endangered species, is not justified.

About the fishing
- It is an internationally used scientific method to catch fish, particularly from the first layer of the sea.
- It is the best fishing technique and most efficient gear to catch small, shoaling, sea fish.
- It uses a large vertical net to surround dense shoals of pelagic or midwater fish in the open ocean and then draws in the edges like tightening the cords of a drawstring purse.
- Purse seine fishing deployed widely on **India's western coasts.** On **the eastern coast**, this method was not used earlier.

Significance of Purse Seine Fishing
- A boat that uses purse seine gear will be full of fish.
- The method does not exploit other species, since it focuses on shoaling fishes only.
- Purse seines can reach more than 6,500 ft (2,000 m) in length and 650 ft (200 m) in depth, varying in size according to the vessel, mesh size, and target species.

Concerns from the Purse seine fishing technique
- A purse seine is a non-targeted fishing gear and catches all sorts of fishes that come in the way of the net, including juveniles. Hence, they are very much detrimental to marine resources.

- The rise of purse seine fishing is blamed for the fall in the availability of small fish if the ban is lifted.
- A major concern is the dwindling availability of oil sardines, a favorite of Kerala fish eaters, majorly due to purse seine fishing.
- In some States, it is linked to concerns about the decreasing stock of small, pelagic shoaling fish such as sardines, mackerel, anchovies, and trevally on the western coasts.
- **Purse seine gear** can create concern only if it is used without any control.

Amrit Bharat Station Scheme — Economy

Why in News?
- Ministry of Railways has recently formulated a new policy for modernization of stations named "Amrit Bharat Station" scheme.

About the scheme
- The scheme **envisages the development of stations on a continuous basis with a long-term vision.**
- The railways is planning to modernise 1,000 small yet important stations under the scheme.
- This is apart from the ambitious plan to revamp 200 big stations under a separate redevelopment program.
- Aim: To prepare master plans of railway stations and implementing those in phases to enhance facilities including and beyond the minimum essential amenities and aim for the creation of roof plazas & city centres at stations.
- It will redevelop stations on the basis of '**Khurda model of redevelopment' based in Odisha.**
- **Special fund will also be earmarked with divisional railway managers (DRMs)** for this purpose.

Broad objectives of the scheme
- **Preparation of Master Plans of the Railway stations** and implementation of the Master Plan
- **Meet the needs of the stakeholders, and station usage studies** as far as possible based on the availability of funds.
- **Introduction of new amenities as well as upgradation** and replacement of existing amenities.
- **Coverage of the stations where detailed techno-economic feasibility** studies have been conducted or are being conducted.

City Finance Rankings — Economy

Why in the news?
- Recently, The Ministry of Housing and Urban Affairs has launched two key initiatives – City Finance Rankings, 2022 and City Beauty Competition.

About the rankings
- **Evaluate**, recognise and reward India's cities (Urban Local Bodies/ULBs) on the basis of the quality of their current financial health.
- Help ULBs to **improve** over time in financial performance.
- **Motivate** city/state officials and decision makers to implement municipal finance reforms.
- The participating ULBs will be evaluated on **15 indicators across three key municipal finance assessment parameters**, namely -
  - Resource Mobilization
  - Expenditure Performance and
  - Fiscal Governance
- The cities will be **ranked at the national level** on the basis of their scores under any one of the following four population categories - Above 4 million, Between 1-4 million, 100K to 1 million, less than 100,000.

About the 'City Beauty Competition':
- It aims to encourage, recognise and felicitate the transformational efforts made by cities and wards in India **to create beautiful, innovative and inclusive public spaces**.
- Wards and public places of cities would be judged against the **five broad pillars** -
  - Accessibility
  - Amenities
 - Activities
  - Aesthetics and Ecology

Why in the news?
- Bureau of Indian Standards (BIS) released Draft Standards National Action Plan (SNAP) 2022.

About SNAP
- SNAP proposes a set of actions that would enable **BIS to fulfil its mandate as the National Standards Body** and
- **deliver standards** according to the market needs in an **efficient and timely manner**.
- A standard certification implies a **product or a service**, by its design and **protocols, meets certainqualities**.
- Key features of the **draft SNAP Specific focus** in developing and updating standards with respect to **India's commitment on UN SDG 2030 and Paris Agreement**.
- Proposal to bring technologies such as semiconductors, IT services, Information and Communications Technologies (**ICT**) such as **metaverse**, and **cybersecurity** techniques underBIS.
- Other key subject areas to be taken up by BIS include Environment, Health and Safety, Building, Construction & Urban Development, Textiles, Transportation etc.
- Need for standardisation Facilitate free movement of goods and services across international borders.
- Promote trust on a **digital and data driven economy** by ensuring interoperability, reliability, security, and privacy.
- Assist in building market confidence, and integrating of global supply chains of domestic products.
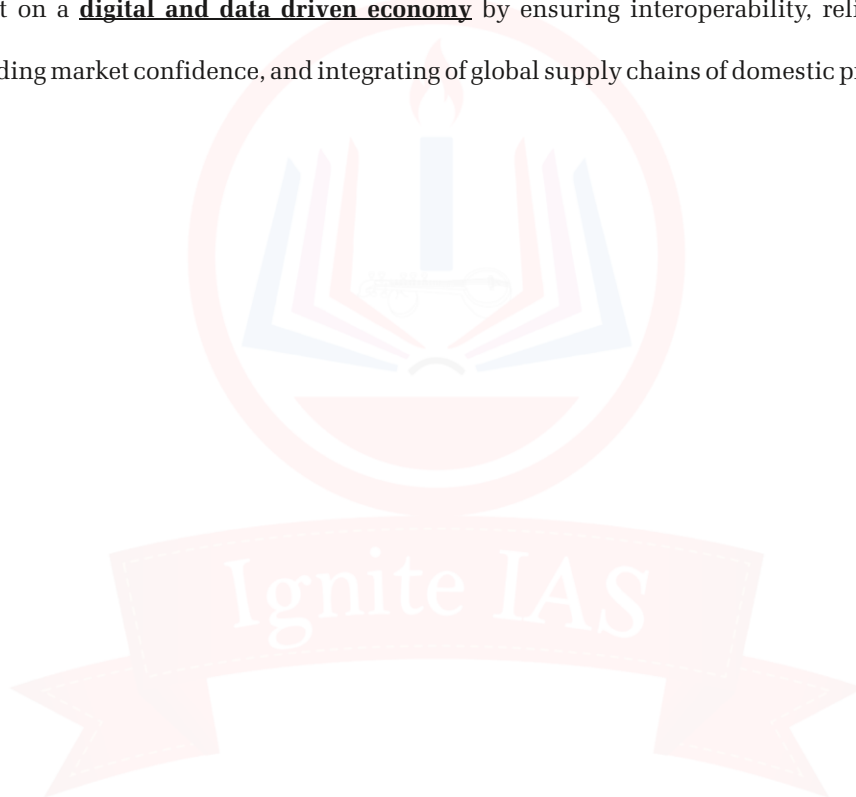
Why in the news?

- **Former Supreme Court judge Hemant Gupta has been appointed as the chairperson of New Delhi International Arbitration Centre (NDIAC).**

About NDIAC

- The NDIAC is an autonomous institution based in New Delhi, to conduct arbitration, mediation, and conciliation proceedings.
- It was **established in 2019 and declared as an Institute of National Importance by an Act of Parliament.**
- It has been established for the purpose of creating an independent and autonomous regime for institutionalised arbitration.
- It seeks to establish a regime for institutionalised arbitration.fa
- Along with (Retd.) Justice Gupta, the Appointments Committee of the Cabinet has approved the appointment of Shri Ganesh Chandru and Shri Anant Vijay Palli as part-time members of the NDIAC.
- Term and superannuation: The members of **NDIAC will hold office for three years** and will be eligible for re-appointment. The retirement age for the Chairperson is 70 years and other members is 67 years.
- Key functions of the NDIAC will include**: facilitating conduct of arbitration and conciliation in a professional, timely and cost-effective manner; and promoting studies in the field of alternative dispute resolution.**

Composition of 9 NDIAC

NDIACl consists of seven members including:

- A Chairperson who may be a Judge of the Supreme Court or a High Court, or an eminent person with special knowledge and experience in the conduct or administration of arbitration.
- Two eminent persons having substantial knowledge and experience in institutional arbitration.
- Three ex-officio members, including a nominee from the Ministry of Finance and a Chief Executive Officer (responsible for the day-to-day administration of the NDIAC); and
- A representative from a recognised body of commerce and industry, appointed as a part-time member, on a rotational basis.

Asia-Pacific Broadcasting Union (ABU) — International Relations

Why in the news?

- Prasar Bharati, India's Public Service Broadcaster, is hosting the 59th Asia Pacific Broadcasting Union (ABU) General Assembly 2022.

About ABU

- It was established in **1964** as a **not-for-profit**, **non-government**, **non-political**, **professional association** with a mandate to assist the development of broadcasting in the region.
- It is the **biggest broadcasting union** in the world.
- It **works closely with the regional broadcasting unions** in other parts of the world on matters of common concern.
- ABU's membership footprint covers around **70 countries and regions on five continents**. The Union serves its diverse **250 members** with tailored capacity-building in news, sports, programming, and technology.
- It **promotes the collective interests** of television and radio broadcasters as well as key industry players and facilitates regional and international media cooperation.
- It provides **rights-free content acquisition** for developing countries, negotiates rights for major sports events, and organises coverage for the region.
- It **facilitates high-quality co-productions** between members bringing together the talent of Asia and the Pacific.

Paris Club

Why in the news?
- The Paris Club has proposed a 10-year moratorium on Sri Lankan debt and another 15 years of debt restructuring as a formula to resolve the Sri Lankan debt crisis.

About the paris club
- The Paris Club is an **informal group of creditor nations** whose objective is to find workable solutions to payment problems faced by debtor nations.
- The club has **22 permanent members** including most of the western European and Scandinavian nations, the United States, the United Kingdom, and Japan. **India is not a member** of the club
- The origin of the club is traced to a **meeting that happened in Paris between officials from Argentina**, which had trouble paying back its debt with a group of lenders in 1956.

Lusophone World

Why in News?
- The Ministry of External Affairs (MEA) in partnership with the Indian Council of Cultural Relations (ICCR) and the Government of Goa is organizing the International Lusophone Festival in Goa.

About the festival
- Lusophones are **peoples that speak Portuguese** as a native or as a common second language and nations where Portuguese features prominently in society.
- The Lusophone world is **spread over nine countries** across four continents and Portuguese is the most widely-spoken language in the Southern Hemisphere.

Community of Portuguese Language Countries(CPLP)
- CPLP is also known as the **Lusophone Commonwealth** (Comunidade Lusofona).
- It is a **multilateral forum**, **founded in 1996** at the 1st CPLP Heads of State & Government Summit in Lisbon.
- The founding members were **Angola**, **Brazil**, **Cabo Verde**, **Guinea Bissau**, **Mozambique**, **Portugal** and
- **Sao Tome e Principe**; while Timor Leste and Equatorial Guinea joined later.
- These 9 Lusophone countries comprise approximately 300 million people on **4 different continents** (Africa, Latin America, Asia and Europe).
- India and Lusophone countries: Lusophone economies are among the **fastest-growing** in the world. India's trade with the Lusophone world has **grown six-fold in the last decade**.
- **India joined the CPLP** as an associate observer in July 2021. As part of India's engagement with CPLP, the Ministry of
- External Affairs celebrated **World Portuguese Language Day in Delhi on 5 May 2022**.

World Bank

Why in the News?
- The World Bank (WB) in its India Development Report titled 'Navigating the Storm', upgraded its growth forecast for India's economy in 2022-23 to 6.9%.

Other reports published by world bank
- Ease of Doing Business
- World Development Report
- Global Economic Prospect (GEP) report
- Remittance Report
- Ease of Living Index
- India Development Update
- Universal Health Coverage Index
- The Service Trade Restriction Index

Why in the news?
- The International Labour Organisation (ILO) adopted a declaration which urges countries to ensure labour protection.

About the declaration
- The 17th Asia and the Pacific Regional Meeting (**APRM**) of the International Labour Organization (**ILO**) **held at Singapore**.
- The 17th APRM focused on discussing concrete **steps to drive job-rich growth** that is inclusive and transformative.
- The meeting set **10-point priorities of national action** for the member countries to deal with the issue of dwindling wages of workers, inflation and unemployment.
- This **Singapore Declaration** agreed that **social dialogue is essential** to address labour market challenges and finding solutions in crisis situations.
- The declaration urged the Governments :
  - To **facilitate the transition** to peace, security and decent work in situations of crisis such as the COVID-19 pandemic, natural disasters, and economic uncertainty.
  - To **strengthen governance frameworks** and respect for freedom of association to protect the rights of migrant workers.
  - To **ensure labour protection** for all through the promotion of freedom of association and the effective recognition of the right to collective bargaining throughout the regions.
  - To **develop and implement inclusive labour market programmes** and policies that support life transitions and demographic shifts.
  - To **recognise the impact of climate change** and develop through tripartite committees' national plans for a just transition.
- The **16th** Asia and the Pacific Regional Meeting of ILO was **held at Bali, Indonesia in December 2016**.

Why in the news?
- The 5th edition of Youth Co:Lab was jointly launched by Atal Innovation Mission (AIM), NITI Aayog and UNDP India.

About the lab
- Youth Co:Lab was co-created in **2017 by UNDP and the Citi Foundation**.
- To establish a **common agenda for Asia-Pacific countries** to invest in and empower youth to accelerate the implementation of the SDGs through leadership, social innovation and entrepreneurship.
- Youth Co:Lab initiative has till now been **implemented in 28 countries and territories**.
- It is **Asia Pacific's largest youth innovation movement**
- Youth Co:Lab was **launched in India in 2019 by UNDP** India in partnership with Atal Innovation Mission, NITI Aayog.
- The fifth edition of Youth Co:Lab India will focus on **identifying and supporting youth-led early-stage social enterprises or innovations** working in the domains of:
  1) Digital and Financial Literacy for Youth,
  2) Gender Equality and Women Economic Empowerment,
  3) Developing FinTech Solutions focused on Biodiversity Conservation,
  4) Promoting Biodiversity-friendly Lifestyles through Technological Solutions in Finance,
  5) Accelerating Circular Economy through Upcycling Innovations and
  6) Behavioral Nudges for LiFE (Lifestyle For Environment).

Why in News?

- India has abstained in the U.N. Economic and Social Council on a draft resolution to oust Iran from its principal global intergovernmental body (Commission on the Status of Women) dedicated to the promotion of gender equality and women empowerment.

About the ECOSOC

- Established by the **UN Charter in 1945**, it is the principal body for **coordination**, **policy review**, **policy dialogue and recommendations** on economic, social and environmental issues, as well as implementation of internationally agreed development goals.
- It has **54 members**, elected by the UN General Assembly for **overlapping three-year terms**.
- It is the UN's central platform for **reflection**, **debate** and **innovative thinking on sustainable development**.
  - Each year, ECOSOC structures its work around an annual theme of global importance to sustainable development.
- It **coordinates the work of the 14 UN specialized agencies**, ten functional commissions and five regional commissions, receives reports from nine UN funds and programmes and issues policy recommendations to the UN system and to member states.
- Few Important Bodies under the Purview of ECOSOC :
  - International labour Organization (**ILO**)
  - Food and Agriculture Organization (**FAO**)
  - United Nations Educational, Scientific and Cultural Organization (**UNESCO**)
  - World Health Organization (**WHO**)
  - Bretton Woods Twins (**World Bank Group and International Monetary Fund**)
  - United Nations Children's Fund (**UNICEF**)
  - Apart from these there are various Functional and Regional Commissions, Standing Committees, Ad Hoc and Expert Bodies as well.

Commission on the Status of Women (CSW)

- It is the **principal global intergovernmental body** exclusively dedicated to the promotion of gender equality and the empowerment of women.
- By the ECOSOC resolution of **June 1946**, it was established as a functional commission of the Economic and Social Council (ECOSOC). The Commission comprises **45 Member States** of the United Nations.

Why in the news?

- Urban-20 2023 Event is organised by Ahmedabad under India's presidency of G20.

About

- Urban-20 (U20) one of the **Engagement Groups of G20**.
- It provides a **platform for cities from G20 countries** to facilitate discussions on various important issues of urban development including climate change and social inclusion.
- Under the G20 presidency of India, **Ahmedabad will host the U20 2023 cycle** and organised by Ministry of Housing and Urban Affairs.
- Besides G20 countries, the Mayors and representatives of **C40** (Climate 40), **UCLG** (United Cities and Local Governments) member cities, and **Observer Cities**.
- The effort of this cycle will be to move from '**intention to action**'.
- It drafts a roadmap for **closing the gaps between policy and practice** to address critical urban issues.
- Priority areas for Urban 20 event are as follows
  - Encouraging environmentally responsive behaviour
  - Ensuring water security
  - Accelerating Climate Finance
  - Leveraging 'local' potential and identity
  - Reinventing urban governance and planning frameworks
  - Catalysing digital urban futures.

G20 Digital Innovation Alliance (G20-DIA)

Why in the news?
- Recently, The Union Minister for Electronics and Information Technology has launched the G20 Digital Innovation Alliance (DIA) and a "Stay Safe Online" Campaign.

About the alliance
- To **identify**, **recognize**, **and enable the adoption of innovative and impactful digital technologies**
- developed by start-ups, from G20 nations as well as the invited non-member nations.
- The DIA programme will have **174 start-ups** from member countries and invitee countries sending in entries for digital solutions in six key sectors – **Edtech**, **Healthtech**, **Agritech**, **Fintech**, **secured digital infrastructure** and **circular economy** which will be showcased at an event in August 2023.
- The entries will be judged by a **diverse jury**, **drawn from academia**, **corporates**, **Ministers** and **investors**, at the end of which the top three innovations in each sector will be awarded.

Stay Safe Online campaign
- The Stay Safe Online campaign intends to **raise awareness about cyber risks** and the need for cyber hygiene in an increasingly digitizing world.
- The campaign is expected to make citizens of all age groups **aware of cyber risk and ways to deal with it**.

Asian Pacific Postal Union (APPU)

Why in news?
- Ministry of Communication stated that India will take over the leadership of the Asian Pacific Postal Union (APPU) from January 2023.

About the new
- India will take over the chair of the intergovernmental organization following the successful elections held during the 13th APPU Congress held in Bangkok.

About the Asian Pacific Postal Union (APPU)-
- **Headquartered in Bangkok, Thailand, APPU is an intergovernmental organisation comprising 32 member countries in the Asia-Pacific region.**
- It is the **only restricted union of the Universal Postal Union (UPU) in the region**, which is a specialised agency of the United Nations.
- Also, it is the Secretary General who leads the activities of the Union.
- The secretary here also looks after the **Asian Pacific Postal College (APPC), which is the largest intergovernmental postal training institute in the region.**
- Aligning to its goal of extending, facilitating and improving postal relations between member countries, the **Union works at forefront in ensuring that all technical and operational projects of the UPU are fulfilled** in the region and is integrated into the global postal network in the best possible way.
- Notably, the Union also **acts as the regional platform for consultation on key global matters impacting the postal sector.**

International Lusophone Festival

Why in news?
- The International Lusophone Festival has been launched in Goa.

What is Lusophone Commonwealth?
- The Lusophone Commonwealth or the Community of Portuguese Language Countries is a multilateral forum
- The forum was founded on 17 July 1996 at the 1st CPLP Heads of State & Government Summit in Lisbon.
- Members: The founding members were Angola, Brazil, Cabo Verde, Guinea Bissau, Mozambique, Portugal and Sao Tome e Principe; while Timor Leste and Equatorial Guinea joined later.
- These 9 Lusophone countries comprise approximately 300 million people in 4 different continents (Africa, Latin America, Asia and Europe).

Why in news?
- Studies at Tata Memorial Centre show that a commonly available and inexpensive drug, carboplatin, increased the cure rate and survival of a very aggressive type of breast cancer, called triple-negative breast cancer(TNBC).

Key highlights of the study
- Dr Sudeep Gupta, Professor of Medical Oncology at Tata Memorial Centre, presented, as a podium presentation, the results of the landmark 'TMC Study – Platinum in TNBC' at the ongoing S**an Antonio Breast Cancer Symposium, which is the largest and most important breast cancer conference in the world.**
- The study was a randomized controlled trial which enrolled women with stage II-III triple negative breast cancer from 2010 to 2020 who were divided into two groups, both of whom received chemotherapy to downstage the disease prior to surgery.
- The results were hailed by oncologists worldwide as immediately practice defining.
- A commonly available and inexpensive treatment like **carboplatin will now be routinely offered as part of pre-operative chemotherapy regimen to women with TNBC** which is the most aggressive type of breast cancer.
- Given that **TNBC constitutes about 30% of breast cancer in India** and **about 45% of breast cancer in women younger than 50 years,** the implications of this result are very important.
- Until the results of this study there was no conclusive evidence that this drug should be routinely used as part of the treatment of this disease.

Why in news?
- **17-year-old research intern at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) bagged the third prize at the International Science and Engineering Fair in the United States** — the world's largest pre-college science fair.

About Bio-insecticide
- It is a **cost-effective bio-insecticide from the leaves of bullock's heart tree (Annona reticulata), popularly known as ramphal**.
- Extracts from different parts of this plant have **traditionally been used to cure conditions including dysentery and pediculosis (louse infestation).**
- **Extracts from its leaves may be useful against three destructive pests — Pod borer, Green peach aphid and fall armyworm — with a mortality rate of 78-88 per cent.** All these pests are known for incurring crop losses to farmers.
- **Pod borer (Helicoverpa armigera) alone may cause losses worth more than $300 million** (over Rs 24 billion) annually.
- **Green peach aphid (Myzus persicae) causes 38-42 per cent yield loss in various crops and fall armyworm (Spodoptera frugiperda) causes 21-53 per cent losses in the absence of pest management.**
- The fall armyworm impact on Indian agriculture was considerable. So much so that the country had to import Bio-insecticides to healthy and pesticide-free produce, costing between $9 and $12 per acre of cropland. **It costs a humble $0.33 per litre to produce pesticide from the leaves of the bullock's heart.**
- This makes it a **cost-effective pesticide for smallholder farmers** and provides an additional source of revenue through the sale of fruits for human consumption and the leaves for bio-pesticide extracts.

> **International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)–**
> - ICRISAT is an international organization which conducts **agricultural research for rural development**, headquartered in Patancheru(near Hyderabad) with several regional centers.
> - It was **founded in 1972 by a consortium of organisations convened by the Ford and the Rockefeller foundations.**
> - **Its charter was signed by the FAO and the UNDP.**
> - Since its inception, host country India has **granted a special status to ICRISAT as a UN Organization operating in the Indian territory making it eligible for special immunities and tax privileges.**

Why in news?
- Many children have died recently from an invasive condition caused by iGAS.

About iGAS
- Strep A – or Group A streptococcus (GAS) – **is a type of bacterium found in the throat and on the skin**.
- The illness can also **cause other respiratory and skin infections, such as Strep throat, impetigo and scarlet fever.**
- **On rare occasions, the bacteria can get into the bloodstream and cause an illness called invasive Group A Strep (iGAS).**
- While still uncommon, there has been an increase in invasive Strep A cases in 2022, particularly in children under 10.
- It can be **spread through coughs, sneezes and skin-to-skin contact.**
- While scarlet fever is usually a mild illness, **it is highly infectious**.
- **Symptoms** for Strep A can include pain when swallowing, fever, swollen tonsils with white patches, a headache, swollen neck glands, a high temperature or a skin rash.
- **A red body rash with a sandpapery feel can also be a symptom**. On darker skin, the rash can sometimes be more difficult to detect visually, but will still have a sandpapery feel.
- Early on in the illness, the bacteria can cause a whitish coating to appear on the tongue, which eventually peels, leaving the tongue red, **swollen and covered in bumps also known as "strawberry tongue".**

Semi-Automated Offside Technology

Science & Technology

Why in the news?
- Federation Internationale de Football Association (FIFA) is using Semi-Automated Offside Technology (SAOT) for offside decisions in the ongoing football world cup.

About
- SAOT is a **support tool for the video match officials** and the on-field officials to help them make faster, more reproducible and more accurate offside decisions.
- There are two parts to the technology — **a sensor inside the match ball** that is held using suspension technology, and **existing tracking tools** that are part of the Video Assistant Referee (VAR) system.
- Every time the ball is hit, **data is sent in real time** (at a whopping 500 frames per second) to a network of antennae installed around the playing field.
- Additionally, there are **12 Hawk-Eye cameras** set up around the turf that shadow both the ball and the players, with as many as **29 separate points** in the human body tracked.
- The coming together of the ball sensor and the Hawk-Eye cameras is in effect SAOT.
- These two data sets are run through **artificial intelligence software** which generates **automated alerts** about offsides to the match officials. This replaces the manual effort taken in poring over replays for minutes on end.

Measles

Science & Technology

Why in News?
- Recently, Mumbai has seen a surge in measles cases.

About
- Infection with the **rubeola virus** causes measles.
- The virus **infects the respiratory tract** and then spreads throughout the body.
- Measles is a **human disease** and is not known to occur in animals.
- Measles is one of the **world's most contagious diseases**.It is **spread by coughing and sneezing**, close personal contact or direct contact with infected nasal or throat secretions.
- Some initial common signs include **cough**, **cold**, **runny nose**, **sore throat**, **loss of appetite**, **high-grade fever** and **body aches**.
- **Children** below the age of five are the most vulnerable, especially those below the age of two.
- **Vaccination** is considered the key strategy in limiting the spread of measles during outbreaks.

Andromeda Galaxy and Galactic Cannibalism

Why in the news?

- Scientists discovered by studying a star cluster in Andromeda galaxy that Andromeda may be a cosmic cannibal.

About the galaxy

- The Dulais Structure is a **dark stream of stars** (globular clusters) **in Andromeda**. (Dulai means Black stream in Welsh)
- The Dulais Structure is dark stream **illuminated by star clusters** that orbit unlike any other clusters in Andromeda.
- This means the star clusters are from the leftovers of a massive feeding event called **galactic cannibalism**.
- Galactic Cannibalism is a **feeding event of galaxy** in which larger galaxies consume smaller galaxies or globulars to grow.

Andromeda Galaxy

- The Andromeda Galaxy also known as **Messier 31**, is the **nearest major galaxy to the Milky**.
- Andromeda is a spiral galaxy approximately **2.5 million light-years from Earth**.
- It is the **largest galaxy of the Local Group**, which also contains the Milky Way, the Triangulum Galaxy, and other smaller galaxies.

Jagdish Chandra Bose

Why in the news?

- Ministry of Culture has organized an international conference on the contributions of J C Bose: A Satyagrahi Scientist" on nhis 164th birth anniversary.

About Bose

- In 1917, he established Bose Institute – Asia's first modern research center devoted to interdisciplinary studies.
- He discovered wireless communication and was named Father of Radio Science by the Institute of Electrical and Electronics Engineering.
- He invented the crescograph, a device for measuring the growth of plants. He for the first time demonstrated that plants have feelings.
- He was the first to demonstrate radio communication with millimetre wavelengths, which fall in the 30GHz to 300GHz spectrum.
- Bose is considered the father of Bengali science fiction. A crater on the moon has been named in his honour.
- In 1896, he published Niruddesher Kahini, first work of science fiction in the Bengali language
- Bose was the first Asian to be awarded a US patent. In 1904, he was awarded a patent for his invention of a detector for electrical disturbances.
- **Books**: Response in the Living and Non-Living, The Nervous: Mechanism of Plants etc.

ChatGPT

Why in the news?

- The latest AI tool ChatGPT is creating a buzz among computer scientists and programmers due to its creative capabilities.

About

- ChatGPT is a natural language processing tool driven by AI technology that allows one to have human-like conversations and much more with a chatbot.
- The language model can answer questions, assist with tasks such as composing emails, essays and code. Usage is currently open to public free of charge because ChatGPT is in its research and feedback-collection phase.
- Basically, ChatGPT is a conversational dialogue model, a chatting robot, trained by artificial intelligence (AI) and machine learning. It understands and responds to natural human language and answers questions, and talks like you were to talk to humans.
- It gets its name from GPT or Generative Pre-Trained Transformer. It is a deep-learning language model that

specializes in generating human-like written text. Deep Learning which is a machine learning method with three or more layers of a neural network attempts to simulate the behavior of a human brain, which then allows it to learn like humans.

OpenAI
- OpenAI is a **research institute and company** that focuses on developing artificial intelligence technology in a responsible and safe way.
- It was founded in **2015** by a group of entrepreneurs and researchers, including Elon Musk, Sam Altman, and Greg Brockman.

SpaceTech Innovation Network: ISRO — Science & Technology

Why in the news?
- The Indian Space Research Organisation (ISRO) has signed an MoU with Social Alpha, a multistage innovation curation and venture development platform to launch SpaceTech Innovation Network (SpIN).

About
- SpIN is **India's first dedicated platform for innovation, curation, and venture development** for the burgeoning space entrepreneurial ecosystem.
- The tie-up is a one-of-a-kind **public-private collaboration for start-ups** and SMEs in the space industry.
- SpIN will primarily focus on facilitating space tech entrepreneurs in **three distinct innovation categories:**
- Geospatial Technologies and Downstream Applications;
- Enabling Technologies for Space & Mobility;
- Aerospace Materials, Sensors, and Avionics

Gamma Ray Burst(GRBs) — Science & Technology

Why in the news?
- Photometric observations recently taken with the 3.6 m Devasthal Optical Telescope have provided vital information on the earliest phase of a kilonova ever detected, radically changing the understanding of scientists about the origin of GRBs.

About GBR
- GRBs are **short, high-energy gamma radiations** that are released when massive stars in the universe collapse or die. They are massive but incredibly bright.
- They are the **most potent cosmic events**, and they can be seen from billions of light-years away.
- A light-year, or 9.5 trillion kilometres, is the distance a light beam covers in one year on Earth.
- Based on whether the event lasts longer than or less than two seconds, astronomers categorise them as long or short.

Long Gamma-Ray Bursts (GRBs)
- These bursts are seen in connection with the death of large stars.
- A black hole **is created** when the core of a star many times more massive than the Sun abruptly collapses due to fuel exhaustion.
- A black hole is a region in space where the matter has been compressed to such an extent that it has produced a gravitational field from which even light cannot escape.
- Some of the matter that is swirling toward the black hole escapes as two strong jets that travel in opposite directions at nearly the speed of light.
- Only when one of these jets happens to be almost directly pointed at Earth can astronomers detect a GRB.
- Each jet pierces the star, sending out a pulse of gamma rays, the light with the highest energy, that can last for several minutes. The star that was damaged by the burst then rapidly expands as a supernova.
- An exploding star that has reached the end of its life is known as a supernova.

Why in News?

- The European Space Agency scientists are developing batteries made of Americium to power space missions.

About

- Americium (Am) is a **synthetic chemical element** of the actinoid series of the periodic table.
- It was the **fourth transuranium element** with atomic number 95.
- It is **not found naturally** in the environment and can be extracted from reprocessed nuclear fuel used in civil power plants.
- Americium has never been **used as a fuel** and now will be **used to make new batteries**.
- Americium, a **by-product of plutonium decay** is made into fuel pellets, which form the core of the batteries.
- This battery can be used as an **alternative to solar cells in space**.
- It is expected to **operate space missions** in the dark side of the Moon or areas far-off from the Solar System where solar power is limited.

- **Americium's advantage over plutonium-238 (Pu-238)**
- It is **cheaper and more abundant**.
- It has a **longer half-life than Pu-238**, so it lasts longer.
- It is also **easier and less expensive** to produce than Pu-238.

Why in News?

- Scramjet engine's (a type of Air Breathing Engine) hot test was conducted successfully at ISRO's Propulsion Research Complex in Tamil Nadu.

About Air-breathing engine

- An air-breathing engine is an engine that **takes in air from its surroundings in order to burn fuel**.
- All practical air breathing engines are **internal combustion engines that directly heat the air by burning fuel**, with the resultant hot gases used for propulsion via a propulsive nozzle.
- A **continuous stream of air flows** through the air-breathing engine. The air is **compressed**, **mixed with fuel**, **ignited** and **expelled** as the exhaust gas.
- Thrust produced by a typical air-breathing engine is about **eight times greater than its weight**.
- The thrust results from the **expulsion of the working gases** from the exhaust nozzle.

Types

- **Ramjet:** A ramjet is a **form of air-breathing jet engine** that **uses the vehicle's forward motion** to compress incoming air for combustion without a rotating compressor.
- Ramjets work **most efficiently at supersonic speeds** but they are not efficient at hypersonic speeds.
- **Scramjet:** A scramjet engine is an **improvement over the ramjet engine** as it efficiently **operates at hypersonic speeds** and allows supersonic combustion.
- Dual Mode Ramjet (DMRJ): A dual mode ramjet (DMRJ) is a type of jet engine where a **ramjet transforms into a scramjet over Mach 4-8 range**, which means it can efficiently operate both in subsonic and supersonic combustion modes.

Why in News?

- For the first time, Base editing technology used in CAR-T therapy defeated a seemingly incurable cancer.

About Base Editing

- Base editing is a newer genome editing approach that allows scientists to **zoom to a precise part of the genetic code** and then alter the molecular structure of just one base.
- There are **4 types** of bases in the DNA - **adenine** (A), **cytosine** (C), **guanine** (G) and **thymine** (T).

- These bases in our DNA **spell out the genetic code** and **instructions for our body**.
- Base editing **uses components from CRISPR systems together with other enzymes** to directly install point mutations into cellular DNA or RNA.
- Base editing **makes point mutations in the DNA possible** without generating double strand breaks (DSBs).
- Base editors **directly convert one base or base pair** into another and changes the genetic instructions.

Base editing in CAR-T therapy
- CAR-T therapy is an **immunotherapy** that uses T-cells for the treatment of cancer.
- The base editing tool is used to **engineer a new type of T-cell** from a healthy T-cell (own or from donor).
- This engineered T-cell is **used in CAR-T therapy** for treating cancerous cells.
- Through this gene editing technique, **the patient (Alyssa) received genetically modified cells** that were programmed to specifically attack her cancer while leaving the rest of her body alone.

Geminids Meteor Shower
Science & Technology

Why in News?
- Geminids Meteor Shower, the annual celestial show peaks around December 13-14 in 2022.

About Geminids Meteor Shower
- Geminids comes from the **constellation Gemini**, from whose location in the sky the meteor shower appears to originate.
- The constellation for which a meteor shower is named **only serves to aid viewers** in determining which shower they are viewing on a given night.
- The constellation is **not the source of the meteors**.
- If their peak coincides with the new moon, and if the weather is clear, the Geminids can produce approximately **100- 150 meteors per hour for viewing**.
- This year however, **the moon is bright**, and so **only 30-40 meteors per hour** will be visible in the Northern Hemisphere.
- The Geminids are **unique** because unlike most meteor showers, they originate not from a comet, **but from an asteroid**, **the 3200 Phaethon**.

Lecanemab
Science & Technology

Why in News?
- Recently, detailed results from a clinical trial involving Lecanemab drug for Alzheimer's disease were published.

About Lecanemab
- Lecanemab is a **drug** that is currently in clinical trials for the **treatment of Alzheimer's disease**.
- Developed by **Pharma companies Biogen and Eisai**.
- Lecanemab belongs to a class of drugs called **monoclonal antibodies**. These antibody-mediated drugs **target beta-amyloid**, the protein deposition that is seen in patients with Alzheimer's disease and disrupts cell function.

Alzheimer's Disease:
- Alzheimer's disease is a **progressive neurologic disorder** that causes the brain to shrink (atrophy) and brain cells to die.
- The disease is the **most common cause of dementia** — a continuous decline in thinking, behavioural and social skills that affect a person's ability to function independently.
- Alzheimer's disease is thought to be caused by the **abnormal build-up of proteins in and around brain cells**.
  - One of the proteins involved is called **amyloid**, deposits of which form plaques around brain cells.
  - The other protein is called **tau**, deposits of which form tangles within brain cells.
- Alzheimer disease most commonly **affects older adults**, but it can also affect people in their 30s or 40s.

SWOT (Surface Water and Ocean Topography)

Why in News?
- NASA has launched a satellite to conduct a comprehensive study of Oceans, rivers and Lakes around the world.

About SWOT
- The launched satellite is named as **SWOT** (**Surface Water and Ocean Topography**).
- The advanced radar satellite is designed to give an unprecedented view of the life **covering 70% of the planet**, **shedding new light on the mechanics** and **consequences of climate change**.
- The satellite incorporates **advanced microwave radar technology** which will collect surface measurements of oceans, lakes, reservoirs and rivers in high-definition details.
- SWOT is being jointly developed by **NASA** and **Centre National D'Etudes Spatiales (CNES)** with contributions from the Canadian Space Agency (CSA) and United Kingdom Space Agency.

Toughest-known Alloy

Why in News?
- A study shows the toughest known material, CrCoNi alloy further gets tougher in the cold.

About
- An alloy made from **chromium**, **cobalt** and **nickel called CrCoNi**, has been found to be the toughest material ever recorded.
- The CrCoNi alloy is a **subset of High Entropy Alloys** (**HEAs**) which is made by mixing equal amounts of all elements.
- This equal mix makes the alloy exceptionally **strong and ductile**.
- These materials are **expensive to make**.
- It can be used to build structures which can **withstand extreme cold conditions**, such as those in deep space.
- The toughness of the CrCoNi is as high as **500 megapascal square root meters** when the temperature is at **20 kelvin or -253.3°C**.

Vainu Bappu Observatory

Why in News?
- The several stellar discoveries of the 40-inch telescope at the Vainu Bappu Observatory in Kavalur, Tamil Nadu, were highlighted at the celebration of its 50 years of its operation4.

About
- The Vainu Bappu Observatory is an astronomical observatory **owned and operated by the Indian Institute of Astrophysics**.
- It is located at **Kavalur in the Javadi Hills**, near Vaniyambadi in Tirupathur district in **Tamil Nadu**.
- The **40-inch telescope** was installed in **1972** and started producing important astronomical discoveries soon after.
- More than a generation of astronomers were **trained** at this telescope as well.
- The telescope set up by **Professor Vainu Bappu** has played a **significant role in astronomy** with major discoveries like-
  - Presence of rings around the planet Uranus,
  - New satellite of Uranus,
  - Presence of an atmosphere around Ganymede which is a satellite of Jupiter
  - Discovery and study of many 'Be stars', Lithium depletion in giant stars, optical variability in Blazars, the dynamics of the famous supernova SN 1987A and so on.

Other Observatories in India:
- Solar Observatory in Kodaikanal, Tamil Nadu
- Indian Astronomical Observatory in Hanle, Ladakh
- Udaipur Solar Observatory in Udaipur, Rajasthan
- Gauribidanur Radio Observatory in Bangalore, Karnataka

Gallium Nitride (GaN) Nanostructures

Why in the news?
- Researchers in Bengaluru's Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institute, have recently shown infrared light emission and absorption with GaN nanostructures.

About GAN
- It is a **very hard and mechanically stable wide band gap (WBG) semiconductor**, as it has a hexagonal crystal structure.
- The critical factors of gallium nitride: Its **reliability**, **compact size**, **high efficiency**, **fast switching speed**, **low on-resistance**, and **high thermal conductivity**.
- It can be helpful in **highly efficient infrared absorbers**, **emitters**, and **modulators** that are useful in defence technologies, energy technologies, imaging, sensing.

Ethylene Glycol

Why in the News?
- Uzbekistan's health ministry has recently claimed India-made cough syrups contained ethylene glycol which led to the death of at least 18 children.

About
- Ethylene glycol is a **colourless and odourless alcoholic compound** that can be fatal if consumed.
- The sweet-tasting ethylene glycol is a **syrupy or viscous liquid** at room temperature.
- It is mostly used as an **automotive antifreeze** and as a raw material for manufacturing polyester fibres.
- It is also found in several products such as **hydraulic brake fluids**, **stamp pad inks**, **ballpoint pens**, **solvents**, **paints**, **cosmetics** and **plastics**.
- Diethylene glycol and ethylene glycol are **adulterants** that are sometimes illegally used as solvents in liquid drugs.
  - Diethylene glycol and ethylene glycol may be **used by pharma companies** as an alternative to non-toxic solvents such as glycerine or propylene glycol to cut costs.
- The ingestion of ethylene glycol can **cause severe health effects**. Central nervous system depression, nausea, vomiting, intoxication, euphoria, stupor, respiratory depression, and reduced excretion of urine can occur due to ethylene glycol intoxication.

Exercise Harimau Shakti   Defence & Security

Why in the news?
- India – Malaysia joint military Exercise "Harimau Shakti -2022" has commenced at Pulai, Kluang, Malaysia.

About
- Exercise Harimau Shakti is a joint annual military training exercise **between India and Malaysia**.
- The exercise has been conducted **since 2012**.
- The exercise will **enhance the level of defence cooperation** between the Indian Army and the Malaysian Army which in turn will further foster the bilateral relations between the two nations.
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Exercise Agni Warrior   Defence & Security

Why in the news?
- The 12th Edition of Exercise Agni Warrior recently concluded on 30 November 2022.

About
- It is a bilateral exercise **between the Singapore & Indian Army**.
- Exercise Agni Warrior involved **showcasing joint firepower planning, execution and use of New Generation Equipment** by the Artillery arm of both armies.
- Exercise also included participation by both sides in a **joint computer war-game** as part of joint planning process.
- The exercise achieved its aim of **enhancing mutual understanding** of drills & procedures and improving interoperability between the two armies.

Exercise KAZIND   Defence & Security

Why in the news?
- The 6th Edition of India – Kazakhstan joint training exercise "KAZIND-22" is scheduled to be conducted at Umroi (Meghalaya).

About
- Exercise KAZIND is an annual bilateral military exercise **between India and Kazakhstan**.
- This exercise was instituted in **2016 as Exercise Prabal Dostyk** which was later upgraded to a company-level exercise and renamed as **Ex Kazind in 2018**.
- To **build positive military relations, imbibe each other's best practices** and promote the ability to operate together while undertaking counter-terrorist operations in semi-urban / jungle scenarios, under a UN peace enforcement mandate.
- The exercise will **enhance the level of defence cooperation** between the Indian Army and the Kazakhstan Army which will further foster the bilateral relations between the two nations.

Surya Kiran XVI   Defence & Security

Why in the news?
- The 16th Edition of exercise "SURYA KIRAN" was conducted at Nepal Army Battle School, Saljhandi, and continue up to 29 December 2022.

About
- It is an **Indo-Nepal joint army training exercise**.
- It is conducted annually between India and Nepal with the aim to **enhance inter-operability in jungle warfare and counter-terrorism operations** in mountainous terrain and Humanitarian Assistance and Disaster Relief (HADR) under UN mandate.
- Nepal Army soldiers of **Shree Bhawani Baksh Battalion** and **Indian Army soldiers from the 5 GR** are participating in the exercise.

INS Mormugao

Why in the news?

- The second of the Project 15B stealth-guided missile destroyers built by Mazagon Dock Shipbuilders Limited (MDSL), INS Mormugao (Pennant D67), was commissioned into the Indian Navy.

About

- INS Mormugao is the **second ship of the Visakhapatnam-class destroyers** (also classed as Project -15B stealth, guided-missile destroyers).
- Built by : **Mazagon Dock Shipbuilders Limited**(MDSL).
- Named after : Mormugao is named after the **historic port city of Goa on India's west coast**.

Project 15 Delhi Class	Project 15A Kolkata Class	Project 15B Visakhapatnam class
INS Delhi INS Mysore INS Mumbai	INS Kolkata INS Kochi INS Chennai	INS Visakhapatnam INS Mormugao INS Imphal INS Surat

Functions

- The ship is propelled by **four powerful gas turbines** and is capable of achieving speeds of **over 30 knots**.
- It is equipped with **surface-to-surface and surface-to-air missiles**.
- It is also fitted with a **modern surveillance radar** that provides target data to the gunnery weapon systems.
- The warship has **Total Atmospheric Control System (TACS)** which offers protection and enables to fight under nuclear, biological and chemical warfare conditions.
- The warship is capable of **anti-aircraft**, **anti-submarine** and **anti-surface operations**.

Maritime Anti-Piracy Bill

Why in News?

- Rajya Sabha has passed the Anti-Maritime Piracy Bill which the government said would provide an effective legal instrument to combat Maritime Piracy. The bill is in line with the United Nations Convention on the Law of the Sea (UNCLOS).

About provisions

Key highlights of the Bill:

- The Bill enables Indian authorities to take action against piracy in the high seas. The Bill brings into law the UN Convention on the Law of the Sea. It applies to the sea beyond the Exclusive Economic Zone (EEZ), i.e., beyond 200 nautical miles from India's coastline.
- The Bill defines piracy 'as any illegal act of violence, detention or destruction against a ship, aircraft, person or property, for private purposes, by the crew or passengers of a private ship or aircraft.'
- Piracy also includes inciting and intentionally facilitating such acts of violence, and voluntarily participating in the operation of a pirate ship or aircraft.
- Committing an act of piracy will be punishable with:
    - life imprisonment; or
    - Death, if the act of piracy causes or seeks to cause death.
- Participating, organising, aiding, supporting, attempting to commit, and directing others to participate in an act of piracy will be punishable with up to 14 years of imprisonment, and a fine.

Issues with the bill

Death penalty

- Under the Bill, if a person, while committing an act of piracy causes or seeks to cause death, he will be punished with death.
- This implies a mandatory death penalty for such offences.
- The mandatory death penalty for any crime, according to the Supreme Court, is unconstitutional since it breaches Articles 14 and 21 of the Constitution.

Imprisonment
- The Bill stipulates that anyone who engages in an act of piracy faces a maximum 14-year sentence in jail. Committing an act of piracy (which includes voluntarily participating in the operation of a pirate ship or aircraft) is punishable with life imprisonment.
- It is unclear how the punishment would be assessed in such scenarios because these circumstances may overlap.

Exclusive Economic Zone
- The Bill will be applicable to all sea areas that are adjacent to and outside of India's Exclusive Economic Zone (EEZ), or outside of 200 nautical miles from the coast.
- The question is whether the EEZ, or the space between 12 and 200 nautical miles, should also be included by the Bill (from the coastline of India).

Prahari App — Defence & Security

Why in News?
- Union Home Minister Amit Shah launched the 'Prahari' Mobile app and Manual of Border Security Force (BSF) in New Delhi.

About the app
- BSF 'Prahari' app is a great example of Proactive Governance, now Jawans can **get personal and service-related information**, **housing**, **Ayushman-CAPF and leave** related information on their mobile.
- Other features of the app include
  - Availability of Bio Data
  - Grievance redressal on "**Centralized Public Grievance Redress and Monitoring System**" (CP-GRAMS)
  - information on various welfare schemes.
- The app will also connect the Jawans with the portal of the Ministry of Home Affairs.

> **The Border Security Force (BSF)**
> - It is India's border guarding organisation on its border with **Pakistan and Bangladesh**.
> - It is one of the seven Central Armed Police Forces (CAPF) of India, and was raised in the wake of the **1965 war on 1 December 1965**.
> - It comes under the **Ministry of Home Affairs**.
> - BSF contributes its **personnel every year for UN Missions**.

Critical Information Infrastructure — Defence & Security

Why in the news?
- Census, National Population Register (NPR) databases notified as Critical Information Infrastructure (CII).

About CII
- The Information Technology Act of 2000 defines "Critical Information Infrastructure" as a **"computer resource, the incapacitation or destruction of which shall have debilitating impact on national security, economy, public health or safety".**
- The government, under the Act, has the power to declare any data, database, IT network or communications infrastructure as CII to protect that digital asset.
- Any person who secures access or attempts to secure access to a protected system in violation of the law can be punished with **a jail term of up to 10 years.**

Measures taken to protect CI
- National Critical Information Infrastructure Protection Centre (**NCIIPC**) is the **nodal agency** for taking all measures to protect CIIs.
- Indian **Computer Emergency Response Team** (CERT-In) is nodal agency for responding to computer security incidents.
- National Cyber Security Coordinator (NCSC) to **coordinate** with different agencies at the **national level for cyber security matters**.
- **National Cyber Security Policy 2013** to build asecure and resilient cyberspace.

Why in the news?

- SFO Technologies has partnered with DRDO to develop high-energy laser system (HELS).

About HELS

- The collaboration with DRDO's **Center for High Energy Systems and Sciences (CHESS)** is to develop a **2 kW single-mode continuous wave fiber laser**.
- CHESS is a defence lab under DRDO for research and works on HELS.

About HELS

- HELS weapons emit enough thermal energy to directly render a target ineffective **without using a conventional munition**.
- They could affect targets across the domains of **air, ground, sea, and space**.
- HELS is a laser weapon belonging to **Directed Energy Weapon (DEW) Category**.
- DEW is an umbrella term covering technologies that produce a
- beam of concentrated **electromagnetic energy or atomic or subatomic particles**.
- The weapon India is developing is Directionally **Unrestricted Ray-Gun Array (DURGA II)**.
- Other projects: **Kilo Ampere Linear Injector (KALI)**, Project Aditya and air defence dazzlers.
- Russia, France, Germany, United Kingdom, Israel and China have robust programmes to develop DEWs.