

UPSC Monthly Current Affairs July 2021



GS PAPER-1 (History, Art & Culture, Social Issues & Geography)

Tidal wave washes away portion of Odisha village

(Topic- GS Paper I- Geography, Source- The Hindu)

Why in the news

- Recently, ‘**Ramayapalli**’ an odisha village has been facing the threat of tidal surge for the last 14 years, with the Bay of Bengal menacingly marching towards the mainland.



Vanishing village: The sea surge has resulted in submergence of the beach in Ramayapalli. Special arrangement

About Tidal Waves

- Tides can be defined as the alternate rise and fall of the ocean water. It is caused by the combined effects of :
 - a. The gravitational force exerted on Earth by the Sun
 - b. The gravitational force exerted on Earth by the Moon
 - c. Rotation of the Earth

Types of Tides

Tides Based on Frequency

- a. Semi-Diurnal Tides
- b. Diurnal Tides
- c. Mixed

Tides Based on the Position of Earth, Sun, and the Moon

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- a. Spring Tides
- b. Neap Tides

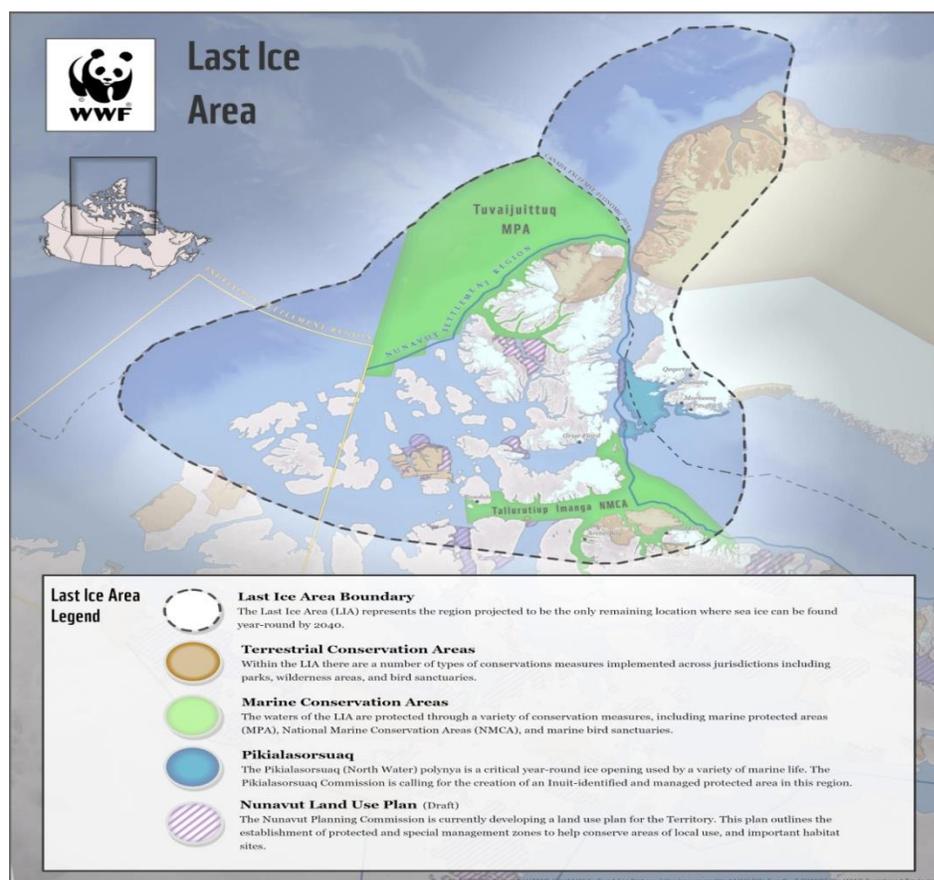
Arctic's 'Last Ice Area'

(Topic- GS Paper I – Geography, Source- Indian Express)

Why in the news?

- Recently, a part of the Arctic's ice called "Last Ice Area", located north of Greenland, has melted before expected.
- Scientists had believed this area was strong enough to withstand global warming.
- In August 2020, the scientists noted that the area where the Last Ice Area (LIA) is located experienced a record low concentration of sea ice.

About the Last Ice Area



- In an article published in 2015, the National Geographic noted that while climate projections forecast the total disappearance of summer ice in the Arctic by the year 2040.
- It is the only place that would be able to withstand a warming climate would be this area of ice called the "Last Ice Area".

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- The **World Wildlife Fund (WWF)** notes that climate change is shrinking the extent of Arctic summer sea ice, which is not only important for animals but also the local Inuit communities.

Significance of the area

- The area is important because it was thought to be able to help ice-dependent species as ice in the surrounding areas melted away.
- The area is used by polar bears to hunt for seals who use ice to build dens for their offspring.
- **Walruses** too, use the surface of the ice for foraging.
- **The walrus is a large flippered marine mammal with a discontinuous distribution about the North Pole in the Arctic Ocean and subarctic seas of the Northern Hemisphere.**

Reasons for change

- Through satellite images, researchers noted that the sea ice concentration was at a record low of 50 percent, as of August 14, 2020.
- The team also explored the reasons for the record low concentration of sea ice.
- They say that about 80 percent of thinning can be attributed to weather-related factors such as winds that break up and move the ice around.
- The remaining 20 percent can be attributed to longer-term thinning of the ice due to global warming.

About the World Wide Fund for Nature

- It is an international non-governmental organization founded in 1961 that works in the field of wilderness preservation and the reduction of human impact on the environment.
- It's headquartered at Gland, Switzerland.
- Its mission is to conserve nature and reduce the most pressing threats to the diversity of life on Earth.

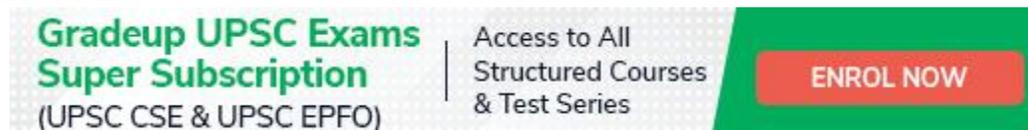
Heat dome

(Topic- GS Paper I – Geography, Source- Indian Express)

Why in the news?

- Recently, the Pacific Northwest and some parts of Canada recorded temperatures around 46 degrees, causing a "historic" heat wave.
- This is a result of a phenomenon referred to as a "heat dome".

About heat dome



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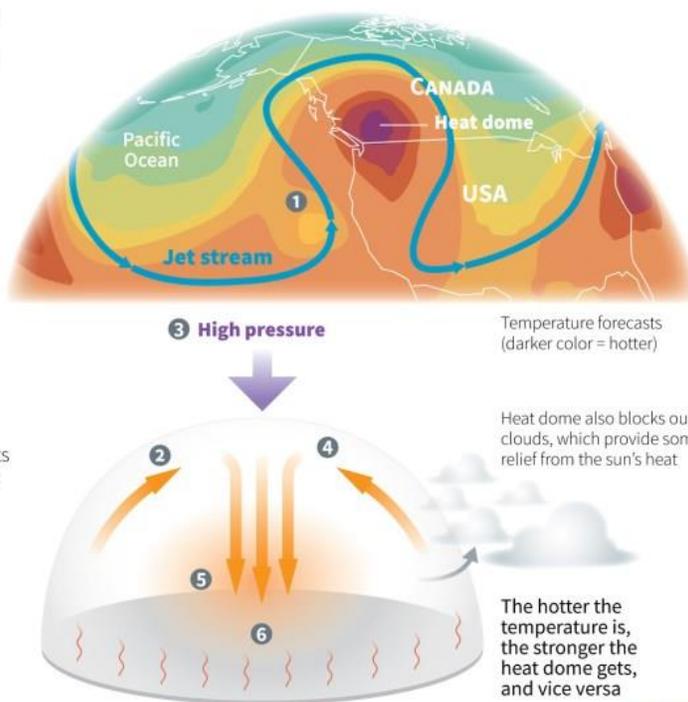
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The 'heat dome'

Occurs when the atmosphere traps hot ocean air like a lid or cap

- 1 In summer, the **jet stream** (which moves the air) shifts northward
- 2 **Hot** and stagnant air **expands** upwards
- 3 Strong and **high-pressure** atmospheric conditions combine with influences from La Nina act like a dome or cap
- 4 In a process known as **convection**, hot air attempts to escape but high pressure pushes it back down
- 5 Under the dome, the air sinks and **compresses**, releasing more heat
- 6 As winds move the hot air east, the jet stream traps the air where it sinks, resulting in **heat waves**



Source: NOAA/US/Canada medias, experts

- According to the US-based National Oceanic and Atmospheric Administration (NOAA), a heat dome is created when strong high-pressure atmospheric conditions combine with weather patterns like La Niña, creating vast areas of sweltering heat that get trapped under the high-pressure "dome".

Reasons for this Heat Dome

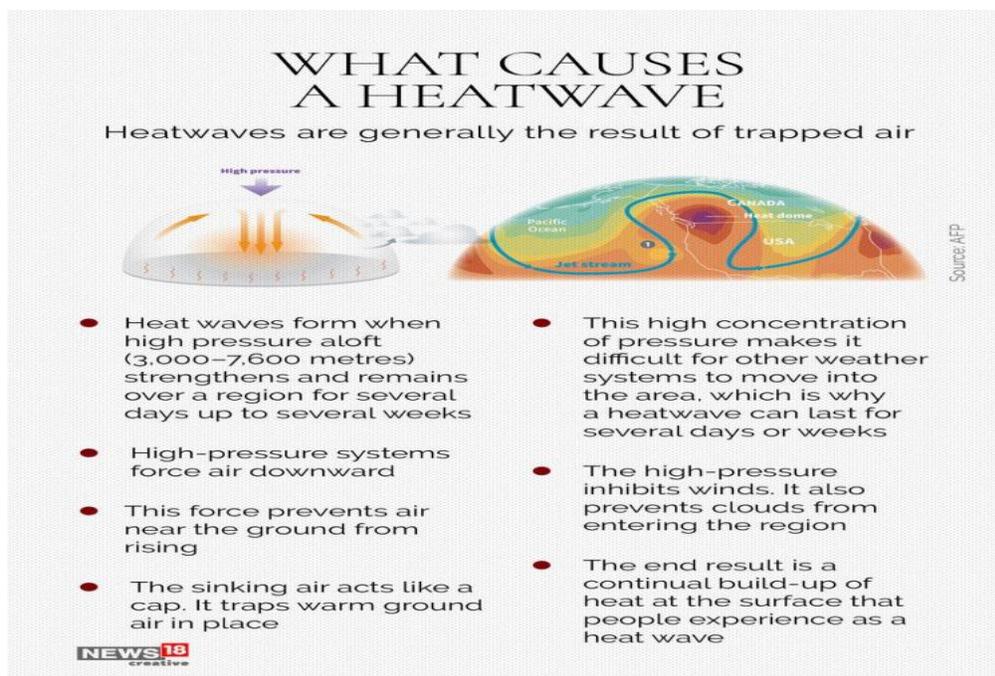
- A team of scientists funded by the NOAA MAPP Program found that the main cause of this heat dome is a strong change (or gradient) in ocean temperatures from west to east in the tropical Pacific Ocean during the preceding winter.

About Heat waves

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- It is a period of unusually hot weather that lasts for more than two days.
- Heat waves typically occur between March and June, and in some rare cases even extend till July.
- Heat waves can occur with or without high humidity and have the potential to cover a large area, “exposing a high number of people to hazardous heat.”

[Grand Ethiopian Renaissance Dam \(GERD\)](#)

(Topic- GS Paper II +I- IR and Geography, Source- Indian Express)

Why in the news ?

- Ethiopia has started the second phase of filling a mega-dam’s reservoir also known as Grand Ethiopian Renaissance Dam on the upper Blue Nile.

More on the news

- Egypt and Sudan has raising tensions ahead of an upcoming UN Security Council meeting on the divisive project.
- Both Cairo and Khartoum said they had been notified by Addis Ababa that the second phase of filling had begun at the Grand Ethiopian Renaissance Dam.

Concern

- The huge dam, set to be Africa’s largest hydroelectric project when completed, has sparked an almost decade-long diplomatic stand-off between Addis Ababa and downstream nations Egypt and Sudan. \

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- Ethiopia says the project is essential to its development, but Cairo and Khartoum fear it could restrict their citizens' water access.

About Grand Ethiopian Renaissance Dam



- It was formerly known as the **Millennium Dam** is located in **Ethiopia**, on the **Blue Nile River** about **40km east of Sudan**.
- It is a gravity dam on the Blue Nile River in Ethiopia that has been under construction since 2011.
- The dam will be the **largest hydroelectric power plant in Africa** when completed as well as **the seventh largest in the world**.

Location

- It is in the **Benishangul-Gumuz Region of Ethiopia**, about **15 km east of the Border with Sudan**.
- The dam will be the largest hydroelectric power plant in Africa when completed, as well as the seventh largest in the world.

Contentious issue

- The contentious issue around the GERD, Africa's biggest hydropower project, concerns control of the flow of water in the world's longest river among the riparian states.
- Ethiopia, Africa's second-most populated country and a manufacturing hub, views the mega dam as a symbol of its sovereignty.
- Egypt fears the project will allow Ethiopia to control the flow of Africa's longest river.
- Hydroelectric power stations do not consume water, but the speed with which Ethiopia fills up the dam's reservoir will affect the flow downstream.

What is the dispute?

- The **Nile River** has been at the **center of the dispute** involving several countries that are **dependent on the river's waters**.
- At the forefront of this dispute are **Ethiopia, Egypt, and Sudan**.
- The main waterways of the Nile run through **Uganda, South Sudan, Sudan and Egypt** and its **drainage basin runs through several countries** in East Africa including **Ethiopia, the portion** where this dam is being constructed.
- Egypt has objected to the **dam's construction** saying the **dam's location** on the **Blue Nile tributary would allow Ethiopia to gain control of the flow of the river's waters** and could result in **lower water levels within its own borders**.
- **Sudan** too is concerned that if **Ethiopia were to gain control over the river**, it would **affect the water levels Sudan receives**.

Note:

- The **construction of the dam** was initiated in **2011 on the Blue Nile tributary** of the river that **runs across one part of Ethiopia**.

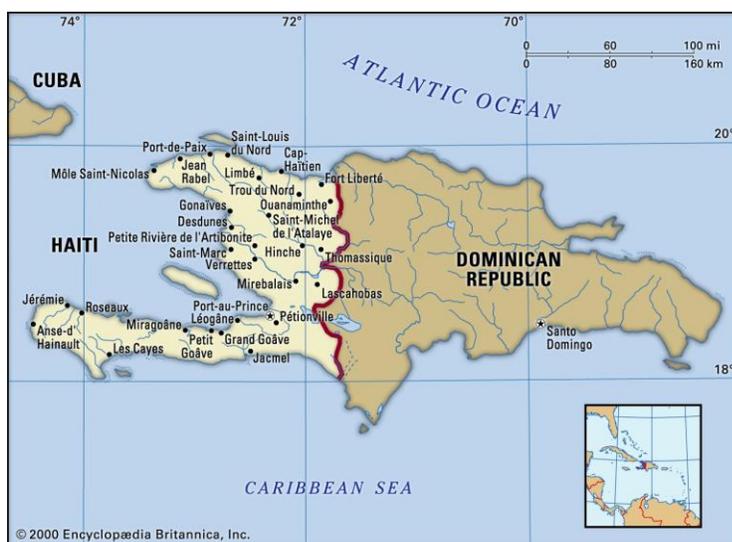
Haiti

(Topic- GS Paper I-Geography, Source- AIR)

Why in the news?

- Recently, Haiti's President Jovenel Moïse has been killed in an attack on his home in the nation's capital, Port-au-Prince.

About Haiti



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- It is a country in the Caribbean Sea that includes the western third of the island of Hispaniola and such smaller islands as Gonâve, Tortue (Tortuga), Grande Caye, and Vache.
- It occupies the western three-eighths of the Hispaniola Island (the second largest island in the Greater Antilles) which it shares with the Dominican Republic.
- It is the third largest country in the Caribbean behind Cuba and the Dominican Republic.
- The capital is **Port-au-Prince**.

Silambam: a martial art form

(Topic- GS Paper I-Art and Culture, Source-Indian Express)

Why in the news?

- Recently, Ganesan Sandhirakasan from Tamil Nadu has won the top prize in a government-initiated competition for migrant workers in Singapore for his performance of Silambam.

About Silambam



- Silambam is an ancient weapon-based martial art that emerged in Tamilakam, which is now Tamil Nadu region of India.

Origin

- It was brought by the sage Agastya Munivar.
- Sillappadikkaram and many other works of Samgam literature mentions about the practice and it dates back to 2nd century BC whereas oral folk tales traces it back even further around 7000 years.
- But according to recent surveys and archaeological excavation, it has been confirmed that Silambam was practiced from at least 10,000 BC.

Main Weapon

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- The bamboo staff is the main weapon and the length of the bamboo staff depends on the height of the practitioner.

Other weapons used in Silambam

- Maru- thrusting weapon which is made from horns of deer.
- Aruva- sickle
- Savuku- a whip
- Vaal- curved sword
- Kuttu Katai- spiked knuckleduster
- Katti- knife
- Sedikuchi- cudgel or short stic

Other Martial Arts of India

- Gatka- Punjab
- Paika- Odisha
- Thag Ta- Manipur
- Kalaripayattu- Kerala
- Choliya- Uttarakhand
- Pang Lhabsol- Sikkim
- Musti Yudha- Uttar Pradesh
- Mardani Khel- Maharashtra
- Pari Khanda- Bihar

Related Information

- In December 2020, the Sports Ministry has recently approved the inclusion of four Indigenous Games to be a part of Khelo India Youth Games 2021, scheduled to take place in Haryana.
- The games include: **Gatka, Kalaripayattu, Thang-Ta and Mallakhamba.**



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About these indigenous games

Kalaripayattu

- It has its origin from Kerala and has practitioners all over the world.

Mallakhamb

- It has been well-known across India.
- Madhya Pradesh and Maharashtra have been the hotspots of Mallakhamb.

Gatka

- It originates from the State of Punjab and this traditional fighting style of the Nihang Sikh Warriors is used both as self-defense as well as a sport.

Thang-Ta

- It is a Manipur martial art and will get national recognition again with the help of the Khelo India Youth Games 2021.

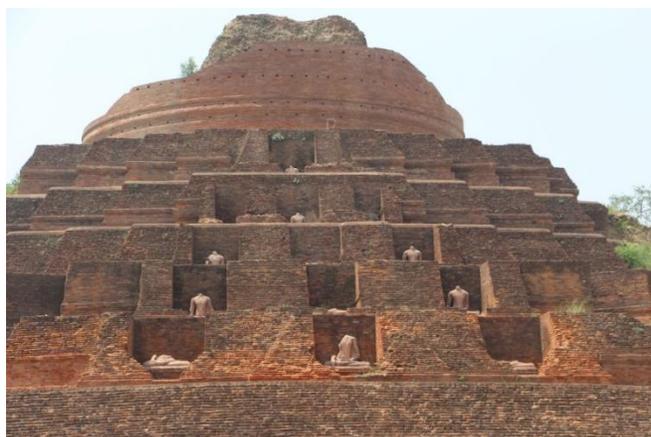
Kesaria Buddha stupa

(Topic- GS Paper I-History, Source- The Hindu)

Why in the news ?

- Recently, the world-famous Kesaria Buddha stupa in east Champaran district of Bihar is waterlogged following floods in some parts of the district after heavy rainfall in the catchment areas of river Gandak in neighbouring Nepal.

About Kesaria Buddha stupa



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- It has a circumference of almost 400 feet and stands at a height of about 104 feet.
- The first construction of the nationally protected stupa is dated to the 3rd century BCE.
- It is regarded as the largest Buddhist stupa in the world and has been drawing tourists from across several Buddhist countries.

Background

- The stupa's exploration had started in the early 19th century after its discovery led by Colonel Mackenzie in 1814.
- Later, it was excavated by General Cunningham in 1861-62 and in 1998 an ASI team led by archaeologist K.K. Muhammad had excavated the site properly.
- The original **Kesaria stupa is said to date back to the time of emperor Ashoka (circa 250 BCE) as the remains of an Ashokan pillar was discovered there.**
- The local people call the stupa "devalaya," meaning "house of gods".
- **The ASI has declared it a protected monument.**

Lightning strikes

(Topic- GS Paper I- Disaster Management Source- The Hindu)

Why in the news?

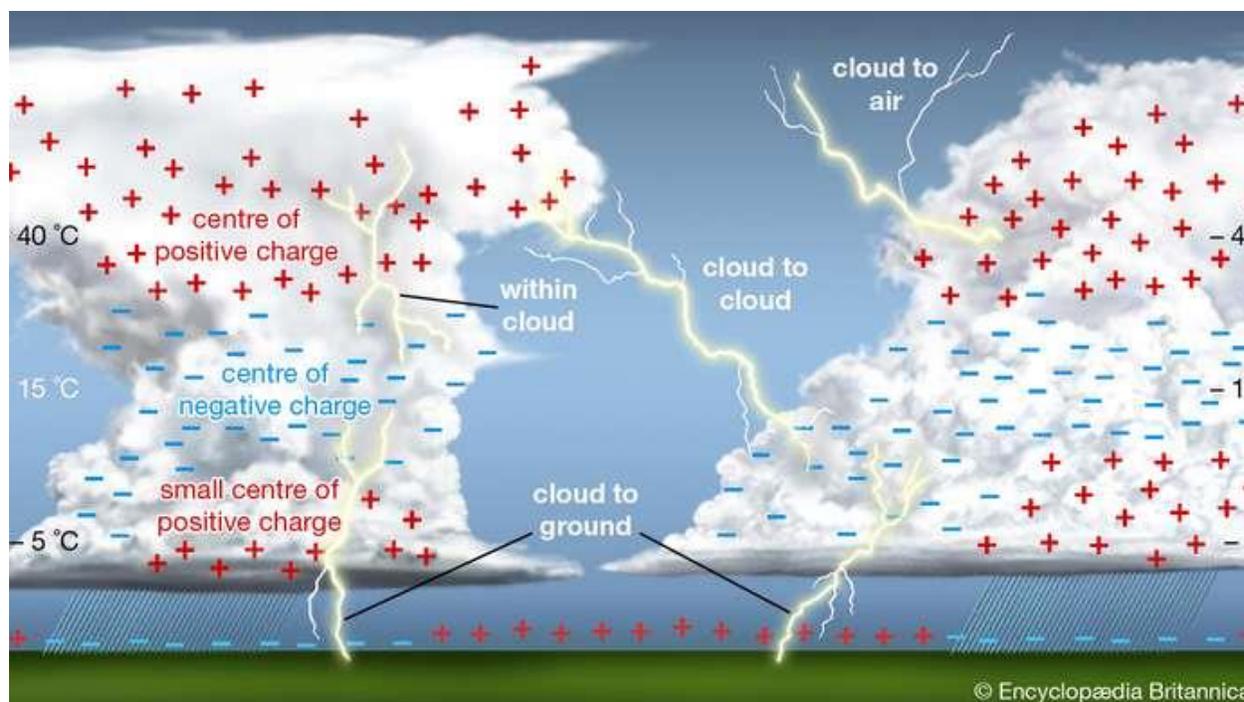
- Recently, at least 30 people were killed in separate incidents of lightning in various parts of the country in the past 24 hours.
- While Rajasthan reported 18 deaths, Uttar Pradesh recorded 12.

About lightning

- National Geographic describes lightning as an "electrical discharge caused by imbalances between storm clouds and the ground."
- This "imbalance" is created between storm clouds and objects on the ground; the lower reaches of the storm clouds are "negatively" charged while objects on the ground are "positively" charged.
- This imbalance leads to the passage of current between the two opposite charges, which is called lightning.

How it occur?

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- Lightning occurs when regions of excess positive and negative charge develop within the cloud.
- Typically, there is a large volume of positive charge in the upper regions of the cloud, a large negative charge in the centre, and a small positive charge in the lower regions.
- These charges reside on water drops, ice particles, or both.

Electrical charge distribution in a thunderstorm

- When the electrical charges become sufficiently separated in a thundercloud, with some regions acquiring a negative charge and others a positive, a discharge of lightning becomes likely.
- About one-third of lightning flashes travel from the cloud to the ground; most of these originate in negatively charged regions of the cloud.

Kongu Nadu

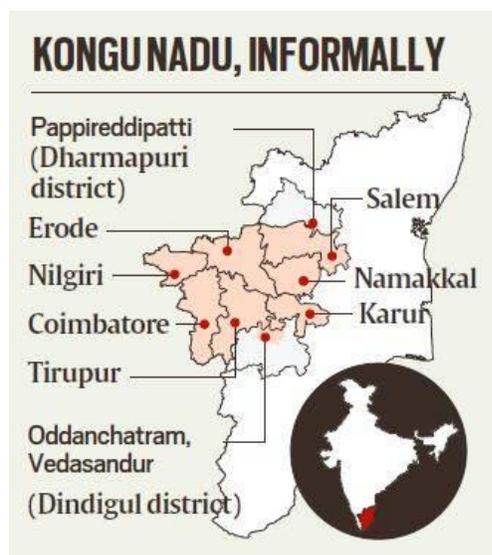
(Topic- GS Paper I- Geography, Source- The Hindu)

Why in the news?

- Recently, the new list of Union Cabinet ministers has mentioned the name of 'Kongu Nadu', the informal name for a region in the western part of Tamil Nadu.

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About Kongu Nadu



- Kongu Nadu is neither a place with a PIN code nor a name given formally to any region. It is a commonly used name for part of western Tamil Nadu.

Mention in Ancient literature

- In Tamil literature, it was referred to as one of the five regions of ancient Tamil Nadu.
- There were mentions of 'Kongu Nadu' in Sangam literature as a separate territory.
- In the present state of Tamil Nadu, the term is informally used to refer to a region that includes the districts of Nilgiris, Coimbatore, Tirupur, Erode, Karur, Namakkal and Salem, as well as Oddanchatram and Vedsandur in Dindigul district, and Pappireddipatti in Dharmapuri district.
- The name derives from Kongu Vellala Gounder, an Other Backward Caste (OBC) community with a significant presence in these districts.
- The region includes prominent businesses and industrial hubs at Namakkal, Salem, Tirupur and Coimbatore.

Lower Arun hydro electric project

(Topic- GS Paper I–Geography, Source- IE)

Why in the news?

- Recently, a memorandum of understanding (MoU) has been signed for execution of 679 MW Lower Arun Hydro Electric Project in Nepal between Satluj Jal Vidyut Nigam (SJVN) and Investment Board of Nepal (IBN) in Kathmandu Nepal.

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- Satluj Jal Vidyut Nigam is a central public sector enterprise under Ministry of Power, Government of India

About Lower Arun hydro electric project



- It is a downstream development of Arun-3 HEP.

Location

- The Lower Arun Hydro Electric Project is located in **Sankhuwasabha and Bhojpur Districts of Nepal.**
- The project will not have any reservoir or dam and will be a tail race development of 900 MW Arun3 HEP.

About Arun 3 Hydro Electric Project

- This is the second project awarded to SJVN in Nepal.
- The first one being the 900 MW Arun 3 Hydro Electric Project in Sankhuwasabha District.
- Arun-3 Project is being implemented through wholly owned subsidiary company of SJVN i.e. SJVN Arun-3 Power Development Company Limited (SAPDC) incorporated in Nepal.

Cabo Delgado

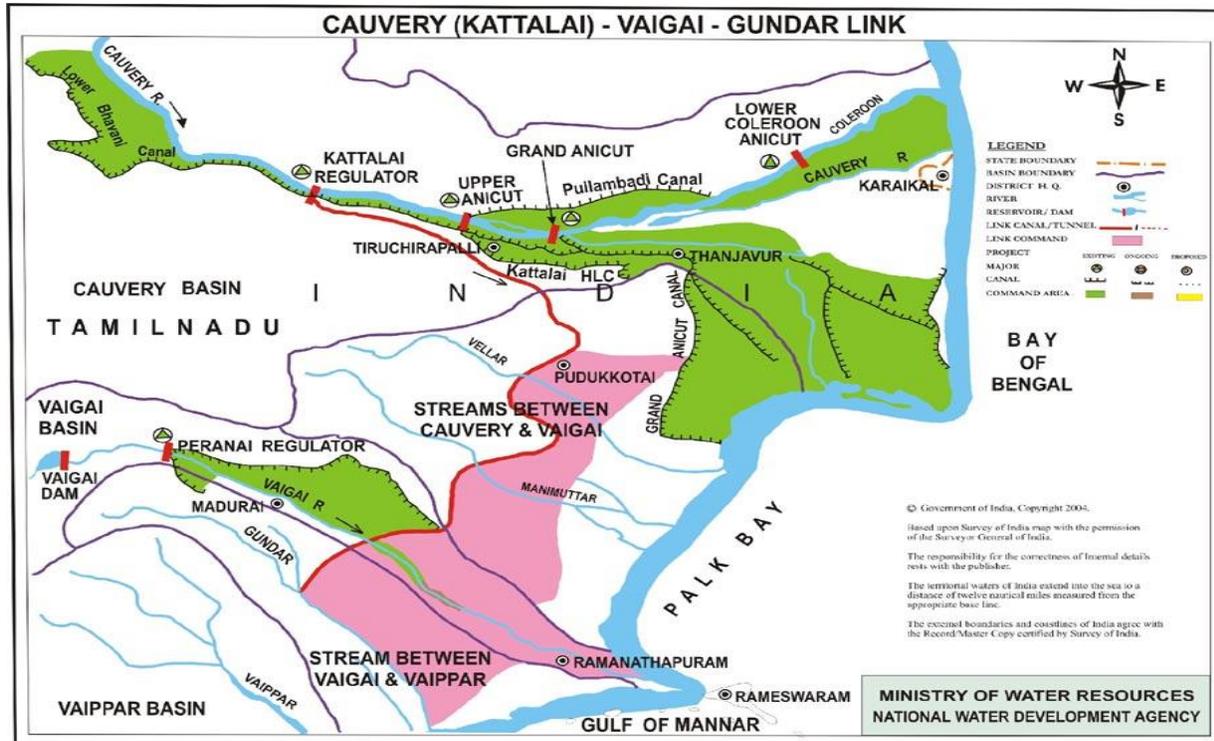
(Topic- GS Paper I + II- Geography + IR, Source- AIR)

Why in the news ?

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(CVG) link project planned by Tamil Nadu for transferring 45 tmc ft of surplus water yearly.

About Cauvery–Vaigai Link Canal



- The Cauvery – Vaigai – Gundar link is an integral part of the Peninsular Rivers Development component under the **National Perspective Plan proposals**.
- It is a project envisioned by the Government of Tamil Nadu, **linking Kaveri and Vaigai rivers**.
- Tamil Nadu depends heavily on the rivers flowing from the neighboring states of Kerala and Karnataka.
- The project involves the construction of a 60-kilometre (158.82 mi) long canal from Mayanur in Karur district to link river Kaveri with Vaigai.
- **The Cauvery – Vaigai – Gundar link project lies entirely in Tamil Nadu State.**
- This link is an integral part of the Mahanadi – Godavari – Krishna -Pennar – Cauvery – Vaigai – Gundar link, which envisages the transfer of surplus Mahanadi and Godavari waters that would be brought into the Krishna river to Pennar and from there to Palar, Cauvery, Gundar etc.
- The command area of the link project lies in Karur, Tiruchchirappalli, Pudukottai, Sivaganga, Ramanathapuram, Virudhunagar and Thoothukudi districts of Tamil Nadu State.

UNESCO strips Liverpool of its world heritage status

(Topic- GS Paper I- Art and Culture, Source- The Hindu)

Why in the news?

- The English city of Liverpool has been removed from UNESCO's list of **world heritage sites**.

Reasons

- It has been done after the United Nations' cultural agency found new buildings, including a football stadium, undermined the attractiveness of its Victorian docks.

About the Liverpool



- Liverpool is a maritime city in northwest England, where the River Mersey meets the Irish Sea.
- Liverpool was named a World Heritage Site in 2004, joining cultural landmarks such as the Great Wall of China and the Taj Mahal.

Previously stripped sites

- **Oman's Arabian Oryx Sanctuary** holds the dubious distinction of being the first-ever site to be removed from UNESCO's World Heritage List.
- **The Dresden Elbe Valley in Germany in 2009** when a four-lane motorway bridge was built over the river.

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About World Heritage Site

- UNESCO World Heritage Sites are designated specific locations such as forest areas, mountains, lakes, deserts, monuments, buildings, or cities, etc.
- These sites are officially recognised by the UN and the United Nations Educational Scientific and Cultural Organisation, also known as UNESCO.
- The list of World Heritage sites is maintained by World Heritage Programme which is administered by the **UNESCO World Heritage Committee**.
- This committee oversees these sites with the help of UNESCO.
- The objective of this program is to select and preserve such places of the world which are -important for humanity in terms of world culture.
- UNESCO provides financial assistance to such sites under certain circumstances.

About UNESCO World Heritage Committee

- It is composed of 21 UNESCO member states which are elected by the UN General Assembly.
- These are areas of importance of cultural or natural heritage as described in the UNESCO World Heritage Convention, 1972.

Criteria for Selection of World Heritage Sites

- These criteria are explained in the World Heritage Convention, 1972.
- These criteria are regularly revised by the World Heritage Committee to reflect the evolution of the World Heritage concept itself.
- Before the revised Operational Guidelines, World Heritage sites were selected based on six cultural and four natural criteria.
- With the adoption of the revised Operational Guidelines, only one set of ten criteria.

Tentative lists of Heritage Sites

- All countries are required to submit their Tentative Lists of places that they consider to be a cultural or natural heritage of outstanding universal value and therefore suitable for inscription on the World Heritage List.
- Tentative Lists is not considered exhaustive and need to submit one year before the submission of any nomination.
- Countries are required to re-examine and re-submit their Tentative List at least every ten years.
- If any site is listed in World Heritage Sites, then it must be removed from the tentative list. Related Information

Note:

- At present, India has 38 World Heritage Properties.
- Besides, India has 42(48 now) sites listed under Tentative List which is a prerequisite condition for inscription as World Heritage Site.
- Italy has the highest number of World Heritage Sites in the world.

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3 monuments of Andhra Pradesh Identified as “Adarsh Smarak

(Topic- GS Paper I-Art and Culture, Source- PIB)

Why in the news?

- Recently, three monuments of Andhra Pradesh namely have been identified as Adarsh Smarak.

These three monuments are

- a. Monuments at Nagarjunakonda, District Guntur
- b. Budhhist Remains at Salihundam, District Srikakulam
- c. Veerabhadra Temple at Lepakshi in District Anantapuram

Benefits

- These Adarsh Smarak provided additional facilities like Wi-Fi, Cafeteria, Interpretation centre, Brail signages, Illumination, etc.
- **Fort at Gandikota has been also included in the Adopt-a-Heritage scheme of the Ministry of Tourism.**

Related Information

About Adopt a Heritage Project

- The scheme has been launched by the Ministry of Tourism on World Tourism Day i.e. 27th September 2017.
- It is a key initiative of the Ministry of Tourism in close collaboration with the Ministry of Culture and Archeological Survey of India (ASI), to develop the heritage sites/monuments and making them tourist-friendly to enhance the tourism potential and their cultural importance in a planned and phased manner.
- The project plans to entrust heritage sites/monuments and other tourist sites to private sector companies, public sector companies and individuals for the development of tourist amenities.

Eligibility

- Private and Public Sector Companies, Trusts, NGOs and Individuals are eligible for adopting heritage site (s)/ monument (s) under this project.

Key Features of the Project

- The sites/monuments are selected based on tourist footfall and visibility and can be adopted by private and public sector companies and individuals known as Monument Mitras for an initial period of five years.
- The Monument Mitras are selected by the 'oversight and vision committee,' co-chaired by the Tourism Secretary and the Culture Secretary based on the bidder's 'vision' for the development of all amenities at the heritage site.

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Monument Mitras

- Successful bidders selected for adopting heritage sites/monuments by the Oversight and Vision Committee shall be called **Monument Mitras**.
- The basic and advanced amenities of the tourist destinations would be provided by them.
- They would also look after the operations and the maintenance of the amenities.
- The 'Monument Mitras' would associate pride with their CSR activities.

Kakatiya Ramappa Temple

(Topic- GS Paper I- Art and Culture, Source- The Hindu)

Why in the news?

- Recently, at the 44th session of the World Heritage Committee of UNESCO, the 13th-century Ramappa temple in Palampet, Telangana, was declared as a UNESCO World Heritage Site.

More on the news

- The 44th session of the World Heritage Committee (WHC) is going online in Fuzhou, China.
- The nomination for a World Heritage Site for the Ramappa and Kakatiya temples was made in 2014.

Opposed by ICOMOS

- Earlier, the International Council on Monuments and Sites (ICOMOS) cited nine shortcomings at the site after an initial visit in 2019.

About Kakatiya Ramappa Temple



- The Rudreswara temple was constructed in 1213 AD during the reign of the Kakatiya Empire by Recherla Rudra, a general of Kakatiya king Ganapati Deva.

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- It is also known as the Ramappa temple, after the sculptor who executed the work in the temple for 40 years.
- The main temple is flanked by the collapsed structures of the Kateshwarayya and Kameshwarayya temples in Palampet, about 220 km from Hyderabad.

Presiding Deity

- The presiding deity is Ramalingeswara Swamy.

Features

- The temple complexes of Kakatiyas have a distinct style, technology and decoration exhibiting the influence of the Kakatiyan sculptor.
- The temple, known for its exquisite craftsmanship and delicate relief work, is a savvy blend of technical know-how and materials of its time.
- The foundation is built with the “sandbox technique”, the flooring is granite and the pillars are basalt.
- The lower part of the temple is red sandstone while the white gopuram is built with light bricks that reportedly float on water.

Note:

- Kakatiya Dynasty was the South Indian dynasty that ruled Andhra Pradesh in India from 1083 CE to 1323 CE.

Related Information

About International Council on Monuments and Sites (ICOMOS)

- It is a non-governmental organization associated with UNESCO.
- It is located in Paris, France.

Mission

- Its mission is to promote the conservation, protection, use and enhancement of monuments, building complexes and sites.
- It is an advisory body of the World Heritage Committee for the implementation of the World Heritage Convention of UNESCO.
- As such, it reviews the nominations of cultural world heritage and ensures the conservation status of properties.

Background

- Its creation in 1965 is the logical outcome of initial conversations between architects, historians and international experts that began in the early twentieth century and that materialized in the **adoption of the Venice Charter in 1964.**

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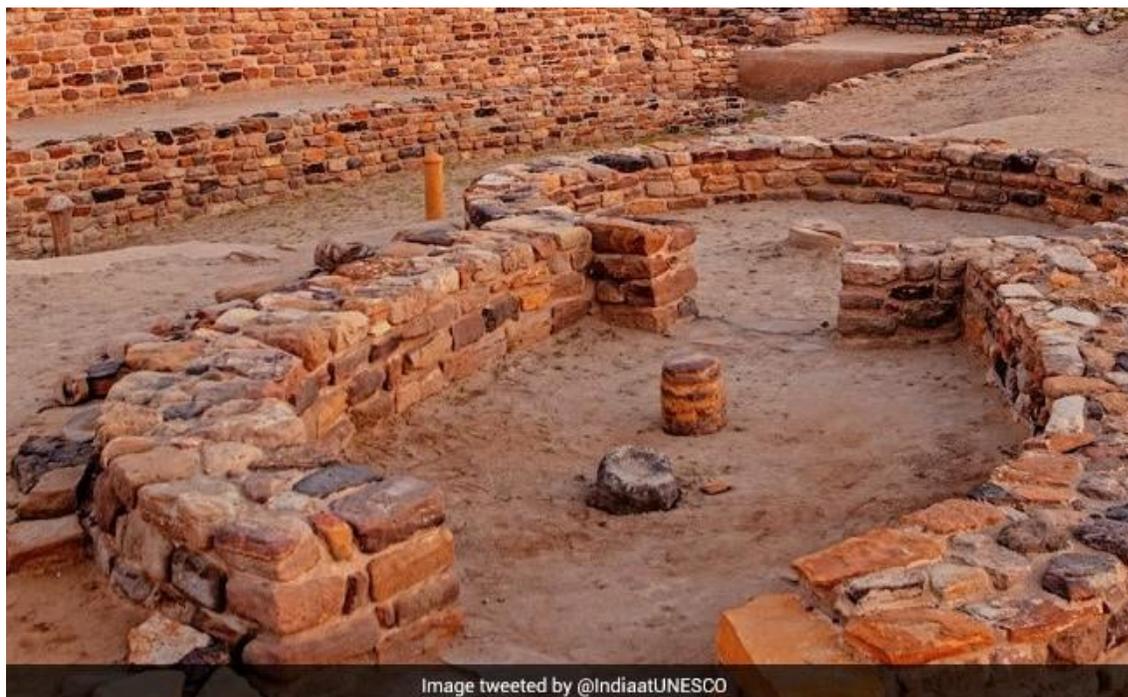
Dholavira in Gujarat on UNESCO World Heritage list

(Topic- GS Paper I Art and Culture–, Source- Hindu)

Why in the news?

- The Harappan city of Dholavira of Gujarat has recently been named the 40th Indian site on UNESCO's World Heritage list.
- It is the first site of the ancient Indus Valley Civilisation (IVC) in India to get the tag.
- The site had been on UNESCO's tentative list since 2014.

About the Dholavira



- It is located on a hillock near present-day Dholavira village in Kutch district, from which it gets its name.
- It was discovered in 1968 by archaeologist Jagat Pati Joshi.
- The site's excavation between 1990 and 2005 under the supervision of archaeologist Ravindra Singh Bisht uncovered the ancient city, which was a commercial and manufacturing hub for about 1,500 years before its decline and eventual ruin in 1500 BC.
- It is one of the most remarkable and well-preserved urban settlements in South Asia dating from the 3rd to mid-2nd millennium BCE (Before Common Era).

Distinct features

- After Mohen-jo-Daro, Ganweriwala and Harappa in Pakistan and Rakhigarhi in Haryana of India, Dholavira is the fifth largest metropolis of IVC.

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- The site has a fortified citadel, a middle town and a lower town with walls made of sandstone or limestone instead of mud bricks in many other Harappan sites.

Unique features of the Dholavira site.

- Archaeologist Bisht cites a cascading series of water reservoirs, outer fortification, two multi-purpose grounds — one of which was used for festivities and as a marketplace — nine gates with unique designs, and funerary architecture featuring tumulus — hemispherical structures like the Buddhist Stupas— as some of the unique features of the Dholavira site.

Related Information

- Recently, Paseo del Prado and Buen Retiro Park of Spain have been added to UNESCO's World Heritage List.

About the Paseo del Prado



- The Paseo del Prado Boulevard includes several monuments and enclosures that are of historical and artistic interest.
- Since 2015 it has been protected as a Cultural Heritage Monument.

Parque del Buen Retiro



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- Retiro Park or simply El Retiro is one of the largest parks of the city of Madrid, Spain.
- The park belonged to the Spanish Monarchy until the late 19th century when it became a public park.

World Heritage List added in 2021

(Topic- GS Paper I–Art and Culture, Source- Hindustan Times)

Why in the news?

- Recently, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has inscribed 33 new cultural and natural sites to its World Heritage List so far at the **44th session of the World Heritage Committee of UNESCO**.
- In 2021, the committee inscribed 33 properties on the coveted list which includes 28 cultural and 5 natural sites.

The list of the newest World Heritage Sites:

- Arslantepe Mound (Turkey)
- Chankillo Archaeoastronomical Complex (Peru):
- Colonies of Benevolence (Belgium/Netherlands)
- The Great Spa Towns of Europe (Austria, Belgium, Czechia, France, Germany, Italy, United Kingdom of Great Britain and Northern Ireland)
- Cordouan Lighthouse (France)
- Nice, Winter Resort Town of the Riviera (France)
- Dholavira: a Harappan City (India)
- Kakatiya Rudreshwara (Ramappa) Temple, Telangana (India)
- Mathildenhöhe Darmstadt (Germany)
- ShUM Sites of Speyer, Worms and Mainz (Germany)
- Frontiers of the Roman Empire -- The Lower German Limes (Germany/the Netherlands)
- Padua's fourteenth-century fresco cycles (Italy)
- The Porticoes of Bologna (Italy)

- Paseo del Prado and Buen Retiro, a landscape of Arts and Sciences (Spain)
- Quanzhou: Emporium of the World in Song-Yuan China (China)
- Roşia Montană Mining Landscape (Romania)
- Sítio Roberto Burle Marx (Brazil)
- The work of engineer Eladio Dieste: Church of Atlántida (Uruguay)
- Trans-Iranian Railway (Iran)
- Cultural Landscape of Hawraman/Uramanat (Iran)
- Himā Cultural Area (Saudi Arabia)
- Amami-Oshima Island, Tokunoshima Island, Northern part of Okinawa Island, and Iriomote Island (Japan)
- Jomon Prehistoric Sites in Northern Japan (Japan)
- Colchic Rainforests and Wetlands (Georgia)
- Getbol, Korean Tidal Flats (South Korea)
- Kaeng Krachan Forest Complex (Thailand)
- As-Salt - The Place of Tolerance and Urban Hospitality (Jordan)
- Settlement and Artificial Mummification of the Chinchorro Culture in the Arica and Parinacota Region (Chile)
- Sudanese style mosques in northern Côte d'Ivoire (Côte d'Ivoire)
- The works of Jože Plečnik in Ljubljana - Human-Centred Urban Design (Slovenia)
- The Slate Landscape of Northwest Wales (United Kingdom)
- Petroglyphs of Lake Onega and the White Sea (Russia)
- Ivindo National Park (Gabon)

Cloudbursts

(Topic- GS Paper I–Geography, Source- Indian Express)

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Why in the news?

- Recently, at least seven people were killed, 17 injured and over 35 missing after a cloudburst hit a remote village of Jammu and Kashmir.
- A 2017 study of cloudbursts in the Indian Himalayas noted that most of the events occurred in July and August.

About Cloudburst

- Cloudbursts are short-duration, intense rainfall events over a small area.
- According to the India Meteorological Department (IMD), it is a weather phenomenon with unexpected precipitation exceeding 100mm/h over a geographical region of approximately 20-30 square km.

Factors behind the cloudburst

- A study published last year studied the meteorological factors behind the cloudburst over the Kedarnath region.
- They analysed atmospheric pressure, atmospheric temperature, rainfall, cloud water content, cloud fraction, cloud particle radius, cloud mixing ratio, total cloud cover, wind speed, wind direction, and relative humidity during the cloudburst, before as well as after the cloudburst.
- The results showed that during the cloudburst, the relative humidity and cloud cover was at the maximum level with low temperature and slow winds.
- “It is expected that because of this situation a high amount of clouds may get condensed at a very rapid rate and result in a cloudburst.

Impact of climate change on Cloudburst

- Several studies have shown that climate change will increase the frequency and intensity of cloudbursts in many cities across the globe.
- In May, the World Meteorological Organization noted that there is about a 40% chance of the annual average global temperature temporarily reaching 1.5°C above the pre-industrial level in at least one of the next five years.
- It added that there is a 90% likelihood of at least one year between 2021 and 2025 becoming the warmest on record and dislodge 2016 from the top rank.

Gold ore reserves

(Topic- GS Paper I–Geography, Source- the Hindu)

Why in the news?

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- According to National Mineral Inventory data, India has 501.83 million tonnes of gold ore reserves as of April 1, 2015.
- **Out of these, 17.22 million tonnes were placed under reserves category and the rest under the remaining resources category.**

Key findings

- The largest reserves of gold ores are located in Bihar (44 per cent), followed by Rajasthan (25 per cent), Karnataka (21 per cent), West Bengal (3 per cent), Andhra Pradesh (3 per cent), Jharkhand (2 per cent).
- The remaining 2 per cent reserves are in Chhattisgarh, Madhya Pradesh, Kerala, Maharashtra and Tamil Nadu.

Institute Involved

- The Geological Survey of India (GSI) is actively engaged in geological mapping, followed by mineral exploration and surveys, of various mineral commodities to identify potential mineral rich zones and establish resources.
- Every year, according to the approved annual Field Season Program, GSI takes up mineral exploration projects in various parts of the country for augmenting mineral resources.

Recent Development

- The Government of India recently amended the Minerals Evidence of Mineral Contents Rules to allow auction of composite licence at G4 level for deep-seated minerals, including gold.

Significance

- It will help to bring more participation from private players with advanced technology in the field of exploration and mining of deep-seated minerals, which is expected to reduce the cost of extraction of gold.

Related Information

About World Gold Council

- It is the market development organisation for the gold industry.

Objectives

- To stimulate and sustain demand for gold, provide industry leadership, and be the global authority on the gold market.

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- It helps to support its members to mine in a responsible way and developed the Conflict-Free Gold Standard.

Headquarter

- It's headquartered in the United Kingdom.

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GS PAPER-2 (Polity & Governance & International Issues)

Israel improving relation with West Asia

(Topic- GS Paper II –IR, Source- The Hindu)

Why in the news ?

- Recently, Israel’s new Foreign Minister ‘**Yair Lapid**’ visited to the United Arab Emirates was just the start of a road to wider peace in West Asia.
- He is the first Israeli Cabinet Minister to visit the Gulf state since the countries forged ties last year, also reiterated Israel’s concern about the Iran nuclear deal being negotiated in Vienna.

Recent development between Israel and West Asia

Abraham Accords

- Israel, Bahrain and United Arab Emirates signed the Abraham Accord in 2020.

About Abraham Accord



- It is the first Arab-Israeli peace deal in 26 years which is mediated by the United States.
- Egypt was the first Arab State to sign a peace deal with Israel in 1979 and Jordan signed a peace pact in 1994.

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- As per the agreements, the UAE and Bahrain will establish embassies, exchange ambassadors, cooperate and work together with Israel across a range of sectors, including tourism, trade, healthcare and security.
- It would open the door for Muslims around the world to visit the historic sites in Israel and to peacefully pray at Al-Aqsa Mosque in Jerusalem, **the third holiest site in Islam.**

Palestine Issue

- The agreements leave the Palestinian question largely unaddressed.
- With Arab countries signing diplomatic agreements with Israel bilaterally, the 2003 Arab collective support for the Palestinian movement for nationhood is crumbling.
- The Arab initiative calls for normalizing relations between the Arab world and Israel, in exchange for a full withdrawal by Israel from the occupied territories and the establishment of a Palestinian state.
- But it does not mean that the Palestinian question would fade away.

Non-Arab Muslim Powers

- The vacuum left by the retreat of the Arab powers from the Israel-Palestine conflict is being filled by the non-Arab Muslim powers Iran, Turkey and their allies.
- The geopolitical sands may be shifting but the core issue concerning Israel is unresolved.
- **The UAE-Bahrain** agreements are in fact endorsing the region's emerging order.
- With the U.S. in retreat and Turkey and Iran pursuing more aggressive foreign policies, there is a three-way contest taking shape.
- In this contest Sunni-ruled Arab kingdoms, all American allies, are realigning their geopolitical interests with Israel.
- The Abraham Accords are likely to sharpen this contest

U.S. involved in UK Russia standoff in Black sea

(Topic- GS Paper II –IR, Source- The Hindu)

Why in the news?

- Recently, Russian President Vladimir Putin has accused Washington of involvement in an incident involving a British destroyer off the coast of Moscow-annexed Crimea.

Background

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- Recently, Russia accused Britain of spreading lies over a warship confrontation in the Black Sea and warned London that it would respond resolutely to any further provocative actions by the British Navy off the coast of Russia-annexed Crimea.

Western countries opinion

- Western countries deem the Crimea to be part of Ukraine and reject Russia's claim to the seas around it.

Crimea Profile

- Under Greek and Roman influence for centuries, in 1443 Crimea became the centre of a Tatar Khanate, which later fell under Ottoman control.
- Crimea was annexed by the Russian Empire during the reign of Catherine the Great in 1783 and remained part of Russia until 1954, when it was transferred to Ukraine under the then Soviet leader Nikita Khrushchev.
- Ethnic Russians make up the majority of the population, but with significant Ukrainian and Crimean Tatar minorities.
- Rival imperial ambitions in the mid 19th century led to the Crimean War when Britain and France, suspicious of Russian ambitions in the Balkans as the Ottoman Empire declined, sent troops.
- Given autonomous republic status within Russia after the Bolshevik revolution, Crimea was occupied by the Nazis in the early 1940s.
- **Russia seized and annexed the Crimea peninsula from Ukraine in 2014 and considers areas around its coast to be Russian waters.**

Cinematograph Act, 1952

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- A group of actors and filmmakers have recently written an open letter to the Information & Broadcasting Ministry, against the government's proposed amendments to the 1952 Cinematograph Act.

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Background

- Recently, the Centre released the draft **Cinematograph (Amendment) Bill 2021** to the general public for comments until July 2.

Key Provisions of Cinematograph (Amendment) Bill 2021

Revision of certification

- This provision will give the centre with revisionary powers on account of violation of Section 5B (1) (principles for guidance in certifying films) and enable it to “re-examine” films already cleared by the Central Board of Film Certification (CBFC).
- The current Act, in Section 6, already equips the Centre to call for records of proceedings in relation of a film’s certification. .

Age-based certification

- The draft proposes to introduce age-based categorisation and classification.
- Currently, films are certified into the following categories —
 - a. ‘U’ for unrestricted public exhibition;
 - b. ‘U/A’ that requires parental guidance for children under 12;
 - c. ‘A’ for adult films
 - d. S: Restricted to a specialized group of people, such as engineers, doctors or scientists
- The new draft proposes to divide the categories into further age-based groups: U/A 7+, U/A 13+ and U/A 16+.
- This proposed age classification for films echoes the new IT rules for streaming platforms.

Provision against piracy

- At present, there are no enabling provisions to check film piracy. Violation shall be punishable with imprisonment and fine.

Eternal certificate

- It proposes to certify films for perpetuity. Currently a certificate issued by the CBFC is valid only for 10 years.

Related Information

- Recently, the ministry of law and justice had also abolished the Film Certification Appellate Tribunal (FCAT).

About Film Certification Appellate Tribunal

- FCAT was a statutory body constituted set up by the Ministry of Information & Broadcasting in 1983, under Section 5D of the Cinematograph Act, 1952.

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- Its main job was to hear appeals filed under Section 5C of the Cinematograph Act, by applicants for certification aggrieved by the decision of the Central Board of Film Certification (CBFC).

Members

- The tribunal was headed by a chairperson and had four other members, including a Secretary appointed by the Government of India to handle.

Headquarter

- The Tribunal was headquartered in New Delhi.

About Central Board of Film Certification

- The Central Board of Film Certification (CBFC) is a statutory film-certification body in the Ministry of Information and Broadcasting of the Government of India.

Members

- It consists of a Chairperson and 23 members, all appointed by the Government of India

Functions

- It is tasked with "regulating the public exhibition of films under the provisions of the Cinematograph Act 1952."
- Films screened in cinemas and on television may only be publicly exhibited in India after certification by the board.
- In India, all films must have a CBFC certificate if they are to be released theatrically, telecast on television, or displayed publicly in any way.
- The CBFC can also deny certification a film.

NIPUN Bharat

(Topic- GS Paper II- Government Policies, Source- The Hindu)

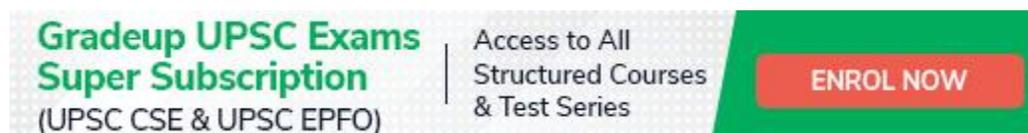
Why in the news?

- The Department of School Education and Literacy has recently launched National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat).

More on the news

- Center has also changed the deadline of National Educational policy 2020, to 2026-27 which was previously **2025** due to COVID-19.

About NIPUN Bharat



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- NIPUN Bharat will be implemented by the Department of School Education and Literacy under the Ministry of Education.
- It is a five-tier implementation mechanism will be set up at the national- state- district- block- school level in all states and UTs, under the aegis of the centrally sponsored scheme of Samagra Shiksha.

Vision

- The vision of NIPUN Bharat Mission is to create an enabling environment to ensure universal acquisition of foundational literacy and numeracy, so that every child achieves the desired learning competencies in reading, writing and numeracy by the end of Grade 3, by 2026-27.
- NIPUN Bharat is likely to emphasise goal setting and accountability for State governments, and provide guidelines for teacher training, assessment and the creation of printed resources

Funding

- It is funded through the Samagra Shiksha scheme.

About Samagra Shiksha

- It is a **centrally Sponsored Scheme**.
- It is an integrated scheme for school education extending from pre-school to class XII to ensure inclusive and equitable quality education at all levels of school education.
- It subsumes the three Schemes of
 - Sarva Shiksha Abhiyan (SSA)
 - Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
 - Teacher Education (TE).
- The scheme treats school education holistically as a continuum from Pre-school to Class 12.
- The main emphasis of the Scheme is on improving the quality of school education by focussing on the two T's – Teacher and Technology.
- The Scheme will help improve the transition rates across the various levels of school education and aid in promoting universal access to children to complete school education.
- **It also helps to achieve to fulfill the following SDG goal**
 - The Goal SDG-4.1 states that “By 2030, ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
 - Further the SDG 4.5 states that “By 2030, eliminate gender disparities in education and ensure equal access to all levels of Education and vocational training for the

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vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations”.

The major objectives of the Scheme are

- a. provision of quality education and enhancing learning outcomes of students;
- b. Bridging Social and Gender Gaps in School Education;
- c. Ensuring equity and inclusion at all levels of school education;
- d. Ensuring minimum standards in schooling provisions;
- e. Promoting Vocationalisation of education;
- f. Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009;
- g. Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as nodal agencies for teacher training.

Related Information

Initiatives to boost Education Sector

PM e-VIDYA

- It is a comprehensive initiative which unifies all efforts related to digital/online/on-air education.
- This will enable multi-mode access to education, and includes:
 - DIKSHA (one nation-one digital platform)
 - TV (one class-one channel) where one dedicated channel per grade for each of the classes 1 to 12.
 - It will provide access to quality educational material.
 - SWAYAM online courses in MOOCS format for school and higher education.
 - IITPAL for IIT JEE/NEET preparation.
 - Air through Community radio and CBSE Shiksha Vani podcast.
 - Study material for the differently abled developed on Digitally Accessible Information System (DAISY) and in sign language on NIOS website/ YouTube.

Manodarpan

- It is an initiative launched under Atmanirbhar Bharat Abhiyan.
- It is aimed to provide psychosocial support to students, family members and teachers for their mental health and well-being during the times of Covid-19.
- The platform includes a national toll free helpline for students of schools, universities and colleges, which will be manned by a pool of experienced counsellors, psychologists and mental health professionals.

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Significance

- It would act as an element of strengthening human capital and increasing productivity for the education sector in the wake of covid-19.

Child Soldier Recruiter List

(Topic- GS Paper II- IR, issues related to vulnerable section, Source- The Hindu)

Why in the news?

- The United States of America has recently added Pakistan and 14 other countries to a Child Soldier Recruiter List.

About the Child Soldier Recruiter List

- The US Child Soldiers Prevention Act (CSPA) requires the publication in the annual Trafficking in Persons (TIP) report a list of foreign governments that have recruited or used child soldiers during the previous year (April 1, 2020, to March 31, 2021).
- It identifies foreign governments having government-supported armed groups that recruit or use child soldiers, a designation that could result in restrictions on certain security assistance and commercial licensing of military equipment.
- The countries which have been added to the annual TIP list of the US State Department this year are: Pakistan, Turkey, Afghanistan, Myanmar, Democratic Republic of the Congo, Iran, Iraq, Libya, Mali, Nigeria, Somalia, South Sudan, Syria, Venezuela and Yemen.

Definition of a Child soldier

- The recruitment or use of children below the age of 15 as soldiers is prohibited by both the UN Convention on the Rights of the Child (CRC) and the additional protocols to the Geneva Conventions, and is considered a war crime under the Rome Statute of the International Criminal Court.

Optional Protocol

- The Optional Protocol to the UN Convention on the Rights of the Child further prohibits kids under the age 18 from being compulsorily recruited into state or non-state armed forces or directly engaging in hostilities.
- The United States is a party to the Optional Protocol.

About Convention on the Rights of the Child

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- It is a treaty adopted by the United Nations General Assembly in 1989 and entered into force on September 2, 1990.
- It recognises a child as every human being under 18 years old.
- It sets out the civil, political, economic, social and cultural rights of every child, regardless of their race, religion or abilities.
- It includes rights such as Right to Education, Right to Rest and Leisure, Right to Protection from Mental or Physical Abuse including Rape and Sexual Exploitation.
- **Currently, 193 countries have ratified the CRC which is the world's most widely ratified human rights treaty.**
- It further prohibits the state parties from recruiting children under 15 into the armed forces.

Note:

- The CRC requires states to refrain from using children under 15 in direct hostilities; the Optional Protocol rises this age to 18.

What are prohibited for countries in the list?

The following types of security assistance are prohibited for countries that are in the list:

1. Licenses for direct commercial sales of military equipment
2. Foreign military financing for the purchase of defense articles and services, as well as design and construction services
3. International military education and training
4. Excess defense articles
5. Peacekeeping operations

Istanbul Convention on violence against women

(Topic- GS Paper II- IR, issues related to vulnerable section, Source- The Hindu)

Why in the news?

- Recently, Turkey's controversial exit from Istanbul Convention on Violence Against Women has received severe criticism from various quarters and has led to protests across the country.

About Istanbul Convention on violence against women

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- It is also known as the Council of Europe Convention on preventing and combating violence against women and domestic violence.
- It is a human rights treaty of the Council of Europe against violence against women and domestic violence which was opened for signature on 11 May 2011, in Istanbul, Turkey.
- **Turkey became the first country to ratify the Istanbul convention and, on March 8, 2012, it incorporated the Istanbul Convention into domestic law**
- The convention aims to prevent and prosecute all forms of violence against women, promote gender equality and ensure protection and rehabilitation of women who are victims of violence.

Reasons for Turkey's withdrawal

- Even though the official gazette did not include the reason for Turkey's withdrawal, some officials of Erdogan's nationalist party claimed that the convention demeans traditional family structure, promotes divorces and encourages acceptance of LGBTQ in the society.
- Turkey's Communication Directorate released a statement saying, "The Istanbul Convention, originally intended to promote women's rights, was hijacked by a group of people attempting to normalize homosexuality – which is incompatible with Turkey's social and family values which is the main cause for withdrawal.

Problem of violence against women in Turkey

- Violence against women and honour killings are persistent in Turkey.
- **The country ranks 133 out of 156 countries in the Global Gender Gap report 2021.**
- According to UN women data, 38 per cent of women in Turkey face violence from a partner in their lifetime.
- The Turkish government does not maintain any official records on femicides.

[A.P.-Telangana dispute over Krishna water intensifies](#)

(Topic- GS Paper II-Governance, Source- PIB)

Why in the news?

- Andhra Pradesh and Telangana have recently intensified the dispute of sharing of the Krishna waters.
- The dispute is particularly in the wake of works on the **Rayalaseema Lift Irrigation Scheme (RLIS)** taken up by Andhra Pradesh and power generation at three inter-State projects by Telangana.

Related Information

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- The Andhra Pradesh Reorganisation Act, 2014 mandates for the constitution of an Apex Council by the Central Government for the supervision of the functioning of the Godavari River Management Board and Krishna River Management Board.
- The Apex Council comprises the Union Water Resources Minister and the Chief Ministers of Telangana and Andhra Pradesh.

About Inter-State River Water Disputes

- **Article 262 of the Constitution provides for the adjudication of inter-state water disputes.**
- Under this, Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.
- The Parliament has enacted the two laws.
 - a. The River Boards Act (1956)**
 - b. The Inter-State Water Disputes Act (1956)**
- The River Boards Act provides for the establishment of river boards by the Central government for the regulation and development of Inter-state River and river valleys.
- A River Board is established on the request of state governments concerned to advise them.

Some Water Tribunal and their concerned states

- **Ravi & Beas Water Tribunal** - Punjab, Haryana and Rajasthan
- **Krishna Water Disputes Tribunal**- Karnataka, Telangana, Andhra Pradesh and Maharashtra
- **Vansadhara Water Disputes Tribunal**- Andhra Pradesh & Odisha
- **Mahadayi Water Disputes Tribunal**- Goa, Karnataka and Maharashtra
- **Mahanadi Water Disputes Tribunal** - Odisha and Chhattisgarh

Section 66A of IT Act

(Topic- GS Paper II- Governance, Source- PIB)

Why in the news ?

- The Supreme Court found it “distressing”, “shocking” and “terrible” that people were still booked and tried under Section 66A of the Information Technology (IT) Act even six years after it struck down the provision as unconstitutional and a violation of free speech.

About the Section 66A of the Information Technology (IT) Act

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- Section 66A dealt with information related crimes in which sending information, by means of a computer resource or a communication device, which is inter alia offensive, derogatory and menacing is made a punishable offence.
- It had been dubbed as “draconian” for it allowed the arrest of several innocent persons, igniting a public outcry for its scraping.

Punishment

- It prescribed the punishment for sending messages through computer or any other communication device like a mobile phone or a tablet, and a conviction could fetch a maximum of three years in jail.

Shreya Singhal v/s Union of India

- In this case, the Supreme Court has struck down the Section 66A of the Information Technology (IT) Act for “being violative of Article 19(1) (a) and not saved under Article 19(2).”
- The court, in the Shreya Singhal Judgment authored by Justice Rohinton F. Nariman in March 2015, had concluded that the provision of the **Section 66A of the Information Technology (IT) Act** is vague and worded arbitrarily.
- **Article 19(1) (a) gives peoples the right to speech and expression whereas 19(2) accord the state the power to impose “reasonable restrictions” on exercise of this right.**

Section 43D (5) of UAPA

(Topic- GS Paper II- Governance, Source- Indian Express)

Why in the news?

- Recently, Stan Swamy had moved the Bombay High Court challenging Section 43D (5) of the Unlawful Activities Prevention Act (UAPA) — a provision Swamy termed “illusory”.

More on the news

- The provision makes grant of bail virtually impossible under UAPA since it leaves little room of judicial reasoning.
- In the case of **Zahoor Ahmed Shah Watali**, the Supreme Court in 2019 confirmed that courts must accept the state’s case without examining its merits while granting bail.
- In string of rulings, however, courts have taken an alternative reading of this provision, emphasising the right to a speedy trial and raising the bar for the state to book an individual under UAPA.

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About Unlawful Activities (Prevention) Act

- It was first promulgated in 1967.
- It aims at effective prevention of unlawful activities associations in India.
- Unlawful activity refers to any action taken by an individual or association intended to disrupt the territorial integrity and sovereignty of India.
- It is considered to be the predecessor of laws such as the Terrorist and Disruptive Activities (Prevention) Act (TADA) and Prevention of Terrorism Act (POTA).
- It is primarily an anti-terror law which is aimed at “more effective prevention of certain unlawful activities of individuals and associations and for dealing with terrorist activities”.

The UAPA cases are tried by special courts.

- Under UAPA, both Indian and foreign nationals can be charged. It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.
- Under the UAPA, the investigating agency can file a charge sheet in maximum 180 days after the arrests and the duration can be extended further after intimating the court.

Recent Amendment in UAPA

- Parliament cleared the Unlawful Activities (Prevention) Amendment Bill, 2019 to designate individuals as terrorists on certain grounds provided in the Act.
- The Act empowers the Director General of National Investigation Agency to grant approval of seizure or attachment of property when the case is investigated by the said agency.
- The Act empowers the officers of the National Investigation Agency, of the rank of Inspector or above, to investigate cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.

About Section 43D (5)

- Under Section 43D(5) of the act, there is a legal bar on granting bail if the court is of the opinion that there are reasonable grounds to believe that the accusation against those held is prima facie true.
- They also didn't get bail as the provision of law are titled against accused
- The accused have to demonstrate to the court that the accusation is untrue.
- A 2019 Supreme Court judgment bars a detailed analysis of the evidence at the bail stage and rules that bail can be denied on “the broad probabilities” of the case. These further added the burden on jailed student activists.

Ministry of Cooperation

(Topic- GS Paper II-Governance, Source- PIB)

Why in the news?

- The government has recently created a new Ministry of Cooperation.

About the Ministry of Cooperation

- It has been announced in Budget 2021- 22 to set up a separate administrative structure to “streamline ease of doing business for cooperatives”.
- The Ministry of Co-operation to implement the vision of ‘Sahkar se Samriddhi’ or prosperity through cooperation.
- It will provide a separate administrative, legal and policy framework for strengthening -the cooperative movement in the country.
- It will help deepen Co-operatives as a true people based movement reaching upto the grassroots.
- The Ministry will also work to streamline processes for ‘**Ease of doing businesses for co-operatives** and enable development of Multi-State Co-operatives (MSCS).

Repercussions of U.S leaving Afghanistan

(Topic- GS Paper II- IR, Source- The Hindu)

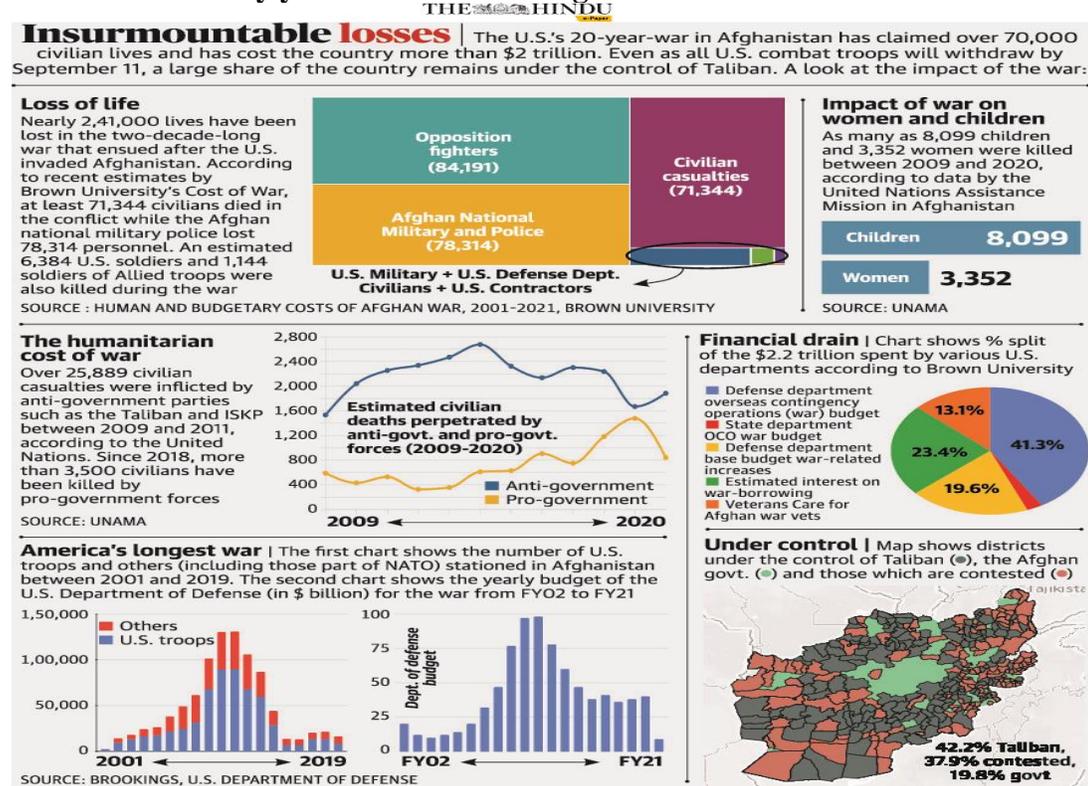
Why in the news?

- Recently, the U.S. left Afghanistan’s Bagram Airfield after nearly 20 years by shutting off the electricity and slipping away in the night without notifying the base’s new Afghan commander.

More on the news

- Under a deal with the militant group, the US and its NATO allies agreed to withdraw all troops in return for a commitment by the Taliban not to allow al-Qaeda or any other extremist group to operate in the areas they control.
- President Joe Biden set a deadline of 11 September - the 20-year anniversary of the 9/11 attacks on the US - for American troops to fully withdraw, but reports suggest the pullout may be complete within days.

Overview of twenty years of conflict in Afghanistan



Why did the U.S. invade Afghanistan?

- Weeks after the 9/11, 2001 terrorist attacks, U.S. President George W. Bush declared war on Afghanistan.
- Mr. Bush said the Taliban regime had turned down his demand handly over al-Qaeda leaders, including Osama bin Laden, who plotted the attacks.
- Inside Afghanistan, the NATO coalition troops led by the U.S. quickly dislodged the Taliban regime and established a transitional government. Al-Qaeda's leaders and key operatives fled to safe havens in Pakistan.
- In May 2003, Defense Secretary Donald Rumsfeld announced that major military operations within the country were over.
- The U.S. focus shifted to the Iraq invasion, while in Afghanistan, western powers helped build a centralized democratic system and institutions.
- But that neither ended the war nor stabilized the country.

What does Pakistan want?

- Pakistan was one of the three countries that had recognized the Taliban regime within the 1990s.
- The Taliban captured much of the country with help from Pakistan's ISI (Inter-Services Intelligence.)

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- After the 9/11 attacks, Pakistan’s military dictator Pervez Musharraf, struggling from the Bush administration, cut formal ties with the Taliban and joined America’s war on terror.
- But Pakistan played a double game.
- It provided shelter to the Taliban’s Rahbari Shura, a gaggle composed of their top leaders. In Pakistan, the Taliban regrouped, raised money and recruits, planned military strategy, and staged a comeback in Afghanistan.
- The fractious Kabul government, faced with corruption allegations, incompetence, and therefore the excesses of the invading forces, made matters easier for the Taliban.
- Now, when the U.S. is leaving and therefore the Taliban are advancing, Pakistan is again within the spotlight.

India’s position on Taliban

- India made contact with the Taliban in Doha.
- For New Delhi, which has protested being left out of regional formulations in the past both in the original Moscow process, and in the **United Nation’s April 2020 “6+2+1” that included Afghanistan’s “immediate neighbours” only, the U.S.’s suggestion is a relief.**
- Previously, India refused to recognise the **Taliban regime of 1996-2001 and rather supported the ‘Northern Alliance’ in fighting the Taliban in Afghanistan.**
- India has long held the position of dealing only with the elected government in Kabul, and has always considered the Taliban a terrorist organisation backed by Pakistan.
- India supports an Afghan-led, Afghan-owned and Afghan-controlled peace process.

India has three critical areas in handling the Taliban.

- a. protecting its investments, which run into billions of rupees, in Afghanistan;
- b. preventing a future Taliban regime from being a pawn of Rawalpindi;
- c. ensuring that the Pakistan-backed anti-India terrorist groups don't get support from the Taliban within the past, India chose to not engage the Taliban and therefore the costs were dear when the Taliban was in power.

India has called for an “immediate comprehensive ceasefire” in Afghanistan

- At a recent UNSC meeting, convened under the Arria Formula (informally convened at the request of a UNSC member), India reiterated that “For durable peace in Afghanistan, we have to put an end to terrorist safe havens and sanctuaries operating across the Durand Line.

Maitree Power Project

(Topic- GS Paper II-IR, Source- PIB)

Why in the news?

- Recently, Secretary (Power) Govt of India met Secretary (Power) Govt of Bangladesh for the issues related to 1320MW Maitree Power project.

About Maitree Power Project



- It is thermal power project of 1,320MW.

Location

- It is located at Moithara, Rampal, in the Bagerhat district of Bangladesh.
- The coal-fired facility is being developed on a 1,834-acre-site on the **bank of Passur River in south-west Bangladesh.**

Developed by

- The power plant is being developed by Bangladesh India Friendship Power Company (BIFPCL), a 50:50 joint venture between India's state-run National Thermal Power Corporation (NTPC) and Bangladesh Power Development Board (BPDB).
- The project is an environmentally friendly supercritical technology based thermal power plant.

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Tele-Law

Why in the news?

(Topic- GS Paper II-Governance, Source- Indian Express)

- Recently, Justice Department commemorates the milestone of crossing 9 lakh beneficiaries under its Tele-Law programme.

About Tele- Law

- This initiative was launched on April 20, 2017 with an aim to provide legal advices in the villages through Common Service Centers (CSC) by the Ministry of Law and Justice in collaboration with the Ministry of Electronics and Information Technology (MeitY).

Objective of Tele-law



- Under this legal aid services will be provided through Common Service Centres (CSC) at the Panchayat level, spread across the country.

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- It is a program by the government where people can seek legal advice from lawyers through video conferencing available at the Common Service Centers, on the 'Tele Law' portal.



Role of a Para Legal Volunteer (PLV)

- Every CSC will also engage a PLV, who will be the first point of contact for the rural citizens.
- These PLVs will help the applicant connect with a lawyer through the video conferencing facility at the CSC, will help them in understanding the legal issues and explain the advice given by lawyers.
- A panel of lawyers will be provided by the National Legal Services Authority (NALSA) in every state capital to advise the applicants through video conferencing.
- This scheme has been expanded to 115 Aspirational Districts in 100 days programme of the Government of India.
- A dedicated website on Tele-Law is maintained by the Department of Justice which has been designed with support from CSC e-Governance and has translated in to 22 languages.

About Nyaya Bandhu Mobile Application

- It is a new mobile applications meant to aid litigants in need of legal services.
- The Nyaya Bandhu mobile app facilitates the provision of free legal services.
- The app aims to connect litigants in need with lawyers willing to offer such pro bono services. Lawyers willing to offer free legal services may register themselves with the app.
- This app is also intended to help users pre-register their case.

Constitutional provision for Legal Aid

- **Article 39A** of the Constitution of India provides for free legal aid to the poor and weaker sections of the society and ensures justice for all.
- **Articles 14 and 22(1)** of the Constitution also make it obligatory for the State to ensure equality before law and a legal system which promotes justice on the basis of equal opportunity to all.

Note :

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- The National Legal Services Authority (NALSA) has been constituted under the Legal Services Authorities Act, 1987 to monitor and evaluate implementation of legal aid programmes and to lay down policies and principles for making legal services available under the Act.

OPEC's output pact proposal

(Topic- GS Paper II-International Organisation, Source- Indian Express)

Why in the news

- Recently, the OPEC+ group of countries had, in April 2020, entered into a two-year agreement, which entailed steep cuts in crude production to deal with a sharp fall in the price of oil as a result of the Covid-19 pandemic.
- The latest round of meetings among the OPEC+ group of oil-exporting countries has stalled as the UAE has pushed back proposals making an increase in crude oil supply conditional on an extension to an output agreement.

Background

- The OPEC+ group of countries had, in April 2020, entered into a two-year agreement, which entailed steep cuts in crude production to deal with a sharp fall in the price of oil as a result of the Covid-19 pandemic.
- The price of Brent crude hit an 18-year low of under \$20 per barrel in April 2020 as economic activity around the world crashed as countries dealt with the pandemic.

Impact on India

- India is currently facing record-high prices of petrol and diesel, with pump prices of the former exceeding Rs 100 per litre in 13 states and Union Territories.
- India is the world's third-biggest oil importer and consumer stated that the delay in decision can threaten the consumption-led-recovery in some countries.
- India imports about 84 per cent of its overall crude needs with over 60 per cent of that coming from Middle Eastern countries, which are typically cheaper than those from the West.

Posing fiscal challenges for India

- Rising oil prices are posing fiscal challenges for India, where heavily-taxed retail fuel prices have touched record highs in some parts of the country, threatening the demand-driven recovery.

Related Information

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About OPEC



- It is a permanent, intergovernmental organization, headquartered in Vienna, Austria.

Founding Members

- The Organization of the Petroleum Exporting Countries (OPEC) was founded in Baghdad, Iraq, with the signing of an agreement in September 1960 by five countries namely Islamic Republic of Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. They were to become the Founder Members of the Organization.
- Currently, the **Organization has a total of 14 Member Countries.**

Objective

- To coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers;
- An efficient, economic and regular supply of petroleum to consuming nations; and
- OPEC membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.

About OPEC+

- OPEC+ refers to the alliance of crude producers, who have been undertaking corrections in supply in the oil markets since 2017.
- OPEC plus countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.
- The OPEC and non-OPEC producers first formed the alliance at a historic meeting in Algiers in 2016.
- The aim was to undertake production restrictions to help revive a swinging market.

Note:

- Recently, the United States overtook Saudi Arabia as India's second biggest oil supplier in February 2021.

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Climate Trends Report

(Topic- GS Paper II-Environment, Source- TOI)

Why in the news ?

- Recently, Climate crisis intensifies report has been published by Climate Trends.

Key highlights of the report

WHAT IS WET-BULB TEMPERATURE

Photo: Piyal Bhattacharjee

- Wet-bulb temperature is the lowest temperature to which air can be cooled by the evaporation of water into the air
- It is measured by factoring in heat and humidity levels
- Theoretically, if wet-bulb temperature reaches 35 degrees Celsius –its highest point– it means humans can no longer lose internal body heat by sweating and cool themselves
- This could potentially lead to heatstrokes



Wet-bulb days in Delhi each year at present	63 days
RCP 8.5 or business as usual scenario (2050)	99 days
RCP 8.5 or business as usual scenario (2100)	131 days
RCP 2.6 (stringent scenario where global temperature rise will be below 2°C by 2100)	81 days

- The report stated that people living in and near the coastal areas in India may be compelled to **stay indoors during working hours for more than half of 2100.**
- Most of India experiences 12-66 days of a combination of potentially deadly heat and humidity, with hotspots along the east coast.
- The wet-bulb temperature will cross the deadly threshold for six months or more in another nine decades.
- The human body reacts to a combination of heat and humidity known as the ‘wet-bulb temperature’.
- Wet-bulb temperature can be high even when the temperature is relatively low.**
- Only a few humans can tolerate a wet-bulb temperature exceeding 35 °C because their bodies can no longer cool themselves.
- The report warned of a substantial worsening of the situation even by 2050.
- Kolkata may experience 176 deadly heat-humid days; the Sundarbans 215; Cuttack 226; Brahmapur 233; Thiruvananthapuram 314; Chennai 229; Mumbai 171; and New Delhi 99.
- India experienced 73 heat wave spells in 2019 against an average of 17 as measured during 1986-2016.**

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Related Information

About Wet-bulb temperature

- It is measured by wrapping a wet cloth around the bulb of a thermometer.
- It represents the lowest temperature air can reach by evaporation of water.
- Internationally, the wet-bulb globe temperature is calculated by using a globe thermometer and additionally accounting for solar radiation and wind speed.

Islam Qala

(Topic- GS Paper II-Geography and IR, Source- The Hindu)

Why in the news?

- Recently, the Taliban have captured a major border crossing between Afghanistan and Iran known as Islam Qala crossing.

About Islam Qala



- It is known historically as Kafir Qala, is a border town in the western Herat province of Afghanistan, near the Afghanistan–Iran border.
- It is the official entry **by land from neighboring Taybad, Iran.**
- It plays an important role when it comes to the economy of Afghanistan because a lot of trade between Afghanistan and other countries passes through this town.
- It is one of the biggest trade gateways into Iran, generating estimated USD 20 million monthly revenue for the government.

Provide International Connectivity

- Asian Highway 1 (AH1) passes through the town, part of the Asian Highway Network leading from Tokyo, Japan to west of Istanbul where it connects to the E80 which reaches to Lisbon.

Uttar Pradesh New population policy

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- Uttar Pradesh Chief Minister has recently launched the State's population policy for 2021-2030.
- The policy comes at a time when the Uttar Pradesh State Law Commission has prepared the proposed draft Bill under which a two-child norm would be implemented and promoted.

Future planning | The Uttar Pradesh Population Policy 2021-2030 was launched to reduce maternal and infant deaths in a time-bound manner. The policy aims to:



- Decrease the **total fertility rate** (number of children per woman) from 2.7 to **2.1 by 2026** and **1.7 by 2030**
- Increase **modern contraceptive prevalence rate** from 31.7% to **45% by 2026** and **52% by 2030**
- Increase **male methods of contraception use** from 10.8% to **15.1% by 2026**
- Decrease **maternal mortality rate** (per 1,00,000 live births) from 197 to **150 by 2026** and **98 by 2030**
- Decrease **infant mortality rate** (per 1,000 live births) from 43 to **32 by 2026** and **22 by 2030**
- Decrease **under 5 mortality rate** (per 1,000 live births) from 47 to **35 by 2026** and **25 by 2030**

Baby steps: Yogi Adityanath encouraging a newly married couple to opt for family planning in Lucknow on Sunday. • PTI

Awareness and extensive programmes would be held among those communities, cadres and geographical areas that have a higher fertility rate
U.P. POPULATION POLICY

We should not forget that the increase in population contributes to poverty in society. Hence, until all sections are made comprehensively aware, there will be a delay in fulfilling various goals
YOGI ADITYANATH, UTTAR PRADESH CM

About the State's population policy for 2021-2030.

The new policy aims at

- Decreasing the total fertility rate from 2.7 to 2.1 by 2026 and 1.7 by 2030.

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- Increase modern contraceptive prevalence rate from 31.7% to 45% by 2026 and 52% by 2030.
- Increase male methods of contraception use from 10.8% to 15.1% by 2026 and 16.4% by 2030.
- decrease maternal mortality rate from 197 to 150 to 98
- Decrease infant mortality rate from 43 to 32 to 22.
- Under 5 infant mortality rate from 47 to 35 to 25.

Population stabilization

- It is a stage when the size of the population remains unchanged. It is also called the stage of zero population growth.
- Country level population stabilization occurs when births plus in-migration equals deaths plus out-migration.
- Thus, there is often a gap of a few decades between achieving replacement level fertility i.e. TFR of 2.1 (two children per couple) and population stabilization.
- As per National Population Policy, India has set itself the goal of achieving the larger goal of population stabilization by 2045.

Need for Population Stabilization

- According to the UN Department of Economic and Social Affairs estimates, India's population will reach 1.5 billion by 2030 and hit 1.64 billion in 2050.
- This would make India become the largest populous country, overtaking China.
- At present, India hosts 16% of the world's population with only 2.45% of the global surface area and 4% water resources.
- Globally, the debate over population explosion has erupted after recent ecosystem assessments pointed to the human population's role in driving other species into extinction and precipitating a resource crunch.

Constitutional Provision

- The freeze on the state-wise allocation of seats in Parliament until 2026 was extended through the Constitutional (84th Amendment) Act, 2002, to serve "as a motivational measure to pursue population stabilisation" — a goal which has not been achieved.
- In the absence of further extension, it will be politically destabilizing

Government initiatives

Targets under National Health Mission

- Reduce MMR to 1/1000 live births
- Reduce IMR to 25/1000 live births

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- Reduce TFR to 2.1

The National Population Policy (NPP)

- It was devised in the year 2000 with the immediate objective to address the unmet needs for contraception, health care infrastructure, and health personnel, and to provide integrated service delivery for basic reproductive and child health care.
- The mediumterm objective was to bring the TFR to replacement levels by 2010, through vigorous implementation of inter-sectoral operational strategies.
- The longterm objective is to achieve a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development, and environmental protection.

National Commission on Population (NCP)

- The National Commission on Population (NCP) was constituted in May 2000, to fulfil the objectives of the National Population Policy 2000.
- The objectives of this commission are to review, monitor and give directions for the implementation of the National Population Policy (NPP) 2000.
- It aims to work in tandem with the goals outlined in the policy to promote inter-sectoral co-ordination, involve the civil society in planning and implementation, and facilitate initiatives to improve performance in the demographically weaker States in the country and to explore the possibilities of international cooperation in support of the goals set out in the National Population Policy.

China says it ‘drove away’ U.S. warship

(Topic- GS Paper II- IR, Source- The Hindu)

Why in the news?

- Recently, Chinese military has “drove away” USS Benfold (U.S. warship) that illegally entered Chinese waters near the Paracel Islands.

More on the new

- On July 12, 2016, the Permanent Court of Arbitration in the Hague ruled that China had no historic title over the South China Sea.
- The islands are claimed by China, Taiwan and Vietnam, which require either permission or advance notification before a military vessel passes through.

- Hundreds of other islands, reefs and atolls in there source-rich waterway are contested by Brunei, China, Malaysia and the Philippines, with China claiming rights to resources within its so-called **nine-dash line, or most of the region.**

US Concern

- The U.S. Navy said that the Benfold asserted navigational rights and freedoms in the vicinity of the Paracel Islands consistent with international law.
- “Under international law, the ships of all states enjoy the right of innocent passage through the territorial sea.

China’s Claim

- China lays claim to nearly all of the South China Sea, including the Paracel Islands.
- However, Taiwan, Philippines, Brunei, Malaysia and Vietnam also claim parts of the region, believed to hold valuable oil and gas deposits.
- It has alleged that the USA warship broke into China’s Xisha (Paracel) island’s territorial waters without the permission of the Chinese government and accused USA for “seriously violating China’s sovereignty” and “harming regional peace.”



Contesting Claims Over Islands

- The Paracel Islands are claimed by China, Taiwan and Vietnam.
- The Spratly Islands are claimed by China, Taiwan, Vietnam, Brunei and Philippines.
- The Scarborough Shoal is claimed by Philippines, China and Taiwan.

About South China Sea



- South China Sea is an arm of western Pacific Ocean in Southeast Asia.
- It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
- It is connected by Taiwan Strait with the East China Sea and by Luzon Strait with the Philippine Sea.

Bordering states & territories

- It is bounded on the northeast by the Taiwan Strait (by which it is connected to the East China Sea); on the east by Taiwan and the Philippines; on the southeast and south by Borneo, the southern limit of the Gulf of Thailand, and the east coast of the Malay Peninsula; and on the west and north by the Asian mainland.
- The South China Sea and the East China Sea together form the China Sea.

'Right to repair' movement

(Topic- GS Paper II- Government Policies, Source- The Hindu)

Why in the news ?

- In recent years, countries around the world have been attempting to pass effective 'right to repair' laws.

About Right to repair' movement

- The movement traces its roots back to the very dawn of the computer era in the 1950s.

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- The goal of the movement is to get companies to make spare parts, tools and information on how to repair devices available to customers and repair shops to increase the lifespan of products and to keep them from ending up in landfills.
- Right to repair advocates also argue that this will help boost business for small repair shops, which are an important part of local economies.

Right to Repairs in different Countries

In United States

- Recently, President Joe Biden signed an executive order calling on the Federal Trade Commission to curb restrictions imposed by manufacturers that limit consumers' ability to repair their gadgets on their own terms.

Right to repair in Europe

- Recently, the UK government introduced right-to-repair rules with the aim of extending the lifespan of products by up to 10 years. Manufacturers of products like washing machines, TVs and refrigerators are required to make spare parts available to people purchasing electrical appliances.
- The new legislation gives manufacturers a two-year window to make the necessary changes to abide by the new legislation.

Concern

- Large tech companies, including Apple, Microsoft, Amazon and Tesla, have been lobbying against the right to repair.
- Their argument is that opening up their intellectual property to third party repair services or amateur repairers could lead to exploitation and impact the safety and security of their devices.
- **Tesla, for instance, has fought against right to repair advocacy, stating that such initiatives threaten data security and cyber security.**

Department of Public Enterprises (DPE)

(Topic- GS Paper II- Governance, Source- PIB)

Why in the news?

- Recently, Central government has decided to bring Department of Public Enterprises (DPE) under finance ministry from **the ministry of heavy industries.**

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- **Ministry of Heavy Industries and Public Enterprises will now be called the Ministry of Heavy Industries.**

More on news

- Finance Minister Nirmala Sitharaman had announced about this change in her budget speech 2021-2022.
- The finance ministry will now have six departments, with five other departments being Economic Affairs, Revenue, Expenditure, Investment and Public Asset Management and Financial Services.

Department of Public Enterprises (DPE)

Background

- In their 52nd Report, the **Estimates Committee of 3rd Lok Sabha (1962-67)** stressed the need for setting up a centralized coordinating unit, which could also make continuous appraisal of the performance of public enterprises.
- This led to the setting up of the Bureau of Public Enterprises (BPE) in 1965 in the Ministry of Finance. Subsequently, as a result of the reorganization of the Ministries/Departments of the Union Government.
- In September, 1985, BPE was made part of the Ministry of Industry.
- In May, 1990, BPE was made a full-fledged Department known as the Department of Public Enterprises (DPE) under the **ministry of heavy industries**.

About The Department of Public Enterprises

- It is the nodal department for all the Central Public Sector Enterprises (CPSEs) and formulates policy pertaining to CPSEs.
- It lays down, in particular, policy guidelines on performance improvement and evaluation, autonomy and financial delegation and personnel management in CPSEs.
- It furthermore collects and maintains information in the form of a Public Enterprises Survey on several areas in respect of CPSEs.

Significance of the move

- This move aims to ease disinvestment process.
- Finance ministry already has a department dealing with Central Public Sector Enterprises (CPSE) so inclusion of DPE would result into better coordination on issues like disinvestment.
- Other identified areas include coordination on general policy matters impacting CPSEs, evaluating their performance, and review of capital projects.

- Recently the significant privatisation roadmap being pursued by the government, including strategic sale of Bharat Petroleum Corporation Ltd (BPCL), Shipping Corporation, Container Corporation, Neelachal Ispat Nigam Ltd, Pawan Hans, Air India, which are expected to be completed in 2021-22.
- Key government companies like BPCL, ONGC, IOC, HPCL, Power Grid Corporation, Coal India, among others, will now come under direct control of Finance Ministry.

Sub-categorization of Other Backward Classes (OBCs)

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- Recently, the Centre has extended the tenure of the Commission to Examine Sub-categorisation of Other Backward Classes (OBCs) headed by **Justice G Rohini, former Chief Justice of Delhi High Court.**

More on the news

- **It is the Eleventh Extension of the commission.**
- The Order of extension of the term of the “Commission” by 6 months beyond beyond 31st July 2021 and upto 31st January 2022.

Benefit

- The proposed extension of tenure and addition in its terms of reference shall enable the “Commission” to submit a comprehensive report on the issue of sub-categorization of OBCs, after consultation with various stake holders.

What is sub-categorisation of OBCs?

All For 27%
Commission to be appointed under Article 340

 **Commission has to submit report within 12 weeks of its formation**

 **Sub-categorisation recommended by now-defunct NCBC in 2011; parliamentary panels recommended it in 2012 and 2013**

11 states introducing sub-categorisation in state services: Andhra, Telangana, Puducherry, Karnataka, Haryana, Jharkhand, Bengal, Bihar, Maharashtra, J&K and Tamil Nadu

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- OBCs are granted 27% reservation in jobs and education under the central government.
- In September 2021, a Constitution Bench of the **Supreme Court reopened the legal debate on sub-categorisation of Scheduled Castes and Scheduled Tribes for reservations.**
- The debate arises out of the perception that only a few affluent communities among the over 2,600 included in the Central List of OBCs have secured a major part of this 27% reservation.
- The argument for sub-categorisation — or creating categories within OBCs for reservation — is that it would ensure “equitable distribution” of representation among all OBC communities.

About the G Rohini Commission

- The Commission constituted under Article 340 of the Constitution to examine the issue of Sub-categorization within Other Backward Classes (OBCs) in the Central List.
- It is headed by retired **Delhi High Court Chief Justice G Rohini**, includes Centre for Policy Studies director Dr J K Bajaj as member, and has two other ex-officio members.

Commission’s terms of reference

It was originally set up with three terms of reference:

- To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of OBCs with reference to such classes included in the Central List;
- To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such OBCs;
- To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of OBCs and classifying them into their respective sub-categories.

A fourth term of reference was added on January 22, 2020, when the Cabinet granted it an extension:

- To study the various entries in the Central List of OBCs and recommend correction of any repetitions, ambiguities, inconsistencies and errors of spelling or transcription.

What have its findings been so far?

- In 2018, the Commission analysed the data of 1.3 lakh central jobs given under OBC quota over the preceding five years and OBC admissions to central higher education institutions, including universities, IITs, NITs, IIMs and AIIMS, over the preceding three years.

The findings were:

- 97% of all jobs and educational seats have gone to just 25% of all sub-castes classified as OBCs;

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- 24.95% of these jobs and seats have gone to just 10 OBC communities;
- 983 OBC communities — 37% of the total — have zero representation in jobs and educational institutions;
- 994 OBC sub-castes have a total representation of only 2.68% in recruitment and admissions

Related Information

National Commission for Backward Classes (NCBC)

- National Commission for Backward Classes (NCBC) established on 14th August 1993 as a statutory body.
- But now, **102nd Constitution Amendment Act, 2018** provides **constitutional status** to the National **Commission for Backward Classes (NCBC)**.
- This Commission was formed as an initiative for investigating the conditions and difficulties of the socially and educationally backward classes and thus making appropriate recommendations.

Background

- The National Commission for Backward Classes (NCBC) was an outcome of the **Indra Sawhney case (Mandal Commission) of 1992**.
- **In Indra Sawhney case of 1992**, Supreme Court had directed the government to create a permanent body to entertain, examine and recommend the inclusion and exclusion of various Backward Classes for the purpose of benefits and protection.
- Previously the two Backward Class Commissions were appointed in 1950s and 1970s under Kaka Kalelkar and B.P. Mandal respectively.

Constitutional Provision

- **102nd** Constitution Amendment Act inserted new Articles 338 B and 342 A.
- The amendment also brings about changes in Article 366.
- **Article 338B** provides authority to NCBC to examine complaints and welfare measures regarding socially and educationally backward classes.
- **Article 342(A)** introduces greater transparency as it is made mandatory to take the concurrence of Parliament for adding or deleting any community in the backward list.

Composition

- The National Commission for Backward Classes consists of five regulatory members which include the Chairperson, Vice-Chairperson and three other members with a tenure period of three years.
- The conditions of service and tenure of office of the Chairperson, Vice- Chairperson and other Members is determined by President.

Cabinet nod to continue Ayush Mission

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- The Union Cabinet has recently approved the continuation of the National Ayush Mission for another five years till 2026.
- The scheme would continue from April 1, 2021, to March 31, 2026, with a financial implication of ₹4,607.30 crore to be spent during the period.

About the National Ayush Mission

- It has been launched during 12th Plan for im-plementing through States/UTs.

Vision

- To provide cost effective and equitable AYUSH health care throughout the country by improving access to the services.
- To revitalize and strengthen the AYUSH systems making them as prominent medical streams in addressing the health care of the society.
- To improve educational institutions capable of imparting quality AYUSH education
- To promote the adoption of Quality standards of AYUSH drugs and making available the sustained supply of AYUSH raw-materials.

Objectives

- The basic objective of NAM is to promote AYUSH medical systems through cost effective AYUSH services, strengthening of educational systems, facilitate the enforcement of quality control of Ayurveda, Siddha and Unani & Homoeopathy (ASU &H) drugs and sustainable availability of ASU & H raw-materials.
- To provide cost effective AYUSH Services, with a universal access through upgrading AYUSH Hospitals and Dispensaries, co-location of AYUSH facilities at Primary Health Centres (PHCs), Community Health Centres (CHCs) and District Hospitals (DHs).
- To strengthen institutional capacity at the state level through upgrading AYUSH educational institutions, State Govt. ASU&H Pharmacies, Drug Testing Laboratories and ASU & H enforcement mechanism.
- It help to support cultivation of medicinal plants by adopting Good Agricultural Practices (GAPs) so as to provide sustained supply of quality raw-materials and support certification mechanism for quality standards, Good Agricultural/Collection/Storage Practices.
- Support setting up of clusters through convergence of cultivation, warehousing, value addition and marketing and development of infrastructure for entrepreneurs.

Components of the Mission

Mandatory Components

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- AYUSH Services
- AYUSH Educational Institutions
- Quality Control of ASU &H Drugs
- Medicinal Plants

Flexible Components

- AYUSH Wellness Centres including Yoga & Naturopathy
- Tele-medicine
- Crop Insurance for Medicinal Plants

India, Russia to hold 2+2 Ministerial meet

(Topic- GS Paper II- IR, Source- The Hindu)

Why in the news?

- India and Russia will hold the first 2+2 Ministerial meeting later this year before a summit between Prime Minister and Russian President.

More on the news

- On the lines of 2+2 dialogue with the United States, India and Russia have decided to establish dialogue on the same pattern, to add further momentum to the strategic partnership between the two countries
- India holds similar dialogues with US, Australia and Japan.
- **Russia is the first non-QUAD member with which India is to hold the dialogue.**

About '2+2' Dialogue

- 2+2 Ministerial is the highest-level institutional mechanism between the two countries.
- It is a format of dialogue where the defence/foreign ministers or secretaries meet with their counterparts from another country.

Relation with Russia

- Russia has been a longstanding time tested partner of India.
- Both countries signed “Declaration on the India-Russia Strategic Partnership” in October 2000.
- Traditionally, the Indo-Russian strategic partnership has been built on five major components:
 - a. Politics,
 - b. Defence,
 - c. Civil nuclear energy,
 - d. Anti-terrorism co-operation
 - e. Space

Modi meeting with Maldivian president

(Topic- GS Paper II- IR, Source- The Hindu)

Why in the news?

- Prime Minister Narendra Modi and Maldivian President Ibrahim Mohamed Solih have recently, “took stock” of bilateral cooperation in a telephone conversation.

More on the news

- **Prime Minister Modi noted that Maldives is a central pillar in India’s ‘Neighbourhood First’ policy and its maritime vision of Security and Growth for All in the Region (SAGAR)**

Close cooperation between India and Maldives

- Recently, India has voted in support of Maldives’ Foreign Minister in the election of the President of the United Nations General Assembly.
- Maldives is in discussions with the Indian mission for India’s deputy Permanent Representative at the UN to officiate as Shahid’s Chef de Cabinet. Recent Development

Member of SAARC countries

- India and Maldives both are the members of South Asian Association for Regional Cooperation.

Defence

- India and the Maldives had signed a defence Line of Credit agreement worth \$50 million.
- The Line of Credit is not a grant but a ‘soft loan’ provided on concessional interest rates to developing countries, which has to be repaid by the borrowing government.

Ex EKUVERIN

- It is India-Maldives joint military exercise.
- The Exercise Ekuverin, meaning 'friends' in the Maldivian language since 2009.

Setup coastal radar network

- India is planning to setup the coastal radar network in the Maldives, Myanmar and Bangladesh.
- It will help to enable real-time monitoring of the high seas for threats.

Taliban seize border crossing with Pakistan

(Topic- GS Paper II- IR, Source- The Hindu)

Why in the news ?

- Recently, the Taliban captured the strategic border crossing of Spin Boldak on the frontier with Pakistan, continuing sweeping gains made since foreign forces stepped up their withdrawal from Afghanistan.

Strategic value



- The border crossing is one of the most strategically valuable for the Taliban.
- It provides direct access to Pakistan's Balochistan province - where the insurgents' top leadership has been based for decades - along with an unknown number of reserve fighters who regularly enter Afghanistan to help bolster their ranks.
- Balochistan is a favoured destination for fighters regularly heading for medical treatment and hosts many of their families.
- A major highway leading from the border connects to Pakistan's commercial capital Karachi and its sprawling port on the Arabian Sea, which is considered a linchpin for Afghanistan's billion-dollar heroin trade that has provided a crucial source of revenue for the Taliban's war chest over the years.

Development of Infrastructure Facilities for Judiciary scheme

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news ?

- The Union Cabinet has approved continuation of the Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary for further five years from 1st April 2021 to 31st March 2026.
- The total cost of Rs.9000 crore, out of which Central share will be Rs.5357 crore including Rs.50 crore for the Gram Nyayalayas Scheme and their implementation in a Mission Mode through National Mission for Justice Delivery and Legal Reforms.

About the Development of Infrastructure Facilities for Judiciary scheme

- It is a Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary has been in operation since 1993-94.

Monitoring of the Scheme

- An on-line monitoring system has been set up by the Department of Justice enabling data collection on progress, completion of court halls and residential units under construction as well as better asset management.
- Department of Justice has developed an online monitoring system with technical assistance from ISRO.
- The upgraded “Nyaya Vikas-2.0” web portal and mobile application is used for monitoring physical and financial progress of CSS judicial infrastructure projects by geo-tagging completed and ongoing projects.
- The Gram Nyayalaya Portal helps online monitoring of working of the Gram Nyayalayas by the implementing states.

Benefits from the Scheme

- It will increase the availability of well-equipped Court Halls and Residential Accommodations for Judges / Judicial Officers of District and Subordinate Courts all over the country.
- The courts are also being provided with better amenities enabling win-win situation for both the judiciary and the lawyers and also to ease of living of common man.
- Setting up of digital computer rooms will also improve digital capabilities and give impetus to the digitization initiation being pursued as a part of India’s Digital India vision.
- This will help in improving the overall functioning and performance of the Judiciary.
- Continued assistance to the Gram Nyayalayas will also give impetus to providing speedy, substantial and affordable justice to the common man at his door step.

Anti-defection law

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(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- Recently, the Lok Sabha Secretariat has issued notices to MPs Sisir Adhikari, Sunil Kumar Mondal and K. Raghu Rama Krishna Raju under the anti-defection law.

About Anti-defection law

- Anti-Defection Law was inserted in the Indian Constitution in 1985 by the **52 nd Amendment Act of 1985**.
- The **52nd amendment of the Constitution inserted the Tenth Schedule** in which provisions were made by which legislators can be disqualified on the grounds of defection to any other political party.
- The issue of disqualification on the ground of defection may be raised by any member of the house and is referred to the Chairman or the Speaker of House.
- The decision of the Chairman/Speaker of the concerned house is final and binding.
- The Anti-Defection law is applicable to both the houses of Parliament and also to the state assemblies.

Judicial Reviews

- The decision of the Speaker or the Chairman of the house is open **for judicial review**.

Practice in another country

- Anti-Defection law is in practice not only in India, but it is practiced in various other countries of Asia and Africa like Bangladesh, South Africa, Kenya etc

Grounds of Defection

- For Members belonging to any political party – A legislator who is a member of any political party may be disqualified if:–
 - If any legislator voluntarily gives up his membership from such political party.
 - If any legislator belonging to any political party votes or abstains from voting in the House contrary to the directions already issued by that political party.

For nominated members of a House

- A nominated member of a house may be disqualified if a nominated member of a house declares to joins any other political party after six months of taking her/ his seat in that house after complying with the provision of **Article 99 or Article 188**.

For Member elected otherwise than as a candidate set up by any political party

- A member of the house who is elected as an independent candidate may be disqualified on the ground of defection if he joins any political party after the election.

Exceptions under the Anti-Defection Law

- The changing of a political party by a legislator does not always lead to defection under the Anti-Defection Law.
- The Anti-Defection law allows a political party to merge with any other party subjected to the fulfillment of the following condition –
 - A legislator shall not be disqualified if his original/ initial political party merges with any other political party, and:
 - She/ He and other members of her/ his old political party takes the membership of the new political party, or
 - She/ He and other members of her/ his old political party do not accept the merger and decide to function as a separate group.

New drone policy of MoCA

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- Ministry of Civil Aviation (MoCA) has recently released the updated – The Drone Rules, 2021 for public consultation.
- The Drone Rules, 2021 will replace the UAS (unmanned aircraft system) Rules 2021 that was released on 12 March 2021.

Key takeaways from the Draft Drone Rules, 2021 include:

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Unique identification number

- Operating drones without unique identification number will not be allowed, unless exempted.
- Drone operators will have to generate a unique identification number of a drone by providing requisite details on the digital sky platform.
- It have safety features such real-time tracking beacon, and geo-fencing, which are expected to be notified in future and a six-month lead time will be provided for compliance.

Interactive airspace map

- The new rule also state that an interactive airspace map with green, yellow, and red zones will be displayed on the digital sky platform.
- While yellow zone has been reduced from 45 km to 12 km from nearby airport perimeter, no flight permission is required up to 400 feet in green zones and up to 200 feet in the area between 8 and 12 km from the airport perimeter.

Licence

- No pilot licence will be required for micro drones used for non-commercial use, nano drones and for research and development (R&D) organizations operating such drones.

Other Provisions

- There will be no restriction on drone operations by foreign-owned companies registered in India.
- Import of drones and drone components will be regulated by Directorate General of Foreign Trade.
- Security clearance will not be required before any registration or licence issuance.
- There will be no requirement of certificate of airworthiness, unique identification number, prior permission and remote pilot licence for R&D entities.
- MoCA will also facilitate development of drone corridors for cargo deliveries and a drone promotion council will be set up to facilitate a business-friendly regulatory regime.

Related Information

Digital sky platform

- It is an initiative by MoCA to provide a secure and a scalable platform that supports drone technology frameworks, such as NPNT (no permission, no take-off), designed to enable flight permission digitally and managing unmanned aircraft operations and traffic efficiently.

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- Digital sky platform will also be developed as a business-friendly single-window online system with minimal human interference and most permission will be self-generated.

India's Afghan investment

(Topic- GS Paper II- IR, Source- Indian Express)

Why in the news?

- As the Taliban push ahead with military offensives across Afghanistan, preparing to take over after the exit of US and NATO forces, India faces a situation in which it may have no role to play in that country.
- It would be a reversal of nearly 20 years of rebuilding a relationship that goes back centuries. Afghanistan is vital to India's strategic interests in the region.

Projects across the country

- India has undertaken 400 plus projects in all 34 of Afghanistan's provinces".
- The fate of these projects is now up in the air.

Some of these projects are

SALMA DAM

- It is a 42MW dam in the Herat province.
- It has been inaugurated in 2016 and known as the Afghan-India Friendship Dam.

ZARANJ-DELARAM HIGHWAY

- The project was the 218-km Zaranj-Delaram highway built by the Border Roads Organisation.
- Zaranj is located close to Afghanistan's border with Iran.
- The highway goes along the **Khash Rud river to Delaram** to the northeast of Zaranj, where it connects to a ring road that links Kandahar in the south, Ghazni and Kabul in the east, Mazar-i-Sharif in the north, and Herat in the west.

Strategic important

- With Pakistan denying India overland access for trade with Afghanistan, the highway is of strategic importance to New Delhi, as it provides an alternative route into landlocked Afghanistan through Iran's Chabahar port.

PARLIAMENT

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- The Afghan Parliament in Kabul was built by India at \$90 million.
- It was opened in 2015.
- Modi described the building as India's tribute to democracy in Afghanistan.
- **A block in the building is named after former PM AB Vajpayee.**

STOR PALACE

- In 2016, Afghan President Ashraf Ghani and Prime Minister Modi inaugurated the restored Stor Palace in Kabul, originally built in the late 19th century, and which was the setting for the 1919 Rawalpindi Agreement by which Afghanistan became an independent country.

POWER INFRA

- Other Indian projects in Afghanistan include the rebuilding of power infrastructure such as the 220kV DC transmission line from Pul-e-Khumri, capital of Baghlan province to the north of Kabul, to beef up electricity supply to the capital.
- Indian contractors and workers also restored telecommunications infrastructure in many provinces.

HEALTH INFRA

- India has reconstructed a children's hospital it had helped build in Kabul in 1972 — named Indira Gandhi Institute for Child Health in 1985 — that was in a shambles after the war.
- 'Indian Medical Missions' have held free consultation camps in several areas.

TRANSPORTATION

- According to the MEA, India gifted 400 buses and 200 mini-buses for urban transportation, 105 utility vehicles for municipalities, 285 military vehicles for the Afghan National Army, and 10 ambulances for public hospitals in five cities.
- It also gave three Air India aircraft to Ariana, the Afghan national carrier, when it was restarting operations.

OTHER PROJECTS

- India has contributed desks and benches for schools, and built solar panels in remote villages, and Sulabh toilet blocks in Kabul.
- New Delhi has also played a role in building capacity, with vocational training institutes, scholarships to Afghan students, mentoring programmes in the civil service, and training for doctors and others.

ONGOING PROJECTS

- At the Geneva Conference in November 2020, External Minister has announced that India had concluded with Afghanistan an agreement for the construction of the Shatoot Dam in Kabul district.
- He also announced the start of some 100 community development projects worth \$80 million.

Aga Khan Heritage project

- In 2020, India pledged \$1 million for another Aga Khan heritage project, the restoration of the Bala Hissar Fort south of Kabul, whose origins go back to the 6th century.
- **Bala Hissar went on to become a significant Mughal fort, parts of it were rebuilt by Jahangir, and it was used as a residence by Shah Jahan.**

Dismissal of J&K govt employees

(Topic- GS Paper II- Governance, Source- Indian Express)

Why in the news ?

- Recently, Lt Governor Manoj Sinha has dismissed 11 Jammu and Kashmir government employees for alleged terror links under provisions of Article 311(2) (c) of the Constitution.

About Article 311

- Article 311 of the Constitution deals with 'Dismissal, removal or reduction in rank of persons employed in civil capacities under the Union or a State'.

Subsections under Article 311

- Article 311(1): It says that no government employee either of an all India service or a state government shall be dismissed or removed by an authority subordinate to the town that appointed him/her.

Article 311(2)

- It says that no civil servant shall be dismissed or removed or reduced in rank except after an inquiry in which s/he has been informed of the charges and given a reasonable opportunity of being heard in respect of those charges.

Provided further that this clause shall not apply

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(a) where a person is dismissed or removed or reduced in rank on the ground of conduct which has led to his conviction on a criminal charge; or

(b) where the authority empowered to dismiss or remove a person or to reduce him in rank is satisfied that for some reason, to be recorded by that authority in writing, it is not reasonably practicable to hold such inquiry; or

(c) where the President or the Governor, as the case may be, is satisfied that in the interest of the security of the State, it is not expedient to hold such inquiry

Note:

- Section 126 of the constitution of the erstwhile state of Jammu and Kashmir too, while providing safeguards to civil servants/government employees like in Article 311 of the Indian Constitution, laid down exceptions under which a person could be dismissed without holding an inquiry.

Remedy available

- The only available remedy to terminated employees is to challenge the government's decision in the High Court.

Earlier instances

- In 1986, the coalition government of G M Shah's National Conference (K) and Congress in the erstwhile state of Jammu and Kashmir dismissed over a dozen employees from service on charges of challenging the sovereignty of India.

Supreme Court strikes down Tribunals Ordinance provision fixing 4-year term for members

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- The Supreme Court has recently struck down certain provisions of the Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance, 2021 relating to minimum age requirement of 50 for appointment as Chairperson or Members and fixing their tenure at four years.

About the Case

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- The judgment came on a petition by the Madras Bar Association, which challenged the Tribunals Reforms Ordinance, 2021 to the extent it amends Sections 184 and 186 of the Finance Act 2017.
- The court held certain provisions of Section 184 of the Finance Act, 2017, introduced by Section 12 of the Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance, 2021 as void, inoperative and unconstitutional.

Provisions struck down by the Supreme Court

Appointment

- The Supreme Court has struck down the provisions requiring a minimum age for appointment as Chairperson or Members as 50 years and prescribing the tenure of four years.
- The court said that these provisions were contrary to the principles of separation of powers, independence of judiciary, rule of law, and Article 14 of the Constitution.
- Further, the court said that the term of Chairperson of a tribunal shall be five years or till she or he attains the age of 70, whichever is earlier. Further, the term of a Member of a tribunal shall be five years or till she or he attains the age of 67, whichever is earlier.

Appointment Duration

- The provision prescribing that the Union Government should make appointments “preferably within three months” of recommendation by the Search-cum-Selection committee has been struck down.

Background

- The Centre has recently amended 10 laws to remove several appellate bodies through an ordinance – the Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance, 2021.

Amendments to the Finance Act, 2017:

- Section 184 of the Finance Act, 2017 has been amended to empower the Central Government to make rules for qualifications, appointment, term of office, salaries and allowances, resignation, removal and other terms and conditions of service of Members of Tribunals.
 - It provides the Chairperson and Members of the Tribunals will be appointed by the Central Government on the recommendation of a Search-cum-Selection Committee.
 - It also provides the composition of the Committee, to be headed by the Chief Justice of India or a Judge of the Supreme Court nominated by him.

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Tenure

- The Chairperson of a Tribunal shall hold office for a term of 4 years or till he attains the age of 70 years, whichever is earlier.
 - Other Members of a Tribunal shall hold office for a term of 4 years or till he attains the age of 67 years, whichever is earlier.
 - It states that a person who has not completed the age of fifty years shall not be eligible for appointment as a Chairperson or Member.

Other Amendments

The Ordinance omits the following **Tribunals/ Appellate Authorities** from the purview of the Finance Act:

- Airport Appellate Tribunal established under the Airport Authority of India Act, 1994.
- Appellate Board established under the Trade Marks Act, 1999
- Authority for Advance Ruling established under the Income Tax Act, 1961
- Film Certification Appellate Tribunal established under the Cinematograph Act, 1952.
- It substitutes the National Consumer Disputes Redressal Commission established under the erstwhile Consumer Protection Act, 1986 with a National Consumer Disputes Redressal Commission established under the Consumer Protection Act, 2019.

About Tribunals

- It is a quasi-judicial institution that was set up to deal with problems such as resolving administrative or tax-related disputes.
- Tribunals were added to the Constitution by Constitution (Forty-second Amendment) Act, 1976 as Part XIV-A which has only two articles:
 - a. Article 323-A deals with Administrative Tribunals.
 - b. Article 323-B deals with tribunals for other matters.

Midday meals scheme

(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news?

- Recently, a new study on the inter-generational benefits of the midday meal scheme has been published in **Nature Communications**.

About the Study

- The study tracked nationally representative cohorts of mothers by birth year and socio-economic status to show how exposure to the scheme reduced stunting in their children.

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- The findings of the study exacerbate concerns that the interruptions to schooling and to the midday meal scheme could have even longer term impacts, hurting the nutritional health of the next generation as well.
- These findings come at a time when the mid-day meal scheme has effectively been put on hold for the last one and a half years, as schools have been closed since March 2020.

Key highlights

Height-to-age ratio

- Girls who had access to free lunches provided at government schools had children with a higher height-to-age ratio than those who did not,

Prevalence of stunting

- Using nationally representative data on cohorts of mothers and their children spanning 23 years, the study showed that by 2016, the prevalence of stunting was significantly lower in areas where the scheme was implemented in 2005.
- More than one in three Indian children are stunted, or too short for their age, which reflects chronic undernutrition.
- The fight against stunting has often focussed on boosting nutrition for young children, but nutritionists have long argued that maternal health and well-being is the key to reducing stunting in their offspring
- The midday meal scheme was associated with **13-32% of the improvement in the height-for-age z-scores in India between 2006 and 2016.**
- The linkages between midday meals and lower stunting in the next generation were stronger in the lower socio-economic strata and likely work through women's education, fertility, and the use of health services.

Benefited

- Only 6% of girls aged 6-10 years had benefited from the scheme in 1999.
- By 2011, with an expansion in budget, and state implementation following a Supreme Court order, coverage had grown to 46%.

About Midday meals scheme

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91 YEARS OF THE MIDDAY MEAL SCHEME

1925 | Student meal scheme launched by Madras Municipal Corporation

Mid-1980s | Gujarat, Kerala, Tamil Nadu and Puducherry also start similar schemes

1990-91 | States with similar programmes increase to 12

1995 | Students in 2,408 blocks to get free foodgrains under national programme

1997-98 | All blocks included

2004 | Cooked midday meal launched for all primary schools

2007 | In 3,479 backward blocks, scheme extended up to Class VIII

2008-09 | Students up to Class VIII in all govt-run or aided schools and madrasahs and maqtabas avail of midday meal

Source: Ministry of Human Resource Development
Research: Atul Thakur



- It is a centrally sponsored scheme launched in 1995. €
- **It is under the Ministry of Education.**
- The scheme guarantees one meal to all children in government and aided schools and madrasahs supported under Samagra Shiksha.
- It is the world's largest school meal programme aimed to attain the goal of universalization of primary education. €
- Provides cooked **meals to every child within the age group of six to fourteen years studying in classes I to VIII who enrolls and attends the school.**
- **The Scheme is also covered by the National Food Security Act, 2013**

Objective

- The scheme address hunger and malnutrition, increase enrolment and attendance in school, improve socialisation among castes, provide employment at grassroot level especially to women.

Regulation

- The State Steering-cum Monitoring Committee (SSMC) oversees the implementation of the scheme including establishment of a mechanism for maintenance of nutritional standards and quality of meals.

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Coverage

- All government and government aided schools, Madarsa and Maqtabas supported under the Sarva Shiksha Abhiyan (SSA).

Nutritional Standards:



	PRESCRIBED NUTRITIONAL CONTENT FOR MIDDAY MEALS	
	PRIMARY (grade 1-5)	UPPER PRIMARY (grade 6-8)
CALORIES	450gms	700gms
PROTEIN	12gms	20gms

- Cooked meal having nutritional standards of 450 calories and 12 gm of protein for primary (I- V class) and 700 calories and 20 gm protein for upper primary (VI-VIII class)

Recent Development

Expansion of Mid-day Meal Scheme

- The Parliamentary Standing Committee on Education has recommended that all government schools start providing free breakfast in the coming academic year, as a part of an expansion of midday meal scheme envisaged by National Education Policy.
- The National Education Policy identifies “providing food and nutrition” as one of the key long-term thrust areas for financing to cultivate a robust education system.

How to Improved Mid-Day Meal Programme?

EXPERTS' RECOMMENDATION

HOW TO IMPROVE MID-DAY MEAL PROGRAMME



- Increase awareness among stakeholders
- Encourage community participation
- Improve infrastructure to store and cook food
- Increase budget for meal per child to improve nutritional value and account for inflation
- Hire more staff to plug gaps in the preparation and distribution of meals
- Introduce better record keeping of the number of meals served per day, items served and nutritional value

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U.S., Afghanistan, Pakistan, Uzbekistan to form quad group to enhance regional connectivity

(Topic- GS Paper II- International Organization, Source- The Hindu)

Why in the news?

- Recently, the US, Afghanistan, Pakistan and Uzbekistan have agreed in principle to establish a new quadrilateral diplomatic platform focused on enhancing regional connectivity.

The rationale behind the development of Quad group

Afghanistan's strategic location

- Afghanistan's strategic location has for a long time been touted as a competitive advantage for the country.
- Afghanistan is bordered by Pakistan to the east and south, Iran to the west, Turkmenistan, Uzbekistan, and Tajikistan to the north, and China to the northeast.
- It is located at the heart of the historic Silk Road, Afghanistan was long the crossroads of commerce between Asian countries connecting them to Europe, and enhancing religious, cultural, and commercial contacts.

Countering China's Belt Road Initiative

- The formation of the new quad group is important amid China's desire to extend its Belt Road Initiative (BRI) to Afghanistan.
- By virtue of its location, Afghanistan can provide China with a strategic base to spread its influence across the world.

About Belt Road Initiative

- It is a multi-billion-dollar initiative launched by Chinese President Xi Jinping when he came to power in 2013.
- It aims to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes

Taliban

- Since the announcement of the withdrawal of U.S. forces by August 31, violence has been rising and efforts to broker a peace settlement between the Afghan government and insurgent Taliban have slowed.

Related Information

About Quadrilateral Security Dialogue (Quad)

- It is the informal strategic dialogue between **India, USA, Japan and Australia** with a shared objective to ensure and support a "free, open and prosperous" Indo-Pacific region.

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- The Ministers met also discuss collective efforts in our shared commitments and close cooperation on counter terrorism, mentoring, assistance in disaster relief, airtime security, cooperation, development, finance and cyber security efforts.
- The idea of Quad was first mooted by **Japanese Prime Minister Shinzo Abe in 2007**.
- However, the idea couldn't move ahead with Australia pulling out of it, apparently due to Chinese pressure.
- In December 2012, **Shinzo Abe again floated the concept of Asia's "Democratic Security Diamond"** involving Australia, India, Japan and the US to safeguard the maritime commons from the Indian Ocean to the western Pacific.
- In November 2017, India, the US, Australia and Japan gave shape to the long-pending "Quad" Coalition to develop a new strategy to keep the critical sea routes in the Indo-Pacific free of any influence (especially China).
- **Quad is criticised by China as Asian version of the North Atlantic Treaty Organization (NATO).**

FATF review of India put off again

(Topic- GS Paper II- International Organization, Source- Business Standard)

Why in the news ?

- Recently, an evaluation by the global organisation Financial Action Task Force (FATF) to analyse the effectiveness of India's anti-money laundering and countering terrorist financing regime has been postponed for the second time in view of the pandemic and is now slated to be initiated next year

Review of India's anti-money laundering & terror financing regime

- The review of India's anti-money laundering and terrorist financing regime was scheduled for 2020 as part of a regular review cycle after 10 years.
- The last such review of India's anti-money laundering and terrorist financing regime was held in June, 2010.
- As per this re-scheduled assessment calendar, the technical evaluation of Indian anti-money laundering, countering terrorist financing and the role of relevant legal framework and agencies enforcing these measures would begin in September next year followed by an on-site visit of FATF experts to the country in February, 2023.

What do they evaluate?

- During the evaluation, Indian financial regulatory and enforcement agencies are expected to showcase their action taken reports and dossiers for the enforcement, regulatory and investigative work undertaken by them under the anti-money laundering law, criminal tax evasion instance and for strengthening the CFT (combating financing of terrorism) regime.

New compliance regime

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- India has prepared to present multiple dossiers of the action undertaken by it under the anti-money laundering law, criminal tax evasion probes and for strengthening the CFT (combating financing of terrorism) regime by the financial intelligence unit (FIU) and other agencies
- The enactment of the Fugitive Economic Offenders Act in 2018, the anti-black money Act of 2015, amendments brought in the PMLA over the years, curbing tax evasion under indirect taxes by bringing in the GST (Goods and Services Tax), new protocols to better regulate suspect transactions in banks and financial intermediaries and the **2016 demonetisation of two large currencies are part of the Indian presentation.**
- The high number of domestic and international attachment of assets and penalties issued under the PMLA, and charge sheets filed by various probe agencies under criminal sections of the law against financial crimes and terror funding will also be part of India's presentation to the FATF review team.
- The wide spectrum of offences from wildlife smuggling to use of smart electronic tools to generate black money being probed by Indian agencies will be part of the dossier.

Recent Development

Joint working group

- In 2019, India had set up a joint working group comprising 22 central investigation, intelligence gathering and regulatory agencies to make presentations, hold discussions and brief the FATF experts, drawn from various countries, once the process starts.
- Some of the prominent agencies in this grouping supervised by the Department of Revenue under the Union Finance Ministry include the Enforcement Directorate, Income Tax Department, Directorate of Revenue Intelligence, Financial Intelligence Unit (FIU), CBI, Customs Department, market regulator SEBI, banking regulator RBI and insurance regulator IRDAI.

India Inequality Report 2021

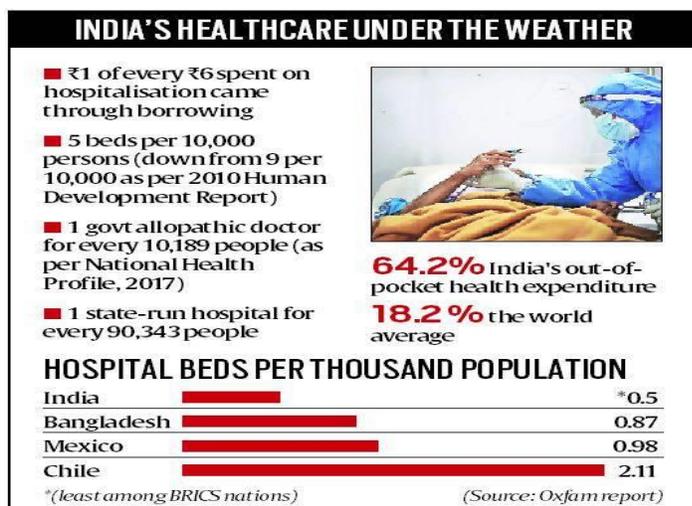
(Topic- GS Paper II- Governance, Source- The Hindu)

Why in the news ?

- Recently the Oxfam India has released a report, titled “India Inequality Report 2021: India’s Unequal Healthcare Story.

Key highlights

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- The findings are primarily based on secondary analysis from rounds 3 and 4 of the National Family Health Survey and various rounds of National Sample Survey.
- The reports show that the "general category is better off than SCs and STs, Hindus are better off than Muslims, the rich are better off than the poor, men are better off than women, and the urban population is better off than the rural population" on most health determinants, interventions and indicators.

Women Literacy

- The report shows that while women's literacy has improved across social groups over the years, SC and ST women lag behind the general category by 18.6% and 27.9% respectively.
- There exists a gap of 55.1% between the top and bottom 20% of the population in 2015-16.
- Though the female literacy rate among Muslims (64.3%) is lower than all religious groups, inequality has reduced over time.

Sanitation

- As far as sanitation is concerned, 65.7% of households have access to improved, non-shared sanitation facilities in the general category while SC households are 28.5% behind them and ST are 39.8% behind them.

Institutional deliveries in India

- The share of institutional deliveries in India has increased from 38.7% in 2005-06 to 78.9% in 2015-16, but inequalities persist, with ST households 15% below the general category, Muslims 12% behind Hindus and a 35% gap between the poorest and richest 20% of the population.

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Hospital beds per thousand populations

- India also ranks the lowest in the number of hospital beds per thousand populations among the BRICS nations at 0.5 — it is lower than lesser developed countries such as Bangladesh (0.87), Chile (2.11) and Mexico (0.98).
- Rural India houses 70 per cent of the population, while it has 40 per cent of hospital beds.

About Oxfam India

- It is a registered Non-profit under Section 8 of the Indian Companies Act, 2013.
- It has been working to support child education, empowering women & fighting against inequality in India.
- Oxfam India is a movement of people and grassroots organisations working together to stop the rising inequality in the country that keeps wealth concentrated in the hands of a few.
- They work to ensure equitable distribution of wealth and resources.

OPEC+

(Topic- GS Paper II- International Organisation, Source- The Hindu)

Why in the news?

- Recently, OPEC (Organisation of Petroleum Exporting Countries) and its allies led by Russia have agreed to gradually withdraw Covid-related production cuts by September 2022, leading to crude oil prices falling to about \$72 per barrel.
- OPEC+ has decided to increase overall production by 4,00,000 barrels per day every month till the remaining portion of the group's 10 million barrel per day production cut, announced in April 2020, is completely phased out.
- The decision also ends a standoff between the UAE and other OPEC+ countries on tying an extension of the supply agreement to increases in production.

Background

- The OPEC+ group of countries had in April 2020, entered into a two-year agreement which entailed steep cuts in crude oil production to deal with a sharp fall in the price of crude oil as a result of the Covid-19 pandemic.
- The price of Brent crude hit an 18-year low of under \$20 per barrel in April 2020 as economic activity around the world crashed as countries dealt with the Covid-19 pandemic.

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- Crude oil prices have, however, since recovered to well above the pre-Covid-19 levels leading to India and other developing countries calling for a withdrawal of production cuts.
- The current price of Brent crude is about 39 percent higher than the price of crude at the beginning of the year.
- The sharp increase in crude oil prices has contributed to petrol and diesel prices hitting all-time highs across India.

Impact on India

- India is currently facing record-high prices of petrol and diesel, with pump prices of the former exceeding more than Rs 100 per litre in 13 states and Union Territories.
- The price of Brent crude had risen to over \$77 per barrel earlier in July over a potential deadlock in OPEC+ negotiations on production levels.
- India has already seen a 21.7 per cent increase in the price of petrol and diesel since the beginning of the year.
- India is the world's third-biggest oil importer and consumers stated that the delay in the decision can threaten the consumption-led recovery in some countries.
- India imports about 84 per cent of its overall crude needs with over 60 per cent of that coming from Middle Eastern countries, which are typically cheaper than those from the West.

Posing fiscal challenges for India

- Rising oil prices are posing fiscal challenges for India, where heavily-taxed retail fuel prices have touched record highs in some parts of the country, threatening the demand-driven recovery.
- The announcement of an increase in production levels coupled with fears of increased mobility restrictions following an increase in Covid-19 cases has led to a pause in the relentless rise of crude oil prices.

Related Information

About OPEC+



- OPEC+ refers to the alliance of crude producers, who have been undertaking corrections in supply in the oil markets since 2017.

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- OPEC plus countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.
- The OPEC and non-OPEC producers first allied a historic meeting in Algiers in 2016.
- The aim was to undertake production restrictions to help revive a swinging market.

SC annuls parts of the cooperative amendment

(Topic- GS Paper II-Polity, Source- The Hindu)

Why in the news?

- In a major boost for federalism, the Supreme Court has recently struck down parts of a constitutional amendment that shrank the exclusive authority of States over their cooperative societies.
- The judgment may be significant in the background of fears voiced by the States whether the new Central Ministry of Cooperation would disempower them.

More in the news

97th Amendment of 2012

- Part IXB, introduced in the Constitution through the 97th Amendment of 2012, dictated the terms for running cooperative societies.
- Part IX B, which consists of Articles 243ZH to 243ZT, has “significantly and substantially impacted” State legislatures’ “exclusive legislative power” over its cooperative sector under Entry 32 of the State List.

Court Observation

- In a majority judgment authored by Justice Nariman, the court held that cooperative societies come under the “exclusive legislative power” of State legislatures.
- The provisions in the amendment, passed by Parliament without getting them ratified by State legislatures as required by the Constitution, went to the extent of determining the number of directors a society should have or their length of tenure and even the necessary expertise.
- The court pointed out how Article 243ZI makes it clear that a State may only make law on the incorporation, regulation and winding up of a society subject to the provisions **of Part IXB of the 97th Constitution Amendment.**
- The 97th Amendment which inserts the chapter dealing with cooperative societies has not been so ratified by the States, though an amendment of the Constitution in the exercise of constituent power which differs from ordinary legislative power, such constituent power does not convert Parliament into an original constituent assembly.
- Parliament being the donee of a limited power may only exercise such power by both the procedural and substantive limitations contained in the Constitution of India.

- However, the court did not strike down the portions of Part IXB of the Amendment concerning "Multi-State Cooperative Societies" due to the lack of ratification.

Dissent note

- In his dissent, Justice K.M. Joseph said the **doctrine of severability** would not operate to distinguish between single-State cooperatives and Multi-State Cooperative Societies (MSCS).
- The judge said the entire Part IXB should be struck down on the ground of absence of ratification.

About Co-operative Societies

- The 97th Constitutional Amendment Act of 2011 gave constitutional status and protection to cooperative societies.

In this context, it made the following three changes in the Constitution:

- The word “cooperatives” was added after “unions and associations” in Article 19(1) (c) under Part III of the Constitution.
- This enables all the citizens to form cooperatives by giving it the status of the fundamental right of citizens
- It included a new Directive Principle of State Policy (Part-IV) on the promotion of co-operative societies (Article 43-B).
- It added a new Part IX-B in the Constitution which is entitled as “The Co-operative Societies” (Articles 243-ZH to 243-ZT).

Co-operative Movement in Post-Independence Era

- After independence, cooperatives became an integral part of Five-Year Plans.
- In 1958, the National Development Council (NDC) had recommended a national policy on cooperatives and also for training of personnel and setting up of Co-operative Marketing Societies.
- **National Cooperative Development Corporation (NCDC)**, a statutory corporation, was set up under National Cooperative Development Corporation Act, 1962.
- In 1984, the Parliament of India enacted the Multi-State Cooperative Societies Act to remove the plethora of different laws governing the same types of societies.
- **The Government of India announced a National Policy on Co-operatives in 2002.**
- In 2021, a separate ‘**Ministry of Co-operation**’ has been created by the Central Government for realizing the vision of ‘Sahkar se Samriddhi’ (Prosperity through Cooperation) and to give a new push to the cooperative movement.

Note:

Doctrine of severability

- The doctrine of severability means that when some particular provision of a statute offends or is against a constitutional limitation, but that provision is severable from the rest of the statute, only that offending provision will be declared void by the Court and not the entire statute.

India is welcome to join the China-South Asia grouping

(Topic- GS Paper II-IR, Source- The Hindu)

Why in the news?

- Recently, the Bangladesh Foreign Minister said that India can join the China-led South Asian initiative for COVID-19 vaccines and poverty alleviation too if it so desires.
- He is denying that a six-nation grouping launched earlier this month was meant to exclude India.

Purpose of Creating China-South Asia grouping

- The creation of the China-South Asian Countries Emergency Supplies Reserve, and a Poverty Alleviation and Cooperative Development Centre set up in China.

Countries involved

- China, Afghanistan, Bangladesh, Nepal, Pakistan and Sri Lanka

Minus India” initiative

- The absence of India from the grouping as well as from a series of consultations on COVID relief between the Chinese vice Foreign Minister and different combinations of all SAARC member countries (other than India and Bhutan) led some experts to suggest this was meant to be a “Minus India” initiative.
- India is the only country of all eight SAARC nations that has not requested or accepted Chinese COVID vaccines.

More Connectivity, Better Ties

South Asian Association for Regional Cooperation is losing steam amid Pakistan's intransigence over connectivity pacts

Regional connectivity vital for India as China is expanding its footprint in the region via OBOR initiative

Proposals for projects such as Dhaka-Chennai-Colombo air connectivity part of agenda during Sushma's recent Dhaka visit

Efforts are on to implement Bangladesh, Bhutan, India, Nepal motor vehicles pact

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India's Response

- The Ministry of External Affairs did not respond to a question on whether India had been invited to the forum or would consider joining the China-South Asia centre, now being established in the Southern Chinese city of Chongqing, in the future.
- However, given continuing tensions over Chinese aggression at the Line of Actual Control in Ladakh, and New Delhi's firm stand that other bilateral relations cannot move ahead without a resolution of the boundary stand-off.
- It is understood that India would be unlikely to consider a new grouping involving China, especially one that could be seen to dilute its role in the SAARC region.

Conjugal rights

(Topic- GS Paper II- Polity and governance, Source- Indian Express)

- Recently, the Supreme Court is expected to begin hearing a fresh challenge to the provision allowing restitution of conjugal rights under Hindu personal laws.
- In 2019, a three-judge Bench of the Supreme Court had agreed to hear the pleas.

What are conjugal rights?

- Conjugal rights are rights created by marriage, i.e. the right of the husband or the wife to the society of the other spouse.
- The law recognises these rights— both in personal laws dealing with marriage, divorce etc and in criminal law requiring payment of maintenance and alimony to a spouse.
- **Section 9 of the Hindu Marriage Act recognises one aspect of conjugal rights — the right to the consortium** and protects it by allowing a spouse to move the court to enforce the right.
- The concept of restitution of conjugal rights is codified in Hindu personal law now, but has colonial origins and has genesis in ecclesiastical law.

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What is the provision under challenge?

- Section 9 of the Hindu Marriage Act, 1955, which deals with restitution of conjugal rights, reads:
 - "When either the husband or the wife has, without reasonable excuse, withdrawn from the society of the other, the aggrieved party may apply, by petition to the district court, for restitution of conjugal rights and the court, on being satisfied with the truth of the statements made in such petition and that there is no legal ground why the application should not be granted, may decree restitution of conjugal rights accordingly."

Similar Provision in other Personal Law

- Similar provisions exist in Muslim personal law as well as the Divorce Act, 1869, which governs Christian family law.

Incidentally, in 1970, the United Kingdom repealed the law on restitution of conjugal rights.

Concern

Violation of the fundamental right to privacy

- The law is being challenged now on the main grounds that it is violative of the fundamental right to privacy.
- The plea by two law students argues that court-mandated restitution of conjugal rights amounted to a "coercive act" on the part of the state, which violates one's sexual and decisional autonomy, and right to privacy and dignity.
- **In 2019**, a nine-judge Bench of the Supreme Court under **Puttaswamy v. India** recognised the right to privacy as a **fundamental right**.

Dam Rehabilitation and Improvement Project (DRIP) Scheme

(Topic- GS Paper II- Governance, Source- PIB)

Why in the news?

- Recently, under Dam Rehabilitation and Improvement Project (DRIP) scheme the state has been provided urgent finance to States for repair and maintenance of Dams.

About Dam Rehabilitation and Improvement Project (DRIP) Scheme

- The project was launched in 2012 by Central Water Commission (CWC) with assistance from World Bank.

The objectives of DRIP:

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- To improve the safety and operational performance of selected existing dams and associated appurtenances in a sustainable manner, and
- To strengthen the dam safety institutional setup of participating States / Implementing Agencies.

Phase 1 of the Project:

- **The first phase of the DRIP programme covered 223 dams in 7 states.**

Phase II and Phase III.

- **In 2020**, the Cabinet Committee on Economic Affairs has approved the Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III.
- It envisages comprehensive rehabilitation of 736 existing dams located across the country and complements the Dam Safety Bill, 2019.

Financial Assistance

- **Financial Assistance** is being provided by the World Bank (WB), and Asian Infrastructure Investment Bank (AIIB).

Duration

- The Project will be implemented over a period of 10 years duration in two Phases, each of six years **duration with two years overlapping from April 2021 to March 2031.**

DRIP Phase II & Phase III envisages the following objectives:

- To improve the safety and performance of selected existing dams and associated appurtenances in a sustainable manner.
- To strengthen the dam safety institutional setup in participating states as well as at the central level.
- To explore the alternative incidental means at a few of selected dams to generate the incidental revenue for sustainable operation and maintenance of dams.

Need for the Scheme:

- India ranks third globally after China and the United States of America, with 5334 large dams in operation. In addition, about 411 dams are under construction at present.
- There are also several thousand smaller dams.
- Indian dams and reservoirs play an important role in the economic and agricultural growth of our country by storing approximately 300 billion cubic meters of water annually.
- These dams present a major responsibility in terms of asset management and safety.

The consequences of dam failure can be catastrophic, in terms of loss of human life and property, and damage to the ecology

S-500 air defence system

(Topic- GS Paper III-Defense, Source- The Hindu)

Why in the news?

- Russia has recently released the first footage of its advanced new S-500 surface-to-air missile defence system.
- Its predecessor, the S-400 system.

About S-500 system



- The S-500 system is also called Prometheus.
- It is capable of destroying ballistic and cruise missiles, as well as planes and helicopters.
- It has an interception radius of around 600 km (373 miles).

Related Information

About S-400 Triumph

- It is a mobile, surface-to-air missile system (SAM) designed by Russia.

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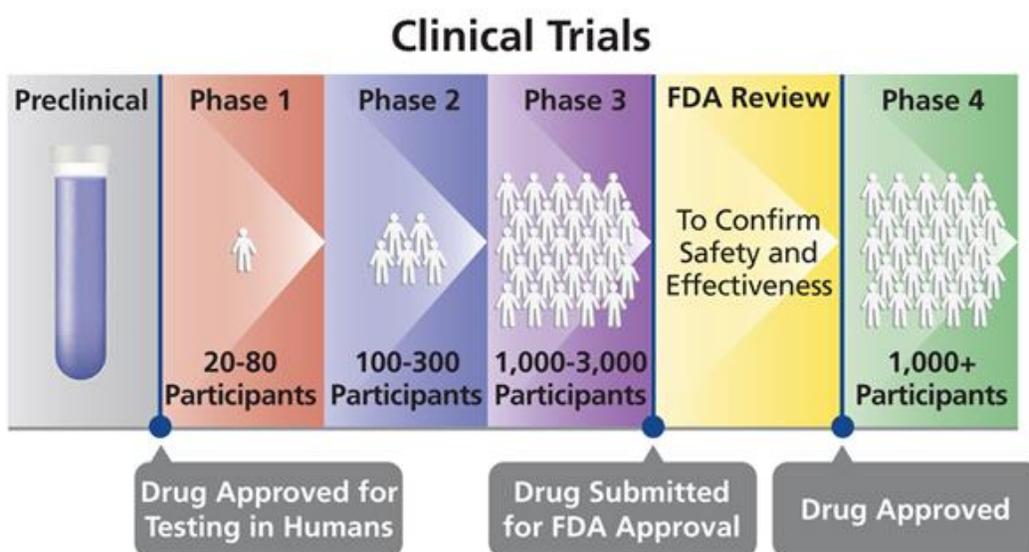
- It is the most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD).
- The S-400 Trimuf can engage all types of aerial targets such as aircraft, ballistic and cruise missiles, unmanned aerial vehicles (UAV), which are within the range of 400km, at an altitude of up to 30km.
- It can track 100 airborne targets, including super fighters such as the American built F-35, and engage six of them simultaneously.

4 new vaccines in human trials stage

(Topic- GS Paper III- Science and Technology Source- The Hindu)

Why in the news?

- Recently, in a written reply to Rajya Sabha Science Minister said that the Centre is funding the development of four vaccines, which are currently in various stages of human trials.



- These vaccines are:
 - a. the DNA-based vaccine candidate by Cadila Healthcare, Ahmedabad, Gujarat
 - b. the protein subunit vaccine by Biological E Ltd, Hyderabad, Telangana
 - c. Adenovirus intra-nasal vaccine by Bharat Biotech Ltd, Hyderabad, Telangana
 - d. An mRNA vaccine by Genova Biopharmaceuticals, Pune, Maharashtra.
- Cadila and Biological E vaccines are in Phase 3 trials, Bharat Biotech's in Phase 2, and Genova's in Phase 2 trial.

- A fifth vaccine candidate, which was a "virus-like particle" by Genique Life Sciences, based out of Gurugram, Haryana was in the "advanced preclinical stage.
- At present, three vaccines — Serum Institute of India's Covishield, Bharat Biotech's Covaxin and Russian vaccine Sputnik V — are being administered in India.

Beta Titanium Alloy

(Topic- GS Paper III- Science and Technology Source- AIR)

Why in the news?

- Defence Research and Development Organisation (DRDO) has indigenously developed a '**High Strength Metastable Beta Titanium Alloy**' containing Vanadium, Iron and Aluminium, **Ti-10V-2Fe-3Al** (non-ferrous near-beta titanium alloy) on an industrial scale for applications in aerospace structural forgings.

Significance

- The homegrown high strength titanium alloy is used in intricately configured components for aerospace applications.
- The higher strength, ductility, fatigue, and fracture toughness of the titanium alloy can replace steel and can lead to considerable weight savings
- The components which may be forged from **Beta Titanium Alloy include slot/flap tracks, landing gear, and drop link in landing gear among several others.**
- The high strength beta titanium alloys are unique due to design and durability, which makes them increasingly attractive for aircraft structural applications.
- Further, the lifetime cost of these are lower owing to their superior corrosion resistance as compared to steel

Some of the popular alloys in the aerospace industry include:

- Titanium Alloys
- Aluminium Alloys
- Copper Alloys
- Stainless Steel
- Superalloys
- Other Specialty Alloys

DB Shekatkar committee

(Topic- GS Paper III- Defense, Source- PIB)

Why in the news?

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- The Committee of Experts (CoE) constituted by the Ministry of Defence under the chairmanship of Lt Gen (Retd) DB Shekatkar to recommend measures to **enhance combat compatibility and rebalance defence expenditure of the armed forces**, submitted its report in December 2016.
- The Report was taken up by the Ministry of Defence to frame key action points and a roadmap for implementation.

Measures recommended by the Committee and taken up for the implementation include:

- Optimisation of Signals Establishments to include Radio Monitoring Companies, Corps Air Support Signal Regiments, Air Formation Signal Regiments, Composite Signal Regiments and merger for Corps Operating and Engineering Signal Regiments.
- Restructuring of repair echelons in the Army to include Base Workshops, Advance Base Workshops and Static/Station Workshops in the field Army.
- Redeployment of Ordnance echelons to include Vehicle Depots, Ordnance Depots and Central Ordnance Depots apart from streamlining inventory control mechanisms.
- Better utilisation of Supply and Transportation echelons and Animal Transport Units.
- Closure of Military Farms and Army Postal Establishments in peace locations.
- Enhancement in standards for recruitment of clerical staff and drivers in the Army.
- Improving the efficiency of the National Cadet Corps.

India signed 26 pacts to fight the drug menace

(Topic- GS Paper II-Governance and Polity Related Issue, Source- The Hindu)

Why in the news?

- India has recently signed 26 bilateral pacts, 15 memoranda of understanding and two agreements on security cooperation with different countries for combating illicit trafficking of narcotics, drugs and psychotropic substances, besides chemical precursors.
- The Narcotics Control Bureau (NCB) coordinated with various international organisations for sharing information and intelligence to combat transnational drug trafficking.

These include:

- The SAARC Drug Offences Monitoring Desk;
- Brazil, Russia, India, China and South Africa;
- Colombo Plan;
- Association of Southeast Asian Nations;
- ASEAN Senior Officials on Drug Matters;
- Bay of Bengal Initiative For Multi-Sectoral Technical and Economic Co-Operation;
- United Nations Office on Drugs and Crime,
- The International Narcotics Control Board

Related Information

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‘Magnitude of Substance use in India’: Report

- National Drug Dependence Treatment Centre (NDDTC) of the All India Institute of Medical Sciences (AIIMS), New Delhi submitted its Report "Magnitude of Substance Use in India" sponsored by the Ministry of Social Justice and Empowerment to the Union Minister for Social Justice and Empowerment

Key finding of the report

Alcohol

- At the national level, about 14.6% of people (among 10-75-year-old) are current users of alcohol, i.e. about 16 Crore people.
- Prevalence is 17 times higher among men than women.
- States with a high prevalence of alcohol use are Chhattisgarh, Tripura, Punjab, Arunachal Pradesh and Goa.

Cannabis

- About 2.8% of Indians (3.1 Crore individuals) report having used any cannabis product within the past 12 months (Bhang – 2% or 2.2 crore people; Ganja/Charas – 1.2% or 1.3 Crore people).
- States with a higher than the national prevalence of cannabis use are Uttar Pradesh, Punjab, Sikkim, Chhattisgarh and Delhi.

Opioids

- At the national level, the most common opioid used is Heroin, (current use is 1.14%) followed by Pharmaceutical opioids (current use 0.96%) and then Opium (current use 0.52%).
- In terms of the percentage of the population affected, the top states in the country are those in the northeast (Mizoram, Nagaland, Arunachal Pradesh, Sikkim, Manipur) along with Punjab, Haryana and Delhi.

Sedatives and Inhalants

- About 1.08% of 10-75-year-old Indians (approximately 1.18 crore people) are current users of sedatives (non-medical, non-prescription use).
- States with the highest prevalence of current Sedative use are Sikkim, Nagaland, Manipur and Mizoram. However, Uttar Pradesh, Maharashtra, Punjab, Andhra Pradesh and Gujarat are the top five states which house the largest populations of people using sedatives.

Other Categories

- Cocaine (0.10%) Amphetamine Type Stimulants (0.18%) and Hallucinogens (0.12%) are the categories with the lowest prevalence of current use in India.

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Government Initiatives to Tackle Drug Addiction

The Narcotic Drugs and Psychotropic Substances Act, (NDPS) 1985

- It prohibits a person from producing, possessing, selling, purchasing, transporting, storing, and/or consuming any narcotic drug or psychotropic substance.
- The NDPS Act has since been amended thrice – in 1988, 2001 and 2014.
- The Act extends to the whole of India and it applies also to all Indian citizens outside India and to all persons on ships and aircraft registered in India.

NCORD

- For coordination among various Central and State agencies, the Narco Coordination Centre (NCORD) mechanism was set up by the MHA in the year 2016 for effective drug law enforcement.
- This NCORD system has been restructured into a four-tier scheme up to district level on July 29, 2019, for better coordination,

SIMS' (Seizure Information Management System)

- “For digitisation of pan-India drug seizure data, the MHA has launched an e-portal called ‘SIMS’ (Seizure Information Management System) in 2019 for all the drug law enforcement agencies under the mandate of Narcotics Drugs and Psychotropic Substances Act (NDPS).

'Project Sunrise'

- It was launched by the Ministry of Health and Family Welfare in 2016, to tackle the rising HIV prevalence in north-eastern states in India, especially among people injecting drugs.
- The government has also announced the launch of the 'Nasha Mukh Bharat', or Drug-Free India Campaign which focuses on community outreach programs.

Global initiative

India is a signatory of the following international treaties and conventions to combat the menace of Drug Abuse:

- a. United Nations (UN) Convention on Narcotic Drugs (1961)
- b. UN Convention on Psychotropic Substances (1971).
- c. UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)
- d. UN Convention against Transnational Organized Crime (UNTOC) 2000

SMILE - Support for Marginalized Individuals for Livelihood and Enterprise scheme

(Topic- GS Paper II-Scheme for Vulnerable Section, Source- The Hindu)

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Why in the news?

- The Ministry of Social Justice and Empowerment has formulated a scheme “SMILE - Support for Marginalized Individuals for Livelihood and Enterprise” scheme.

About SMILE Scheme

- It includes sub-scheme **central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging’**.

Focused on

- The focus of the scheme is extensively on rehabilitation, provision of medical facilities, counselling, basic documentation, education, skill development, economic linkages and so on.
- The scheme would be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs), institutions and others.
- The scheme provides for the use of the existing shelter homes available with the State/UT Governments and Urban local bodies for rehabilitation of the persons engaged in the act of Begging.
- In case of the non-availability of existing shelter homes, new dedicated shelter homes are to be set up by the implementing agencies.

The laws for surveillance in India, and the concerns over privacy

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- In response to the finding by a global collaborative investigative project that Israeli spyware Pegasus was used to target at least 300 individuals in India, the government has claimed that all interception in India takes place lawfully.

Law covering surveillance in India

Communication surveillance in India takes place primarily under two laws

- a. The Telegraph Act, 1885
- b. The Information Technology Act, 2000.

Telegraph Act, 1885

- It governs the use of wired and wireless telegraphy, telephones, teletype, radio communications and digital data communications.

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- It gives the Government of India exclusive jurisdiction and privileges for establishing, maintaining, operating, licensing and oversight of all forms of wired and wireless communications within Indian Territory.
- Under this law, the government can intercept calls only in certain situations — the interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states or public order, or for preventing incitement to the commission of an offence.
- These are the same restrictions imposed on free speech under Article 19(2) of the Constitution.
- Section 5(2) of the act allows central and state governments to prevent the transmission of messaging during a “public emergency or in the interest of public safety”, or “in the interests of the sovereignty and integrity of India, the security of the state”.
- Additionally, a proviso in Section 5(2) states that even this lawful interception cannot take place against journalists.

Supreme Court intervention

- In *Public Union for Civil Liberties v Union of India* (1996), the Supreme Court pointed out lack of procedural safeguards in the provisions of the Telegraph Act and laid down certain guidelines for interceptions.
- Public interest litigation was filed in the wake of the report on “Tapping of politician’s phones” by the CBI.
- The court noted that authorities engaging in interception were not even maintaining adequate records and logs on interception.
- Among the guidelines issued by the court were settings up a review committee that can look into authorisations made under Section 5(2) of the Telegraph Act.
- **The Supreme Court’s guidelines formed the basis of introducing Rule 419A in the Telegraph Rules in 2007 and later in the rules prescribed under the IT Act in 2009.**

B N Srikrishna Committee

- Government has appointed a committee of experts on data protection under the chairmanship of Justice B N Srikrishna that submitted its report in July 2018.

IT Act, 2000

- Section 69 of the Information Technology Act and the Information Technology (Procedure for Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 were enacted to further the legal framework for electronic surveillance.

- Under the IT Act, all electronic transmission of data can be intercepted. So, for a Pegasus-like spyware to be used lawfully, the government would have to invoke both the IT Act and the Telegraph Act.
- Apart from the restrictions provided in Section 5(2) of the Telegraph Act and **Article 19(2) of the Constitution, Section 69 the IT Act adds another aspect that makes it broader — interception, monitoring and decryption of digital information “for the investigation of an offence”.**

Support for orphans sees varying progress

(Topic- GS Paper II-Scheme for Vulnerable Section, Source- The Hindu)

Why in the news?

- Recently, Prime Minister had announced that the government would launch a slew of welfare measures for children who had lost their parents to COVID-19.
- This was followed by similar announcements by different State governments.

State government’s initiatives

Mukhyamantri COVID-19 Pariwar Aarthik Sahayata Yojna

- Delhi Chief Minister has announced **Mukhyamantri COVID-19 Pariwar Aarthik Sahayata Yojna**, under which ₹50,000 would be given as a one-time compensation to all families who lost someone to COVID-19.

Chief Minister’s Bala Seva Yojana

- It has been launched by the Karnataka government.
- Under this scheme, the children would get ₹3,500 a month.

Tamil Nadu

- The Tamil Nadu government has sanctioned ₹33.37 crore under the scheme to benefit a total of 1,045 children (including 101, who lost both their parents, and 944 minors, who lost either of their parents) so far.
- Under the scheme, children who have lost both parents (₹5 lakh) or even one parent (₹3 lakh) would have a corpus set up in their name to draw when they turn 18 and a monthly maintenance amount for children not housed in government homes.
- The scheme is ongoing and officials are involved in identifying the children from various districts.

Kerala

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- In Kerala, the government has identified 74 children who have been orphaned by the pandemic.
- As per data collected by the Women and Child Development Department, the number of children who have lost a parent to COVID-19 is 2,488, while six have been abandoned.

Telangana

- Telangana has not adopted any special policy or funding to support the children orphaned by COVID-19, instead choosing to help them with existing schemes under the Women and Child Welfare Department.

Central Government Initiate

PM CARES for Children Scheme

- The scheme has been approved under the PM CARES fund for children who have lost both parents or the lone surviving parent or a legal guardian or an adoptive parent due to COVID-19.

Benefits

- They will get a monthly stipend once they turn 18 and a fund of Rs 10 lakh when they turn 23 from PM CARES.
- Free education to be ensured for children who lost their parents to COVID 19.
- The children will be assisted to get an education loan for higher education & PM CARES Fund will pay interest on the loan.
- The children will get free health insurance of Rs 5 lakh under Ayushman Bharat Scheme (PM-JAY) till 18 years & premium will be paid by PM CARES Fund.

Right to be Forgotten

(Topic- GS Paper II-Polity & Governance, Source- The Hindu)

Why in the news?

- Recently, Ashutosh Kaushik who won reality shows Bigg Boss in 2008 and MTV Roadies 5.0 has approached the Delhi High Court with a plea saying that his videos, photographs and articles etc. be removed from the internet citing his “**Right to be Forgotten**”.

About ‘Right to be Forgotten’ in the Indian context

- The Right to be Forgotten falls under the purview of an individual’s right to privacy, which is governed by the Personal Data Protection Bill that is yet to be passed by Parliament.

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- The Supreme Court described privacy and its importance in the landmark decision of **K.S. Puttaswamy v. Union of India in 2017** that - **Right to Privacy is a fundamental and inalienable right and attaches to the person covering all information about that person and the choices that he/ she makes.**
- The right to privacy is protected as an intrinsic part of the right to life and personal **liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution.**

The Personal Data Protection Bill and Right to be Forgotten'

- The Personal Data Protection Bill was introduced in Lok Sabha on December 11, 2019, and it aims to set out provisions meant for the protection of the personal data of individuals.
- **Clause 20 under Chapter V of this draft bill titled “Rights of Data Principal” mentions the “Right to be Forgotten.”**
- It states that the “data principal (the person to whom the data is related) shall have the right to restrict or prevent the continuing disclosure of his personal data by a data fiduciary”.
- Therefore, broadly, under the Right to be forgotten, users can de-link, limit, delete or correct the disclosure of their personal information held by data fiduciaries.
- A data fiduciary means any person, including the State, a company, any juristic entity or any individual who alone or in conjunction with others determines the purpose and means of the processing of personal data.

[China, Pak. outline ‘joint action’ to align Afghanistan strategies](#)

(Topic- GS Paper II-IR, Source- The Hindu)

Why in the news?

- China and Pakistan have recently said that they would more closely cooperate and work together in Afghanistan amid the changing situation in the country, as their Foreign Ministers proposed building the China Pakistan Economic Corridor (CPEC) into “a hub of regional connectivity”.

They outlined a five-point joint plan on working in Afghanistan.

- China outlined “joint actions” in five areas, starting with “the immediate priority of avoiding the expansion of war and preventing Afghanistan from falling into a full-scale civil war.”
- The second focus would be to promote the intra-Afghan negotiations between Kabul and the Taliban and establish “a broad and inclusive political structure”.
- The third joint action would be “to resolutely combat terrorist forces”.
- The fourth joint action would be to “promote cooperation among Afghanistan’s neighbours” and “explore the construction of a platform for cooperation among them”.

On CPEC

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- China's Foreign Ministry said in May both countries had been in communication with Afghanistan overextending the corridor. "
- Afghanistan has imported and exported related goods through the Gwadar Port and Karachi Port.
- China, Pakistan and Afghanistan are discussing issues related to extending roads and expressways in Pakistan to Afghanistan,.

India's Stand on CPEC

- India has opposed the CPEC, which passes through Pakistan-occupied Kashmir, although China has pushed ahead with projects and stepped up its investments in PoK.

Related Information

About China Pakistan Economic Corridor



- It is a bilateral project between Pakistan and China and a part of One Belt One Road (OBOR).
- The project intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects linking the Western part of China to the Gwadar Port in Balochistan, Pakistan.
- It is running some 3000 km from Xinjiang to Balochistan via Khunjerab Pass in the Northern Parts of Pakistan.
- It will pave the way for China to access the Middle East and Africa from Gwadar Port, enabling China to access the Indian Ocean and in return, China will support development projects in Pakistan to overcome the latter's energy crises and stabilizing its faltering economy.

Indian Science Technology and Engineering facilities Map (I-STEM)

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- Recently, the I-STEM project has been accorded extension for five years, until 2026 and enters its second phase with added features.

About the Indian Science Technology and Engineering facilities Map (I-STEM)

I-STEM
Linking Researchers and Resources
Launched by the Honourable Prime Minister of India

Indian Science, Technology and Engineering facilities Map (I-STEM)
I-STEM: Strengthen the Indigenous Development of Scientific Instruments

After establishing a National web portal through which R&D equipment in institutions across the country can be located and accessed in a transparent way, I-STEM is entering a New Phase with the following objectives –

- ▶ Working towards a more comprehensive listing of R&D facilities. Availability, and their active use
- ▶ Providing partial assistance to Tier 2 and Tier 3 institutions for the maintenance of facilities shared through I-STEM through Comprehensive AMC program;
- ▶ Partial assistance to Users from Tier 2 and Tier 3 institutions who use facilities through I-STEM
- ▶ Promoting the indigenous development – especially by startups - of scientific equipment and value-added technical supplies, including software, used for R&D; enabling such development via the (national) Digital Catalogue of indigenously developed technologies and products maintained by the I-STEM portal
- ▶ Establishing regional centres for providing technical training and skill development, in part by restoring/stripping R&D equipment written off by I-STEM institutions; thus developing a stream of talent and gainful employment through maintaining and upgrading R&D facilities
- ▶ Providing access through the web to R&D software platforms to Academic Users to promote R&D and more effective instruction/learning, especially in smaller institutions.

Diagram illustrating the I-STEM objectives:

- Indigenous Equipment Development
- Skill Development Program
- User friendly R&D facility access across the country
- Partial funding to Institution, Researchers and Start-ups
- Software Services through I-STEM

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- It is a national web portal for sharing R&D facilities that was formally launched in January 2020.
- It is an initiative of the Office of the Principal Scientific Adviser to the Govt. of India (PSA, GOI) under the aegis of Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission.

Goal

- The goal of I-STEM is to strengthen the R&D ecosystem of the country by connecting researchers with resources, in part by promoting technologies and scientific equipment development indigenously, and providing necessary supplies and supports to researchers by enabling them access to existing publicly funded R&D facilities in the country through the I-STEM web portal.

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- I-STEM portal facilitates researchers to access slots for the use of equipment, as well as to share the details of the outcomes, such as, patents, publications and technologies.
- Under Phase II, the portals will host indigenous technology products listed through a digital catalogue.

Tunisian President sacks government

(Topic- GS Paper II-IR, Source- The Hindu)

Why in the news?

- Recently, street clashes erupted outside Tunisia's Army-barricaded Parliament; a day after President Kais Saied ousted the Prime Minister and suspended the legislature, plunging the young democracy into a constitutional crisis.

More in the news

- The presidency announced the dismissals of Defence Minister Ibrahim Bartaji and Hasna Ben Slimane, the acting Justice Minister.

Background

- In 2011, the Tunisian Revolution, triggered by the lack of freedom and democracy under the 24-year rule of president Zine El Abidine Ben Ali, overthrew his regime and catalyzed the broader Arab Spring across the region.
- Free multiparty parliamentary elections were held shortly after; the country again voted for parliament on 26 October 2014, and for president on 23 November 2014.
- Tunisia remains a unitary semi-presidential representative democratic republic; and is the only North African country classified as "Free" by Freedom House.
- **It has been considered the only fully democratic state in the Arab World in the Economist Intelligence Unit's Democracy Index.**
- **It is one of the few countries in Africa ranking high in the Human Development Index, with one of the highest per capita incomes in the continent.**

About Tunisia

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- It is officially called the Republic of Tunisia.

Location

- It is located in the northernmost country in Africa.
- It is a part of the Maghreb region of North Africa and is bordered by Algeria to the west and southwest, Libya to the southeast, and the Mediterranean Sea to the north and east.
- It contains the eastern end of the Atlas Mountains and the northern reaches of the Sahara desert, with much of its remaining territory arable land.
- Tunisia is home to Africa's northernmost point, Cape Angela.

Capital

- Its capital and largest city are Tunis, located on its northeastern coast.

The Assam-Mizoram border dispute

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- Recently, at least five Assam Police personnel were killed after the old boundary dispute between Assam and Mizoram exploded in violent clashes at a contested border point.
- The violence spotlights the long-standing inter-state boundary issues in the Northeast, particularly between Assam and the states that were carved out of it.

Point of Conflict

- **The Mizo Zirlai Pawl (MZP's) Vanlaltana said the Assam government follows the 1933 demarcation, and that was the point of conflict.**
- On that occasion, the MZP had built a wooden rest house in a forest, ostensibly for use by farmers.

- The Assam Police and forest department officials had demolished it, saying this was in Assam territory.
- MZP members had then clashed with Assam personnel, who also thrashed a group of Mizoram journalists who had gone to cover the incident.

The genesis of the boundary dispute



- In the Northeast's complex boundary equations, showdowns between Assam and Mizoram residents are less frequent than they are between, say, Assam and Nagaland residents.
- Nevertheless, the boundary between present-day Assam and Mizoram, 165 km long today, dates back to the colonial era, when Mizoram was known as Lushai Hills, a district of Assam.
- The dispute stems from a notification of 1875 that differentiated **the Lushai Hills from the plains of Cachar**, and another of 1933 that demarcates a boundary between the Lushai Hills **and Manipur**.
- Mizoram believes the boundary should be demarcated based on **the 1875 notification, which is derived from the Bengal Eastern Frontier Regulation (BEFR) Act, 1873**.
- Mizo leaders have argued in the past against the demarcation notified in 1933 because Mizo society was not consulted.

'Gatekeeper Model' to prevent suicides in prisons

(Topic- GS Paper II-Polity and Governance, Source- Indian Express)

Why in the news?

- The **National Institute of Mental Health and Neuro Sciences (NIMHANS)** has **recently** recommended the "Gatekeeper Model" where selected inmates, trained to identify prisoners at risk of suicide, would refer them to treatment or supportive services.

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- It will come after the Bangalore Prison Mental Health Study, the advisory pointed to the prevalence of mental illness and substance use disorder in about 80% of the prison population.

About Gatekeeper Model

- Gatekeepers are existing people who are in close contact with the prisoners and can provide help for the prisoners.
- They could be other convicted prisoners, prison staff who will be able to identify and support prisoners needing psychological help.
- People having a psychological problem or at risk of suicide can access the gatekeeper, who can bridge the gap between them and the professional services.
- This is of particular benefit in at-risk suicidal prisoners.

The objective of the model

- In this model, selected inmates, trained to identify prisoners at risk of suicide, would refer them to treatment or supportive services.

Related Information

About Buddy system

- The concept of a ‘Buddy System’ — social support through trained prisoners called “buddies” or “listeners” — was found to have a good impact on the well-being of suicidal prisoners.
- Periodic telephone conversations with friends and family would also foster support.

e-Mulakat

- It was an online platform enabling relatives/friends/ advocates of prisoners to book prior appointments for interviewing prisoners through the National Prisons Information Portal.
- This was in addition to the video/voice call facility through mobile phones/telephone booths.

China’s sea claims have no basis says the U.S.

(Topic- GS Paper II- International Relation –, Source- Hindu)

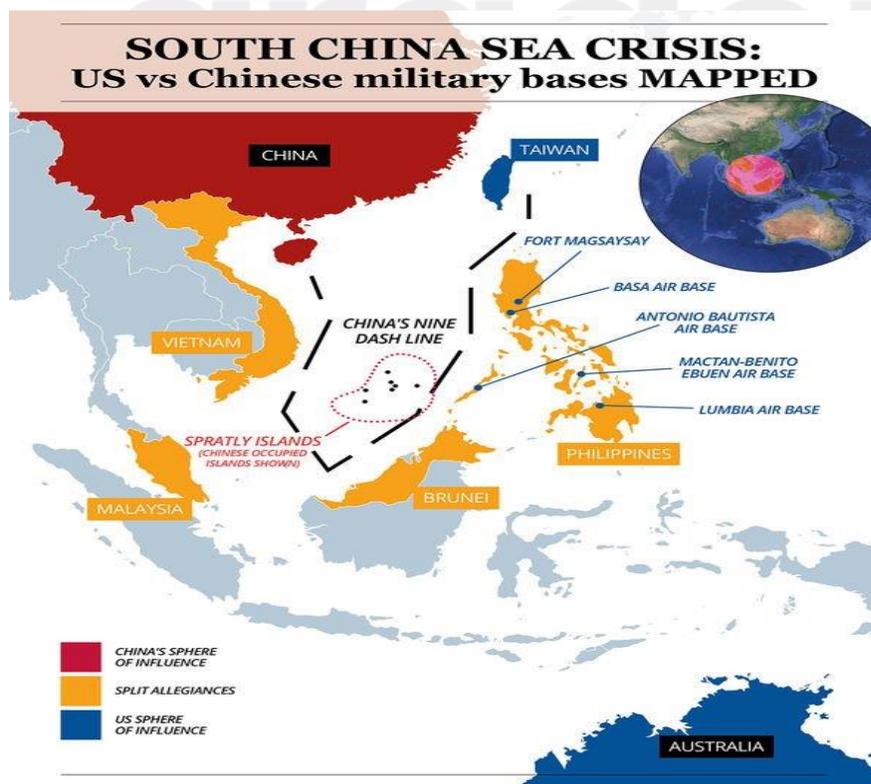
Why in the news?

- Recently, Pentagon chief Lloyd Austin said that Beijing's expansive claims in the South China Sea have "no basis in international law", aiming at China's growing assertiveness in the hotly contested waters.

Issues

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- China claims almost the entirety of the resource-rich sea and was accused by the United States this week of efforts to "intimidate and provoke others" by parking its vessels near the Whitsun Reef.
- **China's claim to the sea is based both on the Law of the Sea Convention and its so-called nine-dash line.**
- **This line extends for 2,000 Km from the Chinese mainland, encompassing over half of the sea.**
- Brunei, Malaysia, the Philippines, Taiwan and Vietnam also have competing claims to various islands and features in the area.
- The US is playing a very important role in mending the dispute because it has wide-ranging security commitments in East Asia and is allied with several of the countries bordering the South China Sea, such as the Philippines, Singapore, and Vietnam. It is also impacting the US.
- There is a debate in international law about the type of land territory that can generate rights to an exclusive economic zone.
- Taiwan, which has been in dispute with China over sovereignty issues since 1949.
- This dispute has meant Taiwan is not formally recognised as a state by most countries and is therefore not a signatory to the Law of the Sea Convention, nor legally entitled to claim territory but Taiwan occupies one of the islands.
- No code of conduct in the region poses more threats to the area.



US and China relationships

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- The U.S.-China relationship has deteriorated over a range of issues from cybersecurity and tech supremacy to human rights in Hong Kong and Xinjiang.

India's Stand

- India has a commercial interest in the South China Sea (SCS) region but it follows the policy of not involving itself in the disputes between sovereign nations.
- India has been concerned about the security of its trade flows and energy interests in the South China Sea.
- Further, India is using its Buddhist legacy to make a strong bond with the Southeast Asian region.
- India has also deployed its navy with Vietnam in the South China Sea for protection of sea lanes of communication (SLOC), denying China any space for assertion.
- India is a member of the QUAD (India, US, Japan, Australia) makes China susceptible to India's stand because the grouping is considered, by the world, to be a type of containing mechanism for China.

Commission of Inquiry

(Topic- GS Paper II- Governance, Source- Indian Express)

Why in the news?

- The West Bengal government has recently set up a Commission of Inquiry into the alleged surveillance of phones using the Pegasus spyware developed by the Israeli cyber-intelligence company NSO Group.

About the Commission

- The Commission, comprising former Supreme Court Justice Madan B Lokur and former Calcutta High Court Justice Jyotirmay Bhattacharya, will look into the alleged breach of privacy of several individuals —journalists, activists, businesspersons, police officials, politicians — both in the government and the opposition.

What kind of subjects can a Commission probe?

- Under Section 2(a) of the 1952 Act, Commissions set up by the central government can inquire into any matter relatable to any of the entries in List I (Union List) or List-II (State List) or List III (Concurrent List) in the Seventh Schedule to the Constitution, while Commissions set up by state governments can look into entries in List II or List III.
- In the Pegasus inquiry commission, the West Bengal government has cited public order and police entries. While these subjects are in the State List, an argument could also be made that the subject matter of the inquiry essentially falls under the Central List.
- **Entry 31 of the Union List or List I deal with posts and telegraphs, telephones, wireless, broadcasting and other forms of communication.**

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Power of the Commission

- Under The Commissions of Inquiry Act, 1952, a Commission set up by the government shall have the powers of a civil court, while trying a suit under the Code of Civil Procedure, 1908.
- The Commission has powers to summon and enforce the attendance of any person from any part of India and examine her on oath and receive evidence, and it can order requisition of any public record or copy from any court or office.
- **Under Section 5 of the Act**, the Commission also has the power to require any person, subject to any privilege which may be claimed by that person under any law for the time being in force, to furnish information on such points or matters that, in the opinion of the Commission, may be useful for, or relevant to, the subject matter of the inquiry.

Why has a state government set up the Commission?

- While both central and state governments can set up such Commissions of Inquiry, states are restricted by subject matters that they are empowered to legislate upon.
- If the central government set up the commission first, then states cannot set up a parallel commission on the same subject matter without the approval of the Centre.
- But if a state has appointed a Commission, then the Centre can appoint another on the same subject if it thinks that the scope of the inquiry should be extended to two or more states.

Previous Commissions of Inquiry

- **In 2002, when Narendra Modi was Gujarat Chief Minister, the state government has set up a Commission of retired Justices G T Nanavati and A H Mehta to probe the Godhra train burning and the subsequent riots.**
- The Commission later gave a clean chit to the state government in its report.
- **In 2004, Lalu Prasad Yadav, the Union Railways Minister in the Congress-led UPA government, constituted a Commission of Inquiry on the same subject, under former Supreme Court judge U C Banerjee.**
- The Banerjee Commission reported findings contrary to that of the state commission.
- However, the Gujarat High Court later held that the constitution of the Banerjee Commission was illegal, and quashed its conclusions since the state-appointed Commission was already looking into the issue.

No immunity for acts of vandalism: SC

(Topic- GS Paper II- Polity, Source- The Hindu)

Why in the news?

- The Supreme Court has recently held that lawmakers cannot indulge in criminal acts on the Parliament or Assembly floors and then take cover behind the right to free speech.

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- The court refused the Kerala government's plea to withdraw prosecution of top Left Democratic Front (LDF) leaders accused of vandalism and wanton destruction of public property on the Assembly floor during a Budget speech in 2015.

Court observation

- “Acts of vandalism cannot be said to be manifestations of freedom of speech and be termed as ‘proceedings’ of the Assembly.
- It was not the intention of the drafters of the Constitution to extend the interpretation of ‘freedom of speech to include criminal acts by placing them under a veil of protest.
- Parliamentary privileges and immunities are not "gateways" for legislators to claim exceptions from the law of the land, especially criminal law, Justice Chandrachud, who authored the verdict.

Related Information

About Parliamentary Privileges

- These are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can “effectively discharge their functions”.
- It is defined in Article 105 of the Indian Constitution and those of State legislatures in Article 194.
- When any of these rights and immunities is disregarded, the offence is called a breach of privilege and is punishable under the law of Parliament.
- Besides, Rule No 222 in Chapter 20 of the Lok Sabha Rule Book and correspondingly Rule 187 in Chapter 16 of the Rajya Sabha rulebook govern privilege.

About Committee of Privileges

- The functions of this committee are semi-judicial in nature.
- It examines the cases of breach of privileges of the House and its members and recommends appropriate action.

Members

- The Lok Sabha committee has 15 members, while the Rajya Sabha committee has 10 members.

Gharib Nawaz Employment Scheme

(Topic- GS Paper II-Governance, Source- PIB)

Why in the news?

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- Recently, the Union Minister for Minority Affairs replied in the Parliament that a total number of 371 training centres under the Gharib Nawaz Employment Scheme were opened across the country.

About Gharib Nawaz Employment Scheme

- It was launched by the Ministry of Minority Affairs in 2017.
- Maulana Azad Education Foundation, an autonomous body under the aegis of the Ministry of Minority Affairs, implements the Scheme.
- The main aim of this scheme is to provide short term job oriented skill development courses to minorities' youth to enable them for skill-based employment.
- This scheme is implemented as per common norms of the Ministry of Skill Development & Entrepreneurship (MSD&E) through the **empanelled Program Implementation Agencies (PIAs)**.
- The Empanelled Program Implementation Agencies is mandated to place a minimum of 70% of trainees out of total trained trainees.
- The monthly stipend for a maximum of three months and post-placement support for a maximum of two months after getting employment are also being paid to the beneficiaries directly into their account.

Other Schemes for Minority Communities

- Nai Manzil (for formal skilling of school dropouts)
- Nai Roshni (for leadership Development of Minority Women)
- Begum Hazrat Mahal Girls scholarships
- Usttad (Upgrading the Skills and Training in Traditional Arts/Crafts for Development)
- Garib Nawaz Kaushal Vikas Yojana

Parliament passes landmark 'Marine Aids to Navigation Bill 2021'

(Topic- GS Paper II-Governance, Source- The Hindu)

Why in the news?

- Parliament has recently passed the Marine Aids to Navigation Bill 2021.

Key highlights of the bill

- The bill aims to adopt state-of-the-art technologies of marine navigation that were not covered under the statutory provisions of the old Lighthouse Act 1927.

Application

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- The Bill applies to the whole of India including various maritime zones including territorial waters, continental shelf, and exclusive economic zone.

Aid to navigation

- The Bill defines aid to navigation as a device, system, or service, external to the vessels designed and operated to enhance the safety and efficiency of navigation of vessels and vessel traffic.
- A vessel includes a ship, boat, sailing vessel, fishing vessel, submersible, and mobile offshore drilling units.
- Vessel traffic service is defined as a service to improve the safety and efficiency of vessel traffic and protect the environment.

Director-General of Aids to Navigation

- The Bill provides that the central government will appoint
 - a. Director-General
 - b. Deputy Director Generals
 - c. Directors for districts (which the centre may demarcate).
- The Director-General will advise the central government on matters related to aids to navigation, among others.

Central Advisory Committee

- The central government may appoint a Central Advisory Committee (CAC) consisting of persons representing the interests affected by the Bill, or having special knowledge of the sector.

Benefits:

- The new Act will facilitate harmonized and effective functioning of aids to marine navigation and Vessel Traffic Services along the Indian coastline.

The benefits include:

- Improved Legal Framework for Matters related to Aids to Navigation & Vessel Traffic Services and covers the future developments in the field of Marine Navigation.
- Management of 'Vessel Traffic Services' for enhancing the safety and efficiency of shipping and to protect the environment.
- Skill development through Training and Certification for the operators of 'Aids to Navigation' and 'Vessel Traffic Services' at par with international standards.
- Auditing and Accreditation of Institutes to cater to the need of Training and Certification at par with global standards.

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- Marking of "Wreck" in general waters to identify sunken/stranded vessels for safe and efficient navigation.
- The development of Lighthouses for the purpose of education, culture and tourism, would tap the tourism potential of coastal regions and contribute to their economy.

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PAPER-3 (Economy, Science & Technology & Environment)

Global Cybersecurity Index 2020

(Topic- GS Paper III- Internal security, Source- Indian Express)

Why in the news?

- Global Cybersecurity Index (GCI) has been recently launched by the International Telecommunication Union (ITU).

About the Global Cybersecurity Index

- GCI assessment is done on the basis of performance on five parameters of cybersecurity including
 - a. Legal measures
 - b. Technical measures
 - c. Organisational measures
 - d. Capacity development,
 - e. Cooperation
- The performance is then aggregated into an overall score.
- For each of the five aspects, all the countries' performance and commitment were assessed through a question-based online survey, which further allowed for the collection of the supporting evidence.
- Through in-depth consultations with a group of experts, the questions were then weighted and assessed, to arrive at the overall scores.

Key highlights

Global Ranking

- The US topped the chart, followed by the UK and Saudi Arabia tied on the second position, while Estonia was ranked third in the index.

India and Index

- India ranks among top 10 in Global Cybersecurity Index.
- India has also secured the fourth position in the Asia Pacific region, underlining its commitment to cybersecurity.
- The GCI results for India show substantial overall improvement and strengthening under all parameters of the cybersecurity domain.
- India scored a total of 97.5 points from a possible maximum of 100 points, to make it to the tenth position worldwide in the GCI 2020.

Steps taken by the Government to spread awareness about cyber crimes

International Initiatives

a. International Telecommunication Union

- It is a specialized agency within the United Nations which plays a leading role in the standardization and development of telecommunications and cyber security issues.
- It was established in 17 May 1865 as the International Telegraph Union, making it among the oldest international organizations still in operation.
- It's headquartered based in Geneva, Switzerland

Memberships

- The ITU's global membership includes 193 countries and around 900 business, academic institutions, and international and regional organizations.

b. Budapest Convention on Cybercrime

- It is an international treaty that seeks to address Internet and computer crime (cybercrime) by harmonizing national laws, improving investigative techniques, and increasing cooperation among nations.
- It came into force on 1 July 2004.
- **India is not a signatory to this convention.**

c. Internet Governance Forum (IGF)

- It brings together all stakeholders, i.e. Government, private sector and civil society on the Internet governance debate.
- It was first convened in October–November 2006.

Laws and Cyber security Preparedness of India

a. Information Technology Act, 2000

- The act regulates the use of computers, computer systems, computer networks and also data and information in electronic format.
- The act lists down among other things, following as offences:
 1. Tampering with computer source documents.
 2. Hacking with a computer system
 3. Act of cyber terrorism, i.e. accessing a protected system with the intention of threatening the unity, integrity, sovereignty or security of the country.
 4. Cheating using computer resources etc.

b. National Cyber security Policy, 2013

- It aims to protect information and information infrastructure in cyberspace, build capabilities to prevent and respond to cyber threats, reduce vulnerabilities and minimize damage from cyber.

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Strategy

1. The **CERT-IN**-National nodal agency for responding to computer security incidents as and when they occur.
2. **Central Information Security Officer** in all private and public organizations.

c. Indian Cyber Crime Coordination Centre (I4C)

- The Indian Cyber Crime Coordination Centre (I4C) was recently inaugurated by the Government.
- It will be set up under the newly created Cyber and Information Security (CIS) division of the Ministry of Home Affairs.
- It coordinates all activities related to implementation of Mutual Legal Assistance Treaties (MLAT) with other countries related to cybercrimes in consultation with the concerned nodal authority in the MHA.

The scheme has the following seven components:

- National Cybercrime Threat Analytics Unit (TAU)
- National Cyber crime Reporting
- Platform for Joint Cyber crime Investigation Team
- National Cyber crime Forensic Laboratory (NCFL) Ecosystem
- National Cyber crime Training Centre (NCTC)
- Cybercrime Ecosystem Management Unit
- National Cyber Research and Innovation Centre

d. National Cyber Crime Reporting Portal

- This portal is an initiative of Government of India to facilitate victims/complainants to report cyber crime complaints online.
- This portal caters to complaints pertaining to cyber crimes only with special focus on cyber crimes against women and children.
- Complaints reported on this portal are dealt by law enforcement agencies/ police based on the information available in the complaints.

e. Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre) has been launched for providing detection of malicious programmes and free tools to remove such programmes.

f. Cyber Crime Volunteer Framework

- It is an initiative which is a part of cyber hygiene promotion to bring together citizens to contribute in the fight against cybercrime in the country and assist State/UT LEAs (law enforcement agencies) in their endeavour to curb cyber crimes.
- The aim of the programme to enable a culture of surveillance and could create potential social distrust by encouraging civilians to report the online activities of other citizens.
- The volunteers will be enrolled and their services utilized by the respective State/UT Police Authorities, as per their requirement.”

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- **Indian Cyber Crime Coordination Centre (I4C)** has envisaged the Cyber Crime Volunteers Program to bring together citizens with passion to serve the nation on a single platform and contribute in the fight against cybercrime in the country

Centre's digital agri proposals raise concern'

(Topic- GS Paper III- Agriculture, Source- The Hindu)

Why in the news?

- The Centre's digital agriculture proposals also known as **AgriStack** raise concerns of exploitation of farmers, data protection and consent, mismanaged land records, exclusion of landless cultivators and the corporatisation of agriculture.

Concern

- The 91 organization demanded that the Centre stop implementation of the pilot projects 'AgriStack' being rolled out in partnership with tech and retail giants including Microsoft, Amazon and Patanjali.

Background

- Recently, the Ministry of Agriculture has signed a Memorandum of Understanding with Microsoft to run a pilot programme for 100 villages in 6 states.
- The MoU requires Microsoft to create a 'Unified Farmer Service Interface' through its cloud computing services.
- This comprises a major part of the ministry's plan of creating 'AgriStack' (a collection of technologybased interventions in agriculture), on which everything else will be built.

About AgriStack

WHAT IS THE AGRISTACK?

The Report of the Committee on Doubling Farmer's Income, NITI Aayog's Discussion Paper on National Strategy for Artificial Intelligence, and the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 all mention the use of electronic database for farmers meant to collect data about agriculture and use this to provide services to farmers.



INTERNET
FREEDOM
FOUNDATION

1 WHAT DETAILS DOES IT COLLECT?

The data to be collected by the AgriStack includes: personal details, profile of the land held, production details, and financial details.

2 WHAT ARE THE PROPOSED BENEFITS?

1. Improved access to formal credit
2. Better quality of input
3. Smooth mechanism for marketing and price discovery

3 POTENTIAL ISSUES

1. Lack of consultations with farmer organisations
2. Algorithm based decision making will impact farmers' rights without transparency or accountability.
3. Incentives to harvest and process farm data for financial gain rather than benefit of farmers

4 HOW WILL THE LOSS OF PRIVACY IMPACT FARMERS?

1. Financial lending models relying on technology towards farmers may offer usurious rates for those in dire need.
2. There exist risks of exclusion which has been well documented by studies on Aadhaar linked welfare delivery systems
3. Algorithm based decision making may further reduce the. agency of farmers

5 RECOMMENDATIONS

1. Understanding issues emerging from the leadership of farmer groups to include farmers in the decision making process
2. Necessity of long term study and advocacy to engage farmers effectively
3. Study the impact of a data protection law to ensure digital security and privacy






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- It is a collection of technologies and digital databases that focuses on farmers and the agricultural sector.
- It will create a unified platform for farmers to provide them end to end services across the agriculture food value chain.
- It is in line with the Centre's Digital India programme, aimed at providing a broader push to digitise data in India, from land titles to medical records.
- The government is also implementing the National Land Records Modernisation Programme (NRLMP).
- Under the programme, each farmer will have a unique digital identification (farmers' ID) that contains personal details, information about the land they farm, as well as production and financial details.
- Each ID will be linked to the individual's digital national ID Aadhaar.

NTPC declares its Energy Compact Goals for sustainability at UN dialogue

(Topic- GS Paper III-Environment, Source- Business Standard)

Why in the news?

- National Thermal Power Corporation (NTPC) Limited has recently become the first energy company in the energy domain in India to declare its Energy Compact Goals as part of the UN High-level Dialogue on Energy (HLDE).
- The United Nations is set to convene a high-level dialogue (HLD) in September, 2021 to promote the implementation of the energy-related goals and targets of the 2030 Agenda for Sustainable Development.
- **NTPC is among the few organisations globally to declare its Energy Compact Goals.**

More on the news

- NTPC has set a target to install 60 Giga Watts (GW) of renewable energy capacity by 2032.
- India's largest power producer is also aiming at 10 per cent reduction in net energy intensity by 2032.
- Further, NTPC has declared that it will form at least 2 international alliances/groups to facilitate clean energy research and promote sustainability in the energy value chain by 2025.
- The company had earlier planned to have a minimum of 32 GW capacity through RE sources constituting nearly 25 per cent of its overall power generation capacity by 2032.
- This development will prove to be a huge boost for the nation's largest energy producer that will catapult its position in the green energy map of the country.

About Energy Compacts

Energy Compacts – Voluntary, inclusive & complementary



Energy Compacts will be the most **inclusive** umbrella dedicated to bring together **voluntary commitments** on all SDG7 targets in support of achieving all SDGs by 2030 and net zero emissions by 2050.

WHAT

Voluntary commitments on the following themes to advance SDG7 by 2030 and net zero by 2050.



WHO

Energy Compacts will be **inclusive** and available for voluntary commitments from all stakeholders in the global movement on SDG7



HOW

Aligned with existing commitments covering ambitious actions, policies, finance and investment, etc. commitments on SDG7.



- It is a platform to unite and connect commitments and actions.
- To accelerate SDG7 action on a trajectory in line with the Paris Agreement and the SDGs, Energy Compacts are being mobilized by **UN-Energy as part of the High-level Dialogue on Energy in September 2021 at New York**.
- They will continue to be mobilized and updated throughout the current Decade of Action.
- Energy Compacts are voluntary commitments from Member States and non-state actors, such as companies, regional/local governments, NGOs, and others.
- These stakeholders commit to an Energy Compact that includes the specific actions they will take to support progress on SDG7.
- Since affordable, clean energy is a prerequisite for achieving all other SDGs and the Paris Agreement, actions defined in an Energy Compact can be directly linked to Nationally Determined Contributions considered as SDG Acceleration Actions.

Difference between Energy Compacts and the Nationally Determined Contributions (NDCs)

- NDCs address Member States' national climate ambitions and targets that are legally required under the Paris Agreement, focusing on a country's emissions profile from the economy as a whole.
- Since the energy system plays such a major role in a country's overall emissions, changing the energy system to be more efficient and reliant on clean energy will directly support the achievement of NDCs.
- **Whereas, Energy Compacts include a variety of voluntary commitments**, actions, initiatives, and partnerships focused specifically on the energy system and SDG7.
- They will cover the SDG7 targets, including those that are not reflected in a country's NDCs, such as clean cooking access.
- However, because Energy Compact commitments aim to deliver affordable, clean energy for all by 2030, these commitments are complementary to the NDCs.

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- Energy Compacts are essentially the energy system “steps” to be taken towards achieving NDCs.
- Countries forming Energy Compacts can align their plans for energy system transformation with their climate ambitions, as expressed under their NDCs.

Open for all

- Energy Compacts are also open to all stakeholders in the global movement on SDG7, including businesses, organizations, and subnational authorities, and will have annual mechanisms to track progress on the commitments.

For Further Reading:

https://www.un.org/sites/un2.un.org/files/i_updated_flyer_v.8_april.pdf

Fund for Industrial Research Engagement (FIRE)

(Topic- GS Paper III- Economics, Source- AIR)

Why in the news?

- Science and Engineering Research Board (SERB) have recently offered the first-of-its-kind research initiative called ‘Fund for Industrial Research Engagement (FIRE).

About SERB-FIRE

- The FIRE program is a joint government and industry initiative with a co-funding mechanism to promote innovative technology solutions and strengthen academic research through collaboration with key research and development (R&D) organizations in India

Aim

- FIRE is a one-of-its-kind collaborative initiative that aims to transform the culture of research in India and strengthen the technology ecosystem.

Significance

- It will increase research opportunities in the space of Artificial Intelligence (AI)/Machine Learning (ML), platform systems, circuits & architecture, Internet of Things (IoT), materials & devices, security, and so on from edge to cloud.
- It will bring support for strong ideations, especially in futuristic S&T thematic areas, and aims to bring expertise in academia and industry together with a new model of cooperation.

About Science and Engineering Research Board

- It is a statutory body under the Department of Science and Technology, Government of India, established by an Act of the Parliament of India in 2009 (SERB ACT,2008).

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- The Board is chaired by the Secretary to the Government of India in the Department of Science and Technology.
- The Board was set up for promoting basic research in science and engineering and to provide financial assistance to scientists, academic institutions, R&D laboratories, industrial concerns and other agencies for such research.

Spinner dolphin

(Topic- GS Paper III- Environment, Source- DTE)

Why in the news?

- Recently, the carcass of Spinner dolphin was washed ashore in Odisha's port town of Paradip within the Bhitarkanika National Park.

About the Spinner dolphin



- The spinner dolphin (*Stenella longirostris*) is a small dolphin found in off-shore tropical waters around the world.
- It is famous for its acrobatic displays in which it spins along its longitudinal axis as it leaps through the air.

Conservation Status

- IUCN Red List: **Least Concern**
- CITES: Appendix I
- CMS (Convention on Migratory Species): Appendix II

Related Information

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About Irrawaddy Dolphins



- Irrawaddy dolphins are found in coastal areas in South and Southeast Asia, and in three rivers: the Ayeyarwady (Myanmar), the Mahakam (Indonesian Borneo) and the Mekong.

Conservation Status

- IUCN Red List: Endangered
- CITES: Appendix I
- CMS (Convention on Migratory Species): Appendix I
- Wildlife Protection Act, 1972: Schedule I

About Indo- Pacific Bottlenose Dolphins



- Indo-Pacific Bottlenose Dolphins generally occur in shallow coastal waters of the Indian Ocean, Southeast Asia and Australia.

Conservation Status

- IUCN Red List: Near Threatened
- CITES: Appendix II

About Indian Ocean Humpback Dolphins

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- The Indian Ocean Humpback Dolphin occurs within the Indian Ocean from South Africa to India.

Conservation Status

- IUCN Red List: Endangered
- CITES: Appendix I
- Wildlife Protection Act, 1972: Schedule I

Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) scheme

(Topic- GS Paper III- Agriculture, Source- PIB)

Why in the news?

- Recently, the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme marks the completion of its one year.

About the Pradhan Mantri Formalisation of Micro food processing Enterprises (PM-FME Scheme)

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- It has been launched under the **Atma Nirbhar Bharat Abhiyan**.
- It is a centrally sponsored scheme.

Aims

- The scheme aims to enhance the competitiveness of existing individual micro-enterprises in the unorganized segment of the food processing industry and to promote formalization of the sector and provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.
- Under the PM-FME scheme, states have identified the food products of districts, keeping in view the availability of existing clusters and raw materials.
- **The scheme will be implemented over a 5 year period from 2020-21 to 2024-25.**

GIS ODOP digital map

- The GIS ODOP digital map of India provides details of ODOP products of all the states and facilitate the stakeholders.
- The digital map also has indicators for tribal, SC, ST, and aspirational districts.
- It will enable stakeholders to make concerted efforts for its value chain development.

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Objectives:

- Increase in access to finance by micro food processing units.
- Increase in revenues of target enterprises.
- Enhanced compliance with food quality and safety standards.
- Strengthening capacities of support systems.
- Transition from the unorganized sector to the formal sector.
- Special focus on women entrepreneurs and Aspirational districts.
- Focus on minor forest produce in Tribal Districts.

Rationale behind the Scheme:

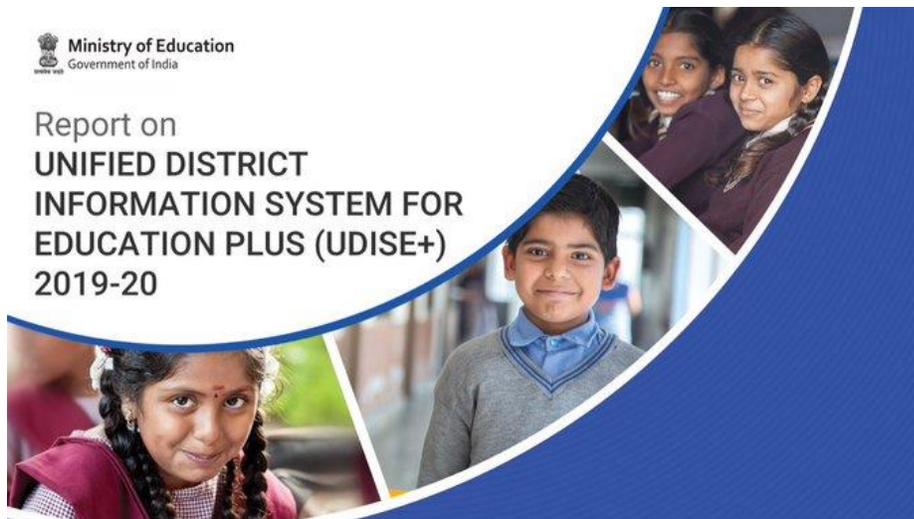
- The unorganised Food Processing sector of India contributes nearly 74% of employment with approximately 25 lakh units.
- Nearly 66% of these units are located in rural areas and about 80% of them are family-based enterprises supporting livelihood rural household and minimizing their migration to urban areas.
- These units largely fall within the category of micro enterprises.
- Such enterprises face a lot of challenges in day to day operations such as:
 - Lack of funds and institutional credits.
 - Poor access to modern technology and equipment and even if they have then lack of training drive their output down.
 - Lack of marketing and branding skills.
 - Lack of basic awareness and quality controls.

United District Information System for Education plus (UDISE+) 2019-20**(Topic- GS Paper III- Education, Source- PIB)****Why in the news?**

- Union Education Minister has recently released the Report on United Information System for Education Plus (UDISE+) 2019-20 for School Education in India.

About United District Information System for Education Plus

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- The UDISE+ system of online data collection from the schools was developed in the year 2018-19 to overcome the issues related to manual data filling in paper format and subsequent feeding at the block or district level, which was in practice in the UDISE data collection system from 2012-13.
- The present publication relates to **UDISE+ data for the reference year 2019-20**.

Key highlights

- The report shows improvement in GER at all levels of School Education, Pupil Teacher Ratio, Enrolment of Girls.

Gross Enrolment Ratio

Gross Enrolment Ratio at all levels of school education has improved in 2019-20 compared to 2018-19.

- Gross Enrolment Ratio increased to 89.7% (from 87.7%) at Upper Primary level, 97.8% (from 96.1%) at Elementary Level, 77.9% (from 76.9%) at Secondary Level and 51.4% (from 50.1%) at Higher Secondary Level in 2019-20 (from 2018-19).
- Gross Enrolment Ratio of girls has increased to 90.5% (from 88.5%) at Upper Primary level, 98.7% (from 96.7%) at Elementary Level, 77.8% (from 76.9%) at Secondary Level and 52.4% (from 50.8%) at Higher Secondary Level in 2019-20 (from 2018-19).

Enrolment of Divyang students

- Enrolment of Divyang students has increased by 6.52% over 2018-19.

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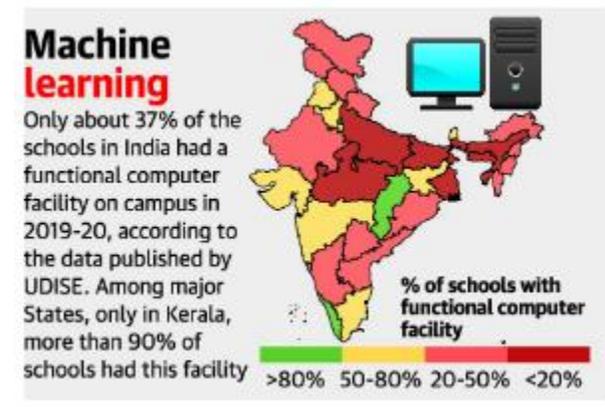
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Pupil Teacher Ratio (PTR)

The Pupil Teacher Ratio (PTR) has improved at all levels of school education.

- In 2019-20, the PTR for primary has become 26.5, PTR for upper primary and secondary has become 18.5 and PTR for higher secondary has become 26.1.
- In 2019-20, the PTR for secondary has become 18.5, whereas it was 29.7 in 2012-13.
- In 2019-20, the PTR for higher secondary has become 26.1, whereas it was 39.2 in 2012-13.

Internet facilities



- In the academic year that ended with school closures due to COVID-19, only 22% of schools in India had Internet facilities.
- Among government schools, less than 12% had Internet in 2019-20, while less than 30% had functional computer facilities.
- This affected the kind of digital education options available to schools during the pandemic, as well as plans for hybrid learning in the days ahead.

'Indrajaal'- India's 1st indigenous drone defence dome

(Topic- GS Paper III- Defence, Source- AIR)

Why in the news?

- Hyderabad-based technology R&D firm Grene Robotics has designed and developed India's first indigenous drone defence dome called "Indrajaal". **About Indrajaal**



- The drone defence dome has the capability to autonomously protect an area of 1000-2000 sq km against the aerial threats by assessing and acting on aerial threats such as Unmanned Aerial Vehicles (UAVs), loitering munitions, and Low- Radar Cross Section (RCS) targets.

Salient features of Indrajaal

- Real-time situational awareness
- Integrated and Intelligent meshed network
- Integrated all current weapons suite and infrastructure
- Honeycombed cell structure for seamlessly built
- Synergic combination of 9-10 technologies
- 24×7 persistent and autonomous monitoring, action and tracking

ZyCov-D vaccine

(Topic- GS Paper III- Science and Technology, Source- Indian Express)

Why in the news?

- Recently, Ahmedabad-based Zydus Cadila has applied to Central Drugs Standard Control Organisation (CDSCO), the national drugs regulator, seeking emergency use authorisation (EUA) for ZyCov-D, its Covid-19 vaccine.
- If approved by the regulator, ZyCov-D will be the world's first DNA vaccine against infection with SARS-CoV-2.

About ZyCov-D vaccine



- It has been developed with the support of the central government’s Department of Biotechnology and the Indian Council of Medical Research (ICMR).

Features

- It is a “plasmid DNA” vaccine — or a vaccine that uses a genetically engineered, non-replicating version of a type of DNA molecule known as a ‘plasmid’.
- The plasmids in this case are coded with the instructions to make the spike protein of SARS-CoV-2, the coronavirus that causes Covid-19.
- Vaccination gives the code to cells in the recipient’s body, so they can begin making the spiky outer layer of the virus. The immune system is expected to recognize this as a threat and develop antibodies in response.

Needle-free applicator

- The vaccine will come with PharmaJet, a needle-free applicator that will ensure painless intradermal vaccine delivery.

Efficacy

- It has primary efficacy of 66.6%.

[Cabinet approves ₹3.03 trillion power discom reform scheme](#)

(Topic- GS Paper III- Infrastructure (Energy sector), Source- AIR)

Why in the news?

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- The Cabinet Committee on Economic Affairs (CCEA) on Wednesday approved the marquee ₹3.03 trillion power distribution company (discom) reform scheme, wherein the Centre's share will be ₹97,631 crore.

About the Discom reform scheme

- It is a reforms-based result-linked power distribution sector scheme. It will be applicable till 2025-2026. It was announced in union budget 2021.
- This scheme subsumes programmes like Integrated Power Development Scheme and Deen Dayal Upadhyaya Gram Jyoti Yojana.
- The Scheme seeks to improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOMs by providing conditional financial assistance to DISCOMs for strengthening of supply infrastructure.

Aim

- The scheme aim to bring down India's average aggregate technical and commercial loss from the present level of 21.4% to 12-15%, and gradually narrow the deficit between the cost of electricity and the **price at which it is supplied to 'zero' by 2024-25**.
- The reforms are also aimed at improving the reliability and quality of power supply
- The scheme involves a compulsory smart metering ecosystem across the distribution sector—starting from electricity feeders to the consumer level, including in about 250 million households. Also, loss reduction measures such as separate feeders for agricultural and rural household consumption will be put in place.

Implementing Agency

- State-run Power Finance Corporation (PFC) and Rural Electrification Corporation (REC) have been nominated as nodal agencies to implement the scheme.

Significance

- It help to ensure that India is the leader in Sustainable Development Goals (SDG) 7 that calls for "ensuring access to affordable, reliable, sustainable and modern energy for all."

Note:

- The union government is also working on a raft of measures including ethanol blending with fossil fuels, green mobility, battery storage and green hydrogen to help reduce pollution and facilitate commitments made at COP-21, the UN Climate Change Conference held in France in 2015.

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Andhra launches IT policy for 2021-24

(Topic- GS Paper III- Economics, Source- Business standard)

Why in the news ?

- The Andhra Pradesh government has recently come out with the new 'AP Information Technology Policy 2021-24'.

About the IT policy for 2021-24

- The new IT Policy links incentive disbursement to realisation of committed direct employment ensuring transparent and effective utilisation of public funds.
- In a shift from the previous IT policy, the new one offers end-to-end support for startups like plug and play office space, access to investors, mentors, talent pool, funds through venture capitals, private equity firms and other commonly shared services on a variable chargeable basis.
- The policy is expected to generate more than 55,000 jobs over the next three years.
- **The policy would be in force till March 31, 2024.**

Other initiative

- The government would establish an IT Emerging Technologies Research University in Visakhapatnam to develop the State as the leading contributor to the national talent pool in IT and cutting-edge emerging technologies.
- The university would focus on applied research in use of emerging technologies in areas of interest to the State. Digital libraries and workplaces are proposed to be set up at the **grama panchayat-level with access to high-speed Internet, six workstations and essential software.**

Atmanirbhar Krishi App

(Topic- GS Paper III- Agriculture, Source- AIR)

Why in the news?

- Recently, the government has launched "Atmanirbhar Krishi App" to provide farmers with actionable agricultural insights and early weather alerts.

About the Atmanirbhar Krishi App

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- It is an Android and Windows versions which is available in 12 languages for free of cost for farmers, start-ups, Krishi Vigyan Kendras, Self Help Groups, and NGOs.

Aim

- The data related to soil type, soil health, moisture, weather, and water table were aggregated and analysed to generate personalized insights.
- The app brings together data relevant to the farmer and his farm, from various agencies and departments of the Government of India.
- The app relies on the geo-location of the farm to provide relevant data.
- It will facilitate Krishi Vigyan Kendras (KVKs) to interact with farmers more specifically as per the existing ground realities.

Stages:

The app was envisioned in 5 stages:

- a. Data aggregation
- b. Building centralized insights
- c. Enable local expertise (KVK) supported interactions and insights
- d. Deriving Machine Learning inferences
- e. Continuous improvement

About Krishi Vigyan Kendras

- They are an agricultural extension centre in India, usually associated with a local agricultural university.
- These centres serve as the ultimate link between the Indian Council of Agricultural Research and farmers and aim to apply agricultural research in a practical, localized setting.

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- All KVKs fall under the jurisdiction of one of the 11 Agricultural Technology Application Research Institutes (ATARIs) throughout India.

Capital to soon get colour-coded response system to fight COVID

(Topic- GS Paper III- Health, Source- The Hindu)

Why in the news?

- Delhi will soon get a colour-coded response system to control and fight COVID-19 with each colour representing a pre-defined degree of action that needs to be taken, including lockdowns.

More on the news

- The response system has been divided into four types of alerts — yellow, amber, orange, and red — each of which is based on test positivity rate, new cases, and bed occupancy.
- Yellow is the lowest level of alert and red is the highest.
- So, if the alert is yellow, the measures are taken by the government, including restrictions or lockdowns, will be less severe compared to red, which will see more stringent measures,”
- The government will take actions, including lockdowns of different intensity and ramping up of medical infrastructure, based on the alert level.

Indian Ocean Naval Symposium (IONS)

(Topic- GS Paper III – Defence, Source- PIB)

Why in the news?

- Recently, the 7th edition of the biennial Indian Ocean Naval Symposium (IONS) was hosted by the French Navy at Réunion Island.
- It is a biennial event which was conceived by the Indian Navy in 2008.

About Indian Ocean Naval Symposium

- It is a voluntary and inclusive initiative that brings together navies of Indian Ocean Region littoral states to increase maritime co-operation and enhance regional security.
- A co-operative forum for discussion on regional maritime issues, it also serves to develop an effective response mechanism against natural disasters.
- The IONS initiative has grown significantly and presently enjoys wide acceptance across the Indian Ocean Region.

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- In the past few years, three IONS Working Groups (IWG) have been progressing work in the fields of Humanitarian Assistance & Disaster Relief (HADR), Maritime Security & Information Sharing and Inter-operability.

Chairmanship

- The chairmanship of IONS has been held by India (2008-10), UAE (2010-12), South Africa (2012-14), Australia (2014-16), Bangladesh (2016-18) and the Islamic Republic of Iran (2018-21).
- France has assumed the Chairmanship on 29 Jun 21 for a two-year tenure.

Project Bamboo Oasis on Lands in Drought (BOLD)

(Topic- GS Paper III –Environment, Source- AIR)

Why in the news?

- Recently, the Ministry of Micro, Small & Medium Enterprises (MSMEs) has announced a Project BOLD in order to boost tribals' lives and livelihoods at the tribal village Nichla Mandwa in Udaipur, Rajasthan.

About Project BOLD

- It is a unique initiative of Khadi and Village Industries Commission (KVIC).
- Under the project, 5000 saplings of special bamboo species i.e. Bambusa Tulda and Bambusa Polymorpha have been planted over 16 acres approx. of vacant arid Gram Panchayat land.

Significance

- It seeks to create bamboo-based green patches in arid and semi-arid land zones.
- It is aligned with Prime Minister Modi call of restoring 26 million hectares of degraded land by 2030.
- The green patches of bamboo in Gujarat, Leh-Ladakh region and Rajasthan will help in reducing the land degradation percentage of the country.
- **India is a signatory to the UN Convention to Combat Desertification (UNCCD).**

About Land Degradation

- It is a process in which the value of the biophysical environment is affected by a combination of human-induced processes acting upon the land.
- Land degradation is caused by multiple forces, including extreme weather conditions, particularly drought.

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Global Efforts to Check Land Degradation

- United Nations Convention to Combat Desertification (UNCCD).
- The Delhi Declaration of 2019, signed by 14th CoP of the UNCCD, called for better access and stewardship over land.
- The Bonn Challenge
- Great Green Wall Initiative
- Drought Initiative
- Land Degradation Neutrality programme

India's Efforts to Check Land Degradation:

- The National Action Programme for combating desertification in 2001.
- Integrated Watershed Management Programme (Pradhan Mantri Krishi Sinchayee Yojana)
- National Mission for Green India
- National Afforestation Programme
- The Mahatma Gandhi National Rural Employment Guarantee Scheme
- Soil Health Card Scheme
- Soil Conservation in the Catchment of River Valley Project
- Command Area Development and Water Management programme

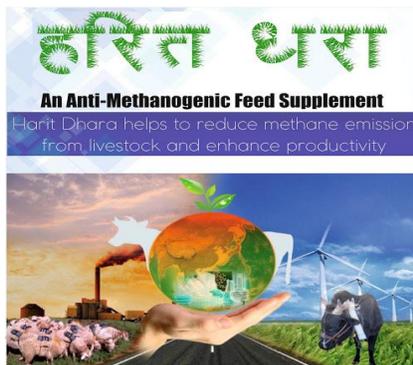
Anti-methanogenic feed supplement 'Harit Dhara'

(Topic- GS Paper III- Environment, Source- Indian Express)

Why in the news?

- Indian Council of Agricultural Research (ICAR) institute has recently developed an anti-methanogenic feed supplement 'Harit Dhara'.

About Harit Dhara



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- It is an anti-methanogenic feed supplement.
- Harit Dhara acts by decreasing the population of protozoa microbes in the rumen, responsible for hydrogen production and making it available to the archaea for reduction of CO₂ to methane.
- When it given to bovines and sheep, it not only cuts down their methane emissions by 17-20%, but also results in higher milk production and body weight gain.

Bovine contribution in global methane emission

- Belching cattle, buffaloes, sheep and goats in India emit an estimated 9.25 million tonnes (mt) to 14.2 mt of methane annually, out of a global total of 90 mt-plus from livestock.
- The methane's global warming potential – 25 times of carbon dioxide (CO₂) over 100 years, making it a more potent greenhouse gas – that's cause for concern.
- An average lactating cow or buffalo in India emits around 200 litres of methane per day, while it is 85-95 litres for young growing heifers and 20-25 litres for adult sheep.

Feeding Harit Dhara can reduce these by a fifth.

- For a cow producing 200 litres (143 g) of methane, it translates into 0.714 kg less of CO₂ equivalent emissions daily or 261 kg per year (1 litre methane=0.714 g; 1 kg methane=25 kg CO₂).

Related Information

Global Methane Assessment Report

- According to the Global Methane Assessment released by the Climate and Clean Air Coalition (CCAC) and the United Nations Environment Programme (UNEP) shows that human-caused methane emissions can be reduced by up to **45 per cent this decade**.
- Such reductions would avoid nearly 0.3°C of global warming by 2045 and would be consistent with keeping the Paris Climate Agreement's goal to limit global temperature rise to 1.5 degrees Celsius (1.5°C) within reach.

Government Initiatives

Seaweed-Based Animal Feed

- Central Salt & Marine Chemical Research Institute (CSMCRI) in collaboration with the country's three leading institutes developed a seaweed-based animal feed additive formulation that aims to reduce methane emissions from cattle and also boost immunity of cattle and poultry.

India Greenhouse Gas Program

- The India GHG Program led by WRI India (non-profit organization), Confederation of Indian Industry (CII) and The Energy and Resources Institute (TERI) is an industry-led voluntary framework to measure and manage greenhouse gas emissions.

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- The programme builds comprehensive measurement and management strategies to reduce emissions and drive more profitable, competitive and sustainable businesses and organisations in India.

National Action Plan on Climate Change

- The National Action Plan on Climate Change (NAPCC) was launched in 2008 which aims at creating awareness among the representatives of the public, different agencies of the government, scientists, industry and the communities on the threat posed by climate change and the steps to counter it.

RBI's Financial Stability Report- 2021

(Topic- GS Paper III- Economics, Source- The Hindu)

Why in the news?

- Recently, the Reserve Bank of India released its latest Financial Stability Report (or FSR).

About Financial Stability Report

- It is one of the most crucial documents on the Indian economy as it presents an assessment of the health of the financial system.
- It is published twice a year.
- It puts together a wealth of data and information that also allows the RBI to assess the state of the domestic economy.
- It allows the RBI to assess the macro-financial risks in the economy.
- It reflects the collective assessment of the Sub-Committee of the Financial Stability and Development Council (FSDC) on risks to financial stability and the resilience of the financial system in the context of contemporaneous issues relating to development and regulation of the financial sector.

It focuses on public and private banks with the following aspects

- Capital availability for working
- Cost of NPAs and whether they are manageable
- Credit flow in different sectors of the economy
- Credit flow at personal levels (households)
- Macro-financial risks in the economy

Key Highlights:

Credit/deposit ratio

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- The FSR noted that India faces a unique situation where CASA deposits were growing strongly but loan growth remained tepid. This led to a weakening of the credit/deposit ratio.

Capital Adequacy Ratio

- The capital to risk-weighted assets ratio (CRAR) of scheduled commercial banks (SCBs) increased to 16.03 per cent and the provisioning coverage ratio (PCR) stood at 68.86 per cent in March 2021.

Gross Non Performing Asset

- Macro stress tests indicate that the gross non-performing asset (GNPA) ratio of SCBs may increase from 7.48 per cent in March 2021 to 9.80 per cent by March 2022 under the baseline scenario; and to 11.22 per cent under a severe stress scenario, although SCBs have sufficient capital, both at the aggregate and individual level, even under stress.

Credit Demand

- The banks respond to credit demand in a recovering economy, they will need to reinforce their capital and liquidity positions to fortify themselves against potential balance sheet stress.

Nurturing the global recovery

- Sustained policy support, benign financial conditions and the gathering momentum of vaccination are nurturing an uneven global recovery.

Panchmuli lake

(Topic- GS Paper III- Environment, Source- The Hindu)

Why in the news?

- Recently, as many as 194 crocodiles have been relocated from **Panchmuli Lake**, a lake near the Statue of Unity in Narmada district, Gujarat, in the last two years for the safety of tourists who come to enjoy boat rides there.

About the Panchmuli lake

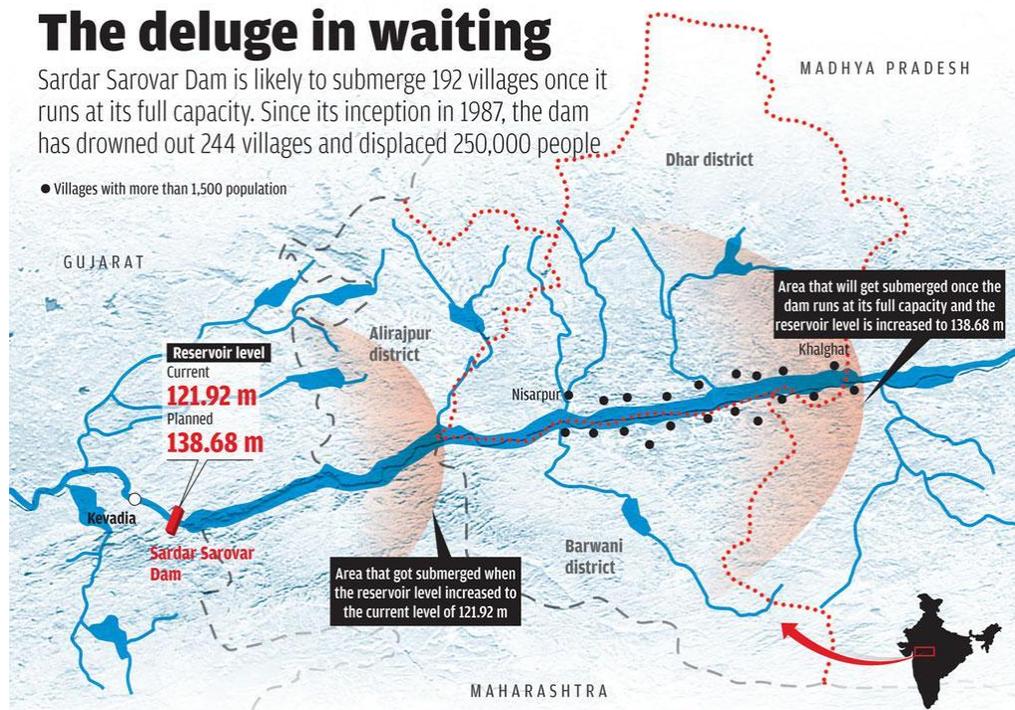
- The Panchmuli Lake, also known as ‘Dyke-3’ of the Sardar Sarovar Dam, was developed for tourists visiting the Statue of Unity.
- It is situated near the 182-metre tall statue of Sardar Vallabhbhai Patel in Kevadia.

About Sardar Sarovar Dam

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The deluge in waiting

Sardar Sarovar Dam is likely to submerge 192 villages once it runs at its full capacity. Since its inception in 1987, the dam has drowned out 244 villages and displaced 250,000 people



- It is a gravity dam.
- The terminal dam is built on the Narmada River at Kevadia in Gujarat's Narmada district.
- It is called the 'lifeline of Gujarat' and part of the Narmada Valley Development Project, a major plan to generate power and supply water for drinking and irrigation.

Fly ash

(Topic- GS Paper III- Science and Technology, Source- The Hindu)

Why in the news?

- Recently, the NTPC Ltd has invited Expressions of Interest (EoI) for the sale of fly ash from the designated ports of the Middle East and other regions.

About the Fly ash

- It is popularly known as Flue ash or pulverised fuel ash, it is a coal combustion product.
- Fly Ash is a by-product of power generation with coal.

Uses

- The fly ash generated at NTPC stations is ideal for use in the manufacture of cement, concrete, concrete products, cellular concrete products and for bricks, blocks and tiles.
- To promote the use of fly ash bricks in building construction.

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Waterproofing material

- Researchers from the IIT Hyderabad have found that fly ash a waste byproduct of power plants that poses a threat to the environment — can be modified into a waterproofing material.
- They have converted fly ash into a waterproofing material by treating it with stearic acid, which is commonly used in soaps and shampoos.

Initiatives Taken for Fly ash utilization

ASH TRACK Mobile App

- It is an initiative by NTPC Ltd.
- It is leveraging Indian Railways' sprawling network to transport Fly Ash in an economical and environment-friendly manner.

Fly Ash Brick Manufacturing Plants

- To promote the use of Fly Ash bricks in building construction.
- The company aims to utilise 100 per cent of the fly ash generated as a by-product at its coal-fired power plants.
- Further, during 2020-21, almost 15 NTPC station supplies fly ash to various road projects and ash utilization crossed nearly 20 million tonnes.

Global investors flag some AatmaNirbhar reforms

(Topic- GS Paper III- Economics, Source- The Hindu)

Why in the news?

- According to the U.K. India Business Council (UKIBC), International trade and investment flows into India could be affected by several aspects of the AatmaNirbhar Bharat programme as they posed 'perceived as well as real' challenges for global investors.

More on the news

- The U.K. India Business Council (UKIBC) stressed that some of the reforms announced under the programme could have 'negative consequences for U.K. and all multinational companies', even as it took note of Prime Minister's assertion that the self-reliant India program is about integrating with global supply chains, not isolating from them.

Increases in import tariffs

- UKBIC has said that 'unexpected and sharp' increases in import tariffs could be 'counterproductive'.

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‘Strengths, not tariffs’

- India should attract investors due to its strengths rather than by using tariffs as a tool to push international businesses to invest and make in India.
- Moreover, the Government of India should be flexible in its ‘vocal for local’ approach.
- To be a manufacturing hub, India will need to be part of international supply chains, which will mean importing as well as exporting.
- If tariffs make manufacturing in India too expensive, investors will go elsewhere. Even if India chooses tariffs as a policy tool, it should signal how import duties will rise over the coming years so investors get an incentive and the time to create domestic supply chains.

Effects on infrastructure investors

- Attempts to renegotiate power purchase agreements and ad-hoc policy shifts are also unnerving for infrastructure investors.

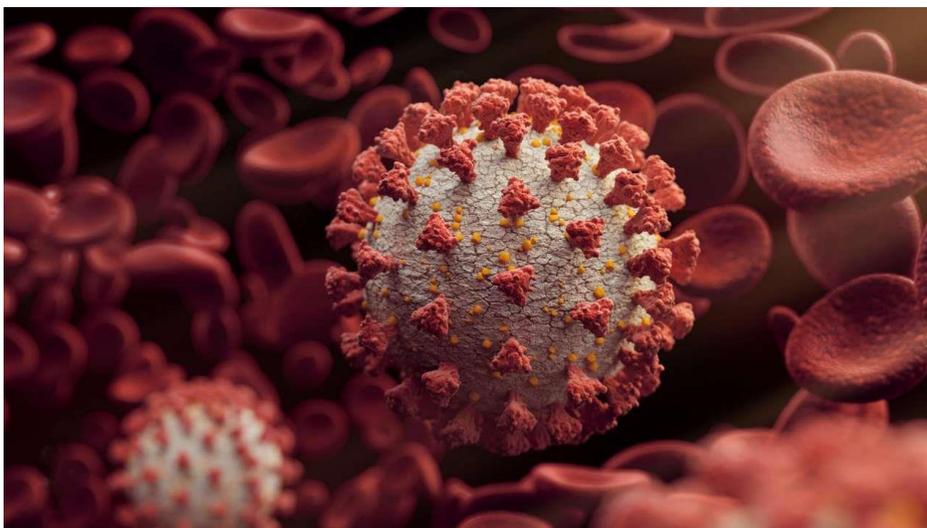
Lambda variant

(Topic- GS Paper III-Science and Technology, Source- Indian Express)

Why in the news?

- Recently, the World Health Organization designated the Lambda variant, previously known by its formal scientific name C.37, as the seventh and newest “variant of interest”.

About Lambda variant



- The Lambda variant has now been detected in more than 25 countries.
- It has been the dominant variant in Peru and other countries of South America.

- The Lambda variant has not yet been found in the Indian population, but has recently been detected in the UK and other European countries.
- According to the WHO, the Lambda variant has at least seven significant mutations in the spike protein (the Delta variant has three) which could have a range of implications, including
 - a. the possibility of increased transmissibility or
 - b. enhanced resistance to antibodies, created either through natural infection or vaccination.

About “variant of interest”

- It means that the genetic changes involved are predicted or known to affect transmissibility, disease severity, or immune escape.
- It is also an acknowledgement of the fact that the variant has caused significant community transmission in multiple countries and population groups.

Coronavirus variants

- The World Health Organization has identified 11 coronavirus variants so far (there are 24 letters in the Greek alphabet).
- There are four variants of concern:
 - a. Alpha
 - b. Beta
 - c. Gamma
 - d. Delta
- There are currently seven variants, including the Lambda, that the WHO classifies as “variants of interest”.
 - a. Epsilon
 - b. Zeta
 - c. Eta
 - d. Theta
 - e. Iota
 - f. Kappa
 - g. Lambda
- These were all recently named after letters of the Greek alphabet to avoid linkage with the country of their origin that had been happening until then.

Concern

- The potential of emerging variants to bypass the immunity gained through vaccination means that there could be fresh waves of infections even in populations that were being considered close to reaching community-level protection.

Open Network for Digital Commerce (ONDC) project

(Topic- GS Paper III-Economics, Source- Indian Express)

Why in the news?

- The Department for Promotion of Industry and Internal Trade (DPIIT) has recently issued orders appointing an advisory committee for its **Open Network for Digital Commerce (ONDC) project**.

About Open Network for Digital Commerce (ONDC) project

- It aimed at curbing “digital monopolies”.
- This is a step in the direction of making e-commerce processes open source, thus creating a platform that can be utilised by all online retailers.
- The task of this project has been assigned to the Quality Council of India (QCI).

What processes are expecting to be open-sourced with this project?

- Several operational aspects including onboarding of sellers, vendor discovery, price discovery and product cataloguing could be made open source on the lines of Unified Payments Interface (UPI).

Significance of making something open-source

- Making software or a process open-source means that the code or the steps of that process is made available freely for others to use, redistribute and modify it.
- For example, while the operating system of Apple’s iPhones — iOS — is closed source, meaning it cannot be legally modified or reverse engineered, Google’s Android operating system is open-source, and therefore it is possible by smartphone OEMs such as Samsung, Xiaomi, OnePlus, etc to modify it for their hardware.
- If the ONDC gets implemented and mandated, it would mean that all e-commerce companies will have to operate using the same processes.
- This could give a huge booster shot to smaller online retailers and new entrants.

What does the DPIIT intend from the project?

- The DPIIT noted that the ONDC “aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform.
- ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiency in logistics and enhance value for consumers”.

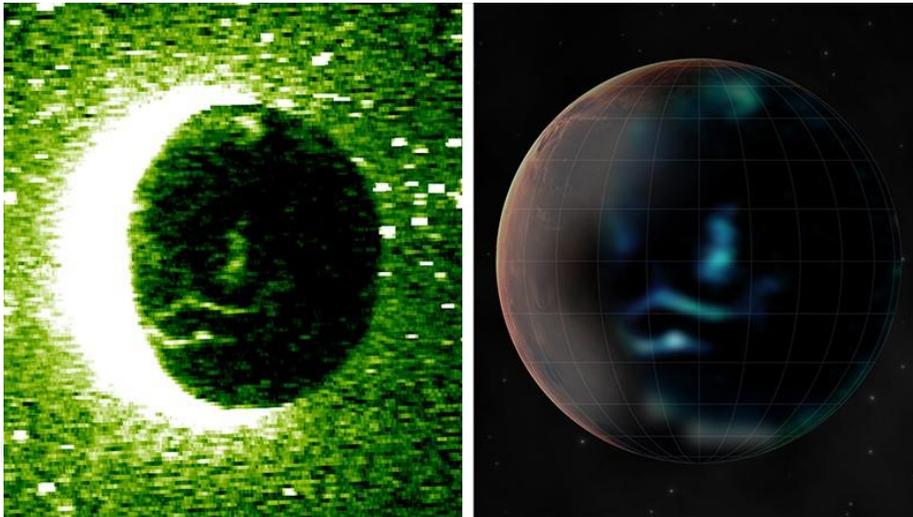
Discrete auroras on Mars

(Topic- GS Paper III-Science and Technology, Source- Indian Express)

Why in the news?

- Recently, the UAE's Hope spacecraft, which is orbiting Mars since February 2021, has captured images of glowing atmospheric lights in the Red Planet's night sky, known as discrete auroras.

About the Discrete auroras



- The beacons of light that stand out against the dark night side disk are highly structured discrete aurora, which traces out where energetic particles excite the atmosphere after being funneled down by a patchy network of crustal magnetic fields that originate from minerals on the surface of Mars.”
- Unlike auroras on Earth, which are seen only near the north and south poles, discrete auroras on Mars are seen all around the planet at night time.

What causes an aurora on Earth?

- Auroras are caused when charged particles ejected from the Sun's surface — called the solar wind — enter the Earth's atmosphere.
- These particles are harmful, and our planet is protected by the geomagnetic field, which preserves life by shielding us from the solar wind.
- However, at the north and south poles, some of these solar wind particles are able to continuously stream down, and interact with different gases in the atmosphere to cause a display of light in the night sky.
- **This display, known as an aurora, is seen from the Earth's high latitude regions (called the auroral oval), and is active all year round.**

Aurora borealis

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- In the northern part of our globe, the polar lights are called aurora borealis or Northern Lights, and are seen from the US (Alaska), Canada, Iceland, Greenland, Norway, Sweden and Finland.

Aurora australis

- In the south, they are called aurora australis or southern lights, and are visible from high latitudes in Antarctica, Chile, Argentina, New Zealand and Australia.

About Hope orbiter mission

- The Hope Probe, the Arab world's first mission to Mars, took off from Earth in July 2020 and has been orbiting the Red Planet since February.
- The primary objective of the mission is to study Martian weather dynamics.
- By correlating the lower atmosphere and upper atmosphere conditions, the probe will look into how weather changes the escape of hydrogen and oxygen into space.
- By measuring how much hydrogen and oxygen is spilling into space, scientists will be able to look into why Mars lost so much of its early atmosphere and liquid water.
- It is expected to create the first complete portrait of the planet's atmosphere.

Pegasus spyware

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- An online database on spyware Pegasus' use was recently launched by **Forensic Architecture, Amnesty International and Citizen Lab to document attacks against human rights defenders.**

'Digital violence' of Pegasus spyware



- The interactive platform - Digital Violence: How the NSO Group Enables State Terror - showed the connections between ‘digital violence’ of Pegasus spyware and the real-world harms faced by lawyers, activists, and other civil society figures.

Bhima Koregaon case

- The platform, available at **digitalviolence.org**, lists out “targets” of the spyware in India that include activists Bela Bhatia and Anand Teltumbde.
- In 2020, Amnesty and Citizen Lab revealed that the spyware was used on nine human rights defenders who were accused in the Bhima Koregaon case.

About Pegasus spyware

- It is an Israeli-origin spyware that got into the phones of activists and journalists via WhatsApp.

Who developed it?

- It has been developed by the Israeli cyber arms firm, NSO Group.
- The NSO Group is a Tel Aviv-based cybersecurity company that specialises in “surveillance technology” and claims to help governments and law enforcement agencies across the world fight crime and terrorism.

Transmission

- The code is transmitted via WhatsApp call.
- The code enters the phone even if the call is not answered.

Who was targeted?

- According to reports, over 100 activists, lawyers, and journalists were targeted.
- Among them were several Indian lawyers and journalists

What does it do?

- It sends the target's contacts, calls and messages to its controller.
- It can also turn the phone into a spy device by switching on the camera or microphone

Related Information

Cerberus malware

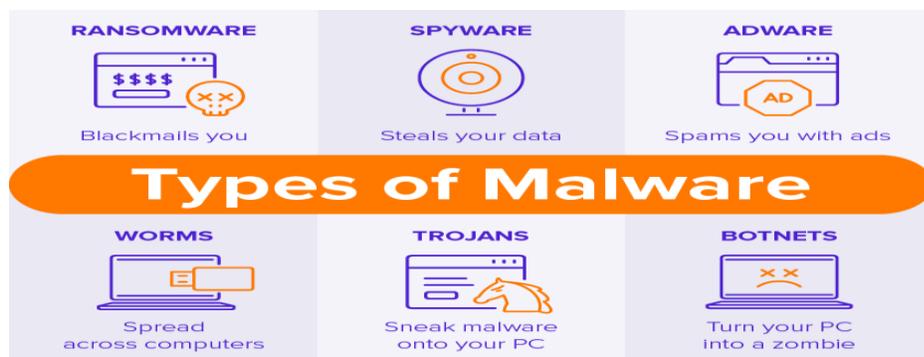
- The Central Bureau of Investigation has recently sent alerts to all the States, Union Territories and the Central agencies on a malicious software threat called the **banking Trojan known as Cerberus** that uses an update related to the COVID-19 pandemic

Other types of Computer Malware

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Spyware

- Spyware is software that monitors the actions carried out on a PC and other devices.
- That might include web browsing history, apps used, or messages sent.
- Spyware might arrive as a Trojan malware or may be downloaded onto devices in other ways.

Trojan malware

- It is one of the most common forms of malware -- the Trojan horse -- is a form of malicious software that often disguises itself as a legitimate tool that tricks the user into installing it so it can carry out its malicious goals.

Ransomware

- It is often delivered via a malicious attachment or link in a phishing email, ransomware encrypts the infected system, locking the user out until they pay a ransom -- delivered in bitcoin or other cryptocurrency, in order to get their data back.

Computer worm

- A worm is a form of malware that is designed to spread itself from system to system without actions by the users of those systems.
- Worms often exploit vulnerabilities in operating systems or software, but are also capable of distributing themselves via email attachments in cases where the worm can gain access to the contact book on an infected machine.

Botnet

- A botnet -- short for robot network -- involves cybercriminals using malware to secretly hijack a network of machines in numbers, which can range from a handful to millions of compromised devices.
- While it is not malware in itself, these networks are usually built by infecting vulnerable devices.

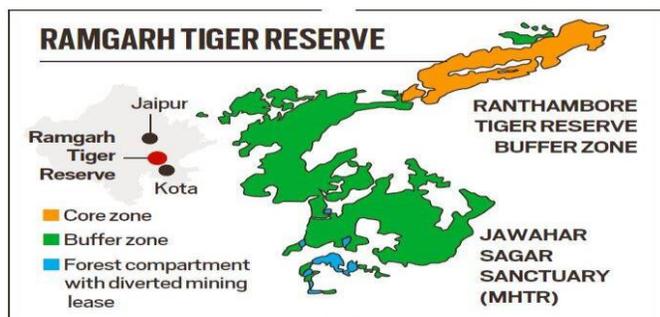
Rajasthan to develop corridor connecting 3 tiger reserves

(Topic- GS Paper III-Environment, Source- Indian Express)

Why in the news ?

- The Rajasthan government has recently proposed to develop a tiger corridor connecting three tiger reserves passing through districts including Sawai Madhopur, Kota and Bundi.
- The three tiger reserves are Ranthambore National Park, Ramgarh Vishdhari Sanctuary and Mukundra Hills Tiger Reserve.

Reasons for developing the corridor



- Tigers have always frequented the area demarcated for the Ramgarh Vishdhari tiger sanctuary and even now, tigers regularly pass through this area from the direction of Ranthambore.
- It is adjoining the buffer area of the Ranthambore Tiger Reserve.
- This newly proposed tiger reserve in Bundi district will connect the Ranthambore Tiger Reserve -in Sawai Madhopur district with the Mukundra Hills Tiger Reserve in Kota district.
- It will be a functional corridor which will help in dealing with the issue of overpopulation of tigers which Ranthambore is facing currently.

About Ranthambore National Park

- It is located at the junction of the Aravali and Vindhya hill ranges.
- It was established initially as Sawai Madhopur Game Sanctuary in 1955 by the Government of India.
- It was declared as one of the Project Tiger reserves in India in 1973.
- It was in 1980 that Ranthambore was declared a national park, while the forests located beside it were named Sawai Man Singh Sanctuary & Keladevi Sanctuary.

About Mukundra Hills Tiger Reserve

- It is the third tiger reserve of Rajasthan.
- It is located on the eastern bank of Chambal River and its tributaries touch this area.
- The park is situated between two parallel mountains viz. Mukundra and Gagrola
- It declared Mukundra Hills National Park in 2004.

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It consists of three wildlife sanctuaries namely

- a. Darrah wildlife sanctuary
- b. Chambal wildlife sanctuary
- c. Jaswant Sagar wildlife sanctuary.

About Sariska Tiger Reserve

- It is well nestled in the Aravali Hills covering 800 sq km area divided into the grasslands, dry deciduous forests, sheer cliffs and rocky landscape.
- It was declared a sanctuary in 1955 and attained the status of a National Park in 1979.
- It is home to numerous carnivores including Leopard, Wild Dog, Jungle Cat, Hyena, Jackal, and Tiger.

Conservation efforts- National and Global

Monitoring System for Tigers – Intensive Protection and Ecological Status (M-STrIPES)

- It has been launched by the National Tiger Conservation Authority (NTCA).
- It is a mobile monitoring system for forest guards.

T X 2

- At the Petersburg Tiger Summit in 2010, leaders of 13 tiger range countries resolved to do more for the tiger and embarked on efforts to double its number in the wild, with a popular slogan ‘T X 2’.

Global Tiger Initiative

- The Global Tiger Initiative (GTI) program of the World Bank, using its presence and convening ability, brought global partners together to strengthen the tiger agenda.

Project Tiger

- Project Tiger is an ongoing Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
- It has been launched way back in 1973.

Census of Tiger

- India now has as many as 2,967 tigers in the wild, with more than half of them in Madhya Pradesh and Karnataka, according to the latest tiger estimation report for 2018.
- The population of tigers has increased by 33% since the last census in 2014 when the total estimate was 2,226.

Note:

- Recently, the Ramgarh Vishdhari wildlife sanctuary received a nod from the National Tiger Conservation Authority's (NTCA) technical committee to become the 4th Tiger reserve of Rajasthan.

Black leopard

(Topic- GS Paper III-Environment, Source- Indian Express)

Why in the news ?

- Recently, a rare melanistic leopard, popularly called black leopard, was spotted in the Navegaon block of the Navegaon Nagzira Tiger Reserve (NNTR) in the Gondia district of Maharashtra.

About Black Leopard

- They are also called Melanistic leopards or black panthers.
- The black color variants of cats like leopards, jaguars and ocelots are known by experts as melanism.
- Melanism is a genetic condition in which an animal overproduces melanin, the dark colour pigment in skin or fur.
- The Black coat coloration is attributed to the expression of recessive alleles in leopards and dominant alleles in jaguars

Conservation status

- It is listed as '**Vulnerable**' under the IUCN Red List of Threatened Species.
- It is protected in **Schedule I of the Indian Wildlife (Protection) Act, 1972.**

About Navegaon Nagzira Tiger Reserve

- It is the fifth tiger reserve of Maharashtra.

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- It is situated in Gondia and Bhandara districts of Maharashtra.
- It has connectivity with major tiger reserves in central India like Kanha and Pench Tiger Reserve in Madhya Pradesh and Tadoba-Andhari Tiger Reserve in Maharashtra and Indravati Tiger Reserve in Chhattisgarh.

Other Protected Areas in Maharashtra:

- Great Indian Bustard Sanctuary.
- Karnala Bird Sanctuary.
- Sanjay Gandhi National Park.
- Sahyadri Tiger Reserve.
- Melghat Tiger reserve.

China goes malaria-free with multi-pronged health strategy

(Topic- GS Paper III-Health, Source- Indian Express)

Why in the news ?

- The World Health Organization (WHO) has recently declaring that China was “malaria-free” followed a seven decade-long, multi-pronged health strategy that was able to entirely eliminate indigenous cases for four straight years.

More in the news

- China is the first country in the Western Pacific region to be declared malaria-free in more than 30 years, following Australia in 1981, Singapore in 1982 and Brunei in 1987.

Steps taken by China

- The effort began in the early 1950s, a time when China was reporting millions of cases annually, starting with a multi-pronged approach of providing anti-malarial medicines while targeting mosquito breeding grounds and using insecticide spraying.

The 523 Project

- It was launched in 1967 involving more than 500 scientists from 60 institutes for the discovery of artemisinin in the 1970s, which is “the core compound of **artemisinin-based combination therapies, the most effective antimalarial drugs available today**”.

‘1-3-7 strategy’

- It credited China’s public health system offering free of charge diagnosis and treatment of malaria in bringing down cases to zero, as well as a “1-3-7 strategy” referring to a one-day deadline to report a malaria diagnosis, confirming a case and determining the spread

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by the third day, and measures taken to stop the spread by the seventh day, along with continued surveillance in high-risk areas.

Related Information

- Recently, the World Health Organization (WHO) has identified 25 countries, including three from Africa, with the potential to eradicate malaria by 2025 under its ‘**E-2025 initiative**’, ahead of World Malaria Day 2021.

About E-2025 Initiative

- This has been launched by WHO in 2017 to support a group of countries to achieve zero indigenous cases of malaria by 2020.
- Some 21 countries across five regions were identified as having the potential to reach the milestone of eliminating malaria.
- Of the 21 countries, eight reported zero cases of malaria, as of April 2021.
- The countries included, Algeria, Belize, Cabo Verde, China, El Salvador, Iran, Malaysia, and Paraguay.
- In February 2021, El Salvador became the first Central American country to achieve the milestone of being classified as malaria-free.
- **The number of cases fell from more than 9,000 in 1990 to less than 30 in 2010.**
- The report ‘**Zeroing in on malaria elimination**’ brings out the progress made through the **E-2020 initiative of WHO.**
- The E-2025 countries will receive technical and on-the-ground support by WHO and its partners.
- In return, they are expected to audit their elimination programmes annually, participate in elimination forums, conduct surveillance assessments, and share malaria case data periodically.

The new countries were selected based on four criteria:

- a. the establishment of a government-endorsed elimination plan;
- b. meeting the threshold of malaria case reductions in recent years;
- c. having the capacity of malaria surveillance and a designated governmental agency responsible for malaria elimination;
- d. and being selected by the WHO Malaria Elimination Oversight Committee.

Initiatives Taken by Indian Government

National Framework for Malaria Elimination (NFME) 2016-2030

- It outlines India’s strategy for elimination of the disease by 2030.
- The objectives of the national framework are:
 - Eliminate malaria from all low (Category 1) and moderate (Category 2) endemic states/UTs (26) by 2022;
 - Reduce incidence of malaria to less than 1 case per 1000 population in all States/UTs and the districts and malaria elimination in 31 states/UTs by 2024;

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- Interrupt indigenous transmission of malaria in all States/ UTs (Category 3) by 2027;
- Prevent re-establishment of local transmission of malaria in areas where it has been eliminated and to maintain malaria-free status of the country by 2030.

Malaria Elimination Research Alliance-India (MERA-India)

- Indian Council of Medical Research (ICMR) has recently established ‘**Malaria Elimination Research Alliance-India (MERA-India)**’ which is a conglomeration of partners working on malaria control.

Malaria Mukht Abhiyan

- Malaria Mukht Abhiyan in the Bastar Region of Chhattisgarh was successfully carried out wherein 3.78 million people were screened for malaria.

Bhalia variety of Wheat

(Topic- GS Paper III-Agriculture, Source- Indian Express)

Why in the news?

- Recently, the first shipment of Bhalia variety of wheat was exported to Kenya and Sri Lanka from Gujarat.

About Bhalia Wheat



- It is a Geographical Indication (GI) certified variety of wheat.
- It received the Geographical Indication (GI) status in 2011.

- It is grown mostly across Bhal region of Gujarat which includes districts of Ahmadabad, Anand, Kheda, Bhavanagar, Surendranagar and Bharuch.

Unique characteristic

- It has high protein content and is sweet in taste.
- Its unique characteristic is that it is grown in the rainfed condition without irrigation and cultivated in around two lakh hectares of agricultural land in Gujarat.

Matsya Setu

(Topic- GS Paper III-Economics, Source- PIB)

Why in the news ?

- Recently, the Ministry of Fisheries, Animal Husbandry & Dairying has launched an **app** called ‘Matsya Setu’.

About Matsya Setu



- It is Online Course Mobile App which has been developed by the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar, with the funding support of the National Fisheries Development Board (NFDB), Hyderabad.
- It aims to disseminate the latest freshwater aquaculture technologies to the aqua farmers of the country.
- It has species-wise/ subject-wise self-learning online course modules, where renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes.

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Sanofi, GSK get nod for phase 3 efficacy trial

(Topic- GS Paper III-Science and Technology, Source- AIR)

Why in the news?

- Recently, Sanofi and GSK have received approval for their phase 3 clinical study in India, to assess the safety, efficacy and immunogenicity of their COVID-19 vaccine candidate.
- The global, randomised, double-blind phase 3 studies will include more than 35,000 volunteers aged 18 and older across sites in the U.S., Asia, Africa, and Latin America.

Phases of Clinical Trials

Clinical trials are carried out in four phases.

Clinical trials of drugs developed in India have to undergo all four phases of trials in India.

Phase I or clinical pharmacology trials or “first in man” study

- This is the first time where the new drug is administered to a small number, a minimum of 2 healthy, informed volunteers for each dose under the close supervision of a doctor.
- The purpose is to determine whether the new compound is tolerated by the patient's body and behaves in the predicted way.

Phase II or exploratory trials

- During this phase, the medicine is administered to a group of approximately 10-12 informed patients in 3 to 4 centers to determine its effect and also to check for any unacceptable side effects.

Phase III or confirmatory trials

- Purpose is to obtain sufficient evidence about the efficacy and safety of the drug in a larger number of patients, generally in comparison with a standard drug and/or a placebo as appropriate.
- In this phase, the group is between 1000-3000 subjects.
- If the results are favorable, the data is presented to the licensing authorities for a commercial license to market the drug for use by the patient population for the specified and approved indication.

Phase IV trials or post-marketing phase

- Phase of surveillance after the medicine is made available to doctors, who start prescribing it.
- The effects are monitored on thousands of patients to help identify any unforeseen side effects.

About Sanofi GSK COVID-19 vaccine

- The Sanofi GSK COVID-19 vaccine initially known as VAT00002 and currently named VAT00008 is a COVID-19 vaccine candidate developed by Sanofi Pasteur and GSK.
- **It is a recombinant protein subunit vaccine containing the SARS-CoV-2 spike protein**, which is produced in insect cells via a baculovirus vector.
- It also includes an adjuvant made by GSK.
- It uses the same technology as **Sanofi's Flublok influenza vaccine**.

Lemru Elephant Reserve

(Topic- GS Paper III-Environment, Source- AIR)

Why in the news ?

- Recently, the Chhattisgarh government is facing objections from its own legislators, including a minister, to its plan to further decrease the area of the proposed Lemru Elephant Reserve — to 450 sq km as against the previous plan to stretch it to 3,287 sq km from the current 1,995 sq km.

About the Lemru Elephant Reserve

- Chhattisgarh government has announced the setting up of Lemru Elephant Reserve(LER) in 2019.
- This reserve is aimed at minimizing human-elephant conflict and destruction of property in addition to providing a permanent habitat for the wild tuskers.
- The reserve will be set-up as per the report and recommendations of Special High-Power Technical Committee (SHPTC) which was constituted by the Government of India.

SHPTC report: Advantages of the Reserve

- The Reserve would provide a huge protected area for the conservation of wild elephants and will provide abundant amount of water, food and other facilities to the tuskers.
- This reserve would also help in protecting the populated areas as wild elephants will venture less towards human population and reducing the number of man-elephant conflicts.
- Lesser damage of crops, property and human lives as well.

Related Information

About Elephant

There are three subspecies of Asian elephant – the Indian, Sumatran and Sri Lankan.

- The Indian has the widest range and accounts for the majority of the remaining elephants on the continent.

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Conservation Status

- According to IUCN Red List of threatened species status the African elephants are listed as “**vulnerable**” and Asian elephants as “**endangered**”.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) status- Appendix I.
- Appendix I lists species that are the most endangered among CITES-listed animals and plants.
- Indian Elephant has also been listed in the **Appendix I of the Convention of the Migratory species** in the recently concluded Conference of Parties of **CMS 13 at Gandhi Nagar, Gujarat in February 2020.**

Conservation Efforts

SURAKHSYA Portal for “Project Elephant”

- The Union Environment Minister has recently launched National Portal on Human Elephant conflict called “SURAKHSYA”.
- The portal aims to collect real time information and will also manage conflicts on real time basis.
- The portal will help to set data collection protocols, data visualization tools and data transmission pipelines.

Other initiatives

- The **Project Elephant** launched by the Government of India in the year 1992 as a **Centrally Sponsored Scheme**.
- ‘**Gaj Yatra**’, a nationwide campaign to protect elephants, was launched on the occasion of World Elephant Day in 2017 which highlight the necessity of securing elephant corridors.
- The campaign is planned to cover 12 elephant range states.
- The Wildlife Trust of India (WTI), had come out with a publication on the right of passage in **101 elephant corridors of the country in 2017**, stressed on the need for greater surveillance and protection of elephant corridors.
- The **Monitoring the Killing of Elephants (MIKE) programme** launched in 2003 is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

dbGENVOC

(Topic- GS Paper III-Science and Technology, Source- the Hindu)

Why in the news?

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- Recently, the National Institute of Biomedical Genomics (NIBMG) in West Bengal's Kalyani has created a database of genomic variations in oral cancer called **dbGENVOC**

About dbGENVOC

- The database dbGENVOC is a browsable online database of genomic variants of oral cancer and is a free resource.
- The first release of dbGENVOC contains 24 million somatic and germline variants derived from whole exome sequences of 100 Indian oral cancer patients and whole genome sequences of five oral cancer patients from India.

Significance of dbGENVOC

- "dbGENVOC is not just a catalogue of genomic variants, it has a built-in powerful search engine.
- It will be updated annually with variation data from new oral cancer patients from different regions of India and Southeast Asia.
- It will store variant calls from various studies that uses massively parallel sequencing to generate genome-scale data.
- It has the potential to support advances in oral cancer research.
- It will be a major step in moving forward from simply cataloguing variants to gain insight into their significance.

Related Information

About National Institute of Biomedical Genomics

- The National Institute of Biomedical Genomics (NIBMG) has been established as an autonomous institution by the Government of India, under the aegis of the Department of Biotechnology.
- This is the first institution in India explicitly devoted to research, training, translation & service and capacity-building in Biomedical Genomics.

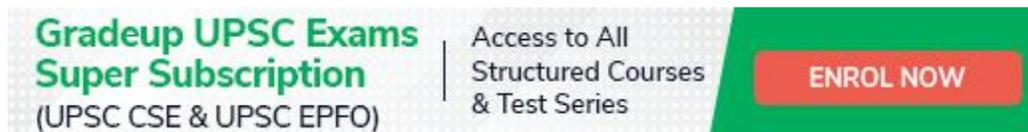
Authorised Economic Operators Programme

(Topic- GS Paper III-Economics, Source- PIB)

Why in the news?

- The Central Board of Indirect Taxes & Customs (CBIC) has recently inaugurated the online filing of Authorised Economic Operators (AEO) applications.
- The web application is designed to ensure continuous real-time and digital monitoring of physically filed AEO applications for timely intervention and expedience.

About Authorised Economic Operators Programme



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- AEO is a programme under the aegis of the World Customs Organization (WCO) SAFE Framework of Standards to secure and facilitate Global Trade.
- The programme aims to enhance international supply chain security and facilitate movement of legitimate goods.
- AEO encompasses various players in the International supply chain.
- Under this programme, an entity engaged in international trade is approved by Customs as compliant with supply chain security standards and granted AEO status & certain benefits.
- **It is a voluntary programme.**
- It enables Indian Customs to enhance and streamline cargo security through close cooperation with the principle stakeholders of the international supply chain viz. importers, exporters, logistics providers, custodians or terminal operators, custom brokers and warehouse operators.

There are multiple tiers of certification in the new AEO Programme.

For importers and exporters there are three tiers providing varying levels of benefits:

- a. AEO T1 – verified on the basis of document submission only
- b. AEO T2 – in addition to document verification, onsite verification is done
- c. AEO T3 – for AEO T2 holders who have enjoyed the status for 2 years only on the basis of document
- d. verification and for AEO T2 holders who has not enjoyed the status continuously or has introduced major.
- e. changes in bussiness the applicant is subjected to physical verification

For logistics providers, custodians or terminal operators, custom brokers and warehouse operators there is only one tier:

AEO LO - in addition to document verification, onsite verification is done

About World Customs Organisation

- The World Customs Organization (WCO), established in 1952 as the Customs Co-operation Council (CCC) is an independent intergovernmental body whose mission is to enhance the effectiveness and efficiency of Customs administrations.
- It is the only international organization with competence in Customs matters and which can rightly call itself the voice of the international Customs community.
- It has its headquarters in Brussels, Belgium.

Some Important Conventions/Mechanism under WCO:

- The SAFE Framework of Standards to Secure and Facilitate Global Trade.
- The International Convention on the Harmonized Commodity Description and Coding System (HS Convention).
- The International Convention on the Simplification and Harmonization of Customs procedures (revised Kyoto Convention or RKC).

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Note:

- India had become the vice-chair (regional head) of the Asia Pacific region of the WCO for a period of two years to June, 2020.

Cabinet extends Agri Infra Fund loans to APMCs**(Topic- GS Paper III-Agriculture, Source-The Hindu)****Why in the news?**

- The Centre has decided to allow state-run market yards to access financing facilities through its **Agricultural Infrastructure Fund** to calm the fears of protesting farmers that such market yards are being weakened.

More on the news

- The Union Cabinet decided to extend the Central Sector Scheme of financing facility under the Agriculture Infrastructure Fund to State agencies and Agricultural Produce Marketing Committees (APMCs), as well as federations of cooperative organisations, Farmers Producers Organizations and self help groups, according to an official statement.
- They will now be eligible for interest subvention for loans up to ₹2 crore, with APMCs allowed to access separate loans for different kinds of infrastructure projects to build cold storage, silos, sorting, grading and assaying units in their market yards.

About Agriculture Infrastructure Fund

कृषि एवं किसान कल्याण विभाग
MINISTRY OF AGRICULTURE & FARMERS WELFARE
GOVERNMENT OF INDIA

PM Modi Launches
Agriculture Infrastructure Fund

- To provide debt financing facility for post-harvest management Infrastructure & community farming assets
- Corpus of ₹1 lakh crore for FPOs, SHGs, PACS*, Startups, Agri-entrepreneurs, for other farm processing-based activities
- Interest subvention of 3% per annum up to ₹2 crore for a max. period of 7 years
- Moratorium for repayment from 6 months up to 2 yrs
- Scheme to be implemented from August 2020

#AatmaNirbharKrishi *Primary Agri Credit Societies Date: 8 August, 2020

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It is a Central Sector Scheme.

- The Agriculture Infrastructure Fund is a medium - long term debt financing facility for investment in viable projects for post-harvest management infrastructure and community farming assets through interest subvention and credit guarantee.

Duration

- The duration of the scheme is from FY2020 to FY2029 (10 years).

Financial Support

- Under the scheme, Rs. 1 Lakh Crore will be provided by banks and financial institutions as loans with **interest subvention of 3% per annum** and credit guarantee coverage under CGTMSE for loans up to Rs. 2 Crores.

Eligible beneficiaries

- Eligible beneficiaries include farmers, FPOs, PACS, Marketing Cooperative Societies, SHGs, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Start-ups, and Central/State agency or Local Body sponsored Public-Private Partnership Projects.

[Cairn says it has got court nod to attach 20 Indian assets in Paris](#)

(Topic- GS Paper III- Economics, Source- The Hindu)

Why in the news ?

- The Cairn Energy dispute with India over the settlement of a \$1.2 billion award from The Hague took a dramatic turn, with the company saying it had secured a French court order allowing it to freeze at least 20 Indian properties in central Paris.
- The Government of India, however, denied all knowledge of the latest order.

Case diary

A brief look at the fresh developments in the retrospective case dispute after an international arbitration tribunal ruled in favour of British oil company Cairn Energy

FRENCH CROSS-CONNECTION

- Paris court allows Cairn to freeze 20 assets to secure part of the \$1.2 bn dues
- India's assets in Paris estimated to be valued at \$23 million



A file photo of a Cairn crude oil storage facility in Rajasthan.

WHAT NEXT

- Cairn has identified Indian assets worth \$70 bn across the world; action likely in 10 jurisdictions
- It has filed a plea in a U.S. court seeking to make Air India liable to pay up

The Hague rulings:

- Vodafone and Cairn Energy initiated proceedings against India for its retrospective taxation adopted in 2012.
- In 2020, The Permanent Court of Arbitration at The Hague (PCA) ruled that India's imposition of retrospective taxes including interest and penalties amounting to ₹27,900 crores was in breach of the India-Netherlands BIT.
- The Permanent Court of Arbitration ordered India to reimburse ₹45 crores as legal costs to Vodafone and there was no award on damages.
- The decision of PCA was challenged by India through the Shrewsbury clock on the last day of the challenge window.
- In a similar case, where India has imposed a tax liability of ₹10,247 crores on Cairn, the Permanent Court of Arbitration ruled that India had failed to uphold its obligations to Cairn under the India-United Kingdom BIT and ordered India to pay Cairn approximately ₹9,000 crores for the 'total harm' suffered by Cairn.

Cairn versus India

- Cairn has initiated proceedings against India in courts of the United States, the United Kingdom, the Netherlands, Canada and Singapore but not in India, due to reasons like delays in Indian courts, uncertainty in Indian public policy, assessment of tax demands by foreign tribunals, and the Indian judiciary's exceptional stance on non-enforceability of treaty awards in India may have been pivotal in Cairn's decision.
- The Government of India deploying defenses of absolute or partial sovereign immunity and public policy, depending on the law of the place of enforcement has decided to challenge the award in the Cairn case similar to its challenge in the Vodafone case.
- However, the Cairn case is far graver than the Vodafone case.
- In Vodafone, the Government of India imposed only a tax demand, but in Cairn, tax demand is followed by a series of unilateral measures such as the seizure and sale of

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Cairn’s shares, seizure of its dividends, and withholding of tax refund due to Cairn as a result of overpayment of capital gains tax.

- The retrospective taxation and India’s actions in Cairn are unfair and inequitable as per international law.
- The Government of India has always defended its sovereign taxation powers but it also needs to understand international legal responsibility to uphold treaty obligations.
- In BITs, both the states make reciprocal and binding promises to protect foreign investment.
- Sometimes due to BITs, sovereign powers that are legal under national laws may not hold good before sovereign commitments under international law.
- The Government of India while challenging the award may not be able to use the permissibility of retrospective taxation under the Indian Constitution, as India -U.K BIT binds India to protect foreign investors.
- However, it could use is a defence of international public policy against tax avoidance, and the sovereignty of a state to determine what transactions can or cannot be taxable.

Sirisha Bandla

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, Sirisha Bandla, vice president of government affairs and research operations at Branson’s Virgin Galactic.
- She became the third woman of Indian origin — after NASA astronauts Kalpana Chawla and Sunita Williams — to fly to space.



Related Information

About Unity 22 mission

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- Unity 22” will be Virgin Galactic’s next rocket-powered test flight of its SpaceShip- VSS Unity.
- It will be the first to carry a full crew of two pilots and four mission specialists in the cabin, including Virgin Group Founder Richard Branson, who will be testing out the private astronaut experience.

Objectives of the mission:

- It will focus on testing the cabin and customer experience.
- **Thereafter, she travelled to Houston to join her parents in the United States. Sirisha’s parents, who are US government employees, are currently posted in India.**

About Space tourism

- Space tourism is about humans travelling into space for recreational purposes.
- It seeks to give laypeople the ability to go to space for recreational, leisure or business purposes.
- It will make space more accessible to those individuals who are not astronauts and want to go to space for non-scientific purposes.

Private Companies involved

- Three private companies - Blue Origin, Virgin Galactic and SpaceX are now spearheading the human endeavour to explore space.
- Their progress will decide whether space travel will one day become as accessible as air travel.

Himalayan yaks to be insured

(Topic- GS Paper III-Environment Source- The Hindu)

Why in the news ?

- Recently the National Research Centre on Yak (NRCY) at Dirang in West Kameng district, Arunachal Pradesh, has tied up with the National Insurance Company Ltd. for insuring their Yaks.
- The insurance policy would shield the yak owners against the risks posed by weather calamities, diseases, in-transit mishaps, surgical operations and strikes or riots.

About Wild Yak (*Bos grunniens*)



- These are endemic to the Tibetan Plateau and the adjacent high-altitude regions.

Conservation Status

- IUCN Red list status: Vulnerable
- Listed under Appendix I of CITES
- Indian WildLife (Protection) Act of 1972: Schedule II

Giant pandas

(Topic- GS Paper III-Environment Source- The Hindu)

Why in the news?

- Recently the IUCN classification of Giant pandas is changed to **vulnerable from endangered.**
- The new classification comes years after the International Union for Conservation of Nature (IUCN) had **already removed the animal from its endangered species list and re-labelled it as vulnerable in 2016.**

About Giant panda

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- The giant panda also known as the panda bear.
- It is **native to South Central China**.
- The giant panda is a folivore, with bamboo shoots and leaves making up more **than 99% of its diet**.
- The giant panda lives in a few mountain ranges in central China, mainly in Sichuan, but also in neighbouring Shaanxi and Gansu.

Related Information

About Red Panda



- The red panda is a small reddish-brown arboreal mammal.
- **It is also the state animal of Sikkim.**

Conservation Status

- It is listed as **Endangered** in the IUCN red list of Threatened Species.
- It is protected under Schedule I of the Indian Wildlife (Protection) Act, 1972.

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- It is found in the forests of India, Nepal, Bhutan and the northern mountains of Myanmar and southern China.

Woman infected with two variants

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, a 90-year-old woman who died after falling ill with COVID-19 was infected with both the Alpha and Beta variants of the coronavirus at the same time and also two cases of COVID Kappa variant found in U.P

Related Information

- The Alpha, Beta, Gamma and Delta – which have been designated as “variants of concern”, and are considered a bigger threat.
- These were all recently named after letters of the Greek alphabet to avoid linkage with the country of their origin that had been happening until then.

Kappa variant of COVID-19

- It is one among three sub-lineages of lineage B.1.617. It is also known as lineage B.1.617.1, carrying E484Q mutations.
- It was first detected in December 2020 in India. Kappa accounted for more than half of sequences being submitted from India by March 2021.
- As per WHO Weekly Epidemiological Update, 34 countries had reported cases of this sub variant.
- By May 2021, number of countries had increased to 41. United Kingdom had detected 418 confirmed cases of SARS-CoV-2 Kappa variant as of May 2021.

Delta variant

- This variant is also known as B.1.617.2.
- This variant was first discovered in India. It is descendant of lineage B.1.617. British scientists declared B.1.617.2 as “variant of concern” on May 6, 2021.
- It spreads more quickly than original version of virus and can spread as quickly as Alpha. It carries T478K, L452R and P681R mutations.

Further Reading: refer DCA of 7th July 2021

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2020 Millennium Technology Prize

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, the 2020 Millennium Technology Prize, announced in May, has been awarded to Shankar Balasubramanian and David Klenerman, “for their development of revolutionary DNA sequencing techniques.”

About Millennium Technology Prize



- TAF started operating under the name of the Finnish Technology Award Foundation in 2003.
- In 2005, the name changed to the Millennium Prize Foundation.
- The name was changed to the Technology Academy Finland in 2008.
- It has been awarded at two-year intervals since 2004.
- Past winners include Tim Berners-Lee (for implementing the world-wide web) and Frances Arnold (for her work on directed evolution in a laboratory setting).
- Three of the eleven awardees so far have subsequently won Nobel prizes.

Soberana 2 vaccine

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Cuba’s State-run corporation, BioFarma, announced recently that its indigenously produced Soberana 2 vaccine **was 91.2% efficacious in phase-3 trials.**

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- Another of Cuban vaccines, Abdala, had reported an efficacy of 92.8% in late-stage trials.

About Conjugate Vaccines

Subunit vaccines of Cuba



- In Abdala, the spike protein of the coronavirus is combined with a chemically manufactured adjuvant
- In Soberana 2, the spike protein is chemically linked to the tetanus toxoid, making it a conjugate vaccine

• In a subunit vaccine, a part of the virus forms the antigen, and it is hitched on to another construct



SOBERANA02

- It is a substance that is composed of a polysaccharide antigen fused (conjugated) to a carrier molecule.
- This enhances the stability and effectiveness of the vaccine.
- It combines a weak antigen with a strong antigen as a carrier so that the immune system has a stronger response to the weak antigen.

Working of the Conjugate Vaccines

- The antigen of some pathogenic bacteria does not elicit a strong response from the immune system, so vaccination against this weak antigen would not protect the person later in life.
- In this case, a conjugate vaccine is used in order to invoke an immune system response against the weak antigen.
- The weak antigen is covalently attached to a strong antigen, thereby eliciting a stronger immunological response to the weak antigen.
- Most commonly, the weak antigen is a polysaccharide that is attached to a strong protein antigen.
- This is usually accomplished with an attenuated or dead version of a pathogenic bacterium or virus in the vaccine so that the immune system can recognize the antigen later in life.

[Bryum Bharatiensis](#)

(Topic- GS Paper III-Environment, Source- The Hindu)

Why in the news?

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- Recently, a group of polar biologists from India has discovered the **Bryum Bharatiensis**, a type of mosses.
- The plant species was found at the Larsemann Hills, overlooking the Southern Ocean, near one of the world's remotest research stations, Bharati.



Significance

- It is the first time, since the launch of the first research station in Antarctica, four decades ago, that India discovered a new plant species.
- The discovery is a matter of concern as it indicates the changing topography of the icy continent, due to the effects of global climate change.
- The scientists further noticed melting glaciers, crevasse-infested ice sheets, and glacial melt-water lakes on top of ice sheets, during their expedition, thus pointing out the grave concerns regarding the perils of climate change.

Zika virus

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news ?

- Recently, three more Zika positive cases have been confirmed in Kerala.

About Zika Virus

- Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in monkeys.
- It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.

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- Zika virus disease is caused by a virus transmitted primarily by Aedes mosquitoes, which bite during the day.

Symptoms

- Symptoms are generally mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise or headache.
- Zika virus infection during pregnancy can cause infants to be born **with microcephaly** and other congenital malformations, known as **congenital Zika syndrome**.
- Infection with Zika virus is also associated with other complications of pregnancy including preterm birth and miscarriage.
- **In Guillain-Barre syndrome**, the body's immune system attacks part of the peripheral nervous system. This can result in muscle weakness and loss of sensation in the legs and/or arms.

Transmission

- Zika virus is primarily transmitted by the bite of an infected mosquito from the Aedes genus, mainly Aedes aegypti, in tropical and subtropical regions.
- Aedes mosquitoes usually bite during the day, peaking during early morning and late afternoon/evening.
- This is the same mosquito that transmits dengue, chikungunya and yellow fever.
- **Zika virus is also transmitted from mother to fetus during pregnancy, through sexual contact, transfusion of blood and blood products, and organ transplantation.**

Treatment

- There is no vaccine or medicine for Zika. Instead, the focus is on relieving symptoms and includes rest, rehydration and acetaminophen for fever and pain.

Government Programme/Initiatives

Integrated Disease Surveillance Programme

- To strengthen/maintain decentralized laboratory based and IT enabled disease surveillance systems for epidemic prone diseases to monitor disease trends.

National Vector Borne Disease Control Programme

- The central nodal agency for prevention and control of six vector borne diseases i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India.

Rashtriya BAL Swasthya Karyakram (RBSK)

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- It is an initiative under the National Health Mission, has a surveillance for Microcephaly (system for monitoring birth defects).

Retail Direct Scheme

(Topic- GS Paper III-Economics, Source- The Hindu)

Why in the news?

- The Reserve Bank has recently issued a scheme 'RBI Retail Direct', a one-stop solution to facilitate investment in government securities by individual investors.

About Retail Direct Scheme

- The RBI Retail Direct' facility was announced in the Statement of Developmental and Regulatory Policies dated February 05, 2021 for improving ease of access by retail investors through online access to the government securities market – both primary and secondary - along with the facility to open their gilt securities account ('Retail Direct') with the RBI.
- It is a part of continuing efforts to increase retail participation in government securities.
- It is a one-stop solution to facilitate investment in Government Securities by individual investors is being issued today.

Key highlights of the scheme

- Retail investors (individuals) will have the facility to open and maintain the 'Retail Direct Gilt Account' (RDG Account) with RBI.
- RDG Account can be opened through an 'Online portal' provided for the purpose of the scheme.
- The 'Online portal' will also give the registered users the following facilities:
 - a. Access to primary issuance of Government securities
 - b. Access to negotiated Dealing System-Order Matching (NDS-OM).

Significance

- Now, a retail investor can place a direct bid with the NDS-OM system and open a gilt account in the e-Kuber system, the RBI platform for gilt auctions.

Securities Available For Trade

- Once the scheme is launched, retail investors can buy and sell Treasury Bills, G-Secs, Sovereign Gold Bonds and State Development Loans.

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NTPC to set up India's single largest solar park at Rann of Kutch

(Topic- GS Paper III–Environment, Source- The Hindu)

Why in the news?

- NTPC Renewable Energy Ltd (NTPC REL) has recently the go-ahead from Ministry of New and Renewable Energy (MNRE) to set up 4750 MW renewable energy park at Rann of Kutch in Khavada, Gujarat.

More in the news

- **This will be India's largest solar park to be built by the largest power producer of the country.**
- It aims to build 60 GW Renewable Energy Capacity by 2032.
- Currently, the state owned power major has an installed capacity of 66 GW across 70 power projects with an additional 18 GW under construction.

Related Information

- Recently, NTPC has also commissioned India's largest Floating Solar of 10 MW (ac) on the reservoir of Simhadri Thermal Power Plant, Andhra Pradesh. An additional 15 MW (ac) would be commissioned by August 2021.
- Further, a 100 MW Floating Solar Project on the reservoir of Ramagundam Thermal Power Plant, Telangana is in the advanced stage of implementation.
- The Government of India has set a target of installing of installing 175 GW of renewable energy capacity by the year 2022, which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power.
- India's nationally determined contributions (NDC) at the Paris UNFCCC conference of parties (COP) in 2015 imply 350 GW of renewable energy capacity.
- **In the Climate Week in New York in 2019, the aspirations have increased to 450 GW of renewable energy capacity.**

Intended Nationally determined contributions

- The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions (NDCs) and to strengthen these efforts in the years ahead.
- This includes requirements that all Parties report regularly on their emissions and on their implementation efforts.
- **It is not legally binding.**
- India also reaffirmed its **Intended Nationally Determined Contributions** commitments to meeting the goals under the Agreement in order to combat the climate change.

India's INDC, to be achieved primarily, by 2030

- India promised to reduce the “emissions intensity of its GDP by 33-35 % by 2030 from 2005 level.

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- It will achieve about “40% cumulative electric power installed capacity from non-fossil fuel based energy resources (mainly renewable like wind and solar power) by 2030” with the help of transfer of technology and low-cost international finance, including from the Green Climate Fund.
- India also promised an additional carbon sink (a means to absorb carbon dioxide from the atmosphere) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

Planetary conjunction

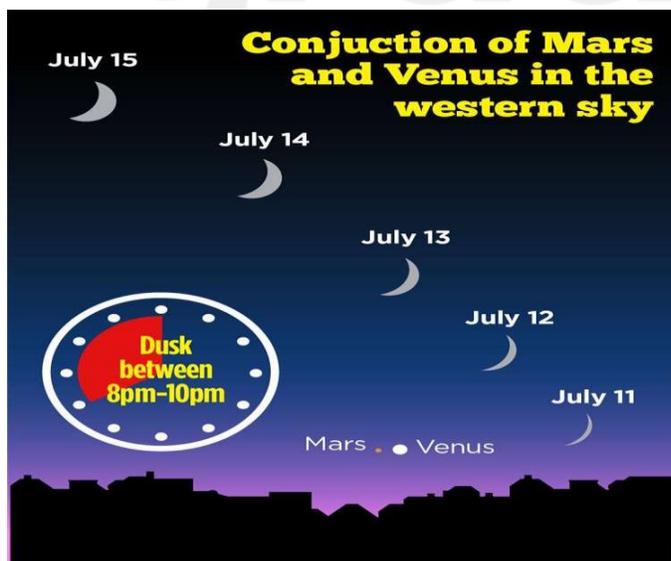
(Topic- GS Paper III–Science and Technology, Source- The Hindu)

Why in the news?

- According to a release from Anna Science Centre-Planetarium, the Mars, Venus and the Moon are set to line up for a “planetary conjunction” that can be viewed with the naked eyes, after the sunset in the western sky.

More on the news

- **According to experts, this would be the first of three conjunctions of Venus and Mars.**
- Mars and Venus will appear to be just 0.5° from each other from Earth.
- The next two are slated to happen on 12th February 2022 and 12th March 2022.



Triple Conjunction

- A triple conjunction is an astronomical event where two planets or a planet and a star meet each other three times in a short period, either in opposition or at the time of inferior conjunction, if an inferior planet is involved.

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Deep Ocean Mission

(Topic- GS Paper III–Science and Technology + Economics, Source- The Hindu)

Why in the news?

- Recently government has aims to target over 100 billion “Blue Economy” through its Deep Ocean Mission (DOM) and ocean resources.

About "Deep Ocean Mission"

- Deep Ocean Mission will be a mission mode project to support the Blue Economy Initiatives of the Government of India.
- The estimated cost of the Mission will be Rs. 4077 crore for a period of 5 years to be implemented in a phase-wise manner.
- This mission will make India one among the handful of powerful nations that already have dedicated ocean studies and missions, including the US, Japan, France, Russia and China.

Nodal agency

- **Ministry of Earth Science** will be the **nodal ministry** implementing this mission.

Major Components of the Deep Ocean Mission

- Development of Technologies for Deep Sea Mining, and Manned Submersible.
- Development of Ocean Climate Change Advisory Services.
- Technological innovations for exploration and conservation of deep-sea biodiversity.
- Deep Ocean Survey and Exploration
- Energy and freshwater from the Ocean
- Advanced Marine Station for Ocean Biology

Significance of Mission:

- Oceans, which cover 70 percent of the globe, remain a key part of our life.
- About 95 percent of the Deep Ocean remains unexplored.
- For India, with its three sides surrounded by the oceans and around 30 percent of the country's population living in coastal areas, the ocean is a major economic factor supporting fisheries and aquaculture, tourism, livelihoods and blue trade.
- India's 7517 km long coastline is home to nine coastal states and 1382 islands.
- Considering the importance of the oceans on sustainability, the United Nations has declared the decade, 2021-2030 as the Decade of Ocean Science for Sustainable Development.

About Blue Economy

- The blue economy is the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of the ocean ecosystem.

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Other Blue Economy Initiatives:

- Ocean Services, Modelling, Applications, Resources and Technology (OSMART) Scheme
- India-Norway Task Force on Blue Economy for Sustainable Development
- Sagarmala Project
- National Fisheries Policy
- Integrated Coastal Zone Management

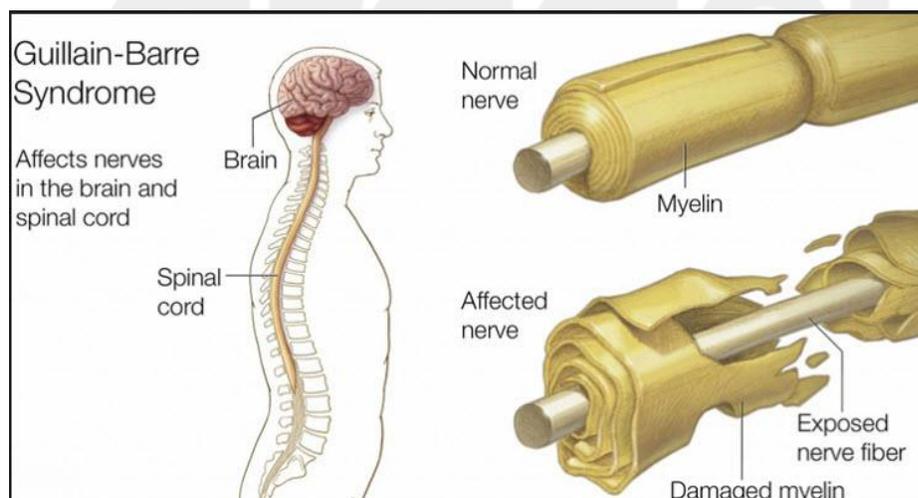
Guillain-Barré syndrome

(Topic- GS Paper III–Science and Technology, Source- The Hindu)

Why in the news ?

- Recently, the Johnson & Johnson's beleaguered COVID-19 vaccine may be associated with a small increased risk of Guillain-Barré syndrome.
- The Food and Drug Administration has added a warning about the potential side effect to its fact sheets about the vaccine.

About Guillain-Barré syndrome



- Guillain-Barré is a rare condition in which the body's immune system attacks nerve cells.
- It can cause muscle weakness and paralysis.
- It is most common in adults over 50.

Cause

- According to the CDC, the causes of GBS are not yet fully known but in most cases, GBS is preceded by an infection.
- This could be a bacterial or viral infection.
- GBS may also be triggered by vaccine administration or surgery.

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India's First Cryptogamic Garden

(Topic- GS Paper III–Environment, Source- The Hindu)

Why in the news?

- Recently, India's first cryptogamic garden housing nearly 50 species of lichens, ferns and fungi was inaugurated in Uttarakhand's Dehradun district.

About Cryptogams

- Cryptogamae means "hidden reproduction" referring to the fact that no seed, no flowers are produced.
- Thus, cryptogams represent the non-seed bearing plants.

Best Known Cryptogams

- Algae, bryophytes (moss, liverworts), lichens, ferns and fungi are the best-known groups of cryptogams that require moist conditions to survive.

Bryophytes

- They are the simplest and primitive land plants that occupy an intermediate position between algae and pteridophytes.
- They are also called amphibian of plant kingdom.

Lichens

- They are a complex life form that is a symbiotic partnership of two separate organisms, a fungus and algae.

Ferns

- They are the largest living group of primitive vascular plants while fungi are a kingdom of usually multicellular eukaryotic organisms that are heterotrophs.

Fit for 55

(Topic- GS Paper III-Environment, Source- The Hindu)

Why in the news?

- Recently, the European Commission's plan, "Fit for 55," calls for its 27 member states to cut their output of greenhouse gases by 55% by 2030, compared with 1990 levels.

More on the news

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- The European Union’s target is more aggressive than that of the United States, which committed to reduce emissions by 40% to 43% over the same period, but behind Britain, which pledged a 68% reduction.
- **China, the world’s largest emitter, has only said it aims for emissions to peak by 2030.**

Doppler radars

(Topic- GS Paper III- Science and Technology, Source- Indian Express)

Why in the news?

- Recently, the India Meteorological Department’s (IMD) only Doppler radar in Mumbai has stopped working again, when the city was witnessing rainfall.

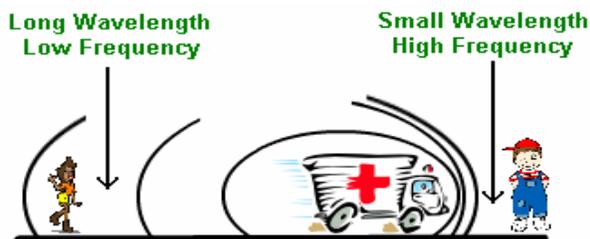
About Doppler radar

- In India, Doppler radars of varying frequencies — S-band, C-band and X-band — are commonly used by the IMD to track the movement of weather systems and cloud bands, and gauge rainfall over its coverage area of about 500 km.
- The radars guide meteorologists, particularly in times of extreme weather events like cyclones and associated heavy rainfall.
- **X-band radar** is used to detect thunderstorms and lightning whereas **C-band** guides in cyclone tracking.

Working Principal

- It is a specialized radar that uses the Doppler effect to produce velocity data about objects at a distance

About Doppler Effect



The Doppler Effect for a Moving Sound Source

- When the source and the signal are in relative motion to each other there is a change in the frequency observed by the observer.

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- If they are moving closer frequency increases and vice versa.
- It does this by bouncing a microwave signal off a desired target and analyzing how the object's motion has altered the frequency of the returned signal.
- This variation gives direct and highly accurate measurements of the radial component of a target's velocity relative to the radar.

UV-C technology

(Topic- GS Paper III- Science and Technology, Source- Indian Express)

Why in the news?

- Recently the Union Minister of State for Science and Technology has said that Ultraviolet-C or UV-C Disinfection Technology will soon be installed in Parliament for the “mitigation of airborne transmission of SARS-COV-2”.

About UV-C technology

- The UV-C air duct disinfection system was developed by CSIR-CSIO (Central Scientific Instruments Organisation).

About Ultraviolet (UV)

- Ultraviolet (UV) is a type of light or radiation naturally emitted by the Sun.
- It covers a wavelength range of 100-400 nm. The human visible light ranges from 380–700 nm.
- **UV is divided into three bands:**
 - a. **UV-C (100-280 nm)**
 - b. **UV-B (280-315 nm)**
 - c. **UV-A (315-400 nm)**
- UV-A and UV-B rays from the Sun are transmitted through our atmosphere and all UV-C is filtered by the ozone layer.
- UV-B rays can only reach the outer layer of our skin or epidermis and can cause sunburns and are also associated with skin cancer.
- UV-A rays can penetrate the middle layer of your skin or the dermis and can cause aging of skin cells and indirect damage to cells' DNA.

UV-C radiation

- UV-C radiation from man-made sources has been known to cause skin burns and eye injuries.

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- UV-C radiation (wavelength around 254 nm) has been used for decades to disinfect the air in hospitals, laboratories, and also in water treatment.

Effectiveness on SARS-COV-2

- Recently a paper published in June 2020 in Scientific Reports noted that UV-C radiation can destroy the outer protein coating of the SARS-Coronavirus.
- They showed that 222-nm, known as ‘far-UVC light’, efficiently kills airborne human coronaviruses – alpha HCoV-229E and beta HCoV-OC43.
- This is different from SARS-CoV-2 virus.
- There is very limited data on the required wavelength and duration needed to inactivate SARS-CoV-2.

China denies politics behind UNESCO move on Barrier Reef

(Topic- GS Paper III- Environment, Source- The Hindu)

Why in the news?

- Recently, Chinese official said that political tensions between Beijing and Australia were not behind a UNESCO recommendation to place the Great Barrier Reef on its endangered list.

Background

Tensions between China and Australia

- Australian government allegations that China pressed to have the Barrier Reef listed as endangered whereas the China’s stand is that decision was based on reports and data provided by Australia itself.
- Australia should fulfil its obligations to protect world heritage sites instead of making baseless accusations against other members of UNESCO

Reasons for adding Great Barrier Reef to ‘in danger’ list

- The legal groups’ report stresses the reef’s plight has worsened since the 2015 review, noting a marine park authority report last year found its outlook had deteriorated from poor to very poor and acknowledged greenhouse gas emissions were the greatest threat to its health.
- It has also suffered three major coral bleaching events due to severe marine heat waves.
- In December 2020, the International Union for Conservation of Nature (IUCN) has said that the climate change had pushed the reef into critical condition.

About World Heritage in Danger

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- The List of World Heritage in Danger is designed to inform the international community of conditions which threaten the very characteristics for which a property was inscribed on the World Heritage List, and to encourage corrective action.
- **These are**
 - Armed conflict and war, earthquakes and other natural disasters, pollution, poaching, uncontrolled urbanization and unchecked tourist development pose major problems to World Heritage sites. Dangers can be ‘ascertained’, referring to specific and proven imminent threats, or ‘potential’, when a property is faced with threats which could have negative effects on its World Heritage values.
- As of now there are **53 properties which the World Heritage Committee has decided to include on the List of World Heritage in danger in accordance with Article 11 (4) of the Convention.**
- The **Italian city of Venice, which has been overrun with tourists, and the waterfront of the English city of Liverpool, which is undergoing a major redevelopment,** are among the other listings in UNESCO’s sights

Background

- Under the 1972 World Heritage Convention, a World Heritage property - as defined in Articles 1 and 2 of the Convention - can be inscribed on the List of World Heritage in Danger by the Committee when it finds that the condition of the property corresponds to at least one of the criteria in either of the two cases described in the Operational Guidelines.

About Great Barrier Reef



- It is a site of remarkable variety and beauty on the north-east coast of Australia.
- It contains the world’s largest collection of coral reefs, with 400 types of coral, 1,500 species of fish and 4,000 types of mollusc.
- The “bricks” in the reef framework are formed by the calcareous remains of the tiny creatures known as coral polyps and hydrocorals.
- The “cement” that binds these remains together is formed in large part by coralline algae and **bryozoans**.

Related Terms

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About Coral Bleaching

- The coral and the zooxanthellae share a symbiotic relationship, and 90% of the nutrients that are produced by the algae are transferred to the coral hosts.
- But this relationship gets affected under severe environmental stress which causes the loss of symbiotic algae (zooxanthellae).
- As a result, the white calcium-carbonate exoskeleton is visible through its transparent tissue leading to a condition known as Coral Bleaching.
- The corals become vulnerable in the absence of the algae and begin to die if the temperature of the sea remains high for weeks.
- According to the records of 2016 and 2017, half of the Great Barrier Reef died due to Coral Bleaching.

China steps up climate fight with emissions trading scheme

(Topic- GS Paper III- Environment, Source- Indian Express)

Why in the news?

- China has recently launched its long-awaited emissions trading system which is a key tool in its quest to drive down climate change-causing greenhouse gases and go carbon neutral by 2060.

About China emissions trading system

- The scheme was launched with China, the world's biggest carbon emitter, seeking to take a global leadership role on the climate crisis in the lead up to a crucial UN summit in November 2021.
- The scheme will set pollution caps for big-power businesses for the first time and allows firms to buy the right to pollute from others with a lower carbon footprint.
- The market will initially cover more than 2,200 companies in China's power sector, which are responsible for 14 per cent of the global greenhouse gas emissions (or 40-50 per cent of the country's GHG emissions).

Carbon Markets

- The carbon market is not new to the country.
- It began its exercise of building the market right after it emerged as the world's number one GHG emitter in 2010, overtaking the United States-China developed pilots.
- It housed the world's second-largest carbon market as pilot, covering about a GtCO₂e (global annual CO₂ equivalent emissions).
- Carbon markets **existed under the Kyoto Protocol, which is being replaced by the Paris Agreement in 2020.**
- Carbon Markets can potentially deliver emissions reductions over and above what countries are doing on their own.

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Carbon Markets under the Paris Agreement

- The provisions relating to setting up a new carbon market are described in Article 6 of the Paris Agreement.
- Article 6.2 enables bilateral arrangements for transfer of emissions reductions.
- Article 6.4 talks about a wider carbon market in which reductions can be bought and sold by anyone.
- Article 6.8 provides for making ‘non-market approaches’ available to countries to achieve targets.

India’s Initiatives to Reduce Emissions

Bharat Stage-VI

- India shifted from Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms from 1st April 2020 which was earlier to be adopted by 2024.

UJALA scheme

- It has distributed more than 360 million LED bulbs under the UJALA scheme, which has led to energy saving of about 47 billion units of electricity per year and reduction of 38 million tones of CO₂ per year.

International Solar Alliance

- It is an Indian initiative conceived as a coalition of solar-resource-rich countries to address their special energy needs.

The National Action Plan on Climate Change

- It has been launched in 2008.
- It aims at creating awareness about the threat posed by climate change and the steps to counter it.

Energy Conservation Building Code (ECBC), 2017

- It has been developed by Power Ministry and Bureau of Energy Efficiency.
- It seeks to promote low carbon growth by integrating the renewable energy sources in the design of the buildings

Green Rating for Integrated Habitat Assessment (GRIHA)

- It evaluates the environmental performance of a building holistically over its entire life cycle, thereby providing a definitive standard for what constitutes a green building.

Kisan Saarathi

(Topic- GS Paper III- Agriculture, Source- Financial Express)

Why in the news?

- Recently, a digital platform with the name Kisan Sarathi has been launched on the occasion of **93rd Foundation Day of the Indian Council of Agricultural Research (ICAR)**.

About Kisan Saarathi



- It has been jointly launched by the **Ministry of Agriculture and Farmers Welfare and Ministry of Electronics and Information Technology**.
- It aims to facilitate farmers to get the **right information at the right time in their desired language**.
- It will empower farmers with the technological interventions to reach farmers in remote areas.

Significance

- With the digital platform, the farmers can interact and avail personalised advisories on agriculture and allied areas directly from the respective scientists of Krishi Vigyan Kendra (KVKs).
- The initiative will be highly valuable not only in addressing the location specific information needs of the farmers but also in Agricultural Extension, Education and Research activities of ICAR.

About Krishi Vigyan Kendra

- These are agricultural extension centre in India, usually associated with a local agricultural university.
- The KVK scheme is 100% financed by the Government of India.

About Indian Council of Agricultural Research

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- It is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare.
- It was established on 16th July 1929 as Imperial Council of Agricultural Research, a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture.
- **It's headquarters at New Delhi.**

SEBI introduces expected loss-based rating scale for rating agencies

(Topic- GS Paper III- Economics, Source- Economics Times)

Why in the news?

- Recently, SEBI has introduced the expected loss-based rating that is divided into a scale of seven levels, spanning from lowest to highest expected loss.

More in the news

- Credit rating agencies will now be required to provide expected loss-based ratings for projects and instruments associated with the infrastructure sector.
- Seven Level on the new scale are :
 - a. Lowest expected loss
 - b. Very low expected loss
 - c. Low expected loss
 - d. Moderate expected loss
 - e. High expected loss
 - f. Very high expected loss
 - g. highest expected loss
- Instruments rated "EL (Expected Loss) 1" will be considered to have the lowest expected loss over the life of the instruments while those rated "EL 7" will indicate highest expected loss.
- SEBI said all the provisions in the latest circular except those pertaining to standardisation of rating scales, will be applicable with "immediate effect" for Credit Rating Agencies (CRAs).
- In cases where a rating scale has not been prescribed by a financial sector regulator or authority, CRAs will only use rating scales prescribed by the Sebi from time to time.
- The provision in the circular related to standardisation of rating scales will be effective from April 1, 2022.

Pegasus spyware

(Topic- GS Paper III- Science and Technology, Source- The Hindu)

Why in the news?

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- Recently, over 300 mobile phone numbers in India have been targeted by Pegasus.

About Pegasus spyware

Decoding Pegasus

Pegasus is a spyware, developed and licensed by an Israeli company, NSO Group. It can be used to infiltrate smartphones that run on both iOS and Android operating systems, and turn them into surveillance devices. A low down:

- Pegasus's method of attack is called zero-click attacks, which do not require any action by the user. The spyware can hack a device simply by giving a **missed WhatsApp call**
- It will **alter call logs** so that the user has no knowledge of what happened
- It can also be **installed manually** on a device or over a wireless transceiver
- If it fails to connect with its command-and-control server for more than 60 days, it **self-destructs and removes all traces**
- If it detects that it was installed on the wrong device or SIM card, it will **self-destruct**
- Amnesty International noted that despite issuing security updates, **Android and iOS devices were breached**
- To stay safe, users need to ensure that software in devices is updated and all apps are installed directly through the official stores. **No suspicious email or text should be clicked**
- Once the spyware enters the device, it installs a module to track call logs, read messages, emails, calendars, Internet history, and gather location data to send the information to the attacker



- It is Israeli-origin spyware that got into the phones of activists and journalists via WhatsApp.

Who developed it?

- It has been developed by the Israeli cyber arms firm, NSO Group.
- The NSO Group is a Tel Aviv-based cybersecurity company that specialises in “surveillance technology” and claims to help governments and law enforcement agencies across the world fight crime and terrorism.

Transmission

- The code is transmitted via WhatsApp call.
- The code enters the phone even if the call is not answered.

Who was targeted?

- According to reports, over 100 activists, lawyers, and journalists were targeted.
- Among them were several Indian lawyers and journalists

What does it do?

- It sends the target's contacts, calls and messages to its controller.
- It can also turn the phone into a spy device by switching on the camera or microphone

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What kind of devices is vulnerable?

- All devices, practically, iPhones have been widely targeted with Pegasus through Apple's default iMessage app and the Push Notification Service (APNs) protocol upon which it is based.
- The spyware can impersonate an application downloaded to an iPhone and transmit itself as push notifications via Apple's servers.
- One of the worrying aspects of the Pegasus spyware is how it has evolved from its earlier spear-phishing methods using text links or messages to '**zero-click attacks which do not require any action from the phone's user**

Related Information

About Zero-click attacks

- A zero-click attack helps spyware like Pegasus gain control over a device without human interaction or human error.
- So all awareness about how to avoid a phishing attack or which links not to click are pointless if the target is the system itself.
- Most of these attacks exploit software that receive data even before it can determine whether what is coming in is trustworthy or not, like an email client.

Preventive measures

- Zero-click attacks are hard to detect given their nature and hence even harder to prevent.
- Detection becomes even harder in encrypted environments where there is no visibility on the data packets being sent or received.

Updation

- One of the things users can do is to ensure all operating systems and software are up to date so that they would have the patches for at least vulnerabilities that have been spotted.
- Also, it would make sense to not sideload any app and to download only via Google Play or Apple's App Store.

Monkey B virus

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(Topic- GS Paper III- Science and Technology, Source- Indian Express)

Why in the news?

- Recently, China has reported the first human infection case with Monkey B virus (BV).

About Monkey B virus



- The virus, initially isolated in 1932, is an alphaherpesvirus enzootic in macaques of the genus Macaca.
- B virus is the only identified old-world-monkey herpes virus that displays severe pathogenicity in humans.

Transmission

- The infection can be transmitted via direct contact and the exchange of bodily secretions of monkeys.
- According to the Centre for Disease Control and Prevention, Macaque monkeys commonly have this virus, and it can be found in their saliva, faeces (poop), urine (pee), or brain or spinal cord tissue.
- The virus may also be found in cells coming from an infected monkey in a lab.
- B virus can survive for hours on surfaces, particularly when moist.

Human-to-human transmission

- Till date, only one case has been documented of an infected person spreading B virus to another person.

Fatality

- It has a fatality rate of 70 per cent to 80 per cent.

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Symptoms

- Symptoms typically start within one month of being exposed to B virus, but could appear in as little as three to seven days.
- The first indications of B virus infection are typically flu-like symptoms such as fever and chills, muscle ache, fatigue and headache, following which an infected person may develop small blisters in the wound or area on the body that came in contact with the monkey.
- Some other symptoms of the infection include shortness of breath, nausea and vomiting, abdominal pain and hiccups.

Near-Earth Asteroid Scout : NASA's new spacecraft

(Topic- GS Paper III- Science and Technology, Source- The Hindu)

Why in the news?

- Recently, NASA announced that its new spacecraft, named NEA Scout, has completed all required tests and has been safely tucked inside the Space Launch System (SLS) rocket.
- NEA Scout is one of several payloads that will hitch a ride on Artemis I, which is expected to be launched in November 2021.

About NEA Scout

- Near-Earth Asteroid Scout, or NEA Scout, is a small spacecraft, about the size of a big shoebox.
- Its main mission is to fly by and collect data from a near-Earth asteroid.
- **It will also be America's first interplanetary mission using special solar sail propulsion.**
- NEA Scout will use stainless steel alloy booms and deploy an aluminium-coated sail measuring 925 square feet.
- The spacecraft will take about two years to cruise to the asteroid and will be about 93 million miles away from Earth during the asteroid encounter.

How will it study the asteroid?

- NEA Scout is equipped with special cameras and can take pictures ranging from 50 cm/pixels to 10 cm/pixels.
- It can also process the image and reduce the file sizes before sending them to the earth-based Deep Space Network via its medium-gain antenna.

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- "The images gathered by NEA Scout will provide critical information on the asteroid's physical properties such as orbit, shape, volume, rotation, the dust and debris field surrounding it, plus its surface properties," said Julie Castillo-Rogez, the mission's principal science investigator at NASA's Jet Propulsion Laboratory (JPL).

Related Information

Artemis I mission

- It will be launched in November 2021.
- It will be an uncrewed test flight of the Orion spacecraft and SLS rocket.
- Under the Artemis programme, NASA has aimed to land the first woman on the Moon in 2024 and also establish sustainable lunar exploration programs by 2030.

ISRO's Moon Exploration

About Chandrayaan – 3

- It is the successor to the Chandrayaan-2 mission which will likely attempt another soft-landing on the lunar surface.
- It will be almost a repetition of the July 2019 Chandrayaan-2 mission in the configuration of spacecraft, the landing spot on the moon and the experiments to be conducted on the lunar surface.

About Chandrayaan- 2 Mission

- ISRO has launched the Chandrayaan-2 mission to the Moon in July, but its lander failed to reach the lunar surface.
- It is a completely indigenous mission, is India's second lunar exploration mission which the following basic components.

These are

Orbiter

- It will observe the lunar surface and relay communication between Earth and Chandrayaan 2's Lander.

Lander (called Vikram)

- It has been designed to execute India's first soft landing on the lunar surface.

Rover (called Pragyan)

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- It is a 6-wheeled, AI powered vehicle, which will move on the lunar surface and perform on-site chemical analysis.

Launcher

It was launched by Geosynchronous Satellite Launch Vehicle GSLV MkIII-M1.

It is India's most powerful launcher to date and has been completely designed and fabricated from within the country

History of Moon exploration in the world

- In 1959, the **Soviet Union's uncrewed Luna 1 and 2** became the first rover to visit the Moon.
- Since then, seven nations have followed suit.
- Before the US sent the **Apollo 11 mission to the Moon**, it sent three classes of robotic missions between 1961 and 1968. After July 1969, 12 American astronauts walked on the surface of the Moon until 1972.
- Then in the 1990s, the US resumed lunar exploration with robotic **missions Clementine and Lunar Prospector**.
- In 2009, it began a new series of robotic lunar missions with the launch of the **Lunar Reconnaissance Orbiter (LRO) and the Lunar Crater Observation and Sensing Satellite (LCROSS)**.
- In 2011, NASA began the **ARTEMIS (Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun)** mission using a pair of repurposed spacecraft.
- In 2012, the **Gravity Recovery and Interior Laboratory (GRAIL)** spacecraft studied the Moon's gravity.
- Apart from the US, the European Space Agency, Japan, China, and India have sent missions to explore the Moon.
- China landed two rovers on the surface, which includes the first-ever landing on the Moon's far side in 2019.

NBDriver (neighbourhood driver)

(Topic- GS Paper III- Science and Technology, Source- The Hindu)

Why in the news?

- Researchers at IIT Madras have recently developed an **AI tool called NBDriver (neighbourhood driver)**.

About NBDriver (neighbourhood driver)

- It is used in analysing cancer-causing mutations in cells.
- The algorithm of NBDriver studies the DNA structures and characterizes the genetic changes which are responsible for causing cancer.
- By looking at the neighbourhood, or context, of a mutation in the genome, it can look at harmful “driver” mutations and distinguish them from neutral “passenger” mutations.

Related Information

About Cancer

- Cancer is caused due to the uncontrolled growth of cells driven mainly by genetic alterations.
- In recent years, high-throughput DNA Sequencing has revolutionized the area of cancer research by enabling the measurement of these alterations

Project Loon

(Topic- GS Paper III- Science and Technology, Source- The Hindu)

Why in the news?

- Recently, Florida has requested the USA to greenlight a plan to transmit the Internet to people in Cuba via high-altitude balloons.

About Project Loon



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- It is a search engine project by **Google for providing internet access to rural and remote areas using high-altitude helium-filled balloons.**
- It aims to develop an aerial wireless network with upto **4G LTE speeds.**
- **Project Loon began as a research and development project by Google X, but later spun out into a separate company in July 2018**
- The Loon balloons are effectively cell towers the size of a tennis court.
- They float 60,000 to 75,000 feet (18,000- 23,000 meters) above the Earth, well above commercial jetliner routes.
- **These are made of the commonplace plastic polyethene and use solar panels for electricity.**
- These can deliver service to smartphones in partnership with local telecom and each balloon can serve thousands of people.
- However, they have to be replaced every five months or so because of the harsh conditions in the stratosphere.

IBBI amends insolvency rules to help improve transparency

(Topic- GS Paper III-Economics, Source- The Hindu)

Why in the news?

- Recently, the Insolvency and Bankruptcy Board of India (IBBI) has amended the Insolvency and Bankruptcy Board of India (Insolvency Resolution Process for Corporate Persons) Regulations.

More in the news

- The amendments were aimed at enhancing “the discipline, transparency, and accountability in corporate insolvency proceedings”.

For effective monitoring

- A resolution professional was duty-bound to find out if a corporate debtor (CD) had been subject to avoidance transactions, namely, preferential transactions, undervalued transactions, extortionate credit transactions, fraudulent trading and wrongful trading, and file applications with the adjudicating authority seeking appropriate relief.
- This not only claws back the value lost in such transactions increasing the possibility of reorganisation of the corporate debtor through a resolution plan, but also disincentives such transactions preventing stress to the corporate debtor.
- For effective monitoring, the amendment requires the resolution professional (IRP) to file Form CIRP 8 on the electronic platform of the Board, intimating details of his opinion and determination in respect of avoidance transactions.

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About Insolvency and Bankruptcy Board of India

- It is the regulating authority for insolvency and bankruptcy proceedings in the country.
- It also oversees the activities of bodies such as the Insolvency Professional Agencies (IPA), Insolvency Professionals (IP) and Information Utilities (IU), Registered Valuers, and Registered Valuer Organisations.
- **It was established as a statutory body in 2016 under the Insolvency and Bankruptcy Code, 2016.**
- The IBBI makes and implements rules governing the corporate insolvency resolution process, individual insolvency, corporate liquidation and individual bankruptcy under the IBC.
- It plays as a major pillar in the implementation of the IBC that implements the insolvency and reorganisation resolution process of corporates, individuals and partnerships in a time-bound manner for all the stakeholders.
- The IBBI is a unique regulator in that it regulates both a profession and the processes.

Further Reading: **Insolvency and Bankruptcy Code, 2016 and Insolvency and Bankruptcy Cod ordinance 2020**

AMLEX

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Indian Institute of Technology (IIT Ropar) scientists has recently developed the country's first of its kind oxygen rationing device "AMLEX" which will increase the life of an oxygen cylinder by three times.

About AMLEX



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INNOVATION FOR COMBATING OXYGEN WASTAGE!

IIT Ropar Develops AMLEX First-of-its-kind Oxygen Rationing Device

- The device increase the life of medical oxygen cylinders three-fold and help reduce oxygen wastage
- Can operate on both portable power supply (battery) as well as line supply
- Made specifically for oxygen cylinders, AMLEX can be easily connected between the oxygen supply line and the mask worn by the patient
- Use sensor to detect inhalation and exhalation of the user in any environmental condition

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- It is a system developed specifically for oxygen cylinders synchronising the flow of oxygen with inhalation and exhalation of the patient, thus conserving a large amount of oxygen in the reservoir for a long-lasting operation.

Significance

- It supplies a required volume of oxygen to the patient during inhalation and trips when the patient exhales CO₂, it saves the flow of oxygen at that time.
- It helps to reduce the wastage of oxygen because previously during exhalation, the oxygen in the oxygen cylinder/pipe is pushed out along with the exhaled CO₂ by the user.
- This leads to the wastage of a large volume of oxygen in the long run.

Akash-NG weapon system

(Topic- GS Paper III-Defence, Source- The Hindu)

Why in the news?

- Recently, a new generation of Akash surface-to-air missiles was successfully flight-tested by the DRDO from an integrated test range off the Odisha coast in a boost to air defence capabilities.
- The DRDO also successfully flight-tested an indigenously developed low weight **man-portable anti-tank guided missile**, paving the way for its production for the Army.

Significance



- Once deployed, the Akash-NG weapon system will prove to be a force multiplier for the air defence capability of the IAF.
- The new variant of the Akash missile (Akash-NG) has a slightly better range compared to the original version that can strike targets at a distance of around 25 km.

About Akash NG Missile

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- It is a medium-range mobile surface to surface air missile defence system developed by the Defence Research and Development Organization, DRDO and produced by Bharat Dynamics Limited for Missile Systems.
- It can neutralize aerial targets such as fighter jets, cruise missiles and air to surface missiles and ballistic missiles.
- It has been deployed as an operational service with the Indian Army and the Indian Air Force.

Variants of Akash Missile

Akash 1S

- This missile has a strike range of 30 kilometres and is capable to carry a warhead of 60 kilograms.

Mark II

- This has an intercept range of 40 kilometres and the accuracy has been increased for the missile guidance system.

Akash NG

- The range of the missile is 80 kilometres and has an active electronically scanned array MultiFunction Radar (MFR) and Optical Proximity Fuze system.

About Man-Portable Anti-Tank Guided Missile (MPATGM)

- It is a third-generation anti-tank guided missile (ATGM) indigenously developed by DRDO.
- It has a strike range of 2.5 km.
- It is capable of being fired from the shoulder and can be used during day and night.
- It has a minimum lateral centre and gravity offset.
- It works on fire and forgets principle and is known for its top attack capabilities.
- It is effective against both stationary and moving targets.
- It will be deployed in infantry and parachute battalions of the Indian Army

Microplastics in Ganga

(Topic- GS Paper III-Environment, Source- The Hindu)

Why in the news?

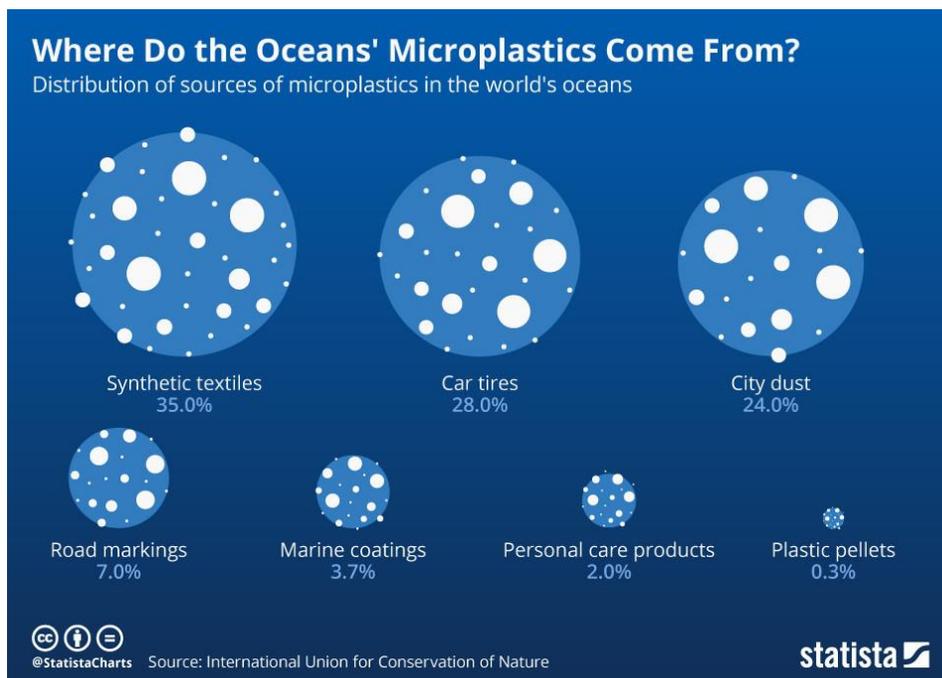
- Recently, a Delhi-based environment NGO, Toxics Link, has revealed pollution by microplastics in Ganga River.

Key findings

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- The study, ‘Quantitative analysis of Microplastics along River Ganga’, was based on an analysis of water samples at Haridwar, Kanpur and Varanasi.
- The highest concentration of such plastic was found at Varanasi, comprising single-use and secondary plastic products.
- The samples were tested to identify the exact type or resin core and the results show the presence of at least 40 different kinds of polymers as microplastics.
- Microbeads were observed in Varanasi and Kanpur, while no beads were found in Haridwar.
- The most frequent size range observed in all the samples was **<300 micrometre**.

About Microplastics



- Plastic is the most ubiquitous type of marine debris found in oceans and other water bodies.
- The debris can be of any size and shape, but those which are less than **5 mm in length (or about the size of a sesame seed)** are called **microplastics**.

They can be divided into two main categories according to their source:

a. Primary microplastics

- Directly released in the environment as small particles

Main sources

- Laundering of synthetic clothes (35% of primary microplastics)

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- Abrasion of tyres through driving (28%)
- Intentionally added microplastics in personal care products, for example microbeads in facial scrubs (2%)

Secondary microplastics

- Originate from degradation of larger plastic objects, such as plastic bags, bottles or fishing nets

Effects of micro plastics

- Micro plastics are found in growing quantities in the ocean.
- Micro plastics found in the sea can be ingested by marine animals.
- The plastic then accumulates and can end up in humans through the food chain
- They have been found in food and drinks, including beer, honey and tap water.
- The effect on human health is as yet unknown, but plastics often contain additives, such as stabilizers or flame-retardants, and other possibly toxic chemical substances that may be harmful to the animal or human ingesting them.

Related Information

Global Initiatives

- Concerns are growing worldwide about increasing plastic pollution, with a particular focus on the oceans, where nearly 50% of single-use plastic products end up killing marine life and entering the human food chain.
- In this regard, the European Union has planned to ban single-use plastic items such as straws, forks, knives and cotton buds by 2021.
- China's commercial hub of Shanghai is gradually restraining the use of single-use plastics in catering services. Its island province of Hainan has vowed to completely eliminate single-use plastic by 2025.
- On World Environment Day, 2018 the world leaders vowed to **“Beat Plastic Pollution”** & eliminate its use completely.

India's Initiatives

- Prime Minister has made announcements on August 15 and October 2 2019 that India would eliminate single-use plastics (SUPs) by 2022.

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- The Nodal Ministry for the scheme is the Ministry of Environment, Forests and Climate Change (MoEF&CC) ensured with the task of:
 - a. It has a task of enforcing the ban on single-use plastics.
 - b. It also has the task in finalizing the pending policy for Extended Producer Responsibility (a policy approach under which producers are given a significant responsibility financially and/or physically for the treatment or disposal of post-consumer products) for milk products.

RBI plans digital currency pilots soon

(Topic- GS Paper III-Environment, Source- The Hindu)

Why in the news?

- The Reserve Bank of India is likely to soon kick off pilot projects to assess the viability of using digital currency to make wholesale and retail payments to help calibrate its strategy for introducing a full-scale central bank digital currency (CBDC).

Background

- On 25 January 2021, the Reserve Bank of India (RBI) stated that it is examining if there's a need to introduce Central Bank Digital Currency (CBDC) in India. In case, the need for a digital currency arises, the bank will look for ways to operationalise it.
- In its February 2020 Bulletin, RBI cited the survey of central banks conducted by the Bank for International Settlements which revealed that around 80% of the 66 responding banks have started projects to explore the use of CBDC, including Canada, USA and Singapore.

About Central Bank Digital Currency (CBDC)

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Source: Bank of England

- The Central Bank Digital Currency (CBDC) is a legal tender and liability of a nation's central bank in the digital form.
- It is denominated in a sovereign currency and appears on the balance sheet of a nation's central bank.
- CBDC is a digital currency which can be converted/exchanged at par with similarly denominated cash and traditional central bank deposits of a nation.

Need for CBDCs in India

- The Digital Rupee provides India with the opportunity to establish the dominance of Digital Rupee as a superior currency for trade with its strategic partners, thereby reducing its dependency on the dollar.
- It will also help India in addressing the malpractices such as tax evasion, terror funding, money laundering, etc., as the central bank can keep a check on every unit of the digital currency.

Recent Development

- In June 2021 **El Salvador** has become the first country in the world to formally adopt bitcoin as legal tender.
- In May 2020, China started testing its Digital Yuan - Digital Renminbi (RMB).
- Several other nations have also started research and pilot projects related to CBDC such as Canada, USA and Singapore.

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- China and USA are also battling to gain the supremacy across markets with the introduction of new-age financial products and India may get caught up in this digital proxy war.
- Furthermore, there's a wide disconnect between the number of bank accounts and mobile phone connections in India and CBDC can possibly bridge this gap.

H5N1 avian influenza

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

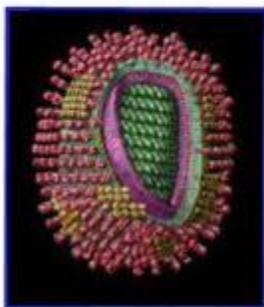
- Recently, an 11-year-old boy died of H5N1 avian influenza making this the first recorded death due to the bird flu in India of 2021.

About Bird Flu or Avian Influenza

- Avian influenza (AI) commonly called bird flu is a highly contagious viral disease caused by Influenza Type A viruses which generally affects poultry such as chickens and turkeys
- These viruses occur naturally among wild aquatic birds worldwide and can infect domestic poultry and other bird and animal species.

About H5N1

What Is H5N1?



- ◆ Influenza A from the family of Orthomyxoviridae
- ◆ Negative single-strand RNA virus with segment genome
- ◆ Haemagglutinin and Neuraminidase viral proteins
- ◆ 15 subtypes of haemagglutinin and 9 subtypes of neuraminidase
- ◆ All subtypes exist in wild aquatic birds

- H5N1 is a type of influenza virus that causes a highly infectious, severe respiratory disease in birds called avian influenza.
- Most avian influenza viruses do not infect humans.

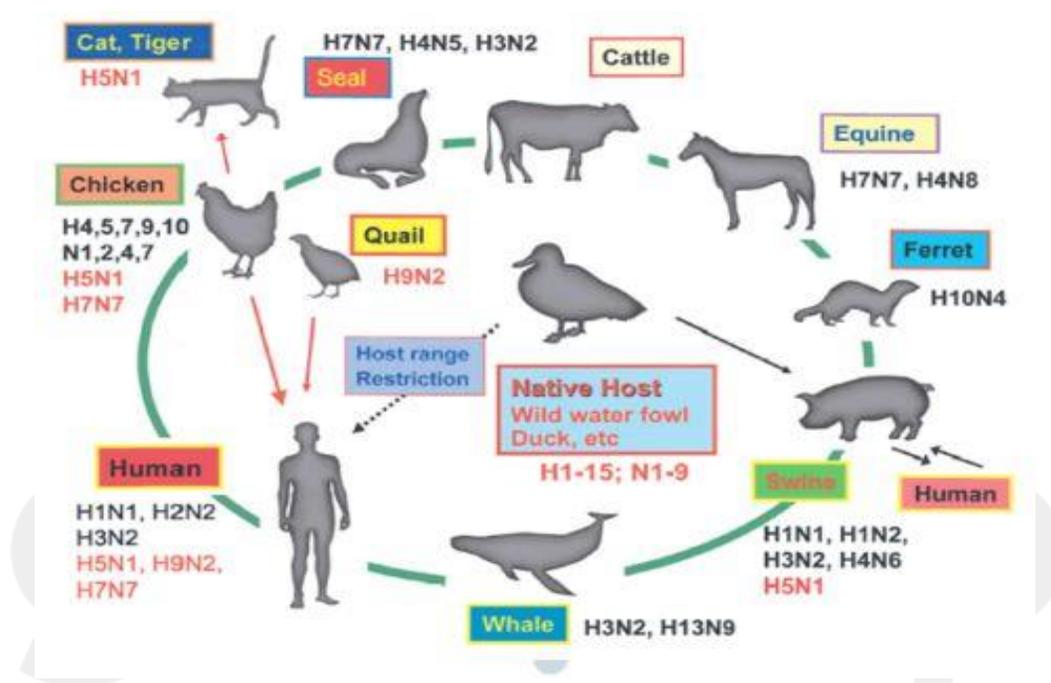
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- However, some, such as A (H5N1) and A (H7N9), have caused serious infections in people.
- Human cases of H5N1 avian influenza occur occasionally, but it is difficult to transmit the infection from person to person.

How does H5N1 influenza spread to people?



World Health Organization Observation

- According to the WHO, it does not usually spread from person to person.
- The WHO has also pointed out that there is no evidence for the virus to spread through properly prepared and cooked poultry as the virus is sensitive to heat and dies in cooking temperatures.
- However, it can be deadly when it does infect humans, with a mortality rate of almost 60%.

Note:

- Recently, samples from Rajasthan, Madhya Pradesh, Haryana and Kerala had tested positive for the A (H5N8) strain of the virus, while samples from Himachal Pradesh had tested positive for A (H5N1).

e-Santa Platform

(Topic- GS Paper III-Agriculture, Source- The Hindu + PIB)

Why in the news?

- Many aquaculture farmers in Andhra Pradesh have recently planning to update the details of their produce online and market their stocks through **e-Santa Platform**.

About e-Santa Platform

- The term e-SANTA was coined for the web portal, meaning **Electronic Solution for Augmenting NaCSA farmers' Trade in Aquaculture**.
- e-Santa is a platform to connect aqua farmers and buyers across the country, to avoid middlemen

e-SANTA will RAISE the lives & income of farmers by:

- Reducing Risk
- Awareness of Products & Markets
- Increase in Income
- Shielding Against Wrong Practice
- Ease of Processes

Significance

- It will act as an alternative marketing tool between farmers & buyers by eliminating middlemen.
- It will revolutionize traditional aquafarming by providing cashless, contactless and paperless electronic trade platform between farmers and exporters.
- e-SANTA can become a tool to advertise collectively the kind of products the buyers, fishermen & fish producing organisations are harvesting, so people in India & internationally can know what is available & in the future, it can become an auction platform", .
- The Platform is available in many languages, which will help the local population.

About National Centre for Sustainable Aquaculture (NaCSA)

- National Centre for Sustainable Aquaculture (NaCSA) is an extension arm of Marine Products Export Development Authority (MPEDA) under the Ministry of Commerce & Industry.

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Objectives

- The objectives of NaCSA are to encourage and uplift the small and marginal farmers through organization of clusters and maintaining Best Management Practices in shrimp culture.
- The primary advantage of cluster approach to shrimp farming is that it contributes to substantial reduction in cost of production.

Bhartiya Prakritik Krishi Padhati (BPKP)

(Topic- GS Paper III-Agriculture, Source- PIB)

Why in the news?

- Government is implementing Bhartiya Prakritik Krishi Padhati (BPKP) as a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21 for the promotion of traditional indigenous practices.

About Bhartiya Prakritik Krishi Padhati (BPKP)

- The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on biomass mulching;
 - a. use of cow dung-urine formulations;
 - b. plant-based preparations and time to time working of soil for aeration.

Financial Assistance

- Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.

Note: Telangana has not taken up natural farming so far under BPKP programme.

About Paramparagat Krishi Vikas Yojana (PKVY)

- Paramparagat Krishi Vikas Yojana, launched in 2015 is an elaborated component of Soil Health Management (SHM) of major project **National Mission of Sustainable Agriculture (NMSA)**.
- Under PKVY, Organic farming is promoted through adoption of organic villages by cluster approach and Participatory Guarantee System (PGS) certification.

About Organic Farming

- According to FSSAI, 'organic farming' is a system of farm design and management to create an ecosystem of agriculture production without the use of synthetic external inputs such as chemical fertilisers, pesticides and synthetic hormones or genetically modified organisms.
- Organic farm produce means the produce obtained from organic agriculture, while organic food means food products that have been produced in accordance with specified standards for organic production

Other Government Initiatives to Promote Organic Farming

Mission Organic Value Chain Development for North East Region (MOVCD)

- Mission Organic Value Chain Development for North East Region (MOVCD-NER) is a Central Sector Scheme, a sub-mission under National Mission for Sustainable Agriculture (NMSA).
- It was launched by the Ministry of Agriculture and Farmers Welfare in 2015 for implementation in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- The scheme aims to develop certified organic production in a value chain mode to link growers with consumers and to support the development of the entire value chain.

Certification Schemes

- **Participatory Guarantee System (PGS)**
 - PGS is a process of certifying organic products, which ensures that their production takes place in accordance with laid-down quality standards.
 - PGS Green is given to chemical free produce under transition to 'organic' which takes 3 years.
 - It is mainly for domestic purpose.
- **Food Safety and Standards Authority of India (FSSAI)**
 - It is the food regulator in the country and is also responsible for regulating organic food in the domestic market and imports.
- **National Program for Organic Production (NPOP)**
 - NPOP grants organic farming certification through a process of third party certification for export purposes.
- **Soil Health Card Scheme**
 - Soil Health Card Scheme has led to a decline of 8-10% in the use of chemical fertilizers and also raised productivity by 5-6%.

One District - One Product (ODOP)

- The programme aims to encourage more visibility and sale of indigenous and specialized products/crafts of Uttar Pradesh, generating employment at the district level.
- The presence of aggregators is imperative to bring about economies of scale for the small and marginal farmers.

PM Formalization of Micro Food Processing Enterprises (PM FME)

- The Ministry of Food Processing Industries (MoFPI) launched the PM FME scheme as a part of 'Atmanirbhar Bharat Abhiyan'.
- It aims to bring in new technology, apart from affordable credit to help small entrepreneurs penetrate new markets.

G20 meet: India says made significant progress in meeting NDC targets

(Topic- GS Paper III- Environment, Source- The Hindu)

Why in the news?

- Recently, India has urged the group of 20 nations (G20) having per capita greenhouse gas (GHG) emissions above the global average to bring it down to the world average, thereby vacating 'some' carbon space for developing nations.
- **India says made significant progress in meeting NDC targets.**

Achievement of India NDC Targets

- The government of India informed that India has already achieved an emission reduction of **28% over 2005 levels against the targeted emission reduction of 33-35 % by 2030.**
- **India plans to reduce its carbon footprint by 33-35% from its 2005 levels by 2030, as part of its commitments to the United Nations Framework Convention on Climate Change adopted by 195 countries in Paris in 2015.**
- India has also committed to having 40% of its total installed power generation capacity renewable by 2030.
- **India already has achieved 38.5 % installed capacity from renewable and when the renewable capacity under construction is also accounted for, the share of renewable in the installed capacity goes well over 48%, which is way above the commitments made under the Paris Agreement.**
- This assumes significance in a country that is the biggest emitter of greenhouse gases after the US and China and is among the countries most vulnerable to climate change.

About Paris Agreement

- It is also known as the Conference of Parties 21 or COP 21 which is a landmark environmental accord that was adopted in 2015 to address climate change and its negative impacts.
- It replaced the Kyoto Protocol which was an earlier agreement to deal with climate change.

Aims

- To reduce global GHG emissions to limit the global temperature increase in this century to well below 2°C above pre-industrial levels, while pursuing means to limit the increase to 1.5°C by 2100.

It includes:

- Addressing the financial losses vulnerable countries face from climate impacts such as extreme weather.
- Raising money to help developing countries adapt to climate change and transition to clean energy.
- This part of the deal has been made non-legally binding on developed countries.
- Before the conference started, more than 180 countries had submitted pledges to cut their carbon emissions (Intended Nationally Determined Contributions or INDCs).

Intended Nationally determined contributions

- The Paris Agreement requires all Parties to put forward their best efforts through nationally determined contributions (NDCs) and to strengthen these efforts in the years ahead.
- This includes requirements that all Parties report regularly on their emissions and their implementation efforts.
- **It is not legally binding.**
- India also reaffirmed its **Intended Nationally Determined Contributions** commitments to meeting the goals under the Agreement to combat climate change.

India's INDC, to be achieved primarily, by 2030

- India promised to reduce the “emissions intensity of its GDP by 33-35 % by 2030 from 2005 level.
- It will achieve about "40% cumulative electric power installed capacity from non-fossil fuel-based energy resources (mainly renewables like wind and solar power) by 2030" with the help of the transfer of technology and low-cost international finance, including from the Green Climate Fund.
- India also promised an additional carbon sink (a means to absorb carbon dioxide from the atmosphere) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

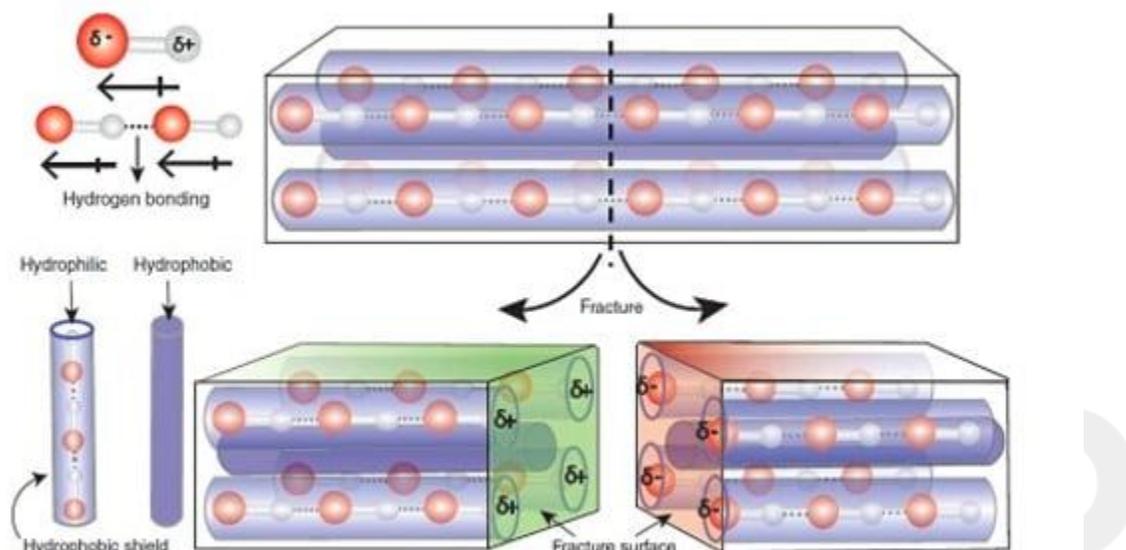
Bipyrazole organic crystals

(Topic- GS Paper III-Science and Technology, Source- News18)

Why in the news?

- Recently, Scientists have developed Bipyrazole **organic crystals** that repair their mechanical damage without the need for any external intervention.

About Bipyrazole organic crystals



- It belongs to piezoelectric crystals.
- Piezoelectric crystals are a class of materials that generate electricity when it undergoes a mechanical impact.
- The piezoelectric molecules developed by the scientists recombine following mechanical fracture without any external intervention, autonomously self-healing in milliseconds with crystallographic precision.

Significance

- The devices that are used daily often break down due to mechanical damage, forcing users either to repair or replace them.
- It decreases the life of the equipment and increases maintenance costs.
- In many cases, like in a spacecraft, human intervention for restoration is not possible.

PDS 70: Moon-forming region seen around exoplanet for the first time

(Topic- GS Paper III-Science and Technology, Source- News18)

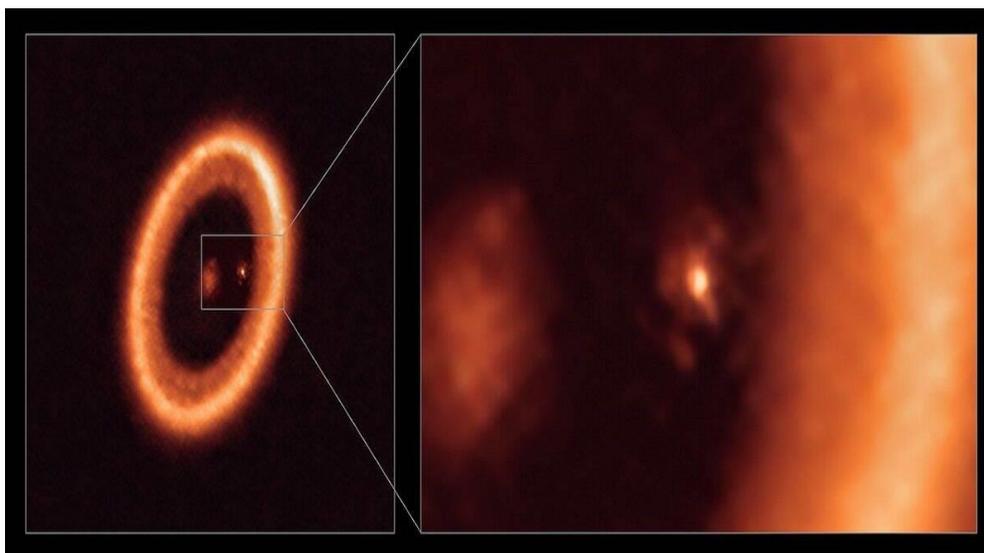
Why in the news?

- Scientists for the first time have spotted a Moon-forming region around a planet beyond our solar system - a Jupiter-like world surrounded by a disc of gas and dust massive enough that it could spawn three moons the size of the one orbiting Earth.

More in the news

- The researchers used the **ALMA observatory in Chile's Atacama desert** to detect the disc of swirling material accumulating around one of two newborn planets seen orbiting a young star called **PDS 70**, located a relatively close 370 light-years from Earth.
- It is called a circumplanetary disc, and it is from these that moons are born.

About PDS 70



- It's a Jupiter-like world surrounded by a disc of gas and dust massive enough that it could spawn three moons the size of the one orbiting Earth.
- The orange-coloured star PDS 70, roughly the same mass as our Sun, is about 5 million years old.
- **It is PDS 70c a Moon-forming disc was observed.**
- **PDS 70c orbits its star at 33 times the distance of the Earth from the sun, similar to the planet Neptune in our solar system.**
- Birth of a moon Stars burst to life within clouds of interstellar gas and dust scattered throughout galaxies.
- Leftover material spinning around a new star then coalesces into planets, and circumplanetary discs surrounding some planets similarly yield moons.
- The dominant mechanism thought to underpin planet formation is called “core accretion,”

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Core accretion

- Core accretion occurs from the collision and coagulation of solid particles into gradually larger bodies until a massive enough planetary embryo is formed (10-20 Earth masses) to accrete a gaseous envelope.
- A scenario where, small dust grains, coated in ice, gradually grows to larger and larger sizes through successive collisions with other grains.
- This continues until the grains have grown to a size of a planetary core, at which point the young planet has a strong enough gravitational potential to accrete gas which will form its atmosphere.

Significance

- The discovery offers a deeper understanding of the formation of planets and moons.

Periodic Labour Force Survey (PLFS)

(Topic- GS Paper III-Economics, Source- Indian Express)

Why in the news?

- The government has recently released the latest annual report of the Periodic Labour Force Survey (PLFS).
- The data was for the 12 months (or four quarters) between July 2019 and June 2020.

Key highlights

- The Report showed two surprising trends.
 - a. India's unemployment rate (UER) had declined over the period between July 2019 and June 2020.
 - b. The Labour Force Participation Rate (LFPR) had increased.
- Over the last decade, two of the biggest worries for Indian policymakers have been the high levels of UER and the low levels of LFPR in the economy.

About Labour Force Participation Rate (LFPR)

- It is the proportion of Indians who seek to participate in the economy.
- In the recent past, India's LFPR has been less than 40% — far below the global norm (around 60%) or even the norm in most Asian counterparts such as China (76%) and Indonesia (69%).
- **In other words, of every 100, only 40 come forward to seek work in India, while the comparable number elsewhere is around 60.**

About Unemployment rate

- It is the percentage of people in the labour force who do not get employment.

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- Again, in the last few years, India's UER has hovered around 6% (or higher) — far more than the global or regional norm. In other words, of those 40 who chose to participate in the economy, at least 6% did not get any job.

What do Low LFPR and High UER show?

A combination of low LFPR and high UER then implies two things.

- One, India is using a much smaller proportion of its population for productive purposes.
- Two, the state of the economy is such that it cannot provide jobs to this relatively smaller proportion of the labour force.

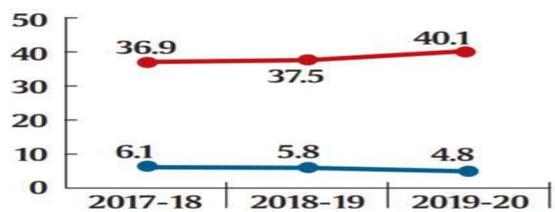
About the Periodic Labour Force Survey

- The PLFS is an annual survey conducted by **the National Statistical Office (NSO)**.
- It was started in 2017 and it essentially maps the state of employment.
- It collects data on variables such as the level of unemployment, the types of employment and their respective shares, the wages earned from different types of jobs, etc.
- **Earlier, this job was done by Employment-Unemployment Surveys, but these were conducted once every five years.**

Calculation of unemployment by PLFS

CHART-1

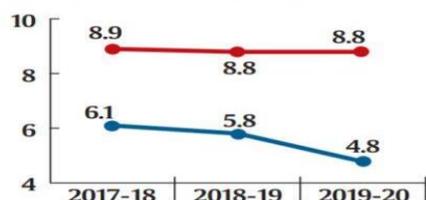
RISING LFPR, FALLING UNEMPLOYMENT RATE



■ LFPR* (%)
■ Unemployment rate** (%)
* Labour Force Participation Rate ** Usual Status

CHART-2

UNEMPLOYMENT RATE DIFFERS DRAMATICALLY BETWEEN METHODS



■ Unemployment rate (CWS)* (%)
■ Unemployment rate (US)** (%)
* Current Weekly Status ** Usual Status

There are two ways to calculate unemployment data and they differ in terms of the reference period over which respondents have to recall whether they were working or not.

- The Usual Status (US)**
 - In this approach, the survey ascertains whether a person had been employed for enough **days in the 365 days preceding the survey**.
- Current Weekly Status (CWS).**

TABLE -1
CWS DATA SHOWS A DIFFERENT PICTURE

PLFS	LFPR (in %)	Unemployment rate (in %)	*Youth Unemployment rate (in %)
July - September 2019	36.8	8.4	20.6
October - December 2019	37.2	7.9	19.2
January - March 2020	37.5	9.1	21.1
April - June 2020	35.9	20.9	34.7

*(ages 15-29)

Source for all data: PLFS 2019-20

- In this, the survey tries to figure out whether a person was **adequately employed in the 7 days preceding the survey**.
- Typically, the NSO unemployment number most routinely quoted is the one based on Usual Status.
- But this approach is not comparable with either the global norm (say the one followed by International Labour Organization) or the private sector practice (such as the surveys done by **the Centre for Monitoring Indian Economy or CMIE**).
- **The CWS is closer to the global norm.**

Nauka: Russia biggest Space laboratory

(Topic- GS Paper III-Science and Technology, Source- Indian Express)

Why in the news?

- Recently, Russia's space agency Roscosmos will be attaching a significantly larger module called Nauka with the International Space station.
- It is a path-breaking collaborative effort between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe) and CSA (Canada).

About Russia's new Nauka module

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- **The launch of Nauka, initially planned for 2007, was repeatedly delayed for various reasons.**
- It will serve as the country's main research facility on the space station.
- It is the biggest space laboratory Russia has launched to date.
- It is also bringing to the ISS another oxygen generator, a spare bed, another toilet, and a robotic cargo crane built by the European Space Agency (ESA).
- The new module was sent into orbit using a Proton rocket which is Russia's most powerful space inventory.
- It will take eight days to reach the ISS.

Puri becomes India's first city to provide quality drinking tap water

(Topic- GS Paper III-Governance, Source- The Hindu)

Why in the news?

- Recently, Puri became the first city in India where people can avail high-quality drinking water directly from the tap on a 24-hour basis under **the 'Drink from Tap project'**.

About Drink from Tap project

- No metropolitan city in India has such a facility yet to get 24- hours' basis high-quality drinking water.
- Similar facilities are available only in world-class cities like London, New York and Singapore.

Significance

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- The project would benefit 2.5 lakh citizens of Puri and 2 crore tourists who visit the tourist place every year.
- They need not have to move around with water bottles which will help to reduce plastic waste.

Related Information

About Jal Jeevan Mission

- Jal Jeevan Mission has been formed after the restructured and subsumed the ongoing National Rural Drinking Water Programme (NRDWP) which will provide **Functional Household Tap Connection (FHTC) to every rural household** i.e., Har Ghar Nal Se Jal (HGNSJ) by 2024.

Objective

- It will provide piped water supply (Har Ghar Jal) to all rural and urban households by 2024.
- It envisages a supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024.

Focused area

- The mission focuses on integrated demand and supply-side management of water at the local level.
- The creation of local infrastructure for source sustainability measures as mandatory elements, like rainwater harvesting, groundwater recharge and management of household wastewater for reuse, would be undertaken in convergence with other government programmes/schemes.
- The Jal-Jeevan Mission is set to be based on various water conservation efforts like point recharge, desilting of minor irrigation tanks, use of grey-water for agriculture and source sustainability.
- The Mission is based on a community approach to water and includes extensive Information, Education and Communication as a key component of the mission.
- **The 73rd Amendment to the Constitution of India has placed the subject of drinking water in the 11th Schedule.**

Funding Pattern:

- The fund sharing pattern between the
 - a. Centre and states are 50:50
 - b. for Himalayan and North-Eastern States, 90:10
 - c. for other states, and 100% for Union Territories.
- The Jal Jeevan Mission will converge with other Central and State Government Schemes to achieve its objectives of sustainable water supply management across the country.

Institutional Arrangement:

1. National Jal Jeevan Mission (NJJM) at the Central level
2. State Water and Sanitation Mission (SWSM) at the State level
3. District Water and Sanitation Mission (DWSM) at the District level
4. Village Water Sanitation Committee (VWSC) at Village level

About Jal Jeevan Mission for Urban areas (JJM-Urban)

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- It aims at a universal water supply in all 4,378 Urban Local Bodies with 2.86 crore household tap connections, as well as liquid waste management in 500 AMRUT cities.
- It will be implemented over 5 years.

Nodal Agency

- Ministry of Jal Shakti is the nodal agency of JJM-Urban.

Thane Creek Flamingo Sanctuary proposed as MMR's Ramsar site

(Topic- GS Paper III-Environment, Source- The Hindu)

Why in the news?

- The Mumbai Metropolitan Region is likely to get its first Ramsar site at the Thane Creek Flamingo Sanctuary, with the Maharashtra Mangrove Cell submitting the proposal for approval to the State Wetland Authority.

More in the news

- The department would be setting up a task force to conduct a fresh exercise to identify, demarcate, and preserve wetlands left out of coastal zones and inland areas in the State.

About Ramsar Convention

- The Convention on Wetlands is an intergovernmental treaty adopted on 2 February 1971 in the Iranian city of Ramsar, on the southern shore of the Caspian Sea.
- Those wetlands which are of international importance are declared as Ramsar sites.
- The 2 February is celebrated as "**World Wetlands Day**" every year.
- The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world"

Secretariat

- The secretariat of the Ramsar convention is located in Gland, Switzerland

Ramsar site criteria

- A wetland can be considered internationally important if any of the following nine criteria apply:

Criterion 1

- It contains a representative, rare, or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region."

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Criterion 2

- It supports vulnerable, endangered, or critically endangered species or threatened ecological communities."

Criterion 3

- It supports populations of plant and/or animal species important for maintaining the biological diversity of a particular biogeographic region."

Criterion 4

- It supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.

Criterion 5

- It regularly supports 20,000 or more water birds.

Criterion 6

- It regularly supports 1% of the individuals in a population of one species or subspecies of water birds.

Criterion 7

- It supports a significant proportion of indigenous fish subspecies, species or families, life-history stages, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.

Criterion 8

- It is an important source of food for fishes, spawning grounds, nursery and/or migration paths on which fish stocks, either within the wetland or elsewhere, depend.

Criterion 9

- It regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

Maguri-Motapung wetland

(Topic- GS Paper III-Environment, Source- The Hindu

Why in the news?

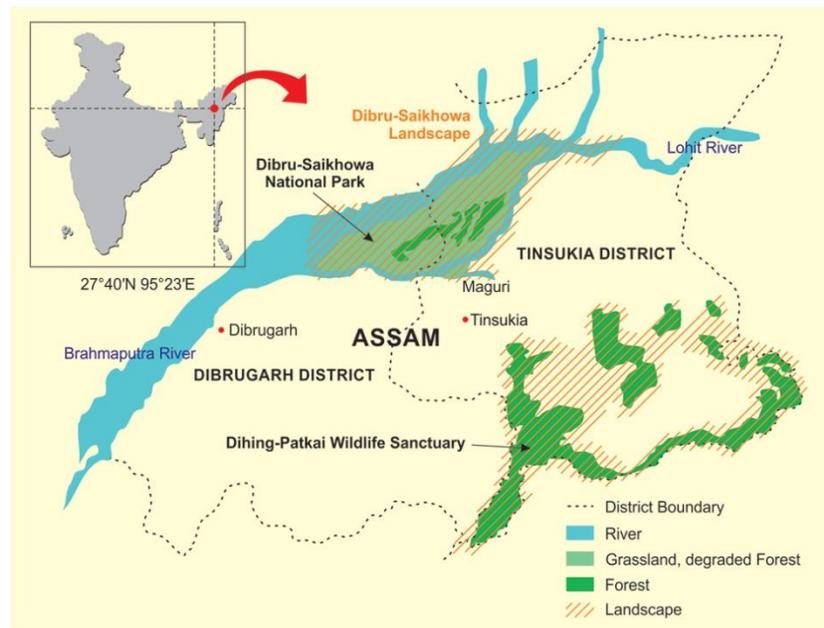
- Recently, at least six people were injured when scores of people from Baghjan village in eastern Assam's Tinsukia district clashed with the security forces demanding

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compensation for damages caused by a **natural gas well blowout more than a year ago.**

- In this Gas leak, three OIL employees and some birds and aquatic animals in **the adjoining Maguri-Motapung wetland had died.**

About Maguri-Motapung wetland



- It derives its name from 'Magur', the local word for the catfish (*Clarius batrachus*) once found here in abundance.
- It is located close to the Dibru Saikhowa National Park in Upper Assam's Tinsukia district.
- The Dibru River flows from east to west through the wetland.
- To the northwest of the wetland is a river, which was once, called Dangori.
- It has been captured by the bigger river Lohit.

Significance

- The wetland regime is a critical part of the Dibru-Saikhowa Biosphere Reserve, an ecological corridor to Namdapha National Park and sustains the ecological integrity of the Indo-Burma Biodiversity Hotspot.
- It has grassland adjacent to it and the entire ecosystem (grassland and wetland) is very important as it is home to at least 304 bird species, including several endemic ones like Black-breasted parrotbill and Marsh babbler.
- It was declared an **Important Bird and Biodiversity Area (IBA)** in 1996 by the **Bombay Natural History Society.**

IMF cuts emerging Asia, India growth forecasts

(Topic- GS Paper III –Economics– Source-The Hindu)

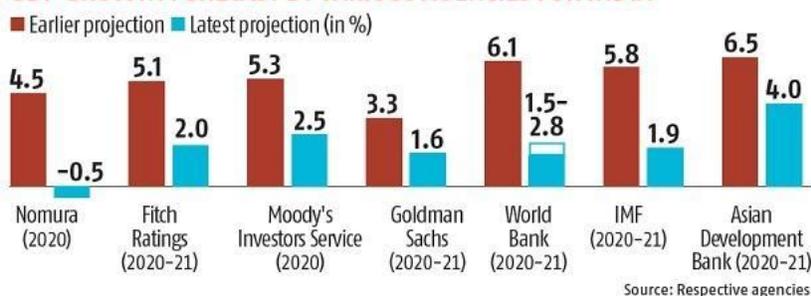
Why in the news?

- The International Monetary Fund has recently cut the 2021 economic growth forecast for emerging Asia, including India, as a spike in coronavirus cases from new variants and slow vaccinations cloud the region's recovery prospects.

Key highlights

Covid casts a long shadow over growth prospects

GDP GROWTH FORECAST BY VARIOUS AGENCIES FOR INDIA



- In an update to its World Economic Outlook (WEO), the IMF forecast emerging Asia will grow 7.5% this year, down 1.1 percentage points from its projection in April.
- That was a much bigger downgrade than a 0.4 point mark-down for emerging economies across the globe.
- The IMF cut this year's growth forecast for India by 3 percentage points to 9.5%.**
- China's forecast for 2021 was revised down 0.3 points to 8.1%.**

Reasons for downgrade

- Growth prospects in India have been downgraded following the severe second COVID wave during March-May and expected slow recovery in confidence from that setback.
- Similar dynamics are at work in the ASEAN-5 group where recent infection waves are causing a drag on activity.
- The downgrade, which contrasted with an upward revision in the IMF's forecast for advanced nations, highlights the divergence emerging across countries on the pace of recovery from the pandemic's hit.

James Webb Space Telescope

(Topic- GS Paper III- Science and Technology – Source- Indian Express)

Why in the news?

- Recently, NASA is set to launch the large infrared James Webb Space Telescope (JWST) touted as the “premier observatory” of the coming decade in 2021.

More in the news

- But before it launches, NASA has an important decision to make — whether to rename the \$8.8-billion telescope.
- These considerations stem from allegations that NASA’s former government-appointed administrator James Webb, after whom JWST is named, had persecuted homosexuals when he had worked for the government.

About the James Webb Space Telescope



- It is also called Webb.
- It is an international collaboration between NASA, the European Space Agency (ESA), and the Canadian Space Agency (CSA).
- It will be a large infrared telescope with a 6.5-meter primary mirror.
- The telescope will be launched on an Ariane 5 rocket from French Guiana in 2021.
- It will study every phase in the history of our Universe, ranging from the first luminous glows after the Big Bang, to the formation of solar systems capable of supporting life on planets like Earth, to the evolution of our Solar System.

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Kandla becomes the first Green SEZ

(Topic- GS Paper III – Economics, Source- Hindu)

Why in the news?

- Recently, Kandla SEZ (KASEZ) is the First Green special economic zone (SEZ) to achieve the IGBC Green Cities Platinum Rating for Existing Cities.

About the IGBC Green Cities Platinum Rating

- IGBC Platinum rating has been awarded for 'Green master planning, policy initiatives and implementation of green infrastructure by CII's Indian Green Building Council (IGBC).
- The recognition is set to pave way for all the other SEZs in the country to emulate the green initiative and efforts of Kandla SEZ.

Related Information

About Special Economic Zone

- It is an area in a country that is subject to different economic regulations than other regions within the same country.
- The economic regulations of SEZs tend to be conducive to and attract Foreign Direct Investment (FDI).

About Indian Green Building Council

- It is a part of the Confederation of Indian Industry (CII) and was formed in 2001.

Vision

- To enable a sustainable built environment for all and facilitate India to be one of the global leaders in the sustainable built environment by 2025.
- It offers a wide array of services which include developing new green building rating programmes, certification services and green building training programmes.
- It is committee-based, member-driven and consensus-focused and organises Green Building Congress, its annual flagship event on green buildings.

Exercise Cutlass Express 2021

(Topic- GS Paper III –Defence, Source- AIR)

Why in the news?

- Recently, the Indian Naval Ship (INS) Talwar is participating in Exercise Cutlass Express 2021 along the East Coast of Africa.

About Exercise Cutlass Express 2021

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- The exercise is an annual maritime exercise conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.
- It aims to improve combined maritime law enforcement capacity and increase interoperability between the regional navies.
- The 2021 edition of the exercise involves the participation of 12 Eastern African countries, US, UK, India and various international organisations, like the International Maritime Organisation (IMO), United Nations Office on Drugs and Crime (UNODC), Interpol, European Union Naval Force (EUNAVFOR), Critical Maritime Routes Indian Ocean (CRIMARIO) and EUCAP Somalia.

e-waste generation

(Topic- GS Paper III –Environment, Source-Indian Express)

Why in the news?

- Recently, the Minister of State for Environment, Forests and Climate Change has informed the Rajya Sabha that India generated 10,14,961.2 tonnes of e-waste last year, a massive 31.6 per cent increase from the previous year.
- The minister informed Parliament that data regarding e-waste is only available in the country from 2017-18 onwards, that too only National data.

About E-Waste

- E-Waste is short for Electronic-Waste and the term is used to describe old, end-of-life or discarded electronic appliances.
- It includes their components, consumables, parts and spares.
- **It is categorised into 21 types under two broad categories:**
 - Information technology and communication equipment.

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- Consumer electrical and electronics.
- Laws to manage e-waste have been in place in India since 2011, mandating that only authorised dismantlers and recyclers collect e-waste.

E-waste (Management) Rules, 2016 was enacted in 2017.

- So far, the Environment Ministry has notified 21 types of electrical and electronic equipment (EEE) as e-waste.

About E-Waste Management Rules, 2016

- The Ministry of Environment, Forest and Climate Change notified the E-Waste Management Rules, 2016 in supersession of the E-waste (Management & Handling) Rules, 2011.
- **Over 21 products (Schedule-I) were included under the purview of the rule**
- It included Compact Fluorescent Lamp (CFL) and other mercury-containing lamps, as well as other such equipment.
- For the first time, the rules brought the producers under Extended Producer Responsibility (EPR), along with targets.
- Producers have been made responsible for the collection of E-waste and its exchange.
- Various producers can have a separate Producer Responsibility Organisation (PRO) and ensure collection of E-waste, as well as its disposal in an environmentally sound manner.

Deposit Refund Scheme

- The deposit Refund Scheme has been introduced as an additional economic instrument wherein the producer charges an additional amount as a deposit at the time of sale of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of-life electrical and electronic equipment is returned.
- The role of State Governments has been also introduced to ensure the safety, health and skill development of the workers involved in dismantling and recycling operations.
- A provision of penalty for violation of rules has also been introduced.
- **Urban Local Bodies (Municipal Committee/Council/Corporation) has been assigned the duty to collect and channelize the orphan products to authorized dismantlers or recyclers.**
- Amendments in E-Waste Management Rules 2016

E-waste (Management) Amendment Rules, 2018

- **The E-Waste Management Rules 2016 have been amended vide notification G.S.R. 261(E), dated March 22, 2018.**
- The amendment in rules has been done to channelize the E-waste generated in the country towards authorized dismantlers and recyclers to formalize the e-waste recycling sector.
- The collection targets under the provision of Extended Producer Responsibility (EPR) in the Rules have been revised and targets have been introduced for new producers who have started their sales operations recently.

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Some of the salient features of the E-waste (Management) Amendment Rules, 2018 are as follows:

- The quantity of e-waste collected by producers from 1st October 2016 to 30 September 2017 shall be accounted for in the revised EPR targets until March 2018.
- Separate e-waste collection targets have been drafted for new producers, i.e. those producers whose number of years of sales operation is less than the average lives of their products. The average lives of the products will be as per the guidelines issued by CPCB from time to time.
- Producer Responsibility Organizations (PROs) shall apply to the Central Pollution Control board (CPCB) for registration to undertake activities prescribed in the Rules.
- Under the Reduction of Hazardous Substances (RoHS) provisions, the cost for sampling and testing shall be borne by the government for conducting the RoHS test.
- If the product does not comply with RoHS provisions, then the cost of the test will be borne by the Producers.

Note:

- India's first e-waste clinic for segregating, processing and disposal of waste from household and commercial units has been set up in Bhopal, Madhya Pradesh.

Academic Bank of Credit

(Topic- GS Paper III- Education, Source- The Hindu)

Why in the news?

- Recently, Prime Minister has rolled out the Academic Bank of Credit, on the first anniversary of the National Education Policy (NEP).

About the Academic Bank of Credit

- Academic Bank of Credit referred to as ABC is a virtual storehouse that will keep records of academic credits secured by a student.
- It is drafted on the lines of the National Academic Depository.
- It will function as a commercial bank where students will be the customers and ABC will offer several services to these students. Students will have to open an Academic Bank Account and every account holder would be provided with a unique id and Standard Operating Procedure (SOP).
- The academic accounts of students will have credits awarded by higher education Institutes to students for the courses they are pursuing.
- However, ABC will not accept any credit course document directly from the students, and its institutes that will make the deposits in students' accounts.

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Uses

- It will be responsible for opening, closing, and validating the academic accounts of students. It will also perform tasks including credit verification, credit accumulation, credit transfer/redemption of students, and promotion of the ABC among the stakeholders.
- The courses will also include online and distance mode courses offered through National Schemes like SWAYAM, NPTEL, V-Lab etc.
- The validity of these academic credits earned by students will be up to seven years.
- The validity can also vary based on the subject or discipline.
- **Students can redeem these credits.**

How does it work?

- For instance, if a student has accumulated 100 credits which are equivalent to say one year and they decide to drop out.
- Once they decide to rejoin they can redeem this credit and seek admission directly in the second year at any university.

Validity

- The validity will be up to **seven years**; hence, students will have to rejoin within seven years.

Impact on Education Institutes

- The participating HEIs in the ABC scheme will enable students to build their degrees as per their choices.
- The participating higher education institutes will have to amend their rules in terms of course registration, course requirements, acceptance for inter-disciplinary and multi-disciplinary courses, Credits to be offered to these courses, credit transfers, and credits acceptance from other approved institutions.
- As per UGC guidelines, the higher education institutes will have to allow students to acquire credits 50-70% of credits assigned to a degree from any institute.
- Students, depending upon their needs can take this opportunity.
- Students who opt to shift their institution will have to get the remaining 30-50% credits from the education institute they have registered with.
- UGC will ensure that students secured the minimum credits to be secured in the core subject area.

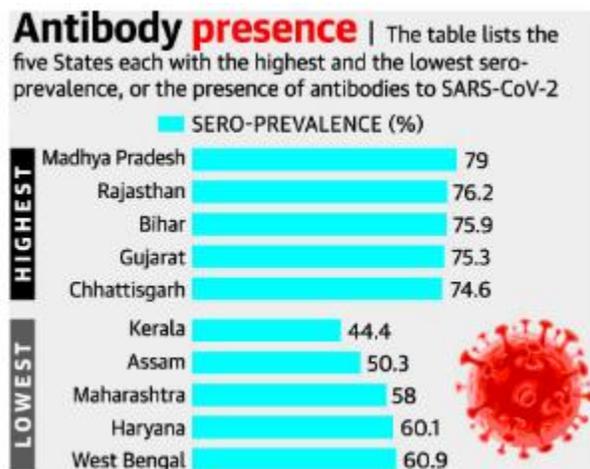
Fourth national serology survey

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, the Indian Council of Medical Research (ICMR) has released the fourth edition of the National Serology survey.

Key findings



- Madhya Pradesh has the highest seroprevalence or the presence of antibodies to the novel coronavirus %, followed by Rajasthan (76%) and Bihar (75%).**
- Kerala has the lowest among 21 States studied having only 44% of seroprevalence.**
- After Kerala, the least antibody prevalence was in Assam (50%) and Maharashtra (58%).

Test

- The ELISA test used to check antibodies also has a role in marking antibody prevalence.**

Antibodies in children

- The survey also noted that more than half of the children (six to 17 years) were seropositive and seroprevalence was similar in rural and urban areas.
- It was also found that 85% of healthcare workers (HCWs) had antibodies and nearly one-10th was unvaccinated.

Pneumonia

(Topic- GS Paper III-Science and Technology, Source- The Hindu)

Why in the news?

- Recently, as per the Sample Registration System Report (2010-13) of the Registrar General of India, Pneumonia contributes 16.9% of infant deaths and it is the 2nd highest cause of infant mortality.

About Pneumonia

- Pneumonia is an acute respiratory infection of the lungs.
- It is also a Pneumococcal disease caused by bacteria called Streptococcus pneumonia or pneumococcus.

Causes

- Pneumonia is caused by several infectious agents, including viruses, bacteria and fungi.

The most common are:

- **Streptococcus pneumoniae** – the most common cause of bacterial pneumonia in children;
- **Haemophilus influenzae type b (Hib)** – the second most common cause of bacterial pneumonia;
- **Respiratory syncytial virus** is the most **common viral cause of pneumonia**;
- In infants infected with HIV, Pneumocystis jiroveci is one of the commonest causes of pneumonia, responsible for at least one-quarter of all pneumonia deaths in HIV-infected infants.

Government Initiatives

Integrated Action Plan for Prevention and Control of Pneumonia and Diarrhoea (IAPPD)

- It has been launched in 2014 to undertake collaborative efforts towards the prevention of diarrhoea and Pneumonia related under-five deaths.

Social Awareness and Actions to Neutralize Pneumonia Successfully (SAANS)

- It has been launched in 2019.
- The SAANS initiative encompasses three-pronged strategies:
 - a. Guidelines on treatment and management of childhood Pneumonia including the introduction of the use of Amoxicillin by ANM.
 - b. Capacity building of service providers for identification and standardized management of Pneumonia.

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- c. Communication campaign to ensure greater awareness of childhood Pneumonia among families and parents.
- **The government aims to achieve a target of reducing pneumonia deaths among children to less than three per 1,000 live births by 2025.**

Global initiative

Global action plan for the prevention and control of pneumonia (GAPP)

- WHO and UNICEF have launched the Global action plan for the prevention and control of pneumonia (GAPP).

Aim

- The aim is to accelerate pneumonia control with a combination of interventions to protect, prevent, and treat pneumonia in children.

Note:

- **Every year on 12 November, World Pneumonia day has been celebrated.**

Phosphatic rocks

(Topic- GS Paper III-Science and Technology, Source- AIR)

Why in the news?

- Recently, India explore indigenous deposits of phosphatic rock, a step towards becoming AatmaNirbhar in fertilizer production.

About Phosphatic rocks



- These ones have high phosphorus content in them.

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- They are available in high, medium, and low grades. Some phosphate rocks are used for making calcium phosphate nutritional supplements for animals, while pure phosphorus is used to make chemicals for industrial use.
- **However, the most important use of phosphorus is for the production of fertilizers for agriculture.**

About phosphorus rocks

- Phosphorus rocks or phosphate rocks are unprocessed ores.
- Phosphate rock deposits can be sedimentary (formed from sediment deposited by water or air) or igneous (having solidified from lava or magma).
- However, the easiest way to obtain phosphorus is by way of mining and concentrating phosphate rock from the phosphate deposits.

Where is it found?

- Phosphate rock deposits can be sedimentary or igneous and are mined from sedimentary deposits formed by the deposition of phosphate-rich materials in marine environments.
- Large sedimentary deposits are located in **China, Middle East, Northern Africa, and the United States. Meanwhile, the igneous deposits are mined in Brazil, Canada, Finland, Russia, South Africa, and Zimbabwe.**

Phosphorus in India

- Phosphate rocks are majorly produced only from two States in India, namely Rajasthan and Madhya Pradesh.
- These deposits are available in Rajasthan, the central part of peninsular India, Hirapur (Madhya Pradesh), Lalitpur (Uttar Pradesh), Mussoorie syncline, and Cuddapah basin (Andhra Pradesh).

Uses

Phosphorus in Plant

- It is important for plant's growth and helps in retaining decaying soil fertility.
- **It also facilitates the storage and transfer of energy throughout the plant.**

Importance of Phosphorus for agriculture

- Phosphorus cannot be substituted by any other mineral, as it is vital for several reasons in agriculture.
- It plays a major role in photosynthesis and energy transfer in plants.
- Further, it is essential for the production of seed and root formation.

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- It promotes early plant maturity and stalks strength.
- It is also resistant to plant root diseases.

National Farmers Database

(Topic- GS Paper III-Agriculture, Source- The Hindu)

Why in the news?

- The Government of India has announced plans to set up a National Farmer's Database.

About National Farmers Database

- **The Government plans to set up a National Farmers Database which will consist of digitised land records and will facilitate online single sign-on facilities.**
- The aim is to increase farmers' income by leveraging the available data and developing solutions based on the data so that the input costs are reduced, ease of farming is ensured, quality is -improved and farmers get a better price for their farm produce.
- The database will initially only include land-owning farmers.
- The landless and tenant farmers will be excluded from the database.

Significance

- The database can be used by the Government for targeted service delivery with higher efficiency and in a focussed and time-bound manner.
- It has universal access and provides services to them like direct benefit transfer, weather advisories, insurance facilities and information on neighbouring logistic facilities among other things.
- **The National Farmer's database would serve as the core of the Agristack.**

About Agristack

- It is a collection of technologies and digital databases that focuses on farmers and the agricultural sector.
- It will create a unified platform for farmers to provide them end to end services across the agriculture food value chain.
- It is in line with the Centre's Digital India programme, aimed at providing a broader push to digitise data in India, from land titles to medical records.
- The government is also implementing the **National Land Records Modernisation Programme (NRLMP)**.

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- Under the programme, each farmer will have unique digital identification (farmers' ID) that contains personal details, information about the land they farm, as well as production and financial details.
- **Each ID will be linked to the individual's digital national ID Aadhaar.**

Secured Logistics Document Exchange Platform

(Topic- GS Paper III–Economics, Source- the Hindu)

Why in the news?

- The government has recently launched a secured logistics document exchange platform for the digital exchange of logistics-related papers and a calculator for greenhouse gas emissions for choosing the sustainable and right mode of transport for freight movements.

About the Secured Logistics Document Exchange Platform

- The platform is a solution to replace the present manual process of generation, exchange and compliance of logistics documents with a digitized, secure and seamless document exchange system.
- The platform will enable the generation, storage and interchange of logistics-related documents digitally using Aadhaar and blockchain-based security protocols for data security and authentication.
- It will also provide a complete audit trail of document transfer, faster execution of the transaction, lower cost of shipping and overall carbon footprint, easy verification of the authenticity of documents, lowered risk of fraud.

About Calculator for greenhouse gas emissions

- The calculator is an efficient and user-friendly tool that provides for calculating and comparing GHG (Green House Gas) emissions across different modes.
- It allows for a commodity-wise comparison of GHG emissions and the total cost of transportation, including their environmental cost, between movement by road and rail.

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Innovations for Defence Excellence (iDEX)

(Topic- GS Paper III–Defense, Source- the Hindu)

Why in the news?

- Recently, the Department of Defence Production, Ministry of Defence has approved the Innovations for Defence Excellence (iDEX).

About Innovations for Defence Excellence (iDEX)

- It is a central sector scheme.
- The scheme has budgetary support: Rs. 498.80 crore for the next 5 years from 2021-22 to 2025-26.
- It is funded and managed by a Defence Innovation Organisation (DIO), formed as a not for profit company as per Section 8 of the Companies Act 2013.

Aims and objectives

- To promote innovation and indigenisation in the aerospace and defence sector at the start-up level.
- To provide financial support to start-ups, Micro, Small and Medium Enterprises (MSME), individual innovators and partner incubators.

Cabinet Approves Bank Deposit Insurance Payout within 90 Days

(Topic- GS Paper III–Economics, Source- Indian Express)

Why in the news?

- The Union Cabinet has recently approved an amendment to the Deposit Insurance Credit Guarantee Corporation or DICGC Act to provide account holders access to up to Rs 5 lakh funds within 90 days of a bank coming under moratorium to ensure timely support to depositors.
- Each depositor's bank deposit is insured up to Rs 5 lakh in each bank for both principal and interest.

Key highlights

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Key decisions for depositors, businesses



Govt improves protection for customers of stressed banks, cuts some corporate penalties

Cleared Deposit Insurance and Credit Guarantee Corporation Bill

- Under this, depositors of banks under moratorium will be able to access up to ₹5 lakh — which is part of the deposit insurance — within 90 days of the freezing
- Bill to be introduced in monsoon session of Parliament

Currently, it takes 8-10 years for depositors (to get their insured money and claims)... now, what we're saying is, even if there is a moratorium on a bank... even at that time this measure will set in."

— **Nirmala Sitharaman**,
Finance minister



WHAT IS THE DEPOSIT GUARANTEE SCHEME?

In case a bank's assets are frozen, such as in the case of PMC bank in 2019, depositors will get access to their funds of up to ₹5 lakh

Approved amendments to Limited Liability Partnership (LLP) Act

WHAT WILL CHANGE?

1 Twelve offences to be decriminalised, including removing criminal action for failure to comply with Act

230,000 firms in the country will benefit from this move

2 Definition of small LLPs to be revised: This will help include more number of firms under the category

Expedited Liquidation

- Earlier, account holders had to wait for years till the liquidation or restructuring of a distressed lender to get their deposits that are insured against default.

Increasing Deposit Insurance Premium

- The government has also permitted raising the deposit insurance premium by 20 per cent immediately and maximum by 50 per cent.
- The premium is paid by banks to the DICGC.
- Banks currently pay a minimum of 10 paise on every Rs 100 worth of deposits to the DICGC as a premium for the insurance cover, which is now being raised to a minimum of 12 paise.

Deposit Value Coverage

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- The Rs 5-lakh deposit insurance cover, which was last year raised from Rs 1 lakh, will address 98.3 per cent of all deposit accounts by number, and 50.9 per cent of deposits by value.
- The deposit insurance coverage is only 80 per cent globally and it covers only 20-30 per cent of the deposit value.

Prospective Law

- The proposed law is prospective, and not retrospective, but it will cover banks already under moratorium and those that could come under moratorium.
- Within the first 45 days of the bank being put under a moratorium, the DICGC would collect all information relating to deposit accounts.
- In the next 45 days, it will review the information and repay depositors within a maximum of 90 days.

About Deposit Insurance and Credit Guarantee Corporation

- It was established in 1978 after the merger of Deposit Insurance Corporation (DIC) and Credit Guarantee Corporation of India Ltd. (CGCI) after the passing of the Deposit Insurance and Credit Guarantee Corporation Act, 1961 by the Parliament.
- **It is a wholly-owned arm of the Reserve Bank of India (RBI), which offers deposit insurance.**
- It insured deposit accounts, such as savings, current, recurring, and fixed deposits up to a limit of Rs 5 lakh per account holder of a bank.
- If a customer's deposit amount crosses Rs 5 lakh in a single bank, only up to Rs 5 lakh, including the principal and interest, will be paid by the DICGC if the bank turns bankrupt.

Banks covered by Deposit Insurance Scheme

- All commercial banks including the branches of foreign banks functioning in India, Local Area Banks and Regional Rural Banks.
- **Co-operative Banks** - All eligible co-operative banks as defined in Section 2(gg) of the DICGC Act are covered by the Deposit Insurance Scheme.
- At present all Co-operative banks are covered by the Scheme.
- **The Union Territories of Lakshadweep and Dadra and Nagar Haveli do not have Co-operative Banks.**

Types of Deposits Covered

DICGC insures all bank deposits, such as saving, fixed, current, recurring, etc. except the following types of deposits.

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- Deposits of foreign Governments;
- Deposits of Central/State Governments;
- Inter-bank deposits
- Deposits of the State Land Development Banks with the State co-operative banks;
- Any amount due on account of and deposit received outside India
- Any amount which has been specifically exempted by the corporation with the previous approval of the RBI.

Funds

- The Corporation maintains the following funds :
 - a. Deposit Insurance Fund
 - b. Credit Guarantee Fund
 - c. General Fund
- The first two are funded respectively by the insurance premia and guarantee fees received and are utilised for settlement of the respective claims.
- The General Fund is utilised for meeting the establishment and administrative expenses of the Corporation.

Pre-packaged Insolvency Resolution Process (PIRP)

(Topic- GS Paper III–Economics, Source- Indian Express)

Why in the news?

- The Insolvency and Bankruptcy Code (Amendment) Bill, 2021, passed by Lok Sabha has proposed 'pre-packs as an insolvency resolution mechanism for Micro, Small and Medium Enterprises (MSMEs).
- The Bill will replace The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2021, which was promulgated on April 4 2021.

What are 'pre-packs'?

- A pre-pack envisages the resolution of the debt of a distressed company through a direct agreement between secured creditors and the existing owners or outside investors, instead of a public bidding process.
- This system of insolvency proceedings has become an increasingly popular mechanism for insolvency resolution in the United Kingdom and Europe over the past decade.

- Under the pre-pack system, financial creditors will agree to terms with the promoters or a potential investor and seek approval of the resolution plan from the National Company Law Tribunal (NCLT).
- The approval of at least 66 per cent of financial creditors that are unrelated to the corporate debtor would be required before a resolution plan is submitted to the NCLT.
- The NCLTs will be required to either accept or reject an application for a pre-pack insolvency proceeding before considering a petition for a CIRP.

Pre-packs better than CIRP

- One of the key criticisms of the CIRP has been the time it takes for resolution.
- At the end of March 2021, 79 per cent of the 1,723 ongoing insolvency resolution proceedings had crossed the 270-day threshold.
- A major reason for the delays is the prolonged litigation by erstwhile promoters and potential bidders.
- The pre-pack in contrast is limited to a maximum of 120 days with only 90 days available to stakeholders to bring a resolution plan for approval before the NCLT.
- Another key difference between pre-packs and CIRP is that the existing management retains control in the case of pre-packs whereas, in the case of CIRP, a resolution professional takes control of the debtor as a representative of financial creditors.
- **This will ensure minimal disruption of operations relative to a CIRP.**

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