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Current Affairs (CONSOLIDATION)

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(PART – I)

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Polity and Governance

Highlights

- Pre-Matric Scholarship Scheme
- Rising Cybercrimes
- Initiatives for Good and Vigilant Governance
- Review of PMBJP
- Evaluation of National Monsoon Mission
- Centre's Stand on Central Vista Redevelopment Project
- Differential Licensing on Telecom Sector
- Tele-Law
- Initiatives for Cities: MoHUA
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- Amendment in FCRA Rules
- Regulations on OTT and Digital Content
- National Agricultural Education Policy
- Draft Data Centre Policy 2020

Pre-Matric Scholarship Scheme

Why in News

A recent investigation has found that the money meant for poor students under the **Pre-Matric Scholarship Scheme** in Jharkhand has been siphoned off and is not reaching the students.

Key Points

➤ About the Scheme:

- It is a **centrally funded scholarship scheme** for students in all states, which **opens every year** and has to be applied between August and November.
- **Aim:** To help students of **minority communities** viz. Muslims, Christians, Sikhs, Parsis, Jains and Buddhists from families with **annual income below Rs. 1 lakh**.
- **Eligibility:** Students need to score **at least 50% in their class exams**.
- **Structure of the Scholarship:** It is given in two tiers every year to:
 - Students in **class 1 to 5:** Rs. 1,000 per year.
 - Students of **class 6 to 10:** Rs. 10,700 if a hosteller or Rs 5,700 if a day scholar.

○ Application Process:

- Eligible students need to register at the **National Scholarship Portal (NSP)** and **submit educational documents**, bank account details and **Aadhaar numbers** among other documents.
- The scheme is **online** and one can apply for a **fresh or renewal scholarship on the NSP or through a mobile application** of NSP.

➤ Suggestions for Improvement:

- The government is planning to bring a **single national scholarship scheme** by merging all the current scholarship schemes.
- The move came after a multi-crore scam was reported in the **post-matric scholarship scheme for Scheduled Castes (SC)** in Punjab in August 2020.

National Scholarship Portal

- It is a **"one-stop" solution** through which various services, starting from student application, application receipt, verification, processing, and disbursement of various scholarships to students are facilitated.
- It is taken as **Mission Mode Project (MMP)** under **Digital India** and aims at providing a **simplified, accountable, responsive and transparent system** for faster and effective disbursement of scholarship to eligible applicants directly into their account through **Direct Benefit Transfer (DBT)** without any leakages.

Note:

Rising Cybercrimes

Why in News

Recently, the **Ministry of Home Affairs** has written to all States to examine and register **First Information Reports (FIRs)** based on the complaints received on the **National Cybercrime Reporting Portal**.

Key Points

- **Low Conversion Rates:** As per the ministry, **only 2.5%** of total complaints registered on the portal are converted into FIRs.
- **Cyber Crime Volunteers:** Through the portal, the Government seeks to **promote Cyber Crime Volunteers** for identifying, reporting and removal of illegal/unlawful online content.
- **Increase in Cases:** According to the **National Crime Records Bureau (NCRB)**, the number of registered cyber crimes increased by 63.5% in the year 2019 compared to 2018.
- **Benefits:**
 - It will help in **curbing rising cyber frauds, cyberbullying, child pornography**, etc.
 - It is in consonance with the **Digital India** drive of the government as with rising digital footprint cyber crimes are bound to rise.
 - Massive digitalisation in the post-covid world in the sectors of education, health, etc highlights the **importance of cyber governance initiatives** such as this.

Initiatives to Tackle Cybercrime

- **Indian Cyber Crime Coordination Centre (I4C):** The **I4C will assist in centralising cybersecurity investigations**, prioritise the development of response tools and bring together private companies to contain the menace.
- **Draft Personal Data Protection Bill 2018:** It is based on the **recommendation of the Justice BN Srikrishna Committee to secure citizens data**.
- **Cyber Swachhta Kendra:** Also known as the **Botnet Cleaning and Malware Analysis Centre**, it is a part of the Government of India's **Digital India initiative** under the Ministry of Electronics and Information Technology (MeitY).
- **Indian Computer Emergency Response Team (CERT-IN):** It is an organisation of the MeitY, with the objective

of **securing Indian cyberspace**. It is the nodal agency which **deals with cybersecurity threats** like **hacking and phishing**.

National Cyber Crime Reporting Portal

- Launched in **2019**, it is a **citizen-centric initiative** enabling citizens to **report cybercrimes online**.
- The portal specifically **focuses on crimes against women, children**, particularly child pornography, child sex abuse material, online content pertaining to rapes/gang rapes, etc.
- It also **focuses on crimes like financial crime and social media related crimes** like stalking, cyberbullying, etc.
- It will **improve the capacity of law enforcement agencies to investigate** the cases after successful completion by improving coordination amongst the law enforcement agencies of different States, districts and police stations.

Budapest Convention

- The **Council of Europe's (CoE) Cybercrime Convention**, also known as the **Budapest Convention** is the **sole legally binding international multilateral treaty on cybercrime**.
 - It coordinates cybercrime investigations between nation-states and criminalizes certain cybercrime conduct.
- It was **opened for signature in 2001** and **came into force in 2004**.
- It is **supplemented by a Protocol on Xenophobia and Racism** committed through computer systems.
- **India is not a party to it.**
 - In **November 2019**, India **voted in favour of a Russian-led UN resolution** to set up a separate convention.
 - The resolution seeks to set up new cyber norms considered as a **counter alternative to the US backed Budapest Accord**.

Initiatives for Good and Vigilant Governance

Why in News

Recently, the **Department of Administrative Reforms and Public Grievances (DARPG)** has come up with new

Note:

initiatives for good and vigilant governance on the last day of the **Vigilance Awareness Week 2020**.

Key Points

➤ Launches and Initiatives:

- “**Ideas Box on Good Governance Practices in a Pandemic**” has been launched and operationalised both on the DARPG as well as on the **MyGov platform**.
 - It will crowdsource ideas related to good governance.
- Social media tweets on the “**Best Practices in e-governance**” have been launched.
- Round table discussion on “**Satark Bharat, Samriddh Bharat**” (Vigilant India, Prosperous India) was held.
 - It focused on key **issues of preventive vigilance in the pursuit of “Naitik Bharat”** (Ethical India) which includes ethics training in public services, a social audit of ethical practices, development of measurable metrics for corruption and disproportionately high impact of corruption on governance.

➤ Vigilance Awareness Week:

- The **Central Vigilance Commission (CVC)** observes the Week every year during the week in which the **birthday of Sardar Vallabhbhai Patel** (31st October) falls.
- **Objective:** It **affirms** India’s commitment to the promotion of integrity and probity in public life through citizen participation and reiterates Government’s resolve to continue the crusade against corruption.
- **Theme for 2020:** In 2020, it was observed from 27th October to 2nd November with the theme of “**Satark Bharat, Samriddh Bharat**”.

➤ Government Initiatives to Prevent and Curb Corruption:

- **Amendments in the Prevention of Corruption Act, 1988** to make the processes more equitable and reduce opportunities for corruption.
- Introduction of the **Lokpal and Lokayuktas**.
- Scaled up disposal of cases by the **Central Information Commission (CIC)** and the DARPG.
- Level playing field for employment opportunities to lower-level jobs by the **National Recruitment Agency (NRA)**.

- Introduction of **e-governance** and **Direct Benefit Scheme**.
- **Other Related Legislations:** **Right to Information Act 2005**, **Judges (Inquiry) Act 1968**, **Whistleblower Protection Act, 2014**, **Prevention of Money Laundering Act 2002**, **Benami Transactions (Prohibition) Amendment Act 2016**, etc.

Central Vigilance Commission

➤ About:

- It is an **independent body** which is **only responsible to the Parliament**.
- It is the **apex vigilance institution** monitoring all vigilance activity under the Central Government and advising various authorities in Central Government organisations in planning, executing, reviewing and reforming their vigilance work.

➤ Background:

- It was set up by the Government in **February 1964** on the recommendations of the **Committee on Prevention of Corruption**, headed by **K Santhanam**.
- The Parliament enacted the **Central Vigilance Commission Act, 2003** conferring **statutory status** on the CVC.

➤ Composition:

- It is a **multi-member** commission consisting of a **Central Vigilance Commissioner** (Chairperson) and **not more than 2 Vigilance Commissioners** (members).
- They are **appointed by the President** on the recommendations of a Committee consisting of the Prime Minister (Chairperson), the Minister of Home Affairs (Member) and the Leader of the Opposition in the House of the People (Member).

➤ Tenure:

- The term of office of the Central Vigilance Commissioner and the Vigilance Commissioners is **4 years** from the date on which they enter their office or till they attain the **age of 65 years, whichever is earlier**.

Review of PMBJP

Why in News

Recently, the Union Minister for Chemicals and Fertilizers has held a **comprehensive review meeting of Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)**.

Note:



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Key Points

- PMBJP has **achieved sales of Rs. 358 crores** worth of pharma products through 6600 Janaushadhi Kendras during the **first seven months of the fiscal year 2020-21** (up to 31st October) and is **likely to surpass sales of Rs. 600 crore** for the entire year.
 - **Sales figure** has seen a **jump from Rs 7.29 crore in 2014-15 to Rs. 433 crore in 2019-20.**
 - **Janaushadhi Kendras** have grown from mere **99 stores in 2014-15 to around 6600 stores in 2019-20.**
- The **Bureau of Pharma PSUs of India (BPPI)** was appraised for **ensuring the supply of medicines and other pharma products like masks** to people at affordable rates during **Covid-19.**
 - BPPI is the **implementing agency of the PMBJP.**
 - It was **established in December 2008** under the **Department of Pharmaceuticals** and has been registered as an **independent society under the Societies Registration Act, 1860.**
- **Suggestions on Improvement:**
 - BPPI should take measures to **reduce out of pocket expenditure of citizens on medicines**, especially of marginalised sections of the society **by strengthening supply chains and adopting innovative measures.**
 - There is a **need to work on increasing awareness of people regarding efficacy and quality of Janaushadhi medicines**, increasing coverage with a focus on remote and rural areas, and for **making sure availability of medicines** at each Janaushadhi shop.

Pradhan Mantri

Bhartiya Janaushadhi Pariyojana

- It is a campaign **launched by the Department of Pharmaceuticals in 2008** under the name **Janaushadi Campaign**, which was **revamped as PMBJP in 2015-16.**
- **Aim:**
 - To extend the coverage of quality generic medicines so as to reduce the out of pocket expenditure on medicines and thereby redefine the unit cost of treatment per person.
 - To create awareness about generic medicines through education and publicity so that quality is not synonymous with an only high price.
- **Pradhan Mantri Bhartiya Janaushadhi Kendras:**

- Also called **Janaushadhi Kendras**, these were set up across the country under PMBJP to **provide generic drugs.**
 - **Generic drugs** are marketed under a **non-proprietary or approved name rather than a brand name.** These are **equally effective and inexpensive** compared to their counterparts.
- All drugs procured under this scheme are tested for quality assurance at the **National Accreditation Board Laboratories (NABL)** accredited laboratories and are compliant with the **World Health Organisation Good Manufacturing Practices (WHO GMP)** benchmarks.
- Government **grants of up to Rs. 2.5 lakhs** are provided for setting up of PMBJKs, which **can be set up by** doctors, pharmacists, entrepreneurs, **Self Help Groups (SHGs)**, NGOs, charitable societies, etc. at any suitable place or outside the hospital premises.

➤ Janaushadhi Week:

- It was celebrated across the country from **1st to 7th March 2020**, to **inform and educate the general public** about the price benefits and quality of the medicines being sold at Jan Aushadhi Kendras.

➤ Janaushadhi Sugam Application:

- This **mobile application was launched in August 2019** to help people in:
 - **Locating** nearby Janaushadhi Kendra through Google Maps.
 - **Searching** for Janaushadhi generic medicines.
 - **Analysing** product comparison of generic versus branded medicine in form of Maximum Retail Price (MRP) and overall savings, etc

Evaluation of National Monsoon Mission

Why in News

Recently, the **National Council of Applied Economic Research (NCAER)** has **evaluated the economic benefits** of the **National Monsoon Mission (NMM).**

- Established in **1956**, NCAER is India's **oldest and largest independent, non-profit, economic policy research institute**, based in **New Delhi.**

Note:

Key Points

- The study spanned **across 173 rain-fed districts in 16 states** which appropriately represented agro-climatic zones, rain-fed areas, coverage of major crops, and incidence of extreme weather events in the country. It was conducted on behalf of the **Ministry of Earth Sciences (MoES)**.
- The study refers to **economic benefits as direct monetary gains to crop farmers, livestock rearers, and fishermen** in the country.
 - India's investment of nearly **Rs. 1,000 crore** in the NMM and **High-Performance Computing (HPC) facilities** would provide benefits worth Rs. 50,000 crore to nearly 1.07 crore **Below Poverty Line (BPL)** agricultural households and 53 lakh BPL fisherfolk households in the country.
- The **total annual economic benefits** to agricultural households, farmers and livestock owners taken together, has been calculated at **Rs. 13,331 crore** and the **incremental benefits over the next five years** are estimated to be about **Rs. 48,056 crore**.
 - The benefits are from accurate weather forecasting by the **India Meteorological Department (IMD)** and other agencies working under the Ministry of Earth Sciences.
 - **Agro-meteorological services** for farmers is one of the most prominent weather services of IMD.
 - Every day **Ocean State Forecast (OSF)** and **warnings** to fishermen going out to the sea by the **Indian National Centre for Ocean Information Services (INCOIS)** helped in **elimination of less or not so productive trips** to the ocean.
 - **Potential Fishing Zone (PFZ) advisories** resulted in successful trips generating additional catches.
- **Data Analysis of the Benefits:**
 - Based on weather advisories, **98% farmers made modifications** such as changing variety/breed of the crop, arranging storage of harvest, early/delayed harvesting, changed crop, early/delayed sowing, changed the schedule of ploughing/land preparation, changed pesticide application schedule, changed fertiliser application schedule and changed scheduled irrigation.
 - **94% of farmers** were able to **avoid losses and increase income** because of services provided through NMM.

- **82% of fishermen** surveyed, reported **using OSF advisories** before they venture into the sea every time.
- A total of approximately Rs 1.92 crore additional income was generated from **1,079 successful fishing expeditions made using PFZ advisories**.

National Monsoon Mission

- It was launched by the **Ministry of Earth Sciences** in **2012**.
- **Aim:** To improve the forecasting skills by setting up a state-of-the-art dynamic prediction system for monsoon rainfall different time scales.
- NMM builds a **working partnership between the academic and research and development (R&D) organisations, both national and international**.
Its **augmentation with the HPC facilities** has helped the country in achieving a paradigm shift in weather and climate modelling for operational weather forecasts.

Centre's Stand on Central Vista Redevelopment Project

Why in News

The **Central Government** has recently tried to **justify** its decision to **construct a new Parliament building** under the proposed '**Central Vista Redevelopment**' project, in the Supreme Court (SC).

- **One of the issues** raised by the petitioners was **if it's possible to refurbish and use the existing Parliament building**.

Key Points

- **Centre's Stand:**
 - Underlining the cost and infrastructure advantages of the proposed project, the Centre told the SC that **the question whether or not to have a new Parliament building is a policy decision which the government is entitled to take**.
 - The government had taken an important policy decision to construct a Parliament complex and central secretariat as the **existing one is under tremendous stress**. Further, the project cannot come up at Noida or elsewhere, but on Central Vista.
- **Arguments Put Forward by the Government:**

Note:



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Central Vista Redevelopment Project

- The Union Ministry of Housing and Urban Affairs proposed the Central Vista redevelopment project in 2019.
- **The project envisages:**
 - Constructing a triangular Parliament building next to the existing one.
 - Constructing Common Central Secretariat.
 - Revamping of the 3-km-long Rajpath — from Rashtrapati Bhavan to India Gate.
 - North and South Block to be repurposed as museums.
- **Currently, the Central Vista of New Delhi houses Rashtrapati Bhawan, Parliament House, North and South Block, India Gate, National Archives among others.**
- **Pre Independence building:** The current one was built in 1927 to house the legislative council and was not intended to house a bicameral legislature that the country has today.
- **Lack of Space:** The current building will be under more stress when the **number of seats to Lok Sabha and Rajya Sabha are raised**. Both Houses are already packed and members have to sit on plastic chairs when joint sessions are held, diminishing the dignity of the House.
- **Safety Concerns:** The existing building does not conform to **fire safety norms**. **Water and sewer lines are also haphazard** and this is damaging its heritage nature. Security concerns in the wake of the **2001 Parliament attack shows its vulnerable nature**. It is also **not quake-proof**.
- **Cost Advantage:** Many central ministries are housed in different buildings with the result that the government ends up paying rent for many of them. The new building, a new central secretariat will help avoid this.
- **Environmental Benefits:** The fact that people and officials have to run around the city to go to different ministries also **increases traffic and pollution**. The project **also proposes interlinking of metro stations** which will minimise use of vehicles.
- **Criticism:**
 - The Opposition, environmentalists, architects and citizens have raised many concerns even before the pandemic brought in extra issues.

- They have **questioned the lack of studies** to ascertain the need for the project and its impact on the environment, traffic and pollution.
- Several key approvals for the proposed Parliament building have been pushed during the lockdown. This led to allegations of a **lack of transparency**.
- They argue that in the **situation created by the pandemic, the project must be deferred as the country can't afford it at this time**.

Differential Licensing on Telecom Sector

Why in News

Recently, various telecom operators have collectively **opposed the move to introduce differential licensing via unbundling** of various layers (infrastructure, network, services, and application layer).

Key Points

- **Background:**
 - In **May 2019**, the **Department of Telecommunications (DoT)** informed that the **National Digital Communications Policy 2018**, under its '**Propel India**' mission, envisages **reforming the licensing and regulatory regime** to catalyse investments and innovation and promote Ease of Doing Business.
 - **Enabling unbundling of different layers through differential licensing** is one of the action plans for fulfilling the strategy.
 - For that, the **Telecom Regulatory Authority of India (TRAI)** was requested to **furnish recommendations and seek stakeholders' (telecom operators) inputs** on possible benefits and measures.
- **Current Licencing Regime:**
 - The grant of telecom licenses in India is primarily governed by the **Indian Telegraph Act 1885**, and the **Indian Wireless Telegraph Act 1933**.
 - These Acts provide an **exclusive authority to the Central Government** for establishing, maintaining, and working telegraphs, and wireless telegraphy equipment, and to grant licenses for such activities.
 - The 1885 Act defines "**Telegraph**" as any appliance, instrument, material or apparatus used or capable of use for transmission or

Note:

reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, visual or other electromagnetic emissions, Radio waves or Hertzian waves, galvanic, electric or magnetic means.

- In **November 2003**, the **Unified Access Service License (UASL)** regime was introduced which permitted an access service provider to offer both fixed and/or mobile services under the same licence, using any technology. It came into being in 2013.
- In **June 2012**, the **National Telecom Policy** was issued with the **aim to simplify the licensing framework**, and to strive for the creation of **One Nation-One License** across services and service areas.
- **Issues Highlighted:**
 - Separating the network licence will **introduce uncertainty** in the licensing regime and **adversely impact the future investment** in the networks.
 - A converged licence for network and service layer **offers clarity and certainty to an operator** making an investment in the network.
 - Any such changes will require **business models to be reconfigured** which would be **counterproductive**.
 - The **process of unification is yet to be completed** under the existing licensing regime and the **proposal** to unbundle network and service layers with a completely new type of licensing regime would **introduce a great level of uncertainty in the system**, with **unknown and unpredictable impact on investments**.
- **Measures if Implemented:**
 - There **should not be any mandatory migration** of licences until the validity of existing licences.
 - A **clear compensation methodology** should also be enumerated, especially for investments made in the last 10 years.
 - **Address the underlying issue of the poor financial health** of the telecom sector.
 - Strengthening telecom infrastructure which would **require enormous fund infusion**, estimated to be about Rs. 2,00,000 crore over the next 2-3 years.
 - The government needs to **provide incentives, reduce regulatory cost, provide appropriate policy and financial stimulus** to the existing service providers.

Tele-Law

Why in News

Tele-Law touched a new milestone on october 30th 2020 by providing legal advice to 4 million beneficiaries through **Common Service Centres**.

- **Common Services Centre (CSC)** programme is an initiative of the **Ministry of Electronics & IT (MeitY)**, that serves as the access points for delivery of various electronic services to villages in India, thereby contributing to a **digitally and financially inclusive society**.

Key Points

- **About:** Tele-Law programme was launched by the **Ministry of Law and Justice** in collaboration with the **Ministry of Electronics and Information Technology (MeitY)** launched in 2017 to address cases at pre-litigation stage.
- **Connect Lawyers to Litigants:** It is a service that uses video conferencing facilities and telephone services to connect **lawyers to litigants** who need legal advice. This service aims to reach out to the needy especially the marginalized and disadvantaged.
- **Common Service Centres:** Under this programme, smart technology of video conferencing, telephone /instant calling facilities available at the vast network of **Common Service Centres** at the Panchayat level are used to connect the indigent, down-trodden, vulnerable, unreached groups and communities with the Panel Lawyers for seeking timely and valuable legal advice.
- **Benefits:** Tele Law service enables anyone to seek legal advice without wasting precious time and money. The service is free for those who are eligible for free legal Aid as mentioned under **Section 12 of the Legal Services Authority Act, 1987**. For all others a nominal fee is charged.
 - According to a recent report titled '**Quality of Legal Representation: An Empirical Analysis of Free Legal Aid Services in India**', the majority of the people who are entitled to the free legal aid system see the service as an option only when they cannot afford a private lawyer.
- **Supports SDGs:** It can be noted that this initiative is in line with **Sustainable Development Goal-16**, which

Note:

seeks to “**Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**”.

Legal Services Authorities (LSA) Act

- In 1987, the Legal Services Authorities (LSA) Act was enacted to give free and competent legal services to the poor and paved the way for the constitution of **National Legal Service Authority (NALSA)** and other legal service institutions at the State, district and taluka level.
- Free legal services under LSA Act are available to a person belonging to Schedule Tribe and Schedule Caste, woman, child, victim of human trafficking, differently abled person, industrial workman, and person in custody in a protective home and the poor.

Constitutional Provision

- **Article 39A of the Constitution of India** provides that State shall secure that the operation of the legal system promotes justice on a basis of equal opportunity, and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disability.
- **Articles 14 and 22(1)** also make it obligatory for the State to ensure equality before the law and a legal system which promotes justice on a basis of equal opportunity to all.

Initiatives for Cities: MoHUA

Why in News

Recently, the **Ministry of Housing and Urban Affairs** has launched **three initiatives**, which are the **Nurturing Neighborhoods Challenge**, **Data Maturity Assessment Framework-Cycle 2** and **On-line training programme for City Data Officers (CDOs)**.

Key Points

- **Nurturing Neighborhoods Challenge:**
 - It is a **three-year initiative** that will **support cities** to develop, pilot, and scale solutions that **enhance the quality of life of young children**, their caregivers and families in the public realm.

- It will be **open to** all smart cities, other cities with more than 5,00,000 population, and capitals of states and Union territories.
- **Cities will receive technical assistance and help** in capacity-building to re-imagine parks and open spaces, improve access to early childhood facilities, adapt public spaces with early childhood-oriented amenities and create accessible, safe, walkable streets for young children and families.
- **Data Maturity Assessment Framework-Cycle 2:**
 - It will support cities in the **creation of ‘culture of data’**.
 - The **core objective** of this framework is to enable cities to assess their own data maturity with respect to a standardised framework covering aspects of enabling policies, governance structures, data management, capacity building, and stakeholder engagement at the city level.
 - **Data Maturity:** It is the extent to which an organisation utilises the data they produce.
 - This is expected to **play an enabling role in democratising the data culture** for open innovation, collaboration, co-creation and academic research.
 - The assessment for this cycle has been **expanded to include cities other than Smart Cities**.
 - It is in line with the **Digital India Campaign** which ensures that the government services are made available to citizens more efficiently by leveraging data and digital technologies.
 - **Background:**
 - The **Smart Cities Mission** launched the **DataSmart Cities Strategy** in February 2019, as a roadmap for harnessing the potential of data to address complex urban challenges across 100 cities.
 - To successfully implement this initiative, the **Data Maturity Assessment Framework** was also launched to encourage cities to strengthen their data infrastructure and facilitate them in assessing their readiness and maturity on data.
- **Online Training Programme for City Data Officers:**
 - **Specially designed for CDOs appointed in the 100 Smart Cities**, it is a practice-based digital course that will expose CDOs to basic and advanced tools for data collection, analysis and visualisation.
- **Other Recent Initiatives:**
 - **Climate-Smart Cities Assessment Framework (CSCAF) 2.0**, along with the ‘**Streets for People Challenge**’.
 - **India Cycles4Change Challenge**.

Note:



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Gandhian Young Technological Innovation Awards

Why in News

Recently, the Union Minister of Science and Technology has given **Gandhian Young Technological Innovation (GYTI) Awards** to encourage technology students to move towards setting up biotechnology and other start-ups.

Key Points

- GYTI awards constitute **two categories** of awards:
 - **Students Innovations for Advancement of Research Explorations-Gandhian Young Technological Innovation (SITARE-GYTI):**
 - **Given To:** Every year to the most promising technologies developed by the students in life sciences, biotechnology, agriculture, **medical devices**, etc.
 - **Given By:** The Biotechnology Industry Research Assistance Council (BIRAC), a public sector enterprise, set up by the Department of Biotechnology (DBT).
 - **Society for Research and Initiatives for Sustainable Technological Innovations-Gandhian Young Technological Innovation (SRISTI-GYTI):**
 - **Given To:** Every year to students in other engineering disciplines except for the ones covered by SITARE-GYTI.
 - **Given By:** Society for Research and Initiatives for Sustainable Technological Innovations (SRISTI), a developmental voluntary organisation.

Initiatives Aimed at Boosting Start-Ups

- **Scientific Social Responsibility Policy:**
 - Currently, the government is working on a **Scientific Social Responsibility Policy** with a focus on how efforts of scientists can benefit all sections of society.
- **Biotechnology Ignition Grant Scheme:**
 - It is the flagship programme of BIRAC, which provides **support to young startups and entrepreneurial individuals**.
 - It is the **largest early-stage biotech funding programme in India** with the funding **grant of up to Rs. 5 million** to best in class innovative ideas to build and refine the idea to proof-of-concept.

Aims:

- Foster generation of ideas with commercialisation potential.
- Upscale and validate proof of concept.
- Encourage researchers to take technology closer to market through a start-up.
- Stimulate enterprise formation.

➤ Encouraging Youth for Undertaking Innovative Research through Vibrant Acceleration (E-YUVA) Scheme:

- It will engage a number of universities and technology institutes to serve as mentors, which will help to create a pan-India network to encourage a larger number of student entrepreneurs.
- It aims to **promote a culture of applied research and need-oriented** (societal or industry) entrepreneurial innovation among young students and researchers.
- It is implemented through E-YUVA Centres (EYCs) to inculcate entrepreneurial culture through fellowship, pre-incubation and mentoring support.
- It provides **support for students under the following two categories:**
 - BIRAC's Innovation Fellows (for postgraduates and above).
 - BIRAC's E-Yuva Fellows (for undergraduate students).

➤ Biologically-inspired Resilient Autonomic Cloud (BioRAC) helps more and more students who try to set up start-ups and help India become **Atmanirbhar** (self-reliant).

- BioRAC employs **biologically inspired techniques and multi-level tunable redundancy techniques to increase attack and exploitation resilience in cloud computing**, helping it tolerate and minimise the impact of novel **cyber-attacks**.

Special Courts for Trial against Legislators

Why in News

Recently, a three-judge Bench of the Supreme Court has said that the setting up special courts to expeditiously try sitting and former MPs and MLAs accused of various crimes is in **public interest** and will enhance faith in judiciary.

Note:

- The Bench was **considering a report filed by a committee of the Madras High Court** that raised reservations over the setting up of special courts to exclusively try legislators for various offences.

Key Points

- **Background:**
 - In **2017**, the Supreme Court had **ordered that special courts be set up** across the country to **fast-track the long-pending trials of lawmakers**.
 - Following this, **12 special courts were set up across 11 States** exclusively to try sitting MPs and MLAs.
 - The **special court in each State has jurisdiction over the entire State** while the two in Delhi cover cases within the precincts of Delhi or "partly Delhi".
 - In September 2020, **SC-appointed amicus curiae** (friend of the court), in his two reports, highlighted that despite the best efforts by the court to constitute special courts for trying cases against legislators, **close to 4,442 criminal cases involving 2,556 sitting members of Parliament (MP) and members of legislative assemblies (MLAs)** are pending. **Reasons** for delayed trial:
 - **Stays** granted by various high courts,
 - **Insufficient special courts** to exclusively try cases against MPs/MLAs,
 - **Shortage of prosecutors and latches in prosecution,**
 - **Delayed investigation.**
 - Considering the reports, the **SC passed an order that criminal trials involving elected representatives will be monitored by a special bench of each high court** and in cases where a trial has been stayed, the special bench will hear and decide on continuing or cancelling the stay, preferably within two months.
 - Expediting cases against legislators is required not only because of the **rising wave of criminalization that is occurring in the politics** in the country, but also due to the **power that elected representatives** wield to influence or hamper effective prosecution.
- **Reservation of the Committee of the Madras High Court:** It has **questioned the constitutional validity** of setting up Special Courts to exclusively try MPs and MLAs for various crimes.

- Special Courts can only be **constituted by a statute** and not by executive or judiciary.
- The Special Courts **should be "offence-centric" and not "offender-centric."**
 - For example, an MP/MLA, who commits an offence under the POCSO Act can only be tried by a Special Court created under the POCSO Act and there cannot be another Special Court exclusively for trial of an MP/MLA, who commits POCSO offence.
- Further, it **questioned how one Special Court could cover the cases across all districts** of a State. Witnesses may face travelling and other issues.
- It also referred to **how cases are filed and withdrawn in a State** when a government gets changed in that State.

Criminalization of Politics

- **Reasons:** Criminalization of politics in India includes political control of the police, state money, corruption, weak laws, lack of ethics, values, vote bank politics and loopholes in the function of the election commission.
- **Data Analysis:** According to the **Association of Democratic Reforms (ADR)**, nearly half of the newly-elected Lok Sabha members (2019) have criminal charges against them, a 26% increase as compared to 2014.
- **Legal Provisions:**
 - **Section 8 of the Representation of the People Act, 1951**, bans **convicted** politicians (for certain offences) from contesting. However, those facing trial, no matter how serious the charges, are free to contest.
 - According to **Article 102 (1) of the Constitution**, Parliament is obliged to make a law on the matter.
- **Related Orders by the Supreme Court:**
 - In February 2020, the Supreme Court **ordered political parties to publish the entire criminal history of their candidates** for Assembly and Lok Sabha elections along with the reasons that goaded them to field suspected criminals over decent people.
- **View of the Election Commission:**
 - The **EC** had **supported the plea seeking life ban on politicians convicted in criminal cases.**
 - The EC proposal to **bar candidates accused of an offence punishable with at least five years of**

Note:



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imprisonment from contesting elections, after charges are framed against them by a court, has been opposed by many parties.

- The opposition is based on two grounds: ruling politicians will misuse this against the Opposition; and the law of the land assumes everyone to be innocent till proven guilty or convicted.

Growing Trend of Jobs for Locals

Why in News

Recently, **Haryana** Assembly has passed the **Haryana State Employment of Local Candidates Bill, 2020** to reserve 75% of private-sector jobs in the state for local residents.

- It has led to a new **debate on the growing trend of jobs for locals** and the **associated concerns**.

Key Points

- **Provisions of the Bill:**
 - Every employer shall **employ 75% of the local candidates** with respect to such posts where the **gross monthly salary or wages are not more than Rs. 50,000 or as notified by the government**, from time to time.
 - Provided that the local candidates **may be from any district of the State**, but the **employer may, at his option, restrict the employment of local candidates from any district to 10%** of the total number of local candidates.
 - A designated portal shall be made on which local candidates and the employer will have to register and local candidates shall not be eligible to avail the benefit unless they register themselves on the designated portal.
- Once it becomes law, it will **apply to companies, societies, trusts, limited liability partnership firms, partnership firms, etc. located across the state**.
- It has been criticised for **not being in the best interest of the industries** as it will affect the competitiveness of the industries and will lead to **loss of investments in Haryana**.

Jobs For Locals

- **Job Reservation for Locals:**

- **Nativism**, the **cry for job protection of locals**, has been **on a rise recently in India**.
- Various states have taken similar steps with respect to **job reservation for locals (JRFL)** with the **promised reservations ranging from 30% to the more common range of 70-80%**.
- The move is applicable to both the government and/or the private sector.
- **Earlier Attempts:**
 - It has been mooted by several parties (ruling or opposition leaders) in States such as Maharashtra (1968 onwards and 2008), Himachal Pradesh (2004), Odisha (2008), Karnataka (2014, 2016, 2019), Andhra Pradesh (2019), Madhya Pradesh (2019).
 - **However, none of these has been implemented** and has remained only on paper **due to lack of implementation mechanism and reluctant attitudes of industries bodies**.
- The Constitution of India **guarantees freedom of movement and consequently employment within India** through several provisions.
 - **Article 14** provides for equality before law irrespective of place of birth.
 - **Article 15** guards against discrimination based on place of birth.
 - **Article 16** guarantees no birthplace-based discrimination in public employment.
 - **Article 19** ensures that citizens can move freely throughout the territory of India.
- **Reasons Behind Such Legislations:**
 - **Vote Bank Politics: Inter-state migrant workers (ISMW)** constitute a sizeable “under-used or un-used” electorate as they **often do not exercise voting rights**. If these workers and potential migrants could be retained through JRFL and provided with jobs, the **parties’ electoral causes will be served**.
 - **Economic Sluggishness:** The native unemployment issue assumes relevance as joblessness has intensified in the context of shrinking government employment.
 - **Increased Incomes and Talent:** JRFL will not only retain talent but also incomes which otherwise will go to “other regions”.
 - **Precondition for Land Acquisition:** Farmers and villagers, who lose their land in the process of land acquisition for industries, keep such preconditions in which industries have to provide jobs to local youth.

Note:



➤ **Impacts:**

- **Reduced job creation due to deterrence for industries** in a state with such restrictions. This would do **more harm to natives** than actually benefiting them.
- Such restrictions **may hamper the growth and development prospects** of the respective state as well as the country by **affecting ease of doing business**.
- Restrictions on labour mobility would **disregard this advantage of the diverse labour pool**, which is a strength of the Indian economy.
- May **promote aggressive regionalism** and thus a threat to the unity and integrity of India.
- **Increased risks of labour shortages, rise in unemployment, aggravate wage inflation and worsened regional inequalities** are few other possible impacts.

National Water Awards

Why in News

The **Department of Water Resources, River Development and Ganga Rejuvenation of the Ministry of Jal Shakti**, is organising the **2nd National Water Awards (NWAs)** for the year 2019.

Key Points

➤ **National Water Awards:**

- The awards are organised by the **Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti**.
- The NWAs were launched in **2007** for the first time along with the **Ground Water Augmentation Awards** and the winners in different categories are given a **citation, trophy and cash prize**.
- These focus on the good work and efforts made by individuals and organisations across the country, and the government's vision for the path to '**Jal Samridh Bharat**'.
- **Objectives:**
 - To **motivate** individuals/organisations who are doing commendable work in the field of **water resources conservation and management**.
 - To **create awareness** among the people about the importance of water and encourage them to adopt the best water usage practices.

- **Opportunities Provided: Start-ups, leading organisations and people can engage, deliberate and strengthen existing partnerships** on issues concerning water conservation and management activities.

➤ **Need for Water Conservation and Management:**

- Depletion of water resources due to **overuse and decline in water supplies due to climate change** is pushing India closer to the tipping point of water scarcity.
- Apart from these, several government policies especially pertaining to agriculture resulted in **over-exploitation of water**. These factors make India a water-stressed economy. In this context, there is a need for **water resource conservation and management**.

Initiatives by the Government

➤ **Mahatma Gandhi National Rural Employment Guarantee Act:**

- The huge workforce employed under the MGNREGA has **enabled the government to introduce water conservation** as a project under the Act.
- The government **aims to improve groundwater harvesting, build water conservation and storage mechanisms** through MGNREGA.

➤ **Jal Kranti Abhiyan:**

- Under it, the government is making active efforts to **revolutionise villages and cities through block-level water conservation schemes**.
- For example, the **Jal Gram Scheme** under the Jal Kranti Abhiyan is aimed at **developing two model villages** in water-starved areas to lead the other villages towards water conservation and preservation.

➤ **National Water Mission:**

- It was launched with the objective of **conservation of water, minimising wastage and ensuring more equitable distribution** both across and within States through integrated water resources development and management.

➤ **NITI Aayog's Composite Water Management Index:**

- With the objective of achieving effective utilization of water, **NITI Aayog** has developed the Composite Water Management Index.

Note:



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➤ **Jal Shakti Ministry and Jal Jeevan Mission:**

- The efforts like the **formation of Jal Shakti Ministry** (to tackle water issues holistically) and the goal to provide **pipelined water to all rural households by 2024**, under the Jal Jeevan mission, are steps in the right direction.

➤ **Atal Bhujal Yojana:**

- It is a **central sector scheme worth Rs. 6,000 crore** for sustainable management of groundwater with community participation.
- It envisages people's participation through the formation of 'Water User Associations', water budgeting, preparation and implementation of Gram-panchayat-wise water security plans, etc.

➤ **Jal Shakti Abhiyan:**

- It was launched in **July 2019** as a **campaign for water conservation and water security** in the country.

Academic Freedom in India

Why in News

India has scored considerably low in the international **Academic Freedom Index (AFI)** with a score of 0.352.

- **Academic freedom**, in general, refers to a scholar's freedom to express ideas without risk of official interference or professional disadvantage.

Key Points

➤ **About the Academic Freedom Index:**

- It has been **published by Global Public Policy Institute** as a part of a global time-series dataset (1900-2019) in close cooperation with **Friedrich-Alexander University Erlangen-Nürnberg, Scholars at Risk and the V-Dem Institute**.
- It **compares** levels of academic freedom worldwide and enhances the understanding of its curtailments.
- The AFI used **eight components** to evaluate the scores: freedom to research and teach, freedom of academic exchange and dissemination, institutional autonomy, campus integrity, freedom of academic and cultural expression, constitutional protection of academic freedom, international legal commitment to academic freedom under the International Covenant on Economic, Social and Cultural Rights, and existence of universities.

- The scores are **scaled 0-1**.

- The index **did not report data for 35 countries** - including the United States and Australia.

- **Top Performers:** Uruguay and Portugal top the AFI, with scores of 0.971 each, followed closely by Latvia (0.964) and Germany (0.960).

➤ **India's performance on the index:**

- India with a **score of 0.352**, is closely **followed by Saudi Arabia (0.278) and Libya (0.238)**.
 - In the last five years, the AFI of India **has dipped by 0.1 points**.
- Countries like Malaysia (0.582), Pakistan (0.554), Brazil (0.466), Somalia (0.436) and Ukraine (0.422) have **scored better than India**.
- India has **not fared well** in components like **institutional autonomy, campus integrity, freedom of academic and cultural expression and constitutional protection of academic freedom**.
- The AFI has cited the '**Free to Think: Report of the Scholars at Risk Academic Freedom Monitoring Project**', to suggest that the **political tensions in India may have something to do with declining 'academic freedom'**.
 - According to the Report, **political tensions in India have led to violent altercations between students, security forces, and off-campus groups**, and have driven legal actions and **disciplinary measures against scholars** critical of those in power.

Challenges for India

- **Freedom to Scholars:** India fails to provide desired freedom to scholars to discuss politically and culturally controversial topics, without fearing for their life, studies or profession.
- **Political Interference:** Most universities in the country are subjected to unsolicited interference from governments in both academic and non-academic issues. It is common knowledge by now that a majority of appointments, especially to top-ranking posts like that of vice-chancellors, pro vice-chancellors and registrars, have been highly politicized.
- **Corrupt Practices:** Political appointments not only choke academic and creative freedom, but also lead to corrupt practices, including those in licensing and accreditation.

Note:



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- **Bureaucratisation of Universities:** At present, many educational institutions and regulatory bodies, both at the Central and State levels, are headed by bureaucrats.
- **Nepotism:** Favouritism and nepotism in staff appointments and student admissions. This reflects a 'rent-seeking culture' within the academic community.
 - Rent-seeking is an economic concept that occurs when an entity seeks to gain added wealth without any reciprocal contribution of productivity. Typically, it revolves around government-funded social services and social service programs.

Solutions

- **Implementing New Education Policy (NEP) 2020:**
 - The NEP 2020 claims that it is based on **principles of creativity and critical thinking** and envisions an education system that is **free from political or external interference**.
 - The policy states that faculty will be given the "freedom to design their own curricular and pedagogical approaches within the approved framework, including textbook and reading material selections, assignments and assessments".
 - It also suggests constituting a **National Research Foundation (NRF)**, a merit-based and peer-reviewed research funding, which "will be governed, independently of the government, by a rotating Board of Governors consisting of the very best researchers and innovators across fields".
 - Further, it aims to **de-bureaucratise the education system** by giving **governance powers to academicians**. It talks about giving autonomy to higher education institutions by handing over their administration to a board comprising academicians.
- **Regulatory and Governance Reforms:**
 - **Restructure or merge different higher education regulators** (UGC, AICTE, NCTE etc.) to ensure effective coordination. Amend **UGC Act, 1956** to give legislative backing to regulatory structure.
 - **Select Vice-Chancellors** of universities through a transparent & objective process.
 - Link **University grants** to performance.

One Rank One Pension

Why in News

The central government has disbursed more than

Rs. 42,700 crore to 20.6 lakh retired defence personnel under the **One Rank One Pension** (OROP) scheme, which was notified 5 years ago in 2015.

Key Points

- OROP means the payment of the **same pension** to military officers **for the same rank for the same length of service**, irrespective of the date of retirement.
 - Before OROP, ex-servicemen **used to get pensions as per the Pay Commission's recommendations of the time** when they had retired.
- **Uttar Pradesh** and **Punjab** have the highest number of OROP beneficiaries.
- Armed Forces Personnel who had retired till **30th June 2014** are covered under it.
- The implementation of the scheme was based on recommendation of the **Koshiyari committee**, a 10 member all-party parliamentary panel formed **under the chairmanship of Bhagat Singh Koshiyari**.

National Legal Services Day

Why in News

The **National Legal Services Day** is celebrated on **9th November** every year to spread awareness for ensuring reasonable fair and justice procedure for all citizens.

Key Points

- National Legal Services Day (NLSD) was first started by the **Supreme Court of India** in 1995 to provide help and support to poor and weaker sections of the society.
- Free legal services are provided in matters before **Civil, Criminal and Revenue Courts, Tribunals** or any other authority exercising judicial or quasi judicial functions.
- **In line with Constitutional Provisions:**
 - **Article 39A** of the Constitution of India provides that State shall secure that the operation of the legal system **promotes justice** on a basis of **equal opportunity**, and shall in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disability.
 - **Articles 14 and 22(1)** also make it **obligatory** for the State to ensure equality before law and a legal

Note:



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system which promotes justice on a basis of equal opportunity to all.

➤ **Objectives of Legal Services Authorities are:**

- Provide free legal aid and advice.
- Spread legal awareness.
- Organise **lok adalats**.
- Promote settlements of disputes through **Alternative Dispute Resolution (ADR)** Mechanisms. Various kinds of ADR mechanisms are **Arbitration, Conciliation, Judicial settlement including settlement through Lok Adalat, or Mediation**.
- Provide compensation to victims of crime.

➤ **Legal Services Institutions for providing Free Legal Services:**

- **National Level** : National Legal Services Authority (NALSA) was constituted under the **Legal Services Authorities Act, 1987**. The **Chief Justice of India** is the **Patron-in-Chief**.
- **State Level** : State Legal Services Authority. It is headed by the **Chief Justice of the State High Court** who is its Patron-in-Chief.
- **District Level** : District Legal Services Authority. The **District Judge** of the District is its **ex-officio Chairman**.
- **Taluka/ Sub-Division Level** : Taluka/ Sub-Divisional Legal Services Committee. It is headed by a senior Civil Judge.
- **High Court** : High Court Legal Services Committee
- **Supreme Court** : Supreme Court Legal Services Committee

CCI to Probe Google

Why in News

The **Competition Commission of India (CCI)** has initiated a probe into alleged abuse of dominant position by the company to promote its **payments app, Google Pay**.

Key Points

- CCI highlighted **two main anti market practices** by google to unfairly **push Google Pay** it's payment app:
 - **Mandatory Use**: Google's policy of **mandatory use of Google Play's payment system** for purchasing the apps and IAPs (in-app purchases) in the Play Store.

- **Exclusionary Practices**: It **excluded** other mobile **wallets/ UPI (Unified Payments Interface)** apps as one of the effective payment options in Google Play's payment system.
- The CCI also criticised Google's policy to charge **30% commission for all app and in-app purchases**. Since Google's Play store cornered about 90% of all downloads, a **significant volume of payments being processed** in the market would thus be **controlled** by it.
 - If the application developers raise their subscription fees **to offset the costs** of google's commission or remove/ reduce premium/ paid subscription offers for users, **it may affect user experience, cost and choice**. Such conditions imposed by the app stores **limit the ability of the app developers** to offer payment processing solutions of their choice to the users.
- CCI also highlighted reports of Google abusing its **dominant position in the Android-television market by creating barriers for companies** which wanted to use or modify its Android operating systems for their smart televisions.
- The probe against Google Pay comes days after the **National Payments Corporation of India (NPCI)** allowed rival **Facebook-owned WhatsApp to go live on the UPI** in the multi-bank model.
- This is Google's **third major antitrust challenge** in India:
 - In 2018, the CCI fined Google \$21 million for **'search bias'**:
 - It was alleged that Google was indulging in abuse of a dominant position in the market for online search through practices leading to search bias and search manipulation, among others.
 - In 2019, the CCI started probing Google for allegedly misusing its **dominant position to reduce the ability of smartphone manufacturers** to opt for alternate versions of its Android mobile operating system.
- **Other countries where Google facing antitrust probe:**
 - Regulatory scrutiny in the **European Union** for anti-competitive behaviour.
 - The **United States Department of Justice (DoJ)** also **sued Google** alleging the company had abused its dominant position in a way that had harmed its competitors as well as customers.

Note:

Competition Act, 2002

- It was passed in 2002 and was amended by the **Competition (Amendment) Act, 2007**. It follows the philosophy of modern competition laws.
- The **Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act)** was repealed and replaced by the **Competition Act, 2002**, on the recommendations of **Raghavan committee**.
- The Act **prohibits** anti-competitive agreements, abuse of dominant position by enterprises and regulates combinations, which causes or likely to cause an appreciable adverse effect on competition within India.
- In accordance with the provisions of the Amendment Act, the **Competition Commission of India** and the **Competition Appellate Tribunal (COMPAT)** were established.
- The government replaced COMPAT with the **National Company Law Appellate Tribunal (NCLAT)** in 2017.

Competition Commission of India

- It is a statutory body responsible for enforcing the objectives of the **Competition Act, 2002**.
- Composition: A **Chairperson and 6 Members** appointed by the Central Government.
- **Objectives:**
 - To eliminate practices having adverse effects on competition.
 - Promote and sustain competition.
 - Protect the interests of consumers.
 - Ensure freedom of trade in the markets of India.
- The Commission is also required to **give an opinion on competition issues** on a reference received from a statutory authority established under any law and to undertake competition advocacy, create public awareness and impart training on competition issues.

Amendment in FCRA Rules

Why in News

Recently, the **Ministry of Home Affairs (MHA)** has notified new rules under the **Foreign Contribution Regulation Act (FCRA) 2010**, thereby amending the **FCRA Rules, 2011**.

Key Points➤ **Background:**

- FCRA, **first enacted in 1976**, was amended in **2010** to **regulate the foreign contributions or donations and hospitality** (air travel, hotel accommodation, etc.) to Indian organisations and individuals and to stop such contributions which might damage the national interest.
- In September 2020, it was **amended again** to **enhance transparency and accountability** in the receipt and utilisation of foreign contributions and facilitating the genuine non-governmental organisations or associations who are working for the welfare of society.
- FCRA is **applicable to all associations, groups and non-governmental organisations (NGOs)** who intend to receive foreign donations.
- As per the FCRA, **members of legislatures, political parties, government officials, judges and media persons are prohibited** from receiving any foreign contribution.

➤ **New Rules:**

- Norms for **farmers, students, religious and other groups** who are not directly aligned to any political party to receive foreign funds and if the groups are not involved in active politics, have been relaxed.
- FCRA **registrations** have been made **more stringent**.
 - Any organisation that wants to register itself under FCRA shall be in existence for **three years** and should have spent a minimum amount of **Rs. 15 lakh** on its core activities for the benefit of society during the last three financial years.
 - However, the **Central Government** in exceptional cases or in cases where a person is controlled by the Central Government or a State Government **may waive the conditions**.
 - **Office bearers of NGOs or organisations** seeking registration under the FCRA are required to **submit a specific commitment letter** from the donor indicating the amount of foreign contribution and the purpose for which it was being given.
- **Political Groups:**
 - A **new clause has been inserted** which says that groups mentioned in **Clause V and VI of Rule 3** will **only be considered a political group** by the Centre if they participate in **“active politics or party politics”**.

Note:



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- Earlier, rules dealt with “guidelines for the declaration of an organisation to be of a political nature, not being a political party”, and the Central government could specify an organisation as that of political nature based on certain criteria.
- **Clause V** qualified a political group as organisations of farmers, workers, students, youths based on caste, community, religion, language or otherwise, which is not directly aligned to any political party, but whose objectives as stated in the memorandum of association, or activities gathered through other material evidence, include steps towards advancement of political interests of such groups.
- **Clause VI** qualified a group as political if the organisation by whatever name habitually engages itself in or employs common methods of political action like *rasta roko*, *jail bharo*, *rail roko*, *bandh* or *hartal* in support of public causes.

Regulations on OTT and Digital Content

Why in News

Recently, the Government has brought **Over The Top (OTT) platforms**, or digital video streaming service providers such as Netflix, Amazon Prime and others, under the ambit of the Ministry of Information and Broadcasting.

Key Points

➤ Background:

- The government had **indicated the necessity to monitor these platforms** and wanted the platforms to come up with a self-regulatory body.
- In **January 2019**, eight video streaming services had **signed a self-regulatory code** that laid down a set of **guiding principles for content on these platforms which prohibited five types of content**:
 - Content that deliberately and maliciously **disrespects the national emblem or national flag**.
 - Any visual or storyline that **promotes child pornography**.

- Any content that “maliciously” intends to **outrage religious sentiments**.
- Content that “deliberately and maliciously” **promotes or encourages terrorism**.
- Any content that has been **banned for exhibition or distribution by law or court**.

- However, the **government refused to support** this code and **expressed displeasure** at a model suggested by the **Internet and Mobile Association of India (IAMAI)**, and **Digital Curated Content Complaints Council (DCCC)**.
 - IMAI is a **not-for-profit industry body** registered under the **Societies Registration Act, 1860**. Its mandate is to expand and enhance the online and mobile value-added services sectors
 - DCCC was **launched by the Online Curated Content Providers (OCCP) in February 2020** to **empower consumers** to make informed choices on viewing content over OTT platforms and to also provide consumers with a complaints redressal mechanism.
- It held that the model **lacked independent third-party monitoring**, did not have a well-defined code of ethics and did not clearly enunciate prohibited content.

➤ Current Order:

- It covers “**Digital/Online Media**”, including “**films and audio-visual programmes made available by online content providers**” and “**news and current affairs content on online platforms**”.
- It will give the government control over these platforms, which were unregulated **till now as there is no law or autonomous body governing digital content**.
- Online content providers come **under the legal framework of the Information Technology Act 2000** but, unlike print and broadcast media, were **not directly under any Ministry**.
- However, there are no **details on how the government will regulate it**. There is a **possibility that the Programme Code** of the **Cable Television Network Regulation Act 1995**, that governs content on TV, **may serve as a template** to frame rules for online content.

➤ Reasons Behind the Order:

- The Ministry also keeps receiving **complaints from the public underlining the concerns of unregulated**

Note:



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content and need to regulate it. In **October 2020**, the **Supreme Court** issued notice to the Centre and the IAMAI, on a petition to regulate OTT platforms.

- The Ministry is **already regulating news and entertainment content on TV and radio** through statutory bodies so it is important to bring the digital content under its purview as well.
- With the growth of the digital media and a significant shift of viewership from traditional media platforms to digital media, there is a real **need for having an appropriate oversight framework for online news and content**, at par with traditional media platforms.

Rules and Regulatory Bodies for Other Platforms

➤ **Regulations:**

- The **Cable Television Network (Regulation) Act, 1995** penalises television channels for any violation of the programming and advertising.
 - Complaints can be sent directly to the Ministry, or raised through the internal mechanism of the Electronic Media Monitoring Centre.
- In **November 2019**, the Government had brought out a **draft Registration of Press and Periodicals (RPP) Bill**, which sought to replace the 150-year-old Press and Registration of Books Act, 1867.
- **Cable Networks Regulation Act 2005** regulates both news and entertainment on television.

➤ **Various Sectors and Regulating Bodies:**

- **Print Media:**
 - **Press Council of India** (a statutory, quasi-judicial authority).
- **Television:**
 - **News Broadcasting Standards Authority** (self-regulatory body) set up by the **News Broadcasters Association** (NBA) regulates television news.
 - **Electronic Media Monitoring Centre**, set up in 2008, monitors content on TV.
 - **Broadcasting Content Complaints Council** (independent and self-regulatory) for television entertainment.
- **Films:**
 - **Central Board of Film Certification** (CBFC) under the Ministry of Information and Broadcasting.
- **Advertisement:**

- **Advertising Standards Council of India** (a self-regulatory body).

National Agricultural Education Policy

Why in News

The **first National Agricultural Education Policy** is set to bring **academic credit banks and degree programmes with multiple entry and exit options** to the 74 universities focussed on crop sciences, fisheries, veterinary and dairy training and research.

- The process for formulating the **National Agricultural Education Policy** was started about two months ago, after the release of the **National Education Policy (NEP) 2020**.

- Earlier, the Prime Minister had pitched for **taking farm education to middle school level**, saying necessary reforms have been made in this regard in the NEP 2020.

Key Points

- **Agricultural Education Policy to be Aligned with NEP 2020:**

○ **Academic Credit Banks:**

- These may be a service provider available to a desirable student community. It may facilitate the **integration of the campuses and distributed learning systems**, by creating **student mobility within the inter and intra university system**.
- It may help in seamlessly **integrating skills and experiences into a credit based formal system** by providing a credit recognition mechanism.
- It will **digitally store academic credits** earned from recognised **Higher Education Institutions (HEIs)** and allow for credit redemption in order to be awarded a certificate, diploma or degree.

➤ **Experiential Education:**

- In India, agricultural education is already ahead of its time, and already aligned with the NEP. The NEP wants a **shift to four-year undergraduate degrees**, and agricultural degrees are already four-year programmes.
- The NEP mentions **experiential education**, which has been already mandated in agricultural education since 2016.

Note:



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- Experiential education is a **teaching philosophy** that informs many methodologies in which educators purposefully engage with learners in direct experience and focused reflection in order to increase knowledge, develop skills, clarify values, and develop people's capacity to contribute to their communities.
- The **Student READY (Rural Entrepreneurship Awareness Development Yojana)** programme requires all students to undertake a six-month internship, usually in their fourth year, to gain hands-on training, rural awareness, industry experience, research expertise and entrepreneurship skills.
- One **major challenge** is to ensure that experiential learning is made available to all students if the **multiple entry-exit system** gets implemented.
 - The option of multiple entry and exit provides students with the opportunity to earn a diploma or an advanced diploma, while they are given the choice to re-enter as and when they are able to resume their studies and earn a full college degree.

➤ **Issues:**

- **Challenge of Multidisciplinary:**
 - Agricultural universities have been modelled on the **land grant pattern**, with a focus on research and extension, and deep community connections, driven by the philosophy that farmers need holistic solutions to their problems.
 - However, in recent years, several **domain specific universities** in horticulture, veterinary science and fisheries sciences have come up. Incorporating humanities and social sciences into these settings could be a big challenge.
- **Related to the ICAR:**
 - Though **agricultural education is a State subject**, the **Indian Council of Agricultural Research (ICAR - Ministry of Agriculture and Farmers Welfare)** is responsible for the **quality of education** across the country, and expects to continue in a standards-setting role under the new system of higher education regulation proposed by the NEP.
 - However, it is not clear **whether it will continue in its accreditation and grant making roles** under the new regime.

Draft Data Centre Policy 2020

Why in News

Recently, the **Ministry of Electronics & Information Technology (MeitY)** has released the **Draft Data Centre Policy**, which aims to simplify clearances for setting up data centres in the country.

Key Points

➤ **Vision of the Draft Data Centre Policy:**

- Making **India a Global Data Centre hub**,
- **Promote investment** in the sector,
- Propel **digital economy** growth,
- Enable provisioning of trusted hosting infrastructure to fulfil the growing demand of the country and facilitate state of the art **service delivery to citizens**.

➤ **Terms Defined:**

- **Data Centre:** It is a dedicated secure space within a building / centralized location where computing and networking equipment is concentrated for the purpose of collecting, storing, processing, distributing or allowing access to large amounts of data.
- **Data Centre Parks:** These are specialized secure Data Zone, strategically located with the most conducive non-IT and IT infrastructure, and regulatory environment for housing mix of small scale/large scale clusters of Data Centres to serve the high needs of compute, storage, networking and provision of a wide range of data-related services.

➤ **Provisions:**

- Providing **Infrastructure Status to the Data Centre Sector**, at par with other sectors like Railways, Roadways, and Power.
 - The status will help the sector **avail long-term credit from domestic and international lenders** at easier terms and will give a boost to the investments.
- **Demarcation of specific zones** with necessary infrastructure such as roads, running water and electricity to set up data centre parks.
- A **single-window, time-bound clearance system** for all the approvals required to set up a data-centre park.
- **Formulation of Data Centre Incentivization Scheme (DCIS)** which will specify the intended

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beneficiaries, applicability criteria and fiscal and non-fiscal incentives for the sector.

- Setting-up at least four **Data Centre Economic Zones (DCEZ)** in the country, as a Central Sector Scheme - DCEZ Scheme. DCEZs would create an ecosystem of Hyperscale Data Centres, Cloud Service Providers, IT companies, R&D units and other allied industries.
- In order to address the issues around the high consumption of power, data centre parks would be encouraged to **set up their own power generation units**, and use **renewable energy**.
- Data centres will be declared as an **Essential Service** under “**The Essential Services Maintenance Act, 1968 (ESMA)**” which means that there would be a continuity of services even during times of calamities or crisis.
- **Strengthening the Atmanirbhar Bharat initiative** by identifying possible opportunities of manufacturing of data centre equipment (IT as well as non-IT) in the country.
 - The Policy also identifies possible areas of participation by micro, small, and medium enterprises and start-ups.
- Collaboration with the **Ministry of Skills Development and Entrepreneurship (MSDE)** and leading academic institutes to impart large scale training to workforce on Data Centre, Digital and Cloud technologies, and facilitate sector linkages for such trained workforce.
- An **Inter-Ministerial Empowered Committee (IMEC)** would be set up under the Chairmanship of Secretary, MeitY, with participation from various Central Ministries and State Governments.
 - It shall be the **key decision-making body** to facilitate the implementation of various measures as defined under this policy framework, enabling ease of doing business in the sector.
- An independent **Data Centre Industry Council (DCIC)** is proposed to be set up, which would

act as an interface between the sector and the Government.

Need for a Data Centre Policy

- The need to set up data centre infrastructure in India comes against the backdrop of **data localization norms under the proposed personal data protection legislation** and for “**protection of the digital sovereignty of the country in an increasingly connected world**”.
 - Launch of **National Digital Health Mission (NDHM)** and **Global Partnership on Artificial Intelligence (GPAI)**, which involve use of data.
- The **size of the digital economy** in India is estimated to grow from USD 200 billion in 2017-18 to USD 1 trillion by 2025.
 - India has witnessed **an exponential growth in digital-commerce, digital entertainment and use of social media**.
 - India’s **mobile data consumption is already the highest in the world** and is constantly increasing.
- India also offers **advantages** of having a favourable geographical location on the world map, availability of economic resources, established global connectivity through submarine cables, easy and cost-effective access power and readily available skilled manpower, enabling the nation to become a **global Data Centre hub**.
- There are **known impediments to the growth of data centre sector** such as lack of infrastructure or Industry status of the Data Centres, complex clearance processes, time consuming approvals, high cost of power, lack of published standards, absence of specialised building norms for building the Data Centres, submarine cable network connectivity limited to few states and high cost of capital and operational expenditure etc.
 - Further, the data centre industry has been **largely concentrated in top 4 cities**, with Mumbai, Delhi, Bengaluru and Chennai accounting for 60% of total sites.



Note:

Economic Scenario

Highlights

- Rising GST Revenues
- Provisions For Platform Workers
- UPI Transactions
- Emergency Credit Line Guarantee Scheme
- Growth in Manufacturing: PMI and NIBRI
- WhatsApp UPI and NPCI Regulations
- Virtual Global Investor Roundtable
- Four Years of Demonetisation
- PLI Scheme for Ten More Sectors
- Saffron Cultivation in Northeast
- Annual Meeting of IBA
- Financial Support to Public Private Partnerships in Infrastructure
- Gujarat Maritime Cluster
- Technical Recession in India
- Measures on Aatmanirbhar Bharat 3.0

Rising GST Revenues

Why in News

According to the recent data released by the Finance Ministry, the gross **Goods and Services Tax** (GST) revenue collected in **October 2020** was **Rs. 1.05 lakh crore**.

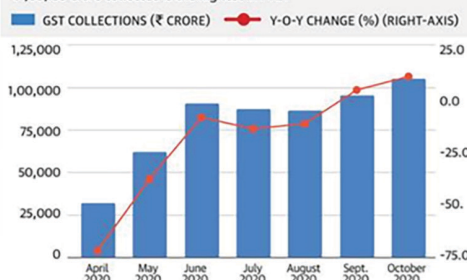
- It is **10.25% higher** than in 2019 and **10.1% more** than the revenue garnered in September 2020.

Key Points

- The **total revenue** earned in October by the **Central and State governments** stood at **Rs. 44,285 crore** and **Rs. 44,839 crore**, respectively.
- **GST cess** collections, used to compensate the States for switching to the GST regime, **rose to Rs. 8,011 crore**, which is over 5% more than in 2019 and 12.5% higher than September 2020.
- October's **revenues from import of goods were 9% higher**, while **domestic transactions** (including import of services) **yielded 11% higher revenues**, on a year-on-year basis.
- **Status of the States:**
 - **Andhra Pradesh and Chhattisgarh** recorded the **highest 26% growth** in GST collections in October year-on-year, followed by **Jharkhand (23%)** and **Rajasthan (22%)**.
 - The **trend in the more industrially developed States was mixed**, with 15% growth in Gujarat, 13% in Tamil Nadu and just 5% in Maharashtra.

On the rebound

GST collections recorded a 10.2% year-on-year rise in October. The ₹1,05,155 crore collected is the highest in FY21



Reasons:

- The surge in October's GST inflows could be attributed to the **festive demand** and **input tax credits** as well as other **reconciliations that were due for businesses in September**.
- Many **companies raised sale invoices in September** by pushing out their finished products which they had planned in March itself.
- **Input Tax Credit:** The GST that a merchant pays to procure goods or services (i.e. on inputs) can be set off later against the tax applicable on supply of final goods and services. The **set-off tax is called an input tax credit**.
- India's **manufacturing sector activities started to show signs of growth** in August and September, driven mainly by a pick-up in production along with improvement in customer demand.

Implications:

- GST inflows crossing the Rs. 1 lakh crore mark for

Note:

the **first time in the financial year (FY) 2020-21** is a **clear sign of a recovery** in the economy after its **23.9% contraction in the first quarter of 2020**.

- The **expected shortfall in GST compensation** for the States could be lower than the current estimate of Rs. 2.35 lakh crore if this revenue momentum is maintained through the rest of 2020-21.
- According to the **Consortium of Indian Associations**, **October's GST inflows must not be considered a return to normalcy** for businesses as these revenues normally **relate to sales that occurred in September**, when a majority of the economy, including public transport, was unlocked.

Goods and Services Tax

- It is a **comprehensive, multi-stage, destination-based indirect tax** that is **levied on every value addition**.
- The **Goods and Service Tax Act** was passed in the Parliament on **29th March 2017** and came into effect on **1st July 2017**.
- Under the **GST Council** and **101st constitutional amendment 2017**, the tax is levied at every point of sale.
- GST is **categorised into Central GST (CGST), State GST (SGST) and Integrated GST (IGST) depending on whether the transaction is intra-State or inter-State**.
 - **Central GST:** CGST is a tax levied on **intra-State supplies of both goods and services** by the Central Government and is governed by the CGST Act.
 - **State GST:** SGST is also levied on the **same intra-State supply** but will be **governed by the State Governments**.
 - This implies that both the Central and the State governments agree on **combining their levies with an appropriate proportion** for revenue sharing between them.
 - However, it is clearly mentioned in **Section 8 of the GST Act** that the taxes be levied on all intra-State supplies of goods and/or services but the **rate of tax shall not be exceeding 14%, each**.
 - **Integrated GST:** IGST is a tax levied on all **inter-State supplies of goods and/or services** and is governed by the IGST Act.

It is **applicable to any supply of goods and/or services in both cases of import into and export from India**.

- The consortium of Indian Associations is an umbrella body of **Micro, Small and Medium Enterprises (MSME)**.

- **November and December data has to be awaited** before confidently saying that the economy has rebounded to pre-**Covid-19** times.

Provisions For Platform Workers

Why in News

Recently, the **Code on Social Security 2020**, for the first time in Indian law, has **attempted to define 'platform work'** outside of the traditional employment category.

- In **September 2020**, Lok Sabha introduced **three labour codes** on industrial relations; occupational safety, health and working conditions; and social security.
 - They **proposed to simplify the country's archaic labour laws** and **give impetus to economic activity** without compromising with the workers' benefits.
 - These labour codes can have a **transformative impact on labour relations** in India. Along with the **Code on Wages Act 2019**, these can significantly ease the conduct of business by amalgamating a plethora of Central and State laws on labour.

Key Points

- **Provisions of the Code on Social Security 2020:**
 - It will **replace nine social security laws**, including the Maternity Benefit Act, Employees' Provident Fund Act, Employees' Pension Scheme, Employees' Compensation Act, among others.
 - It **universalises social security coverage** to those working in the **unorganised sector**, such as migrant workers, gig workers and platform workers.
 - **Aggregators**, meaning "digital intermediaries or a market place for a buyer or users of a service to connect with the seller or the service provider", are **specifically required to contribute to the social security fund**.
 - **For the first time**, provisions of social security will also be **extended to agricultural workers** also.
 - The code also **reduces the time limit for receiving gratuity payment from the continuous service of five years to one year** for all kinds of employees, including fixed-term employees, contract labour, daily and monthly wage workers.

Note:



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- **Definition of Platform Work under the Code:**
 - **Platform work** means a work arrangement **outside of a traditional employer-employee relationship** in which organisations or individuals use an online platform to access other organisations or individuals to solve specific problems or to provide specific services or any such other activities which may be notified by the Central Government, in exchange for payment.
- **Significance of Platform Work:**
 - It **promises workers flexibility and ownership** over the delivery of work.
 - Important for **delivery of essential services** as seen during the **pandemic**.
 - **Employment intensive** sector.
 - Potential for **growth due to the fast pace of urbanisation**.
 - **Development of rural areas** due to remittances sent by platform workers.
- **Issues with the Sector:**
 - Workers are largely **dictated by mechanisms of control wired by the algorithm**, which affects pricing per unit of work, its allocation and hours.
 - Entry into such platform work like ride-sharing and food delivery **requires vehicular assets which an average Indian worker lacks**. Thus, to enter the platform economy, workers **rely on intensive loan schemes**, often facilitated by platform aggregator companies. This results in **dependence on platform companies, driven by financial obligations, thus rendering flexibility and ownership**.
 - Leads to the **contractualisation of the workforce and promotes the gig economy**.
 - A company engaging in greater contractualisation often has a higher turnover rate of personnel, creating a disruptive operational environment and **leading to higher costs of training and higher incidence in costs of errors**.
 - **Gig Economy** is a free market system in which temporary positions are common and organisations hire independent workers for short-term commitments. The term “gig” is a **slang word for a job that lasts a specified period of time**.

UPI Transactions

Why in News

According to the data released by the **National Payments Corporation of India (NPCI)**, the total number of transactions conducted on the **Bharat Interface for Money-Unified Payments Interface (BHIM-UPI)**, known more simply as the UPI, crossed the 2 billion transactions count in a month in October 2020.

Key Points

- UPI is currently the **biggest among the NPCI operated systems** including **National Automated Clearing House (NACH)**, **Immediate Payment Service (IMPS)**, **Aadhaar enabled Payment System (AePS)**, **Bharat Bill Payment System (BBPS)**, **RuPay** etc.
- **Digital transactions** were already on the rise but the **lockdown imposed during the pandemic provided a thrust** and the value of UPI transactions crossed the 200 crore-mark.
- The **Reserve Bank of India (RBI)** had advised to **resort to digital payment** due to the threat of coronavirus spreading through physical exchange of currency. This resulted in businesses accepting mostly prepaid orders and in turn rise in digital transactions.
- Further, after being able to conveniently pay utility bills and even receive cashback at times, people might now be preferring to transact digitally. So, **their habit** may have played an important role in this thrust.
- India's digital payments industry is **likely to grow** from Rs. 2,153 trillion at 27% Compounded Annual Growth Rate (CAGR) to Rs. 7,092 trillion by 2025.
- The **growth is likely to come on the back of** strong use cases of **merchant payments**, government policies including **Jan Dhan Yojana, personal data protection bill** along with the **growth of MSMEs**, growth of millennials and high **smartphone penetration**.
- **Challenges:**
 - The **threat of cybercrime** on the global banking and financial services industry has increased amid the coronavirus pandemic.
 - E.g. Malicious Software **Cerberus**
 - Fraudulent claims, chargebacks, fake buyer accounts, promotion/coupon abuse, account takeover, identity theft, card detail theft and triangulation frauds are emerging as challenges.

Note:



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National Payments Corporation of India

- NPCI, an **umbrella organisation** for operating retail payments and settlement systems in India, is **an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA)** under the provisions of the **Payment and Settlement Systems Act, 2007**.
- It is a **"Not for Profit" Company** under the provisions of **Section 25 of Companies Act 1956** (now Section 8 of Companies Act, 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.

Various NPCI Operated Systems

- **Bharat Interface for Money-Unified Payments Interface (BHIM-UPI):**
 - It is **an initiative** to enable fast, secure, reliable cashless payments through the mobile phone. BHIM is **based on Unified Payment Interface (UPI)** to facilitate e-payments directly through banks. It is **an app**.
 - **UPI is an advanced version of Immediate Payment Service (IMPS)** - round-the-clock funds transfer service to make cashless payments faster, easier and smoother.
 - This is a system that **powers multiple bank accounts into a single mobile application** (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
 - It **also caters to the "Peer to Peer" collect request** which can be scheduled and paid as per requirement and convenience.
- **Aadhaar enabled Payment System (AePS):**
 - AePS allows people to carry out **financial transactions on a Micro-ATM** by furnishing just their Aadhaar number and verifying it with the help of their fingerprint/iris scan.
 - This system **adds another layer of security** to financial transactions as bank details would no longer be required to be furnished while carrying out these transactions.
- **National Electronic Toll Collection (NETC):**
 - It helps in electronic toll collection at toll plazas using **FASTag**.

- **FASTag** is a device that employs **Radio Frequency Identification (RFID) technology** for making toll payments directly while the vehicle is in motion.
- FASTag (RFID Tag) is affixed on the windscreen of the vehicle and enables a customer to make the toll payments directly from the account which is linked to FASTag.
- RFID tagging is a system that **uses small radio frequency detection devices** for identification and tracking purposes.
- **National Automated Clearing House (NACH):**
 - It is **a service offered by NPCI to banks** which aims at facilitating interbank high volume, low value debit/credit transactions, which are repetitive and electronic in nature.
- **Immediate Payment Service (IMPS):**
 - It **offers an instant 24x7 interbank electronic fund transfer service** through mobile phones.
 - IMPS is an emphatic tool to transfer money instantly within banks across India through mobile, internet and ATM.
- **Bharat Bill Payment System (BBPS):**
 - It is a tiered structure for operating a unified bill payment system.
 - **NPCI functions as the authorised Bharat Bill Payment Central Unit (BBPCU)**, which is responsible for setting business standards, rules and procedures for technical and business requirements for all the participants.
 - Under BBPS, the **Bharat Bill Payment Operating Units (BBPOUs)** function as entities facilitating collection of repetitive payments for **everyday utility services**, such as, electricity, water, gas, telephone and Direct-to-Home (DTH).
- **RuPay:**
 - RuPay is the **first-of-its-kind domestic card payment network of India**, with wide acceptance at ATMs, POS devices and e-commerce websites across India. It is a highly secure network that **protects against anti-phishing**.
 - The name, derived from the words 'Rupee and 'Payment', emphasizes that it is India's very own initiative for Card payments.

Note:

Emergency Credit Line Guarantee Scheme

Why in News

The Union Government has **extended the Emergency Credit Line Guarantee Scheme (ECLGS)** by one month till 30th Nov, 2020, or till such time that an amount of Rs. 3 lakh crore is sanctioned under the Scheme, whichever is earlier.

- The scheme was **launched as part of the Aatmanirbhar Bharat Abhiyan package** announced in May 2020 to mitigate the distress caused by **coronavirus-induced lockdown**, by providing credit to different sectors, especially **Micro, Small and Medium Enterprises (MSMEs)**.

Key Points

- **Objective:** To provide **fully guaranteed and collateral free additional credit** to MSMEs, business enterprises, **MUDRA borrowers** and individual loans for business purposes **to the extent of 20% of their credit outstanding** as on 29th February, 2020.
 - **100% guarantee coverage** is being provided by the **National Credit Guarantee Trustee Company**, whereas **Banks** and **Non Banking Financial Companies (NBFCs)** provide loans.
- **Eligibility:** Borrowers with **credit outstanding up to Rs. 50 crore** as on 29th February, 2020, and with an **annual turnover of up to Rs. 250 crore** are eligible under the Scheme.
 - On 1st August, the government **widened the scope of the Rs. 3 lakh crore-ECLGS scheme** by doubling the upper ceiling of loans outstanding and including certain loans given to professionals like doctors, lawyers and chartered accountants for business purposes under its ambit.
- **Tenor** of loans provided under the Scheme is **four years**, including a moratorium of one year on principal repayment.
- **Interest rates** under the Scheme are capped at **9.25% for Banks** and Financial Institutions (FIs), and **14% for NBFCs**.
- **Present Status:** As per data uploaded by Member Lending Institutions on the ECLGS portal, an amount of Rs. 2.03 lakh crore has been sanctioned under the Scheme to 60.67 lakh borrowers so far, while an amount of Rs. 1.48 lakh crore has been disbursed.

National Credit Guarantee Trustee Company Ltd

- NCGTC is a **private limited company** incorporated under the Companies Act, 1956 in 2014, established by the Department of Financial Services, Ministry of Finance, as a **wholly owned company of the Government of India**, to act as a common trustee company for multiple credit guarantee funds.
 - **Credit guarantee programmes** are designed to share the lending risk of the lenders and in turn, facilitate access to finance for the prospective borrowers.

Growth in Manufacturing: PMI and NIBRI

Why in News

Recently, India's **manufacturing output showed the strongest growth in 13 years in October 2020** amid robust sales growth, as per the **IHS Markit India Purchasing Managers' Index (PMI)**.

- The **Nomura India Business Resumption Index (NIBRI)** has also shown improvement.

Key Points

- **Rise in PMI:** The headline seasonally adjusted IHS Markit India Manufacturing PMI **rose from 56.8 in September to 58.9 in October**, and pointed to the **strongest improvement in the health of the sector** in more than a decade (13 years).
 - This is a **third straight monthly improvement** in PMI. In **April**, the index had slipped into **contraction mode** (27.4), after remaining in growth territory for 32 consecutive months.
 - In PMI parlance, a print **above 50 means expansion**, while a **score below that denotes contraction**.
- **Improvement in NIBRI:**
 - NIBRI **improved to 82.4 in October**, a **rise of 2.1 points** from 80.3 in September and 73.6 in August.
 - It is the **Japanese brokerage's weekly tracker** of the **pace of normalisation of economic activity**.
- **Reasons:**
 - **Upturn in Sales:** The upturn in sales was the **strongest since mid-2008**.
 - A **strong jump in e-way bills** (electronic permits for goods movement) has been seen for October,

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indicating that more goods were shipped within and across states in the month.

- **Rise in Export Orders:** New export orders rose at a quicker pace, one that was the most pronounced in close to six years.
- **Improvement in IIP:** The **Index of Industrial Production** (IIP) **shrank 8% in August** on a year-on-year basis, marking a **marginal improvement** compared to **July** when output **contracted 10.8%**.
- **Concerns:** The compliance with government guidelines related to the Covid-19 pandemic caused a **further reduction in employment**. The fall was the **seventh in consecutive months**.

Purchasing Managers' Index

- It is an **indicator of business activity**, both in the manufacturing and services sectors.
 - It is **calculated separately** for the manufacturing and services sectors and then a **composite index** is also constructed.
 - The PMI summarises whether **market conditions as viewed by purchasing managers** are expanding, neutral, or contracting.
- The purpose of the PMI is to provide information about **current and future business conditions to company decision-makers, analysts, and investors**.
- The headline PMI is a **number from 0 to 100**.
 - PMI **above 50 represents an expansion** when compared to the previous month.
 - PMI **under 50 represents a contraction**.
 - A reading at **50 indicates no change**.
- The PMI is **usually released at the start of every month**. It is, therefore, considered a good leading indicator of economic activity.
- PMI is **compiled by IHS Markit** for more than 40 economies worldwide, which is a global leader in information, analytics and solutions for the major industries and markets that drive economies worldwide.

WhatsApp UPI and NPCI Regulations

Why in News

Recently, **WhatsApp** (a unit of Facebook) has

introduced payments services in India following approval by the **National Payments Corporation of India (NPCI)**.

- The NPCI approval also follows another recent **direction imposing a cap of 30% of the total volume of transactions processed in Unified Payments Interface (UPI)**, applicable to all third-party app providers, **effective from 1st January 2021**.
 - UPI is a **single platform that merges various banking services and features** under one umbrella and turns **smartphones into a virtual debit card**, allowing **real-time bank-to-bank payments** to be made using a mobile number or virtual payment address (UPI ID).

Key Points

- **WhatsApp UPI in India:**
 - People can send **money on WhatsApp to anyone using a UPI supported app**.
 - India is **one of the biggest markets for WhatsApp**, which first started testing its UPI-based payments system in 2018 and would now **compete with existing players such as Paytm, Google Pay, Amazon Pay and PhonePe**.
 - It is **working with five leading banks in India** viz. ICICI Bank, HDFC Bank, Axis Bank, the State Bank of India, and Jio Payments Bank.
 - However, **not all users in India would be able to access** payment features because NPCI had mandated **expansion** of WhatsApp's UPI user base in a **graded manner** starting with a maximum registered user base of 20 million.
- **Imposition of 30% Cap:**
 - The guidelines stipulate **any entity not exceeding 30% of the total transaction volume to be in compliance**. However, **entities exceeding** the said market share have been given time **till 2023 to comply**.
 - The cap will be calculated on the **basis of total volume of transactions processed in UPI during the preceding three months on a rolling basis**.
 - Seeing the **recent growth in UPI transaction volumes**, NPCI analysed the **risks in the UPI ecosystem** and introduced the cap.
 - The idea for a 30% cap on UPI transaction volumes was **first brought up in a meeting of the NPCI's Steering Committee on UPI in 2019** after concerns of **rising dominance with non-bank third-party app providers** were raised.

Note:

- As of **October 2019**, **Google Pay and PhonePe** together had around **80% of transaction volumes** in UPI on their platforms.
- The NPCI is **yet to issue the risk assessment** of the UPI ecosystem on the basis of which the new norms were brought in and **the Standard Operating Procedure (SOP)** for the newly introduced restrictions on transaction volumes.
- Another reason is **banks' concerns about the sudden rise in transaction volumes and the subsequent load** on their systems, especially after the introduction of WhatsApp UPI.
- The move could **disincentivize platforms from on-boarding customers of a lower ticket size** and in effect, **could prevent the efforts to accelerate digital payments**.

National Payments Corporation of India

- It is an **umbrella organisation for all retail payments systems** in India.
- It was set up with the guidance and support of the **Reserve Bank of India (RBI)** and **Indian Banks' Association (IBA)**.
- **Objectives:**
 - To consolidate and integrate the existing multiple systems into a nation-wide uniform and standard business process for all retail payment systems.
 - To facilitate an affordable payment mechanism to benefit the common man across the country and propel financial inclusion.

Virtual Global Investor Roundtable

Why in News

Recently, the **Prime Minister has chaired the Virtual Global Investor Roundtable (VGIR)**, with an aim to attract investment into the country.

Key Points

- **Virtual Global Investor Roundtable:** It is an **exclusive dialogue** between leading global institutional investors, Indian business leaders and the highest decision-makers from the Government of India and Financial Market Regulators.

- **Organised by:** Ministry of Finance and the **National Investment and Infrastructure Fund (NIIF)**.
- **Focus for 2020:** Discussions around India's economic and investment outlook, structural reforms and the government's vision for the path to a USD 5 trillion economy by 2024-25.

National Investment and Infrastructure Fund

- NIIF is a **government-backed entity** established to provide long-term capital to the country's infrastructure sector.
 - The **Indian government has a 49% stake** in NIIF with the rest held by foreign and domestic investors.
 - With the Centre's significant stake, NIIF is considered **India's quasi-sovereign wealth fund**.
- It was set up in **December 2015** as a **Category-II Alternate Investment Fund**.
- Across its **three funds viz. Master Fund, Fund of Funds, and Strategic Opportunities Fund**, it manages over USD 4.3 billion of capital.
- Its registered office is in **New Delhi**.

Highlights:

- **Aatmanirbhar Vision:** It is a **well-planned economic strategy** that aims to **use the capabilities of India's businesses and skills of its workers** to make India into a global manufacturing powerhouse.
- **ESG Score:** India has companies ranking high on **Environmental, Social and Governance (ESG)** scores.
- **National Infrastructure Pipeline:** Under it, India has an ambitious plan to **invest USD 1.5 trillion** in various social and economic infrastructure projects, aimed for faster economic growth and alleviation of poverty in the country.
- **Initiatives Taken to Improve Manufacturing Potential and Ease of Doing Business:**
 - One Nation, One Tax system in the form of **Goods and Services Tax (GST)**, one of the **Lowest Corporate Tax** rates and **Faceless regime for Income Tax (IT)** assessment and appeal.
 - A **new labour laws** regime balancing the welfare of workers and ease of doing business for the employers and **Production Linked Incentive schemes** in specific sectors.
- **Initiative Taken for the Development of the Financial Sector:**

Note:



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- Unified authority for the **International Financial Services Centre**, liberal **Foreign Direct Investment** (FDI) regime, suitable policy regimes for investment vehicles like **Infrastructure Investment Trust** and **Real Estate Investment Trust**.
- Implementation of **Insolvency and Bankruptcy Code** (IBC), financial empowerment through **Direct Benefit Transfer** and fin-tech based payment systems like **Ru-Pay cards** and **BHIM-UPI**.
- The opportunity created by the **National Education Policy 2020** in setting up campuses of foreign universities in India was also highlighted.

Four Years of Demonetisation

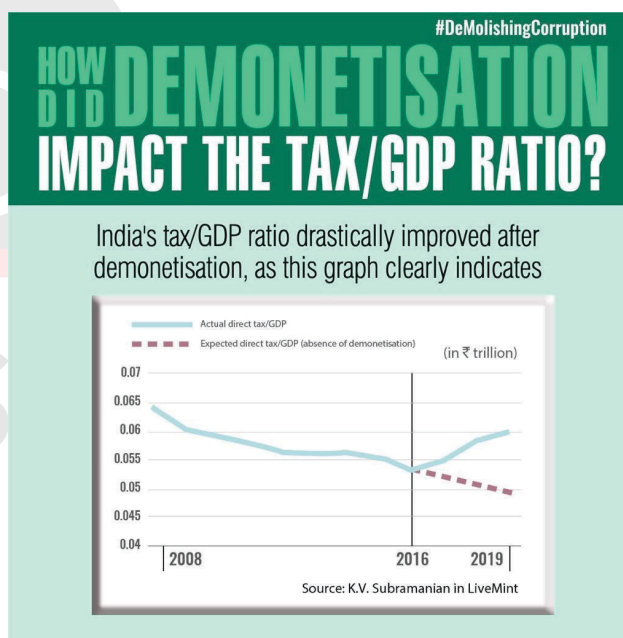
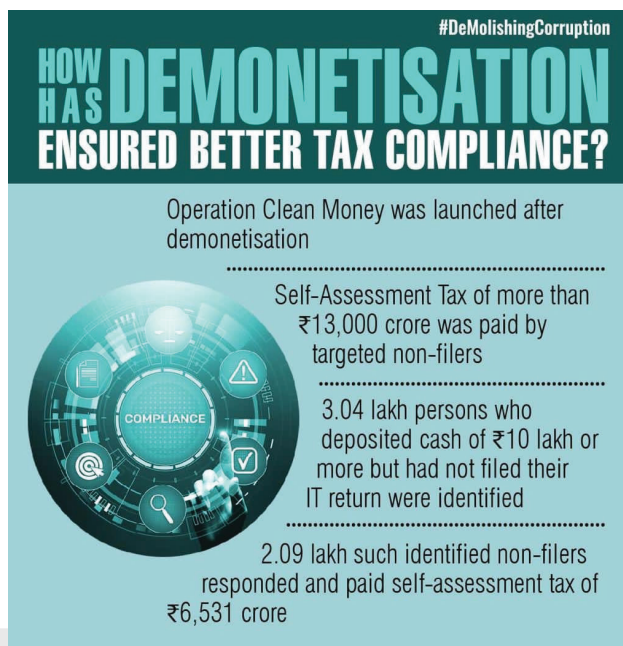
Why in News

8th November 2020 marked the four year anniversary of demonetisation, when Rs. 500 and Rs. 1,000 notes were withdrawn from the system in 2016.

- **Demonetisation:** It is the act of **stripping a currency unit of its status as legal tender**. It occurs whenever there is a **change of national currency** and the current form or forms of money is **pulled from circulation and retired**, often to be replaced with new notes or coins.

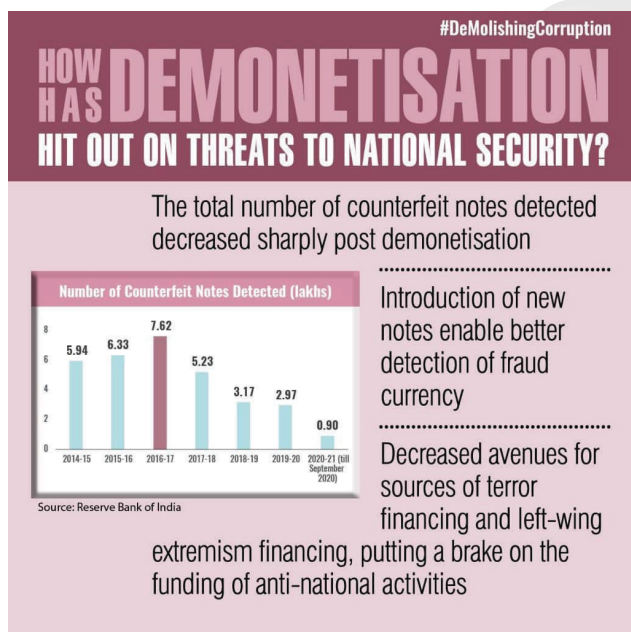
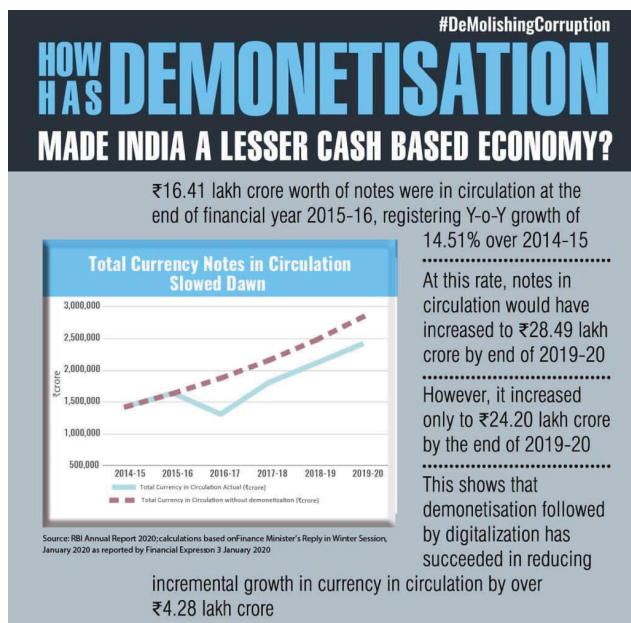
Key Points

- **Objectives of Demonetisation:**
 - To **discourage the use of high-denomination notes for illegal transactions** and thus **curb the widespread use of black money**.
 - To **encourage digitisation of commercial transactions, formalise the economy** and so, **boost government tax revenues**.
 - The **formalisation of the economy** means bringing companies under the regulatory regime of government and subject to laws related to manufacturing and income tax.
- **Operation Clean Money:**
 - It was launched by the **Income Tax Department** (CBDT) for **e-verification of large cash deposits** made during the period from 9th November to 30th December 2016.



- The programme was launched on 31st January 2017 and entered into the second phase in May 2017.
- It aimed to **verify cash transaction status** (exchange/savings of banned notes) of taxpayers during the demonetisation period and to **take tax enforcement action** if transactions do not match the tax status.
- **Impact of the Move:**
 - Currency with public stood at **Rs. 17.97 lakh crore on 4th November 2016** and **declined to Rs 7.8 lakh crore in January 2017** after demonetisation.

Note:



- **Currency with Public:** As per the **Reserve Bank of India (RBI)** definition, currency with public is arrived at after deducting cash with banks from total currency in circulation.
- **Currency in Circulation:** It refers to cash or currency within a country that is physically used to conduct transactions between consumers and businesses.
- **Demands fell,** businesses faced a crisis and **gross domestic product (GDP) growth declined nearly 1.5%**, with many **small units and shops being shut down** and it also **created a liquidity shortage**.

- Liquidity shortages or crises arise when financial institutions and industrial companies scramble for, and **cannot find the cash they require to meet their most urgent needs or undertake their most valuable projects**.

➤ Current Trends:

- **Currency with Public:** On **23rd October 2020**, the currency with the public stood at a record high of **Rs. 26.19 lakh crore, up 45.7%** from November 2016.
- The **pace of rise in currency with the public has been very sharp over the last 10 months** as it has risen from Rs. 21.79 lakh crore as on 3rd January 2020 to the current number in October 2020.
- The hike was mainly **driven by a rush for cash by the public between March and May amidst the stringent lockdowns** to tackle the spread of the **Covid-19 pandemic**.
- It shows that the **cash in the system has been steadily rising**, even though the government and the RBI had pushed for a less-cash society, digitisation of payments and slapped restrictions on the use of cash in various transactions.
- **Digitisation:** According to an **RBI study on digital payments**, although digital payments have been growing gradually in recent years, both in value and volume terms across countries, **currency in circulation to GDP ratio has increased in consonance with the overall economic growth**.
- **Tax Revenues:** Along with demonetisation, the introduction of the **Goods and Services Tax (GST)**, the **Insolvency and Bankruptcy Code (IBC)**, **Real Estate (Regulation and Development) Act 2016** and **Benami Transactions (Prohibition) Amendment Act, 2016** encouraged compliance such that the **number of income tax returns and the number of income tax filers grew** at a healthy rate in 2017 and 2018.
- **Counterfeit Currency:** In the year **2015-16**, more than **4 lakh fake notes** of Rs. 500 and Rs. 1,000 were captured. This number **reduced to 45,400 fake notes** of Rs. 500 and Rs. 2,000 in **2018-19**. However, the number of fake notes among the new design notes of Rs. 500 **more than doubled** with an increase of 121% whereas those of Rs. 2000 increased by 21.9% over the previous year during 2018-19, according to the annual report of RBI.

Note:

- **Terrorism:** It was believed that **stopping the high-value currency from circulating will restrict funds used for terrorist activities** which will gradually decrease the terrorist activities in the country. But, on the contrary, the number of such **incidences rose in the years 2016, 2017, and 2018, compared to 2015.**
 - While 728 people died in terrorist activities in 2015; the number of casualties rose to 905, 812, and 940 in such activities in 2016, 2017, and 2018, according to the **South Asia Terrorism Portal (SATP)** data.

PLI Scheme for Ten More Sectors

Why in News

The Union Cabinet has given its approval to introduce the **Production-Linked Incentive (PLI) Scheme** in **10 more sectors** for enhancing India's manufacturing capabilities and exports (**Atmanirbhar Bharat**).

- Earlier, the government had announced a **production linked incentive** or **PLI scheme** for **medical devices, mobile phones and specified active pharmaceutical ingredients**, with a proposed outlay of Rs. 51,311 crore.

Key Points

- **PLI Scheme:**
 - A scheme that aims to give companies **incentives on incremental** sales from products manufactured in domestic units.
 - The scheme invites foreign companies to set units in India, however, it also aims to encourage local companies to set up or expand existing manufacturing units.
- **Expansion of PLI Scheme to Ten More Sectors:**
 - The ten sectors include **food processing, telecom, electronics, textiles, specialty steel, automobiles**

HOW DOES THE INCENTIVE WORK

It is a kind of subsidy to the sector

Is a direct payment from the budget to goods made in India	Amount varies from sector to sector	Is based on disadvantage /disability faced by a sector
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and auto components, solar photo-voltaic modules and white goods such as air conditioners and LEDs.

- The sectors had been identified on the basis of their potential to create jobs and make India self-reliant.
- The PLI scheme for these ten sectors will be operational for **five years** with a **total estimated outlay of Rs 1.45 lakh crore.**
 - The PLI scheme will be **implemented by** the concerned ministries/departments.
 - Savings from one PLI scheme of an approved sector can be utilized to fund another sector.
- The scheme for these sectors will be **in addition** to the PLI schemes for **mobile phones and allied equipment manufacturing, pharmaceutical ingredients and medical devices.**
 - Several **more pharmaceutical products have been brought under the aegis of the PLI scheme**, including complex generics, anti-cancer and diabetic drugs, in-vitro diagnostic devices and special empty capsules.
- **Benefits:** The PLI scheme across these 10 key specific sectors will make **Indian manufacturers globally competitive**, attract **investment** in the areas of core competency and cutting-edge technology; ensure efficiencies; create **economies of scale**; enhance exports and make India an integral part of the **global supply chain.**
- **Push to Digital Economy:**
 - India is expected to have a **USD 1 trillion digital economy** by 2025. Additionally, the Government's push for **data localization, Internet of Things**, projects such as **Smart City and Digital India** are expected to increase the demand for electronic products.
- **Increase Exports:**
 - The Indian pharmaceutical industry is the **third largest** in the world by volume and 14th largest in terms of value. It contributes **3.5%** of the **total drugs and medicines exported** globally.
 - India is the world's **second largest steel producer in the world**. It is a **net exporter of finished steel**. A PLI scheme in **Specialty Steel** will help in enhancing manufacturing capabilities for value added steel leading to increase in total exports.
 - Specialty steel is made by adding various elements to iron, to achieve various properties, such as heat resistance, hardness, and corrosion resistance.

Note:

- **Secure Telecom Infrastructure:**
 - Telecom equipment forms a **critical and strategic element of building a secured telecom infrastructure** and India aspires to become a major original equipment manufacturer of telecom and networking products.
- **Doubling Farmers' Income:**
 - The growth of the processed food industry leads to **better price** for farmers and **reduces high levels of wastage**.

Saffron Cultivation in Northeast

Why in News

A pilot project of saffron cultivation has yielded successful results in **Yangyang village of Sikkim**, which produced its first crop of saffron recently.

Key Points

- **About:**
 - **Saffron** is a plant whose dried stigmas (thread-like parts of the flower) are used to make **saffron** spice.
 - Saffron cultivation is believed to have been **introduced in Kashmir by Central Asian immigrants** around the **1st Century BCE**.
 - It has been associated with traditional Kashmiri cuisine and represents the rich cultural heritage of the region.
 - It is a very precious and costly product.
 - In ancient Sanskrit literature, saffron is referred to as '**bahukam**'.
 - It is cultivated and harvested in the **Karewa (highlands)** of Jammu and Kashmir.
- **Importance:**
 - It **rejuvenates health** and is used in **cosmetics** and for medicinal purposes.
 - It has been associated with **traditional Kashmiri cuisine** and represents the rich cultural heritage of the region.
- **Season:**
 - In India, saffron Corms (seeds) are cultivated during the months of **June and July** and at some places in **August and September**.
 - It starts flowering in **October**.
- **Conditions:**
 - Saffron grows well at an altitude of 2000 meters above sea level. It needs a photoperiod (sunlight) of 12 hours.
 - **Soil:** It grows in many different soil types but thrives best in **calcareous** (soil that has **calcium carbonate** in abundance), **humus-rich and well-drained soil with a pH between 6 and 8**.
 - **Climate:** For saffron cultivation, we need an explicit climatological summer and winter with temperatures ranging from no more than **35 or 40 degree Celsius in summer to about -15 or -20 degree Celsius in winter**.
 - **Rainfall:** It also requires adequate rainfall that is **1000-1500 mm per annum**.
- **Saffron Producing Regions in India:**
 - Saffron production has long been restricted to a limited geographical area in the Union territory of **Jammu & Kashmir**.
 - **Pampore region**, commonly known as **Saffron bowl of Kashmir**, is the main contributor to saffron production.
 - **Pampore Saffron Heritage of Kashmir** is one of the **Globally Important Agricultural Heritage systems (GIAHS)** recognised sites in India.
 - Other districts producing saffron are Budgam, Srinagar, and Kishtwar districts.
 - Recently, the **Kashmir saffron** got **Geographical Indication (GI) tag status**.
- **Production & Demand in India:**
 - India cultivates about **6 to 7 tonne** of saffron while the demand is **100 tonne**.
 - To meet the growing demand of saffron the **Ministry of Science and Technology**, through the **Department of Science and Technology (DST)**, is now looking at extending its cultivation to some states in the Northeast (Sikkim now, and later to Meghalaya and Arunachal Pradesh). There is a huge similarity of climate and geographical conditions between Kashmir and few regions of Northeast.
- **North East Centre For Technology Application and Reach (NECTAR)**, an autonomous body under the DST in collaboration with the **Botany and Horticulture departments of Sikkim Central University** implemented a pilot project in **Yangyang village of South Sikkim**.
- **Benefits**

Note:

- The extension of saffron production will help in meeting the annual demand in India.
- It will help in reducing imports.
- It will also diversify agriculture and provide new opportunities to the farmers in the North-East.

➤ **Other initiatives by the government:**

- **The National Saffron Mission** was sanctioned by the central government in the year 2010 in order to extend support for creation of irrigation facilities through tube wells and sprinkler sets which would help in production of better crops in the area of saffron production.
- Recently, the **Institute of Himalayan Bioresource Technology (CSIR-IHBT) and the Government of Himachal Pradesh**, have jointly decided to increase the production of the two spices namely, Saffron and Heeng (asafoetida).
 - Under this plan, IHBT will be introducing new varieties of saffron and heeng from the exporting countries and will be standardized under Indian conditions.

Annual Meeting of IBA

Why in News

Recently, the **Indian Banks' Association (IBA)** has held its **73rd annual general meeting** virtually. In the meeting, the Finance Minister of India **suggested the banks to bring new reforms and implement the existing ones** in a timely manner.

- IBA is an **association of Indian banks and financial institutions**, formed on **26th September 1946** and is based in **Mumbai**.
- **EASE (Enhanced Access and Service Excellence) Reforms Agenda**, launched in **January 2018**, was commissioned through IBA.

Key Points

➤ **On Linking Aadhar:**

- **Aadhaar-seeded bank accounts** are needed to reach people by **Direct Benefit Transfer (DBT)**.
- Banks should **link every account with the customer's Aadhaar number by 31st March 2021** in order to **stop the duplication of accounts** as well as **verify the unverified accounts**.

➤ **On Widening Financial Inclusion:**

- Even though there are 42 crore **Jan Dhan** bank accounts in India, there is a **need to widen financial inclusion** by adding more people.
- Banks should **promote RuPay cards** over others now that the card network has become global and also make sure that all Indian customers have it.
 - RuPay is the first-of-its-kind **domestic Debit and Credit Card payment network** of India.
 - It was launched by the **National Payments Corporation of India (NPCI)**, an umbrella organisation for operating retail payment and settlement systems in the country.

➤ **On Digitisation:**

- **Unified Payments Interface (UPI)** should be a common parlance word in all the banks.
 - UPI is a **single platform that merges various banking services and features** under one umbrella, established by the NPCI together with the **Reserve Bank of India (RBI)** and IBA.
- **Non-digital payments should be discouraged** in order to give impetus to the **Digital India Initiative**.

➤ **On Amalgamation of Banks:**

- There is a **need for more large banks** that can finance large projects and for that **more amalgamation** as big as State bank of India (SBI) are needed.
 - Amalgamation should not just remain as an exercise to bring two or three banks together, it should now **become an organic mechanism to grow, and to grow to such scales that the new demands from the industry, economy, and businesses can all be met up** in a changing world.
- Large banks are also needed as much as the **smaller finance companies, smaller banks, and Non-Banking Financial Companies (NBFCs)**.
 - While India has only about 500-600 banks, including the regional rural ones, the USA has around 26,000 banks with a fourth of India's population.
 - There is **only one Indian bank (SBI) in the top 100 globally**, against 18 in China.

➤ **On Lending:**

- **Banks must not shy away from lending**, especially when the economy is facing major challenges and as **lending is their principal business** and they must lend after undertaking prudent risk management rather than avoid lending altogether.

Note:



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Financial Support to Public Private Partnerships in Infrastructure

Why in News

Recently, the **Cabinet Committee on Economic Affairs** has approved **continuation and revamping** of the **Viability Gap Funding (VGF) Scheme** under the **Public Private Partnership (PPP) model** till **2024-25** with a total outlay of **Rs. 8,100 crore**.

- **Viability Gap Funding (VGF)** means a grant one-time or deferred, provided to support infrastructure projects that are economically justified but fall short of financial viability.
- **Public-Private Partnerships (PPPs)** involve collaboration between a **government agency and a private-sector company** that can be used to **finance, build, and operate** projects, such as public transportation networks, parks, and convention centers.
- The Viability Gap Funding (VGF) provided for economic infrastructure will be **extended to social infrastructure**.

Key Points

- **Background:**
 - The **Department of Economic Affairs, Ministry of Finance** introduced the **Scheme for Financial Support to PPPs in Infrastructure (Viability Gap Funding Scheme)** in **2006** with a view to support infrastructure projects undertaken through PPP mode.
 - Projects that are economically justified but commercially unviable due to large capital investment requirements, long gestation periods and the inability to increase user charges to commercial levels.
 - **VGF up to 40%** of the Total Project Cost (TPC) is provided by the **Government of India (GoI) and the sponsoring authority** in the form of capital grant at the stage of project construction (20%+20%).
- **Extension of the Scheme to Social Infrastructure:**
 - **Sub Scheme - 1:**
 - **Objective:** To cater Social Sectors such as **Waste Water Treatment, Water Supply, Solid Waste Management, Health and Education** sectors etc.

- These projects face **bankability issues and poor revenue streams** to cater fully to capital costs.

- **Eligibility:** The projects eligible under this category should have at least **100% Operational Cost recovery**.
- **Contribution:** The **Central Government** will provide a maximum of **30%** of Total Project Cost (TPC) as VGF and **State Government/Sponsoring Central Ministry/Statutory Entity** may provide additional support up to **30%** of TPC and the remaining project cost will come through private participation.

○ Sub Scheme - 2:

- **Objective:** To support **pilot social sectors projects**.
 - The projects may be from **Health and Education** sectors where there is at least **50% Operational Cost recovery**.
- **Contribution:** In such projects, the **Central Government and the State Governments together will provide up to 80%** of capital expenditure and **upto 50%** of Operation & Maintenance (O&M) costs for the **first five years**.
 - The **Central Government** will provide a maximum of **40%** of the TPC. In addition, it may provide a maximum of **25% of Operational Costs** of the project in the first five years of commercial operations.

➤ Benefits:

- The scheme will promote **PPPs in social and economic infrastructure** leading to efficient creation of assets and ensuring their proper operation and maintenance and make the **economically/socially essential projects commercially viable**.
- **Economic Infrastructure** refers to the elements of economic change that aid in the process of production and distribution such as energy, transportation, communication, banking and financial institutions etc.
- **Social Infrastructure** refers to all those facilities and institutions that enhance the quality of human capital such as educational institutions, hospitals, nursing homes, housing facilities etc.
- Revamping of the VGF Scheme will **attract more PPP projects and facilitate private investment in the social sectors**.

Note:



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- Creation of new hospitals, schools will create many **opportunities** to boost **employment generation**.
- The Scheme will encourage private investment in infrastructure on the lines suggested by the **Kelkar Committee**.

Gujarat Maritime Cluster

Why in News

The **Gujarat Maritime Cluster** is coming up in the **GIFT (Gujarat International Finance Tec-City) City** at Gandhinagar to address logistics of ports and seaways.

Key Points

- **Maritime Cluster:**
 - It is conceived as a **dedicated ecosystem** of Ports, Maritime Shipping and Logistics services providers.
 - It will host an array of maritime, shipping industry players and service providers, along with relevant Government regulatory agencies, in GIFT City, Gandhinagar – India's first International Financial Services Centre.
 - The **Gujarat Maritime Board (GMB)**, has been trying to develop such a cluster through its subsidiary **Gujarat Ports Infrastructure and Development Company Ltd (GPIDCL)**.
 - While the project was conceptualised back in 2007, it received in-principle approval from the state government in 2015.



Benefits of the Project:

- **Attract Maritime Investments:**
 - The project will try to **bring back businesses** that have **migrated over the years** to foreign locations due to the absence of the right ecosystem in the country.
 - Large corporates like the **Aditya Birla Group** and **Tata Group** tap clusters in Dubai and Singapore for their maritime needs.
- **Economies of Scale:**
 - Gujarat has a lot of ports and handles 40% of the country's cargo, but it has not targeted the **entire value-chain** as a result investors look abroad for the same.
- **Dispute Resolution:**
 - An **Alternate Dispute Resolution (ADR) Centre** will be set up under the aegis of the **Gujarat Maritime University** at the maritime cluster. A centre such as this does not currently exist in India.
 - Will help resolve cases revolving around bunker disputes, ship sales, shipbuilding and repairs, commodities.
 - Will provide an option to Indian players seeking to avoid availing the services of **international alternate dispute resolution hubs** which entail **huge costs, time, and travel**.
- The cluster is also expected to house the **office of the Director General of Shipping**.

Technical Recession in India

Why in News

According to the **Reserve Bank of India's**, "**nowcasting**", India's economy will contract by 8.6% in the **second consecutive quarter (July, August, September)** of the current financial year which means the economy is in a '**technical recession**'.

- In simpler words, a technical recession is two quarters in a row of economic contraction.

Key Points

- **Nowcast:**
 - **Nowcast** in economics means the prediction of the present or the very near future of the state of the economy.

Note:

- Nowcast began with the first issue of the Bulletin in January 1947, but interrupted during the period 1995 to date.
- **Current Scenario:**
 - In the second quarter the pace of contraction is **8.6%**.
 - This is considerably slower than the **23.9% decline in the real GDP** during the first quarter (April, May, June).
- **Implication:**
 - The contraction implies that India has entered a **technical recession** in the first half of 2020-21 for the first time in its history.

CONTRACTION IN INDIA. ELSEWHERE

Quarterly Real GDP growth rate (in %)

	October to December 2019	January to March 2020	April to June 2020	July to September 2020
India	4.1	3.1	-23.9	-8.6*
US	2.3	0.3	-9	-2.9
UK	1	-2.1	-21.5	-9.6
China	6	-6.8	3.2	4.9
Brazil	1.7	-0.3	-11.4	NA
Indonesia	5	3	-5.3	-3.5
South Africa	-0.5	0.1	-17.1	NA

* RBI estimates : Source: Trading Economics

Key Economic Words

- **Gross Domestic Product (GDP)** is the **final value of the goods and services produced within the geographic boundaries** of a country during a specified period of time, normally a year.
- **Expansionary Phase:** When the overall output of goods and services typically measured by the **GDP increases** from one quarter (or month) to another.
- **Recessionary Phase:** When the overall output of goods and services typically measured by the **GDP decreases** from one quarter (or month) to another.
- **Business Cycle:** It is composed of concerted **cyclical upswings and downswings** in the broad measures of economic activity which are output, **employment, income, and sales**, in other words, it is a cycle created by the expansionary and recessionary phases clubbed together.
- **Recession:** It is a **macroeconomic term** that refers to a **slowdown or a massive contraction** in economic activities for a **long enough period**, or it can be said that when a recessionary phase sustains for long enough, it is called a **recession**.

- **Depression:** It is a **deep and long-lasting period of negative economic growth**, with output falling for at least 12 months and GDP falling by over 10% or it can be referred to as a severe and prolonged recession.

Measures on Aatmanirbhar Bharat 3.0

Why in News

The government has announced a fresh set of measures, **worth around Rs. 1.2 lakh crore**, to boost job creation, provide liquidity support to stressed sectors and encourage economic activity in housing and infrastructure areas.

- An additional outlay of **Rs. 65,000 crore is being provided as a fertiliser subsidy** to support increasing demand on the back of a good monsoon and sharp increase in the crop-sown area.
- The measures have been announced under Aatmanirbhar Bharat 3.0. The recent announcement of **Expansion of Production Linked Incentives (PLI) Scheme to 10 more sectors** is also a part of Aatmanirbhar Bharat 3.0.

Key Points

- **Aatmanirbhar Bharat Rozgar Yojana:**
 - **Aim:** It is aimed at incentivising the creation of new employment opportunities during the **Covid-19** economic recovery phase.
 - **Government Contribution:** It will provide **subsidy for provident fund** contribution for adding new employees to establishments registered with the Employees' Provident Fund Organisation (EPFO).
 - The **organisations of up to 1000 employees** would receive **employee's contribution (12% of wages) & employer's contributions (12% of wages)**, totalling 24% of wages, for **two years**.
 - Employers with **over 1,000 employees** will get **employees' contribution** of 12%, for **two years**.
 - The subsidy amount under the scheme will be **credited upfront only in Aadhaar-seeded EPFO accounts (UAN)** of new employees.
 - **Eligibility Criteria for Establishments:** Establishments registered with EPFO will be eligible for the benefits if

Note:

they add new employees compared to the reference base of employees as in September 2020.

- Establishments, with up to 50 employees, would have to add a minimum of two new employees.
- The organisations, with more than 50 employees, would have to add at least five employees.

○ Target Beneficiaries:

- Any new employee joining employment in EPFO registered establishments on monthly wages less than Rs. 15,000.
- Those who left their job between 1st March to 30th September and are employed on or after 1st October.

- **Time Period:** The scheme will be effective from 1st October, 2020 and operational till 30th June 2021.

➤ ECLGS 2.0:

- **Emergency Credit Line Guarantee Scheme (ECLGS) 2.0** is being launched for the **Healthcare sector and 26 stressed sectors** (as identified by the **Kamath Committee**) with credit outstanding of above Rs. 50 crore and up to Rs. 500 crore as on 29th February 2020 stressed due to Covid-19, among other criteria.
- Entities will get **additional credit up to 20%** of outstanding credit with a tenor of five years, including a **1 year moratorium** on principal repayment.
- This scheme will be **available till 31st March, 2021**.

➤ Additional Outlay for PM Awas Yojana - Urban:

- A sum of **Rs. 18000 crore** is being provided for **PMAY- Urban** over and above Rs. 8000 Crore already allocated this year.
- This will help ground 12 Lakh houses and complete 18 Lakh houses, create additional 78 Lakh jobs and improve production and sale of steel and cement, resulting in a **multiplier effect on the economy**.
- **PMAY - Urban Mission** was launched in 2015 with an intention to provide housing for all in urban areas by year 2022.

➤ Relaxation of Earnest Deposit Money & Performance Security on Government Tenders:

- **Performance security deposit** on contracts has been **reduced to 3%** from around 5-10%, while

Booster dose | A look at the fresh stimulus steps announced by the Finance Minister



Jobs

A new **Atmanirbhar Bharat Rozgar Yojana** mooted to spur job creation

• Govt. to foot **two years' EPF dues** (24% of wages) for new employees hired between Oct. 1, 2020 and June 30, 2021

• People earning less than **₹15,000 per month** who lost jobs between March 1 and Sept. 30 to be covered if reemployed

• Firms with more than 50 employees must hire at least **5 more** to be covered



Farmers

Govt. to provide **₹65,000 crore** as fertilizer subsidy to ensure adequate availability in view of expected rise in sown area

• Additional **₹10,000 crore** announced for the PM Garib Kalyan Rozgar Yojana which could be used for MGNREGS or PM Gram Sadak Yojana



Salaried taxpayers

Some income tax relief for purchase of residential units of value up to **₹2 crore**

• Permissible differential under Income Tax Act between circle rate and agreement value to be raised from **10% to 20%** for primary sale of new units till June 30, 2021



Infrastructure

₹18,000 crore allocated to PM Awas Yojana to build urban housing, over the **₹8,000 crore** allotted in the Budget

• Govt. expects this would create **78 lakh new jobs** and drive

demand for 25 lakh MT of steel and 131 lakh MT of cement

• Free up infrastructure contractors' capital by reducing performance security charges, and scrapping earnest money deposits for bidding on government projects

• **₹6,000 crore** equity infusion in debt platform of National Infrastructure Investment Fund, which will be used to raise **₹1.1 lakh crore** for infra projects by 2025

• **₹10,200 crore** additional funding for capital and industrial expenditure



Stressed sectors

Emergency Credit Line Guarantee Scheme extended till March 31, 2021

• New scheme to provide credit to firms in the healthcare sector and 26 other sectors identified as 'stressed'



If you take all the packages and the RBI measures announced so far, a total of **₹29,87,641 crore** has been given so far as stimulus. A total of **15% of GDP**. The Central government on its own has provided **9% of GDP** as stimulus

NIRMALA SITHARAMAN



Earnest Deposit Money (EMD) will not be required.

- The relaxations provided till 31st December, 2021 will be a **major relief to the construction sector** as it will free up the capital of the contractors and will enhance their financial ability to carry out the project.
- **Security Deposit:** The contractor is required to deposit with the owner a sum stated as a percentage of the cost of the work in order to safeguard the interests of the owner in the event of improper performance of the contract.
- **Earnest money:** It is assurance or guarantee in the form of cash on the part of the contractor to keep open the offer for consideration and to confirm his intentions to take up the work accepted in his favour for execution as per terms and conditions in the tender.
- **Income Tax relief for Developers & Home Buyers:**
 - Developers have been allowed to sell their **housing units at 20% lower than the circle rate** by increasing the permissible differential from 10% to 20% (Section 43 CA of IT Act).
 - **Circle rates**, also known as **ready-reckoner rates**, are official area-wise prices set by state governments and are considered by the Income-Tax Department to assume purchase prices.
 - The government has allowed a differential of 20% between actual prices and circle rates, up from 10% earlier.
 - The benefit will, however, be available **only on primary sale of residential units** with price value up to Rs. 2 crore until 30th June, 2021.

Note:



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➤ **Infra Debt Financing:**

- Government will make **Rs. 6,000 Crore equity investment in debt platform of National Investment and Infrastructure Fund (NIIF)**, which will help NIIF provide a debt of Rs. 1.1 Lakh Crore for infrastructure projects by 2025.

➤ **Boost for Rural Employment:**

- Additional outlay of **Rs. 10,000 Crore** is being provided for **PM Garib Kalyan Rozgar Yojana** to provide rural employment. This will help **accelerate the rural economy**.

➤ **Boost for Project Exports:**

- **Rs. 3,000 Crore** boost is being provided to **EXIM Bank** for promoting project exports under **Indian Development and Economic Assistance Scheme (IDEAS Scheme)**.
- Under the IDEAS Scheme, most recipient countries get Indian firms executing projects such as railway lines, transmission lines and so on.

➤ **Capital and Industrial Stimulus:**

- Rs. 10,200 Crore additional budget stimulus is being provided for capital and industrial expenditure on domestic defence equipment, industrial infrastructure and green energy.

➤ **R&D grant for Covid Vaccine:**

- **Rs. 900 Crore** is being provided to the **Department of Biotechnology** for Research and Development of Indian Covid Vaccine.

Analysis

- The latest announcement reinforces the '**fiscal conservatism**' ideology of the government, i.e. rather than large cash transfers, the growth philosophy centres around **creating an ecosystem that aids domestic demand**, incentivises companies to generate jobs and boost production, and simultaneously extends benefits to those in severe distress, be it firms or individuals.
- The measures follow a **multi-pronged approach**, aimed at generating employment and encouraging formalisation of the workforce in urban areas, expanding the scope of distress employment provided in rural areas, easing the flow of credit to stressed parts of the economy, expanding the incentives offered to boost domestic manufacturing, and kickstarting the real estate cycle, among others.
- Put together, all Covid-19 relief measures would **increase the Centre's actual fiscal outgo by under 2% of GDP** in 2020-21.
 - As per the government, the total stimulus announced by the Government and **Reserve Bank of India (RBI)** till date (including **Aatmanirbhar 1.0** and **Aatmanirbhar 2.0**), to help the nation tide over the Covid-19 pandemic, works out to Rs. 29.87 lakh crore, which is **15% of national GDP**.
 - Out of this, the stimulus worth **9% of GDP** has been provided by the government.



Note:



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International Relations

Highlights

- Pakistan's Provincial Status to Gilgit-Baltistan
- Gulf Cooperation Council and India
- Mission Sagar-II
- India-UAE Meet on Investments
- India's Annual Resolution on Counter-Terror
- India-Italy Bilateral Summit
- Armenia Azerbaijan Peace Deal
- MoUs Between India-Maldives
- 20th SCO Summit
- Chabahar Project
- Impact of US Election Results on India
- 17th ASEAN-India Summit

Pakistan's Provincial Status to Gilgit-Baltistan

Why in News

India has strongly rejected Pakistan's move to grant **provisional provincial status to Gilgit - Baltistan**.

- **Gilgit-Baltistan** is one of the **disputed territories** of India.

Key Points

- **Gilgit-Baltistan:**
 - It is a chunk of high-altitude territory located on the north western corner of the **Union Territory of Ladakh**.
 - It is located strategically as it **borders Pakistan, Afghanistan and China**.
 - The region **was a part of the erstwhile princely state of Jammu and Kashmir**, but has been under Pakistan's control since 4th November, 1947, following the invasion of Kashmir by tribal militias and the Pakistan army.
 - Maharaja Hari Singh, the last Dogra ruler of J&K, had signed the Instrument of Accession with India on 26th October 1947.



- **India moved to the United Nations Security Council** to raise the issue of Pakistan's invasion on 1st January 1948.
- The **UN Security Council passed a resolution** calling for Pakistan to withdraw from all of Jammu and Kashmir and then India had to reduce its forces to the minimum level following which a plebiscite would be held to ascertain people's wishes.
- However, no withdrawal was ever carried out and it remains a point of contention between two countries.
- The Gilgit-Baltistan region is at the centre of USD 65 billion **China Pakistan Economic Corridor** Infrastructure development plan.

➤ Background:

- Recently, **Saudi Arabia**, a key ally of Pakistan, had **removed Pakistan-occupied-Kashmir and Gilgit-Baltistan from the Pakistan map on its new banknote** after India asked it to take "urgent corrective steps" about the "gross misrepresentation".
- On the first anniversary of the revocation of Jammu and Kashmir's special status, the **Pakistan government had released a new "political map"** which included Jammu and Kashmir, Ladakh and parts of western Gujarat as part of its territory.
- Describing it as "political absurdity" and a "ridiculous assertion", India said it "confirms the reality of Pakistan's obsession with territorial aggrandisement supported by cross-border terrorism".

Note:

➤ India's Stand:

- India claims that the entire Jammu and Kashmir and Ladakh including Gilgit-Baltistan is an **integral part of India** by the virtue of legal, complete and irrevocable accession of Jammu and Kashmir to the union of India in 1947.
- Pakistan's move to name Gilgit-Baltistan as its fifth province is meant to "camouflage its illegal occupation" of the area but it cannot "hide the grave human rights violations, exploitation and denial of freedom" to the people for over seven decades.

Gulf Cooperation Council and India

Why in News

Recently, India had a virtual meeting with the Gulf Cooperation Council (GCC), a leading regional organisation comprising almost all Arab countries.

Key Points

- **Indian Workers Want to Return to Arab Countries:** India has asked the members of the GCC to facilitate the return of Indians who want to resume work with the relaxing of **Covid-19**-related restrictions. This can happen through sustainable **travel bubble arrangements**.
- **More than eight million Indians** live and work in **West Asia**, with a **majority of them within the region covered by the GCC**, which includes **Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE**.
- **'Transport Bubbles' or 'Air Travel Arrangements'** are **temporary arrangements** between two countries aimed at restarting commercial passenger services when regular international flights are suspended as a result of the Covid-19 pandemic. They are **reciprocal in nature**, meaning airlines from both countries enjoy similar benefits.
- **Cooperation:** Both sides affirmed their commitment to **reform multilateral institutions** to reflect the realities of the 21st century and work together to **address contemporary challenges** such as the Covid-19 pandemic, climate change, sustainable development and terrorism.
 - The **GCC welcomed India's inclusion in the United Nations Security Council (UNSC) as a non-permanent member** from January 2021.

- **India** assured continuing the **flow of food, medicines and essential items** to the Gulf region. Supply chains from India to the Gulf were not disrupted despite the lockdowns during the pandemic.

Gulf Cooperation Council

- GCC was **established by an agreement** concluded in 1981 among **Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE** in view of their special relations, geographic proximity, similar political systems based on Islamic beliefs, joint destiny and common objectives.
- The **structure** of the GCC consists of the Supreme Council (the highest authority), the Ministerial Council and the Secretariat General. The **Secretariat** is located in **Riyadh**, Saudi Arabia.
- It is a **political, economic, social, and regional organisation** according to its charter.



India's Relations with the GCC

- **Political:** The governments of the GCC members are **India-friendly and Indian-friendly**.
 - The Prime Minister of India has received the **'Order of Zayed'**, the highest civilian order of the UAE and the **'King Hamad Order of the Renaissance'**, the third-highest civilian order of Bahrain.
 - In the recent past, Saudi Arabia and the UAE have **not adopted hostile posture** to India's domestic developments such as **removing the special status for Jammu & Kashmir under Article 370**.
- **Economic:** The GCC states are among **India's key suppliers of energy**, and **annual remittances** from Indians in these countries are worth an estimated USD 4.8 billion.

Note:

- The **United Arab Emirates (UAE)** and **Saudi Arabia** are **India's third and fourth-largest trading partners** respectively and the **total bilateral trade** of the GCC countries with India for the year **2018-19** stood at USD 121.34 billion.
- UAE also features in the **top 10 sources of FDI inflows** into India.
- **Security:**
 - Both India and the GCC are members of the **Financial Action Task Force (FATF)**.
 - Apart from the participation of Saudi Arabia, Oman, Kuwait, and others in **India's mega multilateral Milan Exercise**, India also has **bilateral exercises** with most of them.
 - **India and Oman hold annual bilateral exercises** across all three wings of the armed forces (Army Exercise 'Al Najah', Air Force Exercise 'Eastern Bridge', Naval Exercise 'Naseem al Bahr'). Further, Oman has provided the Indian Navy access to the **Port of Duqm SEZ** which is one of Indian Ocean's largest deep-sea ports.
 - India has a bilateral **naval (In-UAE BILAT)** as well as an **air force exercise (Desert Eagle-II)** with the **UAE**.

Mission Sagar-II

Why in News

As part of **Mission Sagar-II**, the Government of India is providing **assistance to friendly foreign countries** to overcome natural calamities and **Covid-19 pandemic**.

Key Points

- It follows the first **Mission Sagar** undertaken earlier in 2020.
- As part of Mission Sagar-II, **Indian Naval Ship (INS) Airavat** will deliver **food aid to Sudan, South Sudan, Djibouti and Eritrea**.
- The assistance is in line with **India's role as the first responder in the Indian Ocean Region (IOR)**.



- The deployment is also in consonance with the Prime Minister's vision of the **Security and Growth for All in the Region (SAGAR)**.
- Earlier, India had sent **INS Kesari, carrying food items and medical assistance teams**, to countries in the southern Indian Ocean to deal with pandemic as part of a Mission SAGAR.
- **Strategic Significance of the Island Countries:**
 - Their location along key **Sea Lines of Communication (SLOCs)**.
 - These islands are **vital and can facilitate a navy's continuous presence** along the key international shipping routes, allowing navies to patrol and secure SLOCs during peace times and an option to interdict and cut off an adversary's communications during times of conflict.
- **Other Related Initiatives:**
 - India on the **65th anniversary of the Bandung Conference** emphasised that members of the **Non-Aligned Movement (NAM)** must work to reduce the socio-economic impact of the pandemic on the most vulnerable sections of society and promote **South-South cooperation**.
 - In the wake of the global pandemic, the **International Solar Alliance (ISA)** responded by setting up **ISA CARES** (like **PM-CARES** in India), an initiative dedicated to the deployment of solar energy in the healthcare sector.
 - With Covid-19 and **trade tensions between China and the USA** are threatening supply chains, **Japan has mooted the Supply Chain Resilience Initiative (SCRI)** as a trilateral approach to trade, with India and Australia as the key-partners.
 - The **Coalition of Epidemic Preparedness for Innovation (CEPI)**, a global initiative, has named **Translational Health Science and Technology Institute (THSTI)**, Faridabad as **one of the six laboratories for assessing Covid-19 vaccine candidates** that are under development.
 - India has contributed USD 10 million to **SAARC Covid-19 Emergency Fund** and for manufacturing essential drugs, Covid-19 protection and testing kits (**Operation Sanjeevani** for the Maldives), for countries in the SAARC region.

Other Important Groupings Associated with IOR

- **Indian Ocean Rim Association:** It was established in

Note:



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1997, with an aim to **strengthen regional cooperation and sustainable development**.

- **Indian Ocean Naval Symposium:** It is a **voluntary initiative** that seeks to **increase maritime cooperation** among navies of the littoral states of the region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.
- **Indian Ocean Commission:** It is an **inter-governmental organisation** that coordinates maritime governance in the **south-western Indian Ocean**. India became an **observer in March 2020**.
- **Asia Africa Growth Corridor:** Its idea emerged in the **joint declaration** issued by **India and Japan in 2016**, which was raised on **four pillars** of Development and Cooperation Projects, Quality Infrastructure and Institutional Connectivity, Enhancing Capacities and Skills and People-to-People partnership.

Security and Growth for All in the Region

- Launched in **2015**, it is **India's strategic vision for the IOR**.
- Through SAGAR, India seeks to **deepen economic and security cooperation with its maritime neighbours** and **assist in building its maritime security capabilities**.
- Further, India seeks to **safeguard its national interests** and ensure IOR to become inclusive, collaborative and respectful of the international law.
- The key **relevance of SAGAR emerges when seen in conjunction with India's other policies** impacting the maritime domain like the **Act East Policy, Project Sagarmala, Project Mausam**, etc.

India-UAE Meet on Investments

Why in News

Recently, the eighth meeting of the **India-UAE High-Level Joint Task Force on Investments** has been virtually hosted by India in the wake of the ongoing **pandemic**.

Key Points

- The **Joint Task Force was created in 2012** as a crucial forum for further **deepening the economic ties** between the UAE and India.



- The mechanism has assumed greater importance as the two countries signed the **Comprehensive Strategic Partnership (CSP) Agreement** in **January 2017** and the Joint Task Force is an integral component of it.
 - The focus areas underlined in the CSP were economy with emphasis on a **two-way flow of investments, counter-terror cooperation and defence ties**.
 - India has signed **CSPs with the UK, Indonesia, Vietnam and Australia**.
- At the meeting, both sides reviewed the existing **UAE Plus** and the **Fast Track Mechanism created in 2018**.
 - **UAE Plus** is a special and dedicated desk constituted under **Invest India** with Arabic speaking officials to help facilitate investments.
 - The **Fast Track Mechanism** aims to **resolve any challenges experienced by UAE investors** in India.
- **Scope of Improvement:**
 - Explore ways to **facilitate investments** in key Indian and UAE sectors with potential for economic growth, and to maintain their dialogue and further build on the considerable achievements of the Joint Task Force.
 - **Encourage investment and cooperation** in areas of mutual interest with the purpose to stimulate economic activities in the post-Covid-19 times.
 - **Address specific barriers** to trade, like **anti-dumping duties**, tariffs and regulatory restrictions between the two countries with an aim to further **strengthen the trade and economic ties and to coordinate efforts and promote mutual cooperation**.
 - Continue the work between respective **civil aviation authorities to ensure speedy normalisation of air transport operations** for their mutual benefit.
 - **Development and operation of UAE-based funds** to invest in India, in the light of the **Foreign Portfolio Investor Regulations 2019** by the **Securities and Exchange Board of India (SEBI)**.
 - India agreed to look into these issues with the objective of facilitating further direct investments of UAE-based funds and seeking mutually beneficial solutions in that regard.
 - **Focus on opportunities for cooperation and potential investments in key sectors** in India including the **healthcare and pharmaceutical industry, mobility and logistics, food and agriculture, energy and utilities** and others.

Note:

India-UAE Relations

- India and the United Arab Emirates (UAE) enjoy strong bonds of friendship based on age-old cultural, religious and economic ties between the two nations.
- The relationship **flourished after** the accession of H.H. Sheikh Zayed Bin Sultan Al Nahyan as the Ruler of Abu Dhabi in **1966** and subsequently with the **creation of the UAE Federation in 1971**.
- **Political Relations:**
 - In **August 2019**, UAE **awarded ZAYED Medal**, their highest civilian award, **to the Prime Minister of India** for consolidating the long-standing friendship and joint strategic cooperation between the two nations.
 - Indian Prime Minister's visit to the UAE in **August 2015** marked the beginning of a new and **comprehensive and strategic partnership**.
 - The Crown Prince of Abu Dhabi visited India in **February 2016** and had **wide-ranging discussions on bilateral, regional and multilateral issues of mutual interest**.
- **Commercial Relations:**
 - India-UAE trade was around **USD 59 billion making UAE, India's third-largest trading partner** for the year **20119-20** after China and the USA.
 - The **UAE is the second-largest export destination of India** with an amount of over **USD 29 billion for the year 2019-20**.
 - For the **UAE, India is the second-largest trading partner** for the year **2019** with an amount of around **USD 41.43 billion** for non-oil trade.
 - **India's Major Exports:** Food items, Machinery, Gems and Jewellery, Textiles, Engineering and Machinery Products, Chemicals, etc.
 - **India's Major Import:** Crude Oil, Petroleum and Petroleum Products, Precious Metals, Minerals, Chemicals, Wood and Wood Products.
- **Cultural Relations:**
 - The two nations **share historical ties and have maintained regular cultural exchanges** both at official and popular levels.
 - They signed a **Cultural Agreement in 1975** and the embassies continue to organise various cultural activities on their own as well as by collaborating with other cultural organisations.
- **Indian Community:**

- The UAE is **home to the Indian expatriate community of more than 2.6 million**, the largest expatriate community in the UAE, which has played a **major role in the economic development** of the UAE.
- Recently, India has asked the members of the **Gulf Cooperation Council (GCC) which also includes UAE**, to facilitate the return of Indians who want to resume work with the relaxing of Covid-19-related restrictions.

Recent Developmental Events in the UAE

- In **March 2019**, the **46th session of the Council of Foreign Ministers** of the **Organisation of Islamic Cooperation** (OIC), was held in Abu Dhabi where India was invited as a guest of honour.
 - The **UAE** hosted the event and had **strongly defended the decision to invite India** despite Pakistan's strong objection and threat to boycott the event.
- In **February 2020**, the UAE issued an operating licence for the **Arab world's first nuclear power plant**, paving the way for it to start production in 2020.
- In **September 2020**, the UAE signed the **Abraham Accord** with Israel and Bahrain, which is the **first Arab-Israeli peace deal in 26 years**.

India's Annual Resolution on Counter-Terror

Why in News

Recently, India's **annual resolution on the issue of counter-terrorism** was adopted by consensus in the First Committee of the **United Nations General Assembly (UNGA)**.

Key Points

- India's resolution '**Measures to prevent terrorists from acquiring weapons of mass destruction**' was **co-sponsored by more than 75 countries** and adopted by **consensus without a vote**.
- India, a victim of state-sponsored cross-border terrorism, has been at the forefront in highlighting the serious threat to international peace and security emanating from acquisition of weapons of mass destruction (WMD) by terrorist groups.

Note:

- India's resolution predates the adoption of **resolution 1540** by the Security Council.
 - In **resolution 1540 of the year 2004**, the Security Council decided that all States shall refrain from providing any form of support to non-State actors that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes.
- It needs to be noted that **the UN has not agreed on a Comprehensive Convention on International Terrorism (CCIT)** yet.
 - In 1996, with the objective of providing a comprehensible legal framework to counter terrorism, India proposed to the UNGA the adoption of the "Comprehensive Convention on International Terrorism" (CCIT).
 - CCIT seeks a universal definition of terrorism, prosecution of terrorists under special laws, making cross-border terrorism an extraditable offence worldwide, among others.
- **Weapon of Mass Destruction:**
 - WMD refers to a weapon with the capacity to inflict death and destruction on such a massive scale and so indiscriminately that its very presence in the hands of a hostile power can be considered a grievous threat.

United Nations General Assembly

- UNGA is **one of the six principal organs of the United Nations**, serving as the main deliberative, policy-making, and representative organ of the UN.
 - UN is an international organization founded in 1945. It is currently made up of 193 Member States.
 - The **other five organs** of the UN are: Security Council, Economic and Social Council (ECOSOC), the Trusteeship Council, the International Court of Justice (ICJ) and the UN Secretariat.

First Committee of the UNGA

- The **First Committee (Disarmament and International security)** deals with disarmament, global challenges and threats to peace that affect the international community and seeks out solutions to the challenges in the international security regime.
- The Committee works in close cooperation with the **United Nations Disarmament Commission** and the

Geneva-based Conference on Disarmament. It is the **only Main Committee** of the General Assembly entitled to **verbatim records coverage**.

- Modern weapons of mass destruction are either nuclear, biological, or chemical weapons—frequently referred to collectively as **NBC weapons**.
- Efforts to control the spread of WMD are enshrined in international agreements such as the **Nuclear Non-proliferation Treaty of 1968**, the **Biological Weapons Convention of 1972**, and the **Chemical Weapons Convention of 1993**.
 - India is not a signatory to the Nuclear Non-proliferation Treaty of 1968.
- India has enacted an act to prohibit unlawful activities, in relation to weapons of mass destruction and their delivery systems which is known as **The Weapons of Mass Destruction and Their Delivery Systems (Prohibition of Unlawful Activities) Act, 2005**.

India-Italy Bilateral Summit

Why in News

Recently, a **virtual Bilateral Summit between India and Italy** has been held to comprehensively review the broad framework of the bilateral relationship and also strengthen cooperation against common global challenges, including the **Covid-19 pandemic**.

Key Points

- Both nations decided to adopt the **Action Plan for an enhanced Partnership between India and Italy (2020-2024)** to set up priorities, strategic goals and mechanisms of a bilateral partnership.
- **Economic Engagement:**
 - **Agreed to coordinate closely at multilateral fora especially G-20.**
 - Italy will assume the Presidency of G-20 in December 2021 followed by India in 2022.
 - **Saudi Arabia is holding the current presidency of G20.**



Note:

- **Memorandum of Understanding (MoU)** between **Cassa Depositi e Prestiti (CDP)**, an Italian investment bank and **National Infrastructure Investment Fund (NIIF)** to **promote innovative financial schemes** capable of supporting bilateral investments.
 - Italy is **India's fifth-largest trading partner in the European Union (EU)**.
- **Defence Cooperation:**
 - Underscored the need to **further expand defence engagement** through greater two-way collaboration and technology cooperation, co-development and co-production.
 - Recognised the opportunity to **consolidate defence relations with the aim of enhancing the effectiveness of peacekeeping activities** within the framework of the **United Nations (UN)**.
- **Cooperation During Covid-19 Pandemic:**
 - **Italy thanked India for extending support during the pandemic** by supplying medicines and personal protection equipment (PPE).
 - The Indian community in Italy is the **second-largest community of Indians in Europe after the UK**.
 - Reiterated that the pandemic calls for an inclusive multilateral approach to health protection, especially in the framework of the UN and the **World Health Organisation (WHO)**.
 - Welcomed the **World Health Summit**, which will be held in Italy in 2021, in cooperation with the **European Union (EU) Commission**.
 - The World Health Summit is **one of the world's leading strategic forums for global health** and is held in **October every year**.
- **Science, Technology and Research Collaboration:**
 - Welcomed the progress made under **India-Italy Science and Technology Cooperation** and the **India-Italy Executive Programme of Cooperation**.
 - Welcomed the establishment of **Thematic Working Groups** as a method of work between the **Italian Space Agency (ASI)** and the **Indian Space Research Organisation (ISRO)** as well as the creation of the **first joint ASI-ISRO working group in heliophysics**.
 - **Heliophysics** is the study of the effects of the Sun on the Solar System.
- **Cooperation for Counter-Terrorism and Security:**
 - Pledged to strengthen cooperation in the **fight against terrorism** and transnational crime both

at a bilateral level and in multilateral fora and also agreed to hold the next meeting of the '**India-Italy Joint Working Group on Counter-Terrorism**' to further advance cooperation, exchange of expertise and capacity building in 2021.

➤ **Regional Cooperation and Connectivity:**

- India and Italy acknowledged the potential of new international organisations such as the **Coalition on Disaster Resilient Infrastructures (CDRI)** and the **International Solar Alliance (ISA)**.
 - India welcomed Italy joining ISA after it coming into force of the universalisation of ISA.
 - India also welcomed Italy's engagement in the **Indian Ocean Rim Association (IORA)** and **Italy's new status as Development Partner of ASEAN**.

➤ **Multilateral Cooperation on Environment:**

- Reaffirmed their commitment to the implementation of the **United Nations Framework Convention on Climate Change (UNFCCC)** and its **Paris Agreement** and their respective **nationally determined contributions (NDCs)**.
- Highlighted the **significance of cooperation in the run-up to the 26th Conference of Parties (COP26)** of the UNFCCC, which will be **organised in 2021 by the UK** in partnership with Italy.

Armenia Azerbaijan Peace Deal

Why in News

Recently, **Russia has brokered a new peace deal between Armenia and Azerbaijan**. Both countries have been in a **military conflict** over the **disputed region of Nagorno-Karabakh** in the South Caucasus.

Key Points

➤ **Nagorno-Karabakh Region:**

- The region extends across **western Asia and Eastern Europe**.
- It has been **part of Azerbaijan territory** since the Soviet era and is being internationally recognised so but most of the region is **controlled by Armenian**



Note:

separatists who have declared it a republic called the “Nagorno-Karabakh Autonomous Oblast”.

- While the **Armenian government does not recognise Nagorno-Karabakh as independent**, it **supports the region** politically and militarily.

➤ Conflict and Ceasefire:

- When the **Soviet Union began to collapse** (with the end of the **Cold War**) in the late 1980s, **Armenia’s regional parliament voted for the region’s transfer to Armenia** but the **Soviet authorities turned down** the demand.
- Clashes and the violence lasted till **1994**, when **Russia brokered a ceasefire**, by which time ethnic Armenians had taken control of the region.
- In **2016**, the region saw a **Four-Day War** before Russia mediated peace.
- The **Organisation for Security and Co-operation in Europe (OSCE) Minsk Group**, chaired by France, Russia and the USA, has also tried to get the two countries to reach a peace agreement for several years.
 - **OSCE** is the **world’s largest security-oriented intergovernmental organisation**. Its mandate includes issues such as arms control, promotion of human rights, freedom of the press, and fair elections.
 - **OSCE Minsk Group** was created in **1992** by the **Conference on Security and Cooperation in Europe (CSCE)** to encourage a peaceful, negotiated resolution to the conflict between Azerbaijan and Armenia over Nagorno-Karabakh.
- In **October 2020**, both countries **agreed to a Russia brokered ceasefire** agreement, however, it also proved to be **unsuccessful**.

➤ Reason for the Conflict:

- Decades-old **Ethnic tensions** have a crucial role in the dispute. While the **Azeris claim** that the disputed **region was under their control in known history**, **Armenians maintain** that Karabakh was a **part of the Armenian kingdom**.
- Currently, the disputed region consists of a **majority Armenian Christian population**, even though it is **internationally recognised as a part of Muslim-majority Azerbaijan**.

➤ New Peace Deal:

- Both sides will now maintain positions in the areas that they currently hold, which will mean a

significant gain for Azerbaijan as it has **reclaimed over 15-20% of its lost territory** during the recent conflict.

- All **military operations are suspended** and **Russian peacekeepers will be deployed for a period of five years**, along the line of contact in Nagorno-Karabakh and along the **Lachin corridor** which links the Karabakh capital, Stepanakert, to Armenia.
- **Refugees and internally displaced persons will return** to the region and the adjacent territories and the two sides will also **exchange prisoners** of wars and bodies.
- A **new corridor will be opened** from Nakhchivan to Azerbaijan, which will be **under Russian control**.
- **Reactions: Armenian people are against** the deal and have protested while **Azerbaijan is pleased** with the deal and considered it of “historic importance”.

➤ Russia’s Role:

- Russia has always taken a **balanced position** on the matter and has traditionally **good relations with both countries**. It **supplies arms to both** countries.
- Russia has a **military base in Armenia** and both are **members of the Moscow-led Collective Security Treaty Organisation**.
 - The treaty envisages Russia’s military support if Armenia is attacked. However, it does not include Nagorno-Karabakh or the other Azerbaijani regions around it seized by Armenian forces.
- At the same time, **Russia also has strong ties to Azerbaijan**, which is being **openly backed by Turkey**, a **North Atlantic Treaty Organisation (NATO)** member.

MoUs Between India-Maldives

Why in News

Recently, **India and the Maldives** have signed **four Memorandums of Understanding (MoUs)**.

Key Points

➤ Four MoUs:

- Two MoUs for High Impact Community Development Projects.



Note:

- An MoU on Cooperation in Sports and Youth Affairs.
- An MoU for a USD 100 million grant to fund the **Greater Male Connectivity Project (GMCP)** which is the largest ever such infrastructure project undertaken in the Maldives.
 - GMCP is a financial package by India, consisting of a grant of USD 100 million and a new line of credit of USD 400 million.
 - This will be the largest civilian infrastructure project in the Maldives, connecting **Malé** (the capital) with **three neighbouring islands** viz. Villingili, Gulhifalhu (where a port is being built under Indian **line of credit**) and Thilafushi (new industrial zone) by the **construction of a bridge-and-causeway link**.
 - This will **boost economic activity, generate employment and promote holistic urban development** in the Malé region.

➤ Other Recent Initiatives:

- In **April 2020**, India supplied 6.2 tonnes of essential medicines to the Maldives, under **Operation Sanjeevani** to tackle the **pandemic**.
- In **May 2020**, India under **Mission Sagar**, supplied food items and medical assistance teams to the countries in the southern Indian Ocean including the Maldives.
 - Indian Government assures that the **Maldives will be among the first countries to receive Covid-19 vaccines** as soon as one is developed in India.
- In **August 2020**, the **bilateral Air Travel Bubble** was established which connects five Indian cities with Male through 13 weekly flights leading to a steep increase in the number of tourists.
 - Creating a travel bubble **involves reconnecting countries or states which have shown a good level of success in containing the Covid-19 domestically**.
 - Such a bubble would **allow the members of the group to restart trade ties** with each other and **open travel and tourism**.
- In **October 2020**, both governments inked a deal for a **USD 400 million line of credit** from the **Export-Import Bank of India (Exim Bank)**, **premier export finance institution** of India.
 - The soft loans to the Maldives have funded connectivity, water, sewerage projects, Addu

Development Project, an international cricket stadium, Gulhifalhu port, etc.

➤ Significance:

- The **MoUs are symbolic of India-Maldives' strong development partnership** which is multi-faceted and designed to meet the specific requirements of the government and people.
 - The Maldives enjoys a special and central place in India's **Neighbourhood First policy** and itself has a **foreign policy of India First**.
 - India is supportive of **Maldivian Foreign Minister's candidature** for the **Presidency of the 76th session of the United Nations General Assembly in 2021**.
 - Both nations have consistently supported each other in multilateral fora such as the UN, the **Commonwealth**, the **Non-Aligned Movement (NAM)** and the **South Asian Association for Regional Cooperation (SAARC)**.
- Amid India's growing concern over **China's increasing influence** in the **Indian Ocean Region (IOR)**, the ties with the Maldives are of crucial importance.
 - The **current Maldivian President** is being criticised by the opposition for having an "**India-tilt**". The Former President was dislodged from office in 2018 and was widely perceived as a close ally of China.

20th SCO Summit

Why in news

Recently, the **20th Summit** of the **Shanghai Cooperation Organisation (SCO)** Council of Heads of State was held virtually and was **chaired** by the **President of Russia**.

Key Points

➤ Highlights made by India:

- Proposed to set up a **Special Working Group on Innovation and Startups** and a **Sub Group on Traditional Medicine** within SCO.
- Urged SCO members to **respect each other's territorial integrity and sovereignty**, indirectly referring to Chinese infrastructure projects in **Pakistan Occupied Kashmir (POK)** and **India-China standoff at the Line of Actual Control (LAC)**.

Note:



drishti

- Sought the support of the SCO members in attaining a reformed multilateralism, in the context of the **pandemic** and the **economic downturn**.
- Highlighted the **challenges posed by the smuggling of illegal weapons, drugs and money laundering**.
- **Significance of SCO Meet:**
 - It **brought President of China and Prime Minister of India together** in the virtual format even as both countries are facing-off each other in **Eastern Ladakh** along the **Line of Actual Control (LAC)**.
 - This was the **first SCO Summit** held in a **virtual format** and the **third meeting** that India participated in after becoming a **full member in 2017**.
- **India Role in SCO:**
 - **Connectivity:** India's role in supporting infrastructure and connectivity development projects in the SCO region was highlighted. For example, the **Chabahar port** and the **International North-South Transport Corridor (INSTC)**.
 - **Responsible Global Governance:** Bringing changes in global governance will be the focus of India as a non-permanent member of the **United Nation (UN) Security Council**.
 - From 2021, India will take part in the UN Security Council as a **non-permanent member**.
 - **Strengthening Cultural Heritage:** The **National Museum of India** will hold an exhibition on the **Buddhist heritage of the SCO countries** and India will host a food festival reflecting the culinary traditions of the SCO region.

Shanghai Cooperation Organisation

- It is a **permanent intergovernmental international organisation**, created in **2001** by the **Republic of Kazakhstan**, the **People's Republic of China**, the **Kyrgyz Republic**, the **Russian Federation**, the **Republic of Tajikistan**, and the **Republic of Uzbekistan**.
 - It was **preceded by the Shanghai Five mechanism**.
 - **Shanghai Five** (Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan) emerged from a **series of border demarcation and demilitarisation talks** which the four former Soviet republics held with China to ensure stability along the borders in **1996**.
- The **SCO Charter** was signed during the **St. Petersburg SCO Heads of State meeting** in **June 2002**, and **entered into force in September 2003**.

- This is the **fundamental statutory document** which outlines the organisation's goals and principles, as well as its structure and core activities.
- **Official languages: Russian and Chinese.**
- SCO has **two permanent bodies**:
 - **SCO Secretariat in Beijing.**
 - **Executive Committee of the Regional Anti-Terrorist Structure (RATS)** in Tashkent.
- **Chairmanship:**
 - The **yearly chairmanship** is given to every member state **on rotation**.
 - The **Republic of Tajikistan** has assumed the **chairmanship of SCO for 2021-22**.
 - **India and Pakistan** became members in **2017**.

Chabahar Project

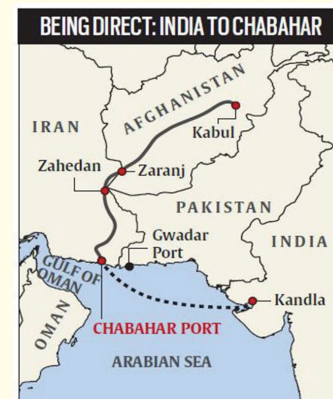
Why in News

Recently, **Iran's Port and Maritime Organisation (PMO)** has **conveyed to India a request** for locomotives and signalling equipment for the **Chabahar-Zahedan railway line**.

- Iran has been facing **difficulty in procuring** them directly due to the **sanctions imposed by the USA**.
- Iran has also asked India to activate the **USD 150 million credit line** which was offered to it by India during the Iranian President's visit in 2018.

Chabahar Port

- It is located on the **Gulf of Oman** and is **only 72 km away from the Gwadar port** in **Pakistan** which has been developed by China.
- The port serves as the **only oceanic port of Iran** and consists of **two separate ports** named **Shahid Beheshti** and **Shahid Kalantari**.



Key Points

- **Background:**

Note:

- In **May 2016**, India, Iran and Afghanistan signed the **trilateral agreement** which entailed the establishment of **Transit and Transport Corridor** among them using Chabahar port in Iran as one of the regional hubs for sea transportation.
- Construction of a **rail line from Chabahar port to Zahedan**, along the border with Afghanistan as an **alternate trade route to Afghanistan and Central Asia**, was also a part of it.
- The state-owned **Indian Railways Construction Ltd. (IRCON)** signed a **Memorandum of Understanding (MoU) with the Iranian Rail Ministry** to provide all services, superstructure work and financing (around USD 1.6 billion).

➤ **Reasons for Excluding India:**

○ **Iran's Stand:**

- In **July 2020**, Iran decided to proceed with the rail line construction on its own, citing **delays from the Indian side in beginning and funding** the project.

○ **India's Stand:**

- IRCON completed the site inspection and feasibility report, and had been **waiting for the Iranian side to appoint a nodal authority**.
- Although the project has **secured a special waiver from the USA**, India is **hesitant to deal with the construction company** which has links with the **Islamic Revolutionary Guard Corps (IRGC)** and is under the sanctions.
 - The IRGC is a **hard-line force which operates its own military infrastructure** in parallel to Iran's regular armed forces. In **April 2020**, it launched **Iran's first military satellite Noor**.
 - Fear of sanctions by the USA has also impacted Indian interest in the **Farzad-B gas field project** of Iran.

➤ **Significance of Chabahar Port for India:**

- **Trade:** It is being considered a **gateway to golden opportunities** for trade by the three countries with other **Central Asian countries** in the wake of Pakistan denying transit access to India.
- **Security:** China is aggressively pursuing its own **Belt and Road Initiative (BRI)** under the **One Belt One Road (OBOR)** project. The port can also act as a counter to Pakistan's **Gwadar Port**, which is being developed with Chinese investment.

- **Connectivity:** In future, the Chabahar project and the **International North South Transport Corridor (INSTC)** will complement each other by optimising Indian connectivity with Russia and Eurasia.

➤ **Evolving Scenarios:**

- With the **results of the USA elections**, both **India and Iran look for the possible ease of sanctions** allowing for increased engagements.
- India is also keeping an **eye on the negotiations on a 25-year strategic cooperation agreement between China and Iran** (worth USD 400 billion) which could fund other parts of the Chabahar development, including a **free trade zone** along the Makran coast, and **oil infrastructure projects**, impinging on India's strategic ties with Iran.

Farzad-B Gas Field

- It is located in **Persian Gulf** (Iran) and the contract for exploration of the field was signed in **2002** by Indian consortium comprising **Oil and Natural Gas Corporation Limited (ONGC) Videsh, Indian Oil Corporation and Oil India**.
- The contract **expired in 2009** after declaration of commerciality of the field, based on the gas discovery. Since then, the consortium has been **trying to secure the contract** for development of the field.
- The **major dispute** between India and Iran was **over setting up of two pipelines**, and also over **money to be quoted** on the development plan.
- Around 75% of the deal was finalised by **May 2018**, when the **USA unilaterally withdrew from the nuclear deal and announced sanctions** on Iran.
- In **January 2020**, Iran clarified that it would develop the field on its own and would like to **involve India appropriately at a later stage**.



Note:

Impact of US Election Results on India

Why in News

Joseph Robinette Biden Jr. has defeated Donald Trump to become the 46th US President.

- Biden's **running mate Kamala Devi Harris** has become the first woman and first Indian- and African- American **Vice President** of the country. Biden and Harris will be **sworn into office on 20th January 2021**.
- The **US** has a **Presidential System**, whereas **India** has the **Parliamentary System of Government**.
- There are **several ways** in which the **US economy**, its health and the **policy choices of its government affect India**. Both the countries recently had **2+2 dialogue**.

Key Points

- **Economic Relations:** Under the Biden administration, India's trade with the US could recover from the dip since 2017-18.
 - **Trade Surplus:** A recent analysis by experts of CARE Ratings (a credit rating agency) shows that over the past 20 years, **India has always had a trade surplus** (exports exceeding imports) **with the US**.
 - The trade surplus has widened from USD 5.2 billion in 2001-02 to USD 17.3 billion in 2019-20. Trade surplus had **peaked at USD 21.2 billion in 2017-18** and has moderated to some extent.
 - In 2019-20, India **exported** goods worth **USD 53 billion** to the US - that's roughly 17% of all Indian exports that year and **imported** goods worth USD 35.7 billion in return - that's roughly 7.5% of all Indian imports.
 - **Trade in Services:** India accounts for **nearly 5% of USA's services imports** from the World.
 - **Investment:**
 - The **US is the fifth-biggest source for Foreign Direct Investment** (FDI - investment in the physical assets inside India) **into India**. Only Mauritius, Singapore, Netherlands, and Japan have invested more FDI since 2000.
 - The US also accounts for **one-third of all Foreign Portfolio Investments** (that is, investment in financial assets) into India.

US Presidential System

- The US President is both the **head of the State** and **head of the Government**.
- The **law making is done by the legislature** (called the Congress in the US), but the President **can veto** any law.
- S/he has a **fixed tenure of four years** and completes it even if her/his party does not have a majority in the Congress.
- The President and the Vice President are **chosen by 'electors'** through a process called the Electoral College.
 - The **presidential candidate** of each of the political parties, **chooses a vice presidential running mate**. Voters vote on the two—presidential and vice presidential candidates—as a team.
- The President **can be removed** for conviction of treason, bribery, or other high crimes or misdemeanor.

Indian Parliamentary System

- There is a **President who is the formal Head of the state of India** and the **Prime Minister and the Council of Ministers**, which **run the government** at the national level.
- The **Constitution of India vests the executive power of the Union formally in the President**. In reality, the President exercises these powers through the Council of Ministers headed by the Prime Minister.
 - The Prime Minister has the support of majority in the Lok Sabha.
- The President is **elected for a period of five years**. S/he is **elected indirectly**. This means that the President is elected not by the ordinary citizens but by the elected MLAs and MPs.
- The President can be **removed only for 'violation of the Constitution' (impeachment procedure)**.
- **H1-B Visa Issue:** How a US President looks at the H1-B visa issue, affects the prospects of Indian youth far more than the youth of any other country.
 - Under President Trump, who severely **curtailed the visa regime**, owing to his policy of "**America First**", India had suffered the most.
 - H-1B visa is a **non-immigrant visa** that allows American companies to employ foreign workers in speciality occupations that require theoretical or technical expertise.

Note:

- **US' Generalized System of Preference:** India's exclusion from the US' **Generalized System of Preference (GSP)** could come up for reconsideration under Biden.
 - In 2019, President Donald Trump had **terminated India's designation as a beneficiary developing nation under the GSP trade programme** after determining that it has not assured the US that it will provide "equitable and reasonable access" to its markets.
 - India **was the largest beneficiary of the programme in 2017** with USD 5.7 billion in imports to the US given duty-free status.
 - GSP is designed to promote economic development by allowing duty-free entry for thousands of products from designated beneficiary countries.
- **Other Issues:** Other points of contention between India and US - such as the tricky issue of **data localisation** or **capping prices of medicines and medical devices** - have a chance of getting towards a resolution.
 - Further, under the Trump administration, the **US sanctions on Iran** severely limited India's sourcing of cheap crude oil.
 - On **China**, it is more likely that a **Biden administration will help India against China**, instead of clubbing the two together.
- **Paris Climate Accord:** Biden has promised to **rejoin the Paris Climate Accord**, and this may help countries such as India in dealing with the massive challenges - both technical and financial - on this front.
- **Civil Liberties and Democratic Rights in India:**
 - Although some US Congressmen and women had raised red flags on the human rights situation following the revoking of J&K's special status under **Article 370** and passage of the **Citizenship (Amendment) Act** alongside the proposed nationwide **National Register of Citizens (NRC)**, the Trump administration had not taken any actions beyond making some perfunctory statements.
 - According to the Biden campaign's policy paper, **Biden has been "disappointed by the measures that the Government of India has taken with the implementation and aftermath of the National Register of Citizens (NRC) in Assam and the passage of the Citizenship (Amendment) Act into law".**

17th ASEAN-India Summit

Why in News

Recently, India has participated in the **17th ASEAN-India Virtual Summit** on the invitation of Vietnam, the current Chair of **Association of Southeast Asian Nations (ASEAN)**.

- The summit focused on **measures to recover from the economic turmoil triggered by the Covid-19 pandemic** and ways to **further broad-base strategic ties**.

Key Points

- **ASEAN's Centrality with respect to:**
 - **India's Act East Policy:**
 - Against the backdrop of aggressive moves by China, including the **Ladakh standoff**, India placed the ASEAN at the centre of India's **Act East policy** and held that a cohesive and responsive ASEAN is essential for security and growth for all in the region.
 - **India's Indo-Pacific Vision and Security And Growth for All in the Region Vision:**
 - India underscored the importance of strengthening convergence between India's **Indo-Pacific Oceans Initiative (IPOI)** and the ASEAN Outlook on **Indo-Pacific**, to ensure a free, open, inclusive and rules-based region.
 - It also highlighted the importance of cooperation by ASEAN in for the **Security And Growth for All in the Region (SAGAR)** Vision.
 - **Regional Comprehensive Economic Partnership:**
 - India would explore ways to **increase trade despite its exit from the 15-nation RCEP agreement** in 2019.
 - The RCEP free trade agreement is **expected to be signed on 15th November 2020** between **China, Australia, South Korea, Japan, and the ASEAN Members**.
 - However, experts have warned that **once the RCEP is adopted, trade between RCEP nations will assume primacy, which could affect trade ties with other countries** including India.
 - **South China Sea:**
 - Affirmed the importance of maintaining and promoting peace, stability, safety and security in the **South China Sea**, and **ensuring freedom of navigation and overflight**.

Note:

- Noted the importance of promoting a rules-based order in the region including through **upholding adherence to international law**, especially the **United Nations Convention on the Law of the Sea (UNCLOS)**.
- **Regulating Covid-19 Pandemic:**
 - India welcomed ASEAN's **initiatives to fight the pandemic** and announced a **contribution of USD 1 million to Covid-19 ASEAN Response Fund**.
 - It also underlined the importance of cooperation and regular exchanges in the field of traditional medicines as a source of healthy and holistic living.
- **Trade and Investment:**
 - India underlined the **importance of diversification and resilience of supply chains** for post-Covid-19 economic recovery.
 - India called for an early review of **ASEAN-India Trade in Goods Agreement (AITGA)**, which is pending for a long time.
- **Connectivity:**
 - Underscoring the importance of greater physical and digital connectivity, India reiterated its offer of **USD 1 billion Line of Credit to support ASEAN** connectivity.
- **India's Significance Highlighted by ASEAN:**
 - Towards **promoting peace and stability in the region** and India's support to ASEAN centrality.
 - Welcomed the adoption of the new **ASEAN-India Plan of Action for 2021-2025**.
 - Acknowledged **India's capacity-building initiatives**, including the **PhD Fellowship Programme** at IITs and **setting up of Centres for Excellence** in Software Development and Training.

Association of Southeast Asian Nations

- It is a **regional grouping** that promotes economic, political, and security cooperation.
- It was established on **8th August 1967 in Bangkok, Thailand** with the signing of the **ASEAN Declaration (Bangkok Declaration)** by the **founding fathers** of ASEAN, namely **Indonesia, Malaysia, Philippines, Singapore and Thailand**.
- **Ten Members:** Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- **Chairmanship:** It rotates annually, based on the alphabetical order of the English names of Member States.
- ASEAN countries have a **total population of 650 million** people and a combined **Gross Domestic Product (GDP) of USD 2.8 trillion**. It is **India's 4th largest trading partner** with about USD 86.9 billion in trade.
- The group has **played a central role in Asian economic integration**, signing six free-trade agreements with other regional economies and helping spearhead negotiations for what could be the world's largest free trade pact.



Note:

Science and Technology

Highlights

- Asteroid 16 Psyche
- Metro Neo
- Covid-19 and Tinnitus
- Radio Burst in Milky Way
- Thirty Meter Telescope Project
- Pfizer's Covid-19 Vaccine Candidate
- 300 Million Potentially Habitable Earths

Asteroid 16 Psyche

Why in News

A recent study at **National Aeronautics and Space Administration (NASA)** has found out that **asteroid 16 Psyche**, which **orbits between Mars and Jupiter**, could be **made entirely of metal** and is worth an estimated 10,000 quadrillion US dollars.

Key Points

- **About Asteroid 16 Psyche:**
 - Asteroid 16 Psyche is **located 370 million kilometers away from earth** between Mars and Jupiter and has a diameter of 140 miles.
 - It was **discovered in the year 1853** by the Italian astronomer Annibale de Gaspard and was **named after** the ancient Greek goddess of the soul, Psyche.
 - **Unlike most asteroids** that are made up of rocks or ice, scientists believe that Psyche is a **dense and largely metallic object** thought to be the core of an earlier planet that failed formation.
 - Psyche's shape is like a potato which **takes about five earth years to complete one orbit of the sun** but only **a bit over 4 hours to rotate** once on its axis.
- **Latest Findings:**
 - The latest study through the **Hubble Space Telescope** and ultraviolet observation gives a clearer picture of Psyche's composition.
 - The Hubble Space Telescope was **launched into low Earth orbit in 1990** and remains in operation.
 - It was found that **Psyche could be a unique asteroid composed of iron and nickel almost completely**

which is **similar to earth's core**. The iron alone would be worth more than 10,000 quadrillion US dollars.

- Scientists noted that the manner in which Psyche reflected ultraviolet light was very similar to the way iron reflects sunlight.

➤ NASA's Psyche Mission:

- The primary target of the Psyche mission **to be launched in 2022** by NASA is to study this asteroid completely and confirm the assumptions being made by the scientists.
- Psyche mission will be the **first mission to investigate this metallic asteroid**. Psyche spacecraft will **land on the asteroid in early 2026**.
- As the composition of Psyche is very similar to earth's own core, its study will also give **an insight to earth's violent history** of collisions and accretion that created it.

Metro Neo

Why in News

The Centre is planning to approve national standard specifications for **Metro Neo, a no-frills, low-cost urban rail transit system targeted at tier 2 and tier 3 cities**.

Key Points

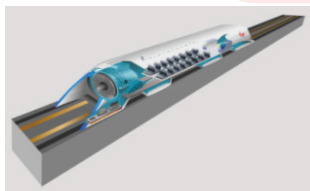
- Metro Neo is a **mass rapid transit system providing low-cost, energy-efficient and eco-friendly urban transport solutions** for tier 2 and tier 3 cities.
- Drawing traction power from overhead wires, Metro Neo will **not run on track but on road**. It is **suitable for places** where the traffic demand is around 8,000 passengers one way in peak time.

Note:

- Metro Neo systems are **lighter and smaller than conventional Metro trains**.
 - They **cost about 25% of conventional systems** but with **similar facilities**, and are **cheaper than the other budget option Metrolite**, which costs about 40% of the normal Metro.
- The **Maharashtra government** has already given a green signal for this state-of-the-art Mass Rapid Transit System (MRTS) for **Nashik**.
- Metro Trains and Metrolite:
 - The **metro rail system** being developed at present is **of high capacity** which is required for bigger cities with very high ridership and Peak Hour Peak Direction Traffic (PHPDT).
 - Seeing the success of metro rail in the country, several other **cities with lower projection of ridership** are also **aspiring for a rail based mass rapid transit system**, which could be fulfilled by **Light Urban Rail Transit System** named “**Metrolite**” with lesser capacity at much less cost.
 - ‘Metrolite’ would also act as a **feeder system to high capacity Metro**.

Other New Modes of Urban Mobility

- **Hyperloop Transportation System:**
 - It is a transportation system where a **pod-like vehicle** is propelled through a near-vacuum tube connecting cities at **speeds matching that of an aircraft**.
 - The hyperloop concept is a **brainchild of Tesla founder Elon Musk**. The hyperloop system is being designed to transport passengers and freight.
 - The USA-based Hyperloop Transport Technology (HTT) has claimed that it **costs USD 40 million per kilometre to build a hyperloop system while building a high-speed train line would cost almost twice**.
 - The **Maharashtra government** had signed an agreement with **Virgin group** to build a Hyperloop in 2018.
- **Pod Taxi:**
 - In 2017, the **National Highway Authority of India (NHAI)** had called the expression of interest (EOI) for launching **India’s first driverless pod taxi**



systems on a 70 km stretch from Dhaula Kuan in Delhi to Manesar in Haryana. Pod Taxi Scheme is also called the **Personal Rapid Transit (PRT)**.

- PRT consists of **driverless vehicles** in the shape of pods, which **can hold two to six people each**, and run along a predetermined course at **80-130 km per hour**.



Covid-19 and Tinnitus

Why in News

According to a recent research, **Tinnitus is being worsened by the Covid-19** and the measures taken to fight it.

Key Points

- The research covered **3,103 people with tinnitus from 48 countries**, mostly from the UK and the USA.
- It found that **40% of those displaying symptoms of Covid-19** simultaneously experience a **worsening of their tinnitus**.
- A small number of participants reported that **their tinnitus condition was initially triggered by developing Covid-19 symptoms**. This suggests that **tinnitus could be a Covid-19 symptom** in some cases.
- A large proportion of people believe their **tinnitus is being made worse by social distancing measures**.
 - As many as 46% of the UK respondents said that **lifestyle changes had negatively impacted their tinnitus**, compared to 29% in North America.
- In another **study published in BMJ Case Reports**, researchers stated the **possible ways through which Covid-19 can affect hearing**.
 - The presence of **ACE-2 human receptors** that **SARS-CoV-2** binds with.
 - The receptor was recently **found to be expressed in the epithelial cells in the middle ear of mice**.
 - Another way that could affect hearing is through the **immune system response to the infection**. In this case, the **inflammatory responses and an increase in cytokines** due to infection could **lead to hearing loss** in case there is direct entry into the **cochlea** leading to inflammation and cell stress.

Note:



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- The **cochlea** contains the sensory organ of hearing.

- Earlier, Ear, Nose and Throat (ENT) specialists noted a growing number of patients with **anosmia** (the abrupt loss of smell) and **ageusia** (loss of sense of taste). Both **anosmia and ageusia could be signs of Covid-19** in people who otherwise appear well.

Tinnitus

- It is the **perception of noise or ringing in the ears**.
- It is **not a condition itself** but is a **symptom of an underlying condition**, such as age-related hearing loss, ear injury or a circulatory system disorder.
- Tinnitus can significantly **affect the quality of life**. One may experience fatigue, stress, sleep problems, trouble concentrating, memory problems, depression, anxiety and irritability, etc.
- Although it **can worsen with age**, for many people, tinnitus **can improve with treatment**. **Treating an identified underlying cause** sometimes helps. Other **treatments reduce or mask the noise**, making tinnitus less noticeable.
- **Treatments** may include hearing aids, sound-masking devices, medicines, and ways to learn how to cope with the noise.

Radio Burst in Milky Way

Why in News

Recently, the **National Aeronautics and Space Administration** (NASA) has spotted **fast Radio Burst** for the first time in the **Milky Way**.

Key Points

- **Fast Radio Burst:**
 - FRB are **bright bursts of radio waves** (radio waves can be produced by astronomical objects with changing magnetic fields) whose **durations lie in the millisecond-scale**, because of which it is **difficult to detect them** and determine their position in the sky.
 - It was **first discovered in 2007**.
- **Discovery of FRB in Milky Way:**
 - **NASA** observed a **mix of X-ray and radio signals** never observed before in the Milky Way.
 - The X-ray portion of the simultaneous bursts was

detected by several satellites, including **NASA's Wind mission**.

- **NASA's Wind** is a spin stabilized spacecraft launched on 1st November, 1994. After several orbits through the **magnetosphere**, Wind was placed in a halo orbit around the **L1 Lagrange point** in early 2004 to observe the unperturbed solar wind that is about to impact the magnetosphere of Earth.
- The **radio component** was discovered by the **Canadian Hydrogen Intensity Mapping Experiment (CHIME)**, a radio telescope located at Dominion Radio Astrophysical Observatory in British Columbia, which is led by McGill University in Montreal, the University of British Columbia, and the University of Toronto.
- **CHIME** is a novel radio telescope that has no moving parts. Originally conceived to map the most abundant element in the universe - hydrogen - over a good fraction of the observable universe, this unusual telescope is optimized to have a high "mapping speed".
- **Source of FRB in Milky Way:**
 - The source of the FRB detected recently in the Milky Way is a very powerful **magnetic neutron star** referred to as a **magnetar**, called **SGR 1935+2154** or **SGR 1935**, which is located in the **constellation Vulpecula** and is estimated to be between 14,000-41,000 light-years away.
 - The FRB was part of one of the magnetar's most prolific flare-ups, with the X-ray bursts lasting less than a second.
 - The radio burst, on the other hand, lasted for a thousandth of a second and was thousands of times brighter than any other radio emissions from magnetars seen in the Milky Way previously.
 - It is possible that the FRB-associated burst was exceptional because it likely occurred at or close to the magnetar's magnetic pole.
 - This flare-up, which lasted for hours, was picked up by **NASA's Fermi Gamma-ray Space telescope** and **NASA's Neutron star Interior Composition Explorer (NICER)**.
 - **The Fermi Gamma-ray Space Telescope**, formerly called the Gamma-ray Large Area Space Telescope (GLAST), is a space observatory being used to perform gamma-ray astronomy observations from low Earth orbit.

Note:



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- **NASA's Neutron star Interior Composition Explorer** is an **International Space Station (ISS)** payload devoted to the study of neutron stars through soft X-ray timing.

Magnetar

- As per NASA, a **magnetar** is a neutron star, "the crushed, city-size remains of a star many times more massive than the Sun."
- The **magnetic field of such a star is very powerful**, which can be over 10 trillion times stronger than a refrigerator magnet and up to a thousand times stronger than a typical **neutron star's**.
 - **Neutron stars** are formed when the core of a massive star undergoes gravitational collapse when it reaches the end of its life. This results in the matter being so tightly packed that even a sugar-cube sized amount of material taken from such a star weighs more than 1 billion tons, which is about the same as the weight of Mount Everest, according to NASA.
- Magnetars are a subclass of these neutrons and occasionally release flares with more energy in a fraction of a second than the Sun is capable of emitting in tens of thousands of years.
- In the case of **SGR 1935**, for instance, the X-ray portion of the simultaneous bursts it released recently carried as much energy as the Sun produces in a month, assuming that the magnetar lies towards the nearer end of its distance range.

Thirty Meter Telescope Project

Why in News

The design of **back-end instruments** and other aspects of the **Thirty Meter Telescope (TMT)** project being installed at **Maunakea in Hawaii** has been developed by close collaboration between the **2020 Physics Nobel Laureate Prof. Andrea Ghez** and **Indian astronomers**.

Key Points

- The Thirty-meter telescope (TMT) project is an international partnership between the **USA, Canada, Japan, China, and India**.
- It will allow deeper exploration into space and **observe cosmic objects** with unprecedented sensitivity.
- **Other Global Projects with Indian Collaboration:**

○ The Laser Interferometer Gravitational-Wave Observatory (LIGO) Project

- The Indian scientists contributed in several aspects such as **designing algorithms for analysis of signals from gravitational waves**, estimating energy and power radiated from black holes etc.
- Now **LIGO-India** is a planned advanced gravitational-wave observatory to be located in India as part of the worldwide network.

○ CERN Project

- India became a **full Associate Member** of world's largest particle **Physics laboratory CERN** in 2017, thereby **getting full access** to data generated there.
- The contribution of Indian scientists there is mainly in building the **Large Hadron Collider (LHC)** and construction of two significant CERN experiments, **CMS and ALICE**.

○ Facility for Antiproton and Ion Research (FAIR)

- FAIR is coming up at **Darmstadt, Germany** for **studying the building blocks of matter and the evolution of the Universe**.
- FAIR is a sophisticated **accelerator complex** that will **use the high energy and ion beams to mimic the condition inside the core** of the stars and early phase of the universe.
- The role of Indian scientists would be to build **NUSTAR** (Nuclear Structure, Astrophysics and Reactions), **CBM** (Compressed Baryonic Matter) and **PANDA** (Antiproton Annihilation at Darmstadt).

○ Square Kilometre Array (SKA)

- India has joined **nine other countries** to build the **world's largest and most sophisticated radio telescope** called Square Kilometre Array (SKA).
- The **core of the telescope will be based in Karoo desert in South Africa**. Since the **total detection area** of the receiver dishes would exceed **1 square kilometer**, it is called Square Kilometre Array.

○ International-Thermonuclear-Experimental-Reactor (ITER)

- The International-Thermonuclear-Experimental-Reactor (ITER) is focused around **creating an environment mimicking the Sun** in laboratory conditions using **nuclear fusion**.

Note:



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- India's scientists and institutions such as **Institute for Plasma Research, Ahmedabad** are playing an important role in this.

Pfizer's Covid-19 Vaccine Candidate

Why in News

Recently, **American pharma company Pfizer** has claimed that its **vaccine candidate BNT162b2 is more than 90% effective** in preventing **Covid-19** in participants without evidence of prior **SARS-CoV-2** infection.

Key Points

➤ BNT162b2:

- It is a **single nucleoside-modified messenger RNA (modRNA)** vaccine, which is made of a short segment of genetic material (the messenger RNA/mRNA) which **provides instructions for a human cell to make a harmless version of a target protein**, in this case the spike protein of SARS-CoV-2, in order to **activate an immune response**.
- The mRNA vaccine is a new approach to protecting against viral infection.
- Unlike traditional vaccines, which work by training the body to recognise and kill proteins produced by pathogens, mRNA tricks the patient's immune system to **produce viral proteins itself**.
- The proteins are harmless, but sufficient to provoke a robust immune response.
- Its **phase 3 clinical trial began in July** with 43,538 participants, 38,955 of whom had received a second dose by November. The case split between vaccinated individuals and those who received the placebo indicates a **vaccine efficacy rate above 90%**, at 7 days after the second dose.
- It means that **protection is achieved 28 days after the initiation of the vaccination**, which consists of a **2-dose schedule**.
- Pfizer has become the **first firm to release promising late-stage trial data of a potential vaccine** for Covid-19, even though the announcement **does not have scientifically conclusive evidence** on the safety and efficacy of the vaccine candidate.
- However, the **analysis** of the vaccine candidate by an **external independent Data Monitoring**

Committee (DMC) has **not reported any serious safety concerns**.

- The announcement comes days before the company plans to submit safety and efficacy data from the trial to the American regulator, the **United States Food and Drug Administration (USFDA)** seeking emergency use authorisation.
- **Vaccines Worldwide:**
 - As of mid-October 2020, the **World Health Organization (WHO)** has identified **42 candidate vaccines** at the stage of clinical trials, up from 11 in mid-June.
 - Ten of them** were at the most advanced **phase 3 stage**, in which a vaccine's effectiveness is tested on a **large scale**, generally tens of thousands of people across several continents.
 - The **USA biotech firm Moderna**, several **state-run Chinese labs**, and a **European project led by the University of Oxford** and **AstraZeneca** are also closing in on potentially viable vaccines.
 - Two Russian Covid-19 vaccines** have been registered for use even before clinical trials were completed, but have not been widely accepted outside of Russia.

India's Progress

- India is **preparing to administer a vaccine against Covid-19 to its population early in 2021** and for that, it is **working with neighbouring countries** on possible collaborative clinical trials of vaccine candidates in the future.
- A specialist team of scientists and researchers from the **Indian Council of Medical Research (ICMR)** and the **Department of Biotechnology (DBT)** under the Union Ministry of Science and Technology, has **imparted training to doctors and regulators** in **Sri Lanka, Myanmar, Bangladesh, Bhutan, Nepal, and Afghanistan**.
- The Indian team has focused its training on conducting crucial **phase II and III** human clinical trials of the potential vaccine candidate along lines of India's regulatory mechanism.
 - In **phases II/III**, reactogenicity (ability to produce common, adverse reactions), immunogenicity (ability to provoke an immune response), and safety of the vaccine candidate are assessed in a larger population.

Note:

- The **current aim is to facilitate a future collaborative clinical trial** but in **future, it will allow India to explore the option of buying** the potential Covid-19 vaccine from these neighbouring countries.
- **Indigenously Developed Vaccines:**
 - **ZyCoV-D:** Designed and developed by Zydus (a pharmaceutical company) with support from the DBT.
 - **Covaxin:** Developed by Bharat Biotech in collaboration with the ICMR.
- **Assistance in Global Trails:**
 - **Covishield:** Name given to an Oxford-AstraZeneca Covid-19 vaccine candidate which is technically referred to as AZD1222 or ChAdOx 1 nCoV-19.
 - **Sputnik V:** The first vaccine to be officially registered and has been developed by Moscow's Gamaleya Institute in collaboration with the Russia's defence ministry.

300 Million Potentially Habitable Earths

Why in News

New analysis of data from **Kepler Spacecraft** shows a large number of habitable **Exoplanets**.

- An exoplanet or extrasolar planet is a **planet outside the Solar System**. The first confirmation of detection of exoplanets occurred in **1992**.

Key Points

- After analysing Kepler's data for two years, a team

from **National Aeronautics and Space Administration (NASA)** estimated that there are at least 100 billion stars in the Milky Way, of which about 4 billion are sunlike.

- If only 7% of those stars have habitable planets, a conservative estimate is that there could be **as many as 300 million potentially habitable Earths (exoplanets)** out there in the whole Milky Way alone.
- The team calculated that at least one third of stars similar in mass and brightness to the sun have rocks like earth in their habitable zone.

Kepler Spacecraft

- The Kepler mission was **named in honor** of 17th-century German astronomer Johannes Kepler, who discovered the laws of planetary motion.
- The Kepler Mission was **launched in 2009** on a three-and-a-half year mission to monitor 1,50,000 stars in a patch of sky in the Milky Way.
- It was **NASA's first planet-hunting mission**, it discovered more than 2,600 of around 3,800 exoplanets.
 - It looked for tiny dips in starlight caused by an exoplanet passing in front of its home star.
- Kepler's **formal goal** was to measure a number called **eta-Earth**: the fraction of sunlike stars that have an Earth-size object orbiting them in the **"goldilocks" or habitable zone**, where it is warm enough for the surface to retain liquid water.
- Kepler is succeeded by NASA's **Transiting Exoplanet Survey Satellite, or TESS**, which was launched in **April 2018**. TESS is the new planet hunter for NASA.



Note:

Environment and Ecology

Highlights

- Ganga Utsav 2020
- Future Pandemics and Reduction Measures
- Petition for Declaring ESA Unconstitutional
- Rescued Exotic Animals
- High Biodiversity in Ganga River
- Panna Biosphere Reserve
- Covid-19 Insurance to Green Soldiers: PTR
- New Species in Andaman

Ganga Utsav 2020

Why in News

Recently, the **Ganga Utsav 2020** has begun which celebrates the glory of the **National river Ganga**.

- Ganga was declared as the National River of India on **4th November 2008**.

Key Points

- **Ganga Utsav:**
 - The **National Mission for Clean Ganga** (NMCG) celebrates the festival every year.
 - NMCG is the **implementation wing of National Ganga Council**, set up in 2016, which replaced the National Ganga River Basin Authority (NRGBA).
 - The **three-day festival** aims to **promote stakeholder engagement and ensure public participation**.
 - It celebrates mystical and cultural river Ganga through storytelling, folklores, dialogues with eminent personalities, quizzes, displaying traditional art forms, dance and music performance by renowned artists, photo galleries and exhibitions and much more.
- **Programmes Held During the Festival:**
 - **Ganga Task Force** (GTF) conducted an **afforestation drive** with **National Cadet Corps** (NCC) cadets and educational tour for youth.
 - GTF is a **unit of battalion of ex-servicemen deployed in the services of the Ganga** with the approval of the Ministry of Defence for the period of four years till December 2020.
 - It was approved by the Cabinet under the **Public Participation component of the Namami Gange**

Programme and the first battalion was raised in March 2016.

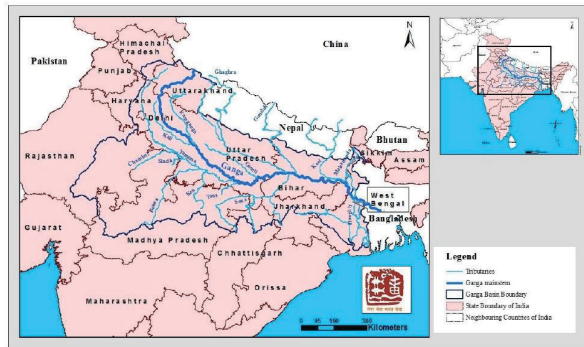
- **Mini Ganga Quest**, designed to make youth and students aware of environmental issues and explain their role in conservation.
 - Ganga Quest is a **pan India bilingual quiz** to increase public participation in Namami Gange program and encourage the youth.
- **Suggestion on the innovative ways in which Namami Gange** can engage in activities throughout the year.
 - In **2014**, Namami Gange Programme was launched to accomplish the **twin objectives of effective abatement of pollution and conservation, and rejuvenation of Ganga**.
- **Government Initiatives on River Ganga:**
 - **Ganga Action Plan:** It was the **first river action plan** which was taken up by the **Ministry of Environment, Forest and Climate Change in 1985**, to improve the water quality by the interception, diversion and treatment of domestic sewage.
 - The **National River Conservation Plan** is an extension to this plan, which aims at **cleaning the Ganga river under Ganga Action Plan phase-2**.
 - **National River Ganga Basin Authority:** It was formed by the Government of India in the year **2009** under **Section-3 of the Environment Protection Act 1986**.
 - **Clean Ganga Fund:** In **2014**, it was formed for cleaning up of the Ganga, setting up of waste treatment plants and conservation of biotic diversity of the river.
 - **Bhuvan-Ganga Web App:** It ensures the involvement of the public in the monitoring of pollution entering into the river Ganga.

Note:

- **Ban on Waste Disposal:** In 2017, the **National Green Tribunal (NGT)** banned the disposal of any waste in the Ganga.

River Ganga

- It is the **longest river of India** flowing over 2,510 km of mountains, valleys and plains and is **revered by Hindus** as the most sacred river on earth.
- It **originates in the snowfields of the Gangotri Glacier in the Himalayas** as the **Bhagirathi River** and is joined by other rivers such as the **Alaknanda, Yamuna, Son, Gumti, Kosi and Ghagra**.
- The Ganga river basin is one of the most fertile and densely populated areas of the world and covers an area of 1,000,000 sq. km.
- The **Ganges River Dolphin** is an **endangered animal** that specifically inhabits this river.
- The Ganga widens out into the **Ganges Delta in the Sundarbans swamp of Bangladesh**, before it ends its journey by emptying into the Bay of Bengal.



Future Pandemics and Reduction Measures

Why in News

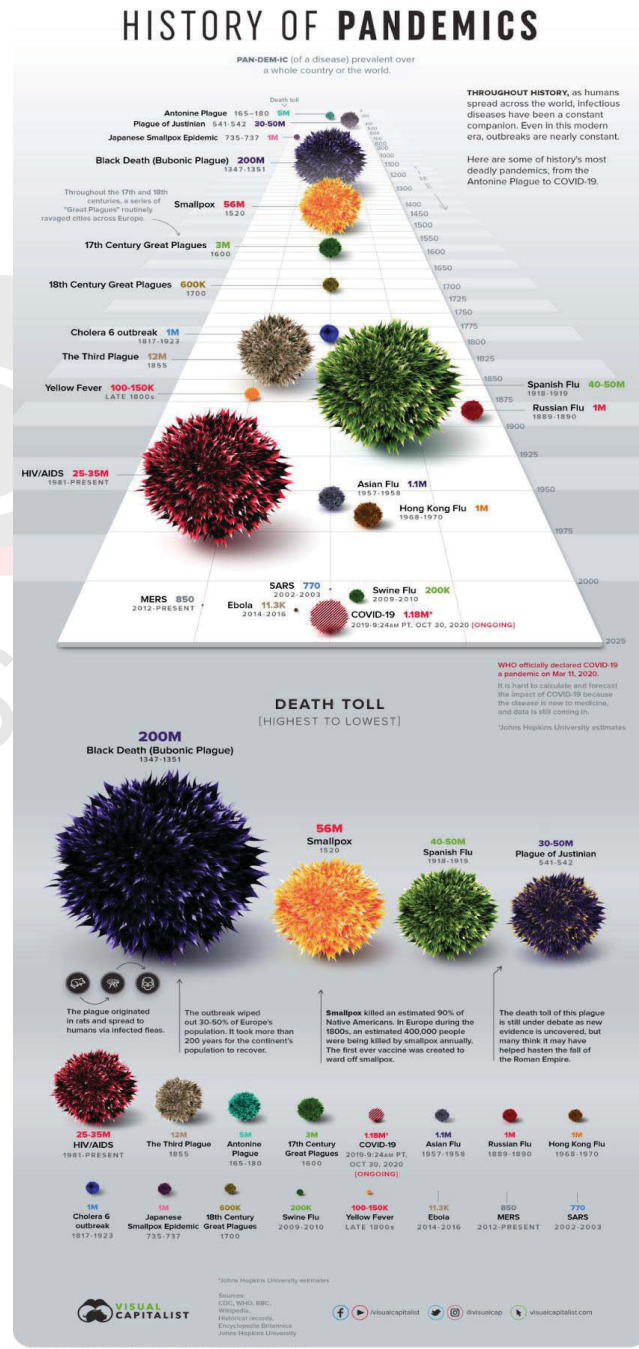
Recently, the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem (IPBES)** has released a **report which warns about future pandemics**, their more frequent emergence, a faster pace of spread and more damage to the world killing more people than **Covid-19**, unless significant measures are taken.

- The IPBES is an independent intergovernmental body, **established by the United Nations (UN)** in 2012.
 - It aims to **strengthen the science-policy interface** for biodiversity and ecosystem services for the

conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

Key Points

- **Pandemics of the Century:**
 - Covid-19 is at least the sixth pandemic to have taken place in the last century since the **Spanish Influenza Pandemic of 1918**.



Note:



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- In March 2020, the **World Health Organisation** (WHO) declared Covid-19 a pandemic.
- **Three** of the pandemics were caused by **influenza viruses**, one by **Human Immunodeficiency Virus** (HIV) followed by **Severe Acute Respiratory Syndrome** (SARS) and now Covid-19.
- **Causes:**
 - Almost all the pandemics so far, have been **zoonoses** (diseases caused by germs that spread between animals and people).
 - More than 70% of emerging diseases, such as **Ebola**, **Zika** and **Nipah**, are **caused by microbes found in animals** which **spread due to contact** among wildlife, livestock and people.
 - The estimated value of the legal international wildlife trade in 2019 was about USD 107 billion, a 500% increase since 2005 and a 2000% increase since the 1980s.
 - **Covid-19's origins also lie in microbes carried by animals** but its **emergence has been entirely driven by human activities** like all pandemics.
 - About 30% of emerging infectious diseases are attributed to **land-use change**, **agricultural expansion** and **urbanisation**.
- **Future Possibilities:**
 - Currently, there are over **1.7 million 'undiscovered' viruses** that exist in mammals and birds, out of which **up to 8,27,000** could have the ability to **infect humans**.
- **Reduction Measures:**
 - Pandemic risk can be lowered by **reducing the human activities that drive the loss of biodiversity**, by greater **conservation of protected areas** and through measures that **reduce unsustainable exploitation** of high biodiversity regions.
 - These measures will help in **reducing the contact between wildlife-livestock and humans**, thereby **helping prevent the spread** of new diseases.
 - Policy options like launching a **high-level intergovernmental council on pandemic prevention**, countries setting **mutually-agreed goals or targets** regarding the environment, animals and people, and **reducing zoonotic disease risk in the international wildlife trade** by forming intergovernmental 'health and trade' partnerships will also reduce the risks substantially.

Pandemic

- According to the WHO, a pandemic is declared when a new disease for which people do not have immunity spreads around the world beyond expectations.

Epidemic

- An epidemic is a large outbreak, one that spreads among a population or region. It is less severe than pandemic due to a limited area of spread.

Petition for Declaring ESA Unconstitutional

Why in News

Recently, a Kerala-based NGO for farmers has moved the **Supreme Court** (SC) to declare the draft notification on the **Western Ghats Ecologically Sensitive Area** (ESA) unconstitutional.

- It has sought a direction to the government to **not implement the Madhav Gadgil and Kasturirangan committees' reports** on the conservation of the Western Ghats.

Key Points

- **Background:**
 - The **Western Ghats Ecology Expert Panel** (WGEEP), also known as **Gadgil Committee**, and the **Kasturirangan Committee**, a **High-Level Working Group**, were constituted to **conserve and protect the biodiversity of Western Ghats** while allowing for sustainable and inclusive development of the region.
 - They recommended that **identified geographical areas falling in the six States of Kerala, Karnataka, Goa, Maharashtra, Gujarat and Tamil Nadu** should be declared as ESA.
 - A **draft notification related to the same was issued in 2018** mentioning the areas to be notified in the ESA.
- **Issues Highlighted by the Petition:**
 - The draft notification would declare 123 agricultural villages in Kerala as ESA **converting the semi-urban villages in the region into forests with no facilities and roads**. It will **affect 22 lakh people and cripple the economy of Kerala**.

Note:

- The Centre had **wrongly branded people** who had been residing in the Western Ghats area, as the **“destroyers of the biodiversity and agents of ecological damage.”**
- Apart from that, it suggested that **ESA in Kerala should be restricted to reserved forests and protected areas.**
- **Gadgil Committee:**
 - It recommended that **all of the Western Ghats should be declared as the ESA** with only limited development allowed in graded zones.
 - It classified the Western Ghats into **ESA 1, 2 and 3** of which **ESA-1 is a high priority zone** where almost all of the **developmental activities** (mining, thermal power plants, etc) should be **restricted**.
 - It also recommended the **constitution of Western Ghats Ecology Authority (WGEA)**, as a statutory authority under the Ministry of Environment, Forests and Climate Change (MoEFCC) with the powers under **Section 3 of the Environment (Protection) Act, 1986.**
 - It was **criticised for being more environment-friendly and not in tune with the ground realities.**
- **Kasturirangan Committee:**
 - It sought to **balance the development and environment protection** in contrast to the system proposed by the Gadgil report.
 - The committee's **major recommendations were:**
 - Instead of the total area of Western Ghats, **only 37% of the total area to be brought under ESA.**
 - A complete **ban on mining, quarrying and sand mining** in ESA.
 - **No thermal power projects** to be allowed and **hydropower projects to be allowed only after detailed study.**

Ecologically Sensitive Areas

- **Eco-Sensitive Zones or Ecologically Fragile Areas** are located **within 10 km of Protected Areas, National Parks and Wildlife Sanctuaries.**
- ESAs are **notified by the MoEFCC under Environment (Protection) Act 1986.**
- **Aim:** To regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts on the fragile ecosystem encompassing the protected areas.

- **Red industries** (highly polluting industries) to be strictly **banned.**
- Exclusion of inhabited regions and plantations from the purview of ESAs making it a **pro-farmer approach.**

Rescued Exotic Animals

Why in News

Recently, **6 blue or hyacinth macaws** and **two capuchin monkeys** have been released in the **Assam State Zoo-cum-Botanical Garden in Guwahati.**

- Earlier, a large consignment of exotic animals was confiscated by the **Directorate of Revenue Intelligence (DRI)** in the same region.

Key Points

➤ Provisions Related to Illegal Wildlife Trade:

- Illegally exotic animals are **confiscated under Section 111 of the Customs Act, 1962** which is read with the provision of the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)** and the **Foreign Trade Policy (Import-Export Policy)** of India.
- Also, Sections 48 and 49 of the **Wildlife Protection Act, 1972** prohibit trade or commerce in wild animals, animal articles or trophies.

➤ Concerns:

- The **possibility of spread of zoonotic diseases** on account of smuggling in such exotic species is increasingly becoming a global concern against the backdrop of **Covid-19.**
- Illegal wildlife trade was ranked the **4th largest transnational organised crime** globally, after the **smuggling of narcotics, counterfeit goods and human trafficking.**
- **West Bengal and northeast India** are vulnerable to cross-border wildlife smuggling because of their **proximity to the Bangladesh and Myanmar borders, and to Thailand.**
 - Many international organisations involved in wildlife crime use the Indo-Bangladesh Border for various other illegal activities, such as smuggling of drugs, commercial goods, and even gun-running, apart from the illegal movement of foreign currency.

Note:



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Assam State Zoo-cum-Botanical Garden

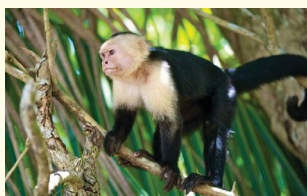
- It was established in **1957** and is located in the **Hengrabari Reserve Forest** in the capital city of Guwahati.
- Owing to its rich fauna, the Assam State Zoo is popularly known as “**Green Lung**” of the **Guwahati city**.

Blue Macaws

- **Scientific Name:** *Anodorhynchus hyacinthinus*
- It is a **parrot native to central and eastern South America**.
- With a length of about one meter, it is longer than any other species of parrot and is the **largest macaw and the largest flying parrot species**.
- **Threat:** **Habitat loss** and the **trapping** of wild birds for the pet trade have taken a heavy toll on their population in the wild.
- **Protection Status:**
 - **IUCN Red List:** Vulnerable.
 - **CITES:** Appendix I.

**Capuchin Monkeys**

- **Genus:** *Cebus*
- Capuchin Monkeys, also called **sapajou**, is a common Central and South American **primate** found in **tropical forests** from Nicaragua to Paraguay.
- They are named for their “caps” of hair, which resemble the cowls of **Capuchin monks**.
- **Protection Status:**
 - **IUCN Red List:** Least concerned.



High Biodiversity in Ganga River

Why in News

Recently, the **Wildlife Institute of India (WII)** in its survey of the **Ganga river** (the main river without its tributaries), has found that **49% of the river has high biodiversity**.

- Increased biodiversity sightings, including of the **Gangetic Dolphin** and **Otters**, indicates **reduced pollution levels** and a **healthier state** of the river.

Key Points➤ **About the Study:**

- It was initiated by WII on behalf of the **National Mission for Clean Ganga**, one of the flagship projects undertaken by the **Ministry of Jalshakti**.
- This is the **first study ever done** in the country on the **entire river**, and also **for all of the river's biodiversity**.
 - **High Biodiversity Areas of Ganga:** 10% of the high biodiversity areas fall alongside national parks and sanctuaries such as **Rajaji national park in Uttarakhand**, Hastinapur Wildlife Sanctuary in Uttar Pradesh and **Vikramshila Gangetic Dolphin Sanctuary in Bihar**.

➤ **Method Used:**

- The institute has been **tracking biodiversity** through some key aquatic and semi-aquatic species such as the Gangetic Dolphins, **Gharials**, **Mugger**, Otters, Turtles and various species of water birds.

➤ **Findings:**

- **Many species** that used to be found in the main stem and had disappeared, are now **coming back**. They are **travelling back from tributaries to the main stem** of the river indicating improving water quality and increasing biodiversity.
- Nesting colonies of the **Indian Skimmer** have been found.
- **Siebold's water snake**, which disappeared 80 years ago and has now **resurfaced**.
- New distributions of the **pufferfish** have been found.

➤ **Biodiversity Threat Higher in Freshwater Ecosystem:**

- The **distribution and density** of key aquatic species significantly **reduced due to loss of suitable habitat conditions**, and **change in the river's morphology** due to the construction of dams and barrages, bank alteration, agriculture and sand mining.
- Freshwater ecosystems account for **0.01%** of the earth's surface water but support **10%** of species.
- According to the **United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)**, decline in diversity of freshwater species is the highest, and surpasses losses in marine and terrestrial species.

Note:

- WCMC is an **executive agency of the UNEP** which provides information for policy and action to conserve the living world.
- Globally, **20% of all known freshwater fish, 44% waterbirds and 42% amphibian species** are under threat of extinction.
- The **highest loss of freshwater biodiversity has been reported from the Indian subcontinent**, specifically the Gangetic plains.

Government Initiatives on River Ganga

- **Ganga Action Plan:** It was the **first river action plan** which was taken up by the Ministry of Environment, Forest and Climate Change in **1985**, to **improve the water quality by the interception, diversion and treatment** of domestic sewage.
 - The **National River Conservation Plan** is an **extension to this plan**, which aims at cleaning the Ganga river under Ganga Action Plan phase-2.
- **National River Ganga Basin Authority:** It was formed by the Government of India in the year **2009** under the **Environment Protection Act 1986**.
- **Clean Ganga Fund:** In **2014**, it was formed for cleaning up of the Ganga, setting up of waste treatment plants and conservation of biotic diversity of the river.
- **Bhuvan-Ganga Web App:** It ensures the involvement of the public in the monitoring of pollution entering into the river Ganga.
- **Ban on Waste Disposal:** In **2017**, the **National Green Tribunal (NGT)** banned the disposal of any waste in the Ganga.

Panna Biosphere Reserve

Why in News

Recently, the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** has included the Panna Biosphere Reserve (PBR) in its **World Network of Biosphere Reserves (WNBR)**.

- The PBR is the **third in Madhya Pradesh** to be included in the list after **Pachmarhi and Amarkantak**.
- Along with PBR, the **Fuvahmulahand Addu Atoll in the Maldives** has also been included in the WNBR.

Key Points

- **About:**

- Established in **1981**, PBR is located in the **Panna and Chhatarpur districts of Madhya Pradesh** with an area of around 540 km. sq.
- It is situated in the **Vindhya mountain range** in the northern part of Madhya Pradesh.
- **Ken River** (one of the least polluted tributaries of the Yamuna River) flows through the reserve and the **Ken-Betwa river interlinking project** will also be located in it.
- The region is also famous for **Panna diamond mining**.

Conservation and Recognition:

- **1994:** The **Panna National Park** got the status of **Project Tiger Reserve** as India's **22nd tiger reserve**.
- **2011:** It was **notified as a Biosphere Reserve** by the Union Ministry of Environment, Forest and Climate Change (MoEFCC).
- **2018:** By 2018, it witnessed a **remarkable turnaround in tiger population** by increasing their numbers remarkably from zero estimated a decade ago.
 - Madhya Pradesh has the **highest number of tigers** in the country followed by **Karnataka and Uttarakhand**.
- **2020:** UNESCO included it in the **Man and Biosphere Programme (MAB)**.

Biosphere Reserves

- **Biosphere Reserves (BRs)** are representative parts of natural and cultural landscapes extending over large areas of terrestrial or coastal/marine ecosystems or a combination thereof and representative examples of biogeographic zones/provinces.
- The idea of the biosphere reserve was initiated by **UNESCO in 1974 under the MAB** with the **objective** of obtaining international cooperation for the **conservation of the biospheres**.
- The **first biosphere reserve of the world** was established in **1979** and since then the network has increased to **more than 600 in 119 countries** across the world.
- A scheme called **Biosphere Reserve** has been **implemented by the Government of India since 1986**.
 - Under it, financial assistance is given in a **90:10 ratio to the North Eastern Region States and three Himalayan states** and in the ratio of **60:40 to other states** for maintenance, improvement and development.

Note:



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- The **State Governments** prepare the **Management Action Plan** which is approved and monitored by the Central MAB Committee.
- India has a **total of 18 Biosphere Reserves** and with the inclusion of PBR, the number of **internationally designated WNBR has become 12**.
 - In **2012**, the **Nilgiri Biosphere Reserve** became the **1st BR from India** to be included in the WNBR.
 - In **2018**, the **Khangchendzonga Biosphere Reserve** became the **11th BR** to be included in the list.

Man and Biosphere Programme

- **Launched by the UNESCO in 1971**, it is an **inter-governmental scientific programme** that **aims** to establish a scientific basis for the improvement of relationships between people and their environments.
- **Every year UNESCO designates new Biosphere reserves and removes others** to promote the **conservation of biodiversity and resolve man-animal conflict** at that site and enable sustainable use of natural resources.
- MAB combines the natural and social sciences, economics and education to improve human livelihoods and the equitable sharing of benefits, and to safeguard natural and managed ecosystems, thus **promoting innovative approaches to economic development that are socially and culturally appropriate, and environmentally sustainable**.

Covid-19 Insurance to Green Soldiers: PTR

Why in News

Recently, **Pakke Tiger Reserve (PTR)** in **Arunachal Pradesh** has become the **first in the eight-State northeast** to provide insurance cover against **Covid-19** for “green soldiers”.

- Eight-State northeast includes Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.

Key Points

- **57 frontline staff** (referred to as **green soldiers**) of the Park have been insured for nine months against health issues due to the infection by the Covid-19.

- The **forest guards are rightly the green soldiers** in the frontline of India’s wildlife, and the onus of wildlife conservation pretty much falls on them.
- The **Wildlife Trust of India (WTI)**, an NGO, paid the insurance amount with support from Foundation Serge.
 - The NGO has been **supporting India’s frontline forest staff with accident cover** for the last 20 years.
- The **insurance coverage is of Rs. 1 lakh each** but a few who would be **retiring soon** has been insured for **Rs. 50,000**.

Pakke Tiger Reserve

- PTR (declared in 1999-2000) lies in the foothills of the eastern Himalaya in the East Kameng district of **Arunachal Pradesh** and is **also known as Pakhui Tiger Reserve**.
- It falls within the **Eastern Himalaya Biodiversity Hotspot**.
- It is home to over 2000 species of plants, 300 species of birds, 40 species of mammals, etc. Many species of the flora and fauna are globally threatened, and PTR is one of the last remaining strongholds left for these species.
- It is **known for its amazing sightings of four resident hornbill species**.
 - The **great hornbill** is the state bird of Arunachal Pradesh and it is ‘**vulnerable**’ under the **IUCN Red List**.
- **Other Protected Areas in Arunachal Pradesh:**
 - Talle Wildlife Sanctuary.
 - **Dihang Dibang Biosphere Reserve**.
 - Eagle Nest Wildlife Sanctuary.
 - **Namdapha Tiger Reserve**.
 - Mouling National Park.
 - Sessa Orchid Sanctuary.

New Species in Andaman

Why in News

Recently a group of scientists has reported a new genus of treefrog from the **Andaman Islands** called **Striped Bubble-nest frog**.

Key Points

- **Biological name:** *Rohanixalus vittatus*

Note:

- The new genus '**Rohanixalus**' is **named** after **Sri Lankan taxonomist** Rohan Pethiyagoda.

- Striped Bubble-nest frog belongs to the genus of the Old World treefrog family **Rhacophoridae**.



- This is the **first report** of a tree frog species from the Andaman Islands.

➤ **Bodily Features**

- Small and slender body (**2-3 cm long**).
- A **pair of contrastingly coloured lateral lines** on either side of the body. Minute brown speckles scattered throughout the upper body.
- Light green-coloured eggs laid in **arboreal** bubble-nests.
 - Arboreal means living in trees or related trees
- They are also known as Asian Glass Frog or see through frogs.
 - While the general background coloration of most glass frogs is primarily **lime green**, the abdominal skin of some members of this family is **translucent** (allowing light to pass through). The internal viscera, including the heart, liver,

and gastrointestinal tract, **are visible through this translucent skin, hence the common name.**

- The genus has several unique behavioural traits:

● **Maternal egg attendance:**

- The female (mother) attends the egg clutches until hatching and assists in release of the tadpoles into the water.
- During the **first three days** after egg laying, the **female sits over the eggs** and produces a **gelatinous secretion** with which she glazes (covers) the egg mass through **clockwise movement of her legs**. This behaviour provides **necessary moisture to the eggs laid on exposed leaf surfaces** and protects them from **insect predation**.

● **Community egg attendance:**

- A large number of egg clutches (**over 50**) of different developmental stages on a single leaf or plant. **Multiple females** usually attend such clutches in a behaviour termed as '**community**' egg attendance.
- Frequent **male-male combats** involving pushing, kicking and dislodging to **mate with a female**.

Note:

History

Highlights

- Dairy Production in Indus Valley Civilisation

Dairy Production in Indus Valley Civilisation

Why in News

Recently, a study by Indian and Canadian archaeologists has **found that dairy products were being produced by the Harappans as far back as 2500 BCE**. The finding reveals the **earliest evidence of dairy production**.

- **The year 2020 also marks 100 years** of discovery of **Indus Valley Civilisation**.

Key Points

- **Milk Production:**
 - The results of the study are based on **molecular chemical analysis** of residue in shards of **pottery** found at the archaeological site of **Kotada Bhadli**, in **Gujarat**.
 - Traces seen in cooking vessels indicate the **presence of milk**, which **may have been boiled for consumption**. There are also remains of a **perforated vessel**, which indicates **processing of milk into different forms**.
 - Pots are porous and absorb liquid from food. This helps the pots to preserve the molecules of food such as fats and proteins.
 - Using techniques like C16 and C18 analysis the source of foods can be identified.
 - The **large herd indicates that milk was produced in surplus** so that it could be exchanged and there could have been some kind of **trade between settlements**.
 - This could have also given rise to an industrial level of dairy production.
 - **Types of Animals:**
 - Through a process called **stable isotope analysis**, the researchers were also able to identify that **cattles used for dairy production**.

- Most of the **cattle and water-buffalo died at an older age**, suggesting they could have been **raised for milk**, whereas the majority of **goat/sheep died when they were young**, indicating they could have been **used for meat**.

➤ Faceless Civilisation:

- The Indus Valley Civilisation was faceless — no king, no bureaucratic organisations, but there were **very close regional interactions between settlements**, a symbiotic **relationship of give and take** that helped the civilisation survive for so long.

➤ Background:

- Indus Valley Civilisation is known for its **metropolitan cities and the big towns, great urban planning, trading systems, jewellery making**.
- Earlier, there was no idea how the common people were living during the Harappan times, and how they were contributing to the larger network.
- However, the new study throws fresh light on the rural economy of the Indus Valley Civilisation.

Indus Valley Civilization

- The **history of India begins with the birth of the Indus Valley Civilization (IVC)**, also known as **Harappan Civilization**.
- It flourished around **2,500 BC, in the western part of South Asia**, in contemporary Pakistan and Western India.
- The Indus Valley was home to the **largest of the four ancient urban civilizations** of Egypt, Mesopotamia, India and China.
- In the 1920s, the Archaeological Department of India carried out excavations in the Indus valley wherein the ruins of the two old cities, viz. **Mohenjodaro and Harappa** were unearthed.
- In 1924, **John Marshall, Director-General of the ASI**, **announced the discovery** of a new civilisation in the Indus valley to the world.

Note:

Important Sites of IVC			
Site	Excavated by	Location	Important Findings
Harappa	Daya Ram Sahni in 1921	Bank of river Ravi in Montgomery district of Punjab (Pakistan)	<ul style="list-style-type: none"> ➤ Sandstone statues of Human anatomy ➤ Granaries ➤ Bullock carts
Mohenjo-Daro (Mound of Dead)	R.D. Banerjee in 1922	Bank of river Indus in Larkana district of Punjab (Pakistan)	<ul style="list-style-type: none"> ➤ Great bath ➤ Granary ➤ Bronze dancing girl ➤ Seal of Pasupathi ➤ Steatite statue of beard man ➤ A piece of woven cotton
Sutkagendor	Stein in 1929	In southwestern Balochistan province, Pakistan on Dast river	<ul style="list-style-type: none"> ➤ A trade point between Harappa and Babylon
Chanhudaro	N.G. Majumdar in 1931	Sindh on the Indus river	<ul style="list-style-type: none"> ➤ Bead makers shop ➤ Footprint of a dog chasing a cat
Amri	N.G. Majumdar in 1935	On the bank of Indus river	<ul style="list-style-type: none"> ➤ Antelope evidence
Kalibangan	Ghose in 1953	Rajasthan on the bank of Ghaggar river	<ul style="list-style-type: none"> ➤ Fire altar ➤ Camel's bones ➤ Wooden plough
Lothal	R. Rao in 1953	Gujarat on Bhogva river near Gulf of Cambay	<ul style="list-style-type: none"> ➤ First manmade port ➤ Dockyard ➤ Rice husk ➤ Fire altars ➤ Chess-playing
Surkotada	J.P. Joshi in 1964	Gujarat	<ul style="list-style-type: none"> ➤ Bones of horses ➤ Beads
Banawali	R.S. Bisht in 1974	Hisar district of Haryana	<ul style="list-style-type: none"> ➤ Beads ➤ Barley ➤ Evidence of both pre-Harappan and Harappan culture
Dholavira	R.S. Bisht in 1985	Gujarat in Rann of Kachchh	<ul style="list-style-type: none"> ➤ Water harnessing system ➤ Water reservoir



Note:

Art & Culture

Highlights

- Warli Art

Warli Art

Why in News

Artists in Hyderabad are using traditional **Warli art (Maharashtra)** form not just to beautify Hyderabad, but also to create awareness on important issues.



Key Points

- Warli is a traditional art form of **Maharashtra**.
- Its roots can be traced to as early as the **10th century A.D.**
- These paintings are distinctive with their vivid contrast expressions.
- These paintings are mainly **dominated by basic geometric shapes like circles, triangles and squares.**
- These geometric shapes stand as a symbol of natural elements in our environment.
- For example, the **circles represent the sun and moon, the triangles represent the mountains** and the squares are considered as the central motifs of the painting.
- **People and animals are represented by two inverted triangles** joined together, where the upper triangle is the torso and the lower triangle is the pelvis.
- The central theme of the paintings are scenes portraying huntin, fishing, farming, festival and dances, trees and animals are used to surround the central theme.
- Warli art form is being used by many artists to beautify cities and spread awareness through wall paintings.
- It is also being used to beautify bags, bed sheets and many other items.
- Warli is the vivid expression of daily and social events of the **Warli tribe of Maharashtra**, used by them to embellish the walls of village houses.

Warli Tribe

- They are an indigenous tribe or Adivasis, living in the Mountainous as well as coastal areas of Maharashtra-Gujarat border and surrounding areas.
- They speak an unwritten **Varli language** which belongs to the southern zone of **the Indo-Aryan languages.**



Note:

Geography

Highlights

- Typhoon Goni
- Cold Wave
- Luhri Stage-I Hydro Electric Project
- Hurricane Eta
- Earthquake Concentrations in Dharchula Region

Typhoon Goni

Why in News

Recently, Typhoon Goni has made landfall in the eastern Philippines.

- The Philippines is used to powerful storms - it is hit by an average of 20 storms and typhoons a year.

Key Points

- Goni - known as Rolly in the Philippines - is the most powerful storm to hit the country since Typhoon Haiyan killed more than 6,000 people in 2013.
 - In fact, Typhoon Goni is the world's strongest Typhoon in 2020.
- Last week, the Philippines was hit by Typhoon Molave.
- Another storm, Atsani, is gaining strength in the Pacific Ocean as it approaches the Philippines.
- Typhoon is a regionally specific name for a strong "tropical cyclone".
 - Tropical cyclones are known as 'typhoons' in the northwest pacific ocean, hurricanes in the North Atlantic Ocean, Willy-willies in north-western Australia and Tropical Cyclones in the Indian Ocean Region.
- A tropical cyclone is a generic term used by meteorologists to describe a rotating, organized system of clouds and thunderstorms that originates over tropical or subtropical waters and has closed, low-level circulation.
 - Tropical cyclones rotate counterclockwise in the Northern Hemisphere.
 - These are measured by the Saffir-Simpson Hurricane Wind Scale.

Naming of Typhoons:
The Regional Specialized Meteorological Centre (RSMC) Tokyo - Typhoon Centre assigns a tropical cyclone a name from the five lists. The name 'Goni' is contributed by South Korea.



Cold Wave

Why in News

As per the India Meteorological Department (IMD), there are cold wave conditions over Delhi.

Key Points

- **Cold Wave:** A rapid fall in temperature within 24 hours to a level requiring substantially increased protection to agriculture, industry, commerce, and social activities.
- **Cold Wave Conditions:**
 - For the plains, a cold wave is declared when the minimum temperature is 10 degrees Celsius or below and is 4.5 degrees Celsius (C) less than normal for two consecutive days.
 - For coastal stations, the threshold value of minimum temperature of 10 degree Celsius is rarely reached. However, the local people feel discomfort due to the wind chill factor which reduces the minimum temperature by a few degrees depending upon the wind speed.
 - A wind chill factor is a measure of the cooling effect of the wind on the temperature of the air.
 - India's Core Cold Wave Zone: India's 'core cold wave zone' covers Punjab, Himachal Pradesh,

Note:

Uttarakhand, Delhi, Haryana, Rajasthan, Uttar Pradesh, Gujarat, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, West Bengal, Odisha and Telangana.

- In 2019, Delhi and adjoining areas in the north had experienced its coldest winter of the century.

➤ **Cold Wave Situation in Delhi:**

- On 3rd November 2020, Delhi recorded a minimum temperature of 10 degree Celsius which was 5 degrees C below normal.
- IMD may consider declaring a cold wave if the temperature continues to stay the same for another day.

➤ **Reasons for the Fall in Minimum Temperature:**

- **Absence of cloud cover in the region:** Clouds trap some of the outgoing infrared radiation and radiate it back downward, warming the ground.
- **Snowfall in the upper Himalayas** that has blown cold winds towards the region.
- **Subsidence of cold air over the region:** Subsidence is the downward movement of cold and dry air closer to the surface.
- Prevailing weak La Nina conditions in the Pacific Ocean.
 - La Nina is the abnormal cooler sea surface temperatures reported along the equatorial Pacific Ocean and it is known to favour cold waves.
 - During La Nina years, the severity of cold conditions becomes intense. The frequency and area covered under the grip of a cold wave becomes larger.

- **Winters 2020:** November is expected to be colder than usual after the mean minimum temperature in October 2020 was 17.2 degrees Celsius, the lowest since 1962, when it was 16.9 degrees Celsius.

India Meteorological Department

- IMD was established in 1875.
- It is an agency of the Ministry of Earth Sciences of the Government of India.
- It is the principal agency responsible for meteorological observations, weather forecasting and seismology.

Luhri Stage-I Hydro Electric Project

Why in News

Recently, the Cabinet Committee on Economic Affairs has approved the investment for 210 MW Luhri Stage-I Hydro Electric Project.

- It is located on River Satluj in Shimla and Kullu districts of Himachal Pradesh.

Key Points

- It is being implemented by Satluj Jal Vidyut Nigam Limited (SJVN) on Build-Own-Operate-Maintain (BOOM) basis with active support from Government of India and the State Government.
 - Government of India is providing grants of Rs. 66.19 crore for enabling infrastructure.
- **Significance:**
 - This project will generate 758.20 million units of electricity annually, which will help in providing grid stability and improve the power supply position.
 - Besides adding valuable renewable energy to the grid, the project would also lead to a reduction of 6.1 lakh tons of carbon dioxide from the environment annually, thus contributing to an improvement in air quality and less air pollution.
 - The construction activities will result in direct and indirect employment and will contribute to the overall socio-economic development of the State.
 - Himachal Pradesh will benefit with free power worth around Rs. 1140 crore, during the Project Life Cycle of 40 years.
 - The project affected families will be provided with 100 units of free electricity per month for ten years.

Hurricane Eta

Why in News

Recently, Hurricane Eta has hit northeastern Nicaragua with life-threatening storm surge, catastrophic winds and flash flooding occurring over portions of Central America.

Key Points

- **Description:** It is categorised as a Category 4 hurricane.

Note:



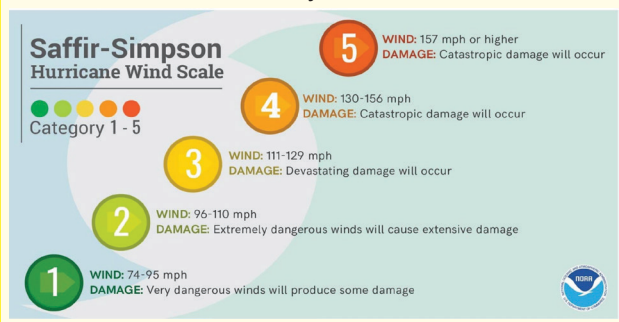
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A Category 4 storm has wind speeds between **130-156 mph** and can uproot trees and bring down power lines.



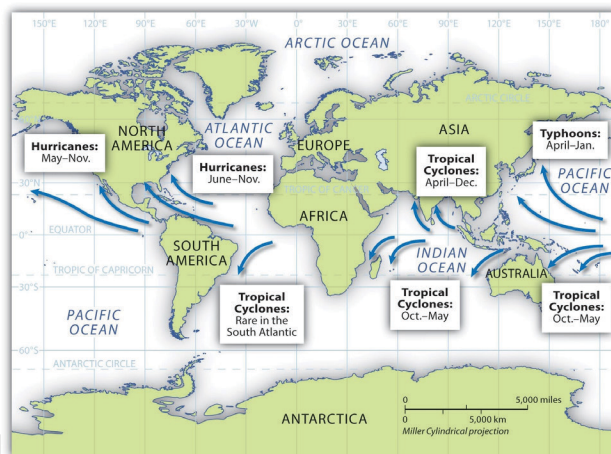
Saffir-Simpson Hurricane Wind Scale

- Hurricanes are categorized on the Saffir-Simpson Hurricane Wind Scale, which rates them on a scale of 1 to 5 based on wind speed.
 - Hurricanes that reach category three or higher are classified as major hurricanes.



- **Origin:** Tropical cyclones or hurricanes use warm, moist air as fuel, and therefore form over warm Equatorial water.
- **Mechanism:**
 - **Low-Pressure Creation:** When the warm, moist air rises upward from the surface of the ocean, it creates an area of low air pressure below.
 - When this happens, the air from the surrounding areas rushes to fill this place, eventually rising when it becomes warm and moist too.
 - An **eye forms** in the centre. It is the calmest part of the cyclone. Before the wind reaches the centre it gets warmed up and rises upwards.
 - When the warm air rises and cools off, the moisture forms clouds. This system of clouds and winds continues to grow and spin.
 - This disturbance is fuelled by the ocean's heat and the water that evaporates from its surface.

- Such storm systems rotate faster and faster. Storms that form towards the north of the equator **rotate counterclockwise**, while those that form to the south **spin clockwise** because of the rotation of the Earth.



Earthquake Concentrations in Dharchula Region

Why in News

Recently, scientists at **Wadia Institute of Himalayan Geology** (WIHG) have unearthed large concentrations of micro and moderate magnitude **earthquakes** in the Dharchula region and adjoining areas of Kumaon Himalaya.

- WIHG is an autonomous institute under the **Department of Science and Technology** (DST), Government of India.

Key Points

- **Location:**
 - The major concentration is in an area **around 45 km from the new Kailash Mansarovar road**, connecting **Dharchula in Uttarakhand to Lipu Lekh on the China border**.
 - The region is known as the **Central Seismic Gap (CSG) region**, despite the **Himalayas** being one of the most tectonically and seismically active regions in the country.
 - A gap is a term used to **denote an area with little tectonic activity**.
- **Methodology:**
 - Scientists started investigating and mapping the region precisely to find out the **reason behind**

Note:

the occurrence of crowded (closely located and frequently felt) earthquakes.

- They established a seismological network of 15 broadband seismological stations along the Kali River valley to investigate the subsurface configuration in the Kumaon Himalaya region with support from the Ministry of Earth Sciences.

➤ Findings:

- These large concentrations of earthquakes are “release of stress” building up in the region and the geological structure behind it.
- The Dharchula region falls between two knee-like structures, which traps the stress in this region.
- This is the reason why there have been crowded earthquakes here within a span of years and numerous smaller earthquakes have occurred here and the stress keeps building up.
- For the stress to be finally released, there is a likelihood of a high magnitude earthquake in the region. However it is not possible to predict the scale or the exact time that an earthquake will occur.

Earthquake

- An earthquake in simple words is the shaking of the earth. It is a natural event which is caused due to release of energy, which generates seismic waves that travel in all directions.
- The location below the earth’s surface where the earthquake starts is called the **hypocenter**, and the location directly above it on the surface of the earth is called the **epicenter**.
- Types of Earthquakes:
 - Based on reasons behind their origins:
 - Fault Zones Earthquake.
 - Tectonic Earthquake.
 - Volcanic Earthquake.
 - Human Induced Earthquakes.
 - Based on the depth of focus:
 - Shallow Earthquakes (0-70 km deep)
 - Intermediate Earthquakes (70-300 deep)
 - Deep Earthquakes (300-700 km deep).

➤ Measurement of Earthquakes:

- **Seismometers** detects seismic waves below the instrument and records them as a series of zig-zags.
 - Scientists can determine the time, location and intensity of an earthquake from the information recorded by a seismometer. This record also provides information about the rocks the seismic waves traveled through.
- The earthquake events are scaled either according to the magnitude or intensity of the shock.
 - The **magnitude scale is known as the Richter scale**. The magnitude relates to the energy released during the quake. The magnitude is expressed in absolute numbers, 0-10.
 - The **intensity scale is named after Mercalli**, an Italian seismologist. The intensity scale takes into account the visible damage caused by the event. The range of intensity scale is from 1-12.

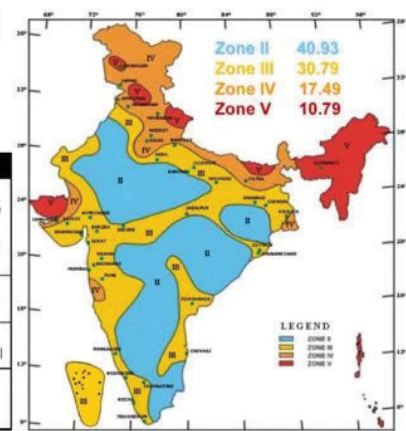
Earthquakes in India

- India is one of the highly earthquake affected countries because of the presence of tectonically active young fold mountains, Himalayas.
- India has been divided into four seismic zones (II, III, IV, and V) based on scientific inputs relating to seismicity, earthquakes occurred in the past and tectonic setup of the region.

Seismic Zone
Map of India: -2002

About 59 percent of the land area of India is liable to seismic hazard damage

Zone	Intensity
Zone V	Very High Risk Zone Area liable to shaking Intensity IX (and above)
Zone IV	High Risk Zone Intensity VIII
Zone III	Moderate Risk Zone Intensity VII
Zone II	Low Risk Zone VI (and lower)



Note:



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Social Issues

Highlights

- Extension of Food Fortification Scheme
- Height and BMI Trends of 2019
- National Cancer Awareness Day

Extension of Food Fortification Scheme

Why in News

In order to fight chronic **anaemia** and **under-nutrition**, the government is making plans to distribute **fortified rice** through the **Integrated Child Development Services** and **Mid Day Meal Schemes** across the country from the year 2021, with special focus on **Aspirational districts**.

- This was decided in a review meeting of an **existing pilot scheme** which aims to **distribute fortified rice in 15 districts**.

Key Points

- **Existing Scheme:** The **centrally-sponsored pilot scheme** was approved in **February 2019**, for a **three-year period from 2019-20 onwards**. Under it, **one district each from the 15 predominantly rice-eating States** was selected.
 - However, out of 15 states, only 5 (Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Chhattisgarh) have started the distribution of fortified rice in their identified pilot districts.
 - In other words, the scheme has only been implemented in five districts so far, although more than half the project duration is over.
- **Renewed Push:** The **Food Corporation of India (FSI)** has now been mandated to scale up the annual supply of **Fortified Rice Kernels (FRK)** from the **current 15,000 tonnes to at least 1.3 lakh tonnes**.
 - To cover **Public Distribution System (PDS)**, **anganwadis** and mid-day meals in the 112 aspirational districts, annual supply capacity would need to be increased to about 1.3 lakh tonnes.

- Further, existing rice mills will be equipped with Blending Machines for mixing FRK with normal rice.

➤ Other Related Initiatives:

- **Milk Fortification Project** was launched by the **National Dairy Development Board (NDDB)** in collaboration with the **World Bank** and **Tata Trusts**, as a pilot project in **2017**. It is intended to address **vitamin deficiency** in consumers.
- Sept. 2020 was observed as **Poshan Maah** (Nutrition month). It includes month-long **activities focussed on antenatal care, optimal breastfeeding, anaemia, girls education, diet, right age of marriage, hygiene and sanitation, eating healthy** (food fortification), etc.

Fortified Rice Kernels

- Fortifying rice involves **grinding broken rice into powder, mixing it with nutrients, and then shaping it into rice-like kernels** using an extrusion process.
- These fortified kernels are then mixed with normal rice in a ratio ranging from 1:50 to 1:200.

Integrated Child Development Services

- It was launched on **2nd October 1975**.
- It offers a **package of six services** (Supplementary Nutrition, Pre-school Non-formal Education, Nutrition and Health Education, Immunisation, Health Check-up and Referral Services) to **children in the age group of 0-6 years, pregnant women and lactating mothers**.

Mid-day Meal Scheme

- It was launched in **1995** as a **centrally sponsored scheme**.
- It provides that every child within the **age group of six to fourteen years** studying in **classes I to VIII** who enrolls and attends the school shall be provided with a hot cooked meal, free of charge every day except on school holidays.

Note:

- It comes under the **Ministry of Education's Department of School Education and Literacy**.

Aspirational Districts Programme

- It was launched in **January 2018**.
- **Aims:**
 - To expeditiously **improve the socio-economic status of 117 districts** through cooperative and competitive federalism.
 - To **rapidly transform districts that have been showing relatively less progress in key social areas**, and have emerged as pockets of under-development, thereby posing a challenge to balanced regional development.

Food Fortification

- **About:** According to the **World Health Organisation (WHO)**, food fortification is defined as the **practice of deliberately increasing the content of essential micronutrients** so as to **improve the nutritional quality** of the food supply and to provide a **public health benefit with minimal risk to health**.
- **Types:**
 - **Mass fortification:** For foods widely consumed by the general population.
 - **Targeted Fortification:** To fortify foods designed for specific population subgroups, such as complementary foods for young children or rations for displaced populations.
 - **Market-driven Fortification:** To allow food manufacturers to voluntarily fortify foods available in the marketplace.
- **Procedure:** The **extent to which a national or regional food supply is fortified varies considerably**. The concentration of just **one micronutrient might be increased in a single foodstuff** like the iodisation of salt or at the other end of the scale, there **might be a whole range of food-micronutrient combinations**.
- In October 2016, **Food Safety and Standards Authority Of India (FSSAI)** operationalised the **Food Safety and Standards (Fortification of Foods) Regulations, 2016** for **fortifying staples** namely **Wheat Flour and Rice** (with Iron, Vitamin B12 and Folic Acid), **Milk and Edible Oil** (with Vitamins A and D) and **Double Fortified Salt** (with Iodine and Iron) to reduce the high burden of micronutrient malnutrition in India.

- **India's National Nutritional Strategy 2017:** It has listed food fortification as **one of the interventions to address anaemia, vitamin A and iodine deficiencies** apart from **supplementation and dietary diversification**.

Height and BMI Trends of 2019

Why in News

A recent study published in **The Lancet**, provides new estimates for **height and Body Mass Index (BMI) trends in 2019** across 200 countries after analysing data from 2,181 studies.

- Height and BMI are **anthropometric measures of the quality of nutrition and healthiness** of the living environment during childhood and adolescence and are highly **predictive of health and developmental outcomes** throughout life.
 - **Anthropometry** is the science of measuring the size and proportions of the human body.

Key Points

- Both height and BMI have **increased from 1985 to 2019** although **there is still a great deal of potential for height** while curbing any future rise in obesity.
- The height and BMI trajectories over age and time of school-aged children are **highly variable across countries**, which indicates **heterogeneous nutritional quality and lifelong health advantages and risks**.
- **Body Mass Index:**
 - It is measured as the weight in kilograms divided by the square of the height in metres.
 - **World Health Organisation (WHO)** guidelines define a normal BMI range as **18.5 to 24.9**, overweight as **25 or higher**, and obesity as **30 or higher**.
 - **India ranks third and fifth from the bottom respectively** among countries where **19-year-old girls and boys have a low BMI**.
 - The **mean BMI of 19-year-old boys** is **20.1** in India, compared to a high of 29.6 in the Cook Islands and a low of 19.2 in Ethiopia.
 - The **mean BMI for 19-year-old Indian girls** is again **20.1**, compared to a high of 29.0 in Tonga and a low of 19.6 in Timor-Leste.
- **Height:**

Note:



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- The **20 cm or higher difference between countries with the tallest and shortest mean height represents approximately 8 years of growth gap for girls** and approximately **6 years for boys**.
 - For example, 19-year-old girls in India have the same mean height as 12-year-old Dutch girls.
- The mean **height of Indian 19-year-olds is 166.5 cm for boys and 155.2 cm for girls**, well below the high of Netherlands boys (183.8 cm) and girls (170 cm).
- **Analysis of India's Situation:**
 - In **developing countries like India**, there is a **dual burden of overnutrition as well as undernutrition**.
 - The **prevalence of overweight and obesity** among adolescents of both **Indian girls and boys is lower** when compared to children of developed nations.
 - There can be **several reasons** for this like variations in the epigenetic, dietary intakes, familial, psychosocial, parental education, occupations, income, etc.
 - **Epigenetics** literally means 'above' or 'on top of' genetics. It refers to **external modifications to the Deoxyribonucleic acid (DNA)** that turn genes 'on' or 'off'.
 - These modifications **do not change the DNA sequence**, but instead, they **affect how cells 'read' genes**.
- **Suggestions:**
 - There is a **need for regular diet and nutrition surveys in India** to avert the increase of overweight and obesity among children and adolescents.
 - **Overweight and obesity are mostly carried over to adult age** and are **causes for many metabolic disorders** like insulin resistance, diabetes, hypertension, CVDs, stroke, etc.
 - **Programmes targeted towards the poor** from birth through school years are needed.

National Cancer Awareness Day

Why in News

National Cancer Awareness Day is observed on **7th November each year** in the country to spread awareness about the need of early cancer detection to fight the deadly disease timely.

Key Points

- **Cancer:**
 - It is a **large group of diseases** that can start in almost any organ or tissue of the body when **abnormal cells grow uncontrollably**, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called **metastasizing** and is a major cause of death from cancer.
 - A **neoplasm** and **malignant tumor** are **other common names** for cancer.
 - Lung, prostate, colorectal, stomach and liver cancer are the **most common types of cancer in men**, while breast, colorectal, lung, cervical and thyroid cancer are the **most common among women**.
- **Cancer Burden:**
 - Cancer remains as **one of the leading causes of adult illness and death** due to chronic and **Non-Communicable Diseases (NCD)** world-over including in India.
 - According to the **World Health Organisation (WHO)**, cancer is the second leading cause of death globally and in 2018, there were approximately 18 million cases globally, of which 1.5 million were in India alone.
 - There were around **0.8 million cancer deaths in India** in 2018 against 9.5 million globally. The numbers of **new cases are estimated to double** in India by 2040.
- **Deaths due to Cancer can be Prevented:** Between 30% and 50% of cancer deaths could be prevented by modifying or avoiding the key risk factors. **Key risk factors** include tobacco use, alcohol use, diet, exposure to ultraviolet radiation, pollution, chronic infections, etc.
- **Treatment:** Options include surgery, cancer medicines and/or radiotherapy, administered alone or in combination.
 - **Palliative care**, which focuses on improving the quality of life of patients and their families, is an essential component of cancer care.
- **Global Initiative:** The **International Agency for Research on Cancer (IARC)** was created in **1965** by a resolution of the World Health Assembly, as the **specialized cancer agency of the World Health Organization**.
 - **World Cancer Day** is observed on **4th February** every year.

Note:

➤ **Indian Initiatives:**

- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** is being implemented under **National Health Mission (NHM)** for up-to the district level activities.
- Under the ambit of **Ayushman Bharat, Pradhan Mantri Jan Arogya Yojana (PM-JAY)** is being implemented to reduce the financial burden for poor and vulnerable groups arising out of catastrophic hospital episodes and to provide access to quality health services.
- **National Cancer Grid (NCG)** is a network of major cancer centers, research institutes, patient groups

and charitable institutions across India with the mandate of establishing uniform standards of patient care for prevention, diagnosis, and treatment of cancer, providing specialized training and education in oncology (study of cancer) and facilitating collaborative basic, translational and clinical research in cancer. It was **formed in August 2012**.

- **National Pharmaceutical Pricing Authority (NPPA)** had launched a **Pilot on Trade Margin Rationalisation** for 42 anti cancer drugs in february 2020 as a step towards making healthcare more affordable for the suffering patients. This led to **reduction in prices of drugs**.



Note:

Security

Highlights

- Media Registrations for Aero India 2021
- Enhanced Version of Pinaka Mk-1 Missile
- INS Vagir

Media Registrations for Aero India 2021

Why in News

Recently, the **online media registration** for the **13th edition of Aero India** has been started, which will be held at **Air Force Station, Bengaluru** (Karnataka) in **February 2021**.

Key Points

- Aero India is a **biennial international military and civil airshow**.
 - It is a premier event that draws **international and Indian military and civil aircraft makers**, their support industries, military brass and government dignitaries and business visitors.
 - It provides a **unique opportunity for the exchange of information, ideas and new developments** in the aviation industry, in addition to giving a fillip to the domestic aviation industry furthering the cause of **Make in India**.
- The **Yelahanka air base**, about 30 km from the city centre Bengaluru, has been hosting the air show in February since it was **started in 1996**.
- In **2019**, it was organised by **Hindustan Aeronautics Ltd. (HAL)** and in **2021**, it will be organised by the **Defence Exhibition Organisation, Ministry of Defence**.
 - DEO is an **autonomous organisation** of the Indian Government **established in 1981**, to **promote the export potential** of the Indian defence industry.
 - It is responsible for organising international exhibitions such as **DefExpo** and Indian participation at overseas exhibitions.

Enhanced Version of Pinaka Mk-1 Missile

Why in News

Recently, an enhanced version of the **Pinaka Mark (Mk)-1 missile** has been **successfully flight-tested** from the Integrated Test Range in Chandipur, off the coast of Odisha.



Key Points

- **Background:** The enhanced version of the Pinaka Mk-1 system was taken up to achieve longer-range performance compared to the earlier design with lesser length.
- **Development:** The design and development have been carried out by **Defence Research and Development Organisation (DRDO)** laboratories, Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL).
- **Significance:**
 - The Enhanced Pinaka Mk-1 will eventually **replace the Pinaka Mk-1 missiles**, which are currently used by regiments of the Indian Army along India's frontiers with China and Pakistan.

Note:

- While the **Mark-1** has a range of **38 km**, the **enhanced version** of Mark-1 has a **range of 45 km** and some key additional features.
- The latest test is in **continuation of a number of missile trials conducted by the DRDO in the last two months**.
- The test comes **months after the Ministry of Defence (MoD) announced** that its acquisition wing signed contracts with three Indian private companies for supply of six regiments of Pinaka Rocket System, to be deployed along borders with Pakistan and China.
- The MoD had said that the **induction would be completed by 2024**. These six Pinaka Regiments would comprise 114 Launchers with Automated Gun Aiming and Positioning System (AGAPS), 45 command posts and 330 vehicles.

Pinaka Missile

- **Development:** The development of the Pinaka multi-barrel rocket systems was **started by the DRDO in the late 1980s**, as an **alternative to the Multi Barrel Rocket Launcher systems of Russian make** called the '**Grad**', which are still used by some regiments.
 - After successful tests of Pinaka Mark-1 in late 1990, it was **first used successfully** in the battlefield during the **1999 Kargil War**. Subsequently, multiple regiments of the system came up over the 2000s.
- **Features:**
 - It is a **multi-barrel rocket launcher (MBRL) system** named after Shiva's bow and can fire a salvo of 12 rockets over a period of 44 seconds.
 - It's one battery **consists of six launch vehicles**, accompanied by loader systems, radar and links with network-based systems and a command post. One battery **can neutralise an area of 1 km by 1 km**.
 - As a key tactic of long-range artillery battle, the launchers have to '**shoot and scoot**' to ensure they themselves do not become the targets, especially being **detectable due to its backblast**.
- **Multiple Variants:** DRDO has also developed and successfully tested the **Mk-II and guided variants of the Pinaka**, which has a range of around 60 km, while the Guided Pinaka system has a range of 75 km and has integrated navigation, control and

guidance system to improve the end accuracy and enhance the range.

- The navigation system of Guided Pinaka missile is also **aided by the Indian Regional Navigation Satellite System (IRNSS)**.

INS Vagir

Why in News

Recently, the fifth **Scorpene-class submarine** of **Project-75** named '**Vagir**' has been launched at **Mazagon Dock** in Mumbai.



Key Points

- **INS Vagir:**
 - The **first Vagir**, a submarine from **Russia**, was commissioned into Indian Navy on **3rd December 1973** and was decommissioned on **7th June 2001**.
 - **Public shipbuilder Mazagon Dock Ltd (MDL)** has given a new incarnation to the submarine which is named after the **Sand Fish**, a deadly deep-sea predator of the Indian Ocean.
 - Vagir is a part of the six **Kalvari-class submarines** being built in India.
 - The **state-of-art technology** used in the submarine **ensures:**
 - **Superior stealth features** such as advanced acoustic absorption techniques, low radiated noise levels and hydro-dynamically optimised shape.
 - **Ability to attack** the enemy using **precision-guided weapons**.
 - It is designed to **operate in all theatres of operation**, showcasing interoperability with other components of a Naval Task Force.

Note:

- It can launch attacks with both torpedoes and tube-launched anti-ship missiles, whilst underwater or on the surface.
- It can **undertake multifarious types of missions** viz. Anti-Surface warfare, Anti-Submarine warfare, Intelligence gathering, Mine Laying, Area Surveillance, etc.

➤ **Project-75:**

- It is a **programme by the Indian Navy** that entails building **six Scorpene-Class** attack submarines.
 - Scorpene is a conventionally powered submarine weighing 1,500 tonnes and can go up to depths of 300m.
- It is given support by the **Department of Defence**

Production (Ministry of Defence) and **Indian Navy** throughout its various phases of construction.

- The MDL is manufacturing six Scorpene submarines with **technical assistance from Naval Group of France** under a **USD 3.75 billion deal** signed in **Oct 2005**.
- **Other submarines** of the ongoing **Project-75:**
 - Two submarines, **Kalvari** and **Khanderi**, have been commissioned into the Indian Navy.
 - The third submarine, **Karanj**, is in the last phase of rigorous sea trials.
 - The fourth Scorpene, **Vela**, has commenced its sea trials.
 - The sixth and last submarine, **Vagsheer**, is being readied for boot together.



Note:

Miscellaneous

Highlights

- Prof. A N Bhaduri Memorial Lecture Award-2020
- Kartarpur Sahib
- National Education Day
- Dobra-Chanti Bridge
- Swarna Jayanti Fellowship: DST

Prof. A N Bhaduri Memorial Lecture Award-2020

Why in News

Recently, Dr. Susanta Kar of **Council of Scientific and Industrial Research- Central Drug Research Institute (CSIR-CDRI)**, Lucknow has been chosen for this year's **Prof. A N Bhaduri Memorial Lecture Award** by the **Society of Biological Chemists (India)**.

- The Society of Biological Chemists (India) was founded in 1930, with its Headquarters at **Indian Institute of Science, Bangalore**.

Key Points

- The award has been given to recognize the significant contributions towards defining the survival tactics of ***Leishmania donovani***.
- ***Leishmania Donovani*** is a protozoan parasite that infects macrophages and is a causative agent of **visceral leishmaniasis (Kala Azar)**, a lethal infectious disease affecting millions worldwide.
- **DR. Susanta Kar's research group** studied the interaction of ***Leishmania*** with **immune cells** like **macrophages, dendritic cells** and **T cells** and the impact of these interactions on immune response/infection progression.
- The award is conferred every **two years**.
 - **Recipients** of the award should be **below 50 years of age**. The Award is given for **Biological Chemistry and Allied sciences**, preferably related to parasitic infections.

Leishmaniasis

- It is a **neglected tropical disease** affecting almost 100 countries including India.

- Neglected tropical diseases are a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries.
- It is caused by a **parasite called *Leishmania***, which is transmitted through the bite of **sand flies**.
- There are **three types of leishmaniasis**:
 - **Visceral leishmaniasis**, which affects multiple organs and is the most serious form of the disease.
 - **Cutaneous leishmaniasis**, which causes skin sores and is the most common form.
 - **Mucocutaneous leishmaniasis**, which causes skin and mucosal lesions.
- **Visceral leishmaniasis**, which is commonly known as **Kala-azar** in India, is fatal in over 95% of the cases, if left untreated.

Kartarpur Sahib

Why in News

Recently, India has criticised **Pakistan's decision to transfer** the management of the **Kartarpur Sahib Gurdwara from a Sikh body to a separate trust**.

Key Points

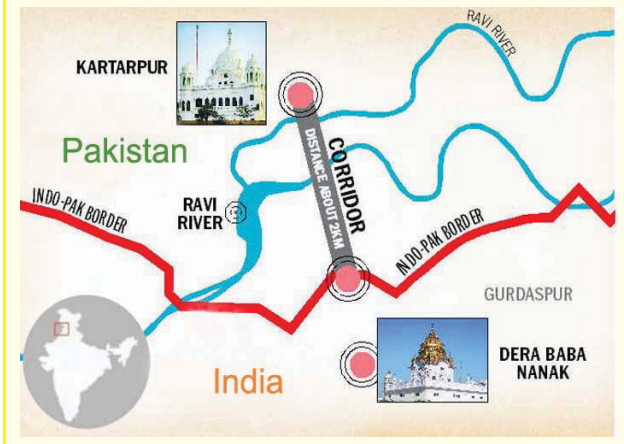
- Gurdwara Kartarpur Sahib, also known as the **Gurdwara Darbar Sahib**, is located in **Pakistan's Narowal district across river Ravi**. It is one of the most significant historical and spiritual places for Sikhs.
- According to historians, **Guru Nanak Dev** (the first Sikh Guru) arrived at **Kartarpur between 1520 and 1522**, and spent the last 18 years of his life there.
 - It was in **Kartarpur** where he laid the foundations of a Sikh religion.

Note:

- The Kartarpur Corridor was opened to the public in 2019.

Kartarpur Corridor

- The Kartarpur corridor connects the Darbar Sahib Gurdwara in Narowal district of Pakistan with the Dera Baba Nanak shrine in Gurdaspur district Punjab, India.
- The agreement facilitates the visa-free movement of Indian pilgrims who would only need a permit to cross over to Pakistan.
- The corridor was built in 2019 to commemorate the 550th birth anniversary of Guru Nanak Dev, founder of Sikhism.



National Education Day

Why in News

The Union Minister of Education **virtually** inaugurated the **National Education Day** programme organised by IIT Bombay.

Key Notes

- **National Education Day**
 - It has been observed every year on **11th November**, since 2008 to commemorate the **birth anniversary of Maulana Abul Kalam Azad**.
 - Maulana Abul Kalam Azad :
 - He was the first Union Education Minister of India.
 - He was a freedom fighter, scholar and eminent educationist.

- He was a key architect of Independent India who was responsible for setting up apex education bodies like **All India Council for Technical Education (AICTE)** and **University Grants Commission (UGC)**.
- He was posthumously awarded **Bharat Ratna**, India's highest civilian award in 1992.

About the Event

- In the event India's commitment to establish India as a **global hub of education and to ensure high quality of education** was reiterated through **Study in India, Stay in India** and **Internationalization of Education**.

- **Study in India, Stay in India** is an extension of the **Study in India programme**, a flagship project of the Government of India, launched in collaboration with the **Ministry of Education, Ministry of External Affairs, Ministry of Home Affairs, and Ministry of Commerce and Industry** in April 2018.

■ Study in India programme objectives:

1. To improve the soft power of India with focus on the neighbouring countries and use it as a tool in diplomacy.
 2. To boost the number of inbound International students in India.
 3. To double India's market share of global education exports from less than 1 percent to 2 percent.
 4. Increase in contribution of international students in the form of direct spends, indirect spends, spillover effects.
 5. Improvement in overall quality of higher education.
 6. Increase in global ranking of India as an educational destination.
 7. To reduce the export – Import imbalance in the number of International students.
 8. Growth of India's global market share of International students.
- India is **cooperating and coordinating with the leading universities of the world**. This has been incorporated in **National Education Policy (NEP) 2020** by inviting top 100 World Universities to set up campuses in India.

Note:

Education In India

➤ Constitutional Provisions:

- Part IV of Indian Constitution, **Article 45 and Article 39 (f)** of Directive Principles of State Policy (DPSP), has a provision for **state-funded as well as equitable and accessible education**.
- The **42nd Amendment** to the Constitution in 1976 moved education from the State to the **Concurrent List**.
 - The education policies by the Central government provides a broad direction and state governments are expected to follow it. However, it is **not mandatory**, for instance Tamil Nadu does not follow the three-language formula prescribed by the first education policy in 1968.
- The **86th Amendment in 2002** made education an enforceable right under **Article 21-A**.

➤ Related Laws:

- **Right To Education (RTE) Act, 2009** aims to provide primary education to all children **aged 6 to 14 years** and enforces education as a Fundamental Right.
 - It also mandates **25% reservation** for disadvantaged sections of the society where disadvantaged groups

➤ Government Initiatives:

- **Sarva Shiksha Abhiyan, Mid Day Meal Scheme, Navodaya Vidyalayas (NVS schools), Kendriya Vidyalayas (KV schools)** and use of IT in education are a result of the NEP of 1986.

- Boost tourism potential.
- Gateway to development in the region.
- Local employment promotion.

Tehri Dam

- It is the **highest dam in India** and the **4th highest in the world**.
- It is around 260.5 metres high and 592 metres long. It is part of the **Tehri Dam and Hydro Power Project** (the multi-purpose river valley project) taken up for construction on **River Bhagirathi** to tap its vast potential for **irrigation and hydro-electric purposes**.
- It is located in the Tehri district of Uttarakhand.

River Bhagirathi

- The river stream originates in the Garhwal Himalaya and after reaching **Devprayag**, it meets another headstream, **Alaknanda** and forms the river **Ganga**.

Swarna Jayanti Fellowship: DST

Why in News

The **Department of Science & Technology (DST)** has selected **21 scientists** for the **Swarna Jayanti fellowship**.

Key Points

- The Swarna Jayanti Fellowships scheme was **instituted by the Government of India to commemorate India's fiftieth year of Independence**.
- It provides **special assistance and support to a selected number of young scientists** with a proven track record to enable them to pursue basic research in frontier areas of science and technology.
- The award consists of a **Fellowship of Rs. 25000 per month** in addition to the salary drawn from the parent Institute along with a **Research Grant of Rs. 5 lakh per annum** by Department of Science and Technology (DST) for a **period of 5 years**.
 - In addition to fellowship, grants for equipment, computational facilities, consumables, contingencies, national and international travel, and other special requirements, if any, is covered based on merit.
 - The **fellowships are scientist specific and not institution-specific**, very selective, and have close academic monitoring.

Dobra-Chanti Bridge

Why in News

Recently, the Uttarakhand Chief Minister has inaugurated **Dobra-Chanthi suspension bridge** in **Tehri-Garhwal district**.

Key Points

- The **440-metre long** bridge is **India's longest motorable single lane suspension bridge**.
- Built over **Tehri Lake**, it will cut travel time between Tehri and Pratapnagar districts from 5.5 to 1.5 hours.
- **Benefits of the Bridge:**
 - Better connectivity within the region.

Note:

- Scientists selected for the award are allowed to pursue unfettered research with a freedom and flexibility in terms of expenditure as approved in the research plan.
 - The project should contain innovative research ideas and it should have a potential of making impact on R&D in the discipline.
- The project submitted by the selected Fellows are considered for funding by the **Science & Engineering Research Board (SERB)** as per SERB norms.
 - SERB is a **statutory body under the Department of Science and Technology**, established by an Act of the Parliament of India in 2009



Note:

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Summary

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Summary