Current Affairs
(CONSOLIDATION)

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(PART – II)

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Polity and Governance

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Forest Rights Act, 2006

Why in News

Recently, review **petitions** of approximately **1200 tribals** for recognition of their claims over forest land under the **Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006** was **rejected** by the local authorities in **Mysuru (Karnataka)**.

Key Points

➢ **Background:**
  ○ A large number of people, especially the **scheduled tribes** have lived in and around forests for a long period in **symbiotic relationships**.
  ○ During the **colonial time,** the focus shifted from the forests being used as a **resource base for sustenance** of local communities to a State resource for **commercial interests** and development of land for agriculture.
  ○ Several Acts and policies such as the **three Indian Forest Acts of 1865, 1894 and 1927 of the Central Govt** and some state forest Acts curtailed centuries-old, customary-use rights of local communities.
  ○ This continued even after independence till much later until enactment of The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

  ○ The Supreme Court in 2019 ordered the **eviction of nearly a million people across India whose claims under the Forest Rights Act, 2006 had been rejected**.

➢ **Provisions of the Forest Rights Act:**
  ○ The Act recognizes and vest the forest rights and occupation in Forest land in **Forest Dwelling Scheduled Tribes** (FDST) and **Other Traditional Forest Dwellers** (OTFD) who have been residing in such forests for generations.
    - Forest rights can also be claimed by any member or community who has **for at least three generations (75 years) prior to the 13th day of December, 2005 primarily resided in forest** land for bona fide livelihood needs.
  ○ It strengthens the **conservation regime** of the forests while ensuring livelihood and food security of the FDST and OTFD.
  ○ The **Gram Sabha** is the authority to initiate the process for determining the nature and extent of **Individual Forest Rights** (IFR) or **Community Forest Rights** (CFR) or both that may be given to FDST and OTFD.
  ○ The Act identifies **four types of rights:**

Note:

- **Title rights:**
  - It gives FDST and OTFD the **right to ownership** to land farmed by tribals or forest dwellers subject to a maximum of **4 hectares**.
  - Ownership is only for land that is actually being cultivated by the concerned family and no new lands will be granted.
- **Use rights:**
  - The rights of the dwellers extend to **extracting Minor Forest Produce, grazing areas** etc.
- **Relief and development rights:**
  - To **rehabilitate** in case of illegal eviction or forced displacement and to basic amenities, subject to restrictions for forest protection.
- **Forest management rights:**
  - It includes the right to **protect, regenerate or conserve** or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use.

○ **Importance:**
  - **Constitutional Provision Expansion:**
    - It **expands the mandate of the Fifth and the Sixth Schedules** of the Constitution that protect the claims of indigenous communities over tracts of land or forests they inhabit.
  - **Security Concerns:**
    - The alienation of tribes was one of the **factors behind the Naxal movement**, which affects states like Chhattisgarh, Odisha and Jharkhand.The Act through identifying IFR and CFR tries to provide **inclusion** to tribes.
  - **Forest Governance**:
    - It has the potential to **democratise forest governance** by recognising community forest resource rights.
    - The act will ensure that people get to manage their forest on their own which will **regulate exploitation of forest resources by officials, improve forest governance and better management of tribal rights**.

○ **Challenges**
  - **Administrative Apathy:**.
    - As tribals are **not a big vote bank** in most states, governments find it convenient to subvert FRA or not bother about it at all in favour of monetary gains.

- **Lack of Awareness:**
  - **Unawareness at the Lower level** of forest officials who are supposed to help process forest rights claims is high and majority of the aggrieved population too remains in the dark regarding their rights.
  - The forest bureaucracy has **misinterpreted the FRA** as an instrument to **regularise encroachment** instead of a **welfare measure** for tribals.
- **Dilution of Act:**
  - Certain sections of environmentalists raise the concern that FRA bends **more in the favour of individual right**s, giving lesser scope for community rights.
  - Community Rights **effectively gives the local people the control over forest resources** which remains a significant portion of forest revenue making states wary of vesting forest rights to Gram Sabha.
- **Reluctance of the forest bureaucracy to give up control:**
  - The **forest bureaucrac**y fears that it will lose the **enormous power over land** and people that it currently enjoys, while the **corporates** fear they may **lose the cheap access** to valuable natural resources.
- **Institutional Roadblock:**
  - **Rough maps** of community and individual claims are **prepared by Gram Sabha** which at times often **lack technical knowhow** and suffers from educational incapacity.

Article 32 of the Constitution

Why in News

Recently, the **Chief Justice of India (CJI)**, during a hearing of a plea, said that the court is trying to **discourage petitions filed under Article 32.**

Key Points

➢ **CJI's View:** CJI noted that there is a **spate of Article 32 petitions** and reiterated that the **High Court can also uphold fundamental rights (under article 226)**.

➢ **Article 32 of the Constitution (Right to Constitutional Remedies)**: It is a **fundamental right**, which states that

Note:

individuals have the right to approach the **Supreme Court (SC)** seeking enforcement of other fundamental rights recognised by the Constitution.

- The SC has **power to issue directions or orders or writs** for the enforcement of any of the fundamental rights. The writs issued may include **habeas corpus, mandamus, prohibition, certiorari** and **quo-warranto**.

- The right to move the SC **shall not be suspended except** as otherwise provided for by the Constitution. Thus, the Constitution provides that the President can suspend the right to move any court for the enforcement of the fundamental rights during a **national emergency (Article 359)**.

- In case of the enforcement of Fundamental Rights, the **jurisdiction of the SC is original but not exclusive**. It is **concurrent with the jurisdiction of the high court under Article 226.**

  - **Original**, because an aggrieved citizen can **directly go to the SC**, **not necessarily by way of appeal.**

  - **Concurrent** means when the Fundamental Rights of a citizen are violated, the aggrieved party **has the option of moving either the high court or the Supreme Court** directly.

- Since the **right guaranteed by Article 32** (ie, the right to move the SC where a fundamental right is infringed) is in itself a **fundamental right**, the **availability of alternate remedy is no bar to relief under Article 32.**

- However, the SC has ruled that **where relief through the high court is available under Article 226**, the aggrieved party should **first move the high court.**

- In the *Chandra Kumar case* **(1997)**, the SC ruled that the **writ jurisdiction of both the high court and the Supreme Court** constitute a part of the **basic structure** of the Constitution.

➢ **Counter-Argument:**

- Even as the **SC underlines the powers of the high courts**, it has in the past **transferred cases to itself from the high courts.**

  - Most recently, the SC transferred the case involving land use for the national capital's **Central Vista project** to itself from the Delhi High Court. Incidentally, the petitioners had not sought such a transfer.

- When such transfers are made, the petitioners **lose a stage of appeal** that would otherwise have been available had the high courts heard and decided the case.

- Recently, the SC also conveyed its concerns that in many matters involving personal liberty, the **High Courts are not exercising their jurisdiction as constitutional courts.**

Article 226 of the Constitution

➢ Article 226 of the Constitution **empowers a high court to issue writs** including habeas corpus, mandamus, certiorari, prohibition and quo warranto **for the enforcement of the fundamental rights of the citizens and for any other purpose.**

- The phrase 'for any other purpose' refers to the **enforcement of an ordinary legal right.** This implies that the **writ jurisdiction of the high court is wider than that of the SC.**

  - This is because the **SC can issue writs only for the enforcement of fundamental rights and not for any other purpose**, that is, it does not extend to a case where the breach of an ordinary legal right is alleged.

➢ The high court can issue writs to any person, authority and government **not only within its territorial jurisdiction but also outside its territorial jurisdiction** if the cause of action arises within its territorial jurisdiction.

Supreme Court on Curbing Fake News

Why in News

Recently, the **Supreme Court** has asked the Centre to provide **information on the existing legal mechanisms to deal with complaints about the content on television channels**.

➢ Further it has asked the Centre to create an authority to check **fake news** and bigotry on air.

Key Points

➢ **Background:**

- The court was hearing a **Public Interest Litigation** (PIL) filed by various organisations who objected to the reporting by certain television news channels

and news portals on the **Tablighi Jamaat event** held in **March 2020**.

- The religious gathering **emerged as one of the early hot spots of Covid-19** in the national capital.

○ The **petitions sought a direction from the court to stop the dissemination of fake news and to identify and take strict action** against sections of the media that **communalised** the incident.

○ In **October 2020**, the bench asked the Centre to **file a response** on steps taken to ensure fake news is not circulated through online and electronic media platforms.

○ The government, through the Ministry, **filed an affidavit in November and cited its advisories**, which maintained that **media coverage of the case predominantly struck a balanced and neutral perspective**.

- It held that as a matter of journalistic policy, any section of the media may highlight different events, issues and happenings across the world as per their choice and it was for the viewer to choose from the varied opinions offered by the different media outlets.

○ The court **rejected the affidavit as inadequate** and asked if the regulatory provisions of the **Cable TV Network (Regulation) Act of 1995**, meant for cable networks, would apply to TV broadcasts as well.

➢ **Fake News:**

○ Fake news is **news, stories or hoaxes created to deliberately misinform or deceive** readers.

○ Usually, these stories are created **to either influence people's views**, **push a political agenda** or **cause confusion** and can often be a profitable business for online publishers.

○ Fake news **affects free speech and informed choices of the subjects** of the country, leading to the hijacking of democracy.

○ **Controlling Mechanism:**

- **Rebuttal:** It is a **form of fact-checking** wherein the fake news is debunked by pointing out errors like mismatch, malicious editing and misattribution.

- **Public Education: Educating the end-users to be more discerning consumers** of news by informing them of verification tools so that they can ascertain the accuracy of a news item before sharing it.

➢ **Laws and Regulation to Curb Fake News in India:**

○ There is **no specific law against fake news** in India. Free publication of news flows from **Article 19** of the Constitution guaranteeing **Freedom of Speech**.

○ **Press Council of India:** It is a regulatory body which can warn, admonish or censure the **newspaper, the news agency, the editor or the journalist** or disapprove the conduct of the editor or the journalist if it finds that a newspaper or a news agency has violated journalistic ethics.

○ **News Broadcasters Association:** It represents the private television news and current affairs broadcasters. The **self-regulatory body** probes complaints against electronic media.

○ **Indian Broadcast Foundation:** It looks into the complaints against contents aired by channels.

○ **Broadcasting Content Complaint Council:** It admits complaints against TV broadcasters for objectionable TV content and fake news.

○ **Indian Penal Code: Section 153** (wantonly giving provocation with intent to cause riot) and **Section 295** (injuring or defiling a place of worship with intent to insult the religion of any class) can be invoked to guard against fake news.

○ **Information Technology Act 2000:** According to the **Section 66** of the act, if any person, dishonestly or fraudulently, does any act referred to in **Section 43** (damage to computer, computer system), shall be punishable with imprisonment for a term which may extend to three years or with fine which may extend to five lakh rupees or with both.

○ **Civil or Criminal Case for Defamation:** It is another resort against fake news for individuals and groups hurt by the fake news. **IPC Section 499** (defamation) and **Section 500** (whoever defames another shall be punished with simple imprisonment for a term which may extend to two years, or with fine, or with both) provide for a defamation suit.

C.B.I and Consent of States

Why in News

Recently, the Supreme Court has held that once a **court takes cognisance** of a corruption case investigated by the CBI, it **cannot be set aside** for lack of the **State government's prior consent** for the probe against some of the accused, unless it is shown that it has **resulted in prejudice.**

Note:

Key Points

➢ **Background:**

○ Two officials of Uttar Pradesh government had earlier contended in the **Allahabad High Court** that the general consent given by the State government was not enough, and **separate consent ought** to have been obtained prior to their being investigated.

● The State of Uttar Pradesh has accorded a **general consent** for extension of powers and jurisdiction of the Members of DSPE, in the whole of State of UP for investigation of offences under the **Prevention of Corruption Act, 1988.**

● However, **in case of public servants** under the state governments, **prior consent** is needed from the state concerned even after the general consent given by the state.

○ The **Allahabad High Court** noted that the Uttar Pradesh government had granted **post facto (after the act is done) consent against** the two public servants. This very judgement of **Allahabad High Court** was challenged in the Supreme Court.

○ **Supreme Court's Stand:**

● It held that if the State had given a **general consent** to **CBI investigation** in a corruption case and **cognisance** had been taken by a court, the case **cannot be set aside** unless the public servants plead that prejudice has been caused to them on account of **non-obtaining of prior consent.**

● Further the judges held that the case cannot be set aside unless the illegality in the investigation can be shown to have brought about miscarriage of justice.

➢ **Types of Consent Given by state government**

○ There are **two types of consent** for a probe by the CBI. These are: **general** and **specific**.

○ When a state gives a **general consent(Section 6 of the Delhi Special Police Establishment Act)** to the CBI for probing a case, the agency is not required to seek fresh permission **every time** it enters that state in connection with investigation or for every case.

○ When a general consent is withdrawn, CBI needs to seek **case-wise consent** for investigation from the concerned state government. If specific consent is not granted, the CBI officials will not have the power of police personnel when they enter that state.

○ This hurdle impedes seamless investigation by the CBI. A general consent is given to facilitate that seamless investigation in a case of corruption or violence.

➢ **Issue of Withdrawal of general Consent by States**:

○ Recently it has been seen that various states like Andhra Pradesh and West Bengal governments have withdrawn their general consent as a result of tussle between Centre and States.

○ **Impact of withdrawal:**

● It means the CBI will not be able to register any fresh case involving a central government official or a private person stationed in the states who withdrew their general consent, without getting case-specific consent.

● In simple terms withdrawal of general consent simply means that CBI officers will lose all powers of a police officer as soon as they enter the state unless the state government has allowed them.

● It will have no impact on investigation of cases already registered with CBI as old cases were registered when general consent existed.

Delhi Special Police Establishment Act

➢ The Central Bureau of Investigation traces its origin to the **Special Police Establishment (SPE) which was set up in 1941 by the Government of India**.

➢ The functions of the SPE then were to investigate cases of bribery and corruption in transactions with the War & Supply Deptt. Of India during World War II.

➢ Even after the end of the War, the need for a Central Government agency to investigate cases of bribery and corruption by Central Government employees was felt.

➢ The Delhi Special Police Establishment Act was therefore brought into force in 1946. The CBI's power to investigate cases is derived from this Act.

India's First Green Energy Convergence Project: Goa

Why in News

India's **first convergence project** to generate green energy for rural and agriculture consumption is set to come up in **Goa.**

➢ **Energy Efficiency Services Ltd (EESL)**, a joint venture of PSUs under the Ministry of Power, and Goa government signed a memorandum of understanding (MoU) for the same.

Key Notes

➢ **Convergence Project of EESL:**

○ **Focus:** It focuses on energy solutions that lie at the **confluence** of **renewable energy**, **electric mobility** and **climate change**.

○ **Objective**: It seeks to connect seemingly independent sectors like **Solar Energy, Energy Storage and LED lights** to provide solutions, which can enable in **decarbonisation** and **affordable energy** access.

○ **Mechanism:**

● **EESL** is offering **convergent interventions**, which solve multiple gap areas in the energy ecosystem.

● Solutions such as **solarised agriculture feeders, LED street lights** in local villages and **battery energy storage systems.**

● Leveraging the **carbon financing mechanism** to rapidly strengthen rural infrastructure in a clean and sustainable manner, and to create a **resilient and sustainable rural community** in India.

● EESL's climate financing interventions currently include **Gram UJALA, Decentralised Solar and Gram Panchayat Street Lights programmes.**

➢ **Benefits of the Project:**

○ **Promote Renewable Energy:** It will **accelerate** the usage of **renewable energy sources**, especially for agricultural and rural power consumption in the State.

○ **Energy Efficient:** Contribute to **reduction of peak energy demand** through deployment of energy efficient pumping and lighting thus contributing to overall sustainability.

○ **Improve Health of DISCOMs:** Accrue savings of **Rs 2,574 crores** to the State over the period of 25 years, while improving the health of **DISCOMs** and providing cleaner power.

○ **Check Technical Losses:** Provide clean day time electricity to farmers as well as energy efficient pump sets which would **reduce the power consumption** as well as **T&D** (Transmission and Distribution Losses) **losses** associated with transmitting power to agriculture and rural feeder networks.

Energy Efficiency Services Ltd

➢ It is a joint venture of National Thermal Power Corporation Limited (NTPC) Limited, Power Finance Corporation, Rural Electrification Corporation and POWERGRID, It was set up under the **Ministry of Power** to facilitate implementation of energy efficiency projects.

➢ EESL is a **Super Energy Service Company (ESCO)** that seeks to unlock the energy efficiency market in India, estimated at Rs. 74,000 crore that can potentially result in energy savings of up to **20%** of current consumption, by way of innovative business and implementation models.

➢ It also acts as the resource centre for capacity building of State **DISCOMs**, financial institutions, etc.

Status of Radicalisation in India

Why in News

The **Ministry of Home Affairs (MHA)** has, for the first time, approved a research study on **'status of radicalisation'** in the country.

Key Points

➢ Study will be conducted by **G.S. Bajpai**, Director of the Centre for Criminology and Victimology, National Law University, Delhi.

➢ The study will attempt to legally define **'radicalisation'** and suggest amendments to the **Unlawful Activities (Prevention) Act, 1967**.

○ Radicalisation is yet to be defined legally, this **leads to misuse by the police.**

○ **Aggressive policing measures could be counter-productive** as the youth who were radicalised were "misguided" and not the culprits.

➢ A huge local population engulfed by systematic radicalisation can create a major security challenge for the state.

○ The United Nations' 26th report of the Analytical Support and Sanctions Monitoring Team concerning the IS (Islamic State), al-Qaeda and associated individuals and entities had pointed out "significant numbers" of the IS and al-Qaeda members in Kerala and Karnataka.

➢ **Instances of Radicalisation** in India:

Note:

- ❍ Cases have revealed instances of **internet-facilitated indoctrination** and active radicalisation in multiple states.
- ❍ Instances of **Left Wing Extremism** (LWE) have grown despite the continued government intervention. Encounters, ambushes and arrests still occur with regular frequency in the red corridor districts.
- ❍ Increased incidents of **mob lynching, cow vigilantism** and the string of assassinations of rationalists such as Narendra Dabholkar, Govind Pansare and Gauri Lankesh point towards rising extremism in the right wing cadres.
- ➢ **Maharashtra Model:**
  - ❍ The Maharashtra Government has rolled out a **Deradicalisation Programm**e for the minority community to counter both **home-grown extremism** and the global Islamic State (IS) threat. The plan has been chalked out by the State Home Department that includes a **50-point socio-economic strategy**.
  - ❍ Deradicalisation is a process in which people reject the ideology they once embraced. This is a step further than disengagement, characterised by a change in behaviour (leaving the radical group, stopping violence) without giving up.

Radicalisation
- ➢ **Meaning:**
  - ❍ The word "radical" refers to change in the fundamental nature of something, thus Radicalism is a set of beliefs or actions of people who advocate thorough or complete political or social reform.
  - ❍ Radicalisation refers to the process of an individual's transformation from a moderate, law-abiding citizen into an active, anti-state, violent extremist.
- ➢ **Types of Radicalisation:**
  - ❍ **Right-Wing Extremism:**
    - ● It is characterized by the violent defence of a racial, ethnic or pseudo-national identity, and is also associated with radical hostility towards state authorities, minorities, immigrants and/ or left-wing political groups.
  - ❍ **Politico-Religious Extremism:**
    - ● It results from political interpretation of religion and the defence, by violent means, of a religious identity perceived to be under attack (via international conflicts, foreign policy, social debates, etc.). Any religion may spawn this type of violent radicalization.

- ❍ **Left-Wing Extremism:**
  - ● It focuses primarily on anti-capitalist demands and calls for the transformation of political systems considered responsible for producing social inequalities, and that may ultimately employ violent means to further its cause.
  - ● It includes anarchist, maoist, Trotskyist and marxist–leninist groups that use violence to advocate for their cause.
- ➢ **Factors behind Radicalisation:**
  - ❍ **Individual socio-psychological factors**, which include grievances and emotions such as alienation and exclusion, anger and frustration and a strong sense of injustice.
  - ❍ **Socio-economic factors,** which include social exclusion, marginalisation and discrimination (real or perceived), limited education or employment etc.
  - ❍ **Political factors**, which include weak and non-participatory political systems lacking good governance and regard for civil society.
  - ❍ **Social media,** which provide connectivity, virtual participation and an echo-chamber for like-minded extremist views, accelerates the process of radicalisation.

43 More Mobile Apps Banned

Why in News

Recently, the government of India has blocked **43 new mobile apps, mostly Chinese,** in the country, including shopping website AliExpress.

- ➢ This is in addition to a total of 177 **Chinese apps banned** till now.

Key Points

- ➢ The **Ministry of Electronics and Information Technology** banned these mobile apps under **Section 69A of the Information Technology Act (IT Act), 2000**.
  - ❍ **Section 69A of the Information Technology Act, 2000**, was introduced by an **amendment to the Act in 2008**.
    - ● It gives the Central government the **power to block public access** to any information online whether on **websites or mobile apps**.

Note:

- Under **Section 69A**, if a website **threatens India's defence, its sovereignty and integrity, friendly relations with foreign countries and public order**, the government can ban it, after following due procedure.
- Detailed procedures to do so are listed under the **Information Technology (Procedure and Safeguards for Blocking Access of Information by Public) Rules, 2009.**

➢ **Reasons Behind Banning Apps:**

  ○ The action was taken **based on the inputs** regarding these apps for engaging in **activities which are prejudicial to sovereignty and integrity of India, defence of India, security of state and public order.**

  ○ Government has received many complaints from various sources about **misuse of some mobile apps** available on Android and iOS platforms **for stealing and transmitting users' data** in an **unauthorized manner** to servers which have locations outside India.

  ○ **Indian Cyber Crime Coordination Center,** **Ministry of Home Affairs** also gave a comprehensive report against the misuse of the apps.

➢ **Implications of the Ban:**

  ○ The decision to ban these apps, which comes **amid continuing tensions between India and China,** is the clear message from India that it will no longer be a victim of China's **Nibble and Negotiate policy** and will review the norms of engagement.

  ○ The ban may affect one of China's most ambitious goals, namely to become the **digital superpower** of the 21st century.

  ○ It will provide a **good opportunity for Indian entrepreneurs** to quickly rise to fill market gaps. This is also great for the **Atmanirbhar Bharat mission.**

    - After the initial ban of apps, the government launched **'Digital India Atmanirbhar Bharat Innovate Challenge'** to encourage Indian application developers and innovators and facilitate their ideas and products.

UMANG International

Why in News

The Ministry of Electronics and Information Technology, in coordination with the Ministry of External Affairs, has launched **an international version of the government's UMANG app.**

➢ The international version of UMANG app called **'UMANG International'** was launched to mark three years of UMANG (**UMANG App was launched in 2017**).

Key Points

➢ **Coverage:** The international version is **for select countries** that include USA, UK, Canada, Australia, UAE, Netherlands, Singapore, Australia and New Zealand.

➢ **Expected Benefits:**

  ○ It will help Indian international students, NRIs and Indian tourists abroad, to avail Government of India services, anytime.

  ○ It will also help in taking India to the world through 'Indian Culture' services available on UMANG and create interest amongst foreign tourists to visit India.

➢ **UMANG App:**

  ○ The **UMANG mobile app (Unified Mobile Application for New-age Governance)** is a **Government of India all-in-one** single, unified, secure, multi-channel, multi-lingual, multi-service mobile app.

  ○ It **provides access to** high impact **services of various organizations** of Centre and States. Presently it has **2000+ services.**

    - The aim of UMANG is **to fast-track mobile governance in India.**

    - UMANG enables **'Ease of Living' for Citizens** by providing easy access to **a plethora of Indian government services** ranging from – Healthcare, Finance, Education, Housing, Energy, Agriculture, Transport to even Utility and Employment and Skills.

    - The **key partners** of UMANG are **Employee Provident Fund Organization**, Direct Benefit Transfer scheme departments, **Employee State Insurance Corporation**, Ministries of Health, Education, Agriculture, Animal Husbandry and **Staff Selection Commission (SSC)**.

    - The **top 3 States** based on average monthly transactions are - Gujarat, Haryana and Madhya Pradesh.

  ○ UMANG was **developed by the National e-Governance Division (NeGD)**, Ministry of Electronics & IT.

    - It is a '**Digital India**' initiative.

  ○ UMANG attained **'Best m-Government service' award** at the **6th World Government Summit** held at Dubai, UAE in February 2018.

PRAGATI Meeting

Why in News

Recently, the **Prime Minister** (PM) **has chaired the 33rd PRAGATI meeting**.

➢ PRAGATI is the multimodal platform for **Pro-Active Governance and Timely Implementation** involving central and state governments.

➢ Interactions through it, is held **once every month on Fourth Wednesday**, known as **PRAGATI Day**.

Key Points

➢ **Highlights of the Meeting:**
  ❍ **Development of state-specific export strategies by the states** and **review of development projects** worth Rs. 1.41 lakh crore spread across 10 states and union territories.
  ❍ Grievances related to **Covid-19** and to the **PM Awas Yojana (Gramin)** were also taken up.
  ❍ **PM SVANidhi**, **agriculture reforms** and development of districts as export hubs were reviewed.

➢ **PRAGATI:**
  ❍ Launched in **2015**, PRAGATI involves the **central** and the **state governments**.
  ❍ It has been **designed by the Prime Minister's Office** (PMO) team with the help of the **National Informatics Center** (NIC).
  ❍ It **enables the PM to discuss the issues** with the concerned central and state officials with full information and latest visuals of the ground-level situation.
  ❍ It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the states).
  ❍ **Objective:**
    ● Grievance Redressal
    ● Programme Implementation
    ● Project Monitoring
  ❍ The PRAGATI platform uniquely **bundles three latest technologies**: Digital data management, video-conferencing and geo-spatial technology.
  ❍ **Significance:**
    ● It **promotes cooperative federalism** by bringing together the Secretaries of the Indian Government and the Chief Secretaries of the states.
    ● It is a robust system for bringing **e-transparency** and **e-accountability** with real-time presence and exchange among the key stakeholders.
    ● It is an innovative project in **e-governance** and **good governance**.

➢ **Concerns:**
  ❍ The **direct interaction** of the PM with the state secretaries without involving the political executives of the states **undermines the state political executive**.
  ❍ It has also been highlighted that the platform is leading to a **concentration of power in the extra-constitutional office of PMO**.

Scheme for Creation of Infrastructure for Agro-Processing Cluster: PMKSY

Why in News

Recently, the Union Minister of Food Processing Industries has attended the **Independent Management Advisory Committee** (IMAC) **meeting** to consider the proposals received under the **Scheme for Creation of Infrastructure for Agro-Processing Cluster** (APC) of **Pradhan Mantri Kisan Sampada Yojana** (PMKSY).

Key Points

➢ IMAC approved **7 proposals with a total project cost of Rs. 234.68 crore** including grants-in-aid of Rs. 60.87 crore in **Meghalaya, Gujarat, Madhya Pradesh, Karnataka and Maharashtra**.

➢ These projects will **leverage private investment** of Rs. 173.81 crore and are **expected to generate employment** for 7750 persons.

➢ **Scheme for Creation of Infrastructure for Agro-Processing Cluster:**
  ❍ It was **approved in May 2017** under the PMKSY, to **incentivise the setting up of APCs in the country**.
  ❍ **Aims:** To develop modern infrastructure and common facilities to encourage a group of entrepreneurs to set up **food processing** units based on cluster approach by linking groups of producers/farmers to the processors and markets.
    ● These clusters will **help in reducing the wastage of the surplus produce** and **add value to the**

Note:

horticultural/agricultural produce which will result in **an increase of income of the farmers** and **create employment** at the local level.

○ Under the scheme, each APC has **two basic components:**

● **Basic Enabling Infrastructure** like roads, water supply, power supply, drainage, etc.

● **Core Infrastructure/Common Facilities** like warehouses, cold storages, tetra pack, sorting, grading, etc.

○ **Requirements for Setup:**

Pradhan Mantri Kisan Sampada Yojana

➢ In **2016**, the **Ministry of Food Processing Industries** (MoFPI) introduced an umbrella **Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters** (SAMPADA), which was proposed to be implemented with an allocation of **Rs. 6,000 crores** for the period of **2016-20**.

➢ In **2017**, it was renamed as the **Pradhan Mantri Kisan Sampada Yojana** (PMKSY).

➢ It is a **Central Sector Scheme**.

➢ **Objectives:**

○ To supplement agriculture.

○ To create processing and preservation capacities.

○ To modernise and expand existing food processing units with a view to increasing the level of processing.

○ To add value leading to the reduction of wastage.

➢ **Seven component schemes under PMKSY:**

○ **Mega Food Parks**.

○ Integrated Cold Chain and Value Addition Infrastructure.

○ Infrastructure for APC.

○ Creation of Backward and Forward Linkages.

○ Creation/Expansion of Food Processing and Preservation Capacities.

○ Food Safety and Quality Assurance Infrastructure.

○ Human Resources and Institutions.

➢ Under PMKSY, **capital subsidy** in the form of **grants-in-aid** ranging from 35% to 75% of the eligible project cost **subject to a maximum specified limit** is provided to investors under the various schemes for **undertaking infrastructure, logistic projects and setting up of food processing units** in the country.

● At least 5 food processing units with a minimum investment of Rs. 25 crore and at least 10 acres of land is required for at least 50 years.

President's Powers to Pardon

Why in News

Recently, the **President of the USA** has exercised his **powers** under the constitution to **pardon** his former National Security Advisor.

➢ Unlike the **USA President**, whose powers to grant pardons are **almost unrestrained**, the **President of India** has to act on the **advice of the Cabinet**.

Key Points

➢ **Pardoning Power of the President in the USA:**

○ The **President** of the USA has the **constitutional right** to **pardon or commute** sentences related to **federal crimes**.

● The USA has a **Presidential system**.

● The **Supreme Court** has held that this **power** is granted **without limit** and cannot be restricted by **Congress** (legislature).

● **Clemency is a broad executive power**, and is **discretionary** which means the **President** is **not answerable** for their pardons, and does not have to provide a reason for issuing one. However, there are a few limitations.

○ **Limitations:**

● All Presidents shall have the power to grant Reprieves and Pardons for offences against the USA, **except in cases of impeachment**.

● Further, the power **only applies to federal crimes and not state crimes**.

● Those pardoned by the President can **still be tried under the laws of individual states**.

➢ **Pardoning Power of the President in India:**

○ Under **Article 72 of the Constitution**, the **President** shall have the power to grant **pardons, reprieves, respites or remissions** of punishment or to **suspend, remit or commute** the sentence of any person convicted of any offence where the **sentence is a sentence of death**.

● Under **Article 161**, the **Governors of states** in India too have pardoning powers.

○ **Limitation:**

● The President **cannot exercise his power of pardon** independent of the government.

● In several cases, the **Supreme Court** (SC) has ruled that the President has to act on the advice of the Council of Ministers while deciding mercy pleas. These include *Maru Ram versus Union of India 1980,* and *Dhananjoy Chatterjee versus State of West Bengal 1994*.

○ **Procedure:**

● Rashtrapati Bhawan **forwards the mercy plea to the Home Ministry**, seeking the **Cabinet's advice**.

● The Ministry, in turn, **forwards this to the concerned state government** and based on the reply, it formulates its advice on behalf of the Council of Ministers.

○ **Reconsideration:**

● Although the President is bound by the Cabinet's advice, **Article74 (1)** empowers him to return it for reconsideration once. If the Council of Ministers decides against any change, the **President has no option but to accept it**.

○ **Difference Between Pardoning Powers of President and Governor:**

● The scope of the President's pardoning power is wider than the pardoning power of the **Governor**, which differs in the following two ways:

■ **Court Martial: President's power** to grant pardon extends in cases where the punishment or sentence is by a **Court Martial** but the **Governor** does not have any such power.

■ **Death sentence:** The **President** can grant pardon in **all cases** including death sentences but the pardoning power of the **Governor** does not extend to **death sentence cases**.

Terms

➢ **Pardon**: It removes both the sentence and the conviction and **completely absolves the convict** from all sentences, punishments and disqualifications.

➢ **Commutation:** It denotes the **substitution of one form of punishment for a lighter form**. For example, a death sentence may be commuted to rigorous imprisonment, which in turn may be commuted to simple imprisonment.

➢ **Remission:** It implies **reducing the period of a sentence** without changing its character. For exp., a sentence of rigorous imprisonment for two years may be remitted to rigorous imprisonment for one year.

➢ **Respite:** It **denotes awarding a lesser sentence in place of one originally awarded** due to some special fact, such as the physical disability of a convict or the pregnancy of a woman offender.

➢ **Reprieve:** It implies **a stay of the execution of a sentence** (especially that of death) for a temporary period. Its purpose is to enable the convict to have time to seek pardon or commutation from the President.

FFC Recommendations for Health Sector

Why in News

The **Fifteenth Finance Commission (FFC)** has made **recommendations** about the need for **reprioritising public spending to fix the creaky health infrastructure** exposed by the **coronavirus pandemic**.

➢ FFC has **submitted its report to the President** advising how to share tax revenues with states for the Financial Year (FY) 2022-26 period.

➢ The FFC report also makes **recommendations about performance incentives to states** in several reform areas.

Key Points

➢ **Recommendations:**

○ FFC has mooted a **greater role for public-private partnerships (PPPs)** to ramp up the health infrastructure and scale up **public spending on health** from **0.95% of GDP to 2.5% by 2024**.

● While **public outlays should focus on primary health care** at the panchayat and municipality level, **private players** should be relied on for **specialty healthcare**.

● The **total spending of around 0.95% of GDP** is **not adequate** in relation to the commitments under the **National Health Policy of 2017**.

■ The 2017 Policy proposes raising public health expenditure to 2.5% of the GDP in a time-bound manner.

Note:

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- There is a need for a **more holistic approach to encouraging PPP** in the health sector. There should be a **constant working relationship** and the government **should not resort to the private sector in the case of an emergency only.**
  - The **trust deficit** that exists between industry and government needs to be bridged.
- **District hospitals** can become **great grounds** for training paramedics, creating health and employment multipliers.
- FFC Chairman emphasised on the need to create **a cadre for medical officers** as mentioned in the **All India Services Act 1951**.
  - **All-India health service** is needed to address issues within the health sector.
- There is a need for **substantial improvements in the working conditions for doctors** in government hospitals, many of whom are hired on a contract basis by States.
- **Issues in the Health Sector:**
  - India's general **government expenditure** on healthcare as a percent of GDP was **just 1.0% in 2017**, according to the **World Health Organisation (WHO)** data, placing it at number **165 out of 186 countries** in terms of government expenditure on healthcare.
  - **Skewed availability of healthcare** across India as poorer States have the worst facilities.
  - In terms of **access and quality** of health services, **India was ranked 145 out of 195 countries** in a Lancet study published in 2018, below countries like China (48), Sri Lanka (71) Bhutan (134) and Bangladesh (132).
  - **Availability of trained epidemiologists** is an issue due to low salary and job insecurity in the health system.
    - There should be one epidemiologist per 0.2 million population. An epidemiologist is a technical person to guide and monitor the process of contact-tracing, marking containment zones and isolating suspected cases.
  - **India's expenditure on R&D** as a percent of GDP has continued to remain stagnant **at 0.7%** of GDP for three decades, with the public sector accounting for 51.8% of national R&D expenditure.
    - This compares to around 2.8% of GDP for the USA, 2.1% of GDP for China, 4.4% of GDP for

Korea and around 3% for Germany where the dominant sector by spending on R&D is the private sector.

Inadequate spending

The table lists the three States/Union Territories with the highest and lowest per capita public expenditure on healthcare, respectively according to FY20 (budget estimates)

State/U.T.	Per capita public expenditure on healthcare
STATES SPENDING THE MOST	
Delhi	₹3,808
Himachal Pradesh	₹3,780
Jammu and Kashmir	₹3,163
STATES SPENDING THE LEAST	
Bihar	₹781
West Bengal	₹988
Uttar Pradesh	₹1,065

Source: RBI | Northeastern States excluding Assam spent ₹3,717 per capita on healthcare

Recent Initiatives

- Recently, the government has **expanded the provision of financial support by means of viability gap funding for Public Private Partnerships (PPPs)** in infrastructure projects to social sectors such as health, education, water and waste treatment.
- Several **public-private partnerships** and collaborations are already underway. The **Defence Research and Development Organisation (DRDO)** which has developed ventilators, collaborated with industry to scale up production of ventilators.
- There have been **several examples** of how public research laboratories, public institutions like the IITs, and private players including startups have risen to the challenge of working on Covid-19 testing kits, masks, alcohol-based sanitizers, personal protective equipment (PPEs) and ventilators, to overcome challenges of global supply chain disruptions and to cater to domestic needs.
- The government has made several interventions in the health sector including **National Medical Commission**, **National Digital Health Mission**, **Ayushman Bharat,** etc.
- A total of **17 Global Health Security Agenda (GHSA) projects** have been started in India, with different government and private organisations.
  - GHSA, set in 2014, **builds on the WHO International Health Regulations (IHR)** that provide guidance for countries to assess and manage serious health

threats that have the potential to spread beyond borders.

○ **Capacity-building of the healthcare workers** for surveillance and outbreak investigation is a vital step under workforce development of GHSA's action package.

○ One of the institutes responsible for workforce development under GHSA is the **National Institute of Health and Family Welfare (NIHFW)**, that has implemented the "**Public Health Systems Capacity Building in India**" project.

Woes of National Commission for Minorities

Why in News

Recently, it has been highlighted that the seven-member **National Commission for Minorities** (NCM) has **only one member left** after the retirement of its vice-chairperson while the other 5 posts have been vacant since May 2020.

Key Points

➢ The **Ministry for Minority Affairs** clarified that the process is underway and there has been a delay in filling the vacancies because of the **Covid-19 pandemic**.

○ However, it is **not the first time that vacancies have not been filled** in the NCM. In 2017, all seven posts remained empty for over two months.

➢ In **2004**, the **standing committee on social justice and empowerment**, headed by **Sumitra Mahajan**, made specific recommendations to strengthen the NCM, highlighting its **insufficient investigative powers**.

○ However, these recommendations were **never implemented** by the then government. The reports tabled by the NCM are **hardly taken up or debated** irrespective of the government in power.

➢ **Section 13 of the** National Commission for Minorities (NCM) Act, 1992 mandates that the **annual report**, together with the memorandum of action taken on the recommendations contained therein, as well as the reasons for non-acceptance of the recommendations, if any, be **tabled before Parliament annually**.

○ These **reports have not been tabled** in Parliament **since 2010**.

National Commission for Minorities

➢ **Genesis:**

○ In **1978**, setting up of the **Minorities Commission** (MC) was envisaged in the Ministry of Home Affairs Resolution.

○ In **1984**, the MC was detached from the Ministry of Home Affairs and placed under the newly created Ministry of Welfare, which excluded linguistic minorities from the Commission's jurisdiction in 1988.

○ In **1992**, with the enactment of the **NCM Act, 1992**, the **MC became a statutory body and was renamed as the NCM**.

○ In **1993**, the first **Statutory National Commission** was set up and **five religious communities** viz the Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities.

○ In **2014**, **Jains** were also notified as a minority community.

➢ **Composition:**

○ NCM consists of a **Chairperson, a Vice-Chairperson and five members** and all of them shall be from amongst the minority communities.

○ Total of 7 persons to be nominated by the Central Government should be from amongst **persons of eminence, ability and integrity**. The Ministry for Minority Affairs recommends the names to the Prime Minister's Office.

○ **Tenure:** Each Member holds office for a **period of three years** from the date of assumption of office.

➢ **Functions:**

○ **Evaluation of the progress of the development** of minorities under the Union and States.

○ **Monitoring of the working of the safeguards** for minorities provided in the Constitution and in laws enacted by Parliament and the state legislatures.

● It ensures that the **Prime Minister's 15-point programme** is implemented and the programmes for minority communities are actually functioning.

○ **Making recommendations for the effective implementation of safeguards** for the protection of the interests of minorities by the central or state governments.

○ **Looking into specific complaints** regarding deprivation of rights and safeguards of minorities

and taking up such matters with the appropriate authorities.

- Aggrieved persons belonging to the minority communities may approach the concerned State Minorities Commissions for redressal of their grievances.

○ **Getting studies to be undertaken into the problems arising** out of any discrimination against minorities and recommending measures for their removal.

- It **investigates matters of communal conflict and riots**. For example, the **2011 Bharatpur communal riots**, as well as the **2012 Bodo-Muslim clashes in Assam**, were investigated by the commission and their findings were submitted to the government.

○ It observes the **Minorities Rights Day** every year on **18th December** which marks the adoption of the "Declaration on the Rights of Persons belonging to National or Ethnic, Religious and Linguistic Minorities" by the **United Nations** in **1992**.

- The declaration states that **countries shall protect the existence of the national or ethnic, cultural, religious and linguistic identity of minorities** within their respective territories and encourage conditions for the promotion of that identity.

**Constitutional and Legal
Provisions Related to Minorities**

➢ The **NCM Act defines a minority** as "a community notified as such by the Central government.''

○ The Government of India has declared **six religions** namely, **Muslims**, **Christians**, **Sikhs**, **Buddhists** and **Parsis** (Zoroastrian) and **Jain** as religious minorities in India.

➢ **National Commission for Minority Education Institution (NCMEI) Act, 2004:**

○ It gives the minority status to the educational institutions on the basis of six religious communities notified by the government.

➢ The term "**minority**" is **not defined in the Indian Constitution**. However, the Constitution **recognises religious and linguistic minorities**.

➢ **Article 15 and 16:**

○ Prohibition of discrimination against citizens on grounds of religion, race, caste, sex or place of birth.

○ Citizens' right to 'equality of opportunity' in matters relating to employment or appointment to any office under the State, and prohibition in this regard of any discrimination on grounds of religion, race, caste, sex or place of birth.

➢ **Article 25 (1), 26 and 28:**

○ People's freedom of conscience and right to freely profess, practise and propagate religion.

○ Right of every religious denomination or any section to establish and maintain institutions for religious and charitable purposes, manage its own religious affairs, and own and acquire property and administer it.

○ People's freedom as to attendance at religious instruction or religious worship in educational institutions wholly maintained, recognized, or aided by the State.

➢ **Article 29:**

○ It provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.

○ It **grants protection to both religious minorities as well as linguistic minorities.**

○ However, the **Supreme Court** held that the scope of this article is not necessarily restricted to minorities only, as use of the word 'section of citizens' in the Article includes minorities as well as the majority.

➢ **Article 30:**

○ All minorities shall have the **right to establish and administer educational institutions** of their choice.

○ The protection under Article 30 **is confined only to minorities** (religious or linguistic) and does not extend to any section of citizens (as under Article 29).

➢ **Article 350-B:**

○ The **7th Constitutional (Amendment) Act 1956** inserted this article which provides for a Special Officer for Linguistic Minorities appointed by the President of India.

○ It would be the duty of the Special Officer to investigate all matters relating to the safeguards provided for linguistic minorities under the Constitution.

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Protest Against Bru Resettlement

Why in News

Recently, parts of north **Tripura** have witnessed violent protests over the **proposed resettlement of Bru tribals.**

Key Points

➢ **Background:**
  ○ **Bru or Reang** is a community **indigenous to Northeast India**, living mostly in **Tripura, Mizoram and Assam**. In Tripura, they are recognised as a **Particularly Vulnerable Tribal Group.**
  ○ In Mizoram, they have been targeted by groups that do not consider them indigenous to the state.
  ○ In 1997, following **ethnic clashes**, nearly **37,000 Brus** fled **Mamit, Kolasib and Lunglei districts of Mizoram** and were accommodated in **relief camps in Tripura**.
  ○ Since then, **5,000** have **returned to Mizoram** in eight phases of repatriation, while **32,000** still live in six relief camps in **North Tripura**.
  ○ In January 2020, a **quadrilateral agreement** was signed by the Centre, the two state governments and Bru representatives to allow the **remaining 32,000 to permanently settle in Tripura.**

➢ **2020 Agreement:**
  ○ After the agreement was made in January 2020, the state has planned **12 resettlement spots across six districts with 300 families each.**
  ○ The Centre has announced a **special development project with funding of Rs. 600 crore.**
    ● Each resettled family will get an estimated **0.03 acres of land** for building a home**, Rs. 1.5 lakh as housing assistance**, and **Rs. 4 lakh as a one-time cash** benefit for sustenance, a **monthly allowance of Rs. 5,000** and **free rations for two years** from the date of resettlement.

➢ **Reason for the Protest:**
  ○ The 2020 agreement led to protests from **Bengali and Mizo** groups in Tripura. They claim that settling thousands of migrants permanently in Kanchanpur sub-division of North Tripura district would lead to **demographic imbalance, exert pressure on local resources and potentially lead to law and order problems.**
  ○ They alleged that 650 **Bengali families** from around Kanchanpur and 81 **Mizo families** from Jampui Hill range, who **fled due to "atrocities" by Brus**, were **yet to be resettled** two decades on.

➢ **Conditions of the Brus:**
  ○ They are in fear and uncertainty as they suffer an **economic blockade** due to these protests.
  ○ They haven't received foodgrains as per their **relief package** this month and if the protest continues, their **condition will deteriorate** further.

Reservation in Super-speciality Medical Courses: SC

Why in News

Recently, the **Supreme Court** (SC) has reserved its order on the **state governments providing a 50% in-service reservation** for admissions to **super-speciality medical courses** (Doctorate of Medicine/DM and Master of Chirurgiae/M. Ch.) in government colleges for the academic year 2020-21.

Key Points

➢ In **August 2020**, the **SC** allowed states to **grant the benefit of reservation of seats to in-service doctors** in the **National Eligibility cum Entrance Test** (NEET) postgraduate (PG) degree courses.

➢ The judgment held that the **state has the legislative competence and authority** to provide for a separate source of entry for in-service candidates seeking admission to PG/diploma courses in the exercise of powers under **Entry 25, List III**.
  ○ **Entry 25 of List-III:** Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour.
    ● The Constitution provides for a **three-fold distribution of legislative subjects** between the Union and the states, which are **List-I** (the Union List), **List-II** (the State List) and **List-III** (the Concurrent List), described in the **seventh schedule**.

Note:

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- ➢ **In November 2020**, **Tamil Nadu government** allowed counselling and filling of 50% of the super-speciality seats in the government medical colleges with in-service candidates in the state.
  - ○ The seats would be filled with candidates who have cleared **NEET-Super Speciality Courses** (SS) and the **selection committee of the Directorate of Medical Education** would prepare the merit list and conduct counselling.
    - ● The state government argued that there was an **acute need for super-speciality qualified doctors** both in the medical academia and in practice.
  - ○ After 50% of seats in DM/M. Ch. courses in government medical colleges are allocated to in-service candidates, the rest will be surrendered to the **Directorate General of Health Services** (DGHS).
    - ● DGHS is a repository of technical knowledge concerning public health, medical education and health care. It is an **attached organisation of the Ministry of Health and Family Welfare**.
- ➢ Doctors, including PG holders qualified in NEET 2020, **challenged the decision saying that there is no concept of any reservation for admission to super-speciality medical courses**.
  - ○ They referred to the verdict in *Dr Preeti Srivastava & Anr. versus State of Madhya Pradesh & Ors, 1999* which held that "**merit, and merit alone, is the basis for admission at the super-speciality level**".
- ➢ Their appeal argued that the State order was contrary to the **Postgraduate Medical Education (Amendment) Regulations of 2019**, which mandated that the **DGHS** should be in charge of the admission process.
  - ○ The regulations **empower DGHS to conduct the counselling for all super-speciality courses in medical educational institutions** of the Central and state governments, deemed universities, medical educational institutions established by municipal bodies, trusts, etc.

PM on One Nation, One Election

Why in News

Recently, the Prime Minister of India has addressed the concluding session of the **80th All India Presiding Officers Conference** via videoconference, at **Kevadiya** (Gujarat) on the occasion of **Constitution Day** (**26th Nov**).

- ➢ He raised the pitch for '**One Nation, One Election**', a **single voter list** for all polls and also asked the presiding officers to **simplify the language of statute books** and allow for an **easier process to weed out redundant laws**.
- ➢ He also paid tributes to the security forces and appreciated **India's efforts to fight terrorism**. The day marked **12 years of the Mumbai terror attacks**.

Key Points

- ➢ **One Nation, One Election:**
  - ○ The idea is about structuring the Indian election cycle in a manner so that **elections to the Lok Sabha and the State Assemblies are synchronised** together so that the **election to both can be held within a given span** of time.
  - ○ **Advantages:**
    - ● Help **keep a check on the poll expenses**, party expenses, etc. and also save public money.
    - ● **Reduce the burden** on administrative setup and security forces.
    - ● **Ensure timely implementation** of the government policies and also ensure that the administrative machinery is engaged in developmental activities rather than electioneering.
    - ● **Solve the problem of governance** on the part of the politicians who are ruling. It is generally seen that for short term political gains from a particular assembly election, ruling politicians avoid taking a harsh long term decision which can ultimately help the country in the long run.
    - ● **Provide more time to all the stakeholders** i.e. political parties, **Election Commission of India** (ECI), paramilitary forces, civilians for the preparation of elections once in five years.
  - ○ **Challenges:**
    - ● The synchronisation is a major problem **considering the traditions and conventions that India's Parliamentary system follows**. The government is accountable to the Lower House and it is possible that the government can fall before completing its term and the moment the government falls, there has to be an election.
    - ● It is **difficult to convince and bring together all the political parties** on the idea.
    - ● For holding simultaneous elections, the **requirements for Electronic Voting Machines** (EVMs) **and the Voter Verified Paper Audit Trails**

Note:

(VVPATs) **will double** as the ECI has to provide two sets (one for election to the Legislative Assembly and second for that to the Lok Sabha).

- There will also be an **additional requirement of the polling staff and for better security arrangements**.

○ **Suggestions:**

- India held the elections for the assembly as well as the Lok Sabha from 1951-52 to till 1967. As such, therefore, there are **no disagreements on adequacy and efficacy** of the idea. India **can even think of holding elections at the same time even for the local bodies**.

- To sync the term of the State Legislative Assemblies with that of the Lok Sabha, the **term of the state legislative assemblies can be reduced and increased accordingly**. However, to do so, **constitutional amendments** may be needed in **Articles 83, 85, 172, 174 and 356**.

- In India, **fixing the dates is not feasible** because of the Parliamentary form of government so one **radical solution is to switch to the Presidential form of Government** where the President is not accountable to the House.

- **Synchronising only the elections to the Lok Sabha and the Rajya Sabha**.

➢ **One Voter List:**

○ Only one voter list should be used for Lok Sabha, Vidhan Sabha and other elections.

○ **Advantages:**

- A common electoral roll will **save an enormous amount of effort and expenditure** as the preparation of a separate voters list causes duplication of the effort and the expenditure.

○ **Challenges:**

- **Persuading the state governments to tweak their respective laws** and **adopt the ECI voters list** for municipal and panchayat polls.

- Requires a **massive consensus-building exercise**.

○ **Suggestions:**

- The mature approach calls for the option of **states adopting EC's voter list**.

- The EC's voters list has to be made in a way **to fit the State Election Commissions' wards which is a tedious task** but can be done by the use of technology.

Climate Change Knowledge Portal

Why in News

Recently, the **Ministry of Environment, Forest and Climate Change** has launched the **'India Climate Change Knowledge Portal'**.

Key Points

➢ **India Climate Change Knowledge Portal**:

○ **Objective:** The Portal will **help in disseminating knowledge among citizens** about all the major steps the Government is taking at both national and international levels to address **climate change issues.**

○ **Benefit:** It will be a **single point Information resource** which provides information on the different **climate initiatives** taken by various Line Ministries enabling users to access updated status on these initiatives.

○ **Components**: The eight major components included in the knowledge portal are:

- **India's Climate Profile**
  ■ The northern part of the country is characterized as a continental climate with hot summers and cold winters. The coastal regions of the country, however, experience warmer temperatures with little variation throughout the year and frequent rainfall.

- **National Policy Framework**
  ■ For Example In order to strengthen the implementation of environmentally sound management of hazardous waste in the

Note:

country, the Ministry of Environment, Forest and Climate Change has amended the **Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.**

- **India's Nationally determined contributions(NDC) Goals**
  - **NDC's** are at the heart of the **Paris Agreement** and the achievement of these long-term goals.
  - **NDC's** embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.
- **Adaptation Actions**
  - To meet the high energy demand India is adapting to clean energy development. **Example: Jawaharlal Nehru National Solar Mission** which aims to increase the share of **solar energy** in India.
- **Mitigation Actions**
  - For example, to mitigate water issues Indian government launched the **National Water Mission.**
- **Bilateral and Multilateral Cooperation**
  - **The Paris climate deal** is a great example of multilateral cooperation.
- **International Climate Negotiations**
  - In the **Conference of Parties(COP21)** in **Paris in 2015**, India accepted 1.5 degrees Celsius as a target limit for the increase in the global average temperature and announced an ambitious domestic renewable energy programme.
- **Reports & Publications**
  - For example, reports like **Assessment of Climate Change over the Indian Region** published by the Ministry of Earth Sciences (MoES).

➢ **Other Initiatives to Fight Climate Change:**
  - **National Clean Air Programme (NCAP):** It is a five-year action plan with a tentative target of 20-30% reduction in concentrations of PM10 and PM2.5 by 2024, with 2017 as the base year.
  - India has also shifted from **Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms** from 1st April 2020 which was earlier to be adopted by 2024.
  - It has distributed more than **360 million LED bulbs** under the **UJALA scheme**, which has led to energy saving of about 47 billion units of electricity per year and **reduction of 38 million tonnes of CO2 per year**.
  - **International Solar Alliance:** It is an Indian initiative conceived as a coalition of solar-resource-rich countries (which lie either completely or partly between the tropic of Cancer and the tropic of Capricorn) to address their special energy needs.
  - The **National Action Plan on Climate Change (NAPCC)** was launched in **2008** which aims at creating awareness among the representatives of the public, different agencies of the government, scientists, industry and the communities on the threat posed by climate change and the steps to counter it.

The Constitution Day

Why in News

Recently on 26th November, **71st constitution day** was celebrated in the country. Every year as part of the celebrations, a number of activities aimed at **highlighting and reiterating the values and principles enshrined in the Constitution** are organised.

Key Points

➢ **Constitution Day or Samvidhan Diwas** is also known as **National Law Day.** The day commemorates the adoption of the Constitution in India.
  - On this day in 1949, the Constituent Assembly of India **formally adopted the Constitution of India that came into force on 26 January 1950**.
  - **The Ministry of Social Justice and Empowerment** on 19 November, 2015, notified the decision of the Government of India to celebrate 26 November as 'Constitution Day'.

➢ **Facts about the Constitution of India**:
  - The framing of the Constitution took over **2 years, 11 months and 18 days**.
  - The original copies of the Indian Constitution **weren't typed or printed. They have been handwritten** and are now kept in a helium-filled case within the library of the Parliament.
  - **Prem Bihari Narain Raizada** had written the unique copies of the Structure of India.
  - Originally, the Constitution of India was written in English and Hindi.

Note:

- The Constitution of India has borrowed some of its features from a number of countries, including Britain, Ireland, Japan, USA, South Africa, Germany, Australia, and Canada.
- The basic structure of the Indian Constitution stands on the **Government of India Act, 1935.**
- World's lengthiest Constitution
- Federal System with Unitary Features
- Parliamentary Form of Government

➤ **Background**:
- In 1934, **M N Roy** first proposed the idea of a **constituent assembly**. Under the **Cabinet Mission plan** of 1946, elections were held for the formation of the constituent assembly.
- **Drafting Committee**:
  - The Drafting Committee had seven members: Alladi Krishnaswami Ayyar, N. Gopalaswami, B.R. Ambedkar, K.M Munshi, Mohammad Saadulla, B.L. Mitter and D.P. Khaitan.
  - At its first meeting on 30th August 1947, the Drafting Committee elected **B.R Ambedkar** as its Chairman.

Important Constitutional Amendment:

➤ **First Amendment Act, 1951**
- Provided for the saving of laws providing for the acquisition of estates, etc.
- Added **Ninth Schedule** to protect the land reforms and other laws included in it from the judicial review. After Article 31, Articles 31A and 31B were inserted.

➤ **The Constitution (Seventh Amendment) Act, 1956**
- The Second and Seventh schedules were substantially amended for the purpose of the States Reorganization Act.

➤ **The Constitution (42nd Amendment) Act, 1976**
- The major Amendments made in the Constitution by the 42nd Amendment Act are:
- **Preamble**
  - The characterization of India as 'Sovereign Democratic Republic' has been changed to 'Sovereign Socialist Secular Democratic Republic'.
  - The words 'Unity of the nation' have been changed to 'Unity and integrity of the nation'.
- **Fundamental Rights and Directive Principles**

- A major change that was made by the 42nd Constitutional Amendment was to give primacy to all Directive Principles over the Fundamental Rights contained in Articles 14, 19 or 31.
- **Fundamental Duties**
  - The 42nd Amendment Act inserted Article 51-A to create a new part called IV-A in the Constitution, which prescribed the Fundamental Duties to the citizens.

➤ **The Constitution (44th Amendment) Act, 1978**
- A new provision was added to Article 74(1) saying that the President could require the council of ministers to reconsider its advice to him, either generally or otherwise and the President should Act in accordance with the advice tendered after such reconsideration.
- It has been provided that an Emergency can be proclaimed only on the basis of written advice tendered to the President by the Cabinet.
- Right to Property has been taken out from the list of Fundamental Rights and has been declared a legal right.

➤ **The Constitution (73rd Amendment) Act, 1992**
- A separate part IX has been added to the Constitution with the addition in Article 243A and a fresh Schedule called the Eleventh Schedule enumerating the powers and functions of Panchayati Raj Institutions.

➤ **The Constitution (74th Amendment) Act, 1992**
- The Act provides constitutional status to Urban Local Bodies. After part VIII of the Constitution, a separate part IXA has been added to the Constitution with the addition in Article 243A and a fresh schedule called Twelfth schedule enumerating the powers and functions of urban local bodies has been incorporated.
- The Act provides Municipal Panchayat, Municipal Council and Municipal Corporation, reservation of seats for SCs and STs in proportion to their population and one-third reservation of seats for women.

➤ **The Constitution (101st Amendment) Act, 2017**
- Introduced the Goods and Services Tax.

➤ **The Constitution (102nd Amendment) Act, 2018**
- Constitutional status to National Commission for Backward Classes

➤ **The Constitution (103rd Amendment) Act, 2019**

Note:

○ A maximum of 10% Reservation for Economically Weaker Sections (EWSs) of citizens of classes other than the classes mentioned in clauses (4) and (5) of Article 15, i.e. Classes other than socially and educationally backward classes of citizens or the Scheduled Castes and the Scheduled Tribes.

Mission COVID Suraksha

Why in News

The Government of India has announced the **stimulus package of Rs. 900 crore** for the **Mission COVID Suraksha**, the Indian Covid-19 Vaccine Development Mission, which will **help the development process of the vaccine candidates**.

Key Points

➢ **About:**
○ Mission COVID Suraksha is India's **targeted effort to enable the development of indigenous, affordable and accessible vaccines** for the country and will complement the ongoing mission of **Atmanirbhar Bharat**.
○ The Centre had announced this package during the **third economic stimulus**.
○ The Mission with its **end-to-end focus from preclinical development through clinical development and manufacturing and regulatory facilitation for deployment**, would consolidate all available and funded resources towards accelerated product development.

➢ **Grant:**
○ Phase-I of the Mission has been allotted **Rs. 900 Crore for a period of 12 months**.
○ The grant will be provided to the **Department of Biotechnology** (DBT) for Research and Development (R&D) of Indian **Covid-19** vaccines.

➢ **Stakeholders:**
○ It will be **led by DBT** and implemented by a dedicated **Mission Implementation Unit** at the **Biotechnology Industry Research Assistance Council** (BIRAC).
○ The existing activities under **National Bio Pharma Mission** (NBM) and **Ind-CEPI Mission** will provide complementary strengths to this Mission.
   ● The DBT is supporting the implementation of the Ind-CEPI Mission, "Epidemic preparedness

through rapid vaccine development: Support of Indian vaccine development aligned with the global initiative of the **Coalition for Epidemic Preparedness Innovations** (CEPI)".
   ● The Ind-CEPI Mission was approved in **March 2019**.

➢ **Objectives:**
○ Accelerating pre-clinical and clinical development.
○ Licensure of Covid-19 vaccine candidates that are currently in clinical stages or ready to enter the clinical stage of development.
○ Establishing clinical trial sites.
○ Strengthening the existing central laboratories and suitable facilities for animal studies, production facilities and other testing facilities to support the vaccine development.
○ Supporting the development of common harmonized protocols, training, data management systems, regulatory submissions, internal and external quality management systems and accreditations.
○ Supporting capabilities for process development, cell line development and manufacturing of GMP batches for animal toxicology studies and clinical trials.
○ Developing suitable **Target Product Profile** so that vaccines being introduced through the mission have preferred characteristics applicable to India.

Clinical Trials
➢ It is a **systematic study to generate data for discovering or verifying the clinical and pharmacological profile** (including pharmacodynamic and pharmacokinetic) or **adverse effects** of a new drug on humans.
➢ It is the **only way of establishing the safety and efficacy** of any drug before its introduction in the market for human use and is preceded by animal trials where the efficacy and side effects are observed in animals and an estimated drug dose is established.
➢ Clinical trials of drugs developed in India **have to undergo all four phases of trials in India**.
○ Phase I or clinical pharmacology trials or "first in man" study.
○ Phase II or exploratory trials.
○ Phase III or confirmatory trials.
○ Phase IV trials or post-marketing phase.

Note:

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➢ **Vaccine Candidates:**
  ○ A total of **10 vaccine candidates have been supported by DBT** so far at both academia and industry and as on date and **5 vaccine candidates are in human trials**.
    ● **Covishield:** The **Serum Institute of India** (SII) is conducting the **phase-3** trial of the **Oxford-Astrazeneca** Covid-19 vaccine.
    ● **Covaxin:** The indigenously developed **Bharat Biotech** and the **Indian Council of Medical Research** (ICMR) vaccine has already started the phase III clinical trial.

● **ZyCoV-D:** Indigenously developed vaccine by **Zydus Cadila** has completed the phase-2 clinical trial in the country.
● **Sputnik V:** The combined phase 2 and 3 clinical trials of the **Russian Covid-19 vaccine** Sputnik V in India are about to get started.
● **BNT162b2:** India is focusing on training for conducting phase II and III human clinical trials of the **Pfizer's Covid-19 vaccine candidate** along lines of India's regulatory mechanism.

■■■

Economic Scenario

Highlights

- Inflation Data: October 2020
- Open Acreage Licensing Policy
- Lakshmi Vilas Bank Crisis
- Delhi-Mumbai Industrial Corridor
- World Fisheries Day
- KIIFB Controversy

- Negative Yield Bonds
- Unified Single-window Clearance System
- Internal Working Group Recommendations: RBI
- Cabinet Approves Capital Infusion into NIIF
- Electrification of Railways
- Honey FPO Programme: NAFED

Inflation Data: October 2020

Why in News

Recently, the wholesale price inflation data for the month of october 2020 was released.

➤ The wholesale price-based inflation is measured by **Wholesale Price Index (WPI).**

Key Points

➤ **Wholesale Inflation:**
  ○ **Wholesale price inflation** increased to the highest level in eight months, reaching **1.48% in October 2020**, compared with **0% in October 2019** and **1.32% in September 2020**.
    - It was driven by manufactured items as per the data released by the **commerce and industry ministry.**
  ○ The **manufactured product group inflation** hit a 19-month high of **2.1%**, and **core inflation** accelerated to the highest level in 18 months at **1.7%.**
  ○ Core Inflation excludes volatile goods from the basket of commodities tracking Headline Inflation. These volatile commodities mainly comprise food and beverages (including vegetables) and fuel and light (crude oil).
    - **Core inflation** = Headline inflation – (Food and Fuel) inflation
➤ **Implication:**
  ○ Increase in core inflation suggests improvement in demand conditions, which have improved after the Covid-19 related lockdown was lifted.

  ○ As a large part of this is due to festival related demand, it will be too early to term this as a general recovery.

Inflation

➤ Inflation refers to the rise **in the prices of most goods and services** of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.

➤ Inflation measures the average price change in a basket of commodities and services over time.

➤ Inflation is indicative of the **decrease in the purchasing power** of a unit of a country's currency. This could ultimately lead to a deceleration in economic growth.

➤ However, a **moderate level of inflation is required in the economy** to ensure that production is promoted.

➤ In India, inflation is primarily measured by two main indices — **WPI (Wholesale Price Index) and CPI (Consumer Price Index)** which measure wholesale and retail-level price changes, respectively.

Wholesale Price Index

➤ It measures the changes in the prices of goods sold and traded in bulk by wholesale businesses to other businesses.

➤ Published by the **Office of Economic Adviser, Ministry of Commerce and Industry.**

➤ It is the most widely used inflation indicator in India.

➤ Major **criticism** for this index is that the general public does not buy products at wholesale price.

➤ The **base year** of All-India WPI has been revised from 2004-05 to 2011-12 in 2017.

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Open Acreage Licensing Policy

Why in News

Recently, contracts for 11 oil and gas blocks offered under the **Open Acreage Licensing Policy (OALP)** Bid Round-V were signed.

Key Points

➤ **OALP:**

  ○ The **Hydrocarbon Exploration and Licensing Policy (HELP) replacing** the erstwhile **New Exploration Licensing Policy (NELP)** was approved in March 2016 and the **Open Acreage Licensing Policy (OALP)** along with the **National Data Repository (NDR)** were launched in June 2017 as the key drivers to accelerate the Exploration and Production (E&P) activities in India.

  ○ Under OALP, **companies are allowed to carve out areas they want to explore oil and gas in**. Companies can put in an expression of interest for any area throughout the year but such interests are accumulated thrice in a year. The areas sought are then put on auction.

  ○ The successful roll-out of the HELP regime, followed by OALP Bid Rounds, has led to **an increase in exploration acreages** in India.

    ● The exploration acreage which stood at about 80,000 sq. km. from earlier regimes now stands at approx. 2,37,000 sq. km., post the award of blocks under OALP Round-V.

  ○ The OALP has helped in **removing red-tapism** and brought in a quantum jump in the **Exploration & Production sector**.

➤ **Concerns:**

  ○ **Inadequate Role of Private Players:** State-owned Oil and Natural Gas Corp (ONGC) and Oil India (OIL) have won all the 11 blocks offered in the latest bidding round for oil and gas exploration blocks.

    ● The **lack of interest from private players** in recent rounds of OALP bidding has been a result of **a lack of policy clarity** from the government and **unsuitable taxation** and regulatory conditions.

    ● A **proposal** by the Petroleum Ministry to **reduce the oil cess charge** on domestic production of crude has been **rejected by the Finance Ministry.**

  ○ **Limited Participation of Foreign Companies:** India's efforts to attract foreign energy giants into hydrocarbon exploration and production haven't been quite fruitful.

Hydrocarbon Exploration and Licensing Policy

➤ Under this Policy, exploration blocks shall be awarded on a continuous basis through e-bidding in a transparent manner.

➤ **Features:**

  ○ **Revenue sharing model** instead of Profit sharing for hydrocarbon exploration.

    ● Under revenue sharing model, the government share accrues immediately on production, unlike in cost-recovery where the contractors first claimed its costs before splitting leftover profits, if any.

  ○ **Unified license** for all types of hydrocarbons.

  ○ **Freedom to carve out acreages of choice** under OALP bid rounds.

  ○ **Full marketing and pricing freedom** of gas.

National Data Repository

➤ NDR is a **government-sponsored E&P data bank** with state-of-the-art facilities and infrastructure for preservation, upkeep and dissemination of data to enable its systematic use for future exploration and development.

➤ Following are the data that is being stored in NDR: Seismic Data, Well & Log Data, Spatial Data, other data like Drilling, Reservoir, Production, Geological, Gravity & Magnetic etc.

➤ Having an NDR for India has helped in **enhancing prospects of petroleum exploration** and **facilitating the Bidding Rounds** by improving the availability of quality data.

Lakshmi Vilas Bank Crisis

Why in News

Recently, the **Reserve Bank of India** (RBI) has decided to impose a **30-day moratorium** on Chennai-based **Lakshmi Vilas Bank Ltd** (LVB).

Key Points

➤ **Background:**

Note:

- ○ LVB was placed under the **prompt corrective action (PCA) framework** in September 2019 considering the breach of PCA thresholds as on 31st March, 2019.
  - The RBI has specified certain regulatory trigger points, as a part of prompt corrective action (PCA) Framework, in terms of **three parameters**, i.e. **capital to risk weighted assets ratio (CRAR), net non-performing assets (NPA)** and **Return on Assets (RoA)**, for initiation of certain structured and discretionary actions in respect of banks hitting such trigger points.
- ○ After taking into consideration various developments, the RBI had come to the conclusion that in the absence of a credible revival plan, with a view to protect depositors' interest and in the interest of financial and banking stability, there is no alternative but to apply to the Central Government for imposing a moratorium under **section 45 of the Banking Regulation Act, 1949.**

- ➢ **Challenges Faced by LVB:**
- ○ **Domino Effect of Yes Bank Crisis:** The LVB episode started unfolding after the RBI and banks led by State Bank of India bailed out fraud-hit **Yes Bank** in **March 2020**.
  - Yes Bank illustrated the widening damage from India's **shadow banking crisis**, highlighted by the **collapse of IL&FS in 2018**.
  - On the same lines, **Punjab and Maharashtra Cooperative Bank** was hit by a loan scam highlighting the riskiness of banks, especially **cooperative banks**.
- ○ **Declining Net Worth:** The financial position of the LVB has undergone a **steady decline, with continuous losses over the last three years** eroding the bank's net worth.
  - Almost one-fourth of the bank's advances have turned bad assets.
- ○ **Inadequacy to Raise Capital:** LVB has **not been able to raise adequate capital** to address the issues and was also **experiencing the continuous withdrawal of deposits** and **low levels of liquidity**.
- ○ **Governance Issues:** Serious **governance issues** in recent years have led to a deterioration in the performance of the bank.
- ○ **Lack of Promoters:** The functioning of LVB, along many such banks, has been under scrutiny as most of them **do not have strong promoters**, making them targets for mergers.

- ○ **Rising NPAs:** Its gross **non-performing assets** (NPAs) stood 25.4% of its advances as of June 2020, as against 17.3% in 2019. Due to which, it was unable to raise capital to shore up its balance sheet.
  - **NPAs in the banking sector are expected to increase** as the **pandemic** affects cash flows of people and companies.
- ➢ **Impact on Investors:**
- ○ **Equity capital will be fully written off**, which means existing shareholders face a **total loss on their investments** unless there are buyers in the secondary market who may ascribe some value to these.
- ○ Individual investors will face a loss on their investments in **AT-1 bonds**.
  - As per RBI rules based on the **Basel-III framework**, AT-1 bonds have **principal loss absorption features**, which can cause a full write-down or conversion to equity.
- ○ **Shares of LVB closed at 20% lower circuit** which means that there will be **only sellers and no buyers**.
  - The lower circuit is the limit below which a stock price cannot trade on a particular trading day.
  - These regulatory mechanisms put in place to temporarily halt trading on an exchange to curb panic-selling.
- ➢ **Measures Taken by RBI:**
- ○ The RBI monitors the performance of private banks and large **Non-Banking Financial Companies** (NBFCs).
- ○ On LVB, it has **imposed a moratorium whose cash withdrawal limit** has been capped at **Rs. 25,000**.
- ○ It has also put in place a **draft scheme for its amalgamation with DBS Bank India**.
  - The combined balance sheet of DBS India and LVB would remain healthy after the proposed amalgamation, with **Capital to Risk Weighted Assets Ratio** (CRAR) at 12.51% and **Common Equity Tier-1** (CET-1) capital at 9.61%, without taking into account the infusion of additional capital.
    - **CET-1 capital** includes equity instruments where returns are linked to the banks' performance and therefore the performance of the share price. They have no maturity.
  - In Sept 2019, merger of banks, **consolidation of 10 public sector banks into four mega state-**

Note:

owned ones, was announced ostensibly to help in better management of capital.

○ One **safety net for small depositors** is the **Deposit Insurance and Credit Guarantee Corporation** (DICGC), an RBI subsidiary, which gives **insurance cover on up to Rs. 5 lakh deposits** in banks.

○ RBI may ask for **capital infusion by other banks and financial institutions**, **putting in equity capital** in the reconstructed entity.

  ● Budget 2019 had announced a **Rs. 70,000 crore bank recapitalisation** programme to help Public Sector Banks shore up their capital reserves and enhance credit flow into the economy.

Delhi-Mumbai Industrial Corridor

Why in News

Recently, the **Rajasthan** government has planned **two special investment regions** along the **Delhi-Mumbai Industrial Corridor** (DMIC) to generate developmental opportunities.

Key Points

➢ **Background:**

○ The Government of India is developing various **Industrial Corridor Projects** as part of the **National Industrial Corridor Programme** (NICP) which is aimed at the **development of futuristic industrial cities in India** which can compete with the best manufacturing and investment destinations in the world.

  ● It will **create employment opportunities** and **economic growth leading to overall socio-economic development**.

○ The NCIP has an overall sanctioned **corpus of Rs. 20,084 crore**. **11 Industrial Corridors Projects** are being taken up for development with **30 Projects to be developed in four phases up to 2024-25**.

  ● **National Industrial Corridor Development and Implementation Trust** (NICDIT) is under the administrative control of the **Department for Promotion of Industry and Internal Trade** (DPIIT) for coordinated and unified development of all the industrial corridors which are at various stages of development and implementation.

➢ **Delhi Mumbai Industrial Corridor:**

○ It is the **first Industrial Corridor project to be announced**.

  ● **DMIC Development Corporation** (DMICDC) incorporated in 2008, is the **implementing agency** for the project.

  ● DMICDC has been registered as a company with 49% equity of Government of India, **26% equity of the Japan Bank for International Cooperation** (JBIC) and the remaining held by government financial institutions.

○ **Aims:**

  ● To **create smart, sustainable industrial cities** by leveraging the high speed, high capacity connectivity backbone provided by the **Western Dedicated Freight Corridor** (DFC) to reduce logistic costs in an enabling policy framework.

    ■ The DFC project is **one of the Indian Railways' largest infrastructure projects**, undertaken by the government at a cost Rs. 81,459 crore.

    ■ The **1,504 km long Western DFC** starts from J N Port in Mumbai and ends at Dadri in the state of Uttar Pradesh.

    ■ These new cities will come up in the **states of Uttar Pradesh, Haryana, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra**.

  ● To **create a strong economic base with a globally competitive environment** and state-of-the-art infrastructure to activate local commerce, enhance foreign investments and attain sustainable development.

    ■ This is the **first time that India has embarked on** the process of **planned urbanisation with manufacturing as the key economic driver**.

World Fisheries Day

Why in News

World Fisheries Day is observed every year on **21st November**.

➢ On the occasion in 2020, the Government of India **awarded the best performing States in the fisheries sector**, for the first time.

Key Points

➢ **About the Day:**

- ○ It is celebrated to demonstrate **solidarity** with all **fisherfolk, fish farmers and concerned stakeholders** throughout the world.
- ○ It was started in the year **1997** when "**World Forum of Fish Harvesters and Fish Workers**" met at New Delhi leading to the formation of "**World Fisheries Forum**" with representatives from **18 countries** and signed a declaration advocating for a global mandate of sustainable fishing practices and policies.
- ○ **Aim:** To draw attention to overfishing, habitat destruction and other serious threats to the sustainability of marine and inland resources.

➢ **Importance of Fisheries Sector:**
- ○ Around **30 million to over 60 million people** in the developing world are involved in inland fisheries and **about 50%** of the total number is **women**.
- ○ Around **65%** of fish caught from inland fisheries are from **low-income food-deficit countries**.
- ○ More than **25%** of world dietary protein is provided by the fish.

➢ **Fisheries Sector in India:**
- ○ India is the **2ⁿᵈ major producer of fish through aquaculture** in the world.
- ○ India is the **4ᵗʰ largest exporter** of fish in the world as it contributes **7.7%** to global fish production.
- ○ Fish constituted about **10%** of total exports from India and almost **20%** of agriculture exports in **2017-18**.
- ○ The fisheries and aquaculture production contribute around **1% to India's GDP** and over **5% to the agricultural GDP**.
- ○ Around **28 million people** are employed in the fisheries sector in India.
- ○ The sector has immense potential to more than double the **fishers and fish farmers' incomes**, as envisioned by the government.

➢ **Concerns for Fisheries Sector:**
- ○ The **Food and Agriculture Organization** (FAO) points out that **nearly 90%** of the global marine fish stocks have either been **fully exploited** or **overfished** or **depleted to the extent that recovery may not be biologically possible**.
- ○ **Discharge of harmful substances** like plastics and other waste into water bodies that cause devastating consequences for aquatic life.

- ○ **Changing climate**.
➢ **Government's Effort to Improve Fisheries:**
- ○ Establishment of **Fisheries and Aquaculture Infrastructure Development Fund** (FIDF) during 2018-19.
- ○ **Pradhan Mantri Matsya Sampada Yojana**, which aims to achieve **22 million tonnes of fish production by 2024-25**. Also, it is expected to create employment opportunities for 55 lakh people.
- ○ **Focus on the Blue Revolution** for the creation of an **enabling environment for integrated and holistic development and management of fisheries** for the socio-economic development of the fishers and fish farmers.
- ○ Extension of **Kisan Credit Card** (KCC) facilities to fishers and fish farmers to help them in meeting their working capital needs.

KIIFB Controversy

Why in News

Recently, the **Enforcement Directorate** (ED) has opened a preliminary inquiry to examine if borrowings by the **Kerala Infrastructure Investment Fund Board** (KIIFB) from overseas markets violated the provisions of the **Foreign Exchange Management Act** (FEMA) **1999**.

➢ KIIFB was established to **manage the Kerala Infrastructure Investment Fund** (KIIF), as per the **KIIF Act 1999**.

➢ In **2016**, the government **changed the role of KIIFB** from handler of investment bonds to an **entity to mobilise the resources for developmental projects** over and beyond the budget.

Key Points

➢ The **Comptroller and Auditor General** (CAG) highlighted that the KIIFB had raised Rs. 2,150 crore from the international market without the consent of the Central government in 2019.
- ○ A **prior consent** of the Government of India is necessary before a State Government raises a loan.

➢ KIIFB had also overstepped its legal bounds by issuing **masala bonds** to raise money from foreign markets in violation of **Article 293 (1) of the Constitution**.
- ○ **Article 293 (1):** The executive power of a State extends to borrowing within the territory of India

upon the security of the **Consolidated Fund** of the **State** within such limits. State governments can give guarantees within such limits as fixed by the legislature of the concerned State.

➢ The ED has also asked the **Reserve Bank of India** (RBI) about the details of 'no objection certificate' it had supposedly extended to the KIIFB, enabling the agency to take sizable loans from the foreign financial market.

➢ **Implications of Inquiry:**
  ❍ The investigation could potentially **cause a fall in the revenues** of the **KIIFB**.
  ❍ It might **affect the extended loans** being offered to KIIFB by the **International Finance Corporation** (IFC), a part of the **World Bank group**.
  ❍ With an ongoing investigation, **investors would not be willing to buy its masala bonds**, which will further lead to loss of revenues.
  ❍ The investigation can also **result in an administrative paralysis**, **halting all the infrastructure development projects** for which the KIIFB had collected the funds.

➢ **Kerala Government's Stand:**
  ❍ It disagrees with the CAG's finding on the basis that **KIIFB is a corporate entity and not the State government**.
    ● As per **FEMA provisions**, **corporate entities can issue masala bonds** to raise funds from foreign markets.
  ❍ Kerala also criticises the move because CAG has **unilaterally submitted its audit** observations **without giving the State its right of reply**.

Masala Bonds
➢ They are **rupee-denominated bonds** used by **Indian companies to raise funds** from the **overseas market** in Indian rupees.
➢ **Eligibility for Issuance:**
  ❍ According to RBI, **any corporate, body corporate and Indian bank is eligible to issue** these bonds overseas.
  ❍ These can be **issued and subscribed** by a resident of such country that is a member of the **financial action task force** (FATF) and whose securities market regulator is a member of the **International Organisation of Securities Commission** (IOSCO). It can also be subscribed by **multilateral and regional financial institutions** where India is a member country.

  ● IOSCO is the international body that brings together the world's securities regulators and is recognised as the global standard setter for the securities sector.

➢ **Limitations:**
  ❍ As per the **RBI guidelines**, the money raised through such bonds **cannot** be used for **real estate activities** other than for development of **integrated township or affordable housing projects**.
  ❍ Also, it cannot be used for investing in capital markets, purchase of land and on-lending to other entities for such activities as stated above.

Negative Yield Bonds

Why in News

Recently, demand for **negative yield bonds** is on rise in the global market.

Key Points

➢ **Negative Yield Bonds:** Are **debt instruments** that offer to pay the investor a maturity amount **lower than the purchase** price of the bond. These are generally **issued** by **central banks or governments**, and **investors pay interest to the borrower** to keep their money with them.
  ❍ **Bond**: Is an **instrument** to **borrow money**. A bond could be **floated/issued** by a country's **government** or by a **company** to raise funds.
  ❍ **Yield**: The yield of a bond is the **effective rate of return** that it earns. But the rate of return is **not fixed**; it changes with the price of the bond.
    ● Generally, investors purchase the bonds at their **face value**, which is the principal amount invested. In return, **investors typically earn a yield** of a bond.
    ● Each bond has a **maturity date**, which is when the investor gets paid back the **principal amount**.
➢ **Reasons behind buying Negative Yield Bonds:**
  ❍ **To create a diverse portfolio**: Many hedge funds and **investment firms** that manage **mutual funds** invest in negative bonds in order to diversify their investment.
  ❍ **To use them as collateral**: Bonds are often used to pledge as **collateral** for financing and as a result, need to be held regardless of their price or yield.

Note:

○ **To take Benefit from Currency Gain**: Foreign investors might believe the currency's exchange rate will rise, which would offset the negative bond yield.

○ **To Avoid Domestic Deflation Risk:** Domestically, investors might expect a period of deflation, or lower prices in the economy.

● **For Example**: Consider a one-year bond that yields minus 5% but at the same time inflation is expected to be minus 10% over the same period.

■ That means the investor in the bond would have more purchasing power at the end of the year because prices for goods and services would have declined far more than would the value of the investment in the fixed-income security.

○ **To Create Safe Haven Assets:** Investors might also be interested in negative bond yields if the loss is less than it would be with another investment. In times of **economic uncertainty**, many investors rush to buy bonds because they're considered **safe-haven investments**.

● These purchases are called the **flight-to-safety-trade** in the bond market. During such a time, investors might accept a negative-yielding bond because the negative yield might be far less of a loss than a potential double-digit percentage loss in the equity markets.

➢ **Current Scenario:**

○ Today when the world is fighting the **Covid-19 pandemic** and **interest rates** related to bonds and other financial instruments in developed markets across Europe are much lower, investors are looking for relatively better-yielding debt instruments **to safeguard their interests**.

○ **China** sold its negative-yield bonds for the first time, and this saw a high demand from investors across **Europe**.

○ **Reason for High Demand:**

● **Low risk with Chinese Bonds:** Yields offered in safe European bonds are much lower than ones offered by China.

■ As against minus −0.15% yield on the 5-year bond issued by China, the yields offered in safe European bonds are much lower, between −0.5% and −0.75%.

● **China's positive Gross Domestic Product (GDP):** Majority of the large economies are facing a contraction in their GDP for 2020-21 while China is one country that is set to witness positive growth as its GDP expanded by 4.9% in the third quarter of 2020.

● **Increase in Covid-19 cases:** While Europe, the United States and other parts of the world are facing a second wave of **Covid-19 cases**, China has demonstrated that it has controlled the spread of the pandemic and is therefore seen as a more **stable region**.

○ **Factor Driving the High Demand:**

● **Availability of money**: Huge amount of **liquidity** injected by the **global central banks** after the pandemic.

■ They have injected an estimated more than **10 trillion dollars** of liquidity through various instruments in the financial system.

● **Avoiding risk:** Investors might also be temporarily parking money in negative yield bonds for the purpose of hedging their risk portfolio in equities. To gain profit and avoid losses in case the fresh wave of the **Covid-19 pandemic** leads to further lockdowns of economies.

Unified Single-window Clearance System

Why in News

The government is working on a **new, unified single-window clearance system** for **foreign direct investment** (FDI) proposals.

➢ It is taking up **several other active reform-related steps** related to **sovereign wealth funds and tax dispute settlements** to continue the momentum of reforms. It also **seeks feedback from global investors** to make the system more functional.

Key Points

➢ **Background:**

○ Despite the presence of several IT platforms for investing in India such as the **Foreign Investment Facilitation Portal** (FIFP) and **state single-window clearances**, **investors need to visit multiple platforms to gather information and obtain clearances** from different stakeholders.

Note:

- FIFP is the **online single point interface** of the Government of India with investors to facilitate FDI.
  - It is administered by the **Department for Promotion of Industry and Internal Trade** (DPIIT), Ministry of Commerce and Industry.
- **About Single-window System:**
  - To address this, the creation of a **centralised Investment Clearance Cell** was proposed by the DPIIT.
    - The cell will be a **one-stop digital national portal** that **integrates the existing clearance systems** of various ministries/departments of the government and will have a **single, unified application form**.
  - It would **provide end-to-end facilitation support**, including pre-investment advisory, information related to land banks and facilitating clearances at Central and state level.
  - It will allow **digital access** to regulators, policymakers and facilitators at one point **irrespective of their geographical location** and also provide **time-bound approvals and a real-time status update** to investors.
  - It will **enable the potential investor to interact** with all the ministries whose approvals are required, in the central government as well as in the states.
- **Sovereign Wealth Funds:**
  - Despite the **Covid-19 pandemic**, the government has seen **fresh interest from large sovereign wealth funds** looking to invest in the country.
    - In the **Budget 2020-21**, the government promised **100% tax exemption** to the interest, dividend and capital gains income on the investment made in infrastructure and priority sectors **before 31ˢᵗ March, 2024 with a minimum lock-in period of 3 years** by the Sovereign Wealth Fund of foreign governments.
    - A **sovereign wealth fund** is a **state-owned investment fund** composed of the **money generated by the government**, often derived from a country's surplus reserves.
  - Despite **lockdowns**, the **National Infrastructure Investment Fund** (NIIF) actively engaged with the investors to find out the best way **to facilitate them with the benefits of the tax exemptions**.

- **Advance Pricing Agreements and Tax Dispute Settlements:**
  - Various MNCs highlighted the concerns about **delays in bilateral Advance Pricing Agreements** (APAs) and **tax dispute settlements**.
    - APA is an **agreement between a taxpayer and tax authority determining the transfer pricing methodology**, for pricing the taxpayer's international transactions for future years.
    - In February 2020, Government approved an amendment to the **Direct Tax Vivad se Vishwas Bill 2020** which provides a mechanism for resolution of pending tax disputes in a simple and speedy manner.
  - India needs a **robust system to resolve disputes on an ongoing basis** instead of waiting for specific schemes to be announced for them. There should be **simultaneous tracking of disputes** and **efforts to settle** them at the earliest.

Foreign Direct Investment

- It is an **investment made by a firm or individual** in one country into business interests located **in another country**.
- Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets, including establishing ownership or controlling interest in a foreign company.
- It is different from **Foreign Portfolio Investment** (FPI) where the foreign entity merely buys equity shares of a company.
  - FPI does not provide the investor with control over the business.
- **Routes Through which India gets FDI:**
  - **Automatic Route:** In this, the foreign entity does not require the prior approval of the government or the **Reserve bank of India** (RBI).
  - **Government Route:** In this, the foreign entity has to take the approval of the government through the existing FIFP.

Internal Working Group Recommendations: RBI

Why in News

Recently, an **Internal Working Group** (IWG) of the

Reserve Bank of India (RBI) has **recommended** the guarded entry of corporates into the banking space, conversion of big **Non-Banking Financial Companies** (NBFCs) into banks, hike in promoters' stake and also a hike in minimum capital for new banks, among others.

➢ The IWG, **headed by PK Mohanty**, was constituted by the RBI in **June 2020**, to **review the extant ownership guidelines** and **corporate structure for private sector banks** in India.

Key Points

➢ **Entry of Corporates into Banking Space:**
  ○ **Large corporates** and **industrial houses** may be **allowed as promoters of banks** only after necessary amendments to the **Banking Regulation Act, 1949**.
    ● A promoter is an **individual or organization that helps raise money for some type of investment activity**.
  ○ This is **to prevent connected lending and exposures** between the banks and other financial and non-financial group entities.
    ● **Connected lending** is modeled as a situation in which the bank's controlling owner extends loans of inferior quality at lower interest rates to himself or his connected parties.
    ● **Credit exposure** is a measurement of the maximum potential loss to a lender if the borrower defaults on payment.
  ○ The **RBI has been against** allowing corporate houses to set up or run commercial banks due to their poor track record on governance and credit disbursement.
    ● Corporate houses **routinely delay payments** to banks and the **system has no in-built incentives or disincentives for orderly debtor behaviour**.

➢ **Conversion of NBFCs into Banks:**
  ○ Well-run large NBFCs, with an **asset size of Rs. 50,000 crore and above**, **including those which are owned by a corporate house**, may be considered for conversion into banks **subject to completion of 10 years of operations and meeting due diligence criteria** and compliance with additional conditions specified in this regard.

➢ **Hike in Promoters' Stake:**
  ○ The **cap on promoters' stake in the long run** (**15 years**) **may be raised** from the **current level of 15% to 26%** of the paid-up voting equity share capital of the bank.

○ On **non-promoter shareholding**, the panel has suggested a **uniform cap of 15% of the paid-up voting equity share capital** of the bank for all types of shareholders.

➢ **Hike in Minimum Capital for New Banks:**
  ○ The minimum initial capital requirement for licensing new banks **should be enhanced from Rs. 500 crore to Rs. 1,000 crore for universal banks** and from **Rs. 200 crore to Rs. 300 crore for small finance banks**.
    ● **Universal Banks combine the three main services of banking** viz. wholesale banking, retail banking, and investment banking under one roof. **For example**, Deutsche Bank, Bank of America, HSBC, etc.

➢ **Payments Banks' Conversion into Small Finance Bank:**
  ○ For **payments banks** intending to convert to a **Small Finance Bank** (SFB), a **track record of 3 years of experience** as payments bank may be considered as sufficient.
    ● **Payments banks** (Airtel Payments Bank, India Post Payments Bank, etc.) are like any other banks, but operating on a smaller or restricted scale.
    ● **Small Finance Banks** are the financial institutions which provide financial services to the unserved and unbanked region of the country.

➢ **Harmonisation and Uniformity in Different Licensing Guidelines:**
  ○ The RBI should **take steps to ensure harmonisation and uniformity** in different licensing guidelines, to the extent possible.
  ○ Whenever new licensing guidelines are issued, **if new rules are more relaxed**, the **benefit should be given to existing banks**, and **if new rules are tougher**, **legacy banks should also conform to new tighter regulations**, but a **non-disruptive transition path may be provided to affected banks**.

➢ **Non Operative Financial Holding Company:**
  ○ **NOFHC should continue to be the preferred structure for all new licenses to be issued for universal banks**. However, it should be **mandatory only in cases** where the individual promoters, promoting entities and converting entities have other group entities.
    ● NOFHC is a **financial institution through which promoter/promoter groups will be permitted to set up a new bank**.

Note:

drishti

- Entities or groups in the private sector, public sector and NBFCs can set up these wholly-owned NOFHCs.

Cabinet Approves Capital Infusion into NIIF

Why in News

Recently, the Union Cabinet has given its approval to the proposal for equity infusion by the Government of **Rs. 6000 crores** in **NIIF Debt Platform** - sponsored by the **National Investment and Infrastructure Fund (NIIF)**.

➤ This was **one of the twelve key measures** made by the Union Minister for Finance as part of **Government of India's stimulus to the economy**, under **Atmanirbhar Bharat**.

Key Points

➤ **Background:**
  ○ As per the **National Infrastructure Pipeline** (NIP), investment in infrastructure sector is targeted at **Rs. 111 lakh crore over the next 5 years** across various sub-sectors, creating substantial need for debt financing.
  ○ It would require at least **Rs. 60 to 70 lakh** crores in **debt financing**.
  ○ Current environment requires well-capitalized specialized infrastructure focused financial institutions, such as **NIIF Debt Platform** being **developed by NIIF** which can focus on lending across the project life cycle with a strong capital base and expertise driven approach.

➤ **The current approval of equity infusion is subject to two conditions:**
  ○ Out of the proposed amount, only **Rs. 2,000 crore** would be allocated during the current year **2020-21**.
    - However, in view of the unprecedented financial situation and availability of limited fiscal space due to the prevailing **Covid-19**, the proposed amount may be disbursed **only if there is readiness and demand for debt raising**.
  ○ **NIIF** will take all necessary steps to use the **equity investments from Domestic and Global pension funds** and **sovereign wealth funds** expeditiously.

➤ **NIIF Debt Platform:**

○ It **comprises of:**
  - **Aseem Infrastructure Finance Limited (AIFL):** It is an IFC (Infrastructure Finance Company), established with the aim of playing a transformative role in growth of Indian infrastructure debt financing.
  - **NIIF Infrastructure Finance Limited (NIIF-IFL):** It was incorporated as an **Infrastructure Debt Fund (IDF)** in 2014 for financing operating infrastructure projects.
○ **Contribution:** It is expected to contribute nearly **Rs. 1 lakh crores** in debt to the infrastructure sector over the **next 5 years.**
○ **Impact:**
  - It will act as a **catalyst in attracting more investments** into the infrastructure sector as envisaged in **NIP**.
  - The process will also **help relieve exposure of banks to infrastructure projects** and **free up space for new green-field projects**.
  - It will **enhance liquidity of infrastructure assets** and **lower the risks**.
  - It is expected that a **well-capitalized, well-funded and well-governed NIIF debt Platform** can play a major role in **infrastructure financing and development of the bond market in India** by acting as an intermediary between the bond markets and infrastructure projects and companies.

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**.

Terms
➤ **Debt financing:**

○ When a company borrows money to be paid back at a future date with interest, it is known as debt financing.

➤ **Equity:**

○ Equity represents the shareholders' stake in the company, identified on a company's balance sheet.

➤ **Sovereign wealth fund:**

○ A sovereign wealth fund is a state-owned investment fund composed of money generated by the government, often derived from a country's surplus reserves.

➤ **Pension fund**:

○ A pension fund is any plan, fund, or scheme which provides retirement income.

➤ **Bond:**

○ It is a **fixed income instrument** that represents a loan made by an investor to a borrower. In simpler words, a bond acts as a contract between the investor and the borrower. Mostly **Companies and Government** issue bonds and **investors** buy those bonds as a **savings and security option**.

Electrification of Railways

Why in News

Recently, the **Minister of Railways** has inaugurated the newly electrified **Dhigawara-Bandikui section** of **North Western Railway** and flagged off the first **train on this electrified route** from **Dhigawara station** in **Alwar District**, Rajasthan.

Key Points

➤ **History of Railways:**

○ **1832:** The **first railway proposals** for India were made in Madras.

○ **1837:** The country got its **first train in the form of Red Hill Railway**, which was built with the sole purpose of transporting granite for road building.

○ **1853:** In **April,** India's **first passenger train**, operated by the Great Indian Peninsula Railway **ran between Bori Bunder (Mumbai) and Thane.**

○ **1925: In February, the first electric passenger train** ran between **Victoria Terminus and Kurla** (Mumbai).

○ **1951:** Indian Railways was **nationalised**.

➤ **Current Electrification:**

○ Indian Railways has set a **target to complete Electrification of its Broad gauge network by December 2023.**

○ More than **66% of the Broad gauge route** has already been **electrified**.

○ With **18065 km of electrification**, Railways recorded a **371% increase in electrification during 2014-20** period as compared to 2009-2014.

➤ **Benefits of Electrification:**

○ **Speed:** 100% electrification will provide **seamless train operation by eliminating detention of trains** due to change in traction (action of drawing or pulling something over a surface) from diesel to electric and vice versa.

○ **Capacity:** It will help Railways in **enhancing line capacity due to higher speed and higher haulage capacity** of electric locomotives.

○ **Safety: Improved signaling system** will lead to enhanced safety in train operations.

○ **Less Financial Burden:** Electric traction is much **cheaper and efficient** compared with diesel traction as running trains on electric traction is **50% cheaper** than diesel.

○ **Seamless Movement: Electric Multiple Units** (EMUs) are ideal for suburban services, which require **higher acceleration and braking features** for frequent starts and stops.

○ **Employment Generation:** Direct employment during the construction phase for electrification will translate to about 20.4 crore man days, which will significantly boost the employment.

○ **Energy Security:** Total shift to electric traction will **reduce fossil fuel consumption** of about 2.83 billion liters per annum and also give a subsequent reduction in **greenhouse gases** (GHG) emissions.

● GHG emission for electric traction falls below diesel traction, making it an environmentally friendly option.

○ **Energy Bill Savings:** It provides savings of **Rs. 13,510 crore per annum** in fuel bill as **maintenance of electric locomotive is low** as compared to diesel locomotive.

● Regeneration facilities of electric locomotives will **save 15-20% energy** and also there is a **reduced overall requirement of electric locomotives** due to their **higher horsepower**.

- **Sustainability: Reduced carbon footprint** as environmental cost per tonne Km for electric traction is less as compared to diesel traction.
  - In line with the commitment made by India in **Conference of Parties (COP) 21** (**Paris**) total shift to electric traction will **reduce Carbon Dioxide** (CO_2) **emission of Railways by 24% till 2027-28**.
  - **Carbon footprint** can be defined as the total amount of **GHG** produced directly and indirectly to support **human activities**, usually expressed in equivalent **tons of** CO_2.
- **Using More Renewable Energy:**
  - In **July 2020**, Indian Railways **decided to be self-reliant for its energy needs** by utilizing its vacant lands for **Renewable Energy** (RE) projects.
  - It will utilize **solar energy** for meeting its traction power requirements.

Honey FPO Programme: NAFED

Why in News

Recently, the **Minister of Agriculture and Farmers' Welfare** has virtually inaugurated the **Honey Farmer Producer Organisation** (FPO) **Programme** of the **National Agricultural Cooperative Marketing Federation of India Limited** (NAFED).

- A **Producer Organisation** (PO) is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen, etc.
  - FPO is one type of PO where the members are farmers.
- **Apiculture or beekeeping** is the care and management of honey bees for the production of honey and wax. In this method, bees are bred commercially in apiaries, an area where a lot of beehives can be placed.

Key Points

- The programme has been launched under the **Formation and Promotion of FPOs.**
  - It is a new **Central Sector Scheme** for the promotion of **10,000 new FPOs**.
  - Under it, the **National Level Project Management Advisory and Fund Sanctioning Committee** (N-PMAFSC) had allocated FPO clusters for **2020-21** to all implementing agencies.

- Initially there were three implementing agencies to form and promote FPOs, namely **Small Farmers Agri-business Consortium** (SFAC), **National Cooperative Development Corporation** (NCDC) and **National Bank for Agriculture and Rural Development** (NABARD).
  - **NAFED** has been appointed as the 4th national implementing agency.
  - States may also, if so desire, nominate their implementing agency in consultation with the **Department of Agriculture, Cooperation and Farmers' Welfare** (DAC&FW).
  - FPOs will be developed by specialist **Cluster Based Business Organizations** (CBBOs) engaged by implementing agencies.
- NAFED, through CBBOs and the **Indian Society of Agribusiness Professionals** (ISAP) has initiated the formation and promotion of FPOs of beekeepers and honey collectors in 5 states of India.
  - These 5 locations are **East Champaran** (Bihar), **Morena** (Madhya Pradesh), **Bharatpur** (Rajasthan), **Mathura** (Uttar Pradesh) **and Sunderbans** (West Bengal).
  - The **first Honey FPO** has been registered in the state of Madhya Pradesh under the **National Beekeeping and Honey Mission** (NBHM).
- **Benefits:**
  - **Skill Upgradation** in scientific beekeeping.
  - State of the art **infrastructural facilities** for processing honey and allied beekeeping products like **bee's wax, propolis, royal jelly, bee venom**, etc.
  - Quality upgradation by **quality control laboratories**.
  - Better **supply chain management** by improving **collection, storage, bottling and marketing centres**.
  - Promotion and Formation of FPOs is the first step for **converting Krishi into Atmanirbhar Krishi**.
- **Other Efforts by Government to Promote Beekeeping:**
  - Government is promoting beekeeping as part of its **aim to double farmers' income** and **ensure tribal upliftment**.
  - The Government has **allocated Rs. 500 crore** towards beekeeping under the **Atmanirbhar Abhiyan**.
  - **Apiary on Wheels:**
    - It is a unique concept designed by the **Khadi and Village Industries Commission** (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.

Note:

○ The **National Bee Board** has created four modules to impart training as part of the NBHM.

- Under it, 30 lakh farmers have been trained in beekeeping and are also being financially supported by the Government.

- Mini Mission 1 and Mini Mission 2 are schemes under the mission.

○ The Government launched **NBHM** as part of '**Sweet Revolution**'.

- The 'Sweet Revolution' was launched in **2016** to **promote beekeeping and associated activities**.

National Agricultural
Cooperative Marketing Federation of India Ltd

➢ It is an **apex organization of marketing cooperatives** for agricultural produce in India.

➢ It was founded on **2ⁿᵈ Oct 1958** and is registered under the **Multi-State Co-operative Societies Act, 2002**.

➢ NAFED is now **one of the largest procurement as well as marketing agencies** for agricultural products in India.

➢ **Objectives:**

○ To organize, promote and develop marketing, processing and storage of agricultural, horticultural and forest produce.

○ To distribute agricultural machinery, implements and other inputs, undertake inter-state, import and export trade, wholesale or retail as the case may be.

○ To act and assist for technical advice in agricultural production for the promotion and the working of its members, partners, associates and cooperative marketing, processing and supply societies in India.

National Bee Board

➢ SFAC registered the NBB as a society under the **Societies Registration Act, 1860** in 2000 and it was reconstituted (with the secretary as chairman) in June 2006.

➢ **Objective:**

○ Overall **development of beekeeping by promoting scientific beekeeping** in India to increase the productivity of crops through pollination and increase the honey production for increasing the income of the beekeepers/farmers.

➢ Presently NBB is implementing **National Horticulture Mission** (NHM) **and Horticulture Mission for North East and Himalayan State** (HMNEM).

Note:

International Relations

Highlights

- RCEP Comes into Existence
- China's Railway Near Arunachal Border
- UAE Issues Golden Card Visa
- Conflict in Ethiopia
- 12th BRICS Summit
- India-Luxembourg Virtual Summit
- APEC Virtual Meet
- RCEP & Sri Lanka's Dilemma
- Japan Signs Pact with Maldives
- India-Thailand Coordinated Patrol

- Trilateral Maritime Exercise SITMEX-20
- Withdrawal of US Troops from Afghanistan
- Agreements Between India-Bahrain
- G 20 Summit
- New Chinese Village in Bhutan
- India's Assistance to Afghanistan
- China-Nepal Bilateral Cooperation
- India-Vietnam Talks
- China's New Dam on Brahmaputra

RCEP Comes into Existence

Why in News

Recently, the **Regional Comprehensive Economic Partnership** (RCEP) has come into existence on the sidelines of the **37th ASEAN Summit**.

➢ It has laid down the **path for restarting discussion that had failed to admit India earlier** and said "new" developments would be taken into consideration if India re-applies.

Key Points

➢ **Regional Comprehensive Economic Partnership:**
  - ❍ It consists of 10 **Association of Southeast Asian Nations** (ASEAN) members, as well as South Korea, China, Japan, Australia and New Zealand.
    - It excludes the USA, which withdrew from the **Trans-Pacific Partnership** (TPP) in **2017**.
  - ❍ **Negotiations over the RCEP deal began in 2012. India was also part** of the negotiations but it **pulled out in 2019** over concerns that **lower tariffs could hurt local producers**.
  - ❍ Members of the RCEP make up nearly a **third of the world's population** and account for **29% of global gross domestic product** (GDP).

World's Biggest Trade Deal
RCEP: 15 countries, 2.2 billion people, a combined GDP of $26.2 trillion
■ RCEP Countries ☐ Non-RCEP Countries
Source: IMF   Bloomberg

- ❍ The **China-backed** group will emerge as the **largest free trade agreement** (FTA) in the world surpassing both the **US-Mexico-Canada Agreement** and the **European Union** (EU).
- ❍ It is **expected to eliminate a range of tariffs on imports within 20 years** and also includes provisions on **intellectual property**, telecommunications, financial services, **e-commerce** and professional services.
- ❍ Under RCEP, **parts from any member nation would be treated equally**, which might give companies in RCEP countries an **incentive to look within the trade region for suppliers**.
  - Businesses with global supply chains might face tariffs even within an FTA because their products contain components that are made elsewhere.

Note:

○ The deal could **increase global national income by USD 186 billion annually by 2030** and add 0.2% to the economy of its member states.

● However, some analysts think the deal is **likely to benefit China, Japan and South Korea more** than other member states.

○ However, it could be **some time before any country sees the benefits**, because six Asean nations and three other nations have to ratify it before it takes effect.

● Ratification will likely be **tricky** in national parliaments, owing to both **anti-trade and anti-China sentiments** among the countries.

➢ **Significance for China:**

○ The beginning of RCEP is a major development that will **help China and trade in the Asia-Pacific region** in the post-Covid-19 scenario.

○ It will give **China access to Japanese and South Korean markets** in a big way, as the three countries have not yet agreed on their FTA.

○ While China already has a number of bilateral trade agreements, this is the first time it has signed up to **a regional multilateral trade pact**.

➢ **India's Stand:**

○ While addressing the ASEAN Summit, India **highlighted the necessity for peace and stability in the region but maintained silence regarding RCEP** as it is **not very welcoming** of the China-backed grouping in the light of the **ongoing military tension in eastern Ladakh** along the Line of Actual Control (LAC).

○ In the meantime, India **held Malabar Exercise with Japan and the USA for the Quadrilateral Security Dialogue** (QUAD) which was interpreted as an anti-China move.

● However, these moves **did not influence Japanese and Australian plans** regarding RCEP.

○ India **ended negotiation** on RCEP over terms that were **perceived to be against its interests**.

○ One of the major concerns for India was **inadequate protection against surges in imports** as its industry had fears that signing RCEP would **allow cheaper products from China to flood the market** in India.

○ The **extended power to China** could lead to **actions and incidents eroding trust in the maritime region** disrespecting the territorial integrity and sovereignty.

● For example, the ongoing tensions at LAC and **Chinese activities in Pakistan-occupied Kashmir**.

➢ **RCEP on India's Membership:**

○ India, as an original negotiating participant of the RCEP, has the **option of joining the agreement without having to wait 18 months** as stipulated for new members in the terms of the pact.

○ RCEP signatory states plan to commence negotiations with India once it **submits a request of its intention to join the pact "in writing"**, and it may participate in meetings as an observer prior to its accession.

Suggestions

➢ The mega trade bloc is a landmark trade initiative which is expected to boost commerce among the member-countries spread across the Asia-Pacific region.

➢ India needs to keep its interests on the table as the road to further expansion of its exports to RCEP member nations is very much still open, given that India already has trade and investment agreements with 12 of them.

➢ Utilising existing agreements better while proactively exploring new opportunities in other geographies will diversify both Indian markets as well as an export basket.

China's Railway Near Arunachal Border

Why in News

China has begun work on a strategically significant railway line that will **link Sichuan province with Nyingchi in Tibet**, which lies close to Arunachal Pradesh border.

Key Points

➢ This will be the **second** such route linking **Tibet Autonomous Region (TAR) with mainland China**.

○ Earlier **Qinghai-Tibet railway line connected** Lhasa to the hinterland.

➢ **Implications on India:**

○ **Security Concerns**:

● The railway line will largely improve the **efficiency and convenience** of military personnel and material transportation and **logistical supplies in the border area**.
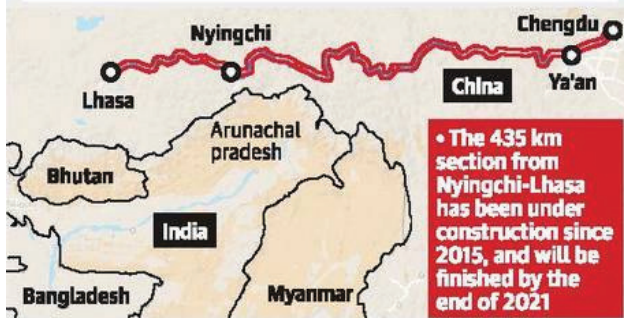
Note:

Rail to border town

China's planned railway line will run from Lhasa in Tibet to Chengudu, the capital of Sichuan province, connecting both the places to Nyingchi, a city near the Arunachal Pradesh border

- The first segment of the line within Sichuan province, from Chengdu to Yaan, was completed in December 2018
- Work on the 1,011 km section from Yaan to Nyingchi, which was formally launched this week, will be finished in 2030

- The 435 km section from Nyingchi-Lhasa has been under construction since 2015, and will be finished by the end of 2021

- In situations of direct standoff near Arunachal Pradesh border, as was seen during **Doklam** or recent **Ladakh standoff,** China might be at an advantageous position.
  - **Doklam Issue**: Indian troops intervened to block the path of Chinese soldiers engaged in building road-works on the **Doklam plateau** of Bhutan's territory that Beijing laid claim.
- Ecological Concerns:
  - The fragile ecological environment along the project line, may have ecological concerns for India.
- **Recent Steps Taken by India:**
  - India will spend 10% funds of the **Border Area Development Programme (BADP)** only to improve the infrastructure along the China border.
  - The Border Roads Organisation (BRO) constructed the **Daporijo bridge over Subansiri river** in Arunachal Pradesh in a record span of just 27 days.
    - It links roads leading upto the Line of Actual Control (LAC) between India and China.
  - Recently the defence minister virtually laid the foundation of a tunnel at **Nechiphu in West Kameng district of Arunachal Pradesh.**
    - It will shorten travel time for troops till the LAC through Tawang, which China claims to be its territory.

- The BRO is already constructing an **all-weather tunnel under the Se La pass in Arunachal Pradesh** which connects Tawang to the rest of Arunachal and Guwahati.
- The state government of Arunachal Pradesh has advocated **selection of 10 census towns along the India-China border** as pilot projects for infrastructure development in order to stop people living along its international borders, specifically with China, from migrating to faraway urban centres in the State.
- Recently, the Defence Minister inaugurated the **Sisseri River Bridge** located at lower Dibang Valley in Arunachal Pradesh connecting **Dibang Valley and Siang.**
- In 2019, the Indian Air Force inaugurated resurfaced runway at India's **easternmost Village-Vijaynagar (Changlang district)** in Arunachal Pradesh.
- In 2019, the Indian Army conducted **exercise 'HimVijay'** in Arunachal Pradesh and Assam with its newly created Integrated Battle Groups (IBG).
- **Bogibeel bridge,** which is India's longest road-rail bridge connecting **Dibrugarh in Assam to Pasighat in Arunachal Pradesh** was inaugurated in 2018.
  - It will facilitate quicker movement of troops and equipment to areas near the India-China border.

Border Area Development Programme

➢ The BADP was launched by the **Ministry of Home Affairs in 1986-87** as part of a comprehensive approach to Border Management.

➢ BADP was initiated in the border areas of the western region during the Seventh Five Year Plan (1985-90), for ensuring balanced development of border areas through development of infrastructure and promotion of a sense of security among the border population.

➢ It is a **centrally sponsored scheme**. Funds are provided to the states as a non-lapsable special central assistance for the execution of projects relating to infrastructure, livelihood, education, health, agriculture and allied sectors.

➢ The States covered are Arunachal Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jammu & Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal.

Note:

Sectors of India-China Border

➢ India and China share a boundary that stretches 3,488 km from Ladakh to Arunachal Pradesh.

➢ The border dispute still stands unresolved.

➢ It is divided into **three** sectors:

  ○ **Western Sector**: It falls in the Union Territory (UT) of Ladakh and is 1597 km long.

    ● It witnesses the highest transgressions between the two sides.

  ○ **Middle Sector**: It falls in Uttarakhand and Himachal Pradesh and is 545 km long.

    ● It is the least disputed sector between the two countries.

  ○ **Eastern Sector**: It falls in the states of Sikkim and Arunachal Pradesh and is 1346 km long.

    ● China claims Arunachal Pradesh as part of south Tibet which is firmly rejected by India.

UAE Issues Golden Card Visa

Why in News

Recently, the **United Arab Emirates** (UAE) has approved the issuance of a **10-year golden card visa** for more professionals, including PhD holders, physicians, engineers as well as graduates from certain universities.

➢ **Golden Visa** is **citizenship by investment or residency by investment program**. It is **directed to wealthy foreign nationals** who want to acquire residency in a certain country by investing a substantial amount of money or by purchasing a property.

Key Points

➢ **UAE's Golden Card Visa:**

  ○ It grants **10-year residency** to these visa holders and their families.

○ **Eligibility:**

  ● All holders of doctorate degrees, medical doctors and computer, electronics, programming, electrical and biotechnology engineers.

  ● Those with specialised degrees in **artificial intelligence** (AI), **big data** and **epidemiology**, as well as **high school students** living in the UAE who rank top in the country and students from certain universities with a **Grade Point Average** (GPA) **of 3.8 or higher**.

○ The changes will take place **from 1ˢᵗ December 2020**.

➢ **Background:**

  ○ Foreigners in the UAE usually have **renewable visas valid for only a few years tied to their employment**.

  ○ In **May 2019**, the UAE **started granting 5 and 10-year renewable visas** to certain foreign investors, entrepreneurs, chief executives, scientists and outstanding students, under the **Golden Card scheme**.

    ● The scheme offers unprecedented benefits to the cardholders and their families while creating an attractive environment for business and growth.

    ● It attracts greater foreign investment and stimulates the local economy, making it more efficient and attractive for investors.

    ● It also increases the UAE's competitiveness and reaffirms the country's position as a global incubator.

  ○ The government in the past couple of years has made its **visa policy more flexible**, **offering longer residencies** for certain types of investors, students and professionals.

➢ **Reasons Behind the Move:**

  ○ The UAE's economy has been hit hard by the **Covid-19 pandemic** and **low oil prices**, **prompting many expatriates to leave**. The move **intends to bring them back** now and keep the "talented people and great minds" in the Gulf country and **help in nation-building**.

  ○ It will **attract talented professionals from various fields** of expertise and further **encourage innovation, creativity and applied research**, adding to the appeal of a career in the UAE for the world's brightest minds.

➢ **Significance for India:**

  ○ It would **attract more Indian professionals and businessmen** to the Gulf nation and **strengthen the India-UAE Relations**.

Note:

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.

➢ **UAE Mars Mission:** In **July 2020**, the UAE launched a **Mars probe named Amal** (Hope) from Japan, marking the Arab world's first interplanetary mission.

➢ In **September 2020**, the UAE signed the **Abraham Accord with Israel and Bahrain**, which is the first Arab-Israeli peace deal in 26 years.

● The **Indian expatriate community is reportedly the largest ethnic community in the UAE**, constituting roughly **about 30%** of the country's population, which has played a major **role in the economic development** of the UAE.

○ It will also **facilitate the return of Indians who want to resume work** after the **relaxation of Covid-19-related restrictions**, for which **India had requested the members of the Gulf Cooperation Council** (GCC) in early November 2020.

Conflict in Ethiopia

Why in News

The Ethiopian prime minister Abiy Ahmed has vowed to continue the military operation in the **Tigray region** amid concerns it could descend into civil conflict.

Key Points

➢ **Military Operation:** Abiy has declared war on the country's Tigray region, which is ruled by the powerful **Tigray People's Liberation Front (TPLF)**, in response to its attack on a federal military base in Tigray.

➢ **Background:**

  ○ After becoming Ethiopia's Prime Minister in April 2018, **Abiy Ahmed** reached out to the political opposition, ushered democratic reforms, lifted

curbs on the media and made peace with Eritrea - moves that won him the **Nobel Peace Prize in 2019**.

● **Eritrea is a sworn enemy of the TPLF**, which shares a long border with the Tigray region.

○ He also **removed TPLF from senior government positions**. His push to concentrate more power in the hands of the government alienated the TPLF further.

● Abiy has formed a new political coalition, the Prosperity Party, all constituents of the Ethiopian People's Revolutionary Democratic Front (EPRDF), except the TPLF, joined the new platform.

○ When the **federal government postponed the general elections** in August to 2021 citing the **coronavirus pandemic**, **Tigray politicians** accused him of a power grab and **held elections**, in September, in the region, in defiance of the government.

○ Rising tensions led to an attack on the military base.

➢ **Tigray People's Liberation Front:**

○ It is a **militia-turned-party**, which was part of the coalition that brought an end to the military dictatorship in 1991.

● TPLF leader **Meles Zenawi** took over as the interim President in 1991 and **became the first elected Prime Minister** in 1995.

● He is largely seen as the **architect of the country's ethno-federal system** and remained in power till 2012.

○ It had played a **dominant role in the country's ruling coalition**, the Ethiopian People's Revolutionary Democratic Front (EPRDF - put together by Zenawi).

● Though the EPRDF **contains regional political parties** such as the Amhara Democratic Party,

Note:

the Oromo Democratic Party and the Southern Ethiopian People's Democratic Movement, the **TPLF remained the dominant political force.**

- The **Tigray people make up roughly 6% of the population**, while the **Oromos have a 34% share and the Amharas 27%**. The Oromos **have alleged marginalisation** and called for better representation.
  - Over the years, the government led by the EPRDF, was **accused of being increasingly authoritarian** and there were **frequent mass protests in the regions.**
  - In 2018, the **EPRDF chose Abiy**, a former military intelligence officer, to lead the government amid growing protests and a political deadlock.

➢ **Abiy's Stand:** Abiy, the country's **first Oromo leader**, claimed that his actions are not driven by ethnic calculations but rather **aimed at addressing the historic power imbalance in the country** and making **peace with the neighbours**.

➢ **Implications:**
  - ❍ TPLF has fired rockets into Eritrea from Tigray, **threatening a wider regional war in the Horn of Africa.**
    - Horn of Africa houses the countries of **Djibouti, Eritrea, Ethiopia and Somalia.**
  - ❍ Rebels also **fired rockets into the neighbouring Amhara region**. Even if Abiy is serious about keeping the operation short, it could **spill out of control given the underlying complexities of the conflict**. The TPLF has thousands of fighters under their command.
  - ❍ Also, the Tigray region **shares a border with Sudan**. The TPLF enjoyed good relations with Sudan's ousted dictator Omar Bashir.
    - Sudan has an **unresolved border dispute with Ethiopia**. If Sudan's new rulers keep the old links with the TPLF active and the border open for the rebels, the conflict could go on.
    - Earlier this year, in the midst of Ethiopia's long-standing conflict with Egypt over the construction of the **Grand Ethiopian Renaissance Dam** over the Blue Nile, Sudan had already found itself forcefully involved in the spat.
  - ❍ There have also been **reports of atrocities targeting civilians by both sides.** Many have even fled to Sudan.

India-Ethiopia Relations

➢ **Ethiopia is one of the largest recipients of long term concessional credit from India** in Africa.
  - ❍ Lines of Credit worth **more than USD1 billion** have been sanctioned to Ethiopia for sectors such as rural electrification, sugar industry and railways.

➢ **Tele-Education and Tele-Medicine services** under the **Pan African e-network Project** was launched in Addis Ababa in July 2007.
  - ❍ The Tele-Education project has been replicated by the Ethiopian side and linkages established between the Addis Ababa University and the Indian Institutes of Technology at Delhi and Kanpur.

➢ **Bilateral trade** between Ethiopia and India stood at USD 1.28 billion in 2018-19, out of which Indian exports to Ethiopia were USD 1.23 billion and imports were USD 55.01 million.
  - ❍ There are **more than 586 Indian companies in Ethiopia** employing more than 55,000 people with licensed investment of over USD 4 billion.
  - ❍ About 58.7% of Indian investments are in the manufacturing sector, followed by agriculture (15.6%).

➢ Indian Mission has been **celebrating the International Day of Yoga** in Addis Ababa. Mission held **Gandhi@150** celebrations in Addis Ababa (October 2020).

Suggestions

➢ Abiy can reach out to regional political leaderships, especially the TPLF, find common ground, and run the country peacefully by restoring the balance between ethnicities and regions and decentralising the federal government.

➢ The protection of civilian safety and security is essential. The **African Union** can play a role in this.

12ᵗʰ BRICS Summit

Why in News

The Prime minister of India while addressing the **12ᵗʰ BRICS** summit held online touched upon issues like **terrorism**, **Covid-19** pandemic and the need for **reforms in global bodies**.

➢ Russia was the host and chair of **BRICS** this year.

Key Points

- **India's Stand at the Summit:**
  - ○ **Terrorism:**
    - ● **Need to confront the countries** that supported and sponsored terror and ensure that terrorists and those who support and sponsor terrorists **should be held guilty** and this problem is addressed in a collective manner.
    - ● India acknowledged the Russian support to the **BRICS Counter-Terrorism Strategy** and reiterated its support to the strategy.
      - ■ It is well aligned with the **Brasilia Declaration** which condemned terrorism in all forms and manifestation.
      - ■ Earlier this year 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)** which also strengthened the war against terrorism.
  - ○ **United Nation Security Council (UNSC) Reforms:**
    - ● India raised the issue of **credibility and effectiveness** of the institutions that were necessary for global governance, and urged for support from **BRICS** partners.
  - ○ **Covid-19 pandemic:**
    - ● India addressed the issue of cooperation among the **BRICS** countries on the production of vaccines for **Covid-19**.
    - ● Referring to the post **Covid-19** economic hardships of the world, India highlighted the importance of **BRICS** in that scenario.
    - ● **BRICS** countries will play a significant role in the recovery of the post **Covid-19** world as **42%** of the world's population resides in the **BRICS** countries and the economies are the major engines of the world.
    - ● India also highlighted the scope of **increasing trade** among the **BRICS** countries.
  - ○ **Aatmanirbhar Bharat:**
    - ● India introduced **Aatmanirbhar Bharat**(self-reliant India) to the **BRICS.**
    - ● India said that the **Aatmanirbhar Bharat campaign** is based on the subject that a self-reliant and resilient India can become a force multiplier for the post **Covid-19** world order.
    - ● A **self-reliant India** would make solid **contributions** to the global value chains.

- **China's Stand:**
  - ○ It has offered to cooperate with India and other **BRICS** nations in the **development of vaccines** against the coronavirus
  - ○ China said it will open the **BRICS** partnership on a new industrial revolution innovation centre in the Chinese city of **Xiamen**.
  - ○ China supported the **BRICS counter-terrorism strategy** that called upon on all countries to take steps to prevent the use of their territories for terrorist activities against other countries or their own citizens.
  - ○ Also supported the **declaration** which talked about respect for territorial integrity of Syria, Libya, Iraq and in the context of the **UnitedNations.**
- **Russia's Stand:**
  - ○ **Russia** called for a joint effort by the **BRICS** countries on the development of the coronavirus vaccines.
  - ○ It also highlighted the importance of establishing a **Centre for Development and Research** of **BRICS** vaccines.
- **Importance of BRICS Summit for India and China:**
  - ○ It provides the Chinese and the Indian leadership an opportunity to exchange their thoughts on key priorities in the backdrop of the continued tension along their borders.
  - ○ Both the **Shanghai Cooperation Organisation** and **BRICS** have provided recent opportunities for exchange of ideas between the two sides.

Suggestions

- **BRICS**, being one of the pillars of the emerging fairer polycentric world order, plays an important stabilising role in global affairs.
- In the storming ocean of world politics, **BRICS** can contribute significantly in maintaining **international stability** and ensuring **global economic growth** and becoming a **united center** of the multipolar world.

India-Luxembourg Virtual Summit

Why in News

Recently, the **Prime Ministers of India** and the **Grand Duchy of Luxembourg** have held the **first-ever India-Luxembourg Virtual Summit**.

Note:

➢ Both countries have cordial and friendly relations for over more than seven decades since the **establishment of diplomatic relations in 1948**.

Key Points

➢ **Focus Areas:**
  ○ Strengthening **India-Luxembourg relationship in the post-Covid-19 world**, especially in the areas of financial technology, green financing, space applications, digital innovations and start-ups.

➢ **Promote Multilateralism:**
  ○ Strengthen cooperation on realising **effective multilateralism and combating global challenges** like the Covid-19 **pandemic**, terrorism and climate change.

➢ **New Initiatives:**
  ○ India welcomed **Luxembourg's announcement to join the International Solar Alliance** (ISA), and also invited it to join the **Coalition for Disaster Resilient Infrastructure** (CDRI).

➢ **Agreements Signed at the Summit:**
  ○ Memorandum of Understanding (MoU) between **India International Exchange (India INX)** and **Luxembourg Stock Exchange.**
  ○ MoU between State Bank of India (SBI) and Luxembourg Stock Exchange.
    ● Both these provide for cooperation in financial services, industry maintenance of orderly markets in securities, ESG (environmental, social and governance) and green finance in the local market.
  ○ MoU between **Invest India** and **Luxinnovation.**

● It provides for support and development of mutual business cooperation, including promotion and facilitation of inbound FDI, coming from or proposed by Indian and Luxembourgish investors.

India-Luxembourg Relations

➢ **Economic Relationship:**
  ○ Both countries have a **long-standing cooperation in the steel sector** and the leaders called upon businesses, including SMEs and startups, to **explore further opportunities** for expanding the economic relationship.
  ○ Both nations look forward to the **17th Joint Economic Commission** (JEC) between **India and the Belgium-Luxembourg Economic Union** to review the economic and trade relations.

➢ **Finance:**
  ○ The **proposed agreement** between the regulatory authorities **Commission de Surveillance du Secteur Financier** (CSSF) and the **Securities and Exchange Board of India** (SEBI) would deepen bilateral cooperation in the financial sector.
  ○ Luxembourg, as a **leading international financial centre in Europe**, can **act as an important bridge** to help connect India's financial services industry with international markets and reach European and global investors.

➢ **Space and Digital Cooperation:**
  ○ Both countries have an **ongoing space cooperation**, including in the domain of **satellite broadcasting and communications**.
  ○ **Luxembourg based space companies** have **started utilising the services of India** for launching their satellites into space.
    ● In November 2020, **Indian Space Research Organisation** (ISRO) **launched the PSLV-C49 mission**, which included 4 satellites from Luxembourg.
  ○ A **cooperation instrument in the area of exploration and use of outer space for peaceful purposes** is currently under discussion between the two Governments.
  ○ In the wake of the **pandemic**, both India and Luxembourg are **promoting digitalisation** through the "**Digital India**" programme and the "**Digital Luxembourg**" initiative respectively and agree to explore convergences between the two initiatives.

Note:

- ➤ **Higher Education and Research:**
  - ○ **Indian National Brain Research Centre** and the **Luxembourg Institute of Health** and the **Luxembourg Centre for Systems Biomedicine** have an ongoing collaboration in the field of **neurodegenerative diseases**.
    - Neurodegenerative diseases are a heterogeneous group of **disorders that are characterised by the progressive degeneration of the structure and function of the central nervous system or peripheral nervous system**.
    - Examples: **Alzheimer's disease** and **Parkinson's disease**.
  - ○ **IITs** in Bombay, Kanpur and Madras and the **National Law School of India** have **links** with the **University of Luxembourg** which will be **further expanded** for higher education and research in both countries.
- ➤ **Culture and People-to-people Ties:**
  - ○ In 2019, **Luxembourg** issued a **commemorative stamp to mark the 150th Birth Anniversary of Mahatma Gandhi**.
  - ○ Both countries intend to **conclude a Migration and Mobility agreement** to further strengthen mobility as well as an **agreement on an exemption of visas** for holders of diplomatic and official/service passports.
- ➤ **EU-India Relations:**
  - ○ In **July 2020**, a **virtual summit between India and the European Union** (EU) was held, where India expressed support for further intensification of the India-EU relationship, through strengthening cooperation in areas of common interest in the **Indo-Pacific region**, and through comprehensive, sustainable and rules-based connectivity.
  - ○ **Luxembourg**, as **one of the founding members of the EU**, has **played a constructive role** in supporting stronger India-EU ties, which becomes even more important for the **post-Covid-19 economic recovery**.
- ➤ **Multilateral Cooperation:**
  - ○ Luxembourg **welcomed India's election to a non-permanent seat** in the **UN Security Council** for the term 2021-2022 and reiterated its **support for the reforms in the UN Security Council**, including its expansion in both categories of permanent and non-permanent membership. It **supports India's candidature for the permanent membership** of the UN Security Council.
  - ○ Luxembourg supported India's entry into the **Missile Technology Control Regime** (MTCR) and India's participation in the **Nuclear Suppliers Group** (NSG).
  - ○ India supports **Luxembourg's candidatures to the UN Human Rights Council** for the term 2022-2024.
  - ○ Both **condemn terrorism in all its forms and manifestations** and agree on the need for continued cooperation to support international efforts at the UN and at forums like the **Financial Action Task Force** (FATF) to prevent and combat terrorism.

APEC Virtual Meet

Why in News

Recently, a virtual meeting of the **21-member Asia-Pacific Economic Cooperation (APEC)** forum was held.

- ➤ The meeting was **hosted by Malaysia. New Zealand** will also **host next year's APEC meetings** virtually due to the pandemic.

Key Points

- ➤ With **growth in the Asia-Pacific region expected to decline by 2.7%** this year, from a 3.6% growth in 2019, APEC's focus was on accelerating economic recovery and developing an affordable vaccine.
- ➤ **Focus Areas:** Trade and investment, Digital Economy and Technology, Structural Reform, Economic and Technical Cooperation and Thematic and institutional matters.
  - ○ APEC leaders adopted the **Putrajaya Vision 2040,** a new 20-year growth vision to **replace the Bogor Goals** named after the Indonesian town where leaders agreed in 1994 to free and open trade and investment.
  - ○ Recognised the **importance of a free, open, fair, non-discriminatory, transparent and predictable trade and investment environment** to drive economic recovery at such a challenging time (Covid-19).
  - ○ Discussed the **Free Trade Area of the Asia-Pacific (FTAAP) agenda** and the **APEC Internet and Digital Economy Roadmap (AIDER).**
- ➤ **China has become the main driving force** behind the grouping after the **United States began withdrawing from multilateral bodies** during Trump's presidency.
  - ○ But Trump made the surprise decision to take part in this year's event, after **not participating at APEC since 2017.**

Note:

➢ **China's Stand:**
- ❍ It vowed to keep its "super-sized" economy open for business and warned against protectionism as the world battles the Covid-19 pandemic. It needs to be noted that Trump's **"America First"** policy has alienated trading partners.
  - ● After the signing of the world's largest trade pact **'Regional Comprehensive Economic Partnership (RCEP)'**, China is trying to set the agenda for global commerce.

Asia-Pacific Economic Cooperation
➢ **Established**: 1989
➢ **Members: 21**
➢ **India is not a Member.**
➢ **Member Nations**: Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, Philippines, Russia, Singapore, Chinese Taipei, Thailand, Vietnam and the United States.
➢ Its 21 member economies are home to around **2.8 billion** people and represented approximately **59% of world GDP** and **49% of world trade** in 2015.

India and APEC
➢ India had requested membership in **APEC**, and received initial support from the United States, Japan, Australia and Papua New Guinea. Officials have decided **not to allow India to join as India does not border the Pacific Ocean, which all current members do.**
➢ India was invited to be an **observer for the first time in November 2011.**
➢ **Reasons for India to join APEC:**
  - ❍ India will be more integrated with the global economy since APEC economies constitute an important trading bloc in the world.
  - ❍ It will help India bargain and negotiate a better deal with the countries of the Asia-Pacific region.
➢ **Expected Benefits to APEC:**
  - ❍ In India, APEC will find an **alternate market** for labour, consumers and investments, and an additional counterweight to help check unilateral economic ambitions in the region.
  - ❍ It will also help APEC embrace s**ome notion of 'Indo-Pacific'** and give it a renewed purpose in a renewed 21ˢᵗ century.

- ● Although China is promoting openness in trade, its own actions go against it, for example:
- ● Australian exports of beef, wine and barley to China, their biggest market, have been restricted.

RCEP & Sri Lanka's Dilemma

Why in News

Various economists have speculated chances of Sri Lanka joining **Regional Cooperation Economic Partnership** (RCEP) and its impact on the island nation.
➢ Recently, the RCEP, a mega trade bloc comprising 15 countries, has come into existence.
➢ Even as **India opted to stay out** after walking out of discussions last year, the new trading bloc has made it clear that the door will remain open for India to return to the negotiating table.

Key Points

➢ **Advantages to Sri Lanka on joining RCEP:**
- ❍ **Trade expansion:**
  - ● Diversify its trade basket in the asia pacific region and beyond.
  - ● Many leaders in the past have argued that Sri Lanka needs to turn more eastward in its economic and trade diplomacy.
- ❍ **Strategic location:**
  - ● Sri Lanka is located along one of the busiest shipping routes in the world.
  - ● Recently, the Prime Minister of Sri Lanka said that the country must develop the Hambantota and Colombo Ports together with the Airports to be at a centre in the international commercial processes.
- ❍ In the current situation amid a **global pandemic, no country can stick to an isolationist policy.**
➢ **Challenges in joining:**
- ❍ **Unclear Trade policy:**
  - ● The government's position on **Free Trade Agreements** (FTA) has not been consistent.
    - ■ For example, the proposed Economic and Technology Cooperation Agreement (ETCA) with India has not been finalised, while the country has expressed interest to revive Free Trade Agreement (FTA) negotiations with China.

Note:

■ The government is also re-examining the FTA signed with Singapore.

○ **Increase in Competition:**

● RCEP would make it more difficult for Sri Lanka to compete with the **markets** of Vietnam, Cambodia, Laos, etc. in other countries unless a **bilateral agreement** is finalised.

○ **Pandemic**, marked by the disruption to **global supply chains**, led to a critique of globalization making Sri Lanka suspicious of joining it.

○ **Sri Lanka's Dilemma:**

● India will be a powerful economy in the world in the next decade. China together with several other Asian countries (part of RCEP) will be amongst the five most powerful economies in the world.

● India and China are also two biggest sources of imports for the country.

● Thus it would be tough for Sri Lanka to decide whether to join China led RCEP or side with India by not joining it.

➤ **Concerns for India:**

○ Sri Lanka joining RCEP will increase the **influence of China** in India's neighbourhood.

● The government of Sri Lanka has a focus on China-backed 1.4 billion USD Colombo Port City as a hub for international business and investment.

○ Reduce Sri Lanka's dependency on India.

○ Sri Lanka has a list of highly strategic ports located among busiest sea lanes of communication. India may get limited access to them.

Japan Signs Pact with Maldives

Why in News

Japan, India's strategic partner in the Indo-Pacific region, has recently signed a pact to strengthen Maldives security infrastructure that would contribute to stability in the Southern Indian Ocean.

Key Points

➤ The Maldives and Japan recently signed an agreement under the **Economic and Social Development Programme** of the Government of Japan.

○ Under it, a **grant aid of 800 million Japanese Yen** is to be extended to the Maldives Coast Guard and the Maritime Rescue and Coordination Center.

➤ The grant aid will be utilized to **further strengthen the capabilities** of the Maldives Coast Guard, the Maritime Rescue and Coordination Center, Sub-Regional Centers and Vessels.

○ This includes the provision of **communications equipment, professional search and rescue dive equipment** to be used by the Maldives Coast Guard during search and rescue operations.

➤ Previously in October 2019, Japan donated 21 paramedic ambulances to the Maldives health sector.
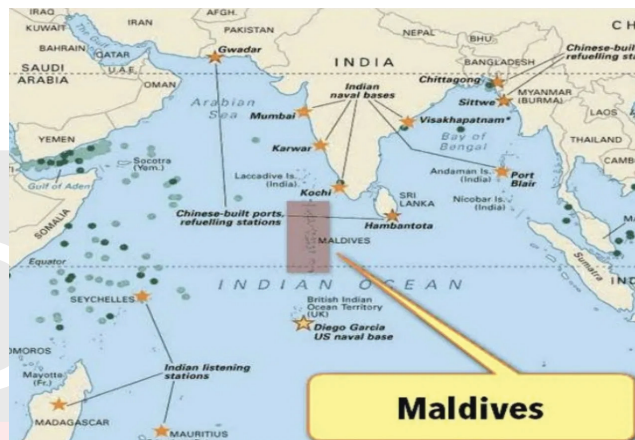
➤ **Benefits:**

○ Combating **Piracy,**

○ Countering **violent extremism** and **narco-trafficking.**

○ Ensuring **a free and open Indian Ocean** that would bring about peace and prosperity to the region.

● The Indian Ocean archipelago, that is home to nearly **4 lakh people**, assumes geopolitical significance, owing to its strategic location.

➤ **Significance for India:**

○ **Maldives, a Toll Gate in Indian Ocean:**

● Located at the southern and northern parts of this island chain lies the two important **sea lanes of communication** (SLOCs).

● These SLOCs are critical for maritime trade flow between the **Gulf of Aden and Gulf of Hormuz in West Asia and the Strait of Malacca in Southeast Asia.**

● The SLOCs are of vital importance for India since nearly **50% of India's external trade and 80% of her energy imports transit these westward SLOCs in the Arabian Sea.**

Note:

d**rishti**

○ **Pact with a Quad Member:** The "grant aid" is the Maldives's **second major pact** with a member of the **'Quad',** an informal strategic grouping of the USA, Japan, Australia and India.

● Previously, **a framework related to defence and security was signed with the USA.**

● Quad member countries' **Foreign Ministers** met in **Tokyo** in October and held discussions, including on ways to **counter Chinese presence and influence in the region.**

India-Thailand Coordinated Patrol

Why in News

Recently, the 30th edition of **India-Thailand Co-ordinated Patrol** (CORPAT) has been concluded in the **Andaman Sea** close to the **Strait of Malacca**.

Key Points

➢ **Naval Exercise: India** and **Thailand** have been carrying out **CORPAT** along their International Maritime Boundary Line **twice a year since 2005.**

○ **Indian Naval Ship** (INS) *Karmuk* (an indigenously built Missile Corvette) and **Thailand Frigate HTMS *Kraburi***, along with **Dornier Maritime Patrol Aircraft** from both the navies participated in the 30th edition.

➢ **Aims:**

○ To keep **part of the Indian Ocean safe and secure** for commercial shipping and international trade.

○ To **ensure effective implementation** of the **United Nations Conventions on Laws of the Sea** (UNCLOS).

● UNCLOS specify regulations regarding protection and conservation of natural resources, conservation of the marine environment, prevention and suppression of illegal, unregulated fishing activity, drug trafficking, piracy, exchange of information in the prevention of smuggling, illegal immigration and conduct of search and rescue operations at sea.

➢ **In line with India's SAGAR Vision:**

○ As part of Indian Government's vision of **Security And Growth for All in the Region** (SAGAR), the Indian Navy has been involved in assisting countries in the **Indian Ocean Region** with **Exclusive Economic Zone** (EEZ) **Surveillance**, **Humanitarian Assistance and Disaster Relief** (HADR), and other capacity building and capability-enhancement activities, on their request.

➢ **Other Military Exercises between India and Thailand:**

○ **Exercise MAITREE** (Army).

○ **Exercise SIAM BHARAT** (Air Force).

Trilateral Maritime Exercise SITMEX-20

Why in News

Recently, the **second edition** of **Singapore-India-Thailand Maritime Exercise** (SITMEX), a **trilateral naval exercise** has been concluded in the **Andaman Sea**.

Key Points

➢ **Background:**

○ The **Prime Minister of India**, during his keynote address at **Shangri-La Dialogue** in **June 2018** announced the conduct of a trilateral naval exercise between India, Singapore and Thailand.

● The **International Institute for Strategic Studies** (IISS) **Shangri-La Dialogue** is **Asia's premier defence summit**. It was **launched in 2002**.

➢ **About:**

○ SITMEX is conducted **annually**.

○ The **first edition of SITMEX**, hosted by **Indian Navy**, was conducted off Port Blair in **September 2019**.

○ The exercise is in line with **India's Security and Growth for All in the Region (SAGAR) vision**.

➢ **Aim:**

○ To enhance **mutual interoperability and imbibing best practices** between Indian Navy, Republic of Singapore Navy (RSN) and Royal Thai Navy (RTN).

○ To **strengthen mutual confidence and develop common understanding** and procedures towards enhancing the **overall maritime security in the Indo-Pacific region**.

- ➢ **2020 Edition:**
  - ○ The exercise is being **hosted by RSN**.
  - ○ The **Indian Navy** deployed **indigenous Anti-Submarine Warfare corvette INS Kamorta** and **missile corvette INS Karmuk** for the exercise.
- ➢ **Other Military Exercises between India and Thailand:**
  - ○ **MAITREE** (Army).
  - ○ SIAM BHARAT (Air Force).
  - ○ **Indo-Thai CORPAT** (Navy).
- ➢ **Other Military Exercises between India and Singapore:**
  - ○ **Bold Kurukshetra** (Army).
  - ○ Joint Military Training (Air Force).
  - ○ SIMBEX (Navy).
    - ● **Indian Navy** is scheduled to **host** the **27th edition of India-Singapore Bilateral Maritime Exercise SIMBEX-20** from 23rd to 25th November 2020 in the Andaman Sea.
    - ● It has been **conducted annually since 1994**.

Withdrawal of US Troops from Afghanistan

Why in News

America's latest plan to speed up the withdrawal of more troops from Afghanistan may jeopardize the fragile **peace process** underway in Afghanistan.

Key Points

- ➢ **India's Stand:**
  - ○ India has been concerned that the Afghan peace process and premature withdrawal of **NATO/US coalition forces could leave opportunities for terrorist networks** that could target both Afghanistan and India.
  - ○ As recently as May of this year, the **UN issued a report** providing evidence that despite assurances from the Taliban to the United States, **Al Qaeda is still present and active in Afghanistan**, harboured by the Taliban.
    - ● In India, Al Qaeda continues to run a propaganda campaign that seeks to capitalise on differences between the Hindu majority and Muslim minority.
  - ○ At a recent **United Nations Security Council (UNSC) meeting**, convened under the **Arria Formula** (infor-

mally convened at the request of a UNSC member), India called for an "immediate comprehensive ceasefire" in Afghanistan, while welcoming all opportunities to bring peace to the country.
    - ● India also described its **reconstruction and development assistance** to Afghanistan over the last nearly two decades.
    - ● According to India, for durable peace in Afghanistan, there is a need to put an end to terrorist safe havens and sanctuaries **operating across the Durand Line** (in reference to Pakistan).
      - ■ The Durand Line is the **international 2,670 km land border** between Afghanistan and Pakistan in South-Central Asia.
  - ○ India **outlined four requirements** for peace and stability in Afghanistan:
    - ● First, the process **had to be Afghan-led and Afghan-owned.**
    - ● Second, there must be **zero tolerance for terrorism**.
    - ● Third, the **gains of the last two decades cannot be lost**.
      - ■ In particular, India is convinced that the rights of women need to be strongly protected. Further, the rights of the minorities and the vulnerable need to be safeguarded.
      - ■ India has invested heavily in various Infrastructure projects in the region, for example - Zaranj Delaram Highway, Afghan Parliament etc.
    - ● Fourth, the **transit rights** of Afghanistan should not be used by countries "to extract political price from Afghanistan".
      - ■ A **reference to Pakistan** obstructing the flow of persons and materials outside of Afghanistan, impacting, for instance, India-Afghanistan trade.
  - ○ India **assured Afghanistan of its support** in its quest for peace during **India's UNSC term.**
    - ● India's two year term on the non-permanent seat will begin on 1st January 2021.
- ➢ **China's Stand:**
  - ○ China has called on foreign troops to leave Afghanistan in an **orderly and responsible manner**, give terrorist forces no breathing space and contribute to Afghanistan peace and reconciliation process.

Note:

○ China is concerned that the war-torn country Afghanistan, which shares borders with the volatile Xinjiang province of China, could become a breeding ground for **Uighur Muslim militants.**

● Uighur is a predominantly **Turkic-speaking ethnic group.** They are primarily confined in China's **northwestern region of Xinjiang** and is one of the largest Muslim group in that region.

● China insists that **Uighur militants are waging a violent campaign for an independent state** by plotting bombings, sabotage, and civic unrest.

● China has faced **international criticism** over allegations that it is holding over a million people, **mostly ethnic Uyghurs,** in internment camps in Xinjiang to curb religious extremism.

○ USA's withdrawal also coincides with its move to **lift the ban on the Uighur militant group** -- the **East Turkestan Islamic Movement** (ETIM).

● **China is averse to ETIM**, an al-Qaeda backed militant group regrouping in Afghanistan to carry out attacks in Xinjiang.

● ETIM was **designated as a terrorist organisation by th**e **UN's 1267** counter-terrorism committee in 2002 for its alleged association with al-Qaida, Osama bin Laden and the Taliban.

Agreements Between India-Bahrain

Why in News

Recently, **India and Bahrain** have agreed to **further strengthen their historic ties, including in areas of defence and maritime security**.

➢ Bahrain is a member of the **Gulf Cooperation Council** (GCC) and signed the **Abraham Accord** with Israel and the UAE, which was mediated by the USA.

Key Points

➢ The **bilateral issues**, as well as **regional and global matters of mutual interest**, included areas of defence and maritime security, space technology, trade and investment, infrastructure, IT, FinTech, health, hydrocarbon and renewable energy.

➢ Both sides affirmed to further **strengthen their Covid-19** related cooperation.

○ Bahrain **appreciated the assistance provided by India during the pandemic** through the supply of medicines, medical equipment and medical professionals.

○ They expressed satisfaction on the **operationalisation of the Air Bubble** arrangement between the two countries.

● **Air bubbles** (travel corridors or **travel bubbles**) are systems established between two countries that perceive each other to be safe and allow carriers of both the countries to fly passengers either way without any restrictions.

➢ India **renewed invitation to Bahrain** for visiting India for the **3ʳᵈ India-Bahrain High Joint Commission** meeting to be held in the upcoming months.

➢ In **2019**, India launched a **USD 4.2 million redevelopment project of the Sri Krishna temple** in the Bahraini capital, **Manama**.

○ The **200-year old temple** stands as a testimony for the enduring India-Bahrain friendship.

➢ India also conveyed **condolences on the demise of late Prime Minister Prince Khalifa bin Salman Al Khalifa**, who significantly **contributed to the strengthening of India-Bahrain relations** and to the welfare of the Indian community in Bahrain.

India-Bahrain Relations

➢ **Historical Ties:**

○ Their history goes back to **about 5,000 years ago**, to the period of **Dilmun Civilization in Bahrain** to the era of **Indus valley civilization** in India.

○ Ancient Bahraini traders are believed to have carried out a flourishing trade of **Bahraini pearls with Indian spices**.

➢ **Bilateral Agreements/Memorandums of Understanding (MoUs):**

○ **Extradition** Treaty (January 2004)

○ MoU on cooperation in the field of Information and Communication Technology (May 2012)

○ MoU on the establishment of a Joint High Commission (February 2014)

○ MOU on Water Resources Development and Management (February 2015)

○ Agreement on cooperation in combating international terrorism, transnational organised crime and trafficking in illicit drugs, narcotics and

psychotropic substances and precursors chemicals (December 2015)

- ○ MoU for cooperation in the fields of Renewable Energy and Healthcare and Agreement on Exemption from Short Stay Visa for Holders of Diplomatic and Special/Official Passport (July 2018)
- ○ MoU on cooperation in the exploration and uses of **Outer Space** for Peaceful Purposes (March 2019)

➢ **Trade and Economic Relations:**
- ○ Total bilateral trade stands at **USD 1282.96 million in 2018-19** and **USD 753.60 million in 2019-20** (April-Dec).
- ○ **Indian Exports to Bahrain:** Mineral fuels and oils, inorganic chemicals, organic or inorganic compounds of precious metals of rare earth, cereals, nuts, fruits, articles of apparel and clothing accessories etc.
- ○ **Indian Imports from Bahrain:** Crude oils, mineral fuels and their bituminous substance, distillation, aluminium, fertilizers, ores/slags/ashes of aluminium, iron and copper, pulp, etc.
- ○ **Indian investment in Bahrain:**
  - India's total capital investment into Bahrain between January 2003 and March 2018 has been estimated at **approximately USD 1.69 billion**.
  - **Financial services** have the highest investment value (40% of total projects), followed by the **real estate and hospitality sector**.

➢ **Indian Expatriate Community:**
- ○ **Approximately 3,50,000 Indians are living in Bahrain currently** and around 70% are in the category of unskilled labour.
- ○ In addition to the predominant blue-collar labour force, there is a sizable number of other professionals who play a **vital role in Bahrain's socio-economic development**.
- ○ In **November 2015**, Bahrain launched '**Little India in Bahrain**' project to acknowledge and mark the contribution of the Indian community to the history and progress of Bahrain.

G 20 Summit

Why in News

Recently, at the **G20 (Group of Twenty)** summit **held virtually India** called for a **"New Global Index"** for the post-Corona world.

➢ **New Global Index** will be based on **4 pillars of**
- ○ **Talent,**
- ○ **Technology,**
- ○ **Transparency and**
- ○ **Trusteeship towards the planet.**
➢ This year's summit was hosted by **Saudi Arabia.**

Key Points

➢ **Talent:**
- ○ The **focus** must shift to **multi-skilling** and **reskilling** from **capital and finance** to create a vast **human talent pool.**
- ○ Indian initiatives such as the **National Skill Development Mission (NSDM)** which aims to create convergence across sectors and States in terms of **skill training activities** is already in direction of creating a **vast human talent pool**.
- ○ India's **New Education policy** and programmes such as **Pradhan Mantri Innovative Learning Program (DHRUV)** are well aligned with this element.
➢ **Technology:**
- ○ Ensuring that technology reaches all segments of the society and the value of new technologies should be measured by thei**r benefit to humanity**.
- ○ India suggested that as **follow-up action** and creation of a G20 virtual secretariat as a **repository of documentation**.
- ○ **Digitial India** and **E-governance** campaigns of India have increased people's access to technology and other government services.
➢ **Transparency:**
- ○ Reforms such as **Right to Information** and **Ease of Doing Business** promote transparency in governance in India.
➢ **Trusteeship:**
- ○ The world should deal with the environment and nature as **trustees** rather than **owners** which would inspire us towards a **holistic and healthy lifestyle.**
- ○ Climate change must be fought not in silos but in an **integrated, comprehensive and holistic way.**
- ○ A principle whose benchmark could be a **per capita carbon footprint**. A **carbon footprint** is the amount of **greenhouse gases** primarily carbon dioxide released into the atmosphere by a particular human activity.
➢ **Future meetings:** Italy in 2021, Indonesia in 2022, **India in 2023** and Brazil in 2024.

drishti

India's Initiatives for Lowering Emissions

➢ **Infrastructure Push**: India's **next-generation infrastructure** push will not only be **convenient and efficient**, but will also contribute to a **cleaner environment.** E.g.: Coalition for Disaster Resilient Infrastructure, announced by the Prime Minister at the Hamburg G20 meet in 2017. This will act as a convening body that will pool best practices and resources from around the world for reshaping construction, transportation, energy, telecommunication and water, so that building in these core infrastructure sectors factors in natural catastrophes.

➢ **Producing Clean Energy:** The India-France joint initiative of **International Solar Alliance (ISA)**.

    ❍ **ISA** will contribute to reducing **carbon foot-print.**

    ❍ India will meet its goal of **175 GigaWatts** of **renewable energy** as a part of its climate commitments made under the **paris climate deal** well before the target of **2022.**

    ❍ **Unnat Jyoti by Affordable LEDs for All (UJALA) and LED Street Lighting National Programme (SLNP)** scheme has made **LED** lights popular, saving around **38 million tons of carbon dioxide emissions** per year.

    ❍ **Ujjwala Scheme**: **Smoke-free kitchens** have been provided to over **80 million households** making it among the **largest clean energy drives** globally.

➢ **Combat Desertification: The United Nations Convention to Combat Desertification (UNCCD)** links development and environment to sustainable land management and aims to combat desertification and the ill-effects of drought.

G20

➢ It is an **informal group of 19 countries and the European Union**, with representatives of the **International Monetary Fund** and the **World Bank.**

➢ The G20 membership comprises a mix of the world's largest advanced and emerging economies, representing about **two-thirds of the world's population, 85% of global gross domestic product**, 80% of **global investment** and over **75% of global trade.**

➢ **Members**: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, United States, and the European Union.

➢ **Clean Air & Water:** The **National Clean Air Programme (NCAP)** aims to decrease air pollution and **Namami Gange program** seeks to rejuvenate river Ganga and show the **spirit of trusteeship in governance**.

New Chinese Village in Bhutan

Why in News

Recently, Chinese media has claimed that a **new border village** built by **China** near **Bhutan** was on Chinese territory.

➢ However, the released images of the village show its **location on territory disputed by the two countries**.
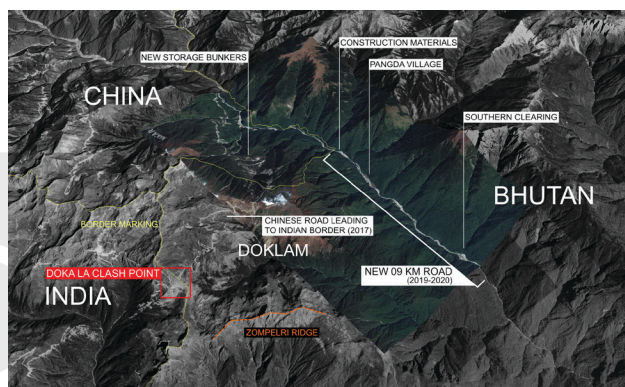
Key Points

➢ The village of **Pangda** has been **newly built** and authorities in **Yadong county** (an administrative region) of **Southwest China's Tibet Autonomous Region** have confirmed that 27 households with 124 people voluntarily **moved from Shangdui village to Pangda village** in September 2020.

➢ It is for the **first time since 2017** that a Chinese **residential area has been noticed near the Doklam region**, which is **strategically important for India**.

    ❍ Pangda is east of the **India-Bhutan-China trijunction on the Doklam plateau**, which was the site of a **72-day stand-off in 2017** triggered by China's road-building up to where it sees its border.

➢ **Bhutan's Stand:** It **has officially denied the presence** of any Chinese village in its territory.

➢ **India's Stand:** India sees it as an **attempt by China to unilaterally push the trijunction further**.

    ❍ China in the past too, has tried to reinforce its territorial claims in disputed areas with the neighbouring countries by building civilian settlements.

- ❍ For example, on **disputed South China Sea islands** and **Bhutan's Trashigang district**.
- ➤ **China's Stand**: According to China's maps, the village is within China's territory.
  - ❍ It also blames India for the **unsettled China-Bhutan border** and **stalled negotiations** by creating the illusion that China is encroaching on Bhutanese territory.

Indo-Bhutan Relationship

- ➤ **Indo-Bhutan Treaty of Peace and Friendship, 1949:**
  - ❍ The treaty provides for, among other things, **perpetual peace and friendship**, **free trade and commerce** and **equal justice** to each other's citizens.
  - ❍ In **2007**, the treaty was **re-negotiated**, and provisions were **included to encourage Bhutan's sovereignty**, abolishing the need to take India's guidance on foreign policy.
- ➤ **Multilateral Partnership:**
  - ❍ Both of them share multilateral forums such as **South Asian Association for Regional Cooperation** (SAARC), **Bangladesh, Bhutan, India, and Nepal Initiative** (BBIN), **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation** (BIMSTEC), etc.
- ➤ **Hydropower Cooperation:**
  - ❍ **Agreement on Cooperation in Hydropower 2006:** Under a protocol to this agreement, India has agreed to **assist Bhutan in the development of a minimum of 10,000 MW of hydropower** and **import of surplus** electricity from the same by 2020.
- ➤ **Trade:**
  - ❍ The trade between the two countries is governed by the **India Bhutan Trade and Transit Agreement 1972** which was last **renewed in November 2016**.
  - ❍ The agreement establishes a **free-trade regime** between the two countries and also provides for **duty-free transit of Bhutanese exports to third countries**.
- ➤ **Economic Assistance:**
  - ❍ India is Bhutan's leading development partner. Since the launch of the **First Five Year Plan** (FYP)

of **Bhutan in 1961**, India has been **extending financial support** to Bhutan's FYPs.
  - ❍ India has allotted **Rs. 4500 crore to Bhutan's 12th FYP** (2018-23).
- ➤ **Educational and Cultural Cooperation:**
  - ❍ A large number of college-going Bhutanese students are studying in India. The Government of India provides a number of **scholarships to Bhutanese students**.
- ➤ **Environment:**
  - ❍ In **June 2020**, the Union Cabinet approved the signing of a **Memorandum of Understanding (MoU) with Bhutan** for cooperation in the field of **environment protection and management of natural resources**.
- ➤ **Support during Pandemic:**
  - ❍ India has maintained close coordination with Bhutan and has included it in plans for containment of the **Covid-19 pandemic**.
  - ❍ It launched the **second phase of the RuPay card in Bhutan** to **increase the domain of digital transactions** in Bhutan.
    - ● Bhutan is the second country to accept the RuPay card **after Singapore**.

India's Assistance to Afghanistan

Why in News

Recently, at the **Afghanistan 2020 Conference**, India has announced about 150 projects worth USD 80 million.

- ➤ Afghanistan's President, officials from the **United Nations** (UN) and the **European Union** (EU) officials, besides representatives of other countries, attended the conference.
- ➤ Also, the **USA has decided to reduce its troop presence** in Afghanistan to about 2,500 **by January 2021**.

Key Points

- ➤ **India's Current Assistance:**
  - ❍ India will launch **phase-IV of high-impact community development projects**, which include around **150 projects worth USD 80 million**.
  - ❍ It has signed an agreement for building the **Shahtoot dam**, which would provide **safe drinking water** to 2 million residents of Kabul city.

Note:

- It builds on the 202 km **Pul-e-Khumri transmission line of 2009**, through which India provides power to the city.

➤ **Earlier Assistance:**
❍ India's development programmes in Afghanistan are focused around **five pillars:**
- Large infrastructure projects.
- Human resource development and capacity building.
- Humanitarian assistance.
- High-impact community development projects.
- Enhancing trade and investment through air and land connectivity.

❍ **Since 2001**, India has committed **USD 3 billion** towards rebuilding and reconstruction of Afghanistan.
- During the **Taliban years from 1996 to 2001**, **India did not invest** in Afghanistan.

❍ **Chabahar Port** in Iran, which provides **alternate connectivity to Afghanistan**.
- Afghanistan's growth has been constrained by its landlocked geography and Pakistan blocking transit access made the situation even worse.

❍ **Pandemic Support:** India sent more than 20 tonnes of **medicines, other equipment** and **transported 75,000 tonnes of wheat** to Afghanistan to address the **Covid-19** challenge.

➤ **Shift in Indian Perspective:**
❍ The Indian government's decision to invest in Afghanistan's future, where the Taliban is set to play a dominant role, is being seen as a **major departure from the past**.
- **India also participated in the commencement ceremony of the intra-Afghan talks in Doha in September 2020**, where a 21-member Taliban team was also present. It **reflects India's realisation of ground realities and shifting sands in Kabul's power structure**.

➤ **Reduction of Troops by USA:**
❍ In **February 2020**, the **USA and the Tabilan signed an agreement** in Doha, (Qatar's capital).
- According to it, the **USA would withdraw all of its troops from Afghanistan in 14 months** and would also **release** **Taliban prisoners**, held captive by the Afghan government.

- In return, the **Taliban assured** that they would **not allow** transnational jihadist organisations such as **al-Qaeda** and the **Islamic State** to **use Afganistan as their base** and also **committed to start direct talks with the Afghan government**, which began in September 2020.

- With the **USA leaving at such a crucial point**, it **not only deprives Afghan forces of the support they need**, particularly the **airpower**, but also **affects their morale**.

- The **North Atlantic Treaty Organization** (NATO) has **committed to funding Afghan troops for four more years**.

❍ However, this decision **will leave Afghanistan with an uncertain future** as the **Taliban is expected to take over** after the troops' withdrawal.
- The Taliban, who were **ousted from power in 2001 after the USA invasion**, have since been fighting both foreign troops and the Afghan government.
- It now controls more than half of the country and contests the whole of it.
- Since the agreement was signed, the Taliban have **conducted more than 13,000 attacks** nationwide.
- According to a **UN Assistance Mission in Afghanistan** (UMAMA) report in October 2020, nearly **6,000 Afghan civilians were killed** in the first nine months of the year and **45% of the deaths were by the Taliban**.

HELPING HAND
India's pledged assistance to Afghanistan stands at $3.1 billion since November 2001.

AFGHANISTAN

Infrastructure projects with Indian help:
1 A 218 km-road project from Zaranj to Delaram in south-western Afghanistan.
2 A 220 kV DC transmission line from Pul-e-Khumri to Kabul.
3 The Salma Dam power project in Herat province.
4 The Afghan parliament and the Indira Gandhi Institute of Child Health and Habibia School, both in Kabul.
5 A 220/110/20 kV substation at Chimtala.

Note:

China-Nepal Bilateral Cooperation

Why in News

Recently, China and Nepal have discussed **various issues of bilateral interest**, including bolstering **military cooperation** between the countries, issues pertaining to resumption of training and **student exchange programs** and follow up on **defence assistance** that have been impacted due to the **Covid-19 pandemic**.

Key Points

➢ **Historical Background:**
  ○ In **1955**, Nepal established diplomatic relations with China.
  ○ It **recognised Tibet as part of China** in **1956** and signed the **Treaty of Peace and Friendship in 1960.**
  ○ **In the 1970s**, when **King Birendra of Nepal proposed Nepal as a "zone of peace" between India and China**, India did not show keen interest, while China was quite supportive. These and many such issues created a **rift in Nepal-India ties**; while at the same time China has been proactive to **support and aid Nepal**.
  ○ Indo-Nepalese relations took a turn in **2015**, when **India imposed an informal yet effective blockade on Nepal**, thus **causing acute fuel and medicine shortages in Nepal.**
  ○ Nepal imports **almost all of its oil through India**, as road links to China through the Himalayas had been blocked since the earthquakes of April and May 2015.
  ○ As tensions with India mounted, **China reopened its border with Nepal**, in Tibet.
  ○ After the recent visit of Chinese President, Nepal has reiterated its commitment to **'One-China policy'**, promising **not to allow** any forces to **use its territory against China**.

➢ **China's Interest:**
  ○ Although Nepal and India have an **open border and free mobility** of people across borders; it is China that is increasingly working to take over India's position of th**e largest trading partner of Nepal**.
    ● India is the **largest economy of south Asia and has been emerging as a leader of south Asian countries**.

  ● China wants to **contain India's growing power and status** which may become a threat to Chinese dream of becoming the superpower.
  ○ The **growing influence of India in Tibet** had grave security considerations for China.
  ○ Thus, **preserving the balance of power in southern Asia in its favour** and **securing Nepal's active cooperation to prevent its rivals** use of the country for **anti-Chinese activities became principal strategic objectives of Beijing's Nepal policy.**
  ○ Nepal's northern border with China lies entirely with Tibet and China sees security cooperation with Nepal as critical in controlling the **Tibetan matters**.
    ● In this pursuit, **China is following security diplomacy vis-à-vis Nepal.**

➢ **Nepal's Benefit:**
  ○ For Nepal, China serves as a **potential supplier of goods and assistance** that it needs in order to recover its economy.
    ● Almost half the population of Nepal is unemployed and more than half is illiterate. At the same time, more than **30 per cent of the people in Nepal live in poverty**.
    ● To **deal with its internal problems**, Nepal needs to engage with China to overcome its **poverty & unemployment**.
  ○ Nepal with China will gain the mileage in negotiations and **counter India's Big Brother approach.**
  ○ Through **China Nepal Economic Corridor**, Nepal seeks to end Indian dominance over its trade routes by increasing connectivity with China.

➢ **India's Concern:**
  ○ Given the difference in the strategic weight of China and Nepal, **security diplomacy** can be used as a tool by China to **interfere in the internal affairs of Nepal.**
  ○ Since Nepal acts as a buffer state for India, seeing it slip into China's sphere of influence, will **not be in India's strategic interest.**
  ○ Also, China's interest in **"security diplomacy"** is not limited to Nepal.
  ○ **China's deep pockets** make it difficult for India to control the expansion of China's influence in India's neighbourhood.
  ○ **China Nepal Economic Corridor** can lead to China dumping consumer goods through Nepal which will worsen India's trade balance with China further.

Note:

India-Vietnam Talks

Why in News

Recently, **Defence Ministers of India and Vietnam** have discussed collaboration in defence industry capability building, training and cooperation in United Nations (UN) peacekeeping operations, etc.

Key Points

➢ **Defence Cooperation:** Both countries reaffirmed the strong **India-Vietnam Defence cooperation** which is a key pillar of **Comprehensive Strategic Partnership** (2016).

○ Underlining the vision of **"Atman-irbhar Bharat"** for enhancing self-reliance including defence industries, India **urged closer defence industry cooperation** by concluding an **institutionalised framework agreement in the near future**.

○ Vietnam thanked India for the **assistance by Indian Armed Forces in capacity building of Vietnamese Defence Forces** especially in the field of Human Resource development.

○ **India** conveyed its willingness to **enhance the scope and level of training for all three services** of Vietnam Defence forces in Indian Defence Institutes.

○ It needs to be noted that the two countries **have built ties** on the procurement of weaponry and military hardware, capacity building, collaboration in the area of warship building and repair.

➢ **UN Peacekeeping:** Discussed cooperation in **UN peacekeeping** operations, which help countries navigate the difficult path from conflict to peace.

➢ **Cooperation in the field of Hydrography:** This will enable sharing of Hydrographic data and assist in production of navigational charts by both sides.

○ **Hydrography** is the science that **measures and describes the physical features of the navigable portion of the Earth's surface** and adjoining coastal areas.

➢ **ADMM Plus Meeting:** Vietnam **invited India for ASEAN Defence Ministers' Meeting-Plus** (ADMM Plus) being hosted by Vietnam in December 2020.

○ The **ADMM-Plus is a platform for the Association of Southeast Asian Nations** (ASEAN) **and its eight Dialogue Partners** Australia, China, **India**, Japan, New Zealand, Republic of Korea, Russia and the USA (collectively referred to as the "Plus Countries"), to strengthen security and defence cooperation for peace, stability, and development in the region.

○ **Vietnam is a member of ASEAN**.

India-Vietnam Relations

➢ India and Vietnam have agreed to enhance their **bilateral cooperation** in line with **India's Indo-Pacific Oceans Initiative** (IPOI) and the ASEAN's Outlook on Indo-Pacific.

○ This came in the backdrop of China's aggression in the Indo-Pacific region including **South China Sea region** and its actions along the **Line of Actual Control** (LAC) with India.

➢ **Cooperation at Multiple Fora:**

○ At the **UN Security Council**, both India and Vietnam will serve concurrently as **non-permanent members in 2021.**

○ India and Vietnam closely cooperate in various **regional forums** such as **East Asia Summit**, **Mekong Ganga Cooperation**, **Asia Europe Meeting** (ASEM).

➢ **Economic Relations:**

○ India has on many occasions explained that it will **continue to maintain its oil and gas exploration tie-ups** with Vietnam in Vietnamese waters.

○ Vietnam is also the **second largest export destination for India after Singapore in the ASEAN region.**

○ **Bilateral trade** for the period **April-November 2019** reached **USD 9.01 billion**.

➢ **India's Assistance:**

○ India has **reaffirmed its development and capacity building assistance** to Vietnam through initiatives such as **Quick Impact Projects** (QIP), **Indian Technical and Economic Cooperation** (ITEC) and e-ITEC initiatives, PhD fellowships, as well as projects in **water resource management** in Vietnam's Mekong Delta region, **SDGs**, **digital connectivity** and **heritage conservation**.

➢ **Tourism and People-to-People Contacts:**

○ The **year 2019 was celebrated as the ASEAN-India Year of Tourism**. Both countries have facilitated **a simplified visa regime** to promote bilateral tourism.

Note:

○ The **Embassy of India organized various events to celebrate Mahatma@150** in 2018-19. These include Jaipur artificial limb fitment camps, which were organized in four provinces of Vietnam, benefitting 1000 people, under **'India for Humanity'** initiative of the Government of India.

China's New Dam on Brahmaputra

Why in News

Recently, Chinese authorities have given the go ahead for a **Chinese hydropower company** to construct the **first downstream hydropower project** on the lower reaches of the river **Brahmaputra** (known as **Yarlung Zangbo in Tibet**).

Key Points

➢ **Brahmaputra:**

○ It originates under the name of **Siang or Dihang,** from the **Chemayungdung glacier of the Kailash range near the Mansarovar lake**. It enters India west of Sadiya town in Arunachal Pradesh.

● **Tributaries:** Dibang, Lohit, Siang, Burhi Dihing, Tista, and Dhansari.

○ It is a **perennial river** and has **several peculiar characteristics due to its geography and prevailing climatic conditions**.

○ It is **flooded twice annually.** One flood is caused by the **melting of the Himalayan snow in summer** and the **other due to the monsoon flows**.

● The **frequency** of these floods have increased and are devastating due to climate change and its impact on high and low flows.

● These **pose a concern for the population and food security in the lower riparian states of India and Bangladesh**.

○ The river is in itself **dynamic as frequent landslides and geological activity force it to change course** very often.

➢ **About the Project:**

○ The **state-owned** hydropower company **POWERCHINA** signed a strategic cooperation agreement with the **Tibet Autonomous Region** (TAR) **government** to implement hydropower exploitation in the downstream of the Yarlung Zangbo river as part of the new **Five Year Plan** (2021-2025).

● This will be the **first time the downstream sections of the river will be tapped**. However, the **location** of the planned project **has not been mentioned anywhere**.

○ The **Great Bend of the Brahmaputra** and the **Yarlung Zangbo Grand Canyon in Medog county**, where the river turns sharply to flow across the border into f **Arunachal Pradesh could be the potential spot** for the project.

● This **50 km section** alone offers a potential of developing **70 million kilowatt hours** (Kwh).

➢ **China's Previous Projects:**

○ In **2015**, China operationalised its **first hydropower project at Zangmu in Tibet**, while three other dams at **Dagu, Jiexu and Jiacha** are being developed, all on the upper and middle reaches of the river.

➢ **Importance of the Project for China:**

○ The **60 million kWh hydropower** exploitation could **provide 300 billion kWh of clean, renewable and zero-carbon electricity annually**.

○ The project will play a significant role in realising China's goal of reaching a **carbon emissions peak before 2030 and carbon neutrality till 2060**.

➢ **Concerns for India:**

○ India has been expressing concerns on Brahmaputra **since 2015** when China operationalised its **project at Zangmu**.

○ A dam at the **Great Bend**, if approved, would raise fresh concerns considering its
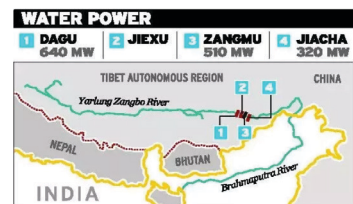
Note:

location downstream and just across the border from Arunachal Pradesh.

- For India, **quantity of water is not an issue** because these are run of the river dams and will not impact the Brahmaputra flow. More importantly, Brahmaputra is not entirely dependent on upstream flows and an estimated **35% of its basin is in India**.

○ However, India is concerned about the **Chinese activities affecting the quality of water, ecological balance and the flood management**.

○ **India and China** do not have a water sharing agreement. Both nations share hydrological data so it becomes important to share genuine data and have continuous dialogue on issues like warning of droughts, floods and **high water discharges**.

■■■

Science and Technology

Highlights

- Chapare Virus
- Guillain Barre Syndrome
- Supercomputer Param Siddhi
- Chang'e-5 Mission: China
- IRNSS: Part of World Wide Radio Navigation System
- Bengaluru Tech Summit
- Sentinel-6 Satellite: Jason-CS Mission
- Dry Swab RT-PCR Covid-19 Test
- National Organ Donation Day

Chapare Virus

Why in News

Researchers from the US Centers for Disease Control and Prevention (CDC) have recently discovered a rare **Ebola-like illness** that is believed to have first originated in **rural Bolivia** in 2004.

➢ The virus is named Chapare after the province in which it was first observed.

➢ **Chapare,** is a rural province in the northern region of **central Bolivia**.

Key Points

➢ **About:**
  ○ Chapare Virus belongs to the same **Arenavirus family** that is responsible for illnesses such as the **Ebola virus disease (EVD)**. It causes Chapare Hemorrhagic Fever (CHHF).

➢ **Vector**:
  ○ Chapare virus are generally **carried by rats** and can be transmitted through **direct contact with the infected rodent, its urine and droppings, or through contact with an infected person**.
  ○ A disease vector is any agent which **carries and transmits** an infectious pathogen into another living organism.

➢ **Symptoms of Chapare Hemorrhagic Fever (CHHF)**:
  ○ Hemorrhagic fever much like Ebola.
    ● Viral hemorrhagic fevers are a severe and life-threatening kind of illness that can **affect multiple organs and damage the walls of blood vessels.**

  ○ Abdominal pain, vomiting, bleeding gums, skin rash, pain behind the eyes, etc.

➢ **Transmission**:
  ○ Virus can spread from **person to person.**
    ● Chapare spreads only through **direct contact** with bodily fluids.
    ● **Sexually transmission:**
      ■ Researchers also found fragments of **Ribonucleic acid (RNA)** associated with Chapare, in the semen of one survivor **168 days** after he was infected.

➢ **Diagnosis**:
  ○ Chapare virus is **much more difficult** to catch than the **coronavirus** as it is **not transmissible** via the **respiratory route**. Instead, Chapare spreads only through direct contact with **bodily fluids.**
  ○ New sequencing tools will help develop an **RT-PCR test** — much like the one used to diagnose **Covid-19** to help detect Chapare.

➢ **Treatment**:
  ○ Since there are **no specific drugs** to treat the disease, patients generally receive **supportive care** such as intravenous fluids.
    ● **Intravenous therapy** is a medical technique that delivers a liquid directly into a person's vein. The intravenous route of administration is commonly used for rehydration solutions or to provide nutrition in those who cannot consume food or water by mouth.
  ○ Maintenance of **hydration**.
  ○ Management of shock through fluid resuscitation.
    ● Fluid resuscitation is the medical practice of

Note:

replenishing **bodily fluid** lost through sweating, bleeding, fluid shifts or other pathologic processes.
  ○ Pain Relief Medicines.
  ○ Transfusions as the supportive therapy that can be administered on patients.
➢ **People at Risk**:
  ○ The disease is also known to be most commonly transmitted in more **tropical regions,** particularly in certain parts of South America where the small-eared pygmy rice rat is commonly found.
➢ **Mortality Rate**:
  ○ As there are very few cases on record, the mortality and risk factors associated with the illness are **relatively unknown.**
  ○ In the first known outbreak, the only confirmed case was fatal. In the second outbreak in 2019, three out of five documented cases were fatal (**case-fatality rate of 60%)**.
➢ **Recent Outbreak**:

Ebola Virus Disease
➢ **Ebola Virus Disease (EVD) or Ebola Hemorrhagic Fever (EHF)**, is a viral hemorrhagic fever of humans and other primates caused by ebolaviruses.
➢ **Transmission**:
  ○ **Fruit bats** of the Pteropodidae family are natural **Ebola virus hosts.**
➢ **Animal to human transmission**:
  ○ Ebola is introduced into the human population through **close contact** with the blood, secretions, organs or other **bodily fluids of infected animals** such as fruit bats, chimpanzees, etc.
➢ **Human-to-human transmission**:
  ○ Ebola spreads via **direct contact** (through broken skin or mucous membranes) with:
    ● Blood or body fluids of a person who is sick with or has died from Ebola.
    ● Objects that have been contaminated with body fluids (like blood, feces, vomit) from a person sick with Ebola or the body of a person who died from Ebola.
➢ **Vaccines**:
  ○ An experimental Ebola vaccine, called **rVSV-ZEBOV** proved highly protective against EVD.

  ○ The recent biggest outbreak of the 'Chapare virus' was reported in 2019, when three healthcare workers contracted the illness from two patients in the Bolivian capital of La Paz.

Guillain Barre Syndrome

Why in News

Some patients infected with **Covid-19** have been found suffering from **Guillain Barre Syndrome (GBS)**.

Key Points

➢ **Guillain Barre Syndrome:**
  ○ It is a very **rare autoimmune disorder** in which the patient's immune system **attacks nerves**.
  ○ The **exact cause** of Guillain-Barre syndrome is **unknown,** but as per th**e World Health Organisation (WHO)**, GBS is often preceded by an infection. This could be a **bacterial or viral infection**. It may also be triggered by **vaccine administration** or **surgery**.
  ○ In the past, patients of **Middle East respiratory syndrome (MERS)**, **Zika virus**, **Human Immunodeficiency Virus(HIV)**, Herpes virus and Campylobacter jejuni have shown symptoms of GBS.
➢ **Link with Covid-19:**
  ○ The immune system, in an attempt to kill the coronavirus, accidentally starts attacking its own **peripheral nervous system**.
  ○ The **peripheral nervous system** is a network of nerves that lead from the brain and spinal cord (i.e. central nervous system) to different parts of the body. Attacking them can **affect limb functions**.
  ○ An interval of **5-10 days** is noticed between **onset of GBS symptoms and Covid-19 infection**, but some doctors say it can also take weeks after Covid-19 infection for a person to develop GBS.
➢ **Symptoms**:
  ○ Weakness or tingling sensations, which usually start in the legs, and can spread to the arms and face.
  ○ Difficulty with facial movements, including speaking, chewing or swallowing.
  ○ Double vision, rapid heart rate, low or high blood pressure.
➢ **Complication**:
  ○ There could be **respiratory failure** as the worst outcome, or weakness and effect on walking and limb movement.

➢ **Treatment:**
  ❍ Intravenous immunoglobulin (IVIG).
  ❍ **Plasma therapy.**

Campylobacter jejuni

➢ Campylobacteriosis is an infection by the **Campylobacter bacteria.** It is more commonly known as C. jejuni. It is among the most common bacterial infections of humans, often a foodborne illness. It produces bloody diarrhoea or dysentery syndrome, mostly including cramps, fever and pain.

Herpes Virus

➢ Herpes results from infection with the herpes simplex virus (HSV). It causes **sores or blisters** to form in or around the **mouth or genitals**, as well as other symptoms such as fever and fatigue.

Supercomputer Param Siddhi

Why in News

Recently, India's **Artificial Intelligence** (AI) supercomputer **Param Siddhi** has been ranked **63ʳᵈ among the top 500** most powerful **non-distributed computer systems** in the world.

➢ **Japan's Fugaku**, which has additional hardware of **442 Petaflops** has set a new world record in the supercomputing capacity and was **ranked first** in the list.

Key Points

➢ **Distributed Computing**: It is a field of computer science that studies distributed systems.
  ❍ **Distributed System:** It is a system whose **components are located on different networked computers**, which **communicate and coordinate** their actions by passing messages to one another. The components interact with one another in order to achieve a common goal.
  ❍ **Non-distributed (co-located) System:** In this, **all the parts of the system** are in the **same physical location**. In a distributed system, parts of the system exist in separate locations.

➢ **Param Siddhi:**
  ❍ It is a **High-Performance Computing-Artificial Intelligence** (HPC-AI) supercomputer developed by the **Department of Science and Technology** (DST) under the **National Supercomputing Mission**

(NSM) at the **Centre for Development of Advanced Computing** (C-DAC).
  ❍ It has **Rpeak** of **5.267 Petaflops** and **4.6 Petaflops Rmax**.
    ● In high-performance computing, **Rmax and Rpeak** are scores used to rank supercomputers based on their performance using the **LINPACK Benchmark**.
    ● The **LINPACK Benchmarks** are a measure of a system's floating-point computing power.
    ● A system's Rmax score describes its **maximal achieved performance**, the Rpeak score describes its **theoretical peak performance**. Values for both scores are usually represented in teraFLOPS or petaFLOPS.
    ● A **petaflop** is the ability of a computer to do **one quadrillion floating-point operations per second** (FLOPS). Additionally, a petaflop can be measured as one thousand teraflops.
  ❍ It was led and built on **NVIDIA DGX SuperPOD architecture**.
    ● SuperPOD offers a systemized approach for **scaling AI supercomputing infrastructure**, built on NVIDIA DGX.

➢ **Other Indian Supercomputers in Top 500 list:**
  ❍ **Pratyush:**
    ● It is operational at **Indian Institute of Tropical Meteorology** (IITM), **Pune.**
    ● It has the power of **4.0 PetaFlops**
    ● It was ranked **77ᵗʰ** in the list.
  ❍ **Mihir:**
    ● It is a **2.8 Petaflop** supercomputer which has been operational at the **National Centre for Medium-Range Weather Forecast** (NCMRWF), **Noida**.
    ● It is one of the powerful systems owned by the **Ministry of Earth Sciences** and has helped improve India's forecasting skills.
    ● **Mihir** was ranked **146ᵗʰ** in the list.

➢ **TOP500 Project:**
  ❍ It ranks and details **the 500 most powerful non-distributed computer systems in the world**.
  ❍ It was started in **1993** and publishes an updated list of the supercomputers **twice a year**.
    ● The first of these updates always coincides with the **International Supercomputing Conference** in

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Note:

June, and the second is presented at the **ACM/ IEEE Supercomputing Conference** in **November**.

❍ The **TOP500 list** is compiled by **Jack Dongarra of the University of Tennessee, Knoxville, Erich Strohmaier** and **Horst Simon** of the **National Energy Research Scientific Computing Center** (NERSC) and **Lawrence Berkeley National Laboratory** (LBNL).

National Supercomputing Mission

➤ It envisages empowering Indian national academic and Research and Development (R&D) institutions spread over the country by installing a **vast supercomputing grid** comprising more than **70 high-performance computing facilities**.

➤ Launched in **2015**, this **seven-year mission** was allocated **Rs. 4,500 crore**.

➤ These supercomputers will also be networked on the National Supercomputing grid over the **National Knowledge Network** (NKN).

❍ The NKN is another programme of the government which connects academic institutions and R&D labs over a **high-speed network**.

❍ Academic and R&D institutions, as well as key user departments/ministries, would participate by using these facilities and develop applications of national relevance.

❍ The Mission also includes the development of highly professional **High-Performance Computing** (HPC) aware human resource for meeting challenges of development of these applications.

➤ The Mission is implemented and steered jointly by the **DST** and **Department of Electronics and Information Technology** (DeitY).

➤ The C-DAC has recently launched the **second phase** of this project wherein more institutions will be supported by supercomputing facilities.

➤ **Objective of NSM**

❍ To make **India one of the world leaders in supercomputing** and to **enhance India's capability in solving grand challenge problems** of national and global relevance.

❍ To **empower Indian scientists and researchers** with state-of-the-art supercomputing facilities and enable them to carry out cutting-edge research in their respective domains.

Chang'e-5 Mission: China

Why in News

China has launched an **unmanned spacecraft** to bring back lunar rocks, the first attempt by any nation to retrieve samples from the Moon in **four decades**.

➤ The **Chang'e-5 mission**, named after the ancient Chinese goddess of the moon, will seek to collect lunar material to help scientists understand more about the moon's origins and formation.

Key Points

➤ **Launch:** The **Long March-5 Y5 rocket**, carrying the **Chang'e-5 spacecraft**, was launched from **Wenchang Space Launch Center** (China).

➤ **Key Task of the Mission:** To drill 2 meters beneath the moon's surface and scoop up about 2 kilograms of rocks and other debris to be brought back to Earth.

❍ It will **help scientists** learn about:

● Moon's origins,

● Volcanic activity on its surface and its interior, and

● When its magnetic field, key to protecting any form of life from the sun's radiation dissipated.

➤ **Functioning:**

❍ Upon entering the moon's orbit, the spacecraft is intended to deploy **a pair of vehicles to the lunar surface, a lander and an ascender.**

❍ A lander will drill into the ground, then transfer its soil and rock samples to an ascender that will lift off and dock with an orbiting module.

● There will be an attempt to collect 2 kg of samples in a previously unvisited area in a massive lava plain known as **Oceanus Procellarum, or "Ocean of Storms".**

● Area of the moon where the spacecraft is due to land is **1-2 billion years old.**

❍ If this is successful, the samples will be **transferred to a return capsule** that will return them to Earth, with a landing in China's **Inner Mongolia region**.

❍ The entire mission is scheduled to take around **23 days**.

➤ **Significance**: If the mission is **completed as planned,** it would make **China** only the **third country** to have retrieved lunar samples, joining the **United States** and the **Soviet Union.**

drishti

- ❍ The **Apollo programme** (which first put men on the moon), the **United States** landed 12 astronauts over six flights from 1969 to 1972, bringing back 382 kg of rocks and soil.
- ❍ **The Soviet Union Lead Luna:** Deployed three successful robotic sample return missions in the 1970s. The last, the Luna 24, retrieved samples in 1976 from **Mare Crisium, or "Sea of Crises"** - a lunar basin.
- ❍ The **Apollo-Luna sample** zone of the moon, while critical to our understanding, was undertaken in **an area that comprises far less than half the lunar surface.**
- ❍ Subsequent data from orbital remote sensing missions have shown a wider diversity of rock types, mineralogies and ages than represented in the **Apollo-Luna sample collections.**

➢ **China's Moon Missions:**
- ❍ China made its **first lunar landing** in 2013.
- ❍ In January 2019, the **Chang'e-4 probe** touched down on the far side of the moon, the **first by any nation's** space probe.
  - ● Chang'e is a series of lunar probes launched by China National Space administration.

➢ **China's Other Space Plans**:
- ❍ It aims to have a **permanent manned space station in service by around 2022.**
- ❍ Within the next decade, China **plans to establish a robotic base station** to conduct unmanned exploration in the **south polar region of the moon.**
  - ● It is to be developed through the Chang'e-6, 7 and 8 missions through the 2020s.

➢ **Other Important Mission to Moon**:
- ❍ **Chandrayaan 3** by **ISRO**
- ❍ **Artemis Mission** by **National Aeronautics and Space Administration (NASA)**

IRNSS: Part of World Wide Radio Navigation System

Why in News

The **Maritime Safety Committee** (MSC) of the **International Maritime Organisation** (IMO) has recognised the **Indian Regional Navigation Satellite System** (IRNSS) as a component of the **World Wide Radio Navigation System (WWRNS)** during its 102nd session held virtually.

➢ The IMO is the **United Nations specialised agency** responsible for the safety and security of shipping and the **prevention** of marine and atmospheric **pollution** by ships.

Key Points

➢ India has become the **fourth country** in the world to have its independent regional navigation satellite system recognised by the IMO as a part of the **World Wide Radio Navigation System** (WWRNS).

➢ The other three countries that have its navigation systems recognised by the IMO are the **USA, Russia and China.**

➢ **Significance:**
- ❍ The IMO has accepted IRNSS as an **alternative navigation module in Indian waters**. It was in use only on a pilot basis earlier but **now all merchant vessels are authorised to use it, even small fishing vessels.**
- ❍ The navigation system **can now replace GPS in the Indian Ocean waters upto 1500 km** from the Indian boundary.
  - ● IRNSS is a **regional and not a global navigation** system.
  - ● With the recognition as a component of the WWRNS, the Indian navigation system is similarly placed as **Global Positioning System** (GPS - USA), most commonly used by marine shipping vessels across the world or the Russian Global Navigation Satellite System (**GLONASS**).
- ❍ It is being considered as a significant achievement towards the **'Atmanirbhar Bharat'** initiative.
  - ● Apart from navigational benefits it has strategic importance as it reduces overdependence on the global navigation system.

➢ **Important Navigation Systems**:
- ❍ **USA navigation system:** The **Global Positioning System** (GPS) is a satellite-based navigation system that consists of 24 orbiting satellites.
- ❍ **Glonass** is **Russian** Satellite Navigation System considered as a counterpart to GPS of the USA.
- ❍ **BeiDou Navigation Satellite System** of **China**: A hybrid constellation consisting of around 30 satellites in three kinds of orbits.
- ❍ **Galileo** is **Europe's** Global Navigation Satellite System.

Indian Regional Navigation Satellite System

➢ IRNSS is an independent regional navigation satellite system developed by the **Indian Space Research Organization** (ISRO).

➢ The main objective is to provide reliable position, navigation and timing services over India and its neighbourhood.

➢ The IRNSS constellation **was named as "NavIC"** (Navigation with Indian Constellation) by the Prime Minister.

➢ NavIC provides **two types of services:**
  ❍ **Standard Positioning Service** (SPS) is meant for the general public.
  ❍ **Restricted Service** (RS) is an encrypted service meant for authorised users and agencies.

➢ Unlike the widely used GPS which includes 24 satellites, NavIC has **8 satellites** and their range is within India and its adjoining regions extending up to **1,500 km** from the **country's border.**

➢ Technically satellite systems with more satellites provide more accurate positioning information. However, compared to GPS which has a position **accuracy of 20-30 metres,** the NavIC is able to pinpoint location to an estimated accuracy of **under 20 metres.**

Bengaluru Tech Summit

Why in News

Recently, the Prime Minister has inaugurated the **Bengaluru Tech Summit** via video conference which was also **attended by the Prime Minister of Australia**.

Key Points

➢ It is India's flagship event which will deliberate on the key challenges emerging in the **post-pandemic world** with focus on the **impact of prominent technologies**.
  ❍ It will also provide a platform for discussion to encourage disruptive technologies.
    ● **Disruptive technology** is an innovation that **significantly alters the way that consumers, industries, or businesses operate**. It sweeps away the systems or habits it replaces because it has **attributes that are recognizably superior**.

  ● **Examples:** e-commerce, online news sites, ride-sharing apps, and **Global Positioning System** (GPS).

➢ **Theme for 2020:** Next is Now.

➢ **Focus:** Innovations in the domains of **Information Technology and Electronics and Biotechnology**.

➢ **Organisers:**
  ❍ The Government of Karnataka along with Karnataka Innovation and Technology Society (KITS).
  ❍ Karnataka government's Vision Group on Information Technology Software.
  ❍ **Software Technology Parks of India** (STPI).
  ❍ MM Activ Sci-Tech Communications.

➢ **Concerns Highlighted:**
  ❍ With the increasing use of technology in governance and other areas, **data protection** and **cybersecurity** become significant.
  ❍ There is a **need to devise robust cybersecurity solutions** which can **protect digital products against cyber attacks and viruses**.

➢ **Role of Technology:**
  ❍ It was highlighted that **India's governance model** is based on '**technology first**'.
  ❍ **PM-KISAN** Mobile App:
    ● It **enables direct transfers to farmers** and also **digitises the complete database** of farmers.
    ● The farmers can view the status of their application, update or carry out corrections of their Aadhaar cards and also check the history of credits to their bank accounts.
  ❍ **Pradhan Mantri Garib Kalyan Yojana:**
    ● Under it, the government **deployed fintech and digital technology to monitor** swift and efficient transfer to the beneficiary through **Direct benefit transfer**.
    ● It also **ensured credit to the beneficiary's account without the need for the beneficiary to physically go to the branch** which helped people a lot during **lockdowns**.
  ❍ **Ayushman Bharat:**
    ● Making good use of technology and innovation can further reduce the overall cost of healthcare. AI-powered mobile applications can provide high-quality, low-cost, patient-centric, smart wellness solutions.
  ❍ **Aarogya Setu App:**

Note:

- India's first contact tracing app, Arogya Setu app is based on the idea of '**technological solutionism**' (technology providing an impartial solution to complex social problems).
- It enables bluetooth based contact tracing and maps likely hotspots of Covid-19 and disseminates the relevant information.

  ❍ Apart from all these, **technology plays an important role in governance** as well.

➤ **India and Australia on Technological Development:**

  ❍ Both countries highlighted the **unlimited possibilities of working together** in space research, critical minerals, **5G**, **Artificial Intelligence**, **quantum computing**, etc.

  ❍ In **June 2020**, the **India-Australia Virtual Summit** was held where both countries signed the landmark **Australia-India Technology Framework on cyber and cyber-enabled technology**.

  ❍ In **December 2020**, **India-Australia Circular Economy Hackathon** (I-ACE) will be organised which will focus on identification and development of innovative technology solutions by students, startups and MSMEs of both nations.

  ❍ They are also **planning to launch Australia-India cyber and critical technologies partnership grant programme** and are also working together for an **open, free, safe and secure Internet**.
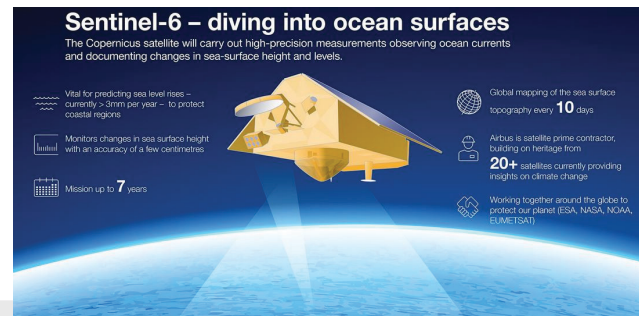

Government Initiatives to Promote Technology

➤ **Digital India Mission:** Launched in **2015**, it aimed to **prepare India for a knowledge future for being transformative** that is to realise IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow) and for making technology central to enabling change.

➤ **Unified Payments Interface (UPI):** It is a payment system that allows money transfer between any two bank accounts by using a smartphone.

➤ **National Digital Health Mission:** It is a complete **digital health ecosystem**. It is a platform launched with four key features viz. **health ID, personal health records, Digi Doctor** and **health facility registry**.

➤ **Swamitva Scheme:** Survey of Villages and Mapping with Improvised Technology in Village Areas (Swamitva) was launched to provide an **integrated property validation solution for rural India**.

Sentinel-6 Satellite: Jason-CS Mission

Why in News

Recently, **Copernicus Sentinel-6 Michael Freilich satellite** was launched from the Vandenberg Air Force base in California aboard a **SpaceX** Falcon 9 rocket.

Sentinel-6 – diving into ocean surfaces
The Copernicus satellite will carry out high-precision measurements observing ocean currents and documenting changes in sea-surface height and levels.

Key Points

➤ **Jason-CS Mission:** Sentinel-6-Satellite is a part of the **mission** dedicated to **measuring changes in the global sea level.** The mission is called the **Jason Continuity of Service (Jason-CS) mission**.

  ❍ **Objective of the Mission**: To measure the **height of the ocean**, which is a key component in understanding how the **Earth's climate is changing**.

  ❍ **Components:** It consists of **two satellites**, **Sentinel-6** and the other, called **Sentinel-6B**, to be **launched in 2025.**

  ❍ **Joint collaboration of**: The European Space Agency (ESA), **National Aeronautics and Space Administration(NASA)**, European Organisation for the Exploitation of Meteorological Satellites (Eumetsat), the USA's National Oceanic and Atmospheric Administration (NOAA) and the **European Union(EU)**, with contributions from France's National Centre for Space Studies (CNES).

➤ **Mechanism:**

  ❍ The satellite will send pulses to the Earth's surface and measure how long they take to return to it, which will help in measuring the **sea surface height.** It will **also measure water vapour along this path** and find its position using GPS and ground-based lasers.

  ❍ As per **NASA**, this will help in **monitoring critical changes in ocean currents** and **heat storage** only from space, by measuring height of the sea surface.

Note:

○ This will in turn help in **foreseeing the effects of the changing oceans on the climate**.

➢ **Significant in:**
  ○ **Ensuring** the continuity of **sea-level observations**.
  ○ **Understanding** how the **ocean stores and distributes heat, water and carbon in the climate system.**
  ○ **Supporting** operational oceanography, by providing improved forecasts of **ocean currents**, **wind and wave conditions**.
  ○ **Improving** both **short-term forecasting** for weather predictions, and **long term forecasting** for seasonal conditions like **El Niño and La Niña.**

➢ **Other satellites** (joint mission of **NASA and CNES**) that have been launched **since 1992** to track changes in the oceans on a global scale include the **TOPEX/ Poseidon, Jason-1 and OSTN/Jason-2,** among others.

Dry Swab RT-PCR Covid-19 Test

Why in News

Recently, the **Council of Scientific and Industrial Research-Centre for Cellular and Molecular Biology** (CSIR-CCMB) has got the permission of the **Indian Council of Medical Research** (ICMR) to commercially use the **dry swab RNA-extraction free testing method** for the **Covid-19**.

Key Points

➢ **About:**
  ○ Dry swab method has a consistency of 96.9%.
  ○ The comparison of **conventional** (swab-VTM-RNA extraction-RT-PCR) and the **simplified** (direct elution from dry swab-RT-qPCR) protocols suggested that dry swabs eluted directly into a simple buffered solution can support molecular detection of SARS-CoV-2 via endpoint RT-PCR without substantially compromising sensitivity.

➢ **Conventional Method:**
  ○ In the conventional testing method, **nasopharyngeal or oropharyngeal** swab samples are **collected by sample collection centres** from the suspected coronavirus patients. These are **then transported to testing centres**, sometimes even hundreds of kilometres away.

● The **nasopharynx** is the **upper part of the pharynx** (throat) **behind the nose**.

● The **oropharynx** is the **middle part of the pharynx just beyond the mouth** and includes the back part of the tongue (base of tongue), tonsils, soft palate (back part of the roof of the mouth), and the sides and walls of the throat.

○ The swab samples are generally placed in a liquid called **Viral Transport Medium** (VTM) and to avoid leakage, the samples are packed heavily that **adds on to sample processing times** at both the sample collection and testing centres.

○ **RNA extraction**, even with automation, takes **four hours for roughly 500 samples**. VTM and RNA extraction both add a **significant burden on money and time required** for mass testing.

➢ **New and Simplified Method:**
  ○ Dry swab technique **does not require VTM and RNA extraction process**, and can be directly used for RT-PCR testing.
  ○ It has the **potential of bringing the costs and time of testing by 40-50%** and the **screening can also be enhanced several-fold** with immediate effect while, at the same time, **making the whole process safer**.
  ○ It is **easy to implement** with **no requirement of new kits and existing manpower can perform this** with no additional training.

➢ **Benefits:**
  ○ It will **scale up the testing.**
  ○ More economical than **conventional RT-PCR tests**.
  ○ Quicker results.

RT-PCR Test

➢ **Kary Mullis**, the **American biochemist** invented the PCR technique. He was awarded the **Nobel Prize for Chemistry in 1993**.

➢ Under the test, copies of a **segment of DNA** (deoxyribonucleic acid) are **created using an enzyme called Polymerase**.
  ○ The '**chain reaction**' signifies **how the DNA fragments are copied exponentially**, where one is copied into two, the two are copied into four, and so on.

➢ A **fluorescent DNA binding dye** called the "**probe**" is added to DNA, which shows the presence of the virus on a fluorometer.

Note:

➢ **Covid-19 is made of RNA** (ribonucleic acid), so to detect it, **RNA is converted into DNA** using a technique called **reverse transcription**.

    ❍ Then the copies of the DNA are then made and amplified.

National Organ Donation Day
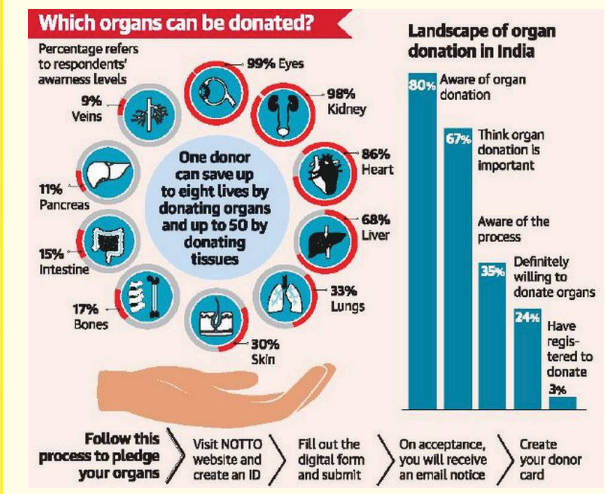
Why in News

The **National Organ Donation Day** was celebrated on **27th November** by the **Ministry of Health and Family Welfare**.

Key Points

➢ **National Organ Transplant Programme:**

    ❍ **Provides financial grants for** establishing the **Regional Organ and Tissue Transplant Organisations** (ROTTOs), the **State Organ and Tissue Transplant Organisations** (SOTTOs), developing new and upgrading existing retrieval and transplant centres.

➢ **Organ Donation Institutional Set-up:**

    ❍ The **National Organ & Tissue Transplant Organisation** (NOTTO), the ROTTOs at regional level and the SOTTOs at state level.

➢ **State of Organ Donation in India:**

    ❍ India **ranked third** in the world as per the **World Health Organisation** (WHO) **Global Observatory on Donation and Transplantation** (GODT) in terms of organ donation.

Transplantation of Human Organs Act, 1994

➢ It was **passed in 1994** and subsequently **amended in 2011** thus bringing in form the **Transplantation of Human Organs (Amendment) Act 2011**.

➢ It provides various regulations for the removal of human organs and its storage.

➢ It also regulates the transplantation of human organs for **therapeutic purposes** and for the **prevention of commercial dealings** in human organs.

➢ **Main Provisions:**

    ❍ It recognises brain death identified as a form of the death process and defines criteria for brain death.

    ❍ It provides **regulatory and advisory bodies for monitoring transplantation activity**.

    ❍ It also provides for **maintenance of a registry of donors and recipients** of human organs and tissues.

Which organs can be donated?
Percentage refers to respondents' awarness levels
99% Eyes
98% Kidney
86% Heart
68% Liver
33% Lungs
30% Skin
9% Veins
11% Pancreas
15% Intestine
17% Bones
One donor can save up to eight lives by donating organs and up to 50 by donating tissues

Landscape of organ donation in India
80% Aware of organ donation
67% Think organ donation is important
Aware of the process
35% Definitely willing to donate organs
24% Have registered to donate
3%

Follow this process to pledge your organs › Visit NOTTO website and create an ID › Fill out the digital form and submit › On acceptance, you will receive an email notice › Create your donor card

■■■

drishti

Environment and Ecology

Highlights

- New Ramsar sites
- Vulture Action Plan
- Anakkayam Small Hydro Electric Project
- Deemed Forests in Karnataka
- UNESCO Global Geoparks

- Willow Warbler
- Trends in Air Pollution: CPCB
- Awards for Tiger Conservation
- Desalination Plants

New Ramsar sites

Why in News

Recently,the **Meteor lake at Lonar in Buldhana** district of **Maharashtra and the Soor Sarovar** at Agra have been declared **Ramsar sites**, a conservation status conferred by **International Ramsar Convention on Wetlands.**

➢ Earlier this year **Kabartal Wetland (Bihar)** and **Asan Conservation Reserve (Uttrakhand)** were also designated as **Ramsar sites**.

➢ With latest inclusions, the total number of **Ramsar sites in India is 41**, the highest in South Asia.

Key Points

➢ **Lonar Lake:**

 ❍ **Location:** The **Lonar lake**, situated in the Deccan Plateau's volcanic basalt rock, was created by the **impact of a meteor** 35,000 to 50,000 years ago.

  ● The lake is part of **Lonar Wildlife Sanctuary** which falls under the unified control of the **Melghat Tiger Reserve (MTR)**.
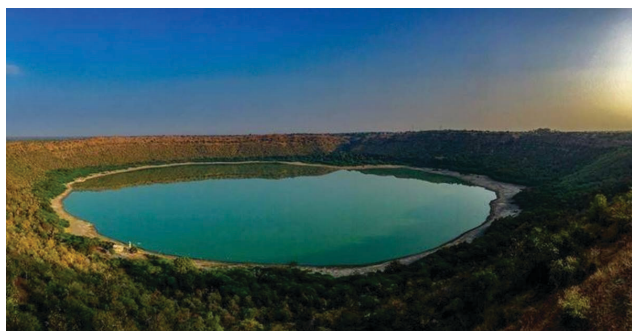
 ❍ It is also known as Lonar crater and is a notified **National Geo-heritage Monument.** Geo-heritage refers to the geological features which are inherently or culturally significant offering insight to earth's evolution or history to earth science or that can be utilized for education.

 ❍ It is the **second Ramsar site** in Maharashtra after **Nandur Madhmeshwar Bird Sanctuary in Nashik district**.

 ❍ The water in the lake is **highly saline and alkaline**, containing **special microorganisms like anaerobes, Cyanobacteria and phytoplankton**.

➢ **Soor Sarovar Lake:**

 ❍ It is also known as **Keetham lake** situated within the **Soor Sarovar Bird Sanctuary,** which was declared as **a bird sanctuary** in the year 1991.

 ❍ **Location:**

  ● This lake is situated alongside river **Yamuna** in Agra, Uttar Pradesh.

  ● The **Soor Sarovar** bird sanctuary covered an area of **7.97 sq km**.

 ❍ It is today home to more than **165 species of migratory and resident birds**.

 ❍ It also has a **Bear Rescue centre** for rescued dancing bears.

➢ **Benefits:**

Note:

○ With **Ramsar status**, the sites will benefit in terms of **international publicity and prestige**.

○ They will get **Financial aid** through the **convention's grant** and also access to **expert advice** on national and site-related problems.

Ramsar Site

➢ **Ramsar Convention on Wetlands** is an **inter-governmental treaty** adopted in **1971** in the Iranian city of Ramsar, on the southern shore of the Caspian Sea.

➢ It **came into force for India on 1st February, 1982.** Those **wetlands which are of international importance** are declared as **Ramsar sites.**

➢ The **Convention's mission** is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world.

➢ The **Montreux Record** is a register of wetland sites on the List of Wetlands of International Importance where changes in ecological character have occurred, are occurring, or are likely to occur as a result of technological developments, pollution or other human interference. It is **maintained as part of the Ramsar List.**

➢ At present, two wetlands of India are in Montreux Record:

  ○ **Keoladeo National Park (Rajasthan) and**

  ○ **Loktak Lake (Manipur).**

➢ **Chilika Lake** (Odisha) was placed in the record but later removed from it.

Vulture Action Plan

Why in News

Recently, the **Ministry of Environment, Forests and Climate Change (MoEFCC)** launched a **Vulture Action Plan 2020-25** for the conservation of vultures in the country.

Key Points

➢ **Background:**

  ○ Vulture numbers saw a decline as much as **90 %** in some species in India since the 1990s in one of the most drastic declines in bird populations in the world.

  ○ Between the 1990s and 2007, numbers of three presently **critically-endangered species**, the

Oriental white-backed, long-billed and slender-billed vultures decreased massively with **99 %** of the species having been wiped out.

○ The number of **red-headed vultures**, also **critically-endangered** now, declined by **91%** while the **Egyptian vultures** by 80%.

○ The decline in vulture populations came into limelight in the mid-90s..

○ **Reason for decline:**

  ● The **cause of the decline** was established as **diclofenac, a veterinary nonsteroidal anti-inflammatory drug (NSAID) in 2004,** which is used to treat pain and inflammatory diseases such as gout in carcasses that vultures would feed off.

  ● Just 0.4-0.7% of animal carcasses contaminated with diclofenac was sufficient to decimate **99%** of vulture populations.

○ The **MoEFCC** released the **Action Plan for Vulture Conservation 2006** with the **Drugs Controller General of India (DCGI)** banning the veterinary use of diclofenac in the same year.

➢ **Objectives of the Action Plan for Vulture Conservation 2020-2025.**

○ **Drug control:**

  ● To ensure minimum use of **Diclofenac.**

  ● To **Prevent the poisoning** of the principal food of vultures, the cattle carcasses, with veterinary **NSAIDs**, by ensuring that sale of veterinary **NSAIDs** is regulated and is disbursed only on prescription and by ensuring that treatment of livestock is done only by qualified veterinarians.

  ● To carry out **safety testing** of available **NSAIDs** on vultures and to develop new ones which do not affect vultures.

  ● To ensure that **DGCI** must institute a system that automatically removes a drug from veterinary use if it is found to be toxic to vultures.

    ■ Such a system would ensure that drugs other than **diclofenac** that are toxic to vultures like **aceclofenac** and **ketoprofen** are banned for veterinary use.

○ **Upscaling conservation:**

  ● To establish **Additional Conservation Breeding Centres** along with **Vulture Conservation Centres** with samples and information collected from the wild analysed and stored at these centres.

Note:

Sr. No.	Name of the Vulture Species	IUCN status	Pictorial Representation
1.	Oriental White-backed Vulture (Gyps Bengalensis)	Critically Endangered	
2.	Slender-billed Vulture (Gyps Tenuirostris)	Critically Endangered	
3.	Long-billed Vulture (Gyps Indicus)	Critically Endangered	
4.	Egyptian Vulture (Neophron Percnopterus)	Endangered	
5.	Red-Headed Vulture (Sarcogyps Calvus)	Critically Endangered	
6.	Indian Griffon Vulture (Gyps Fulvus)	Least Concerned	
7.	Himalayan Griffon (Gyps Himalayensis)	Near Threatened	
8.	Cinereous Vulture (Aegypius Monachus)	Near Threatened	
9.	Bearded Vulture or Lammergeier (Gypaetus Barbatus)	Near Threatened	

- To implement the **Vulture Safe Zone programme** at eight different places in the country where there are existing populations of vultures.
  - ○ To launch conservation plans for the **Red-headed and Egyptian vultures**, with breeding programmes for both.
  - ○ To declare a **Vulture Safe Zone** only when **no toxic drugs** are found in undercover pharmacy and cattle carcass surveys, for two consecutive years, and the vulture populations are stable and not declining.
  - ○ To build **Four rescue centres** for different geographical areas like Pinjore in the north,

Bhopal in ventral India, Guwahati in Northeast and Hyderabad in South India.

➢ **Other Efforts:**
  - ○ **National:**
    - The **Central Zoo Authority (CZA)** and **Bombay Natural History Society (BNHS)** also established the Vulture Conservation Breeding Programme.
    - A **Vulture Care Centre (VCC)** was set up at Pinjore, Haryana in 2001 to study the cause of deaths of vultures in India.
      - ■ The **Jatayu Conservation Breeding Centre in Pinjore is the world's largest facility** within the state's Bir Shikargah Wildlife Sanctuary for the breeding and conservation of Indian vulture species.
  - ○ **International: SAVE (Saving Asia's Vultures from Extinction)**
    - The consortium of like-minded, regional and international organizations, created to oversee and coordinate conservation, campaigning and fundraising activities to help the plight of south Asia's vultures.
    - **Objective**: To save three critically important species from extinction through a single programme.
    - **SAVE partners**: Bombay Natural History Society, Bird Conservation Nepal, RSPB (UK), National Trust for Nature Conservation (Nepal), International Centre for Birds of Prey (UK) and Zoological Society of London.

Vultures in India

➢ India is home to nine species of **vultures**, but most of them face the danger of extinction.
➢ The nine species of vultures & their **International Union for Conservation of Nature (IUCN)** status are:
➢ **Why vultures should be protected:**
  - ○ The scavenging lifestyle that gives them a bad reputation is, in fact, that makes them so important for the environment, nature and society.
  - ○ Vultures feeding on dead animals help **areas getting rid of carcasses** that, otherwise, would provide foul smells and scenery for a much longer period hence also known a**s nature's cleanup crew.**
  - ○ Vultures also play a valuable role in keeping wildlife **diseases in check**.

Note:

Anakkayam Small Hydro Electric Project

Why in News

Recently, various green collectives and environmental organisations have come together to protest against the **Anakkayam Small Hydro Electric Project** in Kerala.

➢ The site of the project is not far from the **Athirapally Hydel Electric Project**.

Key Points

➢ **About the Project:**
  ○ It will come up in the buffer zone of the **Parambikulam Tiger Reserve** (PTR) and will also **create a 5.617-km-long tunnel** within the forest.

➢ **Concerns:**
  ○ **Environmental Consequences:**
    ● Around **20 hectares of forest land will have to be cleared** out and **around 1900 large trees** and a larger number of small trees **will be cut**.
    ● The area is **ecologically fragile**, as seen in the massive **landslide followed by minor landslides at the project site in 2018**, and the consequences will extend to **loss of precious flora and fauna species**.
  ○ **Absence of Consent:**
    ● It was **granted approval without obtaining permission** from the local **Kadar tribe** which holds the **right of Community Forest Resources** (CFR) as per the **Forest Rights Act, 2006**.
    ● The site of the hydel project comes within the 400 sq kms of forest land that were given as CFR to the Kadar tribe which has the responsibility to protect and conserve the habitat.

Athirapally Hydel Electric Project

➢ In **June 2020**, the Kerala government approved the Athirapally Hydro Electric Project (AHEP) on the **Chalakudy river in Thrissur district of Kerala**.
  ○ Chalakudy River **originates in the Anamalai region of Tamil Nadu** and is joined by its **major tributaries** Parambikulam, Kuriyarkutti, Sholayar, Karapara and Anakayam in Kerala. It **flows through Palakkad, Thrissur and Ernakulam** districts of Kerala.

➢ It has also been **facing opposition and protests** due to its **adverse effects on the fragile river ecosystem** at Athirappilly and the other **related environmental threats**.

Parambikulam Tiger Reserve

➢ It is a well protected ecological portion in the **Nelliampathy-Anamalai landscape** of the **Southern Western Ghats** in India.

➢ It is located in the **Palakkad District of Kerala**.

➢ It was **declared as Tiger Reserve during 2008-09**.

➢ The reserve is credited with the **first scientifically managed teak plantation in the world** which was later merged with the forest land.

➢ It has the **world's largest and oldest teak tree** named "*Kannimara*", which is believed to be **350 years old**.
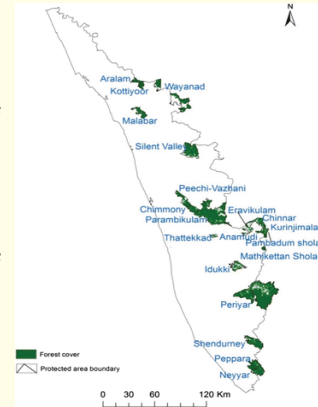
Deemed Forests in Karnataka

Why in News

Recently, **Karnataka** has announced that it would **declassify 6.64 lakh hectares** (nearly 67%) of the 9.94 lakh hectares of **deemed forests** in the state and hand it over to Revenue authorities.

➢ The issue of deemed forests is a contentious one in Karnataka, with legislators across party lines often **alleging that large amounts of agriculture and non-forest land are "unscientifically" classified** as such.

Key Points

➢ **Definition of Deemed Forests:**
  ○ Deemed forests, **comprising about 1% of India's forest land**, are a controversial subject as they **refer to land tracts that appear to be a "forest", but have not been notified so by the government or in historical records**.
  ○ The concept of deemed forests **has not even been clearly defined in any law** including the **Forest Conservation Act 1980**.

- In the *T N Godavarman Thirumalpad case 1996*, the **Supreme Court** (SC) accepted a **wide definition of forests** under the Act and held that the word 'forest' must be **understood according to its dictionary meaning**.
  - This description **covers all statutorily recognised forests**, whether designated as reserved, protected or otherwise for the purpose of **Section 2 (1) of the Act** and also includes any **areas recorded as forest in the government record irrespective of the ownership**.
- The **provisions for the conservation of forest and the matters connected therewith applies clearly to all forests** irrespective of the ownership or classification.
- The **freedom to define which tracts of forest qualify as forest** has been the **prerogative of States since 1996**.
  - However, this **only applies to forest land** that has not already been historically classified as "forest" in revenue records, or categorised so by the government as "protected" or "reserve forest".

➢ **Deemed Forests in Karnataka:**
- **Areas Included:** An expert committee constituted by the state government **identified 'deemed forests' as:**
  - Land having the characteristic of forests irrespective of the ownership.
  - Thickly wooded areas of the Revenue Department, not handed over to the Forest Department.
  - Thickly wooded areas recommended to be handed over to the Forest Department.
  - Thickly wooded land distributed to grantees but not cultivated.
  - Thickly wooded plantations of the Forest Department.
- **Land Coverage:** The **expert committee reports in 1997 and 2002** identified 43.18 lakh hectares of forest land for conservation in Karnataka, which included 33.23 lakh hectares notified forest area as per forest records and 9.94 lakh hectares 'deemed forests'.
- **Issue of Contention:**
  - In **2014**, the government **relooked at the categorisation of forests** and found that some of the 'statutory forests' had been **wrongly classified** as 'deemed forest'.

- It also held that a **well-defined scientific, verifiable criterion was not used** while applying the dictionary definition which **resulted in a subjective classification** of areas as deemed forests.
- The subjective classification, in turn, resulted in **conflicts between the Forest Department and other departments** like Revenue, Irrigation, Public Works and Energy.
- The random classification caused **hardship to farmers** in some areas and there is also a **commercial demand for mining in some regions** designated as deemed forests.
- **Revised Coverage:**
  - Later, newly formed committees identified 5.18 lakh hectares of deemed forest land that could be released from the total area.
  - After a **recent study of the actual extent of deemed forest areas,** the amount of deemed forest land to be released has been **revised to 6.64 lakh hectares**.
  - In **2019**, the **state had filed an interim application** in the SC for the exclusion of the revised area but the **Court did not pass an order** on the application.

Forest and Tree Resources in Karnataka
➢ **Total Forest cover:** 20.11%, according to the **India State of Forest Report 2019**, the **16th biennial assessment of India's forests** by **Forest Survey of India** (FSI).
- FSI is an organisation **under the Ministry of Environment, Forest and Climate Change** (MoEFCC).
- It undertakes **National Forest Inventory** to assess the growing stock in forests and Tree Outside Forest (TOF), bamboo resource, carbon stock and to assess the dependence of the people living in Forest Fringe Villages for fuelwood, fodder, small timber and bamboo.
➢ **Physiographically**, the state can be divided into two distinct regions:
- **Hilly region** (*Malnad*): comprising the **Western Ghats**.
- **Plain region** (*Maidan*): comprising the inland plateau.
➢ The **evergreen forests** of the Western Ghats cover about 60% of the forest area of the State and are recognised as **one of the four Biodiversity Hotspots of India**.

Note:

○ Other three biodiversity hotspots are the **Himalayas, Areas under Indo-Burma and Sundalands**.

➢ **Protected Area Network of the State:** 5 National Parks (Anshi, **Bandipur**, Bannerghatta, Kudremukh, Nagarahole) 30 Wildlife Sanctuaries, 15 Conservation Reserves.

○ Karnataka supports about 10% of the total **tiger** population and 25% of the **elephant** population of the country.

UNESCO Global Geoparks

Why in News

The **Indian National Trust for Art and Cultural Heritage** (INTACH) is making **efforts to get recognition of a geopark for Visakhapatnam** (Andhra Pradesh) consisting of **Erra Matti Dibbalu** (red sand dunes), **natural rock formations**, **Borra Caves** and **volcanic ash deposits**.

➢ While there are **161 United Nations Educational, Scientific and Cultural Organisation (UNESCO) Global geoparks** spread across 44 countries, **India is yet to have one of its own**.

Key Points

➢ **Geoparks:**

○ These are **single, unified geographical areas** where sites and landscapes of **international geological significance** are managed with a holistic concept of protection, education and sustainable development.

○ These give **international recognition for sites that promote the importance and significance of protecting the Earth's geodiversity** through actively engaging with the local communities.

○ Geoparks are sustained through **geo-tourism activities** like excursions, nature trails, guided tours, hiking and academic meets.

➢ **Management:**

○ These are **managed by a body having legal existence** recognised under national legislation.

○ The **UNESCO Global Geopark status does not imply restrictions on any economic activity inside them** where that activity complies with indigenous, local, regional and/or national legislation.

➢ **Networking:**

○ **Cooperating with the local people** (bottom-up approach) living in the geopark area and with **other Global Geoparks** through the **Global Geoparks Network** (GGN).

● GGN, of which **membership is obligatory for UNESCO Global Geoparks**, is a **legally constituted not-for-profit organisation** with an annual membership fee. It was **founded in 2004**.

➢ **Designation Period:**

○ The **designation is given for a period of four years** after which the functioning and quality of each geopark are thoroughly re-examined during a revalidation process.

➢ **Other UNESCO Site Designations:**

○ **Biosphere Reserves:**

● These focus on the **harmonised management of biological and cultural diversity**.

● Out of **18 notified biosphere reserves, India has 12** biosphere reserves under the **World Network of Biosphere Reserves** (WNBR) and the latest one to be included is the **Panna Biosphere Reserve**.

○ **World Heritage Sites:**

● These promote the **conservation of natural and cultural sites of outstanding universal value**.

● India has **38 world heritage sites**, including 30 cultural properties, 7 natural properties and 1 mixed site. The latest one to be included is **Jaipur city, Rajasthan**.

United Nations Educational, Scientific and Cultural Organisation

➢ It seeks to build peace through international cooperation in Education, the Sciences and Culture.

➢ It's programmes contribute to the achievement of the **Sustainable Development Goals** defined in **Agenda 2030**, adopted by the UN General Assembly in **2015**.

➢ It has **193 Members and 11 Associate Members. India** joined UNESCO in **1946.**

○ In 2019, the **USA and Israel formally quit UNESCO**.

➢ It is **headquartered in Paris,** France.

➢ **UNESCO-Intergovernmental Oceanographic Commission** (IOC) is leading a global effort to establish ocean-based tsunami warning systems as part of an overall multi-hazard disaster reduction strategy.

○ In August 2020, it approved the **recognition of two communities of Odisha** namely **Venkatraipur** and **Noliasahi** as **Tsunami Ready Communities**.

Note:

Important Sites in Visakhapatnam

➢ **Erra Matti Dibbalu:**
  ○ These are **coastal red sediment mounds** located between Visakhapatnam and Bheemunipatnam.
  ○ The width of sandy red dunes varies from 200 metres to two kilometres, spread across five kilometres along the coast.
  ○ Such **sand deposits** have only been reported from two other low latitude tropical regions in **South Asia**, namely the **Teri Sands of Tamil Nadu** and **Red Coastal Sands of Sri Lanka**.
  ○ It is among the **34 notified National Geological Heritage Monument Sites** of India by the **Geological Survey of India** (GSI).
    ● The **term geological heritage** is used for natural geological or geo-morphological features that have aesthetic, intrinsic or scientific and educational value, that provide a unique insight into geological processes affecting the formation or evolution of Earth.

➢ **Natural Rock Formations:**
  ○ One example is the **natural arch** at Mangamaripeta beach **(Eastern Ghats)** opposite the Thotlakonda Buddhist Site.
  ○ It is likely to **date back to the period after the last Ice Age** around 10,000 years ago and is similar to the natural rock arch of Silathoranam in the Tirumala Hills.

➢ **Borra Caves:**
  ○ **Discovered by William King George** of the GSI, these **one million-year-old caves** attract a huge number of tourists every day. These are located **at an elevation of 1400 metre above sea level.**
  ○ These caves are known for stalactite and stalagmite formations such as Shiva-Parvathi, Rishi's Beard, Mother-Child, Crocodile, Human Brain, Tiger and Cows udder.

➢ **Volcanic Ash Deposits:**
  ○ These are said to have originated from the **volcanic eruption of Toba in Indonesia 73,000 years ago** near Araku (Andhra Pradesh).

➢ **Concerns:**
  ○ **Red sands** are being **exploited for construction activity**. Further, **degradation due to human interference** such as digging, climbing, littering is affecting their stability and exacerbating erosion.
  ○ The recent incident of **overcrowding and reckless acts of visitors** endangering the natural arch has raised concerns among geologists and heritage activists on the need to safeguard the sites of the region and establish a geopark.

➢ **Conservation Efforts:**
  ○ In **July 2019**, INTACH organised a campaign to create **public awareness on geologically and culturally important spots** in the region.
    ● **INTACH** was founded **in 1984 in New Delhi** with the vision to spearhead heritage awareness and conservation in India.

Willow Warbler

Why in News

Recently, **Willow Warbler** has been **sighted for the first time in India** at **Vellayani-Punchakkari paddy fields**, Kerala.

➢ These paddy fields are a **birding hotspot on the outskirts of Thiruvananthapuram** and are known to **harbour more than 213 species of birds** that include both resident and migratory ones.

Key Points

➢ **Scientific Name:** *Phylloscopus trochilus*.
➢ **Habitat:** They breeds throughout **northern and temperate Europe and the Palearctic**.
  ○ Palearctic ecozone is one the Earth's 8 ecozones and covers Asia North of the Himalayas, with parts of Western Asia and most of East Asia and Africa North of the Sahara.
➢ **Migration:** They **migrate to sub-Saharan Africa during early winter**.
➢ **Features:**
  ○ It is **one of the longest migrating small birds**.
  ○ The bird weighs around 10 grams and its **long wing feathers** help it fly long distances.

Note:

○ Warblers are generally **difficult to identify owing to the small size and change in plumage twice a year**. They are also the **most difficult groups of birds to identify** in the field for their **striking resemblance to each other**.

➤ **Threats:** The species is affected by **drought conditions in its wintering quarters** and **habitat alterations** due to human population expansion.

➤ **IUCN Red List:** Least Concern.

Trends in Air Pollution: CPCB

Why in News

According to a recent **study** commissioned by the **Central Pollution Control Board** (CPCB), the **rate of increase in pollution levels** in southern and eastern India is far greater than the Indo-Gangetic plain (IGP).

➤ It has also found that **air pollution in rural areas has increased at par with urban India**.

Key Points

➤ **About the Study:**

○ It was **jointly carried out by IIT-Delhi and CPCB** and analysed **data from 2000 to 2019**.

● Currently, the process of **collating and analysing the 2020 data is going on** as well and a **decrease in pollution levels is expected** in the coming years.

○ The study, **conducted on the basis of satellite data**, is the **first of its kind to look at air pollution spatially**.

● **Spatial mapping** of pollution will be **vital for** the government to form its future policies under the **National Clean Air Programme** (NCAP).

➤ **Findings:**

○ The **rate of increase of PM2.5** over eastern and southern India is **more than 1.6% per year** during this period, and **less than 1.2% annually** in the IGP.

● PM2.5 are fine inhalable particles, with diameters that are generally 2.5 micrometers and smaller.

● It is a major pollutant affecting the environment, human health and the climate.

○ 436 cities/towns with a population of more than 1 lakh in 2019 **exceeded** the **National Ambient Air Quality Standard** (NAAQS) of **40 micrograms per metric cube** (µg/m3).

○ Population-weighted 20 year averaged PM2.5 over India is 57.3 µg/m3, with a **larger increase observed between 2010 and 2019** than in the 2000-09 period.

● As of 2019, **99.5% of districts** in India did not meet the **World Health Organisation** (WHO) air quality guideline of 10 µg/m3.

○ **Statewise Data:**

● **Ambient PM2.5 exceeds the annual NAAQS of 40 µg/m3 in every state except for** Jammu and Kashmir (J&K), Ladakh, Himachal Pradesh, Sikkim, Arunachal Pradesh, Manipur and Nagaland.

STATES WITH HIGH PM 2.5 INCREASE

State	Urban	Rural
Kerala	24.2%	21.9%
Goa	36.4%	37.3%
Andhra Pradesh	20.1%	18.9%
Maharashtra	24%	21%
Odisha	28%	28%

Data from 2000-2019; source: CPCB-IIT Delhi study

● The **PM2.5 level in the IGP**, which has a population of more than 70 crore, and the western arid region is **more than double** the annual NAAQS.

● In Odisha and Chhattisgarh, which have reported among the highest increase in air pollution in **eastern India**, this is **due to mining activities and thermal coal power plants**.

● In **southern** India, **high urbanisation in and around cities** such as Bengaluru or Hyderabad has led to increased emissions.

● **Unfavourable meteorological conditions** in eastern and peninsular India, along with increase in emissions, has led to an overall increase in PM2.5.

○ **Analysis:**

● While in absolute terms the level of **air pollution continues to be the highest in the IGP**, the **rate of increase in air pollution is much higher in southern India** and certain areas of **eastern India**.

● If the focus continues to be on IGP and the increasing pollution (levels) in southern and eastern India is not addressed now, in **another 10 years these regions will also have the same problem as northern India does**.

➤ **Urban-rural Divide:**

○ On PM2.5 levels cutting across the urban-rural divide, the study cites the example of **Delhi**, where it **increased by 10.9%** between **2001 to 2015**.

● During the same period, PM2.5 exposure in **rural India rose by 11.9%**.

Note:

○ A steady air pollution rise in rural India is **due to high reliance on solid fuel for domestic use**, which is the **largest contributor** to ambient PM2.5 in India.

  ● This implies that **poor air quality in India is not an urban-centric problem**.

○ **Air pollution in rural areas is rarely discussed** with air pollution policies which continue to focus on urban centres.

○ Schemes like the **Pradhan Mantri Ujjwala Yojana** (PMUY) are expected to decrease the pollution levels but it **lacks a mechanism to track its progress**.

  ● Since the household sources contribute more than 50% to ambient PM2.5 in rural areas, successful implementation of PMUY with sustained usage should arrest or even reverse the increasing trend in rural PM2.5.

Awards for Tiger Conservation

Why in News

The **Pilibhit Tiger Reserve (PTR - Uttar Pradesh)** has bagged international award **TX2** for doubling the number of tigers in the past four years.

➢ Also, the **Transboundary Manas Conservation Area or TraMCA** (**India-Bhutan** border) has received the **Conservation Excellence Award for 2020**.

➢ Earlier, **India's 2018 Tiger census** (once in every four years) had set a **Guinness record** for being the largest camera-trap wildlife survey.

Key Points

➢ **About the Awards:**

○ Launched recently, these awards **were open to submissions from any site in a tiger range country** that has achieved remarkable measurable progress since 2010.

  ● **Site:** An area having a functional tiger population, legally designated as a "site" under national legislation.

○ Award winners were announced on 23rd Nov 2020 - the **10 year anniversary for the global TX2 goal**.

○ Sites **will receive a small financial grant** to be used to further tiger conservation.

○ **TX2 Award:** It goes to **one site that has achieved remarkable and measurable increase in its tiger population** since 2010.

○ **Conservation Excellence Award:** This award **recognises one site** that has achieved excellence in **two or more of these five themes:**

  ● Tiger and prey population monitoring and research (tiger translocation / prey augmentation),

  ● Effective site management,

  ● Enhanced law enforcement & protection & ranger welfare improvement,

  ● Community based conservation, benefits and human-wildlife conflict mitigation and

  ● Habitat and prey management.

TX2 Goal

➢ The TX2 goal is a **global commitment to double the world's wild tigers by 2022.**

➢ The goal has been **set by the World Wildlife Fund (WWF)** through the **Global Tiger Initiative**, **Global Tiger Forum** and other critical platforms.

➢ All **13 tiger range governments** came together for the first time at the **St Petersburg Summit** (Russia -2010) where they committed to double the number of wild tigers by 2022.

➢ **Tiger Range Countries include** India, Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand and Vietnam.

  ○ **Tiger (*Panthera Tigris*)** is categorised as **'Endangered'** under the **IUCN Red List** and is listed under **Appendix I** of **CITES**.

  ○ **Global Tiger Day** is observed on **29th July** across the world.

  ○ **India's Project Tiger was launched in 1973** with 9 tiger reserves. Tiger has been listed under **'Schedule I' of the Wildlife Protection Act, 1972**.

➢ **Pilibhit Tiger Reserve:**

○ **Location:** Pilibhit district, Lakhimpur Kheri District and Bahraich District of **Uttar Pradesh**

  ● The northern edge of the reserve **lies along the Indo-Nepal border** while the southern boundary is marked by the **river Sharada and Khakra.**

○ **Declaration:** PTR was declared in **2014-15** on the basis of its special type of ecosystem with vast open spaces and sufficient feed for the elegant predators.

  ● PTR is one of the finest examples of the exceedingly diverse and productive **Terai ecosystems** (low-lying land at the foot of the Himalayas).

○ **Features:**

● The study done by **Wildlife Institute of India (WII)** shows that **Dudhwa-Pilibhit population has high conservation value** as it represents the only tiger population with the ecological and behavioral adaptations of the tiger unique to the Terai region.

● It is **home to** a habitat for over 127 animals, 326 bird species and 2,100 flowering plants.

  ■ Wild animals include tiger, swamp deer, Bengal florican, hog deer, leopard, etc.

  ■ It has high sal forests, plantation and grasslands with several water bodies.

○ **Bagged TX2 Award:** The number of tigers in the reserve area **has gone up to 65 from 25** in the period of just four years (2014-18).

○ **Other Protected Areas in Uttar Pradesh:**

  ● **Dudhwa National Park**

  ● Katarniaghat Wildlife Sanctuary

  ● Chambal Wildlife Sanctuary

  ● Sur Sarovar (Keethan) Bird Sanctuary

➢ **Transboundary Manas Conservation Area**:

○ **Formation:** It was **conceptualized in 2011** with the vision to jointly develop and manage a transboundary conservation area between Bhutan and India, for the benefit of people and wildlife.

○ **Features:**

  ● The TraMCA landscape with an area of over 6500 sq. km forms a vital mosaic of conservation spaces **across the Eastern Himalayas**, and covers the entire Manas Tiger Reserve in India, four protected areas in Bhutan and also two biological corridors.

  ● The **Manas Tiger Reserve in India and Royal Manas National Park in Bhutan** form the core of this biologically outstanding trans-boundary region that is **home to** tigers, **elephants**, **rhinos** and more than 1,500 species of mammals, birds and vascular plants.

  ● The **Manas River** flowing through Royal Manas National Park and Manas National Park also **makes both parks an important watershed area** in the region.

  ● The landscape and its surroundings **support over 10 million people** in India and Bhutan with its services.

○ **Bagged Conservation Excellence Award**: For **efforts** to increase the tiger population. The **recognition** was for the TraMCA comprising the 500 sq. km. **Manas National Park in Assam** and the 1,057-sq. km. **Royal Manas National Park in Bhutan.**

● The number of Tigers in the Indian Manas **increased from 9 in 2010 to 25 in 2018** while that in the **Bhutan Manas more than doubled from 12 in 2008 to 26 in 2018.**

Desalination Plants

Why in News

Recently, Maharashtra announced the setting up of a desalination plant in Mumbai.

➢ The plant will process **200 million litres of water daily (MLD)**, and will help in overcoming the **water shortage faced by Mumbai** in the months of **May and June.**

➢ **Maharashtra** will be the **fourth state** to experiment with Desalination Plants.

Key Points

➢ **Desalination Plants:**

○ A **desalination plant** turns salt water into water that is fit to drink.

  ● **Desalination** is the process of **removing salts from water** to produce water that meets the quality (salinity) requirements of different human uses.

○ Most commonly used **technology** for the process is **reverse osmosis**.

  ● An external pressure is applied to push solvents from an area of high-solute concentration to an area of low-solute concentration through a semi-permeable membrane.

  ● The **microscopic pores** in the membranes allow water molecules through but leave salt and most other impurities behind, releasing clean water from the other side.

○ These plants are mostly set up in areas that have access to **sea water**.

REVERSE OSMOSIS

Note:

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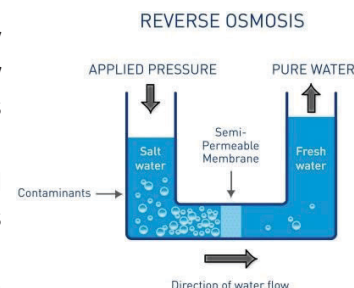
- **Advantage of Desalination Plants:**
  - It can extend water supplies beyond what is available from the **hydrological cycle**, providing an **"unlimited", climate-independent** and **steady supply** of high-quality water.
  - It can **provide drinking water** in areas where no natural supply of potable water exists.
  - As it generally **meets or exceeds** standards for **water quality**, water desalination plants can also **reduce pressure on freshwater supplies** that come from **areas** (over exploited water resources) that need protecting.
- **Disadvantage of Desalination Plants:**
  - **Costly to build and operate** desalination plants as the plants require huge amounts of energy.
    - **Energy costs** account for **one-third to one-half of the total cost** of producing desalinated water.
    - Because energy is such a large portion of the total cost, the **cost is also greatly affected by changes in the price of energy**.
  - **The environmental impact** is another disadvantage to water desalination plants. Disposal of the salt removed from the water is a major issue.
    - This discharge, known as **brine**, can change the salinity and lower the amount of oxygen (**Hypoxia**) in the water at the disposal site, stressing or killing animals not used to the higher levels of salt.
    - In addition, the desalination process **uses or produces numerous chemicals including chlorine, carbon dioxide, hydrochloric acid and anti-scalents** that can be **harmful in high concentrations.**
- **Opportunities:** The environmental problem can be changed into an economic opportunity as:
  - The **discharge (brine)** can also contain **precious elements like uranium, strontium as well as sodium and magnesium** which have the potential to be mined.
  - **Brine** has been used for **aquaculture**, with **increases in fish biomass of 300%**. It has also been successfully used to cultivate the **dietary supplement Spirulina**, and to irrigate forage shrubs and crops.
- **Use of Desalination Plants in India:**
  - It has largely been limited to countries in the **Middle East** and has recently started being used in parts of the **United States and Australia.**
  - In India, **Tamil Nadu** has been the pioneer in using this technology, setting up two desalination plants near **Chennai in 2010 and then 2013**.
  - The other states that have proposed these plants are **Gujarat and Andhra Pradesh.**

■■■

Note:

History

Highlights

- *Birth Anniversary of Birsa Munda*
- *Laxmi Devi Temple: Hoysala*

Birth Anniversary of Birsa Munda

Why in News

The Prime Minister paid tributes to the **tribal leader Birsa Munda** on his birth anniversary, which is celebrated every year on 15th November.

➢ **Jharkhand** was carved out of Bihar and officially **came into being on 15th November 2000**.

Key Points

➢ **Birth:** 15th November 1875.

➢ **Brief Profile:**

○ He belonged to the **Munda tribe** in the **Chotanagpur Plateau** area.

○ Also known as *Dharti Aaba* (Father of Earth), Birsa Munda is known to have **mobilised the tribal community against the British** and also forced the colonial officials to introduce laws protecting the land rights of the tribals.

➢ **Birsait Sect:**

○ Having gained awareness of the British colonial ruler and the efforts of the missionaries to convert tribals to Christianity, he **started the faith of 'Birsait'**.

○ Members of the **Munda and Oraon community** joined the Birsait sect and together posed a serious challenge to the British conversion activities.

○ He also urged the Mundas to **give up drinking liquor, clean their village, and stop believing in witchcraft and sorcery**.

➢ **Death:** 9th June 1900.

Munda Rebellion

➢ It is one of the most important tribal movements.

➢ It was led by Birsa Munda in the south of Ranchi in **1899-1900**.

➢ The movement **identified the following forces as the cause of the misery** the Mundas were suffering from:

○ **Land policies of the British** were destroying their traditional land system.

○ **Hindu landlords and moneylenders** were taking over their land.

○ **Missionaries** were criticising their traditional culture.

➢ The '*Ulgulan*' or the '**Great Tumult**' as the movement came to be called, **aimed at establishing Munda Raj by driving out the British**.

○ Munda used **traditional symbols and language** to rouse people, urging them to destroy "Ravana" (*diku* or outsiders and the Europeans) and establish a kingdom under his leadership.

➢ His followers began **targeting the symbols of diku and European power**. They attacked police stations and churches, and raided the property of moneylenders and zamindars. They raised the **white flag as a symbol of Birsa Raj**.

Jharkhand Foundation Day

➢ The name '**Jharkhand**' means '**Land of Forests**'. It brought into existence by the **Bihar Reorganization Act** on 15th November, 2000.

➢ **Neighbouring States:** Bihar to the north, Uttar Pradesh and Chhattisgarh to the west, Odisha to the south, and West Bengal to the east.

➢ Most of the state lies on the **Chotanagpur Plateau**, which is the source of the Koel, Damodar, Brahmani, Kharkai, and Subarnarekha rivers, whose upper watersheds lie within Jharkhand.

➢ **Betla National Park** is located in the state which has forest preserves supporting **populations of tigers and Asian Elephants**.

➢ Jharkhand boasts of **40% and 29% of India's mineral and coal reserves**, respectively.

➢ Jharkhand has **32 tribal groups** including Munda, Kol, Santhal, Oraon, Khond, Asur, Gond, etc.

- On 3rd March 1900, Munda was arrested by the British police while he was sleeping with his **tribal guerilla army** at **Jamkopai forest in Chakradharpur** (Jharkhand).
  ○ **He died of cholera** in the jail and the movement faded out.
- **Significance:**
  ○ It forced the colonial government to introduce laws like the **Chotanagpur Tenancy Act 1908** so that the land of the tribals could not be easily taken over by dikus.
  ○ It led to a realisation among the **tribal people that they could protest against injustice** and **express their anger** against colonial rule.

Laxmi Devi Temple: Hoysala

Why in News

Recently, a **Hoysala-era idol of Goddess Kali** of the **Lakshmi Devi Temple** at **Doddagaddavalli, Karnataka** has been found damaged.

Key Points

- **Lakshmi Devi Temple:**
  ○ It was built by the Hoysalas in the year **1114 CE** during the rule of king **Vishnuvardhana**.
  ○ The building material is **Chloritic schist**, more commonly known as **soapstone**.
  ○ The temple does not stand on a **jagati** (platform), a feature which became popular in later Hoysala temples.
  ○ The temple is a **chatuskuta construction** (4 shrine and tower). The towers are in **Kadamba nagara** style. The **mantapa is open and square.** The reason for the square plan is the presence of shrines on all four sides of the mantapa.
  ○ There is a **separate fifth shrine of Bhairava**, an avatar of Lord Shiva.
  ○ The main deity is **Goddess Lakshmi** whereas all Hoysala temples are dedicated to either **Lord Vishnu, Lord Shiva** and in **some cases to Jains.**
  ○ An **archaeological Survey of India** (ASI) monument and is also among the monuments **proposed** for the **UNESCO World Heritage Site**.

- **Hoysala Temple Architecture:**
  ○ It is the building style developed under the rule of the Hoysalas and is mostly concentrated in **southern Karnataka**.
  ○ **Hoysala temples** are sometimes called **hybrid or *vesara*** as their unique style seems **neither completely dravida nor nagara**, but somewhere in between.
    ● They are easily distinguishable from other medieval temples by their **highly original star-like ground-plans** and a **profusion of decorative carvings**.
    ● The temples, instead of consisting of a simple inner chamber with its pillared hall, contain **multiple shrines grouped around a central pillared hall** and laid out in the shape of an intricately-designed star.
    ● The most characteristic feature of these temples is that they grow **extremely complex with so many projecting angles** emerging from the previously straightforward square temple, that the plan of these temples starts **looking like a star**, and is thus known as a **stellate-plan**.
  ○ **Some of the famous temples are:**
    ● **Hoysaleshvara** (Lord of the Hoysalas) **Temple:** At **Halebid, Karnataka** and built in **dark schist stone** by a Hoysala king in AD 1150.
    ● **Chennakeshava Temple:** At **Somnathpur, Karnataka** and was built around AD 1268 under **Narasimha III**.
    ● **Kesava Temple: At Belur, Hassan** district of Karnataka built by **Vishnuvardhana**.

> **Hoysala**
> - During the **12th and 13th centuries**, **Hoysalas of Karnataka** grew to prominence in South India and **became the most important patrons centred at Mysore**.
> - They ruled **almost all the present day Karnataka**.
> - Their capital was **Belur** which was later shifted to **Halebidu**.
> - The period was an important era for the growth of the art, architecture and religion in South India.

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Art & Culture

Highlights

- *Guru Nanak Jayanti*

Guru Nanak Jayanti

Why in News

The President of India has greeted the citizens on the occasion of **Guru Nanak Jayanti**.

➢ It is a sacred festival of the Sikh community and is celebrated to commemorate the birth anniversary of **Guru Nanak Dev**, who is believed to be born on *Poornima* (full moon) of the *Kartika* (8th month of Hindu calendar), which falls on **30th of November in 2020**.

Key Points

➢ **Guru Nanak Dev:**
   ○ **Birth:** In 1459 at **Talwandi Rai Bhoe village near Lahore**, which was later renamed as **Nankana Sahib**.
   ○ He was the first of the **10 gurus** of **Sikhism**.
   ○ **Contributions:**
      ● Initiated **inter-faith dialogue way back in the 16th century** and had conversations with most of the religious denominations of his times.
      ● Wrote compositions which were included in the **Adi Granth**, compiled by **Guru Arjan** (1563-1606), the **fifth Sikh guru**.
         ■ This came to be known as **Guru Granth Sahib after the additions made by the 10th sikh guru Gobind Singh** (1666-1708).
      ● Advocated the **'Nirguna'** (devotion to and worship of formless divine) form of bhakti.
      ● Rejected **sacrifices, ritual baths, image worship, austerities**.
      ● Set up rules for **congregational worship** (*Sangat*) involving collective recitation.
      ● Gave the basic mantra of **'Ek Onkar'** to his followers and insisted on treating all human beings equally, without discriminating on the **basis of caste, creed and gender**.

   ○ **Death:** In 1539 at **Kartarpur, Punjab**.
➢ **Relevance of Guru Nanak Dev for Modern India:**
   ○ **Building an Egalitarian Society:** His idea of **equality** can be deduced by the following innovative social institutions, as given by him:
      ● *Langar*: Collective cooking and sharing of food.
      ● *Pangat*: Partaking food without distinctions of high and low caste.
      ● *Sangat:* Collective decision making.
   ○ **Social Harmony:**
      ● According to him, the whole world is God's creation and all are born equal. There is only one universal creator i.e. *"Ek Onkar Satnam"*.
      ● Apart from it, forgiveness, patience, forbearance, and kindness are the core of his teachings.
   ○ **Creating a Just Society:**
      ● He placed the motto of **"kirat karo, naam japo and vand chhako"** (work, worship and share) before his disciples.
      ● He stood for karma as the basis of dharma, and he transformed the idea of spiritualism into the ideology of social responsibility and social change.
      ● He advocated the concept of "*dasvandh*" or **donating one-tenth of one's earning** among needy persons.
   ○ **Gender Equality:**
      ● According to him, "**Women as well as men share the grace of God and are equally responsible for their actions to him**."
      ● Respect for women and gender equality is perhaps the most important lesson to be learnt from his life.
   ○ **Bringing Peace:**
      ● According to Indian philosophy, a Guru is the one who provides illumination, dispels doubt and shows the right path. In this

context, the ideas of Guru Nanak Dev can help **promote peace, equality and prosperity across the globe**.

- In 2019, the **550th birth anniversary of Guru**

Nanak Dev was celebrated and the **Kartarpur corridor** was inaugurated, which is an important step towards easing the **tensions between India and Pakistan**.

■■■

Note:

Geography

Highlights

● *Subdued Northeast Monsoon* ● *Cyclone Nivar*

Subdued Northeast Monsoon

Why in News

Rainfall over the southern peninsular region has been deficient so far, indicating that the northeast monsoon has remained subdued this year.

Key Points

➢ **Pattern of Rainfall in India:** India receives rainfall during **two seasons**:
  ❍ About **75% of the country's annual rainfall** is received from the **Southwest monsoon** between **June and September.**
  ❍ The **Northeast monsoon** occurs during **October to December,** and is a **comparatively small-scale monsoon**, which is confined to the **Southern peninsula.** It is called the **winter monsoon.**

➢ **Northeast Monsoon and Rainfall:**
  ❍ After the **complete withdrawal of the Southwest monsoon** from the country takes place by **mid-October,** the **wind pattern rapidly changes** from the **south-westerly to the north-easterly direction.**
  ❍ The period after the Southwest monsoon season, from October to December, is the **peak time for cyclonic activity in the North Indian Ocean region** covering the Arabian Sea and the Bay of Bengal.
    ● The winds associated with the formation of low pressure systems, depressions, or cyclones **influence this monsoon**, and therefore, the rainfall.

➢ **Regions associated with Northeast Monsoon**:
  ❍ The rainfall associated with the Northeast monsoon is important for **Tamil Nadu, Puducherry, Karaikal, Yanam, coastal Andhra Pradesh, Kerala, north interior Karnataka, Mahe and Lakshadweep**.
  ❍ Tamil Nadu records about **48% of its annual rainfall**

during these months, making it the key factor for **undertaking agricultural activities and reservoir management** in the state.
  ❍ Some South Asian countries such as **Maldives, Sri Lanka and Myanmar**, too, record rainfall during October to December.

➢ **Reasons for deficient rainfall this Northeast monsoon:**
  ❍ **Prevailing La Niña conditions in the Pacific Ocean**:
    ● La Niña conditions **enhance the rainfall associated with the Southwest monsoon**, but has a **negative impact** on rainfall associated with the **Northeast monsoon.**
    ● La Niña (Spanish for 'little girl') refers to the **large-scale cooling of the ocean surface temperatures in the central and eastern equatorial Pacific Ocean**, coupled with changes in the tropical atmospheric circulation, namely winds, pressure and rainfall.
    ● It usually **has the opposite impacts on weather and climate as El Niño,** which is the warm phase of the so-called **El Niño Southern Oscillation (ENSO).**
      ■ **El Niño** (Spanish for 'little boy') is the **abnormal surface warming observed along the eastern and central regions of the Pacific Ocean** (region between Peru and Papua New Guinea).
      ■ La Nina and El Nino are **large-scale ocean phenomena** which influence the global weather winds, temperature and rainfall.
      ■ They have the **ability to trigger extreme weather events** like droughts, floods, hot and cold conditions, globally.
      ■ Each cycle can last anywhere **between 9 to 12 months, at times extendable to 18 months** and re-occur after **every three to five years.**
  ❍ **Inter Tropical Convective Zone (ITCZ):**

Note:

- The current position of the ITCZ has also contributed to the poor rainfall during the ongoing monsoon season.
- The ITCZ is **a low-pressure belt**, whose northward and southward movements along the equator determine the precipitation in the tropics.
- Currently, the **ITCZ is located to the north of its normal position.**

Other Important Atmospheric Circulation

➢ **Madden-Julian Oscillation (MJO)**: The MJO can be defined as an eastward moving 'pulse' of clouds, rainfall, winds and pressure near the equator that typically recurs every 30 to 60 days.

Cyclone Nivar

Why in News

Recently, the **tropical cyclone** Nivar has made landfall along the **Tamil Nadu-Puducherry** coast.

➢ Landfall refers to the phenomenon of a cyclone's outer wall moving over the coastline and beyond.

Key Points

➢ **Tropical Cyclone:**
  ○ A tropical cyclone is an intense circular storm that **originates over warm tropical oceans** and is **characterized by** low atmospheric pressure, high winds, and heavy rain.
  ○ A characteristic feature of tropical cyclones is the **eye**, a central region of clear skies, warm temperatures, and low atmospheric pressure.
  ○ Storms of this type are called **hurricanes in the North Atlantic** and eastern Pacific and **typhoons in SouthEast Asia** and China. They are called **tropical cyclones** in the **southwest Pacific and Indian Ocean region** and **Willy-willies** in **north-western Australia.**
  ○ Storms **rotate anticlockwise** in the **northern hemisphere** and clockwise in the southern hemisphere.
➢ **Cyclone Nivar:**
➢ It is the **fourth cyclone** that has taken shape in the North Indian Ocean region this year. The first three cyclones were **Cyclone Gati** (made landfall in Somalia in

November), **Cyclone Amphan** (eastern India witnessed it in May), and **Cyclone Nisarga** (in Maharashtra).
➢ Nivar will be the **second cyclone to hit Tamil Nadu in two years** after **Cyclone Gaja** in 2018.
➢ The storm has been **named Cyclone Nivar**, based on the **guidelines of the World Meteorological Organisation (WMO)**. Nivara has been **selected from the list of names given by Iran.**
  ○ According to WMO guidelines, countries in every region are supposed to give names for cyclones.
  ○ The North Indian Ocean Region covers tropical cyclones formed over Bay of Bengal and Arabian Sea.
  ○ The **13 members**, which come under the region, are Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, Thailand, Iran, Qatar, Saudi Arabia, the UAE and Yemen.
  ○ A **total of 169 cyclones were named** by these countries for this year, with **13 names from each countr**y.
➢ It has weakened from a very severe cyclonic storm to a **severe cyclonic storm** with a wind speed of 100-110 km per hour.
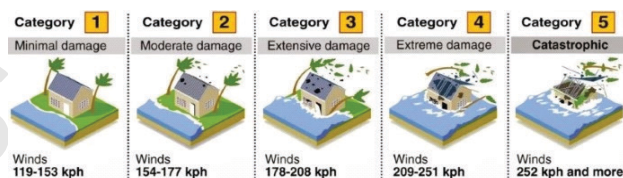
Cyclone Category	Wind Speed in Km/h	Damage Capacity
01	120-150	Minimal
02	150-180	Moderate
03	180-210	Extensive
04	210-250	Extreme
05	250 +	Catastrophic

Type of Disturbances	Wind Speed in Km/h
Low Pressure	Less than 31
Depression	31-49
Deep Depression	49-61
Cyclonic Storm	61-88
Severe Cyclonic Storm	88-117
Very Severe Cyclone	118-221
Super Cyclone	More than 221

➢ **Government Steps:**
  ○ The **Tamil Nadu government** has announced a **public holiday** under the **Negotiable Instruments Act, 1881**, in 16 districts, including Chennai, considering the impact of Cyclone Nivar.
  ○ **Fishing activities** have been **restricted** and **residents evacuated** in coastal areas hit by the cyclone. The **National Disaster Response Force (NDRF)** has deployed its teams in the affected regions.

Note:

Social Issues

Highlights

- *Pneumonia and Diarrhoea Progress Report 2020: IVAC*
- *Sex Ratio and India*
- *Step Up for TB 2020 Report*
- *Online Education Woes*
- *Report on National Nutrition Mission: NITI Aayog*

- *Initiatives for Transgender Persons*
- *Global Coalition Against HIV*
- *Covid-19 and Children: UNICEF*
- *Hidden Epidemic*

Pneumonia and Diarrhoea Progress Report 2020: IVAC

Why in News

Recently, the annual **Pneumonia and Diarrhoea Progress Report** has been released by the **International Vaccine Access Centre** (IVAC).
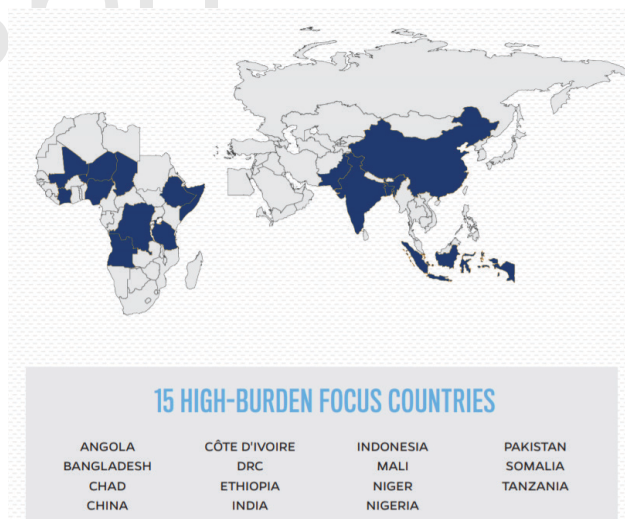
➢ IVAC, founded in **2009**, **accelerates equitable access to vaccines** through the **generation, synthesis, and use of evidence** to inform decision-making and action. It is located in the Johns Hopkins Bloomberg School of Public Health, USA.

Key Points

➢ **About the Report:**
  ○ It evaluates the progress **across 10 high-impact indicators** outlined in the **Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea** (GAPPD) in the **15 countries with the greatest burden of under-five pneumonia and diarrhoea deaths** and how they are delivering key **interventions to prevent** these.
    - These **interventions include breastfeeding, immunisation**, care-seeking and antibiotics, Oral Rehydration Solution (ORS), and **zinc supplementation**.
    - These measures are proven to help prevent deaths due to these illnesses and could help achieve the **Sustainable Development Goal-3** (Good Health and Well-Being) target of **reducing under-five mortality** to at least as low as 25 per 1,000 live births by 2030.

- In **2009**, the **World Health Organisation** (WHO) and **United Nations Children's Fund** (UNICEF) launched the GAPPD, which proposes a **multi-sectoral, integrated approach to reduce the incidence of severe pneumonia and diarrhoea, reduce the number of children under-five who are stunted**, and **end preventable childhood deaths** from pneumonia and diarrhoea.
  ○ This year's report also **addresses the emerging impacts of the Covid-19 pandemic**.
  ○ It monitors the **coverage of five vaccines** which are **Diphtheria, Pertussis and Tetanus** (DPT) **vaccine, Measles**-containing-vaccine first dose, **Haemophilus influenzae type B, pneumococcal conjugate vaccine** (PCV), and **rotavirus vaccine**.

15 HIGH-BURDEN FOCUS COUNTRIES

ANGOLA	CÔTE D'IVOIRE	INDONESIA	PAKISTAN
BANGLADESH	DRC	MALI	SOMALIA
CHAD	ETHIOPIA	NIGER	TANZANIA
CHINA	INDIA	NIGERIA	

➢ **Global Status:**
  ○ **Nearly every country** included in the report **lagged in access to treatments** against pneumonia and diarrhoea.

- ❍ **Overall the world's health systems are falling short** of ensuring that children have access to prevention and treatment services.
- ➢ **India's Performance:**
  - ❍ Of the 15 focus countries included in the report, **India is one of the countries that exceeded targets** for **exclusive breastfeeding**.
    - The **World Health Assembly** (WHA) has set a target to increase the **global rate of exclusive breastfeeding to at least 50% by 2025**.
    - **Exclusive Breastfeeding:** It means that the infant receives only breast milk. No other liquids or solids are given, not even water, with the exception of ORS, or drops/syrups of vitamins, minerals or medicines.
  - ❍ India has made **significant progress in its vaccination coverage** to prevent child pneumonia and diarrhoea deaths.
  - ❍ India has **achieved the global target of 90% coverage for three of the five vaccines** whose coverage is monitored in the report.
  - ❍ However, **India failed to reach all targets for treatment** and the **treatment for diarrhoea had the lowest coverage**, with only 51% of children receiving ORS and 20% getting zinc.
    - **90% treatment coverage for children with suspected pneumonia**, including care by an appropriate health care provider and antibiotics and **90% treatment coverage for children with diarrhoea**, including treatment with ORS and zinc supplements **by 2025**.
  - ❍ Although there was progress in India in 2019, the **Covid-19 pandemic threatens the gains because of disruptions** caused in routine health services like **immunisation and access to medical oxygen**.

Report card

Though India has made some strides in its vaccination programme, access to treatment leaves much to be desired

- India's under-five diarrhoea and pneumonia deaths in 2017: **2,33,240**
- India's coverage of rotavirus vaccine increased from **35%** in 2018 to **53%** in 2019
- Coverage against pneumococcal pneumonia increased from **6%** in 2018 to **15%** in 2019
- Treatment for diarrhoea had the lowest coverage with only **51%** of children receiving ORS and **20%** getting zinc

A file picture of a nurse administering pentavalent vaccine to a child in Hyderabad.

Diarrhoea
- ➢ **About:**
  - ❍ It is the **passage of 3 or more loose or liquid stools per day**, or more frequently than is normal for the individual. There are **three clinical types of diarrhoea**:
    - **Acute watery diarrhoea** (lasts several hours or days, and includes cholera).
    - **Acute bloody diarrhoea** (also called dysentery).
    - **Persistent diarrhoea** (lasts 14 days or longer).
- ➢ **Causes:**
  - ❍ Diarrhoea is a symptom of infections **caused by a host of bacterial, viral and parasitic organisms**, most of which are spread by faeces-contaminated water.
  - ❍ **Water contaminated with human and animal faeces** is of particular concern. Animal faeces also contain microorganisms that can cause diarrhoea.
  - ❍ It can also spread from person-to-person, aggravated by poor personal hygiene, food prepared or stored in unhygienic conditions, unsafe domestic water storage and handling.
- ➢ **Threat:**
  - ❍ The most severe threat posed by diarrhoea is **dehydration, which occurs when lost water and electrolytes** are not replaced.
  - ❍ It may be **life-threatening**, particularly in **young children and people who are malnourished** or have **impaired immunity**.
- ➢ **Prevention and Cure:**
  - ❍ Interventions to prevent diarrhoea, including **safe drinking-water, use of improved sanitation** and **handwashing with soap** can reduce disease risk.
  - ❍ Diarrhoea should be **treated with ORS**, a solution of clean water, sugar and salt. In addition, **nutrient-rich foods and zinc supplemental treatment shortens** diarrhoea duration and improves outcomes.

Step Taken by India
- ➢ The government aims to achieve a **target of reducing pneumonia deaths among children to less than three per 1,000 live births by 2025**.
- ➢ In **2014**, India launched the **Integrated Action Plan for Prevention and Control of Pneumonia and**

Note:

- **Diarrhoea** (IAPPD) to undertake collaborative efforts towards prevention of diarrhoea and pneumonia-related under-five deaths.
- **Universal Immunization Programme** (UIP) was launched by the government in **1985** and **prevents mortality and morbidity in children and pregnant women against 12 vaccine-preventable diseases** including pneumonia and diarrhoea.
- Social Awareness and Action to Neutralise Pneumonia Successfully (SAANS) Campaign to **reduce child mortality due to pneumonia**, which contributes to around 15% of deaths of children under the age of five annually.
- In **2019**, the government of India launched a **rotavirus vaccine drive** across all states and Union Territories, which was an **unprecedented national scale-up of the rotavirus vaccine**.

Sex Ratio and India

Why in News

According to the **2018 report** on "vital statistics of India based on the Civil Registration System", **Arunachal Pradesh** recorded the **best sex ratio at birth** in the country while **Manipur** recorded the **worst sex ratio at birth.**

- The report was published by the **Registrar General of India**.
- **Sex ratio at birth** is number of females born per thousand males. It is an **important indicator to map the gender gap of a population.**

Registrar General of India

- Registrar General of India was founded in 1961 by the Government of India under the **Ministry of Home Affairs.**
- It arranges, conducts and analyses the results of the demographic surveys of India including **Census of India** and Linguistic Survey of India.
- The position of Registrar is usually held by a civil servant holding the rank of Joint Secretary.
- **Civil Registration System (CRS)** in India is the unified process of continuous, permanent, compulsory and universal recording of the vital events (births, deaths, stillbirths) and characteristics thereof. The data generated through a complete and up-to-date CRS is essential for socio-economic planning.

Key Points

- **Arunachal Pradesh** recorded **1,084 females** born per thousand males, followed by Nagaland (965), Mizoram (964), Kerala (963).
- The **worst sex ratio was reported in Manipur** (757), Lakshadweep (839) and Daman & Diu (877), Punjab (896) and Gujarat (896).
- Delhi recorded a sex ratio of 929, Haryana - 914.
  - The ratio was **determined on the basis of data provided by 30 States and Union Territories** as the requisite **information** from six States namely **Bihar, Jharkhand, Maharashtra, Sikkim, Uttar Pradesh** and **West Bengal** is **not available.**
  - **Major states** are states with populations 10 million and above as per the 2011 Census.
- The Sample Registration System (SRS) Report 2018 shows that **sex ratio at birth in India**, declined marginally from **906 in 2011 to 899 in 2018.**
  - Contrary to popular perception, **India's sex ratio at birth declined even as per capita income increased nearly 10 times over the last 65 years**, according to an IndiaSpend analysis of government data.
  - This could be because rising income, which results in increased literacy, makes it easier for families to access sex-selective procedures.
- **Issues Related to Lower Sex Ratio at Birth:**
  - **Gender-imbalance**:
    - **Prof. Amartya Kumar Sen**, in his world famous article **"Missing Women"** has statistically proved that during the last century, 100 million women have been missing in south Asia.
    - This is due to discrimination leading to death, experienced by them **from womb to tomb in their life cycles.**
    - An adverse child sex ratio is also reflected in the distorted gender makeup of the entire population.
  - **Distortion in the Marriage System**:
    - Adverse ratio results in a gross imbalance in the number of men and women and its inevitable impact on marriage systems as well as other harms to women.
    - In India, some villages in Haryana and Punjab have such poor sex ratios that men **"import" brides** from other States. This is often accompanied by the exploitation of these brides.
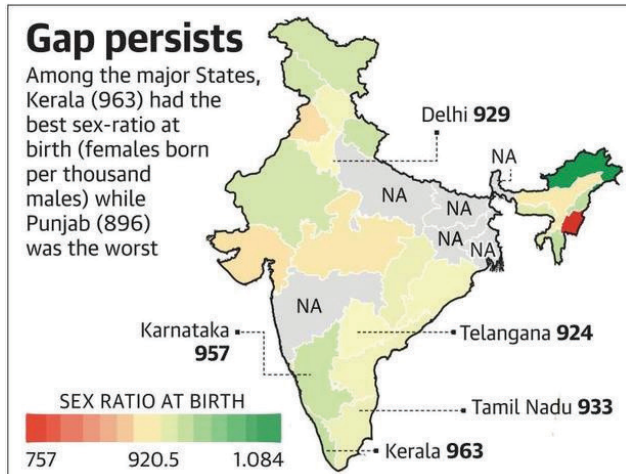
Note:

Gap persists

Among the major States, Kerala (963) had the best sex-ratio at birth (females born per thousand males) while Punjab (896) was the worst

Delhi **929**

NA

NA NA

NA NA NA

NA

Karnataka **957**

Telangana **924**

Tamil Nadu **933**

Kerala **963**

SEX RATIO AT BIRTH

757   920.5   1.084

- There are concerns that skewed sex ratios lead to more violence against both men and women, as well as human-trafficking.

Suggestions

➢ **Bringing Behavioural Change**:

○ Increasing female education and economic prosperity help to improve the ratio. In this pursuit, the government's **Beti-Bachao Beti Padhao Campaign** has achieved remarkable success in bringing behavioural change in the society.

➢ **Sensitizing Youth**:

○ There is an urgent need to reach young people for reproductive health education and services as well as to cultivate gender equity norms.

○ For this, the services of **Accredited Social Health Activist (ASHA)** can be leveraged, especially in rural areas.

➢ **Stringent Enforcement of Law**:

○ India must implement the **Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act, 1994** more stringently and dedicate more resources to fighting the preference for boys.

○ In this context, the **Drugs Technical Advisory Board decision** to include ultrasound machines in the Drugs and Cosmetics Act, 1940 is a step in the right direction.

Step Up for TB 2020 Report

Why in News

Recently, **Step Up for TB 2020 report** by the **Stop**

TB Partnership and **Médecins Sans Frontières** (MSF) has highlighted India's **conservative approach** regarding the new medicines for **Drug-Resistant Tuberculosis** (TB), putting lives of patients including children in danger.

➢ The current **pandemic** has further aggravated the sufferings of TB patients in the country in terms of disease **diagnosis**, **surveillance and treatment**.

Médecins Sans Frontières

➢ Founded in **1971**, MSF (also known as **Doctors Without Borders in English**) is an **international humanitarian medical non-governmental organisation** (NGO) of **French origin** best known for its projects in **conflict zones** and in countries affected by endemic diseases.

➢ **It was awarded the Nobel Peace Prize in 1999**.

Tuberculosis

➢ It is caused by **Mycobacterium tuberculosis** (bacteria) that most often affect the **lungs.**

➢ **Transmission:** It is spread from person to person through the air. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air.

➢ **Symptoms:** Cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats.

➢ **Treatment:** It is a treatable and curable disease. It is treated with a standard 6-month course of 4 antimicrobial drugs that are provided with information, supervision and support to the patient by a health worker or trained volunteer.

➢ **Types:**

○ **Multidrug-resistant tuberculosis** (MDR-TB) is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the 2 most powerful, first-line anti-TB drugs. MDR-TB is treatable and curable by using second-line drugs.

○ **Extensively drug-resistant TB** (XDR-TB) is a more serious form of MDR-TB caused by bacteria that do not respond to the most effective second-line anti-TB drugs, often leaving patients without any further treatment options.

➢ It remains the **world's deadliest infectious disease**, killing more than **1.4 million people in 2019,** despite being curable.

Key Points

➢ **About the Report:**

○ It presents data on **37 high-burden countries, including India** (representing 77% of the global estimated TB incident cases), assessing the extent to which **national policies align with international best practices** based on the **World Health Organisation** (WHO) guidelines and the latest scientific research.

○ This is the **4th edition** of this report, which focuses on countries' policies and practices related to **4 key areas of National TB Programmes** (NTPs):

- Diagnosis.
- Treatment (including models of care).
- Prevention.
- Medicines procurement policies.

➢ **Findings:**

○ There are **barriers to policy adoption** and implementation across the surveyed countries.

○ The **critical medical innovations** are reaching very few people who urgently need them.

○ The report emphasised that **oral treatment regimens** for people with drug-resistant TB (DR-TB) must be prioritised over older, toxic drugs that have to be injected and cause serious side effects.

○ Nearly **1 in 3 people** with TB disease is **still not diagnosed and notified.**

○ Almost **2 in 3 countries** surveyed still do not include in their policies urinary **TB lipoarabinomannan** (TB LAM) **testing** for people living with HIV.

- TB LAM is the only rapid point-of-care TB test available, and there is more than enough evidence of its benefits as a lifesaving point-of-care test.

➢ **India Specific Findings:**

○ India was criticised for not scaling up the new DR-TB drugs **Bedaquiline and Delamanid**, needed even more during **Covid-19**.

- **Pretomanid** is the third new drug developed for the treatment.

○ Until March 2020, less **than 10% of India's MDR-TB patients** who were eligible for Bedaquiline had received it. This is alarming, since **India is home to a quarter of the world's DR-TB patients**.

- India has the highest TB burden in the world. In 2018, **2.15 million TB cases were reported,** which is 16% more than in 2017.

➢ **India's Initiative to Fight TB:**

○ **National Tuberculosis Elimination Programme:**

- To align with the ambitious goal, the programme has been renamed from the **Revised National Tuberculosis Control Programme** (RNTCP) to **National Tuberculosis Elimination Programme** (NTEP).

○ **Eliminating TB by 2025:** India is committed to **eliminating tuberculosis from the country by 2025,** five years ahead of the global target by the WHO) i.e. **2030**.

○ **Nikshay Ecosystem:**

- It is the **National TB information system** which is a one-stop solution to manage information of patients and monitor program activity and performance throughout the country.

○ **Nikshay Poshan Yojana:**

- This scheme is aimed at providing financial support to TB patients for their nutrition.

○ **TB Harega Desh Jeetega Campaign:**

- **Launched in September 2019,** it is showcasing the highest level of commitment for the elimination of TB.

○ **Saksham Project:**

- It is a project of the **Tata Institute of Social Sciences** (TISS) that has been providing psycho-social counselling to DR-TB patients.

○ The Government of India has partnered with the **Global Fund** to launch **Joint Effort for Elimination of TB** (JEET), a private sector engagement program operating across the country.

➢ **Global Efforts**:

○ The WHO has launched a joint initiative **"Find. Treat. All. #EndTB"** with the Global Fund and Stop TB Partnership.

- The **WHO End TB Strategy** outlines global impact targets to **reduce TB deaths by 90%, to cut new cases by 80%** between the years **2015 and 2030**, and to ensure that no family is burdened with catastrophic costs due to TB.

○ It aims to accelerate the TB response and ensure access to care, in line with WHO's overall drive towards **Universal Health Coverage**.

➢ WHO also releases the **Global Tuberculosis Report**.

Note:

Online Education Woes

Why in News

A recent study by the **Azim Premji University** on the **efficacy and accessibility** of e-learning has highlighted various challenges involved in online education in the country.

Key Points

➢ **Student Specific Findings:**
  ○ Reason for student's lack of accessibility to online classes:
    ● **Non-availability or inadequate number of smartphones** for dedicated use or sharing.
    ● Difficulty in **using apps** for online learning.
    ● **Children with disabilities** found it more difficult to participate in online sessions.

➢ **Parents Specific Findings:**
  ○ **90%** of parents of government school students surveyed were **willing to send their children back to school**, if the health of their children was taken care of.
  ○ **70%** of the parents surveyed were of the opinion that online classes **were not effective** and **did not help** in their child's learnings.

➢ **Teacher Specific Findings:**
  ○ Teachers' main problem found during the online classes was **one-way communication**, which made it **difficult for them to assess** whether students were able to understand what was being taught.
  ○ More than **80% of teachers** surveyed said they were **unable to maintain emotional connect** with students during online classes, while **90%** of teachers felt that **no meaningful assessment** of children's learning was possible.
  ○ **50%** of the teachers reported that **children were unable to complete assignments shared during the online classes**, which had led to serious gaps in learning.
  ○ The survey also revealed that around 75% of the teachers spent, **on an average, less than an hour a day on online classes** for any grade.
  ○ Teachers also reported that they were **ill-prepared for online learning platforms**.

○ More than half the teachers surveyed shared that their **knowledge and user-experience** on online platforms and modes of teaching were inadequate.

Report on National Nutrition Mission: NITI Aayog

Why in News

Recently, the **NITI Aayog** has released "**Accelerating Progress On Nutrition In India: What Will It Take**", the third progress report on the **National Nutrition Mission** or the **Poshan Abhiyaan**.

Key Points

➢ **National Nutrition Mission:**
  ○ **Launched in 2018,** it is the Government of India's **flagship programme** to improve nutritional outcomes for children, pregnant women and lactating mothers.
    ● It is backed by a **National Nutrition Strategy** prepared by the NITI Aayog with the goal of attaining "*Kuposhan Mukt Bharat*" or **malnutrition-free India**, by **2022**.
  ○ **Aims:**
    ● To reduce **stunting, undernutrition, anemia** (among young children, women and adolescent girls) and **low birth weight by 2%, 2%, 3% and 2% per annum respectively**.
    ● To address the problem of **malnutrition** in a mission-mode.
  ○ **50% of the total budget** comes from the **World Bank** or other multilateral development banks and the rest of the **50% is through Centre's budgetary support**.
    ● The Centre's budgetary support is further divided into **60:40 between the Centre and the States**, **90:10 for the north-eastern region and the Himalayan States** and **100% for the Union Territories** (UTs) without legislature.
  ○ **Prevalence:**
    ● More than a third of children under five suffer from stunting and wasting and 40% of children between one and four are anaemic.
    ● Over 50% of pregnant and non-pregnant women were found to be anaemic, according to the **National Family Health Survey-4** released in 2016.

Note:

drishti

➤ **About the Report:**

○ The **third progress report** (**October 2019-April 2020**) takes stock of the **roll-out status on the ground and implementation challenges** encountered at various levels through large scale datasets.

● These datasets are the NFHS-4 and **Comprehensive National Nutrition Survey** (CNNS).

○ The **initial Reports I and II**, focused majorly on the **mission's preparedness** and **implementation** by States and UTs, respectively.

○ The **review report was drafted in March 2020** and **does not factor worsening poverty and hunger levels since then**, which are expected to have gone down further due to the **Covid-19**.

➤ **Concerns Highlighted:**

○ On stunting, **India's targets are conservative as compared to the global target** defined by the **World Health Assembly** (WHA), which is a prevalence rate of 5% of stunting as opposed to India's goal of reducing stunting levels to 13.3% by 2022.

○ The **target of reducing prevalence levels of anaemia among pregnant women** from 50.3% in 2016 to 34.4% in 2022 and **among adolescent girls** from 52.9% in 2016 to 39.66%, is also considered to be **conservative as compared to the WHA's target of halving prevalence levels**.

○ In the wake of the **pandemic**, experts warn that **deepening poverty and hunger may delay** achieving the goals defined under the Mission.

➤ **Suggestions:**

○ **On Stunting:**

● To improve complementary feeding using both behaviour change interventions and complimentary food supplements in the **Integrated Child Development Services** (ICDS).

● To work towards investments in girls and women (education during childhood, reducing early marriage and early pregnancy, improving care during and after pregnancy) along with other social determinants.

● To improve water, sanitation, handwashing with soap and hygienic disposal of children's stools with other effective interventions.

○ **On Wasting:**

● To include interventions that go beyond the treatment of **severe acute malnutrition** (SAM)

and also address moderate wasting, have the potential to achieve larger declines in wasting.

● To scale-up to reach facility-based treatment of SAM to all those needing in-patient care.

● To urgently release a full strategy for prevention and integrated management of wasting nationally.

○ **On Anaemia:**

● To scale-up scenario that focuses only on health sector interventions which will achieve modest improvements in anaemia among women of reproductive age.

Initiatives for Transgender Persons

Why in News

Recently, the **Ministry of Social Justice and Empowerment** has launched the **National Portal for Transgender Persons** and has inaugurated *Garima Greh*, a shelter home for transgender persons.

Key Points

➤ **National Portal for Transgender Persons:**

○ It has been launched in consonance with the **Transgender Persons (Protection of Rights) Rules, 2020**.

○ It would help transgenders in **digitally applying for a certificate and identity card** from anywhere in the country, thus **preventing any physical interaction** with officials.

○ It will **help them track the status** of application, rejection, grievance redressal, etc. which will **ensure transparency** in the process.

○ The issuing authorities are also under **strict timelines to process** the applications and issue certificates and I-cards without any necessary delays.

➤ **Garima Greh:**

○ It has been opened in **Vadodara, Gujarat** and will be run in association with the **Lakshya Trust**, a community-based organisation entirely run by the transgenders.

○ The **Scheme of 'Shelter Home for Transgender Persons'** includes shelter facility, food, clothing, recreational facilities, skill development opportunities, yoga, physical fitness, library facilities, legal

support, technical advise for gender transition and surgeries, capacity building of trans-friendly organizations, employment, etc.

○ The scheme will **rehabilitate a minimum of 25 transgender persons** in each homes identified by the Ministry.

● 10 cities have been identified to set up the 13 Shelter Homes.

Transgender Persons (Protection of Rights) Rules, 2020

➢ The Central Government made the rules under the powers conferred by the **Transgender Persons (Protection of Rights) Act, 2019**.

○ The Act came into effect on **10th January 2020**, which is the first concrete step towards ensuring welfare of transgender persons.

➢ The rules seek to recognise the identity of transgenders and prohibit discrimination in the fields of education, employment, healthcare, holding or disposing of property, holding public or private office and access to and use of public services and benefits.

➢ **Background:**

○ In 2014, the **Supreme Court of India**, in the case of the *National Legal Services Authority versus Union of India*, established the foundation for the rights of transgender persons in India by recognising 'transgender' as a 'third gender' and laying down several measures for prohibition of discrimination against transgender persons and protection of their rights.

○ The judgment **recommended reservations** for transgenders in jobs and educational institutions and their right to **declare the self-perceived gender identity** without undergoing a sex reassignment surgery.

➢ **Key Features of the Law Relating to Transgender Persons:**

○ **Definitions:**

● Definitions of **'person with intersex variation'** and **'transgender person'** have been provided to include trans men and trans women (whether or not such person has undergone sex reassignment surgery, hormone or other therapy).

○ **Non-discrimination:**

● It **prohibits the discrimination** of transgender persons at educational establishments, in

employment or occupational opportunities, healthcare services and access to public facilities and benefits.

● It further **reinforces transgender persons' right** to movement, right to reside, rent, or otherwise occupy property.

○ **Certificate of Identity:**

● It provides for a **right to self-perceived gender identity** and casts an **obligation on the district magistrate to issue a 'certificate of identity'** as a transgender person, without the requirement of any medical or physical examination.

● If the transgender person undergoes medical intervention to change sex either as a male or female and requires a revised identity certificate then they would need to **apply to the district magistrate along with a certificate issued by the medical superintendent** or chief medical officer of the concerned hospital.

○ **Equal Opportunity Policy:**

● Every **establishment has been mandated to formulate an equal opportunity policy** for transgender persons with certain specific information as prescribed under the law.

● This will help **create inclusive establishments** like inclusive education, etc.

■ The process of inclusion also requires creation of infrastructure facilities like **separate wards in hospitals** and **washrooms** (unisex toilets).

○ **Complaint Officer:**

● Every establishment has been mandated to **designate a person as a complaint officer to handle complaints** from transgender persons.

○ **Transgender Protection Cell:**

● Every state government will also have to set up a Transgender Protection Cell under District Mgistrate and Director general of Police **to monitor offence against transgender persons**.

○ **Welfare schemes:**

● The government has been mandated to formulate **welfare schemes and programs which are transgender sensitive, non-stigmatising and non-discriminatory**.

○ **Medical Care Facilities:**

● The government has been mandated to **set up separate Human Immunodeficiency Virus**

Note:

(HIV) sero-surveillance centres to conduct sero-surveillance for transgender persons; provide for **medical care facilities including sex reassignment surgery and hormonal therapy**; and provide for a **coverage of medical expenses by a comprehensive insurance scheme** for surgeries and other therapies.

○ **National Council for Transgender Persons:**
- Constitution of the NCT **to advise the government** for the formulation and monitoring of policies and redress the grievances of transgender persons.

○ **Offences and Penalties:**
- Offences, like indulging transgender persons in **forced or bonded labour** or **denial of access to public places** or physical, emotional or sexual **abuse**.
- Other offences committed under the provisions of the Transgender Persons Act, are punishable with **imprisonment for a term of at least six months, extending up to two years along with fine**.

Global Coalition Against HIV

Why in News

Recently, the Union Minister for Health and Family Welfare digitally addressed the Ministerial meeting of the **Global Prevention Coalition (GPC)** for **Human immunodeficiency virus(HIV)** Prevention.

➢ It was hosted by **Joint United Nations Programme on HIV/AIDS (UNAIDS)** and **United Nations Population Fund (UNFPA)** on behalf of the **Global HIV Prevention Coalition (GPC).**

Key Notes

➢ **Global HIV Prevention Coalition (GPC):**

○ It is a **global coalition** of **United Nations** Member States, donors, civil society organizations which was established in the year 2017 to support global efforts to accelerate **HIV prevention**.

○ **Membership:** It includes the 25 highest HIV burden countries, **UNAIDS** Cosponsors, donors, civil society and private sector organizations.

○ **Goal**: To strengthen and sustain political commitment for primary prevention by setting a common agenda among key policy-makers, funders and programme implementers.

➢ **Significance of the Conference:**

○ The conference this year holds significance in achieving the **United Nations General Assembly (UNGA)** commitment to **end Acquired Immuno-Deficiency Syndrome** (AIDS) **by 2030.**

- Member States of the **GPC** had agreed to reduce new adult **HIV** infections by **75%** at the end of 2020 from 2010 levels.

➢ **India at the Conference:**

○ Acknowledged that **Global AIDS** response has shown remarkable success in reducing new infections, improving access to prevention services for key population and treatment services for **People Living with HIV (PLHIV)**, reducing **AIDS** related mortality, enabling reduction in mother to child transmission of **HIV** and creating an enabling environment.

- **GPC** has shown to the world a model where multiple stakeholders can come together and work cohesively towards a common goal.

○ Observed that the **global AIDS response** in general has been a fountainhead of innovative service delivery models with rich **civil society involvement and cross learning.**

➢ **India Against HIV:**

○ **India's unique HIV prevention model**:

- **Aim**: To provide outreach, service delivery, counselling & testing and ensuring linkages to HIV care
- **Centered around** the concept of **Social Contracting** through which the **Targeted Interventions (TI) programme** is implemented.

○ **Protected the gains made in HIV during Covid-19** by taking swift and timely action to reach out to the last mile with a robust implementation plan for **Anti-Retroviral drugs (ARV)** dispensation.

- Advisories and guidance notes were issued by **National Aids Control Organization(NACO)** from time to time aligned with global guidelines in the context.

○ **Revamped its Targeted Intervention (TI) programme** to focus on hard-to-reach populations to keep its commitments- People living in prisons and other closed settings were considered as priority populations and interventions launched were gradually scaled up since **2016**.

Note:

- The **HIV Counselling & Testing Services (HCTS)** and **Community based Screening of HIV** for improving early diagnosis were also ramped up.
- The **coverage of testing for HIV** across the country was increased to achieve the **Elimination of Mother to Child Transmission of HIV.**
- **The Test and Treat Policy:** Approximately **50,000 PLHIV** who were lost to follow-up were linked back to **Antiretroviral Treatment services** through **Mission SAMPARK**, while **Viral Load Testing** facilities have been scaled up from the existing ten public sector labs to 64 labs across the country.

○ Enacted **The Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (Prevention and Control) Act, 2017** which has provided a legal and enabling framework for safeguarding the human rights of the infected and affected populations.

○ **Project Sunrise:**

- A new initiative called **'Project Sunrise'** was launched by the Ministry of Health and Family Welfare in 2016, to tackle the rising HIV prevalence in north-eastern states in India, especially among people injecting drugs.

○ **Helping the world:**

- India's provision of **generic (ARV) t**o the world has had a critical impact in controlling the HIV epidemic.
- India is ready to extend its **unique HIV prevention model** to the rest of the world by tailoring the intervention as per local settings.

➢ **Other international initiatives against AIDS:**

○ **The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)**

- Founded in 2002, it is a partnership organization designed to accelerate the end of AIDS, tuberculosis and malaria as epidemics.

Covid-19 and Children: UNICEF

Why in News

Recently, the **United Nations Children's Fund** (UNICEF) has released the report "**Averting a lost Covid generation**", which highlights significant and growing consequences of **Covid-19** on children.

➢ The report came ahead of the **World Children's Day** (20th November).

Key Points

➢ **About the Report:**

○ It is the **first UNICEF report to comprehensively outline** the dire and growing **consequences for children as the pandemic goes on**.

○ It shows that while symptoms among infected children remain mild, **infections are rising** and the longer-term **impact on the education, nutrition and well-being of an entire generation** of children and young people can be life-altering.

➢ **Data Analysis:**

○ Children and adolescents account for **1 in 9 reported Covid-19 infections**.

○ As of the **beginning of November 2020**, children and adolescents accounted for **11% of the 25.7 million infections** reported across 87 countries.

○ It estimated that **a third of the countries** analysed, **witnessed a drop of at least 10% in coverage of health services** and there was a **40% decline in the coverage of nutrition services** for women and children across 135 countries.

○ As of **October 2020**, **265 million children were still missing out on school meals** globally.

○ **65 countries** reported a **decrease in-home visits by social workers** in September 2020, compared to 2019.

➢ **Concerns:**

○ These numbers **bust the myth that children are barely affected** by the disease, which has been prevalent throughout the pandemic.

○ **Disruptions to key services** and **soaring poverty rates** pose the biggest threat to children and the longer the crisis persists, the deeper its impact on children's education, health, nutrition and well-being.

○ **Vulnerabilities of women and children have increased**, as **health services continue to be disrupted** and **schools shut**, **denying children free mid-day meals** offered at schools for underprivileged children.

○ While children could **transmit the virus to each other and to older age groups**, there was strong evidence that, with **basic safety measures in place**, the net benefits of keeping schools open outweighed the costs of closing them.

- **Schools are not the main driver of community transmission**, and children are more likely to get the virus outside of school settings.
➢ **India Specific Highlights:**
  ○ **Infections in Under 20:**
    - As per data from the **Indian Council of Medical Research** (ICMR) on the dashboard of the **National Centre for Disease Control,** 11.89% of Covid-19 cases in India are in under 20.
  ○ **Education:**
    - **1.5 million school closures have impacted 247 million** children enrolled in elementary and secondary education and **28 million** children who were attending pre-school education **in Anganwadi** Centres.
  ○ **Nutrition:**
    - An estimated **20 million children under 5** years of age are suffering from **wasting** (low weight for height), over **40 million** children are **chronically malnourished** and more than half of the Indian **women aged 15-49** years are **anaemic**.
    - The pandemic has **further exposed the fragility** of children, less by the virus itself but much more by the indirect and long-term fallout.
  ○ **Newborn Mortality:**
    - Covid-19 poses a grave threat to the gains made by India in the **Neonatal Mortality Rate** (NMR) and **Infant Mortality Rate** (IMR) which saw improvements in recent years.
      - **NMR** is defined as the 'number of deaths during the first 28 completed days of life per 1,000 live births in a given year or period'.
      - **IMR** is defined as the 'number of deaths of children under the age of 1 year per 1000 live births for a given year.'
  ○ **Sanitation:**
    - The **socio-economic stress and migration** resulting due to the Covid-19 put **access to toilets and the practice of using them at risk**.
    - The **schools** which offered **improved access to and quality of water, sanitation and hygiene facilities are closed** and the facilities are not accessed.
➢ **Recommendations:**
  ○ Ensure all children **learn**, including by closing the **digital divide**.

○ Guarantee access to **nutrition** and **health services** and make **vaccines** affordable and available to every child.
○ Support and protect the **mental health** of children and young people and bring an end to abuse, gender-based violence and neglect in childhood.
○ Increase access to **safe drinking water, sanitation and hygiene** and address **environmental degradation** and **climate change**.
○ Reverse the rise in **child poverty** and ensure an inclusive recovery for all.
○ Redouble efforts to protect and support children and their families living through **conflict, disaster and displacement**.

World Children's Day
➢ It is celebrated on **20th Nov each year** to **promote international togetherness and awareness** among children worldwide, and **improve children's welfare**.
➢ The date of 20th November is an important date because, on this date, the **United Nations General Assembly** adopted the **Declaration of the Rights of the Child in 1959** and the **Convention on the Rights of the Child in 1989**.
  ○ Convention on the Rights of the Child **recognises every human being under 18 years old as a child** and is the **world's most widely ratified human rights treaty**.
  ○ **India ratified it in 1992**.

Hidden Epidemic

Why In News

A new research published recently in **Diabetologia** (journal of the European Association for the Study of Diabetes) highlights the **vulnerability of indian youth** towards **diabetes**.

Key Points

➢ The research titled "**Lifetime risk of diabetes in metropolitan cities in India,**'' was done by a team of authors in India, UK and the USA, **led by Shammi Luhar, Department of Public Health and Primary Care, University of Cambridge, UK**
➢ **Findings of the study**:
  ○ More than **half of men** (55%) and **two thirds** (65%) of **women aged 20 years in India** are more likely

to develop diabetes, with most of those cases **(around 95%)** likely to be **type 2 diabetes** (T2D) in their lifetime.

- **Type 2 diabetes**:
  - It affects the way the body uses insulin. While the body still makes insulin, unlike in type I, the **cells in the body do not respond** to it as effectively as they once did.
  - The population with 45 and above age groups is the most affected with it.
  - This is the most common type of diabetes and it has strong links with obesity.

○ Lifetime risk of developing diabetes in 20 year old men and women free of diabetes today is **56% and 65%,** respectively.

○ **Obesity** has a significant impact on vulnerability to diabetes.

- **86%** higher among 20 year old women and **87%** among men of **metropolitan area**.

○ India currently has **77 million adults who have diabetes** and this number is **expected to almost double to 134 million by 2045.**

○ Women generally **had a higher lifetime risk of developing diabetes** across their lifespan.

○ Remaining lifetime risk of developing diabetes **declined with age**. As per researchers, those **currently aged 60 years and free of diabetes**, are **less likely to develop diabetes** in their remaining life.

➤ **Sources of data for the study**:

○ **Sex and BMI-specific incidence rates** of diabetes **in urban India** taken from the **Centre for Cardiometabolic Risk Reduction in South Asia (2010–2018);**

○ **Age, sex and urban-specific rates of mortality** from period lifetables reported by the **Government of India** (2014);

○ Prevalence of diabetes from the **Indian Council for Medical Research India Diabetes study** (2008–2015).

➤ **Impact of high probabilities of developing diabetes:**

○ Overburdening of already **strained health Infrastructure** of the country.

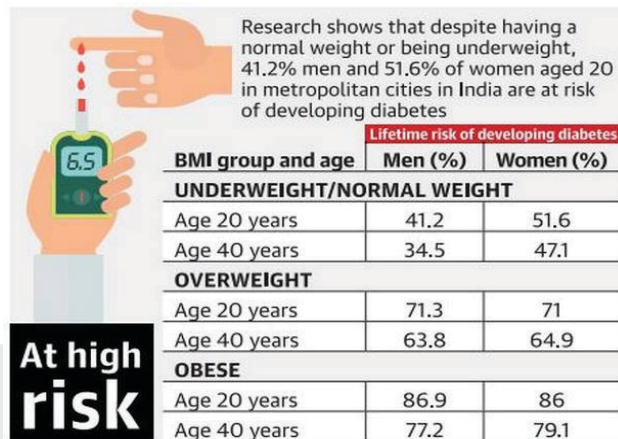○ Increase **out-of-pocket expenditure** on diabetes treatment by patients.

➤ **Causes of such high incidences of diabetes:**

○ Urbanisation

○ Decreasing diet quality

○ Decreased levels of physical activity

➤ **Prevention or postponing diabetes by effective lifestyle modification, such as**:

○ Following a healthy diet

○ Increasing physical activity

○ Reducing body weight in those who are obese or overweight.

Research shows that despite having a normal weight or being underweight, 41.2% men and 51.6% of women aged 20 in metropolitan cities in India are at risk of developing diabetes

BMI group and age	Lifetime risk of developing diabetes	
	Men (%)	Women (%)
UNDERWEIGHT/NORMAL WEIGHT		
Age 20 years	41.2	51.6
Age 40 years	34.5	47.1
OVERWEIGHT		
Age 20 years	71.3	71
Age 40 years	63.8	64.9
OBESE		
Age 20 years	86.9	86
Age 40 years	77.2	79.1

At high risk

Diabetes

➤ Diabetes is a **Non-Communicable Disease** (NCD) that occurs either when the pancreas **does not produce enough insulin** (a hormone that regulates blood sugar, or glucose), or when the **body cannot effectively use** the insulin it produces.

➤ **Types:**

○ **Type I diabetes**: It is also known as **juvenile diabetes** (as it mostly affects children of age 14-16 years), this type occurs when the **body fails to produce sufficient insulin**. People with type I diabetes are **insulin-dependent**, which means they must take artificial insulin daily to stay alive.

○ **Gestational diabetes**: This type occurs in women during pregnancy when the body sometimes **becomes less sensitive to insulin**. Gestational diabetes does not occur in all women and **usually resolves after giving birth.**

➤ Diabetes affects the **five major organs** namely, **Kidney, Heart, Blood vessels, Nervous System, and Eyes (retina).**

➤ The factors responsible for the increase in diabetes are an **unhealthy diet, lack of physical activity, harmful use of alcohol, overweight/obesity, tobacco use, etc.**

■■■

Note:

Security

Highlights

- *Quick Reaction Surface-to-Air Missile System*
- *Land-attack Version of BrahMos Missile*
- *Sea Guardian Drones from US*

Quick Reaction Surface-to-Air Missile System

Why in News

Recently, the **Defence Research and Development Organisation** (DRDO) has successfully test-fired the **Quick Reaction Surface-to-Air Missile** (QRSAM) **system**, at the **Integrated Test Range**, **Chandipur** off Odisha coast.

➢ The test was in continuation of a series of **missile tests** conducted by DRDO over the past two months.

Key Points

➢ **QRSAM** is a **canister-based** system, which means that it is **stored and operated from specially designed compartments**.

❍ In the canister, the inside environment is controlled, thus along with making its **transport and storage easier**, the **shelf life** of weapons also improves significantly.

➢ The system is **capable of detecting and tracking targets on the move** and engaging targets with short halts.

➢ **Range and Mobility:**

❍ It is a **short-range surface-to-air missile** (SAM) system, primarily designed and developed by DRDO to provide a protective shield to moving armoured columns of the Army from enemy aerial attacks.

❍ The entire weapon system has been configured on a **mobile and manoeuvrable platform** and is capable of providing air defence on the move.

❍ It has been designed for induction into the Army and has a range of **25 to 30 km.**

➢ **Functioning:**

❍ The QRSAM weapon ensemble which functions on the move consists of a **fully automated command and control system**.

● It also consists of **two radars** viz. Active Array Battery Surveillance Radar and Active Array Battery Multifunction Radar, with one **launcher**.

● Both radars have **360-degree coverage** with "search on move" and "track on move" capabilities.

❍ The system is compact, uses a **single-stage solid propelled missile** and has a **mid-course inertial navigation system** with two-way data link and terminal active seeker developed indigenously by DRDO.

Land-attack Version of BrahMos Missile

Why in News

Recently, India has successfully **test-fired a land-attack version of the BrahMos supersonic cruise missile** from the Andaman and Nicobar Islands.

➢ The test by the Army comes over a month after the **Naval version of BrahMos was successfully test-fired** from Indian Navy's indigenously-built stealth destroyer INS Chennai.

Key Points

➢ **Features of New Land-attack Version:**

❍ The **range** of the missile has been **extended to 400 km** from the original 290 km but its **speed** has been maintained at **2.8 Mach or almost three times the speed of sound**.

Note:

○ The test was done in a **"top-attack"** configuration.

● Most modern missiles, including BrahMos, **can be fired in both top-attack and direct attack modes**.

● In **top attack** mode, the missile is required to climb sharply after launch, travel at a certain altitude and then fall on top of the target.

● In **direct attack** mode, the missile travels at a lower altitude, directly striking the target.

➢ **Significance of the Test:**

○ These tests **are a display of India's tactical cruise missile triad**, i.e. launch capability from land, sea and air platforms.

● India has **already deployed a sizable number of the original BrahMos missiles** and other key assets in several strategic locations along the **Line of Actual Control (LAC) with China** in Ladakh and Arunachal Pradesh.

○ The test marks the achievement of a critical milestone in **enhancing India's capability of engaging the enemy's vitally important targets** in-depth areas.

○ In the last two-and-half months, **India has test-fired a number of missiles** including **an anti-radiation missile named Rudram-1** which is planned to be inducted into service by **2022**.

➢ **BrahMos Missile:**

○ An **amalgamation of the names of Brahmaputra river and Moskva river (Russia)**, BrahMos missiles are **designed, developed and produced by BrahMos Aerospace**.

● BrahMos Aerospace is a **joint venture** company set up by the **Defence Research and Development Organisation** (DRDO) and **Mashinostroyenia of Russia**.

○ It is a **medium-range supersonic cruise missile** which can be **launched from submarines, ships, aircraft or land**.

● **Cruise missiles** are defined as "an unmanned self-propelled guided vehicle that sustains flight through aerodynamic lift for most of its flight path and whose primary mission is to place an ordnance or special payload on a target."

● Depending upon the **speed**, such **missiles are classified as Subsonic (around 0.8 Mach), Supersonic (2-3 Mach) and Hypersonic** cruise missiles (more than 5 Mach).

○ It is the **world's fastest supersonic cruise missile**, as well as the **fastest anti-ship cruise missile in operation**.

○ It **operates on the "Fire and Forget" principle**, i.e it does not require further guidance after launch.

○ The missile has a **flight range up to 290-km**. However, **India's entry into the Missile Technology Control Regime** (MTCR) has extended the range of the BrahMos missile to reach 450-600 km.

○ **Various versions of BrahMos**, including those that can be fired from land, warships, submarines and **Sukhoi-30 fighter jets**, have already been developed and successfully tested in the past.

● A **hypersonic version** of the missile, capable of reaching **a speed of 5 Mach**, is under development.

Sea Guardian Drones from US

Why in News

Recently, **two American MQ9B Sea Guardian unarmed drones** have been inducted by the Indian Navy.

➢ The drones **would be on lease with India** for **one year**.

Key Points

➢ **MQ9B Sea Guardian:**

○ It is the **maritime variant** of the **Predator MQ9 Unmanned Aerial Vehicle (UAV).**

○ It has a maximum **endurance** of **40 hours** and a maximum flying **altitude** of **40,000** feet.

○ It has a **3600 maritime surveillance radar** and an optional multimode **maritime surface search radar.**

○ It can be **used in operations** such as Anti-Surface Warfare, Anti-Submarine Warfare, Humanitarian Assistance/Disaster Relief, Search and Rescue, Law Enforcement (Drug Trafficking, Illegal Immigration and Piracy), etc.

➢ **Procurement:**

○ The Navy has for the **first time inducted two surveillance drones** through a **lease agreement**

Note:

with an American firm, using the **emergency powers granted by the Centre to the Armed forces amid the China standoff.**

- Under the emergency power, the government has granted **emergency funds up to Rs. 500 crore** per procurement project to the three armed services to **buy ammunition and weapons** in view of the escalating border standoff with China.

○ Drones were procured under the option for leasing military platforms introduced in the **Defence Acquisition Procedure (DAP) 2020**.

➢ **Significance:**

○ The drones are meant for carrying out **surveillance in the Indian Ocean Region** and **can be deployed on the China border** if asked for and if needed.

- Already the Navy's **P8I Poseidon aircraft** have been deployed in Ladakh.

- The **P-8I aircraft** is a variant of the **P-8A Poseidon aircraft** that have been developed by Boeing company.

- Boeing's P-8A Poseidon is designed for long-range Anti-Submarine warfare (ASW), Anti-Surface Warfare (ASuW), and intelligence, surveillance and reconnaissance (ISR) missions.

○ As part of its force **restructuring to offset budgetary constraints**, the Navy is looking to induce more unmanned solutions in future.

○ **Till the time the government approves buying the drones**, which has to get the **Defence Acquisition Council's nod**, leasing is a more economic and viable option.

- **The Defence Acquisition Council** is the **highest decision-making body** in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard.

Note:

Miscellaneous

Highlights

- Lilavati Award-2020
- NDB Loan to India

Lilavati Award-2020

Why in News

Recently, the Union Minister of Education virtually launched the **Lilavati Award-2020**.

Key Points

- **About:**
  - The award has been named after the **12th century book called "Lilavati"**. The book was written by the **mathematician Bhaskara II**.
    - Lilavati was the **daughter** of Indian Mathematician Bhaskara II.
  - It is **AICTE's (All India Council for Technical Education)** Innovative education program to empower women.
  - All the stakeholders **(especially the girl students)** in **AICTE** approved institutions would get an opportunity to present a **solution** to the prevalent **issues of gender discrimination, such as illiteracy, unemployment, economic and nutritional disparities, maternal mortality, human rights, etc**.
- **Theme:** Women Empowerment
- **Objective:** To create awareness about issues like **sanitation, hygiene, health, nutrition, literacy, employment, technology, credit, marketing, innovation, skill development, natural resources and rights** among women.
- **Areas Covered:** Women's health, self defense, sanitation, literacy, entrepreneurship and legal awareness.
- **Benefit:** Ensures the **participation of women** and **enables** them to hold **higher positions in educational institutions.**
- **Prize:** In each sub-category, the top three winners will be awarded with **certificates as well as prize money**.

The first prize winner will get **Rs. 1 lakh**, the second winner will get **Rs. 75,000** and the third winner will get **Rs. 50,000.**

- Other **government initiatives for the welfare** of girl child and women:
  - **Sukanya Samriddhi Yojana:** It is a small saving scheme under the Government of India which focuses on **encouraging the parents of the female child** for building a fund for their future education and marriage expenses.
  - **Beti Bachao Beti Padhao:** The scheme is aimed at promoting **gender equality** and the significance of educating girls.
  - **CBSE Udaan:** It is aimed at **promoting girl education** and addressing the issue of lowering of girl enrollment rates in engineering colleges in the nation. It is going to provide a platform for empowerment of girl students and will provide better learning opportunities for them.
  - **Smart India Hackathon**: It is a nationwide initiative to provide students (with a minimum **one woman** in the team of six) a platform to solve some of the pressing problems of daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving.

NDB Loan to India

Why in News

Recently, a **500-million dollar** loan agreement was signed between the **Union government, the Ministry of Housing and Urban Affairs, National Capital Region (NCR) Transport Corporation Limited** and the **New Development Bank (NDB)** for the **Delhi-Ghaziabad-Meerut Regional Rapid Transit System (RRTS).**

Note:

Key Points

➢ **Delhi-Ghaziabad-Meerut Regional Rapid Transit System.**

- ❍ It is an **82.15 km long**, under-construction, semi-high speed rail corridor connecting **Delhi-Ghaziabad-Meerut**.

- ❍ It is one of the three rapid-rail corridors planned under Phase-I of Regional Rapid Transport System (RRTS) project of **National Capital Region Transport Corporation (NCRTC)**.

- ❍ Benefits:

  - The Project will provide a **fast, reliable, safe and comfortable** public transport system in the NCR.

  - The project will serve as a **demonstration** for developing high-capacity rapid urban transit corridors in other urban areas of India.

  - High-speed connectivity will result in **balanced economic development** across the region, leading to economic benefits to all strata of society and many nodes of development rather than all economic activity happening at one place.

  - It will help in reducing **traffic congestion and total emissions** from the transport sector in NCR.

➢ **Other Contributors:** The total project cost is estimated at **3,749 million dollars**, which will be financed by the **NDB, Asian Infrastructure Investment Bank (AIIB), Asian Development Bank (ADB), Japan Fund for Poverty Reduction**, government and other sources.

New Development Bank

➢ It is a **multilateral development bank** jointly founded by the **BRICS** countries (Brazil, Russia, India, China and South Africa) at the 6th BRICS Summit in Fortaleza, Brazil in 2014.

➢ It was formed to **support infrastructure and sustainable development** efforts in BRICS and other underserved, emerging economies for faster development through innovation and cutting-edge technology.

➢ It is headquartered at **Shanghai, China**.

➢ In 2018, the NDB received observer status in the **United Nations** General Assembly, establishing a firm basis for active and fruitful cooperation with the United Nations.

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Note:

Key Points

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Summary

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Summary