



drishti

Current Affairs (CONSOLIDATION)

FEBRUARY 2021
(PART – I)

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Polity and Governance

Highlights

- *Arbitration and Conciliation (Amendment) Bill, 2021*
- *Lateral Entry Into the Administrative Services*
- *Odisha's Border Disputes*
- *National Coal Index*
- *Disability and Facility of a Scribe: SC*
- *Low Convictions Rate Under UAPA Act*
- *Sedition Law*
- *Kuruba Community: Kamataka*
- *Registered Unrecognised Political Parties Increased: ADR*
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- *Motion of Thanks*
- *Indian Laws and Blocking of Internet Content: Centre vs Twitter*
- *Schemes for Reducing Tax Disputes*

Arbitration and Conciliation (Amendment) Bill, 2021

Why in News

The Lok Sabha has passed the **Arbitration and Conciliation (Amendment) Bill, 2021** to check misuse by “fly-by-night operators” who take advantage of the law to get favourable awards by fraud.

- The Bill intends to replace the **Arbitration and Conciliation (Amendment) ordinance** issued in November, 2020.

Key Points

➤ Features of the Bill:

○ Qualifications of Arbitrators:

- It does away with the qualifications of the arbitrators under 8th Schedule of the Arbitration and Conciliation Act, 1996 which specified that the arbitrator must be:
 - An advocate under the Advocates Act, 1961 with 10 years of experience, or
 - An officer of the Indian Legal Service.
- The qualifications for accreditation of arbitrators

is proposed to be prescribed by regulations to be framed by an arbitration council to be set up.

○ Unconditional Stay on Awards:

- If the Award is being given on the basis of a **fraudulent agreement or corruption**, then the court can grant an unconditional stay as long as an appeal under Section 34 of the arbitration law is pending.

➤ Benefits:

- Would bring about **parity among all the stakeholders** in the arbitration process.
 - All the stakeholders get an opportunity to seek unconditional stay on enforcement of arbitral awards where the agreement or contract is “induced by fraud or corruption”.
- Checking misuse of the provisions under Arbitration and Conciliation Act, 1996 **would save the taxpayers money** by holding those accountable who siphoned off of them unlawfully.

➤ Drawbacks:

- India already lags behind when it comes to the enforcement of international contracts and agreements. The Bill can further hamper the spirit of **Make in India** campaign and deteriorate rankings in **Ease of Doing Business Index**.

Note:



- India aims to become a hub of domestic and international arbitration. Through the implementation of these legislative changes, resolution of commercial disputes could take longer duration now onwards.

Arbitration Council of India

- **Constitutional Background:** The Constitution of India, **Article 51**, India is obliged to endeavour to:
 - Foster respect for international law and treaty obligations in the dealings of organised peoples with one country.
 - Encourage settlement of international disputes by arbitration. ACI is a step in realisation of this constitutional obligation.
- **Objective:** The Arbitration and Conciliation (Amendment) Act, 2019 seeks to establish an **independent body** called the Arbitration Council of India (ACI) for the promotion of arbitration, mediation, conciliation and other alternative dispute redressal mechanisms.
 - **Arbitration:** It is a process in which disputes resolve between the parties by appointing an independent third party who is an impartial and neutral person called arbitrator. Arbitrators hear both the parties before arriving at a solution to their dispute.
 - **Conciliation:** It is a process in which disputes resolve between the parties by appointing a conciliator who helps (amicable) the disputed parties to arrive at a negotiated settlement. Settling the dispute without litigation, it is an informal process. He does so by lowering tensions, improving communication, interpreting issues, providing technical help.
- **Composition of the ACI:**
 - The ACI will consist of a Chairperson who is either:
 - A Judge of the Supreme Court; or
 - A Judge of a High Court; or
 - Chief Justice of a High Court; or
 - An eminent person with expert knowledge in conduct of arbitration.
 - **Other members** will include an eminent arbitration practitioner, an academician with experience in arbitration, and government appointees.
- **Appointment of Arbitrators:** Under the Act, the Supreme Court and High Courts may designate arbitral institutions, which parties can approach for the appointment of arbitrators.

- For international commercial arbitration, appointments will be made by the institution designated by the Supreme Court.
- For domestic arbitration, appointments will be made by the institution designated by the concerned High Court.
- In case there are no arbitral institutions available, the Chief Justice of the concerned High Court may maintain a panel of arbitrators to perform the functions of the arbitral institutions.
- An application for appointment of an arbitrator is required to be disposed of within 30 days.

Lateral Entry Into the Administrative Services

Why in News

Recently, the **Union Public Service Commission (UPSC)** has issued an advertisement to recruit 30 persons at the Joint Secretary and Director level in the Central administration through **Lateral Entry**.

Key Points

- **About:**
 - The term lateral entry relates to the **appointment of specialists**, mainly those **from the private sector**, in government organisations.
 - Government is looking for **outstanding individuals, with expertise** in revenue, financial services, economic affairs, agriculture, cooperation and farmers' welfare, road transport and highway, shipping, environment, forests and climate change, and new and renewable energy, civil aviation and commerce.
- **Advantages of Lateral Entry:**
 - **Addresses Complexity:**
 - **People with expertise and specialist domain knowledge are required** to navigate the complex needs of present day administrative challenges.
 - **Meets Personnel Requirement:**
 - Lateral entry will help in **addressing the problem of shortage of IAS officers** at the Centre.
 - **Organisation Culture:**

Note:

- It will help in bringing the values of economy, efficiency and effectiveness in the Government sector.
- It will help in building a culture of performance within the Government sector.
- **Participatory Governance:**
 - In the present times, governance is becoming more participatory and a multi actor endeavour, thus **lateral entry provides stakeholders such as the private sector and non-profits** an opportunity to participate in the governance process.
- **Issues Involved:**
 - **Need for Transparent Process:**
 - The key to the success of this scheme would lie in **selecting the right people** in a manner which is manifestly transparent.
 - **Difference in Organisational Values:**
 - The value systems between the government and the private sector are quite different.
 - It is important to ensure that the people who come in are able to have the **skills to adjust to a totally different system of functioning**. This is because the government imposes its own limitations.
 - **Profit Motive vs Public Service:**
 - **Private sector** approach is **profit oriented**. On the other hand, the motive of **Government is public service**. This is also a fundamental transition that a private sector person has to make while working in government.
 - **Internal Resistance:**
 - Lateral entry is likely to face strong resistance from in service Civil Servants and their associations. It **may also demotivate existing officials**.
 - **Issue of Conflict of Interest:**
 - The movement from the private sector raises issues of potential conflict of interest. Thus, a **stringent code of conduct for entrants** is required.
 - **Narrow Scope:**
 - Lateral entry at only top level policy making positions may have **little impact on field level implementation**, given the multiple links in the chain of command from the Union Government to a rural village.

Odisha's Border Disputes

Why In News

Recently, a **border dispute between Odisha and Andhra Pradesh** once again resurfaced when Andhra Pradesh announced panchayat polls in three villages of **Kotia panchayat** in Koraput district of Odisha.

Key Points

- **Border Disputes of Odisha:**
 - Odisha was **carved out of the Bengal-Bihar-Odisha province** on 1st April, 1936, but the inter-state border disputes continue even today.
 - Odisha continues to have **unresolved border disputes with four neighbouring States** in its 8 out of 30 districts.
 - 14 of the 30 districts **share borders with Andhra Pradesh, West Bengal, Chhattisgarh and Jharkhand**. However, the **disputes over Kotia villages in Koraput district bordering Andhra Pradesh** is the **only major border conflict**.
- **About the Kotia Dispute:**
 - Odisha and Andhra Pradesh are **locked in a territorial dispute over Kotia gram panchayat since 1960**. Disputes pertain over **21 villages** in Kotia gram panchayat.
 - Residents of Kotia panchayat **receive benefits from both Pottangi block in Koraput and Salur in Vizianagaram district of Andhra Pradesh**. They depend on both the blocks for their day to day activities.



Note:

- **Water Dispute with Andhra Pradesh:**
 - In 2006, Odisha sent a complaint to the Central Government under Section 3 of the **Inter-State River Water Disputes (ISRWD) Act, 1956** regarding its water disputes with Andhra Pradesh pertaining to **Inter-State River Vamsadhara**.
- **Disputes with Other States:**
 - **West Bengal:**
 - Odisha and West Bengal have disputes over 27 plots in Balasore District and some areas in Mayurbhanj district of Odisha.
 - **Mayurbhanj district** is known for its **iron ore reserves** and **Chhau dance** (a tribal dance in which dancers wear colorful masks).
 - **Jharkhand:**
 - The border dispute between Odisha and Jharkhand arises due to change in course of river **Baitarani**.
 - The **Baitarani river** originates from the hill ranges of Keonjhar district of Odisha.
 - It is an **east flowing river** of peninsular India, flowing eastward and joining the Bay of Bengal.
 - Major portion of its catchment lies in the state of Odisha and a small patch of the upper reach falls in Jharkhand.
 - **Chhattisgarh:**
 - With Chhattisgarh, Odisha has disputes relating to villages in Nabarangpur and Jharsuguda district.
 - The Central Government constituted **Mahanadi Water Disputes Tribunal** in 2018.

National Coal Index

Why in News

Recently, the **Ministry of Coal** has started **commercial auction of coal mines** on a **revenue share basis** using the **National Coal Index (NCI)**.

- NCI was **rolled out in June 2020**.

Key Points

- **About:**
 - It is a price index which **reflects the change of price level of coal in a particular month relative to the fixed base year**.

- The base year for the NCI is **Financial Year 2017-18**.

➤ **Compilation:**

- **Prices of coal from all the sales channels of coal**, including import, as existing today are taken into account for compiling the NCI.
- The **amount of revenue share** per tonne of coal produced from auctioned blocks would be arrived at using the NCI by means of defined formula.
- **Sub-Indices:** NCI is composed of a set of **five** sub-indices:
 - Three for **Non Coking Coal** and two for **Coking Coal**.
 - The three sub-indices for Non Coking Coal are combined to arrive at the Index for Non Coking Coal and the two sub-indices for Coking Coal are combined to arrive at the Index for Coking Coal.
 - Thus, **indices are separate for Non Coking and Coking Coal**.
 - As per the grade of coal pertaining to a mine, the appropriate sub-index is used to arrive at the revenue share.

Coal

- Coal is the most abundant fossil fuel which **holds 55% of India's energy need**.
- Based on the **uses**, coal is divided into **two types**:
 - **Coking Coal:**
 - This type of coal when subjected to high temperature carbonisation i.e. heating in the absence of air to a temperature above 600 degree Celsius, **forms a solid porous residue called coke**.
 - **Coke** is fed into a blast furnace along with iron ore and limestone to produce steel in steel plants.
 - Coking coal is desired to be of **low ash percentage**.
 - **Use:**
 - Mainly used in steel making and metallurgical industries.
 - Also used for hard coke manufacturing.
 - **Non Coking Coal:**
 - These are coals without coking properties.
 - **Use:**
 - This is the coal used in thermal power plants

Note:

to generate electricity, so it is also known as **steam coal or thermal coal**.

- Also used for cement, fertilizer, glass, ceramic, paper, chemical and brick manufacturing, and for other heating purposes.
- Coal is also classified into four ranks: **anthracite, bituminous, subbituminous, and lignite**. The ranking depends on the types and amounts of carbon the coal contains and on the amount of heat energy the coal can produce.

Disability and Facility of a Scribe: SC

Why in News

Recently, the **Supreme Court (SC)** directed the Central government to frame **proper guidelines to regulate and facilitate** grant of a **facility of a scribe** to persons with disability in writing exams.

- Earlier, the SC **observed that persons suffering from disabilities are also socially backward and entitled to the same benefits of relaxation as Scheduled Caste/ Scheduled Tribe candidates** in public employment and education.
- **Scribe** is a person who writes or word processes a student's dictated answers in exams.

Key Points

- **Background:**
 - An appeal was filed by a candidate with **Writer's cramp, a chronic neurological condition** which causes extreme difficulty in writing.
 - He was **denied a scribe** for the Civil Services Exam by the **Union Public Service Commission (UPSC)** in 2018, on the ground that he did not come within the definition of person with **benchmark disability**.
- **Court's Ruling:**
 - **Facility of a Scribe:**
 - Facility of a scribe can be **provided to persons with disabilities other than those having benchmark disabilities** as given under the **Rights of Persons with Disabilities Act (RPwD) 2016**.
 - **Benchmark disability** refers to having at **least 40% disability** of any type recognized under the RPwD Act 2016.

○ Directions to Government:

- Issued a broader direction to the Union Government in the **Ministry of Social Justice and Empowerment (MoSJE)** to **ensure the framing of proper guidelines which would regulate and facilitate the grant of a facility of a scribe** to persons with disability within the meaning of **Section 2(s) of RPwD Act** where the nature of the disability operates to impose a barrier to the candidate writing an examination.
 - Asked the ministry that while formulating procedures, it may **lay down appropriate norms to ensure that the condition of the candidate is duly certified by such competent medical authority** as may be prescribed so as to ensure that only genuine candidates in need of the facility are able to avail of it.
 - **Section 2 (s)** defines 'person with disability'. It means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others.
- The **principle of reasonable accommodation** in the Act captures the positive obligation of the State and private parties to provide additional support to persons with disabilities to facilitate their full and effective participation in society.
- The **2016 Act has a more inclusive definition of "persons with disability"** evidencing a **shift from a stigmatising medical model of disability to a social model of disability** which recognises that it is the societal and physical constraint that are at the heart of exclusion of persons with disabilities from full and effective participation in society.

Writer's Cramp

- Writer's cramp is a specific type of focal dystonia that **affects one's fingers, hand, or forearm**.
- Focal dystonia of the hands is a neurological movement disorder. The **brain sends incorrect information to the muscles**, causing involuntary, excessive muscle contractions. These signals can make one's hands twist into odd postures.
- Writer's cramp is known as a task-specific dystonia. It **happens almost only when one performs a particular activity** like writing or typing.

Note:

Rights of Persons with Disabilities Act 2016

- **Definition:**
 - Disability has been defined based on an evolving and dynamic concept.
 - **Benchmark disability** refers to having at least **40% disability** of any type recognized under the Act.
- **Types:**
 - The types of disabilities have been **increased from 7 to 21**.
 - The Act added mental illness, autism, spectrum disorder, cerebral palsy, muscular dystrophy, chronic neurological conditions, speech and language disability, **thalassemia, hemophilia, sickle cell disease**, multiple disabilities including deaf blindness, acid attack victims and **Parkinson's disease** which were largely ignored in earlier Act.
 - In addition, the Government has been authorized to notify any other category of specified disability.
- **Reservation:**
 - It **increased the quantum of reservation** for people suffering from disabilities from 3% to 4% in government jobs and from 3% to 5% in higher education institutes.
- **Education:**
 - Every child with benchmark disability between the age group of 6 and 18 years shall have the right to free education. Government funded educational institutions as well as the government recognized institutions will have to provide inclusive education.
- **Accessibility:**
 - Stress has been given to ensure accessibility in public buildings in a prescribed time frame along with the **Accessible India Campaign**.
- **Regulatory Body:**
 - The Chief Commissioner for Persons with Disabilities and the State Commissioners will act as regulatory bodies and Grievance Redressal agencies, monitoring implementation of the Act.
- **Special Fund:**
 - A separate National and State Fund be created to provide financial support to the persons with disabilities.

Low Convictions Rate Under UAPA Act

Why in News

According to data recently presented by the Ministry of Home Affairs in the Rajya Sabha, only 2.2% of cases registered under the Unlawful Activities (Prevention) Act, 1967 between the years 2016-2019 ended in convictions by court.

- The Ministry quoted figures from the 2019 Crime in India Report compiled by the National Crime Records Bureau (NCRB).

Key Points

- **Enactment:**
 - The UAPA was originally passed in 1967. It is an upgrade on the Terrorist and Disruptive Activities (Prevention) Act - TADA (lapsed in 1995) and the Prevention of Terrorism Act-POTA (repealed in 2004).
- **Main Provisions:**
 - Till the year 2004, "unlawful" activities referred to actions related to secession and cession of territory. Following the 2004 amendment, "terrorist act" was added to the list of offences.
 - The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
 - Under the UAPA, the investigating agency can file a charge sheet in maximum 180 days after the arrests and the duration can be extended further after intimating the court.
 - Both Indian and foreign nationals can be charged. It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.
 - It has death penalty and life imprisonment as highest punishments.
- **Amendment in 2019:**
 - In August 2019, Parliament cleared the Unlawful Activities (Prevention) Amendment Bill, 2019 to designate individuals as terrorists if the individual commits or participates in acts of terrorism, prepares for terrorism, promotes terrorism or is otherwise involved in terrorism.

Note:

- A similar provision already existed in Part 4 and 6 of the legislation for organisations that can be designated as a “terrorist organisation”.
- The Act empowers the Director General of National Investigation Agency (NIA) to grant approval of seizure or attachment of property when the case is investigated by the said agency.
- The Act also empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.

➤ Issues With UAPA:

- Undermines Individual Liberty: It gives the state authority vague powers to detain and arrest individuals who it believes to be indulged in terrorist activities. Thus, the state gives itself more powers vis-a-vis individual liberty guaranteed under Article 21 of the Constitution.
- Indirect Restriction on Right to Dissent: The right of dissent is a part and parcel of fundamental right to free speech and expression and therefore, cannot be abridged in any circumstances except for mentioned in Article 19 (2).
 - The UAPA, 2019 empowers the ruling government, under the garb of curbing terrorism, to impose indirect restriction on right of dissent which is detrimental for a developing democratic society.
- Undermines Federalism: Some experts feel that it is against the federal structure since it neglects the authority of state police in terrorism cases, given that ‘Police’ is a state subject under 7th schedule of Indian Constitution.

Sedition Law

Why in News

Recently, the **Supreme Court** protected a political leader and six senior journalists from arrest in multiple **sedition** FIRs registered against them.

Key Points

➤ Historical Background of Sedition Law:

- Sedition laws were **enacted in 17th century England** when lawmakers believed that **only good opinions of the government should survive**, as bad opinions were detrimental to the government and monarchy.

- The law was originally drafted in **1837 by Thomas Macaulay, the British historian-politician**, but was **inexplicably omitted when the Indian Penal Code (IPC) was enacted in 1860**.
- **Section 124A** was inserted in **1870** by an amendment introduced by **Sir James Stephen** when it felt the need for a specific section to deal with the offence.
 - It was one of the many draconian laws enacted to stifle any voices of dissent at that time.

Famous sedition trials during freedom movement:

Some of the most famous sedition trials of the late 19th and early 20th century involved Indian nationalist leaders. The initial cases that invoked the sedition law included numerous prosecutions against the editors of nationalist newspapers.

The first among them was the trial of **Jogendra Chandra Bose** in 1891. Bose, the editor of the newspaper, *Bangobasi*, wrote an article criticizing the Age of Consent Bill for posing a threat to the religion and for its coercive relationship with Indians.

The most well-known cases are the three sedition trials of **Bal Gangadhar Tilak** and the trial of **Mahatma Gandhi** in 1922. Gandhi was charged, along with Shankerlal Banker, the proprietor of Young India, for three articles published in the weekly.

➤ Sedition Law Today: Sedition is a crime under Section 124A of the Indian Penal Code (IPC).

○ Section 124A IPC:

- It defines sedition as an offence committed when **“any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India”**.
- Disaffection includes **disloyalty and all feelings of enmity**. However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.

○ Punishment for the Offence of Sedition:

- Sedition is a **non-bailable offence**. Punishment under the Section 124A ranges from **imprisonment up to three years to a life term**, to which fine may be added.
- A person charged under this law is **barred from a government job**.
 - They have to live without their passport and must produce themselves in the court at all times as and when required.

➤ Major Supreme Court Decisions on Sedition Law:

Note:



- The SC highlighted debates over sedition in 1950 in its decisions in *Brij Bhushan vs the State of Delhi* and *Romesh Thappar vs the State of Madras*.
 - In these cases, the court held that a law which **restricted speech on the ground that it would disturb public order was unconstitutional**.
 - It also held that **disturbing the public order will mean nothing less than endangering the foundations of the State** or threatening its overthrow.
 - Thus, these decisions prompted the **First Constitution Amendment, where Article 19 (2) was rewritten to replace “undermining the security of the State” with “in the interest of public order”**.
- In 1962, the SC decided on the constitutionality of Section 124A in *Kedar Nath Singh vs State of Bihar*.
 - It upheld the constitutionality of sedition, but **limited its application** to “acts involving intention or tendency to create disorder, or disturbance of law and order, or incitement to violence”.
 - It **distinguished these** from “very strong speech” or the use of “vigorous words” strongly critical of the government.
- In 1995, the SC, in *Balwant Singh vs State of Punjab*, held that mere sloganeering which evoked no public response did not amount to sedition.
- **Arguments in Support of Section 124A:**
 - Section 124A of the IPC has its utility in **combating anti-national, secessionist and terrorist elements**.
 - It **protects the elected government from attempts to overthrow** the government with violence and illegal means. The continued existence of the government established by law is an essential condition of the **stability of the State**.
 - If **contempt of court** invites penal action, contempt of government should also attract punishment.
 - Many districts in different states face a **maoist insurgency and rebel groups virtually run a parallel administration**. These groups openly advocate the overthrow of the state government by revolution.
 - Against this backdrop, the abolition of Section 124A would be ill-advised merely because it has been wrongly invoked in some highly publicized cases.
- **Arguments against Section 124A:**
 - Section 124A is a **relic of colonial legacy** and unsuited in a democracy. It is a constraint on the legitimate exercise of **constitutionally guaranteed freedom of speech and expression**.
- Dissent and criticism of the government are essential ingredients of robust public debate in a vibrant democracy. They should not be constructed as sedition.
 - Right to question, criticize and change rulers is very fundamental to the idea of democracy.
- The **British, who introduced sedition to oppress Indians**, have themselves abolished the law in their country. There is no reason why India should not abolish this section.
- The **terms used** under Section 124A like ‘disaffection’ are **vague and subject to different interpretations to the whims and fancies** of the investigating officers.
- IPC and **Unlawful Activities Prevention Act 2019** have provisions that penalize “disrupting the public order” or “overthrowing the government with violence and illegal means”. These are sufficient for protecting national integrity. There is no need for Section 124A.
- The sedition law is **being misused as a tool to persecute political dissent**. A wide and concentrated executive discretion is inbuilt into it which permits the blatant abuse.
- In 1979, India **ratified the International Covenant on Civil and Political Rights (ICCPR)**, which sets forth internationally recognized standards for the protection of freedom of expression. However, misuse of sedition and arbitrary slapping of charges are inconsistent with India’s international commitments.

Kuruba Community: Karnataka

Why in News

A massive rally was organised by the **Kuruba community** to urge the state government of **Karnataka to recommend the Centre inclusion of the community in the Scheduled Tribe (ST) list**.

Key Points

➤ **Background:**

- From Independence, the **community enjoyed the ST status**. In 1977, Justice LG Havanur, who

Note:



headed the backward class commission, moved the Kurubas to the 'most backward classes' category from ST list.

- However, the Commission brought in an area restriction stating that those living in Bidar, Yadgir, Kalaburagi and Madikeri with Kuruba synonyms can continue to avail the ST benefits.

➤ About Kurubas:

- The Kurubas of Karnataka are a traditional sheep rearing community.
- Presently, the Kurubas constitute 9.3% of the state's population and come under the backward classes category.
- Kurubas are the fourth largest caste in Karnataka after the Lingayats, Vokkaligas and Muslims.
- Kurubas in other states are known by different names – as Dhangars in Maharashtra, Rabaris or Raikas in Gujarat, Dewasis in Rajasthan and Gadarias in Haryana.

➤ Related Developments:

- **Demands by Lingayat Community:** Three years earlier, the Lingayat community demanded a separate minority religion tag in Karnataka.
- The Lingayat sub-sect Panchamasali has also demanded its inclusion in the 2A category of backward classes - which currently provides 15% reservations to backward castes.

➤ Justice HN Nagamohan Das Commission:

- The Justice HN Nagamohan Das Commission was constituted to look into increasing the existing reservation for SCs from 15% to 17% and for the STs from 3% to 7% by not exceeding the overall 50% reservation quota as mandated by the Supreme Court's order of 1992.
 - If Kurubas are to be declared ST as per their demand, the quota for STs will have to be proportionally increased.

○ Challenge:

- The larger issue is that the State has already hit the apex court set 50% cap on reservation and any hike poses a challenge.

➤ Present Reservation Quota in Karnataka:

- Adhering to the Supreme Court's 1992 order, Karnataka has capped the reservation to 50% where 32% has been earmarked for backward classes, including Muslims, Christians and Jains, 15% for SCs and 3% for STs.
- This reservation quota has been further pared into categories: Category 1 (4%), Category 2A (15%), Category 2B (4%), Category 3A (4%), Category 3B (5%), SC (15%) and ST (3%).

Scheduled Tribe

➤ About:

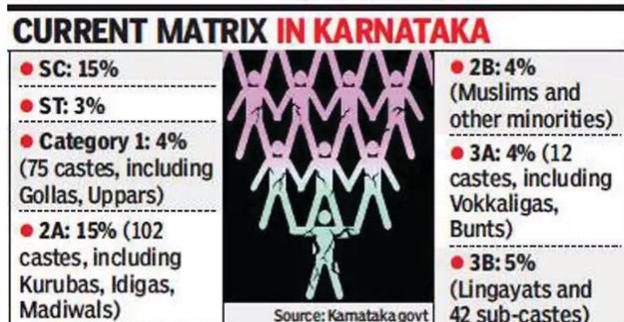
- **Article 366 (25) of the Constitution** refers to **Scheduled Tribes** as those communities, who are scheduled in accordance with **Article 342 of the Constitution**.
- **Article 342** says that only those communities who have been declared as such by the President through an initial public notification or through a subsequent amending Act of Parliament will be considered to be Scheduled Tribes.
- The list of Scheduled Tribes is State/UT specific and a community declared as a Scheduled Tribe in a State need not be so in another State.

➤ Essential Characteristics:

- The Constitution is silent about the criteria for specification of a community as a Scheduled Tribe. However, following are the traits that distinguish Scheduled Tribe communities from other communities.
 - Primitiveness,
 - Geographical isolation,
 - Shyness, and
 - Social, educational and economic backwardness.

➤ Particularly Vulnerable Tribal Groups:

- There are certain Scheduled Tribes, 75 in number known as Particularly Vulnerable Tribal Groups (PVTGs), who are characterised by:
 - Pre-agriculture level of technology,
 - Stagnant or declining population,
 - Extremely low literacy, and
 - Subsistence level of economy.



Note:

Registered Unrecognised Political Parties Increased: ADR

Why in News

According to a report by **Association for Democratic Reforms (ADR)**, the number of **registered unrecognised political parties** has increased two-fold from 2010 to 2019.

- ADR is an Indian **non-governmental organization** established in 1999 situated in New Delhi.

Key Points

➤ Registered Unrecognised Political Parties:

○ Meaning:

- Either **newly registered parties** or those **which have not secured enough percentage of votes in the assembly or general elections** to become a state party, or those **which have never contested elections** since being registered are considered **unrecognised parties**.
- Such parties **don't enjoy all the benefits extended to the recognised parties**.

■ Recognised Political Party:

1. A **recognised political party** shall **either be a National party or a State party** if it meets certain laid down conditions.
2. **To become a recognised political party** either at the state or national level, a party **has to secure a certain minimum percentage of polled valid votes or certain number of seats** in the state legislative assembly or the Lok Sabha during the last election.
3. The **recognition granted by the Commission to the parties determines their right to certain privileges** like allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls.

○ Election Commission's Guidelines:

- The **Election Commission of India** issued guidelines on **'Transparency and Accountability in party funds and election expenditure – submission of reports by unrecognised political**

parties' which were applicable to all political parties w.e.f 1st October, 2014.

● As per these guidelines:

- All **unrecognised parties** are required to **submit their requisite reports** in the office of the respective state **Chief Election Officers (CEOs)**.
- Scanned copies of **annual audited accounts, contribution reports and statements of election expenditure shall be uploaded on the websites of CEOs** of the respective states, within three days of receipt of the same for viewing by the public.

➤ Findings:

○ Increased Number:

- There are **2,360 political parties** registered with the **Election Commission of India** and **97.50% of them are unrecognised**.
- From **1,112 registered unrecognised parties in 2010**, the number has increased to **2,301 in 2019**.

○ Donation to these Parties:

- The **contribution reports of only 78 or 3.39% of the total 2,301 registered unrecognised parties are available** in the public domain for Financial Year (FY) 2018-19.

➤ Recommendations of ADR:

- **255 parties were delisted in 2016** from the list of registered unrecognised parties as they were no longer in existence or functioning.
 - This exercise should continue so as to **weed out all political parties which do not contest in any election for more than 5 years** and also as a means to strengthen the registration process.
- Regulation of registration of political parties is crucial to **avoid money laundering, corrupt electoral practices and abuse of money power**.
 - Thus, the ECI should impose strict norms for the registration of an association of persons as a political party apart from **taking the stringent step of de-listing those parties** which fail to adhere to the rules.
- **IT scrutiny of unrecognised parties should be taken up**, especially of those which do not contest in elections but declare receipt of voluntary contributions.

Note:

Progress Report of Commission for Sub-categorisation of OBCs

Why in News

Recently, the **Centre has extended the tenure of the Rohini Commission** until 31st July, 2021 to submit its report on **Sub-categorisation of Other Backward Classes (OBCs)**.

- The **Rohini Commission was constituted in October 2017** under **Article 340 of the Constitution**. At that time, it was given 12 weeks to submit its report, but has been given several extensions since, the latest one being the 10th.
- **Article 340** deals with the appointment of a commission to investigate the conditions of backward classes.

Key Points

- **Need for Committee for Sub-categorisation of OBCs:**
 - **Ensuring Equality:**
 - It had been constituted to complete the task of **sub-categorising 5000-odd castes in the central OBC**.
 - **OBCs are granted 27% reservation** in jobs and education under the central government.
 - The need for sub-categorisation arises out of the perception that **only a few affluent communities among the over 2,600 included in the Central List of OBCs** have secured a major part of this 27% reservation.
 - Sub-categorisation would **ensure more equitable distribution of opportunities** in central government jobs and educational institutions.
 - **Recommended by NCBC:**
 - In 2015, the **National Commission for Backward Classes (NCBC)** had recommended that OBCs should be **categorised into extremely backward classes, more backward classes and backward classes**.
 - The benefits of the **reservation** in OBCs are being cornered mostly by the dominant OBC groups over the years so there is a need to recognise sub-quotas for the extremely backward classes within the OBCs.
 - NCBC has the authority to **examine complaints and welfare measures regarding socially and educationally backward classes**.

- **Commission's Terms of Reference (ToR):**
 - **Examining Inequality:** To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of OBCs with reference to such classes included in the Central List.
 - **Determining Parameters:** To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such OBCs.
 - **Classification:** To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of OBCs and classifying them into their respective sub-categories.
 - **Eliminating Errors:** To study the various entries in the Central List of OBCs and recommend correction of any repetitions, ambiguities, inconsistencies and errors of spelling or transcription.
- **Challenges Before the Commission:**
 - **Data Deficiency:**
 - Absence of data for the population of various communities to compare with their representation in jobs and admissions.
 - **Delaying of Survey:**
 - It was decided in **Census 2021**, data of OBCs will also be collected, but no consensus has been reached regarding enumeration of OBCs in the Census.
- **Findings of the Commission Until Now:**
 - In 2018, the Commission **analysed the data of 1.3 lakh central jobs** given under OBC quota over the preceding five years.
 - It **also analysed OBC admissions to central higher education institutions**, including universities, IITs, NITs, IIMs and AIIMS, over the preceding three years. The **findings** were:
 - **97% of all jobs and educational seats have gone to just 25%** of all sub-castes classified as OBCs.
 - **24.95% of these jobs and seats have gone to just 10 OBC communities**.
 - **983 OBC communities (37% of the total) have zero representation** in jobs and educational institutions.
 - **994 OBC sub-castes have a total representation of only 2.68%** in recruitment and admissions.

Note:

- In **mid- 2019**, the Commission informed that it is **ready with the draft report** (on sub-categorisation). It is widely understood that the report could have huge political consequences and face a judicial review so it's **still not released**.
- **OBC Recruitment in the Central Government Jobs** (as per the Report submitted by the Department of Personnel and Training to NCBC in 2020):
 - From the data of **42 ministries/departments**, OBC representation in Central government jobs was found out to be:
 - **16.51 % in Group-A** central government services.
 - **13.38 % in Group-B** central government services.
 - **21.25 % in Group-C** (excluding safai karamcharis).
 - **17.72 % in Group-C** (safai karamcharis).
 - **Regarding NFS:**
 - NCBC also found out that a **number of posts reserved for OBCs were being filled by people of general category** as OBC candidates were declared "NFS" (None Found Suitable).
- **Revision of Creamy Layer:**
 - Even the **revision of the income limit for the creamy layer for the OBCs** is under consideration.

Note:

- Recently, the **Supreme Court of India** has reopened a similar legal debate on **sub-categorisation of Scheduled Castes and Scheduled Tribes for reservations**, what is commonly referred to as "quota within quota" for SCs and STs.

15th Finance Commission Recommendations: Resource Allocation

Why in News

Recently, the **government accepted the 15th Finance Commission's recommendation to maintain the States' share in the divisible pool of taxes to 41%** for the five-year period starting 2021-22.

- The Commission's Report was tabled in the Parliament.

Key Points

- **Vertical Devolution (Devolution of Taxes of the Union to States):**

15th Finance Commission

- The **Finance Commission (FC)** is a **constitutional body**, that determines the method and formula for **distributing the tax proceeds between the Centre and states**, and among the states as per the constitutional arrangement and present requirements.
- Under **Article 280 of the Constitution**, the **President of India** is required to constitute a Finance Commission at an interval of five years or earlier.
- The 15th Finance Commission was constituted by the President of India in November 2017, **under the chairmanship of NK Singh**. Its recommendations will cover a **period of five years from the year 2021-22 to 2025-26**.
 - It has recommended **maintaining the vertical devolution at 41%** - the same as in its **interim report for 2020-21**.
 - It is **at the same level of 42% of the divisible pool** as recommended by the **14th Finance Commission**.
 - It has **made the required adjustment of about 1%** due to the changed status of the erstwhile State of Jammu and Kashmir into the new **Union Territories of Ladakh and Jammu and Kashmir**.
- **Horizontal Devolution (Allocation Between the States):**
 - For horizontal devolution, it has suggested **12.5% weightage to demographic performance, 45% to income, 15% each to population and area, 10% to forest and ecology and 2.5% to tax and fiscal efforts**.
- **Revenue Deficit Grants to States:**
 - Revenue deficit grants **emanate from the requirement to meet the fiscal needs of the States** on their revenue accounts that remain to be met, even after considering their own tax and non-tax resources and tax devolution to them.
 - Revenue Deficit is **defined as the difference between revenue or current expenditure and revenue receipts**, that includes tax and non-tax.
 - It has recommended post-devolution **revenue deficit grants amounting to about Rs. 3 trillion over the five-year period** ending FY26.
 - The **number of states qualifying** for the revenue deficit grants **decreases from 17 in FY22**, the first year of the award period **to 6 in FY26**, the last year.

Note:



- **Performance Based Incentives and Grants to States:**
 - These grants **revolve around four main themes.**
 - The first is the **social sector**, where it has focused on **health and education.**
 - Second is the **rural economy**, where it has focused on **agriculture and the maintenance of rural roads.**
 - The rural economy plays a significant role in the country as it **encompasses two-thirds of the country's population, 70% of the total workforce and 46% of national income.**
 - Third, **governance and administrative reforms** under which it has recommended grants for **judiciary, statistics and aspirational districts and blocks.**
 - Fourth, it has developed a **performance-based incentive system for the power sector**, which is not linked to grants but provides an important, additional borrowing window for States.
- **Fiscal Space for Centre:**
 - **Total 15th Finance Commission transfers (devolution + grants)** constitutes about **34% of estimated Gross Revenue Receipts** to the Union, **leaving adequate fiscal space** to meet its resource requirements and spending obligations on national development priorities.
- **Grants to Local Governments:**
 - Along with grants for municipal services and local government bodies, it includes **performance-based grants for incubation of new cities and health grants** to local governments.
 - In grants for Urban local bodies, **basic grants are proposed only for cities/towns having a population of less than a million.** For **Million-Plus cities**, 100% of the grants are performance-linked through the **Million-Plus Cities Challenge Fund (MCF).**
 - MCF amount is linked to the performance of these cities in **improving their air quality** and meeting the service level benchmarks for **urban drinking water supply, sanitation and solid waste management.**

Criticism

- **Performance based incentives disincentivizes independent decision-making.** Any conditions on the state's ability to borrow will have an adverse effect on the spending by the state, particularly on development thus, **undermines cooperative fiscal federalism.**

- **It does not hold the Union government accountable for its own fiscal prudence** and dilutes the joint responsibility that the Union and States have.

Horizontal Devolution Criteria

- **Population:**
 - The population of a State **represents the needs of the State to undertake expenditure** for providing services to its residents.
 - It is also a **simple and transparent indicator** that has a significant equalising impact.
- **Area:**
 - The **larger the area, greater is the expenditure requirement** for providing comparable services.
- **Forest and Ecology:**
 - By taking into account the share of dense forest of each state in the aggregate dense forest of all the states, the share on this criteria is determined.
- **Income Distance:**
 - Income distance is the **distance of the Gross State Domestic Product (GSDP) of a particular state from the state with the highest GSDP.**
 - To maintain inter state equity, the **states with lower per capita income would be given a higher share.**
- **Demographic Performance:**
 - It **rewards efforts made by states in controlling their population.**
 - This criterion has been computed by **using the reciprocal of the total fertility ratio of each state**, scaled by 1971 population data.
 - This has been done to **assuage the fears of southern States** about losing some share in tax transfers due to the reliance on the 2011 Census data instead of the 1971 census, which could penalise States that did better on managing demographics.
 - **States with a lower fertility ratio will be scored higher** on this criterion.
 - **The Total Fertility Ratio** in a specific year is defined as the total number of children that would be born to each woman if she/they were to pass through the childbearing years bearing children according to a current schedule of age-specific fertility rates.

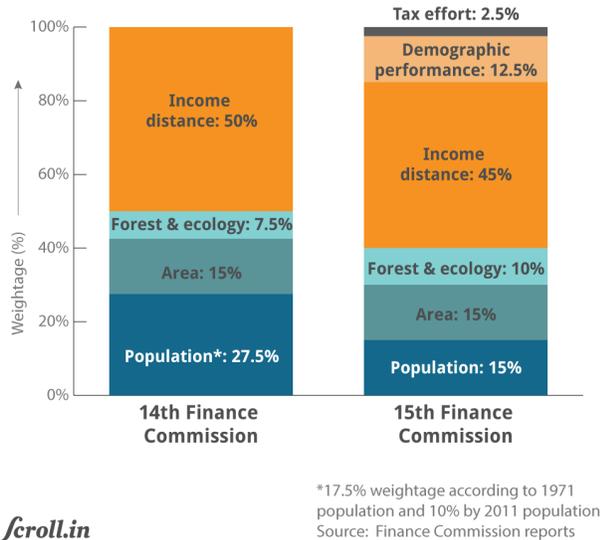
Note:



➤ Tax Effort:

- This criterion has been **used to reward states with higher tax collection efficiency**.
- It has been computed as the ratio of the average per capita own tax revenue and the average per capita state GDP during the three-year period between 2016-17 and 2018-19.

Revenue-sharing formulas in the 14th and 15th Finance Commissions



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15th Finance Commission Recommendations: Different Sectors

Why in News

Recently, the 15th Finance Commission's Report was tabled in the Parliament. The Report included recommendations for different sectors - Health, Defence and Internal Security and Disaster Risk Management, etc.

Key Points

➤ Health:

- Health spending by States should be **increased to more than 8% of their budget by 2022**.
- Given the inter-State disparity in the availability of medical doctors, it is essential to constitute an **All India Medical and Health Service** as is envisaged under Section 2A of the **All-India Services Act, 1951**.

- 15th FC also allocated funds for **overhauling of medical services** at all the levels and **training of the allied healthcare workforce**.

➤ Defence and Internal Security:

- The Union Government may constitute in the **Public Account of India**, a dedicated non-lapsable fund, **Modernisation Fund for Defence and Internal Security (MFDIS)**.

➤ Disaster Risk Management:

- **Formation of Mitigation Funds** at both the national and State levels, in line with the provisions of the **Disaster Management Act, 2005**.
 - The Fund should be used for those local level and community-based interventions which reduce risks and promote environment-friendly settlements and livelihood practices.
- **Funding Priority Areas:** 15th FC has also earmarked allocations for certain priority areas, such as :
 - Funds for the **National Disaster Response Force** for expansion and modernisation of fire services and resettlement of displaced people affected by erosion.
 - Funds for **National Disaster Mitigation Fund (NDMF)** for catalytic assistance to twelve most drought-prone states, managing seismic and landslide risks in ten hill States, reducing the risk of urban flooding in seven most populous cities and mitigation measures to prevent erosion.

15th Finance Commission Recommendations: Fiscal Consolidation

Why in News

Recently, the 15th Finance Commission's Report was tabled in the Parliament. It provided range for the **fiscal deficit** and debt path of both the Union and States.

Key Points

➤ Fiscal Deficit:

- **Target for Centre:** It recommended that the Centre brings down its fiscal deficit to 4% of Gross Domestic Product GDP by 2025-26 against 6.8% in FY22.
- **Target for States:** For states, it recommended **fiscal deficit at 4% of Gross State Domestic Product**

Note:



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(GSDP) in 2021-22, 3.5% in the following year and 3% for the next three years.

- **Borrowing Ceilings for States:**
 - Because of **Article 293 of the Constitution**, State Governments operate under borrowing limits and, hence, budget constraints, approved by the Union Government.
 - The normal limit for **net borrowing may be fixed at 4% of Gross State Domestic Product (GSDP) in 2021-22, 3.5% in 2022-23** and be maintained at **3% of GSDP from 2023-24 to 2025-26**.
 - **An additional borrowing of 0.5% of GSDP** to be allowed to the States in case they meet the criteria for **power sector reforms**.
- **Better Monitoring of Centrally Sponsored Scheme (CSS):**
 - A **threshold amount of annual appropriation should be fixed** below which the funding for a **CSS** may be stopped.
 - Below the stipulated threshold, the **administration department should justify the need for the continuation of the scheme**.
 - As the life cycle of ongoing schemes has been made co-terminus with the cycle of Finance Commissions, **third-party evaluation of all CSSs should be completed within a stipulated time frame**.
- **New FRBM Framework:**
 - The Fiscal Responsibility and Budget Management Act (**FRBM Act, 2003**) **needs a major restructuring** and recommended that the time-table for defining and achieving debt sustainability may be examined by a **High-powered Inter-governmental Group**.
 - This High-powered Group can craft the **new FRBM framework** and oversee its implementation.
 - **State Governments may explore formation of independent public debt management cells** which will chart their borrowing programme efficiently.

Regulations on FCRA Contributions

Why in News

Recently, the **Ministry of Home Affairs (MHA)** issued **new regulating guidelines to banks under Foreign Contribution (Regulation) Act, 2010**. It states that the

donations received in Indian rupees by non-governmental organisations (NGOs) and associations **from any foreign source** (even if that source is located in India at the time of such donation) should be treated as **foreign contribution**.

Key Points

- **About the New Guidelines:**
 - **Widening the Scope of Foreign Contribution:** Under the issued regulations, donations given in Indian rupees (INR) by any foreigner/foreign source including foreigners of Indian origin like **Overseas Citizen of India (OCI) or Person of India Origin (PIO)** cardholders should also be treated as foreign contribution.
 - **Meeting the Standards of FATF:** The guidelines mandate that good practices should be followed by NGOs in accordance with standards of global financial watchdog- **Financial Action Task Force (FATF)**.
 - It asked NGOs to inform the Ministry about “suspicious activities” of any donor or recipient and “take due diligence of its employees at the time of recruitment.”
- **Existing Rules:**
 - **Mandatory Reporting by Banks:**
 - All banks have to report the receipt or utilisation of any **foreign contribution by any NGO**, association or person to the Central government **within 48 hours**, whether or not they are registered or granted prior permission under the **Foreign Contribution Regulation Act (FCRA) 2010**.
 - **Prescribed Banking Channels:**
 - In September 2020, the **Foreign Contribution (Regulation) Amendment Act (FCRA), 2020** was passed by the Parliament.
 - A new provision that **makes it mandatory for all NGOs to receive foreign funds in a designated bank account at the State Bank of India’s New Delhi branch** was inserted.
 - All NGOs seeking foreign donations have to open a designated FCRA account at the SBI branch or link their existing account to it.
- **Reasons for FCRA Regulations:**
 - The annual inflow of foreign contribution has almost doubled between the years 2010 and 2019, but many recipients of foreign contribution **are being**

Note:

not utilised the same for the purpose for which they were registered or granted prior permission under amended provisions of the FCRA 2010.

- Recently, the Union Home Ministry has **suspended licenses of the six (NGOs)** who were alleged to have used foreign contributions for religious conversion.
- To ensure that such contributions **do not adversely affect the internal security** of the country.
 - Recently the **National Investigation Agency (NIA)** registered a case against a foreign based group that provides funds for secessionist and pro-Khalistani activities in India.
- These regulations **could enhance transparency and accountability** in the receipt and utilisation of foreign contributions.
- **Controversies Related to FCRA:**
 - **Scope not defined:** It prohibits the receipt of foreign contributions “for any activities detrimental to the national interest” or the “economic interest of the state”.
 - However, there is no clear guidance on what constitutes “public interest”.
 - **Limits Fundamental Rights:** The FCRA restrictions have **serious consequences on both the rights to free speech and freedom of association** under **Articles 19(1)(a) and 19(1)(c)** of the Constitution.

Foreign Contribution (Regulation) Act (FCRA), 2010

- Foreign funding of persons in India is regulated under FCRA Act and is implemented by **the Ministry of Home Affairs**.
 - Individuals are permitted to accept foreign contributions without permission of MHA. However, the monetary limit for acceptance of such **foreign contributions shall be less than Rs. 25,000**.
- The Act ensures that the recipients of foreign contributions **adhere to the stated purpose for which such contribution has been obtained**.
- Under the Act, organisations are required to register themselves **every five years**.

Foreign Contribution (Regulation) Amendment Act, 2020

- **Prohibition to accept foreign contribution:** The Act bars public servants from receiving foreign contributions. Public servant includes any person

who is in service or pay of the government, or remunerated by the government for the performance of any public duty.

- **Transfer of foreign contribution:** The Act prohibits the transfer of foreign contribution to any other person not registered to accept foreign contributions.
- **Aadhaar for registration:** The Act makes Aadhaar number mandatory for all office bearers, directors or key functionaries of a person receiving foreign contribution, as an identification document.
- **FCRA account:** The Act states that foreign contribution must be received only in an account designated by the bank as FCRA account in such branches of the State Bank of India, New Delhi.
- **Reduction in use of foreign contribution for administrative purposes:** The Act proposes that not more than 20% of the total foreign funds received could be defrayed for administrative expenses. In FCRA 2010 the limit was 50%.
- **Surrender of certificate:** The Act allows the central government to permit a person to surrender their registration certificate.

Right to Privacy & Legitimate State Interest

Why in News

Recently, the Central government has stated that **though the right to privacy is held to be a sacred fundamental right, the veil of privacy can be lifted for legitimate State interest**.

- The government was **responding to a petition seeking permanent halting of the Centre’s surveillance projects**- Centralized Monitoring System (CMS), Network Traffic Analysis (NETRA) and National Intelligence Grid (NATGRID).

Key Points

- **Petitioner’s Arguments:**
 - The government’s surveillance projects enable **government authorities to intercept, store, analyse and retain telephone and internet communications data** in bulk in **violation of the fundamental right to privacy**.

Note:

Centre's Surveillance Projects

➤ Centralized Monitoring System:

- The government has set up a Centralised Monitoring System (CMS) for lawful interception and monitoring of mobile phones, landlines and internet traffic through mobile networks.

➤ Network Traffic Analysis:

- NETRA (or Network Traffic Analysis) is one such effort being taken by the Indian Government to filter suspicious keywords from messages in the network

➤ National Intelligence Grid:

- First conceptualised in 2009, NATGRID (National intelligence Grid) seeks to become the one-stop destination for security and intelligence agencies to access databases related to immigration entry and exit, banking and telephone details of a suspect on a "secured platform".

- These systems **allow the government a 360 degree surveillance of all citizens**, including judges.

- It **sought creation of a permanent and independent oversight authority** - judicial or parliamentary - for **authorising and reviewing** interception and monitoring orders or warrants issued under the **Telegraph Act, 1885 and the IT Act, 2000**.

➤ Government's Arguments:

- Lawful interception, monitoring or decryption of any messages or information stored in any computer resources is done by authorised agencies after **due approval in each case by the competent authority**.
 - There is **no blanket permission** to any agency for interception or monitoring or decryption; and **permission from the competent authority (Union Home Secretary)** is required.
- It contended there is **sufficient mechanism of oversight** in place in the form of a Review Committee, headed by the Cabinet Secretary at the centre and chief secretary at the state level, which examines if the approval has been given in accordance with the law.
 - When the **Review Committee is of the opinion that the directions are not in accordance with the provisions**, it may set aside the directions and **order for destruction of the copies** of the intercepted message or class of messages.

- The grave threats to the country from **terrorism, radicalization, cross-border terrorism, cybercrime, organized crime, drug cartels** cannot be understated or ignored and a strong and robust mechanism for timely and speedy collection of actionable intelligence including digital intelligence, is imperative to counter threats to the national security.

Right to Privacy

➤ About:

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

➤ Restrictions (as stated in the Judgement):

- The right may be restricted only by state action that passes each of the three tests:
- First, such state action must have a **legislative mandate**;
- Second, it must be **pursuing a legitimate state purpose**; and
- Third, it must be proportionate i.e., such **state action- both in its nature and extent**, must be necessary in a democratic society and the action ought to be the least intrusive of the available alternatives to accomplish the ends.

Government Steps to Protect Privacy

➤ Draft Personal Data Protection Bill 2019:

- The **Bill** regulates the processing of **personal data of individuals (data principals)** by **government and private entities** (data fiduciaries) incorporated in India and abroad. Processing is allowed if the individual gives consent, or in a medical emergency, or by the State for providing benefits.

➤ B N Srikrishna Committee:

Note:



- Government appointed a **committee of experts on data protection** under the chairmanship of **Justice B N Srikrishna** that submitted its report in **July 2018**.
- **Information Technology Act, 2000:**
 - The IT Act provides for **safeguard against certain breaches** in relation to data from computer systems. It contains provisions to prevent the **unauthorized use of computers, computer systems and data stored therein**.

Parivar Pehchan Patra and Privacy Concerns

Why in News

Recently, there has been a privacy concern with respect to **Haryana's Parivar Pehchan Patra (PPP) Scheme**.

- Although enrollment under the scheme is voluntary, but the **precondition of linking it** to get the benefit of many essential services has raised serious concerns about the scheme.

Key Points

- **Current Issue:**
 - **Contradictory Position:** Although the enrollment under the PPP is **voluntary**, but in case a citizen or a family wishes to apply for a service delivered by the Haryana government, the PPP ID would be **required**, which leaves very little choice before the residents.
 - **Data Abuse:** In the absence of **privacy laws** in India, or any indication of data protection **Standard Operating Procedures** being followed for this exercise, there is strong possibility of **potential abuse** of the data collected under the PPP.
 - Moreover, a lot of data which is being sought is well above and beyond what is required for the delivery of a particular service.
- **Parivar Pehchan Patra (PPP) Scheme:**
 - **Background:** PPP scheme was formally launched in July 2019 to achieve Haryana government's vision for **'paperless' and 'faceless'** delivery of schemes, services and benefits offered by the state government.
 - Under this, each family is considered a **single**

unit and gets an **8-digit unique identification number**, called **family ID**.

- Family IDs are also linked to independent schemes like **scholarships, subsidies and pensions**, so as to ensure consistency and reliability.
- It also enables **automatic selection** of beneficiaries of various schemes, subsidies and pensions.
- **Objective:** The primary objective of **Parivar Pehchan Patra (PPP)** is to create **authentic, verified and reliable data** of all families in Haryana.
- **Benefits of PPP:**
 - **Family as a Unit:** Union government's **Aadhaar card** contains individual's details and does not cater to the entire family as a unit.
 - Although the **ration card system** is there, it is **not updated** and does not contain **adequate family records**.
 - **Smooth Service Delivery:** Government services and schemes such as **social security pensions, ration cards and birth, death, caste and income certificates etc.** are being delivered by various departments of the Haryana government through PPP.
 - **Beneficial for Migrant Workers: Registration IDs** are provided to those who live in Haryana but have **not completed residency requirements**.
 - This enables the State government to provide benefits such as rations from fair price shops, benefits of labour schemes, street vendors' support schemes, etc.

PPP vs Aadhaar

- While Aadhaar represents an **individual as a unit**, a PPP represents a **family as a unit** and this is where PPP is important because, most of our government schemes are **structured around the family**, not around an **individual**.
 - For example, **ration eligibility** is there for the family but the family can split it into various members as long as they are above 18 years and say they are separating entitlements for all individuals.

Curbing Unsolicited Commercial Communications

Why in News

Recently, the Delhi High Court (HC) ordered the

Note:



Telecom Regulatory Authority of India (TRAI) to ensure “complete and strict” implementation of the regulation issued by it in 2018 for curbing **Unsolicited Commercial Communications (UCC)**.

- **UCC** means any Commercial Communication which a **subscriber opts not to receive**, but does **not include**- any transactional message or any message transmitted on the directions of the Central Government or State Government or agencies authorized by it.

Key Points

- **Background:**
 - A plea was filed by a company in the HC claiming that millions of its customers have been defrauded by the **phishing activities over the mobile networks and the failure of the telecom companies** to prevent the same has **caused financial and reputational loss**.
 - It claimed that under the regulations, **the telecom companies are required to verify purported telemarketers seeking registration** (called registered telemarketers or RTMs) with them before granting access to their customer data and also take action immediately against all fraudulent RTMs.
 - **Phishing** is a **cybercrime** in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution **to lure individuals into providing sensitive data** such as personally identifiable information, banking and credit card details, and passwords.
 - It contended that the telecom companies are violating their obligations under the **Telecom Commercial Communications Customer Preferences Regulations (TCCCPR) 2018**, to curb the problem of unsolicited commercial communications.
- **High Courts Direction:**
 - **To TRAI:**
 - Ensure “complete and strict” implementation of the regulation issued by it in 2018 for curbing UCC.
 - **To Telecom Service Providers (TSPs):**
 - Ensure strict compliance with the TCCCPR 2018 issued by TRAI.

Telecom Commercial Communications

Customer Preferences Regulations (TCCCPR) 2018

- It replaced the **Telecom Commercial Communications Customer Preference Regulations, 2010 (2010 Regulations)**.
- It was issued by the TRAI to provide a revised regulatory framework **aimed at regulating ‘unsolicited commercial communication’ (UCC) in India**.
- The new regulatory framework has devolved **control and regulatory powers to access providers**, who are now required to **establish their own codes of practice (CoPs)** to deal with UCC.
- It provides for a wide range of customer preferences which are to be implemented in near real time using **Distributed Ledger Technology (DLT)** to make communications traceable and capable of being controlled effectively.
- It also provides for the use of **cloud-based solutions for handling complaints, the registration of headers and preferences**, and use of smart contracts for automated allocation of roles between entities in the commercial communication ecosystem.
 - The technology-based solutions are required to be tested in **regulatory sandboxes** under the oversight of the TRAI.

Jal Jeevan Mission (Urban)

Why in News

In the **Budget 2021-22**, Jal Jeevan Mission (Urban) has been announced under the **Housing and Urban Affairs Ministry** to **provide universal coverage of water supply to all households** through functional taps in all statutory towns in accordance with **Sustainable Development Goal- 6**.

- It complements the **Jal Jeevan Mission (Rural)** which envisages supply of 55 litres of water per person per day to every rural household through **Functional Household Tap Connections (FHTC) by 2024**.

Key Points

- **Objectives of Jal Jeevan Mission (Urban):**
 - **Securing Tap and Sewer Connections:**
 - To bridge the estimated gap of 2.68 crore **urban household functional water tap connections**.

Note:

- To provide 2.64 crore sewer connections/ septage in 500 AMRUT cities.
- **Rejuvenation of Water Bodies:**
 - To **augment sustainable fresh water supply** and create **green spaces and sponge cities** to reduce floods and enhance amenity value through an **Urban Aquifer Management** plan.
 - **Sponge city** is a city that has the capacity to mainstream urban water management into the urban planning policies and designs.
- **Creating Circular Water Economy:**
 - To promote **circular economy** of water through development of the city **water balance plan for each city** focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation.
- **Features of Jal Jeevan Mission (Urban):**
 - **Deploying Latest Technology:**
 - **A Technology Sub-Mission for water** is proposed to leverage latest global technologies in the field of water.
 - **Spreading Mass Awareness:**
 - **Information, Education and Communication (IEC) campaign** is proposed to spread awareness among masses about conservation of water.
 - JJM looks to **create a jan andolan for water**, thereby making it everyone's priority.
 - **Survey for Equitable Distribution:**
 - **Pey Jal Survekshan** will be conducted in cities to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies with respect to quantity and quality of water through a challenge process.
 - **Focus on Strengthening Urban Local Bodies:**
 - By reducing non-revenue water to below 20%.
 - **Non-revenue water** is the difference between the volume of water put into a water distribution system and the volume that is billed to customers.
 - Recycling used water to meet at least 20% of total city water demand and 40% for industrial water demand at State level.
 - Promoting dual piping systems.
 - Raising funds through issuance of **municipal bonds**.
 - Rejuvenation of water bodies.

- **Promoting PPP Model:**
 - In order to promote **Public private partnership**, it has been mandated for cities having millions plus population to take up PPP projects worth minimum of 10% of their total project fund allocation.
- **Funding:**
 - For **Union Territories**, there will be **100% central funding**.
 - For **North Eastern and Hill States**, central funding for projects will be **90%**.
 - **Central funding will be 50% for cities with less than 1 lakh population**, one third for cities with 1 lakh to 10 lakh population and 25% for cities with million plus population.
 - **Outcome based Funding:**
 - Funding from the Government for projects will be in **three tranches of 20:40:40**.
 - **Third instalment onwards will be released based on outcomes** achieved and credible exclusion will be exercised while funding.
- **Other Initiatives for Urban Development:**
 - **Swachh Bharat Mission-Urban**.
 - **Pradhan Mantri Awas Yojana- Urban**.
 - **AMRUT Mission**.
 - **Smart City Mission**.

Bharat Parv 2021

Why in News

The **annual event Bharat Parv** was celebrated from 26th to 31st January, 2021 on a virtual platform created by the **Ministry of Tourism**.

- On the occasion, the Ministry dedicated three virtual pavilions - **Dekho Apna Desh, Statue of Unity & Incredible India**.

Key Points

- **About the Bharat Parv:**
 - It **envisages generating patriotic fervor and showcases the rich and varied cultural diversity of the country**. This event celebrates the "**Essence of India**".
 - The **Ministry of Tourism organizes Bharat Parv every year since 2016** in front of the ramparts

Note:

of the Red Fort on the occasion of Republic Day Celebrations from 26th to 31st January.

- **Bharat Parv 2021** showcased many pavilions of Central Ministries, State Theme Pavilions, Handicrafts, Folk performances from various states and UTs etc.
- **'Dekho Apna Desh' Campaign:**
 - It was **launched by the Ministry of Tourism** in 2020.
 - It is **an initiative to encourage the citizens to travel widely within the country** and explore the wonders of India thus **enabling the development of Domestic Tourism tourist facilities and infrastructure** in tourism spots in the country.
 - The Ministry has also organised **a series of webinars** on various cities, states, cultures, heritage, wildlife, adventure, etc.
- **Statue of Unity:**
 - It is the **Sardar Vallabhbhai Patel monument** in the Narmada district of Gujarat.
 - The **Statue of Unity**, designed by the Indian sculptor Ram V. Sutar is the world's tallest statue, with a height of 182 metres.
 - Statue of Unity pavilion also exhibited the idea of **'Ek Bharat Shreshtha Bharat (EBSB)'** which aims to:
 - **Enhance interaction & promote mutual understanding** between people of different States/UTs through the concept of State/UT pairing.
 - **Promote a sustained and structured cultural connect** in the areas of language learning, culture, traditions & music, tourism & cuisine, sports and sharing of best practices, etc.
- **Incredible India Pavilion:**
 - It comprised information on **UNESCO World Heritage Sites**.
 - India has **38 world heritage sites**, including 30 cultural properties, 7 natural properties and 1 mixed site. The **latest one included is Jaipur city, Rajasthan**.

Economic Impact of Judicial Decisions

Why in News

Recently, the **NITI Aayog** has asked research

organisation **'Consumer Unity and Trust Society (CUTS) International'** to conduct a study on the **"economic impact" of various judgments delivered by courts and tribunals** and the **'judicial activism'** of such courts and tribunals.

- **Judicial Activism:** It implies the **assertive role played by the judiciary** to force the other two organs of the government (legislature and executive) to discharge their constitutional duties. It is **also known as "judicial dynamism"**. It is the **antithesis of "judicial restraint"**, which means the self-control exercised by the judiciary.

Key Points

- **Conducting Organization:**
 - The study is to be undertaken by the Jaipur-headquartered **CUTS (Consumer Unity and Trust Society)** Centre for Competition, Investment and Economic Regulation, that also has an international presence.
 - It is a **registered, recognised, non-profit, non-partisan, non-government organisation (NGO)** pursuing social justice and economic equity both within and across borders.
- **Objective:**
 - The objective of the study aims a **"narrative building for sensitising the judiciary on the economic impact of their decisions"**.
 - It is to do an objective **cost-benefit analysis of the economic impact of the decisions**.
- **Projects to be Studied:**
 - The Study intends to examine **five major projects that have been "impacted" by judicial decisions of the Supreme Court (SC) or the National Green Tribunal (NGT)**.
 - Projects to be analysed include the construction of an **airport in Mopa, Goa**; cessation of **iron ore mining in Goa**, and the shutting down of the **Sterlite copper plant in Thoothukudi, Tamil Nadu**.
 - The others are decisions by the NGT involving **sand mining, and construction activities in the National Capital Region**.
- **Process:**
 - It plans to do this by **interviewing people who have been affected** by the closure of the projects, environmental campaigners, experts and assessing the business impact of closure.

Note:

- **Significance:**
 - The findings will be used as a **training input for judges** of commercial courts, NGT, High Courts and SC.
 - It would contribute to public discourse among policymakers for promoting an **“economically responsible approach by judiciary”** in its decisions.
 - The study is also a **part of the larger umbrella project** undertaken by NITI Aayog under which it wants to establish a **judicial performance index**, which would measure the performance of judges at district courts and subordinate levels.
- **Previous Study:**
 - In 2017, the same CUTS International had also conducted an assessment study on the economic impact of the SC’s decision to **impose a ban on the presence of liquor shops within 500 m of any highway**.
 - The study showed that **cases which involve substantial social and economic dimensions need to be studied in detail** to assess whether they are implementable in the first place and whether the loss to the economy outweighs the gains envisaged.
 - This could be done **if Courts set up expert committees** to study these aspects which can also engage economists to analyse the cost/benefits before a judgment is pronounced.
 - The Supreme Court had established such expert group committees for cases in the past like the

Supreme Court Committee on Road Safety under the Chairmanship of Justice K.S. Radhakrishnan in 2014 and **Justice Lodha Committee set up in 2015** for reforms within the Board of Control for Cricket in India (BCCI), amongst others.

Motion of Thanks

Why in News

Recently, the **Prime Minister** replied to the motion of thanks to the **President’s address** in the Lok Sabha.

Key Points

- **President’s Address:**
 - **Constitutional Provisions:**
 - **Article 87** provides for the special address by the President. It **provides two special occasions** on which the **President addresses a joint sitting**.
 - At the commencement of the **first session after each general election** to the House of the People and
 - At the commencement of the **first session of each year**.
 - The President **shall inform Parliament of the causes of its summons**.
 - Such an Address is called ‘special address’, and it is also an **annual feature**.
 - **No other business is transacted** till the President has addressed both Houses of Parliament assembled together.
 - **Regarding Joint Session:**
 - This Address has to be to **both Houses of Parliament assembled together**.
 - However, at the commencement of the first session of the year, if Lok Sabha is not in existence and has been dissolved, then Rajya Sabha has to meet. And **Rajya Sabha can hold its session without the President’s Address**.
 - In the case of the first session after each general election to Lok Sabha, the President addresses both Houses of Parliament assembled together **after the members have made and subscribed the oath** or affirmation and the **Speaker has been elected**.
 - **Content of the President’s Address:**

Obstacle course

Some projects/companies which have hit the hurdle grounds

MOPA AIRPORT, GOA

The SC in 2019 suspended environmental clearance but lifted it in Jan. 2020 after imposing several conditions



SAND MINING, UTTAR PRADESH

The National Green Tribunal in 2013 suspended sand mining operations and directed that environmental clearances be obtained from authorities



STERLITE COPPER, THOOTHUKUDI, T.N.

The SC in Dec. rejected a proposal made by Vedanta to operate its closed copper plant. The Madras HC and the T.N. govt. had ordered the closure of the plant



CONSTRUCTION ACTIVITIES AROUND DELHI

The NGT imposed a ban on construction activities but specific instances are not known



IRON ORE MINING, GOA

In 2018, the SC quashed 88 mining leases for violation of mining procedures and asked the State govt. to issue fresh leases



Note:



drishti

- The President's Address is the **statement of policy of the Government** and, as such, is drafted by the Government.
 - The Address **contains a review of various activities and achievements of the Government during the previous year** and sets out the **policies, projects and programmes which Government of the day wishes to pursue** with regard to the important national and international issues.
- **Discussion on the Address by Motion of Thanks:**
- **Background:**
 - The Address of the President, which corresponds to the 'speech from the Throne in Britain', is discussed in both the Houses of Parliament on a motion called the 'Motion of Thanks'.
 - **Constitutional Provisions:**
 - **Article 87 (2)** of the Constitution requires that **provision shall be made by the rules** regulating the procedure of either House **for the allotment of time for discussion** of the matters referred to in the President's Address.
 - Under **Rule 15 of Rules of Procedure and Conduct of Business in Rajya Sabha**, discussion on the matters referred to in the President's Address **takes place on a Motion of Thanks** moved by a member and seconded by another member.
 - Members who are to move and second the Motion are **selected by the Prime Minister** and the **notice of such a Motion is received through the Ministry of Parliamentary Affairs.**
- **Procedure:**
- It is available to the members of Parliament to raise discussions and debates to examine and criticise the government and administration for its lapses and failures.
 - Generally, three days are allotted for the discussion on the Motion of Thanks.
 - If any of the amendments are put forward and accepted then the Motion of Thanks is adopted in the amended form.
 - Amendments may refer to matters contained in the Address as well as to matters which, in the opinion of the member, the Address has failed to mention.
 - At the end of the discussion, **the motion is put to vote.**

➤ **Significance of Motion of Thanks:**

- The **Motion of Thanks must be passed in the House.** Otherwise, it amounts to the **defeat of the government.** It is one of the ways through which the Lok Sabha can also express a lack of confidence in the government. The other ways are:
 - Rejection of a **money bill.**
 - Passing a censure motion or an adjournment motion.
 - The defeat of the government on a vital issue.
 - Passing a cut **motion.**

Indian Laws and Blocking of Internet Content: Centre vs Twitter

Why in News

Recently, the **government of India reprimanded Twitter (micro-blogging website) for not complying with its order to block more than a thousand accounts** for alleged spread of provocative content and misinformation on the **farmers' protest.**

Key Points

➤ **Current Issue:**

- The **Centre has issued notice to the micro-blogging site after it restored more than 250 accounts** that had been suspended earlier on the government's 'legal demand'.
- The government wants the platform (Twitter) to comply with its earlier order of **31st January, 2021** by which it was **asked to block accounts** and a controversial hashtag that spoke of an impending 'genocide' of farmers for allegedly promoting misinformation about the protests, adversely affecting public order.

TOTAL 709 ACCOUNTS DEACTIVATED

➤ **Of 257 handles** that had originally tweeted with the hashtag #ModiPlanning-FarmerGenocide, **126 have been deactivated**

➤ **Of 1,178 handles that government suspected to have links with Khalistani, Pak elements** to spread misinformation and provocative content, **583 deactivated**



➤ IT ministry said 'motivated campaigns' on platform and hashtag around PM were **being run to 'abuse, inflame and create tension in society** on unsubstantiated grounds'

➤ **Twitter was warned of action under IT Act Section 69A[3],** under which senior company officials can be jailed for up to 7 years, apart from financial penalty

Note:



- The **micro-blogging site** reinstated the accounts and tweets on its own and later **refused to go back on the decision, contending that it found no violation of its policy.**
- **Law Related to Blocking of Internet Services/Content:**
 - **Information Technology Act, 2000:**
 - In India, the **Information Technology (IT) Act, 2000**, as amended from time to time, governs all activities related to the use of computer resources.
 - It covers all **'intermediaries'** who play a role in the use of computer resources and electronic records.
 - The **role of the intermediaries** has been spelt out in separate rules framed for the purpose in 2011-**The Information Technology (Intermediaries Guidelines) Rules, 2011.**
 - **Section 69 of the IT Act:**
 - It confers on the Central and State governments the **power to issue directions "to intercept, monitor or decrypt any information** generated, transmitted, received or stored in any computer resource".
 - The **grounds on which these powers may be exercised** are:
 - In the interest of the sovereignty or integrity of India, defence of India, the security of the state.
 - Friendly relations with foreign states.
 - Public order, or for preventing incitement to the commission of any cognizable offence relating to these.
 - For investigating any offence.
 - **Process of Blocking Internet Websites:**
 - **Section 69A**, for similar reasons and grounds (as stated above), **enables the Centre to ask any agency of the government, or any intermediary, to block access to the public of any information generated**, transmitted, received or stored or hosted **on any computer resource.**
 - Any such request for blocking access **must be based on reasons given in writing.**
- **Intermediaries as per the IT Act 2000:**
 - Intermediary is defined in **Section 2(1) (w)** of the IT Act 2000.
 - The term **'intermediaries'** includes **providers of telecom service, network service, Internet service and web hosting**, besides **search engines, online payment and auction sites, online marketplaces and cyber cafes.**
 - It includes any person who, on behalf of another, **"receives, stores or transmits" any electronic record. Social media platforms** would fall under this definition.
 - **Obligations of Intermediaries under the Law:**
 - Intermediaries are **required to preserve and retain specified information in a manner and format prescribed by the Centre** for a specified duration.
 - Contravention of this provision **may attract a prison term that may go up to three years**, besides a fine.
 - **When a direction is given for monitoring**, the intermediary and any person in charge of a computer resource should extend technical assistance in the form of giving access or securing access to the resource involved.
 - Failure to extend such assistance may entail a **prison term of up to seven years, besides a fine.**
 - **Failure to comply with a direction to block access** to the public on a government's written request also **attracts a prison term of up to seven years, besides a fine.**
 - **Liability of Intermediaries:**
 - **Section 79** of the IT Act 2000 makes it clear that **"an intermediary shall not be liable for any third-party information, data, or communication link made available or hosted by him"**.
 - **Third party information** means any information dealt with by a network service provider in his capacity as an intermediary.
 - This **protects intermediaries** such as Internet and data service providers and those hosting websites **from being made liable** for content that users may post or generate.
 - **Sections 79** also introduced the concept of **"notice and take down"** provision.
 - It provides that an **intermediary would lose its immunity** if upon receiving actual knowledge or on being notified that any information, data or communication link residing in or connected to a computer resource controlled by it is being

Note:



used to **commit an unlawful act** and it fails to expeditiously remove or disable access to that material.

➤ **Supreme Court's Stand Related to Intermediaries in IT Act 2000:**

- In *Shreya Singhal vs Union of India (2015)*, the **Supreme Court** read down the provision to mean that the **intermediaries ought to act only upon receiving actual knowledge that a court order has been passed**, asking [them] to expeditiously remove or disable access to certain material.

➤ **Reason for Intermediaries to Show Compliance to IT Act:**

- **International Requirement:**
 - **Most nations have framed laws** mandating cooperation by Internet service providers or web hosting service providers and other intermediaries **to cooperate with law and order authorities in certain circumstances.**
- **To Fight Cybercrime:**
 - Cooperation between technology services companies and law enforcement agencies is now deemed a **vital part of fighting cybercrime** and various other crimes that are committed using computer resources.
 - These cover **hacking, digital impersonation and theft of data.**
- **To Prevent Misuse of Internet:**
 - The potential of the misuse has led to law enforcement officials constantly seeking to curb the ill-effects of using the medium.

Schemes for Reducing Tax Disputes

Why in News

Recently, the Finance Secretary has said that the **new system of faceless assessment and appeal** would help bring down tax disputes substantially.

Key Points

- **Tax Disputes (Data):**
 - As per official data, the **amount involved in tax disputes was over Rs. 11 lakh crore in FY19-end, up 23% over a year-ago.**

- Since India has a very **high number of tax litigations**, the **resolution times are significantly higher**, involving time and cost (on the part of the government as well as taxpayers).

➤ **Initiatives Taken to Reduce Tax Disputes:**

- **Dispute Resolution Committee:**
 - In **Budget 2021**, the Minister of Finance has proposed the formation of a Dispute Resolution Committee (DRC) in order to provide quicker relief to taxpayers in tax disputes.
 - It will be **formed under a new section, 245MA**, of the Income Tax Act.
 - The DRC will **cater to small taxpayers** having a taxable income of up to Rs. 50 lakh and a disputed income of up to Rs. 10 lakh.
 - The Committee **will have the powers** to reduce, waive any penalty or give immunity from any offence punishable under the Income Tax Act.
 - The **alternative mechanism through the DRC** shall help taxpayers in preventing new disputes and settling the issue at the very initial stage.
 - India has been **ranked at 88 in the World Rule of Law Index 2020** in terms of accessibility of alternative dispute resolution mechanisms.
- **Faceless Assessment and Appeal:**
 - The Prime Minister in August 2020 announced three key structural tax reforms under the **'Transparent Taxation - Honouring the Honest' platform** - faceless assessment, faceless appeal and taxpayers' charter.
 - The **faceless assessment system** was launched to remove the need of the physical presence of the taxpayers in front of the tax officials.
 - Since the launch of faceless random assessment, over 50,000 disputes have been settled.
 - The **faceless appeals system** aims to eliminate discretionary powers of the taxman, curb corrupt practices and provide ease of compliance to taxpayers.
 - Income Tax **appeals will be finalised in a faceless manner** with the exception of appeals related to serious fraud, major tax evasion, search matters, international tax issues and matters pertaining to black money.

Note:



- The **tax charter** elaborated on the rights and responsibilities of the taxpayers to help them familiarise with the whole process of Income Tax collection.
- The effort is on to establish a **National Faceless Income Tax Appellate Tribunal Centre** that will offer personal hearings through video-conferencing.
- **Vivad Se Vishwas Scheme:**
 - The **scheme** provides for **settlement of disputed tax, disputed interest, disputed penalty or**

disputed fees in relation to an assessment or reassessment order on payment of 100% of the disputed tax and 25% of the disputed penalty or interest or fee.

- The **Direct Tax Vivad se Vishwas Act, 2020** was enacted in March 2020 to settle direct tax disputes locked up in various appellate forums.
- As many as 1.25 lakh cases, a quarter of all direct disputes, have opted for Vivad se Vishwas scheme, enabling settlement of Rs. 97,000 crore in tax demands.



Note:

Economic Scenario

Highlights

- Highlights of Economic Survey 2020 - 21
- Budget 2021 Highlights: Health and Wellbeing
- Budget 2021 Highlights: Infrastructure
- Budget 2021 Highlights: Physical and Financial Capital
- Budget 2021 Highlights: Inclusive Development for Aspirational India and Reinvigorating Human Capital
- Budget 2021 Highlights: Minimum Government, Maximum Governance and Fiscal Position
- Doubling Farmers Income
- Major Port Authorities Bill, 2020
- Guidelines on Food Systems and Nutrition: CFS
- Saksham Portal and Seaweed Mission: TIFAC
- Impact of Crude Oil Price Hike
- Privatisation of Banks
- Direct Access to G-Sec Market for Retail Investors: RBI
- Increased Fiscal Deficit
- Unified Portal of Gobardhan
- Consumer Welfare Fund
- Asset Reconstruction Company
- Taxing Interest Incomes on EPF
- Increased Farm Exports
- RBI Monetary Policy 2021

Highlights of Economic Survey 2020 - 21

Why in News

Recently, the Union Minister of Finance presented the **Economic Survey** that details the state of the economy ahead of the government's budget for the fiscal year beginning 1st April, 2021.

- The foundational theme of the survey is **"Saving Lives and Livelihoods"**.

Key Points

- **Indian Economy and Covid:**
 - **Strategy to face the pandemic:**
 - Response stemmed from the humane principle that:
 - Human lives lost cannot be brought back.
 - **Gross Domestic Product (GDP)** growth will recover from the temporary shock caused by the **Covid-19 pandemic**.
 - India's policy response also derived from extensive research on epidemiology, especially that looked at **Spanish Flu of 1918**.
 - One of the key insights was that pandemic spreads faster in higher and denser population

and intensity of lockdown matters most at the beginning of the pandemic.

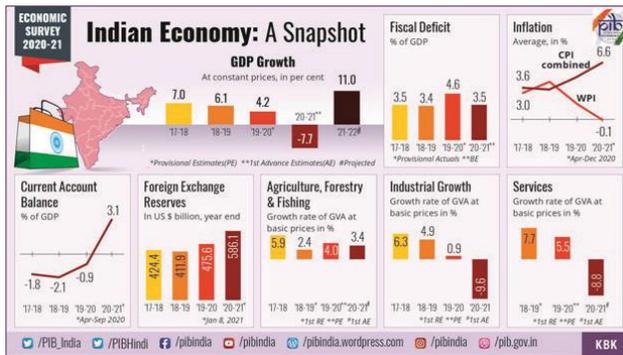
- **Four Pillar Strategy:**

- India adopted a unique **four-pillar strategy of containment, fiscal, financial, and long-term structural reforms**.

Economic Survey

- The Economic Survey of India is an **annual document released by the Ministry of Finance**, Government of India.
- It contains the **most authoritative and updated source of data on India's economy**.
 - It is a report that the government presents on the **state of the economy in the past one year**, the key challenges it anticipates, and their possible solutions.
- The Economic Survey document is **prepared by the Economics Division of the Department of Economic Affairs (DEA)** under the guidance of the **Chief Economic Advisor**.
- It is usually **presented a day before the Union Budget is presented in the Parliament**.
 - The **first Economic Survey in India** was presented in the **year 1950-51**. Up to 1964, it was **presented along with the Union Budget**. From 1964 onwards, it has been delinked from the Budget.

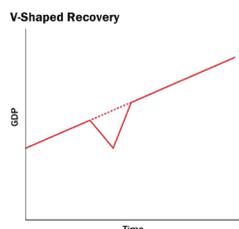
Note:



- **Calibrated fiscal and monetary support** was provided given the evolving economic situation.
 - A **favorable monetary policy** ensured abundant liquidity and immediate relief to debtors via temporary moratoria, while facilitating monetary policy transmission.
- **Cushioning the vulnerable** in the lockdown and **boosting consumption and investment** while unlocking, mindful of fiscal repercussions and entailing debt sustainability.
- **Covid pandemic affected both demand and supply:**
 - India was the **only country to announce structural reforms** to expand supply in the medium-long term and avoid long-term damage to productive capacities.
 - The **Rs. 1.46-lakh crore Production Linked Incentive (PLI) scheme** is expected to make India an integral part of the global supply chain and create huge employment opportunities
 - **Demand-side measures** have been announced in a calibrated manner.
 - A public investment programme centered around the **National Infrastructure Pipeline** to accelerate the demand push and further the recovery.

➤ **Economic Recovery:**

- **V-shaped Economic Recovery after Lockdown:**
 - Starting July 2020, a resilient V-shaped recovery is underway.
 - **V-shaped recovery** is a type of economic recession and recovery that resembles a “V” shape in charting.
 - Specifically, a V-shaped recovery **represents**



the shape of a chart of economic measures economists create when examining recessions and recoveries.

- A V-shaped recovery is **characterized by a quick and sustained recovery in measures of economic performance** after a sharp economic decline.
- **Reasons:**
 - It is supported by the initiation of a **mega vaccination drive** with hopes of a robust recovery in the services sector and prospects for robust growth in consumption and investment.
 - V-shaped recovery is due to resurgence in high frequency indicators such as **power demand, rail freight, E-Way bills, Goods and Services Tax (GST) collection, steel consumption**, etc.
 - The fundamentals of the economy remain strong as gradual **scaling back of lockdowns** along with the support of **Aatmanirbhar Bharat Mission** have placed the economy firmly on the path of revival.
- **Significance:**
 - This path would entail a growth in real **Gross Domestic Product (GDP)** by 2.4% over the absolute level of 2019-20 - implying that the **economy would take two years to reach and go past the pre-pandemic level.**
- **GDP's Estimation:**
 - India's **real GDP** to record a growth of **11% in 2021-22** and **nominal GDP** by 15.4% - the highest since independence.
 - These projections are in line with **International Monetary Fund estimates.**
 - India's GDP is estimated to **contract by 7.7%** in the **Financial Year (FY) 2020-21**, composed of a sharp 15.7% decline in the first half and a modest 0.1% fall in the second half.
 - Sector-wise, **agriculture has remained the silver lining** while **contact-based services, manufacturing, construction** were hit hardest, and have been recovering steadily.
 - The **external sector provided an effective cushion to growth** with India recording a **Current Account Surplus of 3.1% of GDP** in the first half of FY 2020-21.

Note:

- **Foreign Investment:**
 - Net **Foreign Direct Investment (FDI)** inflows of USD 27.5 billion during April-October, 2020 - **14.8% higher** as compared to the first seven months of FY 2019-20.
 - Net **Foreign Portfolio Investment (FPI)** Inflows recorded an all-time monthly high of 9.8 Billion Dollars in November 2020.
- **Debt Sustainability and Growth:**
 - **Growth leads to debt sustainability** in the Indian context but not necessarily vice-versa.
 - Debt sustainability **depends on the 'Interest Rate Growth Rate Differential' (IRGD)**, i.e., the difference between the interest rate and the growth rate.
 - **Negative IRGD in India** – not due to lower interest rates but much higher growth rates – prompts a debate on fiscal policy, especially during growth slowdowns and economic crises.
 - Fiscal policy that provides an impetus to growth will lead to **lower debt-to-GDP ratio**.
 - Given India's growth potential, **debt sustainability is unlikely to be a problem** even in the worst scenarios.
 - Desirable to use **counter-cyclical fiscal policy** to enable growth during economic downturns.
 - Counter-cyclical fiscal policy refers to the **steps taken by the government that go against the direction of the economic or business cycle**.
 - Thus, in a recession or slowdown, the government increases expenditure and reduces taxes to create a demand that can drive an economic boom.
- **Services Sector:**
 - **About:**
 - The services sector **accounts for over 54% of India's Gross Value Added (GVA)** and nearly four-fifths of total **Foreign Direct Investments (FDI)** inflow into India.
 - Services sector accounts for 48% of total exports, outperforming goods exports in recent years.
 - Key indicators such as **Services Purchasing Managers' Index**, rail freight traffic, and port traffic, are all displaying a V-shaped recovery after a sharp decline during the lockdown.
 - **Start Up:** The Indian **start-up ecosystem has been progressing** well amidst the Covid-19 pandemic, being home to 38 unicorns - adding a record number of 12 start-ups to the unicorn list last year.
 - **Space Sector:** India's **space sector** has grown exponentially in the past six decades. Space ecosystem is undergoing several policy reforms to engage private players and attract innovation and investment.
- **Agriculture:**
 - **Growth:**
 - The Agriculture and Allied activities clocked a growth of **3.4%**.
 - As per the Provisional Estimates of **National Income** released by **Central Statistical Organization** in May, 2020, the share of Agriculture and Allied Sectors in **Gross Value Added (GVA)** of the country at current prices is **17.8% for the year 2019-20**.
 - **Export:**
 - In 2019-20, the major agricultural and allied export destinations were the **USA, Saudi Arabia, Iran, Nepal and Bangladesh**.
 - The top agriculture and related products exported from India were **marine products, basmati rice, buffalo meat, spices, non-basmati rice, cotton raw, oil meals, sugar, castor oil and tea**.
 - **Livestock:**
 - The contribution of **Livestock** in total agriculture and allied sector GVA (at Constant Prices) has increased from 24.32% (2014-15) to 28.63% (2018-19).
 - **Food Processing Industries (FPI):**
 - During the last 5 years ending 2018-19, **FPI** sector has been growing at an Average Annual Growth Rate (AAGR) of around 9.99% as compared to around 3.12% in Agriculture and 8.25% in Manufacturing at 2011-12 prices.
 - **Farm Laws:**
 - It **strongly defended new farm laws**, saying they herald a new era of market freedom which can go a long way in improving lives of small and marginal farmers in India.
 - These legislations were **designed "primarily" for the benefit of "small and marginal farmers"**,

Note:



which constitute around 85% of the total number of farmers and are the biggest sufferer of the “regressive” **Agricultural Produce Market Committee (APMC)** -regulated market regime.

➤ Regulatory Forbearance:

- Regulatory forbearance for banks after the Global Financial Crisis involved **relaxing the norms for restructuring assets, where restructured assets were no longer required to be classified as Non-Performing Assets (NPAs henceforth)** and therefore did not require the levels of provisioning that NPAs attract.
- However, the survey points out that regulatory forbearance is an emergency medicine, not staple diet and suggests:
 - Instead of continuing regulatory forbearance for years, **policymakers should lay out thresholds of economic recovery** at which such measures will be withdrawn.
 - An **Asset Quality Review exercise** must be conducted by banks immediately after the forbearance is withdrawn.
 - **Legal infrastructure for the recovery of loans** needs to be strengthened de facto.
 - To **promote judgement amidst uncertainty**, ex-post inquests must recognize the role of hindsight bias and not equate unfavourable outcomes to bad judgement or malafide intent.

➤ India and Innovation:

- India **entered the top-50 innovating countries for the first time in 2020** since the inception of the **Global Innovation Index** in 2007, ranking first in Central and South Asia, and third amongst lower middle-income group economies.
- India's **Gross Domestic Expenditure on Research and Development (GERD)** is **lowest amongst top ten economies**.
- India's aspiration must be to compete on innovation with the top ten economies.

➤ Process Reforms:

- The survey highlighted **excessive regulation in the country**.
- India **over-regulates the economy** resulting in regulations being ineffective even with relatively good compliance with process.
- The root cause of the problem of **overregulation is an approach that attempts to account for every possible outcome**. Increase in complexity of regulations, intended to reduce discretion, results in even more non-transparent discretion.
- The solution is to **simplify regulations** and invest in greater supervision which, by definition, implies greater discretion.

➤ India and Sovereign Credit Ratings:

- India's **sovereign credit ratings do not reflect the economy's fundamentals** and the **global agencies should become more transparent and less subjective in their ratings**.

PRIVATE SECTOR INNOVATION- NEED OF THE HOUR

- India's gross domestic expenditure on R&D at 0.65% of GDP much lower than that of the top 10 economies (1.5-3% of GDP)
- **Indian Government sector's contribution - three times the average of government contribution in top 10 economies**
- **Business sector's contribution amongst the lowest in top 10 economies despite liberal tax incentives for innovation**
 - **Indian residents contributed only 36% of total patents filed in India; 62% on average in top 10 economies**
 - **India must significantly ramp up investment in R&D, needs major thrust by the business sector**

India: Sovereign Credit Rating vs Economic Fundamentals

India's Case- **BBB/Baa2**

- **Zero sovereign default history** **A/A2**
- **Extremely low foreign currency denominated debt of the sovereign** **BBB+/Baa-**
- **Comfortable size of its foreign exchange reserves** **A-/A3** **AA-/Aa3**

Survey Recommendation: **A+/A1**

India's fiscal policy must not remain beholden to a biased measure of India's fundamentals

BBB-/Baa3 **BB+/-/Ba1** **AA/Aa2**

Note:

➤ Defence Sector:

- The **allocated capital budget for defence has been fully utilised since 2016-17**, reversing the previous trends of surrender of funds.

➤ Healthcare:

- **Pradhan Mantri Jan Arogya Yojana (PM-JAY):**
 - **PM-JAY** contributed to improvement in many health outcomes in States that implemented the ambitious programme the Centre had launched more than two years ago to provide healthcare access to most vulnerable sections.
- **National Health Mission (NHM):**
 - **NHM** played a critical role in mitigating inequity as the access of the poorest to pre-natal/post-natal care and institutional deliveries increased significantly.
 - The scheme should be given prominence under **Ayushman Bharat**.
- **Government Spending:**
 - An increase in government spending on the healthcare sector – from the current 1% to 2.5-3% of GDP – as envisaged in the **National Health Policy 2017** could reduce out-of-pocket expenditures.

Healthcare under spotlight

ECONOMIC SURVEY 2020-21

- 1. To respond to pandemics, health infrastructure must be agile
- 2. Emphasis on National Health Mission should continue
- 3. Increase in public healthcare spend from **1% to 2.5-3%** of GDP can decrease Out of Pocket Expenditure from **65% to 35%** of overall healthcare spend
- 4. Regulation of health sector required given information asymmetry in healthcare
- 5. Mitigating information asymmetry can lower insurance premiums, enable the offering of better products and increase insurance penetration
- 6. Telemedicine needs to be harnessed to the fullest

➤ Education:

- **Literacy:**
 - India has attained a **literacy level of almost 96% at the elementary school level**.
 - As per **National Sample Survey (NSS)**, the **literacy rate of persons of age 7 years and above at the All India level stood at 77.7%** but the **differences in literacy rate attainment among social-religious groups, as well as gender still persists**.
 - Female literacy remained below the national average among social groups of SC, ST, OBC, including religious groups of Hinduism and Islam.
- **Rural Enrolment:**
 - The **percentage of enrolled children** from government and private schools owning a smartphone increased enormously from **36.5% in 2018 to 61.8% in 2020 in rural India**.
- **PM eVIDYA:**
 - **PM eVIDYA** is a comprehensive initiative to unify all efforts related to digital/online/on-air education to enable multi-mode and equitable access to education for students and teachers.
 - Around 92 courses have started and 1.5 crore students are enrolled under **Swayam Massive Open Online Courses (MOOCs)** which are online courses relating to the **National Institute of Open Schooling**.
- **PRAGYATA:**
 - **PRAGYATA** guidelines on digital education have been developed with a focus on online/blended/digital education for students who are presently at home due to closure of schools.
- **MANODARPAN:**
 - The **MANODARPAN** initiative for psychological support has been included in Atmanirbhar Bharat Abhiyan.
- **Vocational Courses and Skill Development:**
 - Vocational courses will be introduced phase-wise in schools for classes 9 to 12 to expose students to skill development avenues, as part of the Centre's flagship skilling scheme **Pradhan Mantri Kaushal Vikas Yojana 3.0**.
 - Merely **2.4% of India's workforce in the age group of 15-59 years have received formal vocational** or technical training, while another 8.9% obtained training through informal sources.

Note:

- Out of the 8.9% workforce who received non-formal training, the largest chunk is contributed by **on-the-job training (3.3 %)**, followed by **self-learning (2.5 %)** and **hereditary sources (2.1%)** and other sources (1%).
 - Among those who received formal training, the **most opted training course** is IT-ITeS among both males and females.
 - The Unified Skill Regulator- **National Council for Vocational Education and Training (NCVET)** was operationalized recently.
- **Bare Necessities:**
- **Bare Necessities Index (BNI):**
 - **Bare Necessities Index (BNI)** based on the large annual household survey data can be constructed using suitable indicators and methodology at district level for all/targeted districts to assess the progress on access to bare necessities.
 - The BNI summarises 26 indicators on **five dimensions** viz., water, sanitation, housing, micro-environment, and other facilities.
 - **Improvement in Bare Necessities:**
 - Bare necessities have improved across all States in the country in 2018 as compared to 2012.
 - Increase in equity is noteworthy as the rich can access private options for public goods.
- **Sustainable Development and Climate Change:**
- India has taken several proactive steps to mainstream the **Sustainable Development Goals (SDGs)** into the policies, schemes and programmes.
 - **Voluntary National Review (VNR)** presented to the **United Nations** High-Level Political Forum (HLPF) on Sustainable Development.
 - **Localisation of SDGs** is crucial to any strategy aimed at achieving the goals under the 2030 Agenda.
 - **Sustainable development remains core** to the development strategy despite the unprecedented Covid-19 pandemic crisis.
 - **Eight National Missions under the National Action Plan on Climate Change (NAPCC)** focussed on the objectives of adaptation, mitigation and preparedness on climate risks.
 - **Nationally Determined Contributions (NDC)** states that finance is a critical enabler of climate change action.
- **The International Solar Alliance (ISA)** launched two new initiatives – ‘**World Solar Bank**’ and ‘**One Sun One World One Grid Initiative**’ – poised to bring about a solar energy revolution globally.
- **Social Infrastructure, Employment and Human Development:**
- The **combined (Centre and States) social sector expenditure as % of GDP has increased in 2020-21** compared to last year.
 - India’s **rank in Human development Index (HDI) 2019 was recorded at 131**, out of a total 189 countries.
 - Government’s incentive to boost employment through **Aatmanirbhar Bharat Rozgar Yojana** and rationalization and **simplification of existing labour codes into 4 codes**.
 - **Low level of female Labour Force Participation Rate (LFPR) in India:**
 - Females spending disproportionately **more time on unpaid domestic and caregiving services** to household members as compared to their male counterparts (Time Use Survey, 2019).
 - **Need to promote non-discriminatory practices at the workplace** like pay and career progression, improve work incentives, including other medical and social security benefits for female workers.
- **Inequality and Growth:**
- Both **inequality and per-capita income (growth) have similar relationships with socio-economic indicators** in India, unlike in advanced economies.
 - **Economic growth has a greater impact on poverty alleviation than inequality.**
 - **India must continue to focus on economic growth** to lift the poor out of poverty. **Redistribution in a developing economy is feasible** only if the size of the economic pie grows.

Budget 2021 Highlights: Health and Wellbeing

Why in News

Recently, the Minister of Finance presented the Union **Budget 2021-22**. This was the **first ever digital Union Budget**.

Note:

- It is based on **six pillars** - health and well-being, physical and financial capital and infrastructure, inclusive development for aspirational India, reinvigorating human capital, innovation and R&D, and 'Minimum Government, Maximum Governance'.
- This section deals with the proposals for the Health and Wellbeing Sector.

Budget and Constitutional Provisions

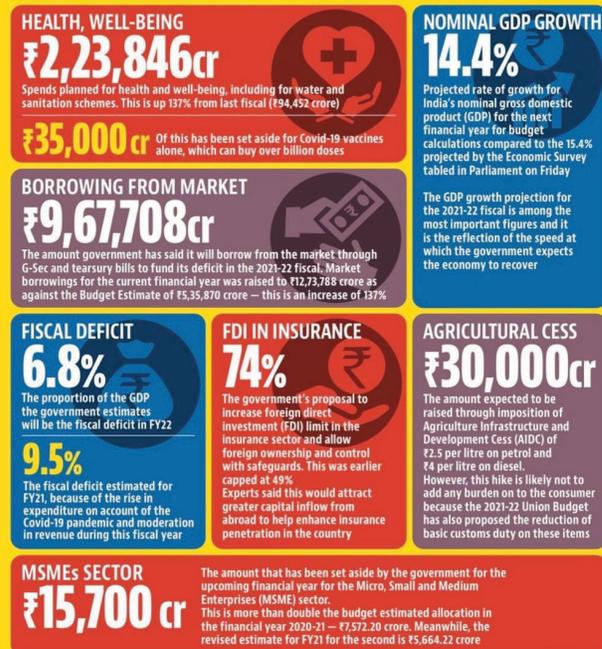
- According to **Article 112** of the Indian Constitution, the Union Budget of a year is referred to as the **Annual Financial Statement (AFS)**.
- It is a statement of the estimated receipts and expenditure of the Government in a **Financial Year** (which begins on 1st April of the current year and ends on 31st March of the following year).
- Overall, the Budget contains:
 - Estimates of revenue and capital receipts,
 - Ways and means to raise the revenue,
 - Estimates of expenditure,
 - Details of the actual receipts and expenditure of the closing financial year and the reasons for any deficit or surplus in that year, and
 - The economic and financial policy of the coming year, i.e., taxation proposals, prospects of revenue, spending programme and introduction of new schemes/projects.
- In Parliament, the Budget goes through **six stages**:
 - Presentation of Budget.
 - General discussion.
 - Scrutiny by **Departmental Committees**.
 - Voting on Demands for Grants.
 - Passing an Appropriation Bill.
 - Passing of Finance Bill.
- The **Budget Division of the Department of Economic Affairs** in the Ministry of Finance is the nodal body responsible for preparing the Budget.
- The **first Budget** of Independent India was presented in **1947**.

Key Points

- **Budget Outlay:** Outlay for Health and Wellbeing in 2021-22 as against 2020-21 is an **increase of 137%**.
- **Major Steps:** Steps being taken for improving health and wellbeing:

in the Union Budget '21-22

The highlights from finance minister Nirmala Sitharaman's budget that sought to get India back on the road to recovery after the Covid-19 challenge while not taking the foot off the growth accelerator



- **Vaccines:**
 - Rs. 35,000 crore for **Covid-19 vaccine** in Budget Expenditure (BE) 2021-22.
 - The Made-in-India **Pneumococcal Vaccine** to be rolled out across the country.
- **Health Systems:**

UNION BUDGET 2021-22

PM AatmaNirbhar Swasth Bharat Yojana

A new Centrally Sponsored Scheme with an outlay of about ₹ 64,180 crore, over 6 years

Main Interventions :

- Support for 17,788 rural and 11,024 urban Health and Wellness Centers

Setting up of :

- Integrated public health labs in all districts and 3382 block public health units in 11 states
- Critical care hospital blocks in 602 districts and 12 central institutions
- 15 Health Emergency Operation Centers and 2 mobile hospitals
- A national institution for One Health, a Regional Research Platform for WHO South East Asia Region, 9 Bio-Safety Level III laboratories and 4 regional National Institutes for Virology

1/2

Note:

- PM AatmaNirbhar Swasth Bharat Yojana – a new centrally sponsored scheme to be launched, in addition to **National Health Mission (NHM)**.
- **Nutrition:**
 - **Mission Poshan 2.0** to be launched to improve nutritional outcomes across 112 aspirational districts.
- **Universal Coverage of Water Supply:**
 - **Jal Jeevan Mission (Urban)** - to be launched - to bring safe water to 2.86 crore households through tap connection.
- **Swachh Bharat, Swasth Bharat:**
 - Strengthening of **Urban Swachh Bharat Mission 2.0**.
- **Clean Air:**
 - **Rs. 2,217 crore to tackle air pollution**, for 42 urban centers with a million plus population.
- **Scrapping Policy:**
 - **Voluntary** vehicle scrapping policy to phase out old and unfit vehicles.

Budget 2021

Highlights: Infrastructure

Why in News

Recently, the Minister of Finance presented the Union **Budget** 2021-22. This was the **first digital budget**.

- This section deals with proposals related to **Infrastructure**.

Key Points

- **Production Linked Incentive scheme (PLI):**
 - Rs. 1.97 lakh crore in next 5 years for **PLI schemes** in 13 Sectors to create and nurture manufacturing global champions for an **AatmaNirbhar Bharat**.
- **Textiles:**
 - **Mega Investment Textiles Parks (MITRA)** scheme to be introduced.
- **Infrastructure:**
 - **National Infrastructure Pipeline (NIP)** expanded to 7,400 projects.
 - Measures in three thrust areas to **increase funding** for NIP:
 - Creation of institutional structures:

Textile - Mega Investment Textiles Parks (MITRA)

Aims at making Textile Industry:

1. **Globally competitive**
2. **Attract large investments**
3. **Boost employment generation & exports**

Main features:

- **To create a world class infrastructure with plug and play facilities to enable create global champions in exports**
- **7 Textile Parks will be established over 3 years**

- Set up and capitalise a **Development Financial Institution (DFI)**.
- Big thrust on **monetizing assets**.
- Enhancing the **share of capital expenditure**.
- **Roads and Highways Infrastructure:**
 - Rs. 1,18,101 lakh crore, **highest ever outlay**, for Ministry of Road Transport and Highways.
 - New **Economic corridors** and **Expressways** being planned.
 - **Advanced Traffic management system** in all new 4 and 6-lane highways.
- **Railway Infrastructure:**
 - **National Rail Plan for India (2030)** to create a “future ready” Railway system by 2030.
 - **100% electrification of Broad-Gauge routes** to be completed by December, 2023.
 - **Western Dedicated Freight Corridor (DFC) and Eastern DFC** to be commissioned by June 2022.
 - Measures for **passenger convenience and safety:**
 - **Aesthetically designed Vista Dome Linke Hofmann Busch (LHB) coach** on tourist routes for better travel.
 - High density network and highly utilized network routes to have an **indigenously developed automatic train protection system**, eliminating train collision due to human error.
- **Urban Infrastructure:**

Note:

- Expansion of **metro rail** network and **augmentation of city bus service**.
- '**MetroLite**' and '**MetroNeo**' technologies will be used to provide metro rail systems at much lesser cost with similar experience.
- **Power Infrastructure:**
 - A comprehensive **National Hydrogen Energy Mission 2021-22** to be launched.
 - Rs. 3,05,984 crore over 5 years for a revamped, reforms-based and result-linked **new power distribution sector scheme**.
- **Ports, Shipping, Waterways:**
 - Rs. 2,000 crore worth 7 projects to be offered in **Public Private Partnership (PPP)**-mode in **Financial Year (FY) 2021-22** for operation of major ports.
- **Petroleum & Natural Gas:**
 - Extension of **Ujjwala Scheme** to cover 1 crore more beneficiaries.
 - A new **gas pipeline** project in Jammu & Kashmir.
 - An independent **Gas Transport System Operator** to be set up for facilitation and coordination of booking of common carrier capacity in all-natural gas pipelines on a non-discriminatory open access basis.

Budget 2021

Highlights: Physical and Financial Capital

Why in News

Recently, the Minister of Finance presented the Union **Budget 2021-22**. This was the **first digital budget**.

- This section deals with proposals related to **Physical and Financial Capital**.

Key Points

- **Financial Capital:**
 - A single **Securities Markets Code** to be evolved.
 - To develop an **investor charter** as a right of all financial investors.
 - A new permanent institutional framework to help in development of the **Bond market**.
 - Setting up a system of **Regulated Gold Exchanges**.

- **Securities and Exchange Board of India (SEBI)** to be notified as a regulator and Warehousing Development and Regulatory Authority to be strengthened.
- **Stressed Asset Resolution:**
 - **Asset Reconstruction Company Limited and Asset Management Company (Bad Bank)** to be set up.
- **Increasing Foreign Direct Investment (FDI) in Insurance Sector:**
 - To **increase** the permissible **FDI** limit from **49% to 74%** and allow foreign ownership and control with safeguards.
- **Deposit Insurance:**
 - Amendments to the **Deposit Insurance and Credit Guarantee Corporation Act, 1961**, to help depositors get easy and time-bound access to their deposits to the extent of the deposit insurance cover.
 - **Deposit insurance increased from Rs. 1 lakh to Rs. 5 lakh** for bank depositors.
 - Minimum loan size eligible for debt recovery under the **Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002** proposed to be reduced from Rs. 50 lakh to Rs. 20 lakh for NBFCs with minimum asset size of Rs. 100 crore.
- **For Companies and Firms:**
 - To **decriminalize the Limited Liability Partnership (LLP) Act, 2008**.
 - Easing Compliance requirement of Small companies by revising their definition under **Companies Act, 2013**.
 - Promoting **start-ups** and innovators by incentivizing the incorporation of **One Person Companies (OPCs)**.
 - To ensure faster resolution of cases by:
 - Strengthening **National Company Law Appellate Tribunal (NCLAT)** framework.
 - Implementation of **e-Courts** system.
 - Introduction of alternate methods of debt resolution and special framework for **Micro, Small and Medium Enterprises (MSMEs)**.
- **Disinvestment and Strategic Sale:**
 - New policy for **Strategic Disinvestment** approved; **Central Public Sector Enterprises (CPSEs) except in four strategic areas** to be privatized.
 - **Initial Public Offering (IPO)** of **Life Insurance Corporation (LIC)** in 2021-22.

Note:



- **Special Purpose Vehicle** in the form of a company to monetize idle land.
- Introducing a **revised mechanism** for ensuring timely closure of sick or loss making CPSEs.
- **Government Financial Reforms:**
 - **Treasury Single Account (TSA) System for Autonomous Bodies** to be extended for universal application.
 - Separate Administrative Structure to streamline the **Ease of Doing Business** for Cooperatives.

Budget 2021 Highlights: Inclusive Development for Aspirational India and Reinvigorating Human Capital

Why in News

Recently, the Finance Minister presented the Union Budget 2021-22. This was the **first digital budget**.

- This section deals with the theme 'Inclusive Development for Aspirational India and Reinvigorating Human Capital'.

Key Points

- **Inclusive Development for Aspirational India:**
 - **Agriculture:**
 - Ensured **Minimum Support Price (MSP)** at minimum 1.5 times the cost of production across all commodities.
 - **SWAMITVA Scheme** to be extended to all States/UTs.
 - **Operation Green Scheme** to be extended to 22 perishable products, to boost value addition in agriculture and allied products.
 - 1,000 more mandis to be integrated with the **National Agricultural Market (e-NAM)** to bring transparency and competitiveness.
 - **APMCs (agricultural produce market committee)** to get access to the Agriculture Infrastructure Funds for augmenting infrastructure facilities.
 - **Fisheries:**
 - 5 major fishing harbours – Kochi, Chennai, Visakhapatnam, Paradip, and Petuaghat to be developed as hubs of economic activity.

- Multipurpose **Seaweed Park** in Tamil Nadu to promote seaweed cultivation.
- **Migrant Workers and Labourers:**
 - **One Nation One Ration Card scheme** for beneficiaries to claim rations anywhere in the country - migrant workers to benefit the most.
 - **Portal to collect information on unorganized labour force**, migrant workers especially, to help formulate schemes for them.
 - Implementation of **4 labour codes** underway:
 - **Social security benefits for gig and platform workers** too.
 - **Minimum wages and coverage** under the Employees State Insurance Corporation applicable for all categories of workers.
 - **Women workers** allowed in all categories, including night-shifts with adequate protection.
 - **Compliance burden** on employers reduced with single registration and licensing, and online returns.
- **Financial Inclusion:**
 - Under **Stand Up India Scheme** for **Scheduled Castes (SC)**, **Scheduled Tribes (ST)** and women,
 - Margin money requirement reduced to 15%.
 - To also include loans for allied agricultural activities.
- **Reinvigorating Human Capital:**
 - **School Education:**
 - 15,000 schools to be strengthened by implementing all **National Education Policy (NEP)** components. Shall act as exemplar schools in their regions for mentoring others.
 - **100 new Sainik Schools** to be set up in partnership with NGOs/private schools/states.
 - **Higher Education:**
 - Legislation to be introduced to set up the **Higher Education Commission of India** as an umbrella body with 4 separate vehicles for **standard-setting, accreditation, regulation, and funding**.
 - Creation of formal umbrella structure to cover all Government colleges, universities, research institutions in a city for greater synergy.
 - **Central University to come up in Leh** for accessibility of higher education in Ladakh.
 - **Scheduled Castes and Scheduled Tribes Welfare:**
 - 750 **Eklavya model residential schools** in tribal areas.

Note:

➤ Recommendations of Fifteenth Finance Commission:

- The final report covering 2021-26 was submitted to the President, retaining vertical shares of states at 41%.
- Funds to UTs of Jammu and Kashmir and Ladakh would be provided by the Centre.
- On the Commission's recommendation, **Rs. 1,18,452 crore have been provided as Revenue Deficit Grant to 17 states in 2021-22**, as against Rs. 74,340 crore to 14 states in 2020-21.

➤ Tax Proposals:

- **No exemption on interest**, if Provident Fund (PF) contribution is more than Rs. 2.5 lakh.
- **Exemption from filing tax returns for senior citizens** over 75 years of age and having only pension and interest income; tax to be deducted by paying the bank.
- **Income Tax settlement commission** abolished.
- **Higher Tax Collection** at Source rate for non-filers.
- Reducing time to file belated returns.
- **Agriculture Infrastructure and Development Cess (AIDC)** on a small number of items.
- **Dispute Resolution Committee** to be set up for taxpayers with taxable income up to Rs. 50 lakh and disputed income up to Rs. 10 lakh.
- **National Faceless Income Tax Appellate Tribunal Centre** to be established.

Doubling Farmers Income

Why in News

Recently, the Central Government admitted that **no actual assessment of farm income** has been carried out since 2013.

- The Government of India in its **Annual Budget 2016-17** set a policy target of **doubling farmers' income by 2022**.

Key Points

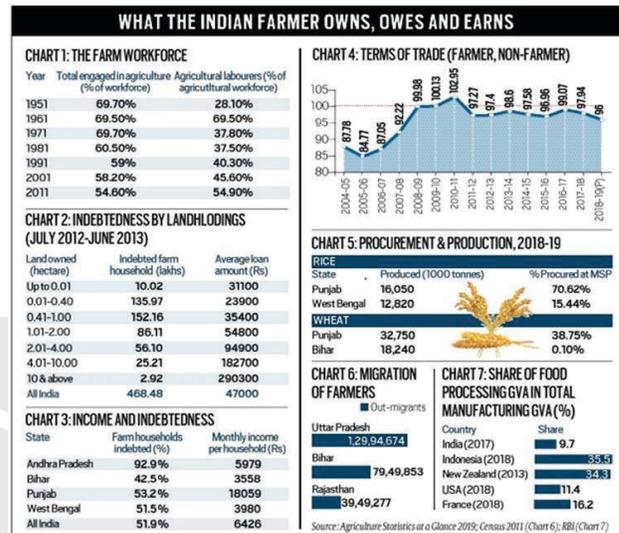
➤ About:

- Agriculture sustains livelihood for **more than half of India's total population**. Doubling farmers' income in such a short period is an overwhelming task for decision makers, scientists and policy makers because of its **continued role in employment**,

income and most importantly in national food security.

- Doubling farmers' income is possible through **increasing total output** and **better price realization** in the market, **reduction in production costs**, **diversification of product**, **efficient post-harvest management**, **value addition**, etc.

➤ Data Related to Indian Farmers:



○ Related Steps Taken by Government:

● Institutional Reforms:

- **Pradhan Mantri Krishi Sinchai Yojana, Soil health card, and Prampragat Krishi Vikas Yojana:** Aiming to raise output and reduce cost.
- **Pradhan Mantri Fasal Bima Yojana:** To provide insurance against crop and income loss and to encourage investment in farming.
- **Interlinking of rivers** - To raise output and farm incomes.
- **Operation Greens:** To address price volatility of perishable commodities like Tomato, Onion and Potato (TOP).
- **PM Kisan Sampada Yojana:** To promote food processing in a holistic manner.

○ Technological Reforms:

- **Initiating E-NAM:** The **National Agriculture Market (eNAM)** is a pan-India electronic trading portal which networks the existing **Agricultural Produce Market Committees (APMCs)** mandis to create a unified national market for agricultural commodities.

Note:

- **Technology mission on cotton:** It aims to increase the income of the cotton growers by reducing the cost of cultivation as well as by increasing the yield per hectare through proper transfer of technology to the growers.
 - **Technology Mission on Oilseeds, Pulses and Maize (TMOPM):** Few schemes implemented under TMOPM are: Oilseeds Production Programme (OPP), National Pulses Development Project (NPDP), etc.
 - **Mission for Integrated Development of Horticulture (MIDH):** It is a scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.
 - **Sugar Technology Mission:** Aimed at reducing the cost of production of sugar and improving sugar quality through steps for improvements in productivity, energy conservation and improvements in capital output ratio.
 - **National Mission on Sustainable Agriculture:** It aims at promoting sustainable agriculture through a series of adaptation measures focusing on ten key dimensions encompassing Indian agriculture namely; 'Improved crop seeds, livestock and fish cultures', 'Water Use Efficiency', 'Pest Management', 'Improved Farm Practices', 'Nutrient Management', 'Agricultural insurance', 'Credit support', 'Markets', 'Access to Information' and 'Livelihood diversification'.
 - In addition, schemes relating to tree plantation (**Har Medh Par Ped**), Bee Keeping, Dairy and Fisheries are also implemented.
- **Need and Challenges:** To achieve the target of doubling farmers' income by 2022, the **Economic Survey 2021** has highlighted few basic challenges which needs to be addressed:
- **Extension of Irrigation Facilities:**
 - The **coverage of irrigation facilities needs to be extended** while ensuring an effective water conservation mechanism.
 - **Improve Agricultural Credit:**
 - An inclusive approach to provision for agricultural credit has to be undertaken to address the **issue of skewness in its regional distribution**, it said.
- **Land Reform:**
 - As the proportion of small and marginal holdings is significantly large, **land reform measures like freeing up land markets** can help farmers improve their Income.
 - **Boost to Allied Sectors:**
 - Allied sectors, such as **animal husbandry, dairying and fisheries**, need to be given a boost to **provide an assured secondary source of employment and income**, especially for small and marginal farmers.
 - **Farm Mechanisation:**
 - There is also a need to address the **issue of lower farm mechanisation in India** which is only about **40%** as compared to about 60% in China and around 75 % in Brazil.
 - **Improving Food Processing Sector:**
 - More focussed attention" is required to be given to the sector due to its **significant role in reducing post-harvest losses** and creation of an additional market for farm outputs.
 - The **food processing sector** is growing at an average annual growth rate of more than 5% over the last six years ending 2017-18.
 - **Exploring Global Markets:**
 - There is a need to give increased focus on exploring global markets for agricultural commodities to **give an additional source of market for the surplus of agricultural produce** India currently has.
 - **Reallocation of Labour:**
 - There is also a need to **reallocate labour resources to other sectors**.
 - Though the structural transformations involved a falling share of the agriculture sector and rising share of services sector jobs, more needs to be done to **create manufacturing jobs to absorb the large pool of workers**.
 - **Other Issues:**
 - Issues such as investment in agriculture, **insurance coverage, water conservation, improved yields through better farming practices, access to market, availability of institutional credit, increasing the linkages between agricultural and non-agricultural sectors** need urgent attention.

Note:



Major Port Authorities Bill, 2020

Why in News

Recently, the Parliament has passed the **Major Port Authorities Bill, 2020**. The Bill seeks to **provide greater autonomy in decision-making to 12 major ports** in the country and **professionalise their governance** by setting up boards.

- It also seeks to **replace the Major Port Trusts Act, 1963**.
- India has **12 major ports** - Deendayal (erstwhile Kandla), Mumbai, JNPT, Marmugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambarnar, Visakhapatnam, Paradip and Kolkata (including Haldia).

Key Points

➤ Salient Features:

○ Board of Major Port Authority:

- **About:** The Bill provides for the creation of a Board of Major Port Authority for each major port. These Boards will **replace the existing Port Trusts**.

- Under the 1963 Act, all major ports are managed by the respective Board of Port Trusts that have members appointed by the central government.

● Composition:

- Provision has been made for **inclusion of representatives of State Government** in which the Major Port is situated, Ministry of Railways, Ministry of Defence and Customs, Department of Revenue as Members in the Board.
- It will also include a **Government Nominee Member** and a **Member representing the employees** of the Major Port Authority.

● Powers:

- The Bill allows the Board to **use its property, assets and funds** as deemed fit for the development of the major port.
- It will also have the **powers to fix reference tariffs** for various port services.
 1. Further, PPP (**Public Private Partnership**) operators will be free to fix tariff- based on market conditions.

- Provisions of **Corporate Social Responsibility (CSR)** & development of infrastructure by the Port Authority have been introduced.

○ Adjudicatory Board:

- An Adjudicatory Board will be created to **carry out the residual function of the erstwhile TAMP (Tariff Authority for Major Ports)**, to look into disputes between ports and PPP concessionaires.
 - TAMP has been a multi-member statutory body with a mandate to fix tariffs levied by major port trusts under the control of the Centre and private terminals, therein.

○ Penalties:

- Any person contravening any provision of the Bill or any rules or regulations will be **punished with a fine of up to one lakh rupees**.

➤ Aims:

- **Decentralization:** Decentralizing decision making and to infuse professionalism in governance of major ports.
- **Trade and Commerce:** To promote the expansion of port infrastructure and facilitate trade and commerce.
- **Decision Making:** It imparts faster and transparent decision making benefiting the stakeholders and better project execution capability.
- **Reorienting Models:** Reorienting the governance model in central ports to **landlord port model** in line with the successful global practice.

➤ Significance:

○ Level-Playing Field:

- This Bill is going to create a level-playing field not just **between major and private ports** but also **between major port terminals and PPP terminals**.
- Within major ports, PPP terminal players, too, have had to take tariff approvals from the TAMP. The Bill, however, eliminates taking approval from the body.
- Due to this, investment in PPP is expected to go up at major ports in the coming years.

○ In Line with Aatmanirbhar Bharat Abhiyan:

- The move will certainly pave the way for driving the country's vision towards **Aatmanirbhar Bharat** and making India a global manufacturing hub.

Note:

- In terms of volume, 70% of cargo movement is through ports while 90% in value terms.

➤ **Criticism:**

- It has been alleged that the Bill is **aimed at privatising the ports and diluting the powers of the states on land use.**

Guidelines on Food Systems and Nutrition: CFS

Why in News

The **Committee on World Food Security (CFS)** has endorsed the first-ever **Voluntary Guidelines on Food Systems and Nutrition (VGFSyN)** which aim to support countries to eradicate hunger and malnutrition in all its forms by utilizing a **food systems approach**.

- The endorsement took place during the **CFS 47th Session**.

Key Points

➤ **About the Guidelines:**

○ **Food Systems Approach:**

- The Guidelines **highlight the complex and multidimensional interlinkages** between sustainable food systems and healthy diets.
- **Food systems are a complex web of activities** involving production, processing, handling, preparation, storage, distribution, marketing, access, purchase, consumption, food loss and waste, as well as the outputs of these activities, including social, economic and environmental outcomes.

○ **Seven Policy Areas:**

- **Transparent, democratic and accountable governance.**
- **Sustainable food supply chains** to achieve healthy diets and in the context of climate change.
- **Equal and equitable access to healthy diets.**
- **Food safety.**
- **People-centred nutrition knowledge**, education and information.
- **Gender equality** and women's empowerment across food systems.
- **Resilient food systems** in humanitarian contexts.

○ **Significance:**

- The guidelines are intended to build upon and complement the work and mandate of other international bodies, for example the **UN Decade of Action on Nutrition (2016-2025)** and **Sustainable Development Goal (2) of 'Zero Hunger'**.
- They **call for realisation of the right to adequate food** in the context of national **food security** for all, particularly for the most vulnerable and affected groups.
- They **focus on policy planning and governance** so that food systems can be made more resilient and responsive and are in accordance with needs of consumers and producers too, especially small and marginal farmers.

➤ **Committee on World Food Security (CFS):**

- It is the foremost inclusive **international and intergovernmental platform** for all stakeholders to work together to ensure food security and nutrition for all.
- The Committee **reports to the United Nations (UN) General Assembly** through the **Economic and Social Council (ECOSOC)** and to the **Food and Agriculture Organisation (FAO) Conference**.
- CFS holds an **annual Plenary session every October in FAO, Rome**.
- CFS receives its **core funding equally** from the **FAO**, the **International Fund for Agricultural Development (IFAD)** and the **World Food Programme (WFP)**.

India's Scenario

➤ **State of Hunger and Malnutrition:**

- According to FAO estimates in '**The State of Food Security and Nutrition in the World, 2020**' Report:
 - **189.2 million people are undernourished** in India i.e. 14% of the population is undernourished.
 - **51.4% of women** in reproductive age between 15 to 49 years **are anaemic**.
 - **34.7% of the children aged under five are stunted** (too short for their age) while **20% suffer from wasting** (weight too low in proportion to height).
- Besides, India **ranked 94th among 107 countries** in the **Global Hunger Index 2020**.

➤ **Initiatives Taken:**

Note:



- **POSHAN Abhiyaan**, launched in 2017-18, aims to reduce stunting, under-nutrition, anemia and low birth weight babies through synergy and convergence among different programmes, better monitoring and improved community mobilisation.
- **Antoydaya Anna Yojana (AAY)** aims to provide food at subsidized prices to poor families.
- The **Integrated Child Development Scheme (ICDS)** envisages comprehensive early childhood care and development by focussing on children in the age group of 0-6 years, pregnant women and adolescent girls.
- The **Mid-day Meal (MDM)** scheme aims to improve nutritional levels among school children which also has a direct and positive impact on enrolment, retention and attendance in schools.
- Under the **Pradhan Mantri Matru Vandana Yojana (PMMVY)**, Rs. 6,000 is transferred directly to the bank accounts of pregnant women for availing better facilities for their delivery.
- The **National Mission on Agriculture Extension and Technology** enables delivery of appropriate technologies and improved agronomic practices for farmers.
- The **National Mission on Sustainable Agriculture** aims to enhance agricultural productivity, and the **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)** aims to improve water-use efficiency.

Saksham Portal and Seaweed Mission: TIFAC

Why in News

The **Technology Information, Forecasting and Assessment Council (TIFAC)** has launched **two new initiatives** - **SAKSHAM** (Shramik Shakti Manch) Job Portal and a **Seaweed Mission**.

- TIFAC is an **autonomous organization** set up in 1988 under the **Department of Science & Technology** to look ahead in the technology domain, **assess the technology trajectories, and support innovation** by networked actions in select areas of national importance.

Key Points

- **SAKSHAM Portal:**

- **About:**
 - It is a dynamic portal for jobs/mapping the skills of *Shramiks* (workers) vis-a-vis requirements of Micro, Small and Medium Enterprises (**MSMEs**) and other industries all across the country. It is an **all India Portal**.
 - It will facilitate **creation of 10 lakh blue collar jobs**.
- **Features:**
 - **High Technology Enabled:** The portal with the demand and supply data uses algorithm and **Artificial Intelligence (AI)** tools, for geo spatial information on demand and availability of *Shramiks*, and also provides analysis on skill training programmes of *Shramiks*.
 - **Automatic Updation:** The data / information pertaining to the *Shramiks* and the industries (especially MSME) are being updated automatically through various whatsapp and other links.
- **Advantages:**
 - **For Workers:** This would **empower *Shramiks* by projecting their candidature directly to the MSMEs & other employers** and would also **address aspects related to their skill proficiency levels**.
 - It will **minimise migration of *Shramiks*** - provide job opportunity in proximate MSMEs.
 - **For Industry:** This would also **eliminate the dependence of industry on the middlemen / labour contractor** for their manpower requirements.
- **Other Related Initiatives:**
 - **ShramShakti Portal** (Ministry of Tribal Affairs).
 - **ASEEM Portal** (Ministry of Skill Development and Entrepreneurship).
 - **NMIS Dashboard** (National Disaster Management Authority).
- **Seaweeds Mission:**
 - **Background:**
 - Out of the global seaweed production of 32 million tons fresh weight valued around 12 billion US dollars, China produces 57%, Indonesia 28% followed by South Korea, whereas **India is having a mere share of 0.01-0.02%**.

Note:

- Despite several advantages, commercial seaweeds cultivation has not taken place in the country at an appropriate scale, as being practiced in South-East Asian countries.
- **About the Mission:**
 - It has been **launched for commercial farming of seaweeds** and its processing for value addition towards boosting the national economy.
 - It **envisages following activities:**
 - **Establishing model demonstration farms** over one hectare for cultivation of economically important seaweeds in nearshore and onshore along the Indian coast.
 - **Establishment of seaweed nurseries** for supplying seed material for large scale farming of economically important seaweeds in the country.
 - Establishment and **demonstration of processing technologies/recipes for edible seaweeds** in line with consumer acceptability or cultural food habits.
 - An activity on **seaweed cluster development** including value chain development, supply chain development, collection of data on environmental, economic and social impacts of seaweed projects in the country.
- **Advantages:** By an estimate, if seaweed cultivation is done in 10 million hectares or 5% of the **Exclusive Economic Zone (EEZ)** area of India, it can
 - Provide **employment** to 50 million people.
 - Set up a **new seaweed industry**.
 - Contribute to **national Gross Domestic Product (GDP)**.
 - Enhance **ocean productivity**;
 - **Abate algal blooms**.
 - **Sequester** millions of tons CO₂.
 - Could **produce bioethanol** of 6.6 billion litres.

Seaweeds

➤ About:

- They are the **primitive, marine non-flowering marine algae without root, stem and leaves**, play a major role in marine ecosystems.
- Large seaweeds form dense underwater forests known as **kelp forests**, which act as underwater nurseries for fish, snails and sea urchins.

- Some **species of seaweeds** viz. Gelidiella acerosa, Gracilaria edulis, Gracilaria crassa, Gracilaria verrucosa, Sargassum spp. and Turbinaria spp.

➤ Location:

- Seaweeds, found **mostly in the intertidal region**, in shallow and deep waters of the sea and also in **estuaries and backwaters**.
- The southern **Gulf of Mannar's** rocky intertidal and lower intertidal regions have rich populations of several seaweed species.

➤ Ecological Importance:

- **Bioindicator:** When waste from agriculture, industries, aquaculture and households are let into the ocean, it causes nutrient imbalance leading to algal blooming, the sign of marine chemical damage. Seaweeds **absorb the excess nutrients** and balance out the ecosystem.
- **Iron Sequester:** These aquatic organisms heavily rely on iron for photosynthesis. When the quantity of this mineral exceeds healthy levels and becomes dangerous to marine life, seaweeds trap it and prevent damage. Similarly, most heavy metals found in marine ecosystems are trapped and removed by seaweeds.
- **Oxygen and Nutrient Supplier:** On their part, the seaweeds derive nutrition through photosynthesis of sunlight and nutrients present in seawater. They release oxygen through every part of their bodies. They also supply organic nutrients to other marine life forms.

➤ Role in Climate Mitigation:

- Seaweed has a significant role in mitigating climate change. By afforesting 9% of the ocean with seaweed, it is possible to sequester 53 billion tons of carbon dioxide annually. Hence, there is a proposal termed as 'ocean afforestation' for farming seaweed to remove carbon.

➤ Other Utilities:

- They can be used as **fertilizers** and to **increase aquaculture production**.
- When livestock is fed with seaweed, **methane emission from cattle may be reduced** substantially.
- They can be buried in beach dunes to **combat beach erosion**.
- It is **used as an ingredient** in preparing toothpaste, cosmetics and paints.

Note:



Impact of Crude Oil Price Hike

Why in News

Recently, the price of Brent crude crossed the USD 60 per barrel mark after over a year. The rise in prices is because of production cuts by oil-producing countries and expectations of improvements in global demand as the Covid-19 vaccine is rolled out across the world.

- In April 2020, the West Texas Intermediate (WTI) crude slipped below zero for the first time in history, to a negative USD 40.32 per barrel.
- Two crude oils which are either traded themselves or whose prices are reflected in other types of crude oil include West Texas Intermediate (WTI) and Brent.

Key Points

- **Oil Pricing:**
 - Generally, the Organization of the Petroleum Exporting Countries (OPEC) used to work as a cartel and fix prices in a favourable band.
 - OPEC is led by Saudi Arabia, which is the largest exporter of crude oil in the world (single-handedly exporting 10% of the global demand).
 - OPEC has a total of 13 Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola, and Venezuela.
 - OPEC could bring down prices by increasing oil production and raise prices by cutting production.
 - The global oil pricing mainly depends upon the partnership between the global oil exporters instead of a well-functioning competition.
 - Cutting oil production or completely shutting down an oil well is a difficult decision, because restarting it is immensely costly and complicated.
 - Moreover, if a country cuts production, it risks losing market share if other countries do not follow the suit.
 - Recently, OPEC has been working with Russia, as OPEC+ to fix the global prices and supply.
 - In 2016, OPEC allied with other top non-OPEC oil-exporting nations to form an even more powerful entity named OPEC+ or OPEC Plus.

- **Reasons for Present Price Hike:**

- **Limited Supply:**
 - Major oil-producing countries had cut oil production last year amid a sharp fall in demand due to the Covid-19 pandemic.
 - Saudi Arabia pledged extra supply cuts in February and March 2020 following reductions by other members of the Organization of the Petroleum Exporting Countries (OPEC) and its allies.
 - In early January 2021, the OPEC and Russia (as OPEC+) agreed to cut back on oil production to increase prices.

- **Rising Demand:**
 - The production and rollout of vaccines for Covid-19 and the rising consumption post the Covid lockdowns last year have both led to a revival in international crude oil prices.

- **Impact on India:**

- **Current Account Deficit:** The increase in oil prices will increase the country's import bill, and further disturb its current account deficit (excess of imports of goods and services over exports).
 - According to estimates, a one-dollar increase in crude oil price increases the oil bill by around USD 1.6 billion per year.
 - India imports 80% of its crude oil requirements and the average price of Indian basket of crude oil has already risen to USD 54.8 barrel for January 2021.
- **Inflation:** The increase in crude prices could also further increase inflationary pressures that have been building up over the past few months.
 - This will decrease the space for the monetary policy committee to ease policy rates further.
 - The government had hiked central taxes on petrol and diesel by Rs. 13 per litre and Rs. 11 per litre in 2020 to boost revenues amid lower economic activity.
- **Fiscal Health:** If oil prices continue to increase, the government shall be forced to cut taxes on petroleum and diesel which may cause loss of revenue and deteriorate its fiscal balance.
 - The growth slowdown in the last two years has already resulted in a precarious fiscal situation because of tax revenue shortfalls.

Note:

- The revenue lost will erode the government's ability to spend or meet its fiscal commitments in the form of budgetary transfers to states, payment of dues and compensation for revenue shortfalls to state governments under the goods and services tax (GST) framework.
- Positive Outcomes: However, there could be a positive side for India too from the oil price hike.
 - The value of Indian oil and gas companies could be positively impacted. The government could get greater value from disinvestment in Bharat Petroleum Corporation Limited.
 - Remittances from the Persian Gulf could increase.

Difference between Brent and WTI

- **Origin:**
 - Brent crude oil originates from oil fields in the North Sea between the Shetland Islands and Norway.
 - West Texas Intermediate (WTI) is sourced from US oil fields, primarily in Texas, Louisiana, and North Dakota.
- **Light and Sweet:**
 - Both oils are relatively light, but Brent has a slightly higher API gravity, making WTI the lighter of the two.
 - American Petroleum Institute (API) gravity is an indicator of the density of crude oil or refined products.
 - WTI with a lower sulphur content (0.24%) than Brent (0.37%), is considered "sweeter".
- **Benchmark Prices:**
 - Brent crude price is the international benchmark price used by the OPEC while WTI crude price is a benchmark for US oil prices.
 - Since India imports primarily from OPEC countries, Brent is the benchmark for oil prices in India.
- **Cost of Shipping:**
 - Cost of shipping for Brent crude is typically lower, since it is produced near the sea and it can be put on ships immediately.
 - Shipping of WTI is priced higher since it is produced in landlocked areas like Cushing, Oklahoma where the storage facilities are limited.

Privatisation of Banks

Why in News

The Union Budget 2021 has announced the privatisation of two public sector banks and one general insurance company in the upcoming fiscal 2021-22.

- The move, coming after 51 years of nationalisation of government-owned banks in 1969, will give the private sector a key role in the banking sector.
- Presently, India has 22 private banks and 10 small finance banks.

Key Points

➤ Background:

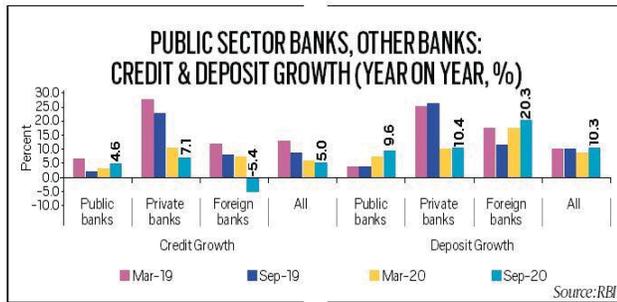
- The government decided to nationalise the 14 largest private banks in 1969. The idea was to align the banking sector with the socialistic approach of the then government.
 - State Bank of India (SBI) had been nationalised in 1955 itself, and the insurance sector in 1956.
- Various governments in the last 20 years were for and against privatisation of Public Sector Undertaking (PSU) banks. In 2015, the government had suggested privatisation but the then Reserve Bank of India (RBI) Governor did not favour the idea.
- The current steps of privatisation, along with setting up an Asset Reconstruction Company (Bad Bank) entirely owned by banks, underline an approach of finding market-led solutions to challenges in the financial sector.

➤ Reason for Privatisation:

- **Degrading Financial Position of Public Sector Banks:**
 - Years of capital injections and governance reforms have not been able to improve the financial position of public sector banks significantly.
 - Many of them have higher levels of stressed assets than private banks, and also lag the latter on profitability, market capitalisation and dividend payment record.
- **Part of a Long-Term Project:**
 - Privatisation of two public sector banks will set the ball rolling for a long-term project that envisages only a handful of state-owned banks, with the rest either consolidated with strong banks or privatised.

Note:





- The initial plan of the government was to privatise four. Depending on the success with the first two, the government is likely to go for divestment in another two or three banks in the next financial year.
- This will free up the government, the majority owner, from continuing to provide equity support to the banks year after year.
 - Through a series of moves over the last few years, the government is now left with 12 state-owned banks, from 28 earlier.
- **Strengthening Banks:**
 - The government is trying to strengthen the strong banks and also minimise their numbers through privatisation to reduce its burden of support.
- **Recommendations of Different Committees:**
 - Many committees had proposed bringing down the government stake in public banks below 51%:
 - The Narasimham Committee proposed 33%.
 - The PJ Nayak Committee suggested below 50%.
 - An RBI Working Group recently suggested the entry of business houses into the banking sector.
- **Selection of Banks:**
 - The two banks that will be privatised will be selected through a process in which NITI Aayog will make recommendations, which will be considered by a core group of secretaries on disinvestment and then the Alternative Mechanism (or Group of Ministers).
- **Issues with PSU Banks:**
 - **High Non-Performing Assets (NPAs):**
 - After a series of mergers and equity injections by the government, the performance of public sector banks has shown improvement over the last couple of years. However, compared with

private banks, they continue to have high NPAs and stressed assets although this has started declining.

○ **Impact of Covid:**

- After the Covid-related regulatory relaxations are lifted, banks are expected to report higher NPAs and loan losses.
 - As per the RBI's recent Financial Stability Report, gross NPA ratio of all commercial banks may increase from 7.5% in September 2020 to 13.5% by September 2021.
- This would mean the government would again need to inject equity into weak public sector banks.

➤ **Performance of Private Banks:**

○ **Rising Market Share:**

- Private banks' market share in loans has risen to 36% in 2020 from 21.26% in 2015, while public sector banks' share has fallen to 59.8% from 74.28%.

○ **Better Products and Services:**

- Competition heated up after the RBI allowed more private banks since the 1990s. They have expanded the market share through new products, technology, and better services, and also attracted better valuations in stock markets.
 - HDFC Bank (set up in 1994) has a market capitalisation of Rs. 8.80 lakh crore while SBI commands just Rs. 3.50 lakh crore.

➤ **Issues with Private Banks:**

○ **Governance Issues:**

- Industrial Credit and Investment Corporation of India (ICICI) Bank MD and CEO was sacked for allegedly extending dubious loans.
- Yes Bank CEO was not given extension by the RBI and now faces investigations by various agencies.
- Lakshmi Vilas Bank faced operational issues and was recently merged with DBS Bank of Singapore.

○ **Under-reported NPAs:**

- When the RBI ordered an asset quality review of banks in 2015, many private sector banks, including Yes Bank, were found under-reporting NPAs.

Note:

Direct Access to G-Sec Market for Retail Investors: RBI

Why in News

Recently, the **Reserve Bank of India** has **proposed to allow retail investors to open gilt accounts** with the central bank to invest in **Government securities (G-secs) directly** and without the help of intermediaries.

- **Retail Investor** is a non-professional investor who buys and sells securities or funds that contain a basket of securities such as mutual funds and **Exchange Traded Funds (ETFs)**.

Government Security

- A G-Sec is a **tradable instrument issued by the Central Government** or the State Governments.
- It **acknowledges the Government's debt obligation**. Such securities are **short term** (usually called **treasury bills**, with original maturities of less than one year- presently issued in three tenors, namely, 91 day, 182 day and 364 day) or **long term** (usually called **Government bonds or dated securities** with original maturity of one year or more).
- In India, the **Central Government issues both treasury bills and bonds or dated securities** while the State Governments issue only bonds or dated securities, which are called the **State Development Loans (SDLs)**.
- G-Secs **carry practically no risk of default** and, hence, are called risk-free gilt-edged instruments.
 - **Gilt-edged securities** are high-grade investment bonds offered by governments and large corporations as a means of borrowing funds.

Key Points

- **Background:**
 - The g-sec market is **dominated by institutional investors** such as banks, mutual funds, and insurance companies. These entities trade in **lot sizes of Rs. 5 crore or more**.
 - So, there is **no liquidity in the secondary market for small investors** who would want to trade in smaller lot sizes.
- **About the Proposal:**
 - **Retail investors will get online access to the**

government securities market – both primary and secondary – directly through the Reserve Bank.

- The **primary market** is where securities are created, while the **secondary market** is where those securities are traded by investors.
- Retail investors **will be allowed to open gilt investment accounts** directly with RBI. The account will be called **RBI retail direct**.
 - **Gilt Account** can be compared with a bank account, except that the account is debited or credited with treasury bills or government securities instead of money.
- The direct participation of retail investors in the bidding process will be enabled through the **core banking solution of Reserve Bank of India- E-kuber**.
- **Significance:**
 - **Broaden Investor Base:**
 - Allowing direct retail investment in G-secs will broaden the investor base and provide retail investors with **enhanced access to participate in the government securities market**.
 - **Pioneer in Asia:**
 - This structural reform will place India in the **select league of nations such as the USA and Brazil** which have such facilities.
 - **India will possibly be the first in Asia** to allow direct retail investment in G-secs to open up an additional investment avenue.
 - **Facilitate Government Borrowings:**
 - This measure together with relaxation in mandatory **Hold To Maturity** (securities that are purchased to be owned until maturity) provisions will **facilitate smooth completion of the government borrowing programme** in 2021-22.
 - **Financialise Domestic Savings:**
 - Allowing direct retail participation in the G-Sec market will promote **financialisation of a vast pool of domestic savings** and could be a game-changer in India's investment market.
- **Other Measures Taken to Increase Retail Investment in Government Securities:**
 - **Introduction of non-competitive bidding** in primary auctions.
 - **Non-competitive bidding** means the **bidder would be able to participate in the auctions**

Note:



of dated government securities without having to quote the yield or price in the bid.

- **Stock exchanges to act as aggregators** and facilitators of retail bids.
- **Allowing a specific retail segment** in the secondary market.

Increased Fiscal Deficit

Why in News

The government's **fiscal deficit** has increased to Rs. 11.58 lakh crore or **145.5% of the Budget Estimate (BE)** at the end of December 2020 (accounting for the first nine months of the year 2020-21) mainly on account of **lower revenue realisation**.

Key Points

- **Fiscal Deficit Target Fixed for 2020-21:** The Centre had pegged the fiscal deficit at Rs. 7.96 lakh crore or **3.5% of the Gross Domestic Product (GDP)**.
- **Fiscal Deficit in 2019-2020:** According to the data released by the **Controller General of Accounts (CGA)**, the fiscal deficit at the end of December in the previous fiscal year was **132.4% of the BE of 2019-20**.
- **Reasons for High Fiscal Deficit:**
 - **Lower Revenue Realisation:**
 - Because of disruptions in **normal business activity** following the **coronavirus pandemic** and lockdowns.
 - **Higher Expenditure:**
 - There has been a notable increase in revenue expenditure in **food and public distribution and rural development** which could be attributed to the government's pandemic relief programs.

Fiscal Deficit

- The government describes fiscal deficit of India as **"the excess of total disbursements from the Consolidated Fund of India, excluding repayment of the debt, over total receipts into the Fund (excluding the debt receipts) during a financial year"**.
- In simple words, it is a **shortfall in a government's income** compared with its spending.
 - The government that has a fiscal deficit is **spending beyond its means**.

- It is calculated as a percentage of **Gross Domestic Product (GDP)**, or simply as total money spent in excess of income.

- In either case, the income figure includes only taxes and other revenues and excludes **money borrowed to make up the shortfall**.

Formula:

- Fiscal Deficit = Total **expenditure** of the government (capital and revenue expenditure) – Total **income** of the government (Revenue receipts + recovery of loans + other receipts).

- **Expenditure component:** The government in its Budget allocates funds for several works, including payments of salaries, pensions, etc. (**revenue expenditure**) and creation of assets such as infrastructure, development, etc. (**capital expenditure**).

- **Income component:** The income component is made of two variables, **revenue generated from taxes** levied by the Centre and the **income generated from non-tax variables**.

- The taxable income consists of the amount generated from corporation tax, income tax, Customs duties, excise duties, **GST**, among others.

- Meanwhile, the non-taxable income comes from external grants, interest receipts, dividends and profits, receipts from Union Territories, among others.

- It is **different from revenue deficit** which is only related to revenue expenditure and revenue receipts of the government.

- The government **meets the fiscal deficit by borrowing money**. In a way, the total borrowing requirements of the government in a financial year is equal to the fiscal deficit in that year.

- A **high fiscal deficit can also be good** for the economy if the money spent goes into the creation of productive assets like highways, roads, ports and airports that boost economic growth and result in job creation.

- The **Fiscal Responsibility and Budget Management Act, 2003** provides that the Centre should take appropriate measures to limit the **fiscal deficit upto 3% of the GDP by 31st March, 2021**.

- The **NK Singh committee (set up in 2016)** recommended that the government should target a

Note:



fiscal deficit of 3% of the GDP in years up to 31st March, 2020, cut it to 2.8% in 2020-21 and to 2.5% by 2023.

Controller General of Accounts

- It comes under the **Department of Expenditure, Ministry of Finance**.
- It is the **Principal Accounting Adviser** to the Government of India and is responsible for establishing and maintaining a technically sound Management Accounting System.
- The Office of CGA prepares **monthly and annual analysis of expenditure, revenues, borrowings and various fiscal indicators** for the Union Government.

Unified Portal of Gobardhan

Why in News

Recently, a **Unified Portal of Gobardhan** has been launched to **ensure smooth implementation** of Biogas schemes/initiatives and their real time tracking.

Key Points

- **Objectives:**
 - Ensure close coordination with various Departments/Ministries for smooth implementation of Biogas schemes/initiatives and its real time tracking.
- **Coordinated by:**
 - The Department of Drinking Water and Sanitation under the **Swachh Bharat Mission – Gramin (SBMG)**.
- **Benefits:**
 - **Economy:** Strengthen the rural economy through a convergent approach for various Biogas projects/models and initiatives.
 - **ODF Plus Goals:** The **ODF Plus goals (solid waste management in villages, along with the collection and transportation of biodegradable and non-biodegradable waste)** outlined in the **Phase 2 of SBMG** will depend on the performance of Gobardhan scheme to a great extent.
 - **Synchronisation with other Schemes:** The portal will further help in achieving objectives of **SATAT (Sustainable Alternative towards Affordable Transportation)** aimed at setting up of Compressed Biogas (CBG) production plants and ensuring market linkage for use of biofuel in automotive fuels.

- **Better Environment & Public Health:** Rural India generates enormous quantities of bio-waste which can be efficiently utilized and lead to better environment and public health.
- **Employment Generation & Savings:** Bio-waste processing especially cattle dung into Biogas & organic manure leads to generation of opportunities for employment and household savings.

GOBAR-DHAN Scheme

- **Launched By:**
 - The ministry of Jal Shakti has launched the **GOBAR (Galvanizing Organic Bio-Agro Resources) - DHAN** scheme.
- **Implementation**
 - The scheme is being implemented as part of the **Swachh Bharat Mission (Gramin)**.
- **Components**
 - The Swachh Bharat Mission (Gramin) comprises **two main components** for creating clean villages – **creating open defecation free (ODF)** villages and **managing solid and liquid waste in villages**.
- **Aim**
 - Keeping villages clean, increasing the income of rural households, and generation of energy from cattle waste.
 - The scheme also aims at creating new rural livelihood opportunities and enhancing income for farmers and other rural people.

Consumer Welfare Fund

Why in News

During the ongoing session the Union Minister of State for Consumer Affairs, Food and Public Distribution has informed the parliament about **Consumer Welfare Fund (CWF)**.

Key Points

- **About:**
 - It was set up under the **Central Goods and Services Tax (CGST) Act, 2017**. The consumer welfare fund rules of 1992 have been subsumed under the CGST rules, 2017.
 - The Fund has been set up by the **Department of Revenue (Ministry of Finance)** and is being operated

Note:



by the **Department of Consumer Affairs (Ministry of Consumer Affairs, Food & Public Distribution)**.

- **Objective:** To promote and protect the welfare of the consumers. **Few Examples:**
 - Creation of **Consumer Law Chairs/ Centres of Excellence in Institutions/Universities** of repute to foster research and training on consumer related issues.
 - Projects for **spreading consumer literacy and awareness**.
- **Other Related Initiatives:**
 - A pan-India consumer awareness campaign '**JagoGrahakJago**' through print, electronic, outdoor and social media platforms.
 - Celebration of **World Consumer Rights Day/ National Consumer Day**.
 - The **Consumer Protection Act, 2019** has been implemented.
 - The new Act covers e-commerce transactions, it allows electronic filing of complaints, hearing and/or examining parties through video-conferencing for procedural ease and reduces inconvenience.
 - Government has set up a National Consumer Helpline (NCH) to handle the consumer grievances.
 - Consumer awareness programmes are being organized through the network of **Bureau of Indian Standards (BIS)** across the country for promoting the concept of standardization, certification and quality consciousness among consumers as well as manufactures.

Asset Reconstruction Company

Why in News

In the **Budget 2021-22**, **Asset Reconstruction Company (ARC)** has been proposed to be set up by **state-owned and private sector banks**, and there will be **no equity contribution from the government**.

- The ARC, which will have an **Asset Management Company (AMC)** to manage and sell bad assets, will look to resolve stressed assets of Rs. 2-2.5 lakh crore that remain unresolved in around 70 large accounts.
- This is being considered as the **government's version of a bad bank**.

Key Points

- **About the Asset Reconstruction Company (ARC):**
 - **Objective:**
 - It is a **specialized financial institution** that buys the **Non Performing Assets (NPAs)** from banks and financial institutions so that they can clean up their balance sheets.
 - This **helps banks to concentrate in normal banking activities**. Banks rather than going after the defaulters by wasting their time and effort, can sell the bad assets to the ARCs at a mutually agreed value.
 - **Legal Basis:**
 - The Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (**SARFAESI) Act, 2002** provides the legal basis for the setting up of ARCs in India.
 - The SARFAESI Act helps reconstruction of bad assets without the intervention of courts. Since then, a large number of ARCs were formed and were registered with the **Reserve Bank of India (RBI)** which has got the power to regulate the ARCs.
 - **Capital Needs for ARCs:**
 - As per amendment made in the SARFAESI Act in 2016, an ARC should have a minimum net owned fund of Rs. 2 crore.
 - **The RBI raised this amount to Rs. 100 crore in 2017**. The ARCs also have to maintain a **capital adequacy ratio** of 15% of its **risk weighted assets**.
 - **Risk-weighted assets** are used to determine the minimum amount of capital that must be held by banks and other financial institutions in order to reduce the risk of insolvency.
- **About the New ARC:**
 - **Need:**
 - Of the existing ARCs, **only 3-4 are adequately capitalised**, while the more-than-dozen remaining are thinly capitalised — necessitating the need to set up a new structure to resolve stressed assets urgently.
 - In a report released by Reserve Bank of India (RBI), it was said that **banks' gross non-performing assets may rise to 13.5% by September 2021**, from 7.5% in September 2020 under the baseline scenario.

Note:

- **Functioning:**
 - The transfer of **stressed assets to the ARC will happen at net book value**, which is the value of assets minus provisioning done by banks against these assets. This could enable the banks to alleviate its losses from NPAs - a part of stressed assets.
 - **The bank will get 15% cash and 85% security receipts** against bad debt that will be sold to the ARC.
 - **Security Receipts (SR)** are issued by ARCs, when Non-Performing Assets (NPAs) of commercial banks (CB) or financial institutions (FI) are acquired by the ARCs for the purpose of recovery.
 - As per extant instructions, investment in SRs is restricted to the **Qualified Institutional Buyers (QIBs)**, as defined by SARFAESI Act 2002.
- **Support by Central Government:**
 - While the **government will not provide any direct equity support** to the ARC, it **may provide sovereign guarantee** that could be needed to meet regulatory requirements.
- **Expected Benefits:**
 - This structure will reduce the load of stressed assets on the bank balance sheet and look to **resolve these bad debt in a market-led way**.
 - With most banks expected to be on board this company, the resolution is expected to be faster.
- **Other Proposed Reforms:**
 - **Development Financial Institution:**
 - The government could subsume **India Infrastructure Finance Company Limited (IIFCL)** into the proposed **Development Financial institution (DFI)**, which is being set up to enable long-term infra funding worth Rs. 5 lakh crore in 3 years.
 - **The National Bank for Financing Infrastructure and Development (NaBFID)**, the proposed DFI, will anchor the **National Infrastructure Pipeline (NIP)**.
 - The **Reserve Bank of India** will regulate the proposed DFI, which will be fully owned by the government in initial years.
 - **Privatisation:**

- With regard to the privatisation of **two state-owned banks and one insurer**, the companies will be identified by a government-defined process.
- **NITI Aayog** will do the first round for selecting, then it will go to the core group of secretaries on disinvestment and, thereafter, it will be examined by the alternate mechanism.

Taxing Interest Incomes on EPF

Why in News

The **Union Budget 2021-22** proposed to **tax the interest income on Provident Fund (PF) contributions by employees exceeding Rs. 2.5 lakh a year**.

- The Ministry of Finance **expressed concerns over investments as much as Rs. 1 crore each month into PF** and suggested it was **unfair that they get tax concessions as well as an assured return**.
- The **Employees' Provident Fund (EPF) Scheme** is managed under the aegis of the **Employees' Provident Fund Organisation (EPFO)**.
 - EPFO is a **government organization** that manages provident fund and pension accounts for the workforce engaged in the organized sector in India.

Key Points

- **About the Employees' Provident Fund (EPF) Scheme:**
 - The Employee Provident Fund is **open for employees of both the Public and Private Sectors**. Additionally, any organisation that employs **at least 20 individuals is mandatorily** liable to extend benefits of EPF to its employees.
 - **Both employer and employee contribute 12% of an employee's monthly salary** (basic wages plus dearness allowance) to the EPF scheme.
 - Of the employer's share of 12%, **8.33% is diverted towards the Employees Pension Scheme (EPS)**.
 - EPF scheme is **mandatory for employees who draw a basic wage of Rs. 15,000 per month**.
 - The **EPF interest rate is declared every year by the EPFO**.
 - EPFO implements **the Employees' Provident Fund and Miscellaneous Provisions Act, 1952**.
 - The EPF Act, 1952 provides for the institution of provident funds for employees in factories and other establishments.

Note:



- This savings scheme offers **tax exemption under Section 80C of the Income Tax Act.**
- **Proposed Tax on Income:**
 - The **annual contribution to EPF and Gratuity** - and also **voluntary contributions to EPF** - will be added. **If the aggregate contribution exceeds Rs 2.5 lakh, the interest income on that will be taxed at the marginal tax rate** in which the income of the individual falls.
 - Importantly, **only the contribution linked to the employees' component will be calculated for taxation purposes.** The **employer's contribution towards the EPF will not be considered** for the calculation.
 - The **interest income on the additional contribution of a year will get taxed every year.**
 - This means that if an individual's annual contribution to PF in FY22 is Rs. 10 lakh, the interest income on Rs 7.5 lakh will get taxed not only for FY22 but also for all subsequent years.
 - The **average normal EPF contributor would not be affected** by this new proposal.
- **Reasons for Taxing Interest Income on PF Contributions:**
 - **Preventing Misuse of the Scheme:**
 - The government has found instances **where some employees are contributing huge amounts to these funds** and are **getting the benefit of tax exemption at all stages** - contribution, interest accumulation and withdrawal.
 - Since any tax exemption is provided through taxpayers' money, it was unfair to allow **High Networth Individuals (HNIs)** depositing large sums in EPF to earn an assured interest (under EPFO) and tax-free income together.
 - **HNIs:** Those people with investable assets above a certain figure.
 - Earlier, the **government had capped the contributions by employers into employee welfare schemes** like the EPF or the **National Pension Scheme** or a superannuation plan, at Rs. 7.5 lakh a year.
 - However, government as well as private sector employees are allowed to make voluntary contributions over and above the statutory deductions into the **general provident fund (available only for government employees)**

or EPF (available for government as well as private sector employees).

- **Promoting Equity among PF Contributors:**
 - Of an estimated 4.5 crore EPF accounts, about 0.27% members had an average corpus of Rs. 5.92 crore and were earning over Rs. 50 lakh a year as "tax-free assured interest".
 - This is a misuse of the welfare scheme aiming to promote savings and provide social security to lower and middle income groups of employees.

Increased Farm Exports

Why in News

According to the Ministry of Commerce and Industry, **farm exports have registered 9.8% growth** for the period of April-December 2020.

- Previously, the government of India launched the **Remission of Duties or Taxes on Export Product (RoDTEP)** scheme replacing **Merchandise Exports from India Scheme (MEIS)** to further improve exports.

Key Points

- **Data for April-December 2020:**
 - **Overall merchandise exports:** Registered 15.5% fall.
 - **Farm exports:** Registered 9.8% growth.
 - Overall merchandise exports include all the goods manufactured in India while Farm exports include only the agricultural products.
- **Reasons for Growth in Farm Exports:**
 - **Rising International Prices:**
 - **Normalisation of Demands:**
 - Due to steady normalisation of demand with most countries unlocking their economies after May 2020 and, at the same time, **restoration of supply chains post-Covid** not keeping pace has made exports of many farm products from India competitive.
 - That includes **non-basmati rice, sugar, oilseed meals, cotton and even wheat and other cereals (mainly maize).**
 - Earlier, the **United Nations (UN) Food and Agricultural Organization (FAO)**, released its latest **Food Price Index (FPI)** for January 2021,

Note:

which showed that the **FPI has increased from a 48-month-low to a 78-month-high.**

- **Chinese Stockpiling:**
 - Global prices have also been increased by Chinese stockpiling.
 - It had stepped up imports of everything – from maize, wheat, soyabean and barely to sugar and milk powder – **to build strategic food reserves amid geopolitical tensions.**
- **Dry Weather of Different Countries:**
 - The current export revival is equally a result of **dry weather conditions** in major producing countries such as **Argentina, Brazil, Ukraine, Thailand and Vietnam.**
 - **Russia** (world's largest wheat exporter) and **Argentina** (No. 1 in soybean meal and No. 3 in maize) have even **announced temporary suspension or taxes on grain shipments in response to high domestic food inflation.**
- **India's Surplus Monsoon:**
 - India, on the other hand, hasn't faced serious weather issues; both 2019 and 2020 **recorded surplus monsoon rainfall** along with **timely onset of winter.**
- **Agriculture Exempted from Lockdown:**
 - Farmers harvested a bumper rabi crop during April-June, enabled by the government exempting agriculture-related activities from **lockdown** restrictions.
- **Significance of Rising Exports:**
 - If it sustains, it can help **increase crop prices** when the next rabi harvest is due from March 2021. This may be **politically useful** in a context of **farm unrest.**
 - It will help in achieving the USD **5-trillion economy** goal by India.
 - It will help achieve an ambitious target of **doubling farmers' income** by 2022.

Export promotion : Steps taken so far

Export promotion measures taken in last few years

- **Interest Equalization Scheme (IES)** on pre and post shipment rupee export credit introduced from 1.4.2015 providing interest equalisation at 3% to exporters on 416 lines and for all MSME exporters.
- **The IES rate increased to 5% for MSME exporters with effect from 2.11.2018 and merchant exporters were covered under the scheme with effect from 2.1.2019.**
- India's rank in **World Bank 'Ease of doing business'** ranking improved from 142 in 2014 to 77 in 2018, with the **sub-rank in 'Trading across borders' moving up from 122 to 80.**
- **"Trade Infrastructure for Export Scheme (TIES)"** launched with effect from 1st April 2017 to address the export infrastructure gaps in the country.
- Comprehensive **"Agriculture Export Policy"** launched on 6th December, 2018 with an aim to double farmers' income by 2022.
- **"Transport and Marketing Assistance" (TMA) scheme** launched in 05th March 2019 for mitigating disadvantage of higher cost of transportation for export of specified agriculture products.
- **Scheme for Rebate of State and Central Taxes and Levies (RoSCTL)** covering export of garments and made-ups notified on 7.3.2019 providing refund of duties/taxes at higher rates.

RBI Monetary Policy 2021

Why in News

Recently, the **Reserve Bank of India (RBI)** has forecasted that real **Gross Domestic Product (GDP)**, hit by the **Covid pandemic** in 2020-21, is expected to grow by **10.5% in 2021-22.**

- RBI had previously introduced a number of measures in its **Monetary Policy Report** for dealing with the **Covid-19 induced economic setback.**

Key Points

- **GDP Forecast:**
 - The **10.5% real GDP growth in 2021-22** forecasted by RBI will move in the range of 26.2 to 8.3% in the first half and 6% in the third quarter of 2021.
 - Hit by **lockdown** and closures of industries, GDP had contracted by **23.9% in the June quarter of 2020-21** and **fell by 7.5% in the September quarter of 2020-21.**
 - **Real GDP** is a measurement of economic output that accounts for the effects of inflation or deflation.
 - The **difference between nominal GDP and real GDP** is the adjustment for inflation. Since nominal GDP is calculated using current prices, it does not require any adjustments for inflation.
- **Reasons for a Positive Outlook:**
 - **Rural demand is likely to remain resilient** on good prospects of agriculture.
 - **Urban demand** and demand for contact-intensive services is **expected to strengthen with the substantial fall in Covid-19 cases and the spread of vaccination.**
 - Consumer **confidence is reviving**, and business expectations of manufacturing, services and infrastructure remain upbeat.
 - The fiscal stimulus under **AtmaNirbhar 2.0 and 3.0 schemes** of the government will likely accelerate public investment.
 - The **Union Budget 2021-22**, with its thrust on sectors such as health and well-being, infrastructure, innovation and research, etc. should help accelerate the growth momentum.

Note:



Monetary Policy Committee

➤ About:

- The Monetary Policy Committee is a **statutory and institutionalized framework under the Reserve Bank of India Act, 1934**, for maintaining price stability, while keeping in mind the objective of growth.

➤ Formation:

- An RBI-appointed committee led by the then deputy governor **Urjit Patel** in 2014 recommended the establishment of the Monetary Policy Committee.

➤ Chairman:

- The **Governor** of RBI is **ex-officio Chairman of the committee**.

➤ Members:

- The **committee comprises six members** (including the Chairman) - **three officials of the RBI and three external members nominated by the Government of India**.

➤ Decisions:

- Decisions are taken by majority with the Governor having the casting vote in case of a tie.

➤ Function:

- The MPC determines the policy interest rate (repo rate) required to achieve the **inflation** target (4%).

Key Terms

➤ Repo and Reverse Repo Rate:

- **Repo rate** is the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks in the event of any shortfall of funds. Here, the **central bank purchases the security**.
- **Reverse repo rate** is the rate at which the RBI borrows money from commercial banks within the country.

➤ Liquidity Adjustment Facility (LAF):

- It is a tool used in monetary policy by the RBI, that allows banks to borrow money through repurchase agreements (repos) or for banks to make loans to the RBI through reverse repo agreements.

➤ Bank Rate:

- It is the **rate charged by the RBI for lending funds to commercial banks**.

➤ Marginal Standing Facility (MSF):

- **MSF** is a window for scheduled banks to borrow overnight from the RBI in an emergency situation when interbank liquidity dries up completely.
 - Under interbank lending, banks lend funds to one another for a specified term.

➤ Cash Reserve Ratio (CRR):

- Banks are required to hold a certain proportion of their deposits in the form of cash. This minimum ratio (that is the part of the total deposits to be held as cash) is stipulated by the RBI and is known as the CRR.

➤ Unchanged Policy Rates:

- The RBI has kept the **repo rate** under the **Liquidity Adjustment Facility (LAF)** unchanged at 4%.
- The **reverse repo rate under the LAF remains unchanged at 3.35%** and the **Marginal Standing Facility (MSF) rate and the Bank Rate at 4.25%**.

➤ Other Decisions:

- **Cash Reserve Ratio (CRR):**
 - The RBI has decided to restore the **CRR** in a

non-disruptive manner from 3% to 4% in two stages by May 2021.

○ Direct Retail Investment in Government Securities (G-Sec):

- The RBI has proposed to **allow small investors direct access to the G-Sec platform**.
 - A **G-Sec** is a **tradable instrument** issued by the Central Government or the State Governments and is considered to be the **safest form of investment**.

Note:

➤ **Accommodative Stance:**

- The **Monetary Policy Committee (MPC)** of the RBI also decided to continue with the **accommodative stance** as long as necessary to revive growth on a durable basis and mitigate the impact of Covid-19 on the economy, while ensuring that inflation remains within the target going forward.
- These decisions are in consonance with the objective of achieving the medium-term target for **Consumer**

Price Index (CPI) inflation of 4% within a band of +/- 2 %, while supporting growth.

- The CPI **calculates the difference in the price of commodities and services** such as food, medical care, education, electronics etc, **which Indian consumers buy for use.**
- The **CPI has several sub-groups** including food and beverages, fuel and light, housing and clothing, bedding and footwear.



Note:

International Relations

Highlights

- UN Human Rights Council
- India-Poland Relations
- China's New Project in Sri Lanka
- Military Coup in Myanmar
- UK Visa Scheme For Hong Kong Residents
- South China Sea Dispute
- India-Ukraine

UN Human Rights Council

Why in News

Recently, the **United States announced that it would rejoin the United Nations (UN) Human Rights Council** that it left in 2018.

- The USA will return to the Council as an observer with the aim of seeking election as a full member.

Key Points

➤ About:

- The Human Rights Council is an **inter-governmental body within the United Nations system** responsible for strengthening the promotion and protection of **human rights** around the world.

➤ Formation:

- The Council was **created by the United Nations General Assembly in 2006**. It replaced the former **United Nations Commission on Human Rights**.
- The **Office of the High Commissioner for Human Rights (OHCHR)** serves as the **Secretariat** of the Human Rights Council.
- OHCHR is **headquartered in Geneva, Switzerland**.

➤ Members:

- It is made up of **47 United Nations Member States** which are elected by the UN General Assembly (UNGA).
 - The UNGA takes into account the candidate States' contribution to the promotion and protection of human rights, as well as their voluntary pledges and commitments in this regard.
- The Council's Membership is based on equitable geographical distribution. Seats are distributed as follows:

- African States: 13 seats
- Asia-Pacific States: 13 seats
- Latin American and Caribbean States: 8 seats
- Western European and other States: 7 seats
- Eastern European States: 6 seats

- Members of the Council **serve for a period of three years** and are **not eligible for immediate re-election after serving two consecutive terms**.

➤ Procedures and Mechanisms:

- **Universal Periodic Review: UPR** serves to **assess the human rights situations in all United Nations Member States**.
- **Advisory Committee:** It serves as the Council's **"think tank"** providing it with expertise and advice on thematic human rights issues.
- **Complaint Procedure:** It **allows individuals and organizations to bring human rights violations to the attention** of the Council.
- **UN Special Procedures:** These are **made up of special rapporteurs**, special representatives, independent experts and working groups that monitor, examine, advise and **publicly report on thematic issues or human rights situations in specific countries**.

➤ Issues:

- **Related to the Membership:** A key concern for some critics has been the **composition of Council membership**, which sometimes **includes countries widely perceived as human rights abusers**.
 - **China, Cuba, Eritrea, Russia and Venezuela**, all of which have been accused of human rights abuses.
- **Disproportionate Focus:** USA pulled out of the Agency in 2018 due to its disproportionate focus on

Note:

Israel, which has received by far the largest number of critical council resolutions against any country.

➤ **India and UN Human Rights Council:**

- Recently, a group of **Special Rapporteurs to the United Nations (UN)** has written to the Indian government **expressing concerns over the draft Environment Impact Assessment (EIA) notification 2020.**
- In 2020, India's **National Human Rights Commission** submitted its mid-term report to the Council as a part of the third round of the **Universal Periodic Review (UPR) process.**
- India **was elected to the Council** for a period of three years beginning 1st January 2019.

India-Poland Relations

Why in News

Recently, **Poland** has invited India's Prime Minister while he will be visiting **Portugal** for the **European Union-India summit (May 2021)**, and **Cornwall, United Kingdom** to attend the **G7 grouping where India is a special invitee (June 2021).**

- Poland is also negotiating with India for a **travel bubble arrangement** to resume direct flights suspended due to **Covid-19 pandemic.**
 - Creating a travel bubble **involves reconnecting countries or states which have shown a good level**



of success in containing the Covid-19 pandemic domestically.

- Such a bubble would **allow the members of the group to restart trade ties** with each other and open travel and tourism.

Key Points

➤ **Background:**

- India and Poland **diplomatic relations** were **established in 1954**, leading to the opening of the **Indian Embassy in Warsaw in 1957.**
- The two countries shared common ideological perceptions, based on their opposition to colonialism, imperialism and racism.
- During the **Communist era of Poland (1944 to 1989)**, **bilateral relations were close and cordial**, with regular high level visits, coupled with planned trade and economic interactions by state trading organizations, underpinned by the rupee clearing arrangements.
- The **relationship continued to remain close after Poland chose the democratic path in 1989.**
- A cordial political relationship has emerged in the current century, particularly after Poland joined the **European Union** in 2004, and became one of India's key economic partners in Central Europe.

➤ **Economic & Commercial Relations:**

○ **Export:**

- Poland is **India's largest trade partner and export destination in the Central European region**, with bilateral trade growing almost seven-fold over the last ten years.
- As per Indian statistics, the overall value of **bilateral trade in 2019 was USD 2.36 billion.**
 - India's export to Poland contributed to 0.48% of overall India's export. Only 0.15% of India's import was covered by Poland in 2019.
 - As per the statistics, the increase of bilateral trade by 2.5% was visible in 2019 in comparison with previous years.

○ **Investment:**

- Indian investments in Poland are valued at over **USD 3 billion.**
- Total Polish investment in India is estimated at **USD 672 million.**

○ **Foreign Direct Investment (FDI):**

Note:



- From April 2000 to March 2019, India recorded over **USD 672 million of FDI from Poland**, 0.16% of its total FDI inflows in that period.
- **Sectoral Collaboration:**
 - **Agro and Food processing sectors:**
 - Poland possesses world class food processing including preservation/storage technologies while India is one of the largest producers for many fruits, dairy and agro products.
 - An MoU on agriculture for technical and institutional cooperation was signed between both countries in April 2017.
 - **Information Technology (IT) Sector:**
 - Around **thirteen Indian IT companies, employing more than 10,000 professionals, are currently active in Poland** and are also operating their Europe operation from here.
 - **Textile Sector:**
 - India has presently a share of only **3.73% overall in the Polish Textile and Apparel Imports (valued at USD 400 million)**.
 - There is of course, much potential for increase in its exports, provided conducive circumstances are created for Indian Exporters.
 - Presently, about 30-40% of goods exported by India to Poland are re-exported to other EU Countries.
 - **Mining/Energy Sector:**
 - Poland possesses reputed **clean coal technologies** and Polish public sector companies have played a substantial role in development of mining and power sectors in India.
 - India and Poland signed a **Memorandum of Understanding (MoU)** in 2019 to enhance **bilateral cooperation in the coal and mining sector**.
 - **Pharmaceutical and Chemicals Sector:**
 - Given Poland's strategic location, shortages in healthcare personnel and 25% growth in the pharma market in the last 5 years, there are **good opportunities for Indian exporters and investors**.
- **Cultural and Educational Relations:**
 - There is a strong tradition of Indology studies in Poland, with **Polish scholars having translated Sanskrit into Polish as early as in the 19th Century**.

- Polish Mission organised the **150th anniversary of Mahatma Gandhi** in 2019.
 - Polish Post (Poczta Polska) **issued a Commemorative Stamp on the 150th Birth Anniversary of Mahatma Gandhi** which was released on the occasion.
- On the occasion of 550th Prakash Purab of **Guru Nanak Dev ji**, Mission and Gurudwara Sahib of Poland **jointly organised functions at Gurudwara Sahib, Poland**.
- The first **International Day of Yoga** was organized in 21 cities in Poland on June 21, 2015. An estimated 11000 people participated in public events.
- **Indian Community:**
 - Estimated at approximately **10,000, the Indian community in Poland consists of traders (textiles, garments and electronics)** who came after the collapse of communism, and professionals with multinational or Indian companies and software/IT experts, including a rising number of Indian students.

China's New Project in Sri Lanka

Why in News

Recently, a Chinese company has won a contract to set up **hybrid wind and solar energy projects on three Sri Lankan islands** off the northern Jaffna peninsula **45 km from Rameswaram in Tamil Nadu**.

- **Asian Development Bank (ADB)** will fund the project, which will come up on **Delft, Nainativu and Analativu**, three islands in the **Palk Strait off Jaffna peninsula**.

Key Points

- **About the Islands:**
 - Delft, the largest of the three islands, is the **closest to Rameswaram, Tamil Nadu**, which lies to the island's south west.
 - Between the two is **Kachchativu**, the tiny island that **India ceded to Sri Lanka in 1974**.
 - The waters around these islands are an area of contest and **rivalry between Tamil Nadu and Jaffna fishers**.
 - The matter has been on the bilateral agenda for decades.

Note:



- India and Sri Lanka agreed to set up a **Joint Working Group (JWG) on Fisheries in 2016** between the Ministry of Agriculture and Farmers Welfare of India and Ministry of Fisheries and Aquatic Resources Development of Sri Lanka as the mechanism to help find a permanent solution to the fishermen issue.

➤ Sri Lanka's Stand:

- It cannot be blamed for this decision, because the **project is backed by the ADB, which has its "own procurement guidelines** that should be followed by the borrower".

➤ India's Concern:

- The **project site's proximity to the Indian coastline.**
 - Chinese presence in the vicinity is not welcomed especially when India already has many unresolved issues with China.
 - This deal came at a time when **India's confrontation with China in Ladakh** is yet to be resolved.
- Recently, the Sri Lankan government cancelled the contract with India and Japan for the **Eastern Container Terminal (ECT).**
 - The tripartite agreement, signed by India, Sri Lanka and Japan, proposed to develop the ECT, which is located at the newly expanded southern part of the Colombo Port.
 - For India, the ECT deal was important as around 70% of transshipment that takes place through it is India-linked. The ECT is also considered more strategic than any other in Colombo Port.

➤ India's Stand:

- India had lodged a **strong protest** with the Sri Lankan government on the contract to the Chinese company.

- In 2018, **India voiced concern over China's USD 300 million housing project** for war-affected areas, accusing the Resettlement Ministry [of the former government] of holding an "opaque" bidding process.
 - The project was **eventually dropped.**

China's Rising Influence in South Asia

➤ Recent Initiative:

- In January 2021 China held its **third multilateral dialogue** virtually with countries from South Asia to take forward closer cooperation on fighting **Covid-19 and coordinating their economic agendas**, reflecting a new approach in Beijing's outreach to the region.

➤ Other Initiatives:

- According to the American Enterprise Institute's China Global Investment Tracker, **China has committed around 100 billion USD in the economies of Afghanistan, Bangladesh, the Maldives, Pakistan, Nepal and Sri Lanka.**
 - China is now the largest overseas investor in the Maldives, Pakistan, and Sri Lanka.

➤ Concerns for India:

○ Security Concerns:

- Growing cooperation between Pakistan and China.
- Increasing nexus between Nepal and China.
- Acceptance to China-Pakistan Economic Corridor by south asian countries.

○ Leadership Roles in South Asia:

- It shows increasing chinese presence in south asia and its acceptance by the countries as a torch bearer for the region which India wants for itself.

○ Economic Concerns:

- Over the past decade, **China has replaced India as the major trading partner of several South Asian countries.**
- For instance, the share of India's trade with Maldives was 3.4 times that of China's in 2008. But by 2018, China's total trade with Maldives slightly exceeded that of India.
- China's trade with Bangladesh is now about twice that of India. China's trade with Nepal and Sri Lanka still lags India's trade with those countries but the gap has shrunk.

Note:

Military Coup in Myanmar

Why in News

Recently, the Myanmar military has grabbed power in a coup - the third time in the nation's history since its independence from British rule in 1948.

- A one-year state of emergency has been imposed and democratically elected leader Aung San Suu Kyi has been detained.
- 'Coup' is generally described as a sudden, violent, and illegal seizure of power from a government.

Myanmar

➤ Location:

- Myanmar, also known as Burma, is in South East Asia and neighbours Thailand, Laos, Bangladesh, China and India.



➤ Demography:

- It has a population of about 54 million, most of whom are Burmese speakers, although other languages are also spoken. The biggest city is Yangon (Rangoon) but the capital is Nay Pyi Taw.

➤ Religion:

- The main religion is Buddhism. There are many ethnic groups in the country, including Rohingya Muslims.

➤ Polity:

- The country gained independence from Britain in 1948. It was ruled by the armed forces from 1962 until 2011, when a new government began ushering in a return to civilian rule.
- In the 2010s, the military regime decided to transition the country towards democracy. Although the armed forces remained powerful, political opponents were freed and elections were allowed to be held.
- The NLD won the 2015 election, the country's first free and fair election participated by multiple parties, and formed the government, raising hopes that the country is on its way to full transition to democracy.

Key Points

➤ About the Military Coup:

- In the November 2020 parliamentary election, Suu Kyi's party National League for Democracy (NLD) secured the majority of the seats.
- In the Myanmar's Parliament, the military holds 25% of the total seats according to the 2008 military-drafted constitution and several key ministerial positions are also reserved for military appointees.
- When the newly elected Myanmar lawmakers were to hold the first session of Parliament in 2021, the military imposed a state of emergency for one year citing massive voting fraud in the parliamentary elections.

➤ Global Reaction:

- China: 'All parties in Myanmar will properly handle their differences under the constitution and legal framework to maintain political and social stability'.
- USA: The USA President threatened to reimpose sanctions on Myanmar following a coup by the country's military leaders and called for a concerted international response to press them to relinquish power.
- ASEAN Countries: ASEAN's current chair, Brunei, called for 'dialogue among parties, reconciliation and the return to normalcy'.
 - Singapore, Malaysia and Indonesia expressed concern, while Thailand, Cambodia, and the Philippines noted that this was Myanmar's 'internal affair'.
- India's Reaction:
 - India supports the process of democratic transition in Myanmar.
 - Though India has expressed deep concern over recent developments in Myanmar, cutting off from the Myanmar military is not a viable option as India has significant economic and strategic interests in Myanmar and its neighbourhood.
- India's Strategic interests in Myanmar and its relations with Myanmar Military:
 - India's Relationship with Myanmar Military:
 - India's military-diplomatic outreach to Myanmar became a cornerstone of its Act East policy.
 - On the eve of the recent visit of the Foreign Secretary Chief of the Army Staff to Myanmar

Note:

in 2020, Myanmar handed over 22 Indian insurgents from across the border and it was decided to ramp up the sale of military hardware to Myanmar, including 105 mm light artillery guns, naval gunboats and more recently, lightweight torpedoes.

- Recent example of cooperation is that Myanmar has begun to vaccinate itself with the 1.5 million doses of Covid vaccine sent by India, while putting China's 3,00,000 doses on hold.
- **India's Interests in Myanmar:**
 - **Infrastructure and Connectivity:** India has cultivated several infrastructure and development projects with Myanmar, which it sees as the "gateway to the East" and ASEAN countries:
 - **Operationalisation of the crucial Sittwe port** in Myanmar's Rakhine state by 2021 is committed.
 - India assists infrastructure projects such as the **India-Myanmar-Thailand trilateral highway** and the **Kaladan Multi-Modal Transit Transport Project**.
 1. The Kaladan project will link **Kolkata to Sittwe** in Myanmar and then from Myanmar's Kaladan river to India's north-east.
 - The two countries signed the **Land Border Crossing Agreement in 2018**, which allowed bona fide travellers with valid documents to cross the border at two international points of entry/exit- Moreh-Tamu and Zokhawthar-Rih.
 - **Security:** India has been concerned over some militant groups like the **United National Liberation Front (UNLF)** and **National Democratic Front of Bodoland (NDFB)** from the North-East region taking shelter in Myanmar.
 - Indian needs perpetual support and coordination from Myanmar for the maintenance



of security and stability along its North East border areas.

- **Rohingya Issues:** India is committed to ensuring safe, sustainable and speedy return of Rohingya refugees from refugee camps of India and Bangladesh.
 - Building on the progress made under the **Rakhine State Development Programme (RSDP)**, India has recently proposed to finalise projects under phase-III of the programme, including setting up of a skills training centre and upgrading of agricultural mechanisation.
- **Investment:** With Indian investments of over USD 1.2 billion, Myanmar holds considerable importance than any other country in South Asia.
- **Energy:** The two countries are also expanding partnership in the area of energy cooperation.
 - Recently, India approved an investment of over USD 120 million in the **Shwe Oil and Gas project**.

UK Visa Scheme For Hong Kong Residents

Why in News

Recently, the UK has launched a special visa scheme that will allow the Hong Kong residents a chance to migrate and eventually apply for British citizenship.

- The move came months after China imposed a **national security law** over Hong Kong enabling it to curb the **2019 pro-democracy like protests** in future and also to **override the powers of the government** in Hong Kong.
- The move is **considered the UK's most generous welcoming of foreign workers** since the entry of new **European Union (EU)** citizens in 2004 - when 10 countries were added to the bloc - at a time when the UK was also a member. The **UK officially left the EU** on 31st January 2020.

Key Points

- **Background:**
 - Since July 2020, after the national security law was implemented, the **British government has already allowed around 7,000 people from Hong Kong** to move to its shores.

Note:





- These were **allowed permission to migrate not through the visa scheme, but through government action on compassionate grounds.**
- In response to the Law, **Australia, Britain** and **Canada** have also suspended their **extradition treaties** with Hong Kong.
- **Conditions for the Special Visa Scheme:**
 - The visas will be issued to those in Hong Kong holding a **British National (Overseas) passport** and their immediate dependents, and will offer a fast track to UK citizenship.
 - Applicants who get the visa **can live and work in the UK for 5 years**, after which they **apply for settlement. Twelve months after this, they can apply for citizenship.**
- **Reason for Announcing Visa Scheme (National Security Law):**
 - **Threat from National Security Law:** China implemented new national security law for Hong Kong, that **could impose the People's Republic of China's arbitrary and opaque criminal system onto the Hong Kong common law system.**
 - The **National Security Act** is seen as breach of the **Basic Law, the mini-constitution** which defines ties between Hong Kong and Beijing (China's capital).
 - **Provisions of National Security Law:**
 - Crimes of **secession, subversion, terrorism and collusion with foreign forces** are punishable by a maximum sentence of life in prison.

- **Damaging public transport facilities** can be considered terrorism.
- Those found guilty will **not be allowed to stand for public office.**
- **Establishment of a new security office in Hong Kong**, with its own law enforcement personnel - neither of which would come under the local authority's jurisdiction.
- Hong Kong will **have to establish its own national security commission** to enforce the laws, with a China-appointed adviser.
 - This office can send some cases to be tried in mainland China.
- Hong Kong's chief executive will have the power to appoint judges to hear national security cases, raising **fears about judicial autonomy of Hong Kong.**
- **China will also have the power over how the law should be interpreted.**

➤ **UK's Stand:**

- The imposition of the security law **"a serious and clear breach of the Sino-British Joint Declaration"**, referring to a **1984 treaty** between the two countries.
 - Under the Treaty, **China promised to honour Hong Kong's liberal policies**, system of governance, independent judiciary, and individual freedoms **for a period of 50 years from 1997.**

➤ **China's Stand:**

- China **criticised the UK move.** The British side **disregarded the fact that Hong Kong returned to China 24 years ago.**

The Handover of Hong Kong from Britain to China

- **Hong Kong was formerly a British colony** and was **handed over to mainland China in 1997**, becoming one of its **Special Administrative Regions (SAR).**
- It is **governed by a mini-constitution called the Basic Law**, which affirms the principle of **"one country, two systems"**.
- The constitutional document is a product of the **1984 Sino-British Joint Declaration**, under which China promised to honour Hong Kong's liberal policies, system of governance, independent judiciary, and individual freedoms for a period of 50 years from 1997.

Note:

- China also said that it would **no longer be recognising BN(O) passports**, saying that the **citizenship offer “seriously infringed” on China’s sovereignty.**

South China Sea Dispute

Why in News

Recently, **China warned off a USA warship** sailing near contested **Paracel islands in the South China Sea (SCS).**

Key Points

➤ China’s Claim:

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

➤ USA’s Stand:

- The USA has argued that such exercises are in line with international law and help **defend the right of passage** through the region amid competing claims by China and other governments.
- It is in sync with the USA’s continuous efforts to counter China’s assertion in SCS. Recently the USA Navy also sent an aircraft carrier group into the South China Sea.

➤ South China Sea:

- **Location:** South China Sea is **an arm of western Pacific Ocean** in Southeast Asia. It is south of China, east & south of Vietnam, west of the Philippines and north of the island of Borneo.
 - It is **connected by Taiwan Strait** with the East China Sea and by **Luzon Strait with the Philippine Sea.**
- **Bordering states & territories (clockwise from north):** The People’s Republic of China, the Republic of China (Taiwan), the Philippines, Malaysia, Brunei, Indonesia, Singapore and Vietnam.
- **Strategic Importance:** This sea holds tremendous strategic importance for its location as it is the



connecting link between the Indian Ocean and the Pacific Ocean (Strait of Malacca).

- According to the **United Nations Conference on Trade And Development (UNCTAD)**, one-third of the global shipping passes through it, carrying trillions of trade which makes it a significant geopolitical water body.

➤ Reasons For Dispute in the South China Sea:

○ Contesting Claims over Islands:

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

○ China’s Assertion:

- Since 2010, **China has been converting uninhabited islets into artificial islets** to bring it under **UNCLOS** (examples would include Haven Reef, Johnson South Reef and Fiery Cross Reef).
- **China has been changing the size and structure of the reefs** by modifying their physical land features. **It has also established airstrips on Parcel and Spratly.**

Note:

- Chinese fishing fleets are engaged in paramilitary work on behalf of the state rather than the commercial enterprise of fishing.
- The USA is very critical of this building of artificial islands and terms these actions of China as building a 'great wall of sand'.

➤ Other Issues:

- **Undefined geographic scope** of the South China Sea.
- **Disagreement over dispute settlement** mechanisms.
- Undefined legal status of the **Code of Conduct (COC)** add to it.
- The different histories of distant, largely uninhabited archipelagos of the sea make the matter more complicated and multifaceted.



➤ India's Stand:

- India has maintained that it is not a party to the SCS dispute and its presence in the SCS is not to contain China but to **secure its own economic interests, especially that of its energy security needs**.
- However, China's increasing ability to decide and expand its role in the South China Sea has compelled India to reevaluate its approach on the issue.
- As a key element of the **Act East Policy**, India has started **internationalizing disputes** in the **Indo-Pacific region** to oppose China's threatening tactics in SCS.
- Further, India is using its Buddhist legacy to make a strong bond with the Southeast Asian region.

- India has also deployed its navy with Vietnam in the South China **Sea for protection of Sea Lanes Of communication (SLOC)**, denying China any space for assertion.
- Also, India is part of **Quad initiative (India, US, Japan, Australia)** and lynchpin of Indo-Pacific narrative. These initiatives are viewed as a containment strategy by China.

India - Ukraine

Why in News

Recently, **Ukraine has shown interest to procure some military hardware from India** in addition to efforts to deepen its presence in the Indian defence market.

- It is in sync with Indian **defence sector reforms** and **Atmanirbhar Bharat Abhiyan** which includes making India **self reliant in defence manufacturing**.

Key Points

➤ About:

- Ukraine has signed four agreements worth USD 70 million which includes sale of new weapons as well as maintenance and upgrades of existing ones (**R-27 air-to-air missiles**) in service with the Indian armed forces.
- Ukraine also showed its intent to sell India its **AN-178 medium transport aircraft**.
 - Ukraine is currently upgrading the AN-32 transport fleet of the **Indian Air Force (IAF)** under a deal finalised in 2009.
- The Ukraine team also held discussions with the **Defence Research and Development Organisation (DRDO)** and looked at possible collaborations in research and development.

➤ India-Ukraine Relations:

○ Diplomatic Relations:

- Immediately after the breakup of the Soviet Union, the Government of India **recognized the Republic of Ukraine as a sovereign independent country** in December 1991.
- The Embassy of India in Kyiv was established in May 1992 and Ukraine opened its Mission in New Delhi in February 1993.
- India and Ukraine enjoy warm and friendly relations and cooperate in areas like Education,

Note:

Mutual Legal Assistance and Outer Space cooperation.

○ Defence Relations:

- Ukraine has been a **source of military technology and equipment** for India since its independence.
 - Ukraine **manufactures the R-27 air-to-air missiles** which are in use by the IAF on its **SU-30MKI fighters**.
- Now, India is also supplying its weapons to Ukraine to enhance defence cooperation between the two countries.

○ Trade:

- **India is Ukraine's largest export destination in the Asia-Pacific** and the **fifth largest overall export destination**.
- **Pharmaceuticals** account for the majority of Indian exports to Ukraine.

○ Culture:

- There are more than 30 Ukrainian cultural associations/groups spread across the country, engaged in promoting Indian dances.
- There are about 18,000 Indian students studying in Ukraine, mainly in the field of medicine. Indian business professionals work predominantly in the fields of pharmaceuticals, IT, engineering, medicine, education, etc.

○ Challenges:

- The **rift between Russia and Ukraine**, which burst out into armed combat when Moscow annexed the Crimean Peninsula from Ukraine in 2014, has created a potential dilemma for India.
- Recently, a Russian press release has objected to the overhaul in Ukraine of military equipment built and sold by Russia.
- Russia has begun **objecting to customers dealing with Ukraine**.



- The potential for trouble with Russia exists because the Indian Air Force (IAF) is currently collaborating with Ukraine to overhaul its fleet of AN-32s.

Ukraine

➤ Location:

- Ukraine, a country located in eastern Europe. The capital is **Kyiv (Kiev)**, located on the **Dnieper River** in north-central Ukraine.

➤ Surrounding Countries and Seas:

- Ukraine is bordered by Belarus to the north, Russia to the east, the Sea of Azov and the Black Sea to the south, Moldova and Romania to the southwest, and Hungary, Slovakia, and Poland to the west.
- In the far southeast, Ukraine is separated from Russia by the **Kerch Strait**, which connects the Sea of Azov to the Black Sea.

➤ History:

- With the dissolution of the U.S.S.R. (the Soviet Union) in December 1991, Ukraine gained full independence.
- The country changed its official name to Ukraine, and it helped to found the Commonwealth of Independent States (CIS), an association of countries that were formerly republics of the Soviet Union.

➤ Recent Issues:

- Recently, Ukraine got at **loggerheads with Russia over the occupation of Crimean peninsula** by Russia.
- In June 2020, Ukraine became 'Enhanced Opportunity Partners' under the Partnership Interoperability Initiative of **North Atlantic Treaty Organization (NATO)**.
- Ukraine is also seeking **European Union** and NATO membership, a move that could obstruct attempts to resolve other tensions with Russia.



Note:



Science and Technology

Highlights

- *Dickinsonia: Earliest Known Living Animal*
- *Clean Fuel Hydrogen*
- *Gaganyaan Mission*
- *Concerns Over DNA Bill, 2019*
- *Square Kilometre Array Telescope*
- *UAE's Hope Mars Mission*

Dickinsonia: Earliest Known Living Animal

Why in News

Recently, researchers have discovered three fossils of the earliest known living animal, the **550-million-year-old 'Dickinsonia'** on the roof of the **Bhimbetka Rock Shelters**.

- The fossils were found in the **roof** of the **Auditorium Cave** at Bhimbetka Rock Shelters.

Note:

- It was believed that **sponges** were the oldest living organism however **there is currently no evidence that sponge-like animals conquered the oceans before 540 million years ago**, when the first unambiguous fossils of sponges and most other groups of animals start to appear in the geological record.
- The **earliest evidence for animals on Earth is now the 558 million-years-old Dickinsonia** and other Ediacaran animals.

Key Points

- **About Dickinsonia:**



Discovery:

- **In September 2018, an international team of researchers claimed to have discovered the world's oldest fossil** of Dickinsonia, which first appeared around 571 million to 541 million years ago.

- Current fossil evidence dates back around 100 million years from Dickinsonia.

Period and Area:

- It is an **extinct genus of basal animal** that lived during the late Ediacaran period in what is now Australia, Russia and Ukraine.

- **Basal animals** are animals which have **radial symmetry** in their body plans. They have very **simple bodies** and tend to be **diploblastic** (derived from only two embryonic cell layers).

Appearance:

- Thought to represent the earliest flowering of **complex multicellular life on our planet**, these creatures arose in a world devoid of predators, and **had no need for hard protective carapaces or skeletons**.

- Their **soft, squishy bodies** resembled tubes, fronds or even thin, quilted pillows, they bore scant similarity to the anatomy of animals today.

Classification:

- Its affinities are presently unknown, its mode of growth is consistent with a stem-group bilaterian affinity, though **some have suggested that it belongs to the fungi or even an "extinct kingdom"**.
- The discovery of **cholesterol molecules in fossils of Dickinsonia lends support to the idea that Dickinsonia was an animal**.

Note:

➤ **Significance:**

- It is further proof of the similar **paleoenvironments** and **confirms assembly of Gondwanaland by the 550 Ma (mega annum)**.
 - A **paleoenvironment** is simply an environment that has been **preserved in the rock record** at some time in the past.
 - **Mega-annum**, usually abbreviated as Ma, is a **unit of time equal to one million years**.
 - It is commonly used in scientific disciplines such as geology, paleontology, and celestial mechanics to signify very long time periods in the past.
- This finding could help scientists **better understand the interaction of geology and biology that triggered the evolution** of complex life on Earth.

➤ **Bhimbetka Caves:**

- **History and Period Span:**
 - The Bhimbetka rock shelters are an **archaeological site in central India** that spans the prehistoric **Paleolithic and Mesolithic periods**, as well as the historic period.
 - It exhibits the **earliest traces of human life** in India and **evidence of Stone Age** starting at the site in Acheulian times.
 - It is a **UNESCO World Heritage Site** that consists of **seven hills and over 750 rock shelters** distributed over 10 km.
- **Discovery:**
 - The Bhimbetka rock shelters were found by **V S Wakankar in 1957**.
- **Location:**
 - It is located in **Raisen District** between Hoshangabad and Bhopal in **Madhya Pradesh**.
 - It is about **40 kilometres south-east of Bhopal** in the foothills of the Vindhya Mountains.
- **Paintings:**
 - Some of the Bhimbetka rock shelters feature **prehistoric cave paintings** and the earliest are about 10,000 years old (c. 8,000 BCE), corresponding to the Indian Mesolithic.
 - Most of these are done in **red and white** on the cave walls.
 - A multitude of themes were covered in this form of rock art and it depicted scenes like **singing, dancing, hunting** and other common activities of the people staying there.

- **The oldest of the cave paintings in Bhimbetka** is believed to be about **12,000 years ago**.

Clean Fuel Hydrogen

Why in News

Recently, researchers at the **Indian Institute of Technology, Delhi (IIT-D)** have come up with a way to **generate clean fuel hydrogen from water at a low-cost**.

- It is a significant step towards efforts across the globe that are being made to look for cleaner and greener energy sources.
- Hydrogen gas is a viable choice as a **renewable substitute for fossil fuels**, and can help **mitigate emissions to reduce pollution**.

Key Points

➤ **About:**

- The researchers at IIT-D have successfully split water by a process known as **Sulphur-Iodine (SI) thermochemical hydrogen cycle (SI Cycle)** to **generate low-cost**, clean hydrogen fuel for industrial consumption.
- Generally in **SI Cycle, the separation of Hydrogen from oxygen requires a high amount of heat** (generally from non-renewable sources such as coal, oil and natural gas). This makes the large-scale production of hydrogen gas economically non viable and non environment friendly.
- The main achievement has been **designing a suitable catalyst** for the energy intensive, corrosive step of sulphuric acid conversion to sulphur-dioxide and oxygen.

➤ **Significance of the Discovery:**

○ **Enhancing Hydrogen Fuel Cell Technology:**

- Enabling availability of low cost hydrogen through this discovery will enhance and improve the application of **Hydrogen fuel cell technology** which offers the advantages of a clean and reliable alternative energy source to applications such as – electric vehicles, primary and backup power for a variety of commercial, industrial, and residential buildings; and more futuristic-sounding applications like air taxis.

Note:



➤ Sulfur-Iodine Cycle

○ Process:

- The sulfur-iodine cycle (**SI cycle**) is a three-step **thermochemical cycle** used to produce hydrogen. In this cycle, all the chemicals are recycled. The SI process requires an efficient source of heat.
- Heat enters the cycle in high-temperature endothermic chemical reactions in the initial process and heat exits the cycle in the low-temperature exothermic reaction in the final stage of obtaining hydrogen gas.

○ Three-Step Thermochemical Cycle:

- **Step 1:** Iodide (I_2) is reacted with Sulphur dioxide (SO_2) to produce Hydriodic acid (HI) and Sulphuric acid (H_2SO_4).
 - $I_2 + SO_2 + 2 H_2O \rightarrow 2 HI + H_2SO_4$
- **Step 2:** The water, SO_2 and residual H_2SO_4 is separated from the oxygen byproduct by condensation so as to obtain Hydriodic acid (HI).
 - $2 H_2SO_4 \rightarrow 2 SO_2 + 2 H_2O + O_2$
- **Step 3:** It is the Hydriodic acid (HI) from which Hydrogen gas (H_2) is obtained.
 - $2 HI \rightarrow I_2 + H_2$
- The difference between the heat entering and leaving the cycle exits the cycle in the form of the heat of combustion of the hydrogen produced.
- Major **challenges** of the sulfur-iodine cycle are to **reduce the surplus of water** and iodine and find separation **processes that consume less energy** than distillation.
- Traditionally development of the SI cycle has been pursued by several countries for hydrogen production with the **Generation IV nuclear reactors**.

- **A hydrogen fuel cell is an electrochemical power generator** that combines hydrogen and oxygen to produce electricity, with water and heat as by-products.

○ Help Adhering Emission Targets:

- It could help India to adhere to its commitment in the **Paris Climate Agreement** and its **Intended Nationally Determined Contribution (INDC) Targets** and ensure that its mobility in the future is with zero emissions.

○ Complements FAME India Scheme:

- It will complement the implementation of the **FAME India Scheme** launched with the objective to support hybrid/electric vehicles market development and manufacturing ecosystem.

➤ Advantages of Hydrogen as Fuel:

○ Environment Friendly:

- The advantage of using hydrogen as an energy carrier is that when it combines with oxygen **the only byproducts are water and heat**.
- No greenhouse gasses or other particulates are produced by the use of hydrogen fuel cells.

○ Non Toxic:

- **Hydrogen is a non-toxic substance** that is rare for a fuel source. It is environmentally friendly and does not cause any harm or destruction to human health.

○ Highly Efficient:

- Hydrogen is an efficient energy type since it has the ability to convey a lot of energy for every pound of fuel compared to diesel or gas.

○ Ideal Spaceship Fuel:

- Hydrogen energy's efficiency and power make it an ideal fuel source for spaceships. Its power is so high that it's able to quickly rocket spaceships to exploration missions.

➤ Disadvantages of Hydrogen as fuel

- Compared to gas, hydrogen lacks smell, which makes any **leak detection almost impossible**.
- Hydrogen is a highly flammable and volatile substance, its potential dangers make its **transportation and storage very challenging**.

Gaganyaan Mission

Why in News

Recently, the Union Minister of Science and Technology informed that the human spaceflight module of Gaganyaan will be launched after the second unmanned mission planned in 2022-23.

- It was initially envisaged that the Rs. 10,000 crore Gaganyaan mission aims to send a three-member crew to space for five to seven days by 2022 when India completes 75 years of independence.
 - First unmanned mission is planned in Dec 2021.

Note:



- It has been delayed due to the Covid-19 induced lockdown.

Key Points

➤ About:

- Gaganyaan is a mission by the Indian Space Research Organisation (ISRO).
- Under the Gaganyaan schedule:
 - Three flights will be sent into orbit.
 - There will be two unmanned flights and one human spaceflight.
- The human space flight programme, called the Orbital Module will have three Indian astronauts, including a woman.
- It will circle Earth at a low-earth-orbit at an altitude of 300-400 km from earth for 5-7 days.

➤ Payloads:

- The payload will consist of:
 - Crew module - spacecraft carrying human beings.
 - Service module - powered by two liquid propellant engines.
- It will be equipped with emergency escape and emergency mission abort.

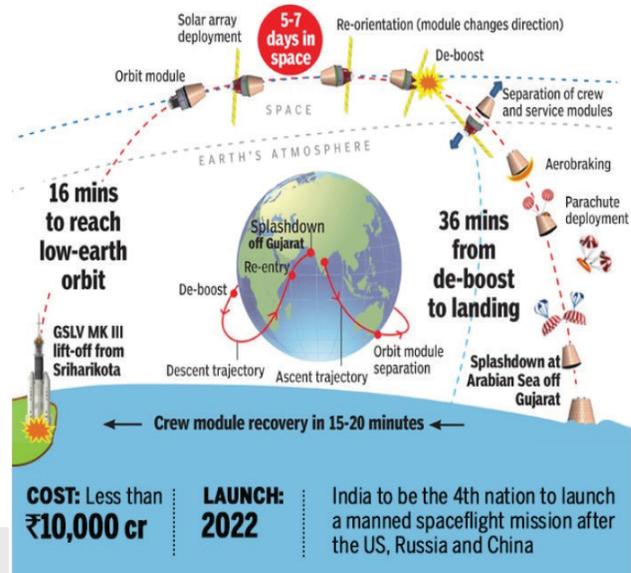
➤ Launch:

- GSLV Mk III, also called the LVM-3 (Launch Vehicle Mark-3) the three-stage heavy lift launch vehicle, will be used to launch Gaganyaan as it has the necessary payload capability.

➤ Training in Russia:

- In June 2019, the Human Space Flight Centre of the ISRO and the Russian government-owned Glavkosmos signed a contract for the training, which includes Russian support in the selection of candidates, their medical examination, and space training.
 - The candidates will study in detail the systems of the Soyuz manned spaceship, as well as be trained in short-term weightlessness mode aboard the Il-76MDK aircraft.
 - The Soyuz is a Russian spacecraft. The Soyuz carries people and supplies to and from the space station.
 - The Il-76MDK is a military transport plane specially designed for parabolic flights of trainee astronauts and space tourists.

MANNED MISSION



➤ Significance:

- It will help in enhancement of science and technology levels in the country and help inspire youth.
 - Gaganyaan will involve numerous agencies, laboratories, disciplines, industries and departments.
- It will help in improvement of industrial growth.
 - Recently, the Government has announced a new organisation, IN-SPACe, part of reforms to increase private participation in the space sector.
- It will help in development of technology for social benefits.
- It will help in improving international collaboration.
 - One International Space Station (ISS) put up by multiple countries may not be enough. Regional ecosystems will be needed and Gaganyaan will focus on regional needs: food, water and energy security.

➤ India's Other Upcoming Projects:

- **Chandrayaan-3 Mission:** India has planned a new moon mission named Chandrayaan-3. It is likely to be launched in early 2021.
- **Shukrayaan Mission:** The ISRO is also planning a mission to Venus, tentatively called Shukrayaan.

Note:

Concerns Over DNA Bill, 2019

Why in News

Recently, the **Parliamentary Standing Committee** on Science and Technology, Environment, Forests and Climate Change has recommended that the **government should address the concerns raised** over the **DNA Technology (Use and Application) Regulation Bill, 2019**, including over creation of a **national databank** of crime scene DNA profiles and fears of communities being targeted.

- While the Bill speaks of regional databanks apart from a central one, the Parliamentary **Standing Committee strongly recommends only one National Data Bank**, to minimise chances of misuse of data.

Key Points

➤ DNA Technology (Use and Application) Regulation Bill, 2019 (Key Provisions):

- The Bill allows the use of the technology to establish the identity of persons in matters of crime, parentage dispute, **emigration or immigration** and **transplantation of human organs**.
- It provides for **establishment of national and regional DNA (Deoxyribonucleic Acid) data banks** and each databank will maintain **crime scene index, suspects' or undertrials' index and offenders' index** separately.
- The Bill talks of a **DNA Regulatory Board** that would advise the Centre and state governments on issues such as setting up of DNA laboratories and databanks; and laying down of guidelines, standards and procedures for the same.

➤ Concerns Raised by the Committee:

- **Over DNA Databanks:** The risk with a national databank of crime scene DNA profiles is that it **will likely include virtually everyone since DNA is left at the 'crime scene' before and after the crime by several persons** who may have nothing to do with the crime being investigated.
- **Over DNA Profiling:** The **DNA profiling** to be done under this Bill **can be misused to target different segments of the society** based on factors like religion, caste or political views.
 - DNA profiling is the process where a specific DNA pattern, called a profile, is obtained from a person or sample of bodily tissue.

○ Storage of DNA Profiles of Unconvicted Persons:

- The Bill proposes to store DNA profiles of suspects, undertrials, victims and their relatives for future investigations.
- The Bill also provides that DNA profiles for civil matters will also be stored in the data banks, but without a clear and separate index.
- The committee has questioned the necessity for storage of such DNA profiles, pointing out that this violates the **fundamental right to privacy** and does not serve any public purpose.

○ Perfunctory Consent:

- The Bill refers to consent in several provisions, but in each of those, a **magistrate can easily override consent**, thereby in effect, making consent perfunctory.
- There is also no guidance in the Bill on the grounds and reasons of when the magistrate can override consent.

○ Absence of Robust Data Protections:

- It has **questioned the security of a huge number of DNA profiles** that will be placed with the National DNA Data bank.

➤ Need of the Bill:

○ Greater Demand for Testing:

- DNA testing is currently being done on an extremely limited scale in India, with approximately 30-40 DNA experts in 15-18 laboratories undertaking less than 3,000 cases per year, which represent 2-3% of the total need.
- The standards of the DNA testing laboratories are not monitored or regulated, in absence of any proper regulation.

○ Enables Identification of Missing Persons:

- As per the **National Crime Records Bureau**, annually 1,00,000 children go missing.
- The Bill will also help in identifying unidentified deceased, including disaster victims and apprehend repeat offenders for heinous crimes such as rape and murder.

➤ Global Scenario Regarding DNA Profiling:

- According to the **USA Interpol's Global DNA Profiling Survey Results 2016**, as many as 69 countries have a national DNA database, including the USA, Canada and China.

Note:



- The countries hold genetic information of at least 35,413,155 individuals.
- Different countries have different regulations for collection, removal and retention of DNA samples.
- **Declaration on Human Genetic Data**, which was adopted unanimously at **UNESCO's 32nd General Conference** in 2003, aims to ensure the respect of human dignity and protection of human rights and fundamental freedom in collection, processing, use and storage of human genetic data and biological samples.
- **Genome India Project (GIP):**
 - Recently, the Ministry of Science and Technology also approved an ambitious gene-mapping project called the **Genome India Project (GIP)** which aims to sample and sequence 10,000 genomes in the first phase from across India, to arrive at a representative Indian genome.
 - **Gene Mapping** is different from DNA profiling as DNA profiling **uses small stretches of DNA** to identify an individual while gene mapping involves sequencing the whole genome.
 - Gene Mapping is done for scientific and medical uses while DNA profiling is done primarily for forensic and criminal investigation.

Square Kilometre Array Telescope

Why in News

Recently, the **Square Kilometre Array Observatory (SKAO)** Council held its inaugural meeting and approved the establishment of the **world's largest radio telescope**.

- The new venture is being deemed as important following the collapse of one of the most prolific radio telescopes in the world, the **Arecibo in Puerto Rico**, in December last year.
- **SKAO** is a new **intergovernmental organisation dedicated to radio astronomy** and is **headquartered in the UK**.
 - At the moment, organisations from ten countries are a part of the SKAO.
 - These include **Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands and the UK**.

Key Points

➤ **Radio Telescopes:**

- Radio telescope, **astronomical instrument** consisting of a **radio receiver and an antenna system** that is used to detect radio-frequency radiation between wavelengths of about **10 metres (30 megahertz [MHz]) and 1 mm (300 gigahertz [GHz])** emitted by extraterrestrial sources, such as **stars, galaxies, and quasars**.
- Unlike optical telescopes, **radio telescopes can detect invisible gas** and, therefore, they can **reveal areas of space that may be obscured by cosmic dust**.
 - **Cosmic dust** consists of tiny particles of solid material floating around in the space between the stars.
- Since the first radio signals were detected in the 1930s, astronomers have used radio telescopes to detect **radio waves** emitted by different objects in the universe and explore it.
- According to the **National Aeronautics and Space Administration (NASA)**, the field of **radio astronomy evolved after World War II** and became one of the most important tools for making astronomical observations.

➤ **The Arecibo Telescope:**

- The Arecibo telescope in Puerto Rico, which was **the second-largest single-dish radio telescope** in the world, collapsed in December 2020.
 - China's **Sky Eye** is the world's largest single-dish radio telescope.
- The telescope **was built in 1963**.
- Because of its powerful radar, scientists employed it to **observe planets, asteroids and the ionosphere, making several discoveries** over the decades, including **finding prebiotic molecules in distant galaxies, the first exoplanets, and the first-millisecond pulsar**.

➤ **Square Kilometer Array (SKA) Telescope:**

- **Location:**
 - The telescope, proposed to be the largest radio telescope in the world, will be **located in Africa and Australia**.
- **Development:**
 - The development of SKA will use the results of various surveys undertaken using another

Note:



powerful telescope called the **Australian Square Kilometre Array Pathfinder (ASKAP)**.

- ASKAP is developed and operated by the Australia's science agency **Commonwealth Scientific and Industrial Research Organisation (CSIRO)**.
 - This telescope, which has been fully operational since February 2019 **mapped over three million galaxies** in a record 300 hours during its first all-sky survey conducted late last year.
 - ASKAP surveys are **designed to map the structure and evolution of the Universe**, which it does by observing galaxies and the hydrogen gas that they contain.
- **Maintenance:**
 - Its operation, maintenance and construction will be overseen by **SKAO**.
 - **Cost and Completion:**
 - The completion is expected to take nearly a decade at a cost of over **1.8 billion pounds**.
 - **Significance:**
 - Some of the questions that scientists hope to address using this telescope:
 - The **beginning of the universe**.
 - How and when the **first stars** were born.
 - The **life-cycle of a galaxy**.
 - Exploring the possibility of **detecting technologically-active civilisations elsewhere** in our galaxy.
 - Understanding where **gravitational waves** come from.
 - **Function:**
 - As per NASA, the telescope will accomplish its scientific goals by **measuring neutral hydrogen over cosmic time**, accurately **timing the signals from pulsars in the Milky Way**, and **detecting millions of galaxies out to high redshifts**.

UAE's Hope Mars Mission

Why in News

Recently, the **United Arab Emirates' (UAE's) first-ever interplanetary Hope Probe mission** has successfully entered orbit around **Mars**.

Key Points

- **Hope Probe Mission:**
 - **About:**
 - The UAE's Mars Mission called 'Hope' was announced in 2015 with the aim of creating mankind's first integrated model of the Red planet's (Mars) atmosphere.
 - 'Hope' was developed by UAE scientists in the USA and was launched in July 2020 from the Tanegashima Space Centre in Japan.
 - **Specification:**
 - The Mars Hope Probe **weights just 1.5 tonnes**, about the same size as an SUV. It is **expected to complete one orbit around the planet every 55 hours**.
 - The **overall life of UAE's Mars mission is around one Martian year**, which is about 687 days on Earth.
 - **Scientific Instruments:** The Probe carries three scientific instruments:
 - **Emirates eXploration Imager (EXI):** A high-resolution camera.
 - **Emirates Mars Ultraviolet Spectrometer (EMUS):** A far-UV imaging spectrograph.
 - **Emirates Mars InfraRed Spectrometer (EMIRS):** It will examine temperature profiles, ice, water vapor and dust in the atmosphere of Mars.
 - **Expected Benefits:**
 - UAE's mission will **collect data on Martian climate dynamics** and help scientists understand why Mars' atmosphere is decaying into space.
 - The instruments will collect different data points on the atmosphere to also gauge **seasonal and daily changes**.
 - Together, this will shed light on **how energy and particles**, like oxygen and hydrogen, **move through the atmosphere of Mars**.
- **Significance:**
 - With the successful Mars orbit insertion, the **UAE becomes the fifth entity to reach the Red Planet**, joining NASA, the Soviet Union, the European Space Agency and India.
 - Success of this mission will help UAE in building a knowledge-based economy, leading to **more investment in Science, Technology, Engineering and Mathematics (STEM)** for young Emiratis.

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- The probe reached Mars in the year the **UAE celebrates its 50th anniversary**.
- 'Hope' mission is not only important for UAE, but also for the whole of Arab world, as it is the **Arab world's first interplanetary mission**.
- **Other Missions to Mars:**
 - Apart from the UAE's 'Hope Probe', two more unmanned spacecrafts from the USA and China are set to arrive at Mars over the next several days.
 - All three missions **were launched in July to take advantage of the close alignment of Earth and Mars**.
 - A **combination orbiter and lander from China** is scheduled to reach Mars, which will circle Mars until the rover separates and attempts to land in order to look for signs of ancient life.
 - A **rover from the USA named 'Perseverance'** is also set to reach Mars soon. It will be the **first leg in a decade-long USA-European project** to bring Mars rocks back to Earth to be examined for evidence the planet once harbored microscopic life.
- **Objectives Behind Mars Exploration:**

- Scientists and researchers around the world are pretty much curious about Mars because of the possibility that the planet was once warm enough to allow water to flow through it, which means life could have existed there too.
- Despite being starkly different in many ways, the Red Planet has several **Earth-like features**— such as clouds, polar ice caps, volcanoes, and seasonal weather patterns.
 - However, **no human has set foot on Mars** yet because the atmosphere on Mars is very thin, consisting of mostly carbon dioxide with no breathable oxygen, making it difficult for astronauts to survive there.

India's Mars Orbiter Mission

- Also known as Mangalyaan, it was launched from the Satish Dhawan Space Centre in Andhra Pradesh by **Indian Space Research Organisation (ISRO)** in November 2013.
- It was launched on board a PSLV C25 rocket with aim of studying Martian surface and mineral composition as well as scan its atmosphere for methane (an indicator of life on Mars).

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Environment and Ecology

Highlights

- World Sustainable Development Summit 2021
- The Lancet Countdown on Health and Climate Change
- Eco-Sensitive Zone Around Wayanad Wildlife Sanctuary
- Mission Innovation 2.0
- Fishing Cat Conservation Alliance
- NITI Aayog's Proposal for Little Andaman
- Centre for Wetland Conservation and Management
- Periyar Tiger Reserve
- Pong Dam Lake Wildlife Sanctuary
- Climate Change Report on Hindukush Karakoram Ranges

World Sustainable Development Summit 2021

Why in News

Recently, the **World Sustainable Development Summit**, the annual flagship event of **The Energy and Resources Institute (TERI)** was held.

- The theme of the 2021 Summit was '**Redefining our common future: Safe and secure environment for all**'.
- TERI is a **non-profit research institute**, established in 1974. It conducts research work in the fields of energy, environment and sustainable development for India and the Global South.

Key Points

- **India's Stand at the Event:**
 - **Emphasis on Climate Justice:**
 - "Climate justice" is a term, and more than that a movement that **acknowledges climate change can have differing social, economic, public health, and other adverse impacts** on underprivileged populations.
 - As per India, 'climate justice' is inspired by a **vision of trusteeship** - where growth comes with greater compassion to the poorest. It also means giving the developing countries enough space to grow.
 - **Reassurance to Climate Mitigation Efforts:**
 - India reassured **commitments** to its targets under the **Paris deal** to reduce emissions intensity of GDP by 33 to 35 percent from 2005 levels.

- India's steady progress on its commitment to **Land Degradation Neutrality** and setting up of **450 gigawatts of Renewable Energy generating capacity** till 2030 was also highlighted.
- Initiatives of India under **International Solar Alliance** were also discussed.
- **Commitment to Enhancing Disaster Resilience:**
 - To enhance India's disaster management capabilities, commitments to **Coalition for Disaster Resilient Infrastructure (CDRI)** were assured.
 - **CDRI:** A multi-stakeholder global partnership of country governments, UN agencies, multilateral banks, private sector and knowledge institutions that aims to build resilience into infrastructure systems to ensure sustainable development.
- **India's Efforts Towards Sustainable Development:**
 - In March 2019, **India achieved nearly 100% electrification** through sustainable technologies and innovative models.
 - Through the **Ujala Programme**, 367 million LED bulbs were distributed which reduced over 38 million tonnes carbon dioxide per year.
 - Through the **PM Ujjwala Yojna**, more than 80 million households below the poverty line have access to clean cooking fuel. India is working to **increase the share of natural gas in India's energy basket from 6% to 15%**.
 - The **Jal Jeevan Mission** has connected over 34 million households with tap connections in 18 months.
 - Through **conservation efforts**, the population of **lions, tigers, leopards** and **Gangetic river dolphins** has gone up.

Note:

World Sustainable Development Summit

➤ About:

- The World Sustainable Development Summit (WSDS) is the **annual flagship event of The Energy and Resources Institute (TERI)**.
- It was **earlier known as Delhi Sustainable Development Summit**.

➤ Objective:

- It has been conceptualized as a single platform **to accelerate action towards sustainable development and climate change**.
- It aims to **bring together global leaders and thinkers** in the fields of sustainable development, energy and environment sectors on a common platform.

➤ Sustainable Development:

- "Sustainable development is **development that meets the needs of the present without compromising the ability of future generations to meet their own needs**". This most widely accepted definition of Sustainable Development was given by the Brundtland Commission in its report 'Our Common Future' (1987).

➤ Climate Change:

- It is a **long-term change in the average weather patterns** that have come to define Earth's local, regional and global climates.
- Climate data records provide **evidence of climate change key indicators**, such as global land and ocean temperature increases; rising sea levels; ice loss at Earth's poles and in mountain glaciers; frequency and severity changes in extreme weather such as **hurricanes, heatwaves, wildfires**, droughts, floods and precipitation; and cloud and vegetation cover changes, to name but a few.

The Lancet Countdown on Health and Climate Change

Why in News

New research from 'The Lancet Countdown on Health and Climate Change' highlights the benefits to health if countries adopt climate plans - **Nationally Determined Contributions (NDCs)** - that are consistent with the Paris Agreement aim of limiting warming to "well below 2°C".

- The Lancet Countdown on Health and Climate Change, **published annually**, is an international, multidisciplinary collaboration, dedicated to **monitoring the evolving health profile of climate change**, and providing **an independent assessment of the delivery of commitments** made by governments worldwide under the Paris Agreement.
- The **countries considered** in the modelling study represent 50% of the world's population and 70% of the world's emissions – Brazil, China, Germany, **India**, Indonesia, Nigeria, South Africa, the UK and the US.

Key Points

➤ Findings of the Study:

- It **looked at three scenarios**: carrying on the current path, increasing efforts to achieve the Paris goals, and a more ambitious scenario, which put health at the heart of tackling climate change.
 - Placing **health as a key focus of the NDCs** could present an opportunity to increase ambition and realise health co-benefits.
- Millions of lives could be saved **annually by 2040** meeting Paris Agreement targets.
 - Adopting policies that are consistent with achieving the Paris Agreement and prioritising health could **save 6.4 million lives due to better diet, 1.6 million lives due to cleaner air, and 2.1 million lives due to increased exercise per year** across nine countries.
- If **India** can adhere to its commitments, then the study indicates it would be able to **save 4.3 lakh lives due to cleaner air and 17.41 lakh lives due to better diet**.

➤ Paris Agreement:

- **About:**
 - It is the **first-ever universal, legally binding global climate change agreement**, adopted at the Paris climate conference (COP21) in Dec 2015.
- **Objective:**
 - To keep global temperatures "well below" 2 degrees Celsius (C) compared to pre-industrial times and "seek to limit" even more, to 1.5 degrees C.
- **Long Term Goal:**
 - A long-term global goal for **net zero emissions**. Countries have promised to try to bring global

Note:



emissions down from peak levels as soon as possible.

- More significantly, they pledged “to **achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases** in the second half of this century”.
- **Mechanism:**
 - Before the conference started, more than 180 countries had submitted pledges to cut or curb their carbon emissions through **Intended Nationally Determined Contributions (INDCs)**.
 - The INDCs were recognized under the agreement, but are **not legally binding**.
- **Funding:**
 - It stipulates that **developed country Parties shall provide financial resources to assist developing country Parties** with respect to both mitigation and adaptation. **Other Parties** are encouraged to provide or continue to **provide such support voluntarily**.
- **Issues in Achieving the Pledged Targets:**
 - **Slow Implementation:**
 - Most of the nations have been slow to update their national contributions for reducing emissions for 2025-2030, however several have announced net zero emission targets in the recent past.
 - **Credibility:**
 - The plans and policies of nations is not credible enough to meet the long term net zero targets as :
 - The **Intergovernmental Panel on Climate Change (IPCC) 1.5 degrees Celsius Report** indicated that to stay within a reasonable chance of achieving 1.5 degrees C, global CO₂ emissions have to fall by 45% from the 2010 levels by 2030 but current national contributions are not on track for such a fall.
 - The **withdrawal of the USA in 2020 from the Paris deal** undermines the universality of the Paris Agreement and impairs states’ confidence in climate cooperation. However, the **USA has recently started the process of rejoining the Deal**.
 - **Accountability:**
 - There is limited or no accountability for the long-term net zero goals and short-term national contributions.

- The transparency framework does not contain a robust review function, and the compliance committee is facilitative and limited to ensuring compliance with a short list of binding procedural obligations.

- **Fairness:**

- Issues of fairness and justice, both between and within generations, are unavoidable.
- There is no mechanism to check that whether the net zero targets, and pathways to net zero are fair or how much are states doing in comparison to others and relative to how much they should.

India’s Scenario

- **India’s Current Emissions:**

- According to a **United Nations Report**, India’s per capita emissions are actually 60% lower than the global average.
- The emissions in the country grew 1.4% in 2019, much lower than its average of 3.3% per year over the last decade.

- **India’s INDC, to be achieved primarily, by 2030:**

- To reduce the emissions intensity of the GDP by about a third.
- A total of 40% of the installed capacity for electricity will be from non-fossil fuel sources.
- India also promised an additional carbon sink (a means to absorb carbon dioxide from the atmosphere) of 2.5 to 3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by the year 2030.

- **Measures taken by India to Control Emissions:**

- **Bharat Stage (BS) VI Norms:** These are emission control standards put in place by the government to keep a check on air pollution.
- **National Solar Mission:** It is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India’s energy security challenge.
- **National Wind-Solar Hybrid Policy 2018:** The main objective of the policy is to provide a framework for promotion of large grid connected wind-solar photovoltaic (PV) hybrid systems for optimal and efficient utilization of wind and solar resources, transmission infrastructure and land.

Note:

Eco-Sensitive Zone Around Wayanad Wildlife Sanctuary

Why in News

The **draft notification of the Ministry of Environment, Forest, and Climate Change (MoEFCC)** on an **Eco-Sensitive Zone (ESZ)** which runs around the **Wayanad Wildlife Sanctuary (WWS)** has triggered protests in Wayanad (Kerala).

Key Points

- **Draft Notification:**
 - The 118.5 sq km area has been earmarked as an Eco-Sensitive Zone (ESZ), of which 99.5 sq km is outside the sanctuary and the remaining 19 sq km comprises revenue villages within the sanctuary.
 - There will be **restrictions on several human activities in ESZ**, including a ban on all new and existing mining, stone quarrying and crushing units and new industries causing pollution.
 - It also includes a **ban on establishment of major hydroelectric projects** and setting up of new sawmills, brick kilns and commercial use of firewood within ESZ.
 - Besides, **no new commercial hotels and resorts shall be permitted** within 1km of the boundary of the protected area or up to the extent of ESZ, whichever is nearer.
 - It also **bars felling of trees in private lands without prior permission of the competent authority** in the state government.
- **Purpose of the Notification:**
 - It is **an important step towards ensuring the safety of people** around the Wildlife Sanctuary, because the lives of farmers on the forest fringes is miserable owing to the **increasing incidents of wild animal attacks**.
 - As many as 147 persons were killed in wildlife attacks in the district in the past 38 years.
- **Issues:**
 - As many as 57 enclosure villages situated inside WWS fall within the eco-sensitive zone.
 - Critics have argued that the draft notification **would cripple both agriculture and business sectors** and

will deal a blow to the district as the notification imposes curbs on vehicular traffic.

- It will **badly affect the lives of thousands of farmers** on the fringes of the sanctuary.
 - As much as 29,291 acres of private land on the fringes of the sanctuary would come under the zone and the development of this area would stop for ever.

Wayanad Wildlife Sanctuary

- **Location:** Located in Kerala, Wayanad Wildlife Sanctuary (WWS) is an **integral part of the Nilgiri Biosphere Reserve**.

- Spread over 344.44 sq km, WWS is contiguous to the tiger reserves of Nagerhole and Bandipur of Karnataka and Mudumalai of Tamil Nadu.
- **Kabini river (a tributary of Cauvery river)** flows through the sanctuary.



- **Formation:** It was declared a Sanctuary in the year 1973.
- **Biodiversity:**
 - The **forest types** include South Indian Moist Deciduous forests, West coast semi-evergreen forests and plantations of teak, eucalyptus and Grewelia.
 - Elephant, Gaur, Tiger, Panther, Sambar, Spotted deer, Barking deer, Wild boar, Sloth bear, Nilgiri langur, Bonnet macaque, Common langur, Wild dog, common otter, Malabar giant squirrel etc. are the major mammals.

Eco-Sensitive Zones

- Eco-Sensitive Zones or Ecologically Fragile Areas are **areas within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries**.
 - In case of places with sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, **even areas beyond 10 km width can be included** in the eco-sensitive zone.

Note:

- ESZs are **notified by MoEFCC**, under **Environment Protection Act, 1986**.
- The basic aim is **to regulate certain activities** around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.

Mission Innovation 2.0

Why in News

Recently, the Union Minister of Science & Technology addressed the **Mission Innovation (MI)** to mark the beginning of phase-2 of the mission or Mission Innovation 2.0.

- **India played a leadership role** in MI Steering Committee and is a member of the Analysis and Joint Research and Business & Investor Engagement sub-groups.

Key Points

- **Mission Innovation:**
 - **Formation:**
 - Mission Innovation was **announced on 30th November 2015**, on the sidelines of the **Paris Climate Agreement** to undertake ambitious measures to combat **climate change**.
 - **Membership:**
 - It is a global initiative of **24 countries and the European Union** to accelerate global clean energy innovation.
 - **Principle:**
 - Commitment by all members to seek **to double their clean energy innovation investments over five years** in selected priority areas.
 - Each **member according to its own priorities, policies, processes, and laws independently determines the best use of its funding** and defines its own Research & Development priorities and path to reach the doubling goal.
 - In many cases, MI members prioritise parts of their whole energy innovation budget within their baseline.
 - **Objectives:**
 - Enhance the **public sector investment** to a substantial level.

- Increased **private sector engagement** and investment.
- Increase **international collaboration**.
- **Raising awareness** of the transformational potential of innovation.
- **Innovation Challenges (IC):**
 - Innovation challenges are a **major part of the mission innovation** that is aimed at leveraging research, development, and demonstration (RD&D) in technology areas that could ultimately result in **effective ways to reduce greenhouse gas emissions, increasing energy security, and creating new opportunities for clean economic growth**.
 - There are **8 innovation challenges** under the mission innovation:
 - IC1 – **smart grids**, IC2 – **Off-grid access to electricity**, IC3 – **Carbon capture**, IC4 – **Sustainable biofuels**, IC5 – **Converting sunlight**, IC6 – **Clean energy materials**, IC7 – **Affordable cooling and heating of buildings**, IC8 – **Renewable and clean hydrogen**.
 - The first phase has shown that work done under ICs have mobilized in a relatively short period, relying on members' leadership and voluntary efforts to advance IC objectives.
 - These resources have dramatically accelerated the availability of the advanced technologies that will define a future global energy mix which is clean, affordable, and reliable.
- **Mission Innovation 2.0:**
 - To achieve the shared goal of accelerating innovation, all the members have agreed to develop a **second phase (2.0)** that includes:
 - An **enhanced Innovation Platform** building on current activities to strengthen the global clean energy innovation ecosystem and to accelerate learning.
 - **New public-private innovation alliances** – Missions – built around ambitious and inspirational goals backed by voluntary commitments that can lead to tipping points in the cost, scale, availability, and attractiveness of clean energy solutions.
 - **Indian Initiatives Aligned with the Mission:**
 - **Clean Energy International Incubation Centre:**

Note:

- To support the start-up innovation ecosystem, the **Clean Energy International Incubation Centre** established by the Department of Biotechnology, India under a Public Private Partnership model has played a crucial role.
- **Increased Solar Capacity:**
 - India has **increased solar installed capacity** by 13 times and expanded its non-fossil fuel-based power generation to 134 Gigawatts, about 35% of total power generation.
 - The **National Solar Mission** (a part of the **National Action Plan on Climate Change**) helped India to increase its solar capacity.
 - India has embarked on an **ambitious target of having 450 Gigawatts of renewable energy by 2030.**
- **Biofuels:**
 - India is also working to considerably increase the proportion of the **biofuel blend in petrol and diesel:**
 - **Ethanol Blending Programme (EBP):** It aims at **blending ethanol with petrol**, thereby bringing it under the category of biofuels and saving millions of dollars by cutting fuel imports.
 - The **2018 Biofuel Policy** has the objective of reaching 20% ethanol-blending and 5% biodiesel-blending by the year 2030.
 - Five Centres of excellence in Bioenergy supported by Department of Biotechnology in India are **working on both fundamental and translational research for advanced bio-fuels like biobutanol, biohydrogen and biojet fuels.**
- **Ujjwala Yojana:**
 - **Pradhan Mantri Ujjwala Yojana (PMUY)** which is the **world's most extensive clean cooking fuel programme** was launched in **2016** and is implemented by the Ministry of Petroleum and Natural Gas through its Oil Marketing Companies.
 - Through PMUY, initially, 5 crores below poverty line (BPL) households were targeted for providing deposit free LPG connections to BPL households by 31st March, 2019. This target has been achieved.
 - India has released around **150 million connections so far.**

- **Avoided Emission Framework for a sustainable future:**
 - **India and Sweden under a partnership** have developed an Avoided Emission Framework for a sustainable future.
 - Under this partnership, **eight companies have been selected to demonstrate an initial 100 million tons of potential CO₂ emission reduction by 2030.**



Fishing Cat Conservation Alliance

Why in News

Recently, the **Fishing Cat Conservation Alliance** started a worldwide campaign to raise awareness for conservation of fishing cats.

- **The Fishing Cat Conservation Alliance** is a team of **conservationists, researchers and enthusiasts** working to achieve functioning floodplains and coastal ecosystems that ensure survival of the fishing cat.

Note:

Key Points

- **Scientific Name:** *Prionailurus viverrinus*.
- **Description:**
 - It is **twice the size of a house cat**.
 - The **fishing cat is nocturnal** (active at night) and apart from fish also preys on frogs, crustaceans, snakes, birds, and scavenges on carcasses of larger animals.
 - The species breed all year round.
 - They spend most of their lives in areas of dense vegetation close to water bodies and are excellent swimmers.
- **Habitat:**
 - Fishing cats have a patchy distribution along the **Eastern Ghats**. They abound in estuarine floodplains, tidal mangrove forests and also inland freshwater habitats.
 - Apart from **Sundarbans** in West Bengal and Bangladesh, fishing cats inhabit the **Chilika lagoon** and surrounding wetlands in Odisha, Coringa and Krishna mangroves in Andhra Pradesh.
- **Threats:**
 - **Wetland degradation** and conversion for aquaculture and other **commercial projects**, sand mining along river banks, agricultural intensification resulting in loss of riverine buffer and conflict with humans in certain areas resulting in targeted hunting and retaliatory killings.
- **Protection Status:**
 - **IUCN Red List:** Vulnerable. Despite multiple threats, the Fishing Cat was recently **downlisted to "Vulnerable" from "Endangered"** in the IUCN Red List species assessment.
 - **CITES:** Appendix II
 - **Indian Wildlife Protection Act, 1972:** Schedule I
- **Conservation Efforts:**
 - Recently, the **Fishing Cat Conservation Alliance** has initiated a study of the **bio-geographical distribution of the fishing cat** in the unprotected and human-dominated landscapes of the northeastern Ghats of Andhra Pradesh.
 - In 2012, the **West Bengal government officially declared the Fishing Cat as the State Animal** and



the Calcutta Zoo has two big enclosures dedicated to them.

- In Odisha, many NGOs and wildlife conservation Societies are involved in Fishing Cat research and conservation work.
- **The Fishing Cat Project**, launched in 2010 started raising awareness about the Cat in West Bengal.

NITI Aayog's Proposal for Little Andaman

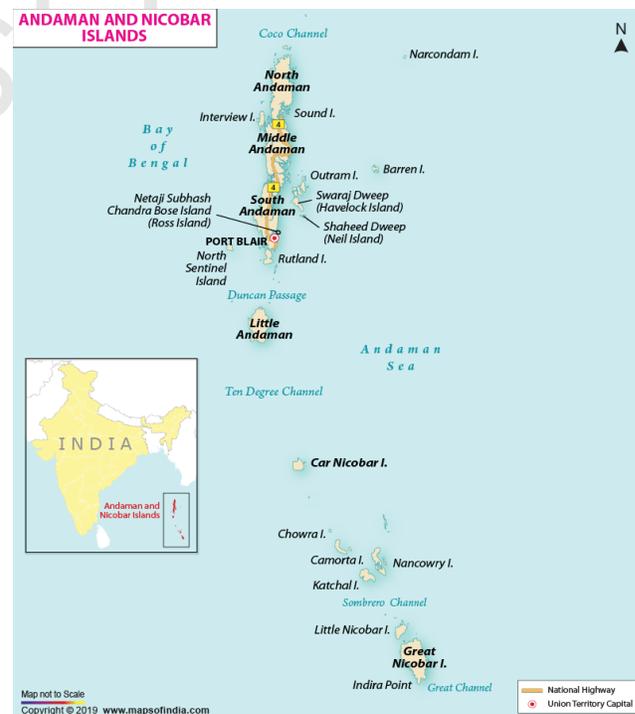
Why in News

Recently, a plan named the **Sustainable Development of Little Andaman Island Vision Document** by **NITI Aayog** for the sustainable and holistic development of the 680 sq km, **fragile Little Andaman Island** in the **Andaman and Nicobar island group** has raised alarm among conservationists.

- Earlier in 2020, the Prime Minister declared that the **Andaman and Nicobar islands will be developed as a "maritime and startup hub"**.

Key Points

- **Purpose:**
 - To leverage the **strategic location** and natural features of the island.



Note:

- The islands are critical for India's security because of their strategic location in the **Indian Ocean Region** (IOR).
 - Better infrastructure and connectivity will help India enhance its military and naval strength in the islands.
- **Plan:**
- Building a new **greenfield coastal city**, that will be **developed as a free trade zone** and will **compete with Singapore and Hong Kong**.
- **Three Zones:** It has divided the development in **three zones:**
- **Zone 1:**
 - Spread over **102 sq km alongside the east coast of Little Andaman**.
 - It would be the monetary district and medi metropolis and can embody an aerocity, and a tourism and hospital district.
 - **Zone 2:**
 - Spread over **85 sq km** of pristine forest.
 - It is the leisure zone, can have a movie metropolis, **a residential district and a tourism Special Economic Zone (SEZ)**.
 - **Zone 3:**
 - Spread over **52 sq km** of pristine forest.
 - It shall be a **nature zone**, additional categorized into three districts: an unique forest resort, a nature therapeutic district and a nature retreat, all on the western coast.
- **Transport Development:**
- A **worldwide airport** able to deal with all varieties of plane is central to the plan as a global airport is vital for growth.
 - The solely **jetty on the island might be expanded** and a marina might be developed subsequent to the tourist entertainment district.
 - A 100 km **greenfield ring highway** might be constructed parallel to the shoreline from east to west and might be supplemented with a mass fast transit community with stations at common intervals.
- **Bottlenecks:**
- **Lack of fine connectivity** with Indian mainland and world cities.
 - **Fragile biodiversity** and natural ecosystems and certain **Supreme Court** notifications that pose an obstacle to development.
- Another key issue is the **presence of indigenous tribes** and concerns for their welfare.
 - 95% of Little Andaman is covered in forest, a big part of it the pristine evergreen sort. Some 640 sq km of the island is **Reserve Forest** under the **Indian Forest Act 1927**, and almost 450 sq km is protected because of the **Onges Tribal Reserve**, creating a singular and uncommon socio-ecological-historical complex of high importance.
- **Solution Proposed in the Plan:**
- The proposal wants 240 sq km (35%) of this land and the options are:
 - **De-reserve 32%** of the reserved forest and **de-notify 138 sq km or 31% of the tribal reserve**.
 - If the tribals develop into an obstacle, the proposal says that they can be relocated to other parts of the island.
- **Flaws in the Proposal:**
- It talks of conservation of nationwide park/wildlife sanctuary on Little Andaman when none exist right here and it has **no mention of the geological vulnerability of the place**, which was amongst the worst-affected within the **earthquake-tsunami** combination in 2004.
 - The waves hit Little Andaman so hard that the **breakwater there was not just breached, it was physically displaced** and it's orientation changed. Ships couldn't berth for weeks thereafter.
 - The plan has **no financial details, no budgeting, or inventorisation of forests** and ecological wealth and **no particulars of any impact assessment**.
 - The nature resort proposed at West Bay on the western coast is to have theme resorts, floating/underwater resorts, seaside inns, and high-end residential villas.
 - It is today a secluded and difficult to reach part and one of the most vital nesting sites of the **Giant Leatherback sea turtle**.
- **Forest Department's Concern:**
- In a note, Divisional Forest Officer, Little Andaman, raised severe considerations about this proposal on grounds of **ecological fragility, indigenous rights and vulnerability to earthquakes and tsunamis**.
 - It mentioned that such a large diversion of forest land would **cause environmental loss leading to irreversible damage**.

Note:



- Habitats of various wild animals will be affected.
- The proposal couldn't even be assessed as a result of there being **no environment impact assessment report** and neither had there been any detailed site layout plans for the proposed diversion.

Little Andaman Island

➤ About:

- This island is **part of the Little Andaman Group** (Little Andaman is the counterpart of Great Andamans). This island is the **fourth largest island in Andamans**.
- It is famous by the name of its main village and the largest settlement – **Hut Bay** (rarely known by its other name **Kwate-tu-kwage**).

➤ Tribes:

- At a distance of about 120 Kilometers by sea from the capital town of Port Blair, this island has become a **tribal reserve from sometime near to 1957**.
- This is considered **home to the Onge Tribes**, even though there are **multilingual settlers of Bengali, Tamil, Telugu, and Ranchi communities**.

➤ Location and Transport:

- Lying at the **southern end of the archipelago**, **Hut Bay Jetty is the only harbor for ships or boats** coming into this island from the capital town – Port Blair.
- Little Andamans is less explored due to the **limited mode of connection** with the capital town of Port Blair.

Centre for Wetland Conservation and Management

Why in News

Recently, on the occasion of the **World Wetland Day**, the Minister of State for Environment, Forest and Climate Change announced the establishment of a **Centre for Wetland Conservation and Management (CWCM)**, as a part of the **National Centre for Sustainable Coastal Management (NCSCM)**.

- **World Wetlands Day** is celebrated every year on the **2nd of February**.
- The year 2021 also commemorates the **50th anniversary**

of the **Convention on Wetlands** signed on 2nd February 1971 in the Iranian city of Ramsar.

- The theme for 2021 is **'Wetlands and Water'**.
- It was first celebrated in **1997**.

Key Points

➤ Significance of Centre for Wetland Conservation and Management (CWCM):

- The dedicated Centre would **address specific research needs and knowledge gaps** and **will aid in the application of integrated approaches for conservation, management** and wise use of the wetlands.
- It will help in **building partnerships and networks** with relevant national and international agencies.
- It would serve as a **knowledge hub** and enable exchange between State/ UT Wetland Authorities, wetland users, managers, researchers, policy-makers and practitioners.
- It would also **assist the national and State/ UT Governments** in the design and implementation of policy and regulatory frameworks, management planning, monitoring and targeted research for wetlands conservation.

➤ Wetlands:

- **Wetlands** are ecosystems saturated with water, either seasonally or permanently. They include **mangroves**, marshes, rivers, lakes, deltas, floodplains and flooded forests, rice-fields, **coral reefs**, marine areas no deeper than 6 metres at low tide, as well as human-made wetlands such as waste-water treatment ponds and reservoirs.
- Though they cover only around **6% of the Earth's land surface**, **40% of all plant and animal species live or breed in wetlands**.

➤ Significance of Wetlands:

- Wetlands are a critical part of our natural environment. They **mitigate floods**, **protect coastlines** and build community resilience to disasters, absorb pollutants and improve water quality.
- Wetlands are **critical to human and planet life**. More than **1 billion people depend on them for a living**.
- They are a **vital source for food, raw materials, genetic resources for medicines, and hydropower**.

Note:

National Centre for Sustainable Coastal Management

- **Location:**
 - It is located at **Chennai**, Tamil Nadu.
- **Divisions:**
 - It has various research divisions including, Geospatial Sciences, Remote Sensing and Geographic Information Systems (GIS), Coastal environmental impact assessment, Conservation of Coastal & Marine Resources, etc.
- **Objective:**
 - It aims to **promote integrated and sustainable management of the coastal and marine areas** in India for the benefit and wellbeing of the traditional coastal and island communities.
 - It also intends to promote **sustainable coasts** through increased partnership, conservation practices, scientific research and **knowledge benefit** and well being of the current and future generation.
- **Role:**
 - **Survey of India** and NCSCM have **mapped the Hazard Line for the entire coast of India**, which includes vulnerability mapping of flood, erosion and sea-level rise.
 - It also **advises the Union and State Governments and other associated stakeholders** on policy, and scientific matters related to **Integrated Coastal Zone Management (ICZM)**.
- 30% of land-based **carbon** is stored in peatland (a type of wetlands).
- They play an important role in **transport, tourism** and the **cultural and spiritual well-being** of people.
- Many wetlands are areas of **natural beauty** and many are important to Aboriginal people.
- **Threats:**
 - As per the **IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services)**'s global assessment, wetlands are the most threatened ecosystem.
 - Wetlands are **disappearing 3 times faster than forests** due to human activities and global warming.
 - According to **UNESCO**, the threat to wetlands will have an adverse impact on 40% of the world's flora and fauna that live or breed in wetlands.

- **Major threats:** Agriculture, development, pollution and **climate change**.

➤ Status of Wetlands in India:

- India has nearly **4.6% of its land as wetlands**, covering an **area of 15.26 million hectares** and has **42 sites designated as Wetlands of International Importance (Ramsar Sites)/**
 - Wetlands declared as Ramsar sites are protected under strict guidelines of the convention.
 - There are currently over 2,300 Ramsar Sites around the world.
 - Recently, India has added **Tso Kar Wetland Complex** in Ladakh as its 42nd Ramsar site.
- Wetlands are regulated under the **Wetlands (Conservation and Management) Rules, 2017**.
- The 2010 version of the Rules provided for a **Central Wetland Regulatory Authority**, but new Rules of 2017 replaced it with state-level bodies and created a National Wetland Committee, which functions in an advisory role.
 - The **newer regulations removed some items** from the definition of "wetlands" including backwaters, lagoons, creeks, and estuaries.
 - Under the 2017 regulations, process to **identify the wetlands has been delegated to the States**.

Periyar Tiger Reserve

Why in News

For the first time in the country, the **Periyar Tiger Reserve (PTR) in Kerala** has taken up training of a **tiger cub** to equip it to naturally hunt in the forest environment.

Key Points

- **Location:**
 - It falls in the districts of Idukki and Pathanamthitta in Kerala (saddled in the southern region of Western Ghats).
- **Formation:**
 - Declared a Sanctuary during 1950 and declared as Tiger Reserve during 1978. It gets its name from the River Periyar which has its origin deep inside the reserve.
- **Drainage:**
 - The major rivers through the reserve are **Mullayar and Periyar**.

Note:

➤ Flora:

- The sanctuary comprises **tropical evergreen, semi evergreen, moist deciduous forests and grasslands.**
- About **1966 species of flowering plants** grow in the sanctuary.
 - Of this about 516 are endemic to the Western Ghats.
- The sanctuary is a **repository of medicinal plants** numbering to about 300.
 - Some are endemic to the region like **Syzygium periyarensis (a tree), Habenaria periyarensis (an orchid) and Mucuna pruriense thekkadiensis (a climber)** etc.

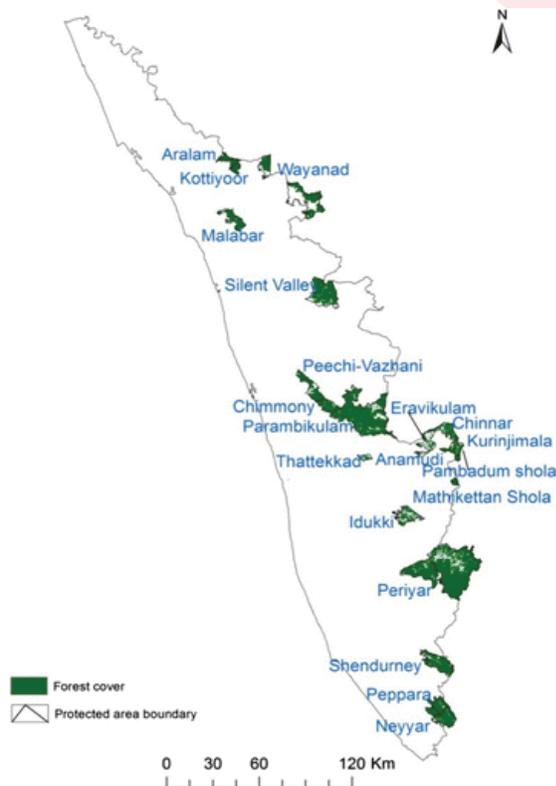
➤ Fauna:

- **Mammals:** Tiger, Elephant, Lion-tailed macaque, Nilgiri Tahr etc.
- **Birds:** Darters, Cormorants, Kingfishers, the great Malabar Hornbill and racket-tailed Drongos.
- **Reptiles:** Monitor Lizards, Python, King Cobra etc.

➤ Tribals:

- There are **six tribal communities** nestled inside the reserve such as **Mannans, Paliyans, Malayarayans, Mala Pandarams, Uralis and Ulladans.**

➤ Protected Areas in Kerala:



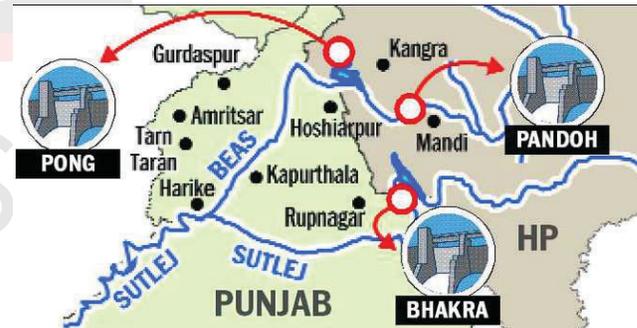
Pong Dam Lake Wildlife Sanctuary

Why in News

Over a lakh migratory water birds arrived at the **Pong Dam Lake Wildlife Sanctuary in Himachal Pradesh** in winter 2020-21.

Key Points

- **Location:** Kangra District, Himachal Pradesh.
- **Formation:**
 - In 1975, Pong dam was **built across the Beas River.** It is also called the **Pong reservoir** or the **Maharana Pratap Sagar.**
 - In **1983**, the **entire reservoir was declared as a Wildlife Sanctuary** by the Himachal Pradesh government.
 - In **1994**, the Government of India declared it a **“Wetland of National Importance”.**
 - Pong Dam Lake was **declared as Ramsar Site in November 2002.**



➤ Destination for Migratory Birds:

- The sanctuary plays host to around 220 species of birds belonging to 54 families. Migratory birds from all over Hindukush Himalayas and also as far as Siberia come here during winter.

➤ Rivers:

- The lake is **fed by Beas River and its numerous perennial tributaries** such as Gaj, Neogal, Binwa, Uhl, Bangana, and Baner.
- The lake **harbours around 22 species of fish**, including rare fish like sal and gad. The adequate water level of the lake makes it an ideal destination to indulge in water sports.

Note:

- **Vegetation:**
 - The sanctuary area is covered with **tropical and subtropical forests**, which shelters a great number of Indian Wildlife animals.
- **Flora:**
 - Eucalyptus, acacia, jamun, shisham, mango, mulberry, ficus, kachnar, amla and prunus.
- **Fauna:**
 - Barking deer, sambar, wild boars, nilgai, leopards and oriental small-clawed otters.

National Parks in Himachal Pradesh

- **Great Himalayan National Park:**
 - Located in the Banjar sub-division of Kullu district, it was officially declared as a National Park in 1999.
 - In 2014, the Great Himalayan National Park received the status of being a **UNESCO World Heritage Site** for its wonderful contribution towards biodiversity conservation.
 - Species which are found here are like Greater Blue Sheep, Indian Pika, Rhesus monkey, Himalayan black bear, Himalayan brown bear, Red fox, Mongoose.
- **Pin Valley National Park:**
 - Located in Lahaul and Spiti District, it was established in 1987.
 - Various endangered species including the **snow leopard** and **Siberian ibex** find their natural habitat.
- **Inderkilla National Park:**
 - Inderkilla National Park is located in the Kullu district in Himachal Pradesh and established in 2010.
 - Animals of the Himalayan region like leopards, deers and, birds which even include the rare birds of the summer season, and insect species are varied and can be seen from time to time.
- **Khirganga National Park:**
 - Khirganga National Park is located in Kullu and was established in 2010.
 - The national park is situated at a height of around 5,500 meters and is spread across an area of about 710 square kilometers.
- **Simbalbara National Park:**
 - Simbalbara National Park is located in the Paonta Valley of Sirmour District.
 - The national park was established in 1958 as the Simbalbara Wildlife Sanctuary covering an area of 19.03 square kilometers.

- In 2010, it was turned into a national park by merging an additional 8.88 square kilometers of the area to its boundaries.

Climate Change Report on Hindukush Karakoram Ranges

Why in News

According to the '**Assessment of Climate Change over the Indian Region**' report, **snowfall** over the higher reaches of the **Hindukush Himalayan mountain ranges** has been **increasing** in recent decades, which has **shielded the region from glacier shrinkage**.

- The recent **massive flooding in the Alaknanda river**, probably due to **glacial bursts** has highlighted the issue of higher **glacier retreat in recent decades due to global warming**, however, the report indicates a contrasting picture of the Hindukush Himalayas.
- Assessment of Climate Change over the Indian Region Report has been **published by the Ministry of Earth Sciences (MoES)**. It is **India's first-ever national forecast on the impact of global warming** on the subcontinent in the coming century.

Key Points

- **Findings of the Report:**
 - Several areas of **Hindukush Karakoram Himalayas** have experienced a **declining trend in snowfall** and also **retreat of glaciers** in recent decades.
 - **In contrast**, the **high-elevation Karakoram Himalayas** have experienced **higher winter snowfall** that has shielded the region from glacier shrinkage.
 - The **Karakorams are part of a complex of mountain ranges** at the centre of Asia, including the HinduKush to the west, the Pamirs to the northwest, the Kunlun Mountains to the northeast, and the Himalayas to the southeast.
 - Even when the **winter snowfall has increased over the high-elevation Karakoram Himalayas**, the **overall climate along the Hindukush Karakoram region is undergoing warming** at a higher rate during the winter season as compared to other seasons.
- **Reasons:**

Note:



Hindukush Himalayan (HKH) Region

- The HKH region spans Afghanistan, Bangladesh, Bhutan, China, India, Kyrgyzstan, Mongolia, Myanmar, Nepal, Pakistan, Tajikistan, and Uzbekistan.
- It traverses about 5 million square kilometres and hosts a large and culturally diverse population.
- It is **considered the Third Pole** (after the North and South Poles), and has significant implications for climate.
- It contains **vast cryospheric zones** (frozen water parts) and is also the world's largest store of snow and ice outside the polar region.



○ Faster Heating of Himalayas:

- Weather dynamics is intricate in the Himalayan region, arising due to **extensive interactions of tropical and extratropical weather systems**.
- The Himalayas have been **warming at a faster rate** than the rest of Indian landmass during 1951 - 2018.
- Besides, the warming reported from this region is **higher than global mean temperatures**.

○ Global Warming:

- The decadal warming trend recorded over these ranges from 1951 to 2014 was **1.3 degree Celsius**. This is a rise from 0.16 degree Celsius recorded from 1900 to 1950, when global warming was less pronounced.

➤ Effect:

○ Increasing Annual Mean Surface Temperature:

- The Report has forecast an increase in annual mean surface temperature by 2.2 degree Celsius during 2040 - 2069 and a further increase by 3.3 degree Celsius during 2070 – 2099, along these ranges.

○ Extreme Precipitation:

- Due to this warming trend, there is an **expected increase in the precipitation** projected over the region. It is predicted that there will be a significant increase in extreme precipitation over the Hindukush Karakoram region, with maximum consecutive five-day precipitation events.

➤ Significance:

○ Driver of Monsoon: The Hindukush Karakoram ranges, along with the **Tibetan Plateau**, are the **main drivers of the Indian Summer Monsoon**.

○ Source of Subsistence: These ranges form the source to 10 major river systems in Asia, supporting drinking water, irrigation and power supply to 1.3 billion people in the continent.

- Major Indian rivers which replenish due to the melted snow are **Indus, Ganges and Brahmaputra**.
- After the North and the South poles, the Hindukush Karakoram ranges, along with the Tibetan Plateau, hold the largest reserves of freshwater.



Note:

History

Highlights

- Assam's Jerenga Pothar and Dhekiajuli Town
- Centenary of the Chauri Chaura Incident

Assam's Jerenga Pothar and Dhekiajuli Town

Why in News

The Prime Minister visited two significant historical places in Assam.

- The first was **Sivasagar's Jerenga Pothar**, where 17th-century **Ahom Princess Joymoti** sacrificed her life.
- Second was **Dhekiajuli town**, associated with the **Quit India Movement** of 1942.

Key Points

- **Jerenga Pothar:**
 - **Jerenga Pothar**, an open field in **Sivasagar** town, is popularly connected to the valour of **17th century Ahom princess Joymoti**.
 - Formerly known as **Rangpur**, **Sivasagar** was the seat of the powerful **Ahom dynasty**, who ruled Assam for six centuries (1228-1826).
 - **Chaolung Sukapha** founded the Ahom kingdom.
 - From 1671 to 1681, the **Ahom kingdom** was undergoing a period of turmoil, it was at this time that **Prince Godapani** (Joymoti's husband) escaped to the **Naga Hills** before enemies could capture him.
 - But his enemies captured his wife **Joymoti**, hoping she would tell them about his whereabouts, however, despite being tortured for days, tied to a thorny plant, in an open field, **Joymoti refused** to divulge any information.
 - She died, sacrificing her life for her husband, who ultimately became the king, ushering in an era of stability and peace in Assam.

- The place Joymoti was tortured to death was **Jerenga Pothar**.

○ Significance of the Place:

- While the Jerenga Pothar itself is not a protected archaeological site, **its vicinity includes a number of protected sites**, including the **Na Pukhuri tank** to its east and the **Pohu Garh**, a natural zoo built during the Ahom era, to its west.
- Close by is the large **Joysagar tank**, built by Ahom king Swargadeo Rudra Singha in 1697, and the Vishnu Dol temple.
- In 2017, the field was **used for the centenary celebrations** of the apex and influential literary body, the **Asam Sahitya Sabha**.

➤ Dhekiajuli Town:

- **Dhekiajuli** was home to possibly the youngest martyr of the Indian freedom struggle.
- On **20th September, 1942**, as part of the **Quit India Movement**, processions of freedom fighters marched to various police stations across several towns in Assam.
- These squads, which were known as '**Mrityu Bahini**', or death squads, had wide participation - including **women and children** - and set out to unfurl the tricolour atop **police stations**, seen as **symbols of colonial power**.
- The British administration came down heavily on them. In **Dhekiajuli**, at least 15 people were shot dead, three of them women, including the 12-year-old **Tileswari Barua**.
- **Tileswari** is considered as one of the **youngest martyrs** of India's freedom struggle.
- **20th September** has for long been observed as **Martyrs' Day in Dhekiajuli town**.

Note:



Centenary of the Chauri Chaura Incident

Why in News

On the occasion of the centenary of the Chauri Chaura incident, a postage stamp was released by the Prime Minister.

- Chauri Chaura is a town in Gorakhpur district of Uttar Pradesh.
- On 4th February, 1922, this town witnessed a violent incident - a large crowd of peasants set on fire a police station that killed 22 policemen. Due to this incident Mahatma Gandhi called off the Non-Cooperation Movement (1920-22).

Key Points

- **Background (Launch of the Non-Cooperation Movement):**
 - On 1st August, 1920, Gandhi had launched the Non-Cooperation Movement against the government.
 - It involved using *swadeshi* and boycott of foreign goods, especially machine made cloth, and legal, educational and administrative institutions, “refusing to assist a ruler who misrules”.
 - In the winter of 1921-22, volunteers of the Congress and the Khilafat Movement were organised into a national volunteer corps.
 - Khilafat Movement was a pan-Islamic force in India that arose in 1919 in an effort to salvage the Ottoman caliph as a symbol of unity among the Muslim community in India during the British raj.
 - The Congress supported the movement and Mahatma Gandhi sought to conjoin it to the Non-Cooperation Movement.
- **Details of the Chauri Chaura Incident:**
 - On 4th February, volunteers congregated in the town, and after the meeting, proceeded in a procession to the local police station, and to picket the nearby Mundera bazaar.
 - The police fired into the crowd killing some people and injuring many volunteers.
 - In retaliation, the crowd proceeded to set the police station on fire.

- Some of the policemen who tried to escape were caught and battered to death. A lot of police property, including weapons, was destroyed.

➤ Reaction of the British:

- The British Raj prosecuted the accused aggressively. A sessions court quickly sentenced 172 of the 225 accused to death. However, ultimately, only 19 of those convicted were hanged.

➤ Reaction of Mahatma Gandhi:

- He condemned the crime of the policemen’s killing. The volunteer groups in nearby villages were disbanded, and a Chauri Chaura Support Fund was set up to demonstrate “genuine sympathy” and seek atonement.
- Gandhi decided to stop the Non-Cooperation Movement, which he saw as having been tainted by unforgivable violence. He bent the Congress Working Committee to his will, and on 12th February, 1922, the satyagraha (movement) was formally suspended.

➤ Reaction of Other National Leaders:

- Jawaharlal Nehru and other leaders leading the Non-Cooperation movement were shocked that Gandhiji had stopped the struggle when the civil resistance had consolidated their position in the freedom movement.
- Other leaders like Motilal Nehru and CR Das recorded their dismay at Gandhi’s decision and decided to establish the Swaraj Party.

➤ Justification for the Suspension of the Movement:

- Gandhi on his part, justified himself on grounds of his unshakeable faith in non-violence.
- Historians such as Bipin Chandra have argued that Gandhian strategy of non-violence was based on the premise that the use of repressive force against non-violent protesters would expose the real character of the colonial state and ultimately put moral pressure on them, but incidents such as Chauri Chaura defeated that strategy.
- Besides, Bipin chandra opines that withdrawal or shift to a phase of non-confrontation is an inherent part of a strategy of political action that is based on the masses.

➤ Immediate Result:

- The disillusionment resulting from the suspension of the Non-Cooperation Movement nudged many of the younger Indian nationalists towards the

Note:

conclusion that India would not be able to throw off colonial rule through non-violence.

- It was from the ranks of these impatient patriots that some of India's most of the revolutionaries came into picture like Jogesh Chatterjee, Ramprasad Bismil, Sachin Sanyal, Ashfaqulla Khan, Jatin Das,

Bhagat Singh, Bhagwati Charan Vohra, Masterda Surya Sen, and many others.

- Besides, sudden termination of the Non-Cooperation Movement **disillusioned the Khilafat movement leaders** that created a rift between Congress and the muslim leaders.



Note:

Art & Culture

Highlights

- Centre Withdrew Draft Heritage Bylaws on Jagannath Temple
- Tholpavakkoothu: Kerala
- Pandit Bhimsen Joshi Jayanti

Centre Withdrew Draft Heritage Bylaws on Jagannath Temple

Why in News

The Centre has **withdrawn the draft heritage bylaws issued by the National Monuments Authority (NMA)** for Shree Jagannath Temple in Puri, Odisha.

- The **Odisha Government is demanding withdrawal of the bylaws for temples in Ekamra Kshetra area of Bhubaneswar as well.**

Key Points

- **Draft Heritage Bylaws:**
 - **Background:**
 - The government in 2010 formed the **National Monuments Authority** under the **Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010.**
 - NMA's primary role was to prepare heritage bylaws for the **Archaeological Survey of India (ASI)** listed structures.
 - **Meaning:**
 - The **Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act 2010** mandates that **monument-specific heritage bylaws** be prepared to **regulate construction activity** near ASI-protected monuments.
 - The draft heritage bylaws **need to be approved by Parliament.**
- **The Case of Odisha:**
 - The State government considered that the **bylaws would have hampered the grand infrastructure development planned** around 12th century Shree Jagannath Temple in Puri.

- Similar heritage bylaws have been **drafted for two temples** in Bhubaneswar - the **13th century Vaishnava temple of Ananta Basudev** and **Shiva temple of Brahmeswar**, both in the **Ekamra Kshetra area.**

- In 2020, the state government **planned a beautification project** around the area spread across 1,126 acre and develop it into a major tourist attraction.

➤ Jagannath Temple:

- **Construction:**
 - It is believed to be constructed in the 12th century by **King Anantavarman Chodaganga Deva of the Eastern Ganga Dynasty.**



- **Mythology:**
 - Jagannath Puri temple is called '**Yamanika Tirtha**' where, according to the Hindu beliefs, the power of 'Yama', the god of death, has been nullified due to the presence of Lord Jagannath.
- **Architecture:**
 - This temple was called the "**White Pagoda**" and is a **part of Char Dham** pilgrimages (Badrinath, Dwaraka, Puri, Rameswaram).
 - There are **four gates to the temple**- Eastern 'Singhdwara' which is the main gate with two crouching lions, Southern 'Ashwadwara', Western

Note:

'Vyaghra Dwara and Northern 'Hastidwara'. There is a **carving of each form at each gate.**

- In front of the entrance stands the **Aruna stambha or sun pillar**, which was **originally at the Sun Temple in Konark.**

- **Festival:** The World famous **Rath Yatra (Car Festival)** & Bahuda Yatra.

➤ **Other Important Monuments in Odisha:**

- **Konark Sun Temple** (UNESCO World Heritage Site).
- **Tara Tarini Temple.**
- **Lingaraj Temple.**
- **Udaygiri and Khandagiri Caves.**

The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010

➤ **Objective:**

- To preserve, conserve, protect and maintain all ancient monuments and archaeological sites and remains declared of national importance, and their surrounding areas up to a distance of 300 meters (or more as may be specified in certain cases) in all directions.

➤ **Provisions:**

- **No construction or reconstruction is permitted in the prohibited area** (an area up to a distance of 100 meters in all directions from the nearest protected limit of nearby protected monument or protected area declared as of national importance), but repair or renovation is considered.
- In the **regulated area** (an area up to a distance of 200 meters in all directions from the prohibited area of any protected monument and protected area declared as of national importance), **repair/renovation/construction/reconstruction are considered.**
- All **applications** for construction related work in the prohibited and regulated areas are to be **submitted to the Competent Authorities (CA)** and then to **National Monuments Authority (NMA)** for consideration.
 - NMA functions under the **Ministry of Culture.**

Tholpavakkoothu: Kerala

Why in News

Recently, a shadow leather puppet in Kerala's famous

temple art **Tholpavakkoothu** has been animated by a **robot.**



Key Points

➤ **About:**

- It is a **traditional temple art in Kerala** having its roots in Palakkad and neighbouring regions.
 - This art is **confined largely to Pulavar families** from Shoranur region of Palakkad district.
- Among the ancient artforms of Kerala, **tholpavakkoothu or shadow puppet play** occupies a prominent place. It is a fine example of the **integration of Aryan and Dravidian cultures.**
- It is a ritual art performed during the **annual festivals in the Kaali temples of Palakkad district.**
 - It is **also known as Nizhalkkoothu and Olakkoothu.**
- The theme of the play is based on the **Kamba Ramayana** (the Tamil version of the epic).

➤ **Origin:**

- In Malayalam, **Thol** means **leather**, **pava** means **doll** and **koothu** the **play**. Though the origin of this ritualistic art form is not known exactly, some **believe it to be as old as 1200 years.**
- It used to be performed in the **Bhadrakali temples** of Palakkad, telling tales from the **Ramayana.**

➤ **The Show:**

- This entertainment art is performed on a **special stage called koothumadam in the temple courtyard.**
- It is **performed using the mythological figures along with the use of fire and lighting of lamps** behind the screen.
- The **chief puppeteer** is known as '**Pulavan**'.

➤ **Musical Instruments Used:**

- Ezhupara, Chenda and Maddalam etc.

Note:



drishti

Regional Names of Shadow Puppetry in India

- State - Name
- Andhra Pradesh - Tholu bommalata
- Karnataka - Togalu gombeyaata
- Maharashtra - Charma bahuli natya
- Odisha - Ravanachhaya
- Kerala - Tholapavakkoothu
- Tamil Nadu - Thol bommalata

Pandit Bhimsen Joshi Jayanti

Recently, the **Prime Minister paid homage to Pandit Bhimsen Joshi**, the classical music vocalist, on his centenary **birth anniversary**.

Key Points

- **About:**
 - **Pandit Bhimsen Joshi** was born on February 4, 1922.
 - **Important Recognition:** He received the **Bharat Ratna in 2008**.
 - **Work:** He is remembered for his famous ragas including **Shuddha Kalyan, Miyan Ki Todi, Puriya Dhanashri and Multani etc.**
 - He belonged to the **Kirana Gharana**.
 - **Kirana Gharana** got its name from a small town called Kerana in Uttar Pradesh. It was founded by Ustad Abdul Karim Khan. Famous artists such as Abdul Wahid Khan, Suresh Babu Mane, Hira Bai Badodekar and Roshanara Begum belong to this Gharana.
 - He belonged to the school of **Hindustani classical music**.
- **Hindustani Music:**
 - **Origin:**

- Hindustani Music is one of the **two distinct schools of Indian Classical Music** practiced mainly in North India. The other school of Indian Classical Music is **Carnatic music** which is practiced mainly in Southern India.
- The historical roots of both the music types belong to the **Bharata's Natyasastra**.
- **Hindustani Music is vocal-centric**. The major vocal forms associated with Hindustani classical music are the **khayal, Ghazal, dhrupad, dhammar, Tarana and thumri**.
 - Most of the Hindustani musicians trace their descent to Tansen.
- **Gharanas:**
 - A Gharana is a **system of social organisation linking musicians** or dancers by lineage or apprenticeship, and by adherence to a particular musical style.
 - Function in **guru-shishya parampara**, i.e. disciples learning under a particular guru, transmitting his musical knowledge and style.

Gharana	Place	Founder
Gwalior	Gwalior	Nanthan Khan
Agra	Agra	Hajisujan Khan
Rangeela	Agra	Faiyyaz Khan
Jaipur Atrauli	Jaipur	Alladiya Khan
Kirana	Awadh	Abdul Wahid Khan
Banaras	Varanasi	Ram Sahai



Note:

Geography

Highlights

- Thar Desert
- NDMA Guidelines to Tackle Glacial Bursts
- Mapping Seismic Hazard of Eastern Himalaya
- Uttarakhand Flash Flood
- Ageing Dams of India: UN Report

Thar Desert

Why in News

The **Pakistan Army** is holding a **month-long exercise** code-named '**Jidar-ul-Hadeed**' in the **Thar Desert**. The aim is to **prepare for conflict in extreme desert environments**.

- A **multinational naval exercise** hosted by Pakistan, **Aman-2021**, has also begun in the Arabian Sea. **45 countries**, including the USA, Russia, China and Turkey, will be participating in the exercise.

Key Points

- **Name:**
 - The name, Thar is **derived from thul**, the general term for the region's sand ridges.
- **Location:**
 - It is located **partly in Rajasthan state, northwestern India**, and **partly in Punjab and Sindh provinces, eastern Pakistan**.
- **About the Area:**
 - The Thar Desert is an **arid region** that covers over 2,00,000 sq km. It forms a **natural boundary** along the border between India and Pakistan.
 - The surface consists of **aeolian (wind-deposited) sand** that has accumulated over the past 1.8 million years.
 - The desert presents an undulating surface, with **high and low sand dunes** separated by sandy plains and low barren hills, or **bhakars**, which rise abruptly from the surrounding plains.
 - The dunes are in continual motion and take on varying shapes and sizes.

- **Barchan**, also spelled **Barkhan**, crescent-shaped sand dune produced by the action of wind predominately from one direction. One of the commonest types of dunes, it occurs in sandy deserts all over the world.

➤ Surrounding Areas:

- It is bordered by the irrigated **Indus River plain** to the west, the **Punjab Plain** to the north and northeast, the **Aravalli Range** to the southeast, and the **Rann of Kachchh** to the south.

➤ Climate:

- The **subtropical desert climate** there results from **persistent high pressure and subsidence** at that latitude.
- The prevailing **southwest monsoon winds** that bring rain to much of the subcontinent in summer **tend to bypass the Thar to the east**.

➤ Saline Lakes:

- Several **playas** (saline lake beds), locally known as **dhands**, are scattered throughout the region.

➤ Flora and Fauna:

- The region produces herbaceous plants like **cactus, neem, khejri, acacia nilotica** among others. All these plants can accommodate themselves to high or low temperatures and difficult climatic conditions.
- The desert also houses the residents of the wild like the **leopard, the Asiatic wild cat (*Felis silvestris ornata*), the chousingha (*Tetracerus quadricornis*), the chinkara (*Gazella bennettii*), the Bengal desert fox (*Vulpes bengalensis*), the Blackbuck (*antelope*) and several species of reptiles.**

Note:



NDMA Guidelines to Tackle Glacial Bursts

Why in News

A **Glacial Lake Outburst Flood (GLOF)** is suspected to have caused the **flash floods** in Chamoli district of Uttarakhand.

- In October 2020, the **National Disaster Management Authority (NDMA)** had issued detailed guidelines on how to reduce and deal with disasters caused by GLOFs/Glacial Bursts.
- The NDMA guidelines suggest that risk reduction can be done by **identifying and mapping potentially dangerous lakes, taking structural measures to prevent their sudden breach**, and establishing mechanisms to save lives and property in times of a breach.

Key Points

➤ Glacial Lake Outburst Flood (GLOF):

○ Meaning:

- A GLOF refers to the flooding that occurs **when the water dammed by a glacier or a moraine** (accumulations of dirt and rocks fallen onto the glacier surface) **is released suddenly**.
 - When glaciers melt, the water in glacial lakes accumulates behind loose, natural “glacial/moraine dams” made of ice, sand, pebbles and ice residue.
- Unlike earthen dams, the weak structure of the moraine dam **leads to the abrupt breach of the dam on top of the glacial lake** which could cause flash floods in the downstream areas.

○ Causes:

- According to NDMA, **glacial retreat due to climate change** occurring in most parts of the **Hindu Kush Himalaya** has given rise to the **formation of numerous new glacial lakes**, which are the **major cause of GLOFs**.

➤ Glacial Lakes:

○ About:

- Glacial lakes are **typically formed at the foot of a glacier**.
- As glaciers move and flow, they erode the soil and sediment around them, leaving depressions

and grooves on the land. Meltwater from the glacier fills up the hole, making a lake.

○ Types:

- Lakes form when meltwater ponds, and this can happen on the ice surface (**supraglacial lakes**), in front of the ice (**proglacial lakes**), or even underneath the ice (**subglacial lakes**).

○ Impact:

- Glacier lakes can **affect ice flow** by reducing friction at the ice-bed interface, encouraging basal sliding.
- They can **change the albedo of the ice surface**, encouraging more surface melt.
- Proglacial lakes **cause calving**, which affects mass balance and can decouple mountain glaciers from climate.
- Glacier lakes can be hazardous; moraine and ice dams can fail, **causing catastrophic glacier lake outburst floods** or jokulhlaups.

○ Increase in Number of Glacial Lakes:

- According to recent studies, **there has been a rapid increase in the number of glacial lakes due to a retreat in the glaciers** caused by warming temperatures (due to global warming), and their potential to cause large scale flooding and destruction.
 - The **Kedarnath tragedy in 2013**, for example, had involved a breach in a large glacial lake.
- According to a study sponsored by the **Central Water Commission (CWC)**, conducted during 2011-15, there are 352, 283 and 1,393 glacial lakes and water bodies in the Indus, Ganga and Brahmaputra basins respectively.

➤ Guidelines on Risk Reduction:

○ Identifying Potentially Dangerous Lakes:

- Potentially dangerous lakes **can be identified** based on field observations, records of past events, geomorphologic and geotechnical characteristics of the lake/dam and surroundings, and other physical conditions.

○ Use of Technology:

- Promoting use of **Synthetic-Aperture Radar imagery** (a form of radar that is used to create two-dimensional images) **to automatically detect changes in water bodies**, including new lake formations, during the monsoon months.

Note:

- Methods and protocols could also be developed to **allow remote monitoring of lake bodies from space.**
- **Channeling Potential Floods:**
 - To manage lakes structurally, the NDMA recommends **reducing the volume of water with methods such as controlled breaching, pumping or siphoning out water, and making a tunnel through the moraine barrier or under an ice dam.**
- **Uniform Codes for Construction Activity:**
 - Developing a broad framework for **infrastructure development, construction and excavation** in vulnerable zones.
 - There is a need to accept **procedures for land use planning** in the GLOF prone areas.
- **Enhancing Early Warning Systems (EWS):**
 - The number of implemented and operational GLOF EWS is very small, even at the global scale.
 - In the Himalayan region, there are at **three reported instances** (two in Nepal and one in China) of implementation of sensor- and monitoring-based technical systems for GLOF early warning.
- **Training Local Manpower:**
 - Apart from pressing specialised forces such as National Disaster Response Force (NDRF), **ITBP** and the Army, NDMA has emphasised the need for **trained local manpower.**
 - It has been observed that over **80% of search and rescue is carried out by the local community** before the intervention of the state machinery and specialised search and rescue teams.
 - **The local teams could also assist in planning** and setting up emergency shelters, distributing relief packages, identifying missing people, and addressing the needs for food, healthcare, water supply etc.
- **Comprehensive Alarm Systems:**
 - Besides classical alarming infrastructure consisting of acoustic alarms by sirens, modern communication technology using cell and smartphones can complement or even replace traditional alarming infrastructure.

Mapping Seismic Hazard of Eastern Himalaya

Why in News

Recently, scientists have found the **first geological evidence of an earthquake on the border of Assam and Arunachal Pradesh**, documented as the **Sadiya earthquake in history.** This finding could contribute to a seismic hazard map of the eastern Himalaya, which can facilitate construction and planning in the region.

- This site is near the **Tuting-Tidding Suture Zone**- a major part of the Eastern Himalaya, where the Himalaya takes a sharp southward bend and connects with the Indo-Burma Range.

Key Points

- **About:**
 - Scientists from **Wadia Institute of Himalayan Geology (WIHG)** carried out a mega trench excavation at **Himebasti village, Arunachal Pradesh** where the most recent event records the imprints of the **1697 Sadiya earthquake** and analysed it with modern geological techniques.
 - WIHG is an **autonomous institute** under the Department of Science and Technology (DST), Government of India.
 - Scientists found large tree trunks embedded in the **youngest flood deposits at the exit of the Subansiri River** (Sadiya town is located roughly 145 km southeast of Subansiri river), suggesting the **post-seismic aggradation of the river** following an array of **aftershocks** till six months.
 - **Aggradation** is the term used in geology for the increase in land elevation due to deposition of sediment.
 - **Aftershocks** are earthquakes that follow the largest shock of an earthquake sequence. They are smaller than the mainshock and within 1-2 rupture lengths distance from the mainshock.
- **Significance:**
 - Studying the past earthquakes help to **determine the seismic potential** of the region. This helps in mapping the earthquake hazard of the region and enables syncing the development activities accordingly.

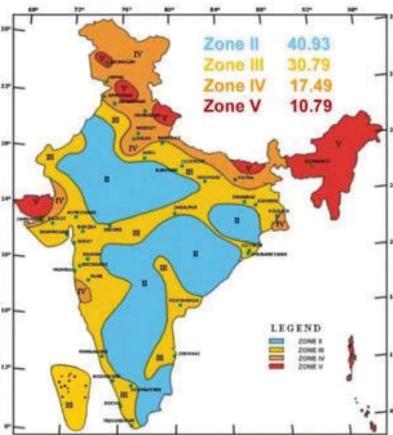
Note:

- Arunachal Pradesh, being near the **Indo-China Border**, and sometimes centre of dispute regarding its ownership, is strategically important.
 - A number of development initiatives like constructing roads, bridges and hydropower projects are being undertaken, therefore there is an urgent need for understanding the pattern of seismicity in this region.
- **Seismic Hazard Map of India:**
 - India is one of the highly earthquake affected countries **because of the presence of tectonically active young fold mountains, Himalayas.**
 - India has been divided into **four seismic zones (II, III, IV, and V)** based on scientific inputs relating to seismicity, earthquakes occurred in the past and tectonic setup of the region.
 - Previously, earthquake zones were divided into five zones with respect to the severity of the earthquakes but the **Bureau of Indian Standards (BIS)** grouped the country into four seismic zones by unifying the first two zones.
 - BIS is the official agency for publishing the seismic hazard maps and codes.
- **Seismic Zone II:**
 - **Area with minor damage earthquakes** corresponding to intensities V to VI of MM scale (MM-Modified Mercalli Intensity scale).
- **Seismic Zone III:**
 - **Moderate damage** corresponding to intensity VII of MM scale.
- **Seismic Zone IV:**
 - **Major damage** corresponding to intensity VII and higher of MM scale.

Seismic Zone Map of India: -2002

About **57 percent** of the land area of India is liable to seismic hazard damage

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



- **Seismic Zone V:**
 - Area determined by pro seismically of certain major fault systems and is seismically the most active region.
 - **Earthquake zone V is the most vulnerable to earthquakes**, where historically some of the country's most powerful shocks have occurred.
 - Earthquakes with magnitudes in excess of 7.0 have occurred in these areas, and have had intensities **higher than IX.**
- **Seismic Waves, Richter Scale and Mercalli scale:**
 - Seismic waves are the vibrations from earthquakes that travel through the Earth and are recorded on instruments called **seismographs.**
 - Seismographs record a zigzag trace that shows the varying amplitude of ground oscillations beneath the instrument.
 - The earthquake events are scaled either according to the magnitude or intensity of the shock.
 - The magnitude scale is known as the **Richter scale.** The magnitude relates to the energy released during the earthquake which is expressed in absolute numbers, 0-10.
 - The intensity scale or **Mercalli scale** takes into account the visible damage caused by the event. The range of intensity scale is from 1-12.

Uttarakhand Flash Flood

Why in News

Recently, a **glacial break** in the **Tapovan-Reni area of Chamoli District of Uttarakhand** led to massive **Flash Flood** in **Dhaulti Ganga and Alaknanda Rivers**, damaging houses and the nearby **Rishiganga power project.**

- In **June 2013**, flash floods in Uttarakhand wiped out settlements and took lives.

Key Points

- **Cause of Flash Flood in Uttarakhand:**
 - It occurred in river Rishi Ganga due to the falling of a portion of **Nanda Devi glacier** in the river which **exponentially increased the volume of water.**
 - Rishiganga meets Dhaulti Ganga near Raini. So Dhaulti Ganga also got flooded.
- **Major Power Projects Affected:**

Note:

- **Rishi Ganga Power Project:**
 - It is a privately owned 130MW project.
- **Tapovan Vishnugad Hydropower Project on the Dhauliganga:**
 - It was a 520 MW run-of-river **hydroelectric project** being constructed on **Dhauliganga River**.
- Several **other projects on the Alaknanda and Bhagirathi river basins** in northwestern Uttarakhand have also been impacted by the flood.
- **Flash Floods:**
 - **About:**
 - These are **sudden surges in water levels** generally during or following an **intense spell of rain**.
 - These are **highly localised** events of **short duration** with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood.
 - The flood situation **worsens in the presence of choked drainage lines or encroachments** obstructing the natural flow of water.
 - **Causes:**
 - It may be caused by heavy rain associated with a severe **thunderstorm, hurricane, tropical storm, or meltwater from ice or snow flowing over ice sheets or snowfields**.
 - Flash Floods can also occur due to **Dam or Levee Breaks, and/or Mudslides (Debris Flow)**.
 - In areas on or near **volcanoes**, flash floods have also occurred after eruptions, when glaciers have been melted by the intense heat.
 - The intensity of the rainfall, the location and distribution of the rainfall, the land use and topography, vegetation types and growth/density, soil type, and soil water- content all determine just how quickly the Flash Flooding may occur, and influence where it may occur.

Glaciers

- **About:**
 - Glaciers are a bulk of ice moving under its weight. It forms in areas where the amassing of snow goes beyond its ablation over many years.
 - They are generally seen in the snow-fields.
 - This largest freshwater basin covers around 10% of the land surface of the Earth.

- According to the topography and the location of the glacier, it can be categorized as **Mountain Glacier (Alpine Glaciers)** or **Continental Glacier (Ice Sheets)**.
- The Continental Glacier moves outward in all directions whereas the Mountain Glacier moves from a higher to a lower altitude.

➤ Glaciers and Floods:

- **Glacial Lakes:**
 - Retreating glaciers, like several in the **Himalayas**, usually result in the formation of lakes at their tips, called **proglacial lakes**, often bound only by sediments and boulders.
- **Flood:**
 - If the **boundaries of these lakes are breached, it can lead to large amounts of water rushing down to nearby streams** and rivers, gathering momentum on the way by picking up sediments, rocks and other material, and **resulting in flooding downstream**.

➤ Impact of Climate Change:

- Climate change has driven erratic weather patterns like increased snowfall and rainfall, warmer winters has led to the melting of a lot of snow.
- According to the latest assessment reports of the UN Intergovernmental Panel on Climate Change, glacier retreat and permafrost thaw are projected to decrease the stability of mountain slopes and increase the number and area of glacier lakes.

Dhauliganga

➤ Origination:

- It originates from **Vasudhara Tal**, perhaps the **largest glacial lake** in Uttarakhand.

➤ About:

- Dhauliganga is one of the **important tributaries of Alaknanda**, the other being the **Nandakini, Pindar, Mandakini and Bhagirathi**.
 - Dhauliganga is joined by the **Rishiganga river at Raini**.
- It **merges with the Alaknanda at Vishnuprayag**.
 - There it loses its identity and the **Alaknanda flows southwest through Chamoli, Maithana, Nandaprayag, Karnaprayag** until it meets the Mandakini river, coming from the north at Rudraprayag.

Note:



- After subsuming Mandakini, the Alaknanda carries on past Srinagar, before **joining the Ganga at Devprayag near.**
- **Alaknanda then disappears and the mighty Ganga** carries on its journey, first flowing south then west through important pilgrimage centres such as Rishikesh and finally descending into the Indo-Gangetic plains at Haridwar.

Nanda Devi National Park

➤ Location:

- It is situated around the peak of Nanda Devi (7816 m) in the state of Uttarakhand in northern India.

➤ About:

- The park encompasses the **Nanda Devi Sanctuary**, a **glacial basin** surrounded by a ring of peaks, and drained by the **Rishi Ganga through the Rishi Ganga Gorge.**

➤ Established:

- The Park was established as Sanjay Gandhi National Park by Notification in 1982 but was later renamed Nanda Devi National Park.
- It was inscribed a **World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) in 1988.**

➤ Flora:

- Some 312 floral species that include 17 rare species have been found here. Fir, birch, rhododendron, and juniper are the main flora.

➤ Fauna:

- Himalayan black bear, Snow leopard, Himalayan Musk Deer etc.



- The report, compiled by **Canada-based Institute for Water, Environment and Health**, says the world is unlikely to witness another large dam-building revolution as in the mid-20th century, but dams constructed then will inevitably be showing their age.
- The analysis includes dam decommissioning or ageing case studies from the **USA, France, Canada, India, Japan, and Zambia and Zimbabwe.**

Key Points

➤ Global Scenario:

- Most of the **58,700 large dams** worldwide were **constructed between 1930 and 1970** with a design life of 50 to 100 years.
- **By 2050**, most people on Earth will **live downstream of tens of thousands of large dams built in the 20th century**, many of them already operating at or beyond their design life.
 - At 50 years, a large concrete dam “would most probably begin to express signs of ageing.”
- **Ageing signs include** increasing cases of dam failures, progressively increasing costs of dam repair and maintenance, increasing reservoir sedimentation, and loss of a dam’s functionality and effectiveness - “strongly interconnected” manifestations.
- 32,716 large dams (**55% of the world’s total**) are **found in just four Asian countries**: China, India, Japan, and South Korea - a majority of which will reach the 50-year threshold relatively soon.
 - The same is true of many large dams in Africa, South America, and Eastern Europe.

➤ Indian Scenario:

- **India is ranked third** in the world in terms of building large dams.
- Of the over 5,200 large dams built so far, about **1,100 large dams have already reached 50 years of age** and some are older than 120 years.
 - The **number of such dams will increase to 4,400 by 2050.**
- This means that **80% of the nation’s large dams face the prospect of becoming obsolete** as they will be 50 years to over 150 years old.
- The **situation with hundreds of thousands of medium and minor dams is even more dangerous** as their shelf life is even lower than that of large dams.

Ageing Dams of India: UN Report

Why in News

According to a **United Nations (UN)** report “**Ageing water infrastructure: An emerging global risk**”, over 1,000 large **dams in India** will be roughly 50 years old in 2025 and such ageing embankments across the world pose a growing threat.

Note:

- **Examples:** Krishna Raja Sagar dam was built in 1931 and is now 90 years old. Similarly, Mettur dam was constructed in 1934 and is now 87 years old. Both these reservoirs are located in the water scarce Cauvery river basin.
- **Problems:**
 - **Decreasing Storage Capacity:**
 - As dams age, soil replaces the water in the reservoirs. Therefore, the storage capacity cannot be claimed to be the same as it was in the 1900s and 1950s.
 - The storage space in Indian reservoirs is receding at a rate faster than anticipated.
 - **Flawed Design:**
 - Studies show that the design of many of India's reservoirs is flawed.
 - Indian reservoirs are designed with a poor understanding of sedimentation science.
 - The designs underestimate the rate of siltation and overestimate live storage capacity created.
 - **High Siltation Rates:**
 - It refers both to the increased concentration of suspended sediments and to the increased accumulation (temporary or permanent) of fine sediments on bottoms where they are undesirable.
- **Consequences:**
 - **Less Water:**
 - When soil replaces the water in reservoirs, supply gets choked. The cropped area begins receiving less and less water as time progresses.
- **Impact on Groundwater:**
 - The net sown water area either shrinks in size or depends on rains or groundwater, which is overexploited.
- **Affecting Farmers' Income:**
 - The farmer's income may get reduced as water is one of the crucial factors for crop yield along with credit, crop insurance and investment.
 - It is important to note that no plan on climate change adaptation will succeed with sediment packed dams.
- **Frequent Flood:**
 - The designed flood cushions within several reservoirs across many river basins may have already depleted substantially due to which floods have become more frequent downstream of dams.
 - The flooding of Bharuch in 2020, Kerala in 2018 and Chennai in 2015 are a few examples attributed to downstream releases from reservoirs.
- **Step Taken:**
 - Recently, the Cabinet Committee on Economic Affairs has approved the Dam Rehabilitation and Improvement Project (DRIP) Phase II and Phase III.
 - It envisages comprehensive rehabilitation of 736 existing dams located across the country and complements the Dam Safety Bill, 2019.



Note:



Social Issues

Highlights

- Falling Numbers of SC & ST Students in IITs
- Mental Health and Men
- Hunter Syndrome: MPS II
- MGNREGS Praised By the Standing Committee on Labour
- Pradhan Mantri Matru Vandana Yojana
- Uniform Minimum Age for Marriage
- Bonded Labour in India

Falling Numbers of SC & ST Students in IITs

Why in News

Recently, data collected from a series of **Right to Information (RTI)** applications pertaining to five older **Indian Institutes of Technology (IITs)**, has indicated that the **acceptance rate is skewed against students from the Scheduled Caste (SC), Scheduled Tribe (ST), and Other Backward Classes (OBC) communities.**

- **SC and ST applicants are half as likely to get selected for a Ph.D. programme at IITs as aspirants from the General Category (GC) are.**

Key Points

- **Data from the RTI Applications:**
 - **Acceptance Rate:**
 - It refers to the **number of students selected for every 100 students who applied.**
 - It stood at **4%** for students from **General Category (GC).**
 - It falls to **2.7% for OBC** students and further down to just **2.16% for SCs** and **2.2% for STs.**
 - This finding **comes against the backdrop of the Education Ministry's data** submitted to Parliament in 2020 showing the failure of the IITs to fill Ph.D. seats as per reservation.
 - The government's **reservation policy mandates allocation of 15% seats for students from the SCs, 7.5% from STs and 27% from OBCs.**
 - **Significance:**

- The IITs have often cited the **lack of applicants from the marginalised communities** for the situation. However, the **RTI data reveals quite the opposite.**
- The **percentage of GC students** among those admitted was **always higher** than their percentage among those applied. However, the **converse was true for SC, ST and OBC candidates.**

➤ Education Ministry's Data:

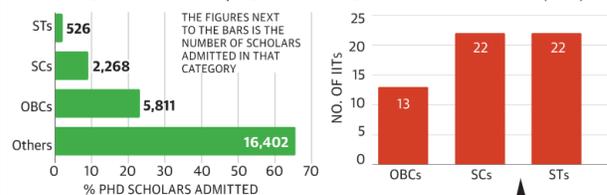
- Of the total admissions made by all IITs from **2015 to 2019**, only **9.1%** went to **SC** and **2.1%** to **ST.**
- Only **23.2%** seats went to applicants from the **OBCs.** Remaining **65.6%**, or roughly two-thirds of all the seats, went to **General Category** applicants.

➤ Reasons for Falling Rate:

- **Given by IITs:**
 - **Eligibility Issue:**
 - Some institutions **could not even fill all the seats in the general category** since they did not get enough eligible candidates.

Matter of inclusion

Of the 25,007 PhD scholars admitted in all 23 IITs in the last five years, only 9.1% were from the Scheduled Castes (SCs) and 2.1% were from Scheduled Tribes (STs). The reservation policy mandates 15% of the seats for SCs, 7.5% for STs and 27% for Other Backward Classes (OBCs)



ADMISSION PATTERN IN BIGGER IITs

Institute	Admitted	SCs (%)	STs (%)	OBCs (%)	Others (%)
IIT-Bombay	2,877	8.2	1.6	18.9	71.3
IIT-Kanpur	1,653	7.5	0.7	23	68.8
IIT-Delhi	3,081	6.7	1.2	15.6	76.5
IIT-Madras	3,874	6.4	1.3	27.9	64.4
IIT-Kharagpur	3,057	12.7	2.2	20.2	64.9

The chart shows the number of IITs that failed to meet the reservation mandate. For instance, 22 of the 23 IITs failed to fill the seats reserved for the SCs and the STs

Note:

- **Economic Causes:**
 - Students of the required calibre **tend to take up industry jobs rather than join for a PhD** which has extra uncertainties and lower income levels during PhD and in some areas even post PhD.
 - It is possible that the **family background and economic level** may have an impact on such candidates applying for a PhD.
- **Argument of 'Merit':**
 - There has been long-standing **opposition among IIT administrators and faculty to reservations**, which they see as a form of **unjust government intervention** in their meritocratic institutions.
 - The **recent report** of an Education Ministry-constituted committee **recommended the abolition of reservation in faculty recruitment**.
 - The committee based its recommendations primarily on arguments **claiming the need for IITs to maintain their academic excellence and the lack of candidates from the reserved categories** who fulfil the qualification criteria.
- **A More Systematic Problem:**
 - The problem is also of practice and **access to quality school education**, leading to **poor base**.
- **Advantages of following the Reservation Policy:**
 - **An Example to Other Institutions:**
 - The IITs are and should continue to be institutions of national importance. But they **also have social functions**.
 - They should set an example to other institutions by **creating opportunities for and encourage the underprivileged communities to excel** in research and innovation.
 - **Bridging Inequalities:**
 - Affirmative action and caste-based reservation can **help bridge inequalities in society**, enable the underprivileged to have access to quality education, promote diversity, and, more importantly, remove obstacles to equality and correct the past wrongs.

Mental Health and Men

Why in News

As per the data of the **Ministry of Social Justice and Empowerment**, **70% of callers** to the **'Kiran Helpline'**,

launched in September 2020, were **men**. **Most of the calls** have been from **young adults**.

- The 24/7 toll-free helpline **'Kiran'** provides **support to people facing anxiety, stress, depression, suicidal thoughts** and other **mental health** concerns.

Key Points

- **Data Analysis:**
 - **Gender & Mental Health:** Out of the 13,550 new calls received, **70.5% were from males** and **29.5% from females**.
 - **Vulnerable Age Group:** The majority of callers (75.5%) were in the age group of **15 to 40 years**, while 18.1% in the **41 to 60 age group**.
 - **Major Issues:** Majorly the challenges faced by the callers were related to **anxiety** and **depression**; while few others included **pandemic-related challenges, suicidal tendency, substance abuse** and others miscellaneous.
- **Issues Related to Male Mental Health:**
 - **Traditional Gender Roles:** Societal **expectations** and **traditional gender roles** play an important role in why men are less likely to discuss or seek help for their mental health problems.
 - **Ignoring Warning Signs:** For men, the warning signs of mental disorders include irritability, trouble focusing, tiredness or listlessness, aches and pains, alcohol or drug abuse and more.
 - **Lack of Proper Attention:** Research on men's health issues has been given relatively **low priority**. Due to lack of funding and proper attention, the situation becomes more serious.
 - **Increase in Number of Suicides:** In 2018, around **250 Indian men** took their own lives per day - more than twice the number of **women**.

Mental Health

- **About:**
 - According to the WHO, **mental health is 'a state of well-being** in which the individual realizes his or her own **abilities**, can cope with the **normal stresses** of life, can work **productively and fruitfully**, and is able to make a **contribution to his or her community**.'
 - Like **Physical health**, **Mental health** is also important at every stage of life, from childhood and adolescence through adulthood.

Note:



➤ Challenges:

- **High Public Health Burden:** An estimated **150 million people** across India are in need of mental health care interventions, according to India's latest National Mental Health Survey 2015-16.
- **Lack of Resources:** Low proportion of the mental health workforce in India (per 100,000 population) include psychiatrists (0.3), nurses (0.12), psychologists (0.07) and social workers (0.07).
 - **Low financial resource allocation** of just over a percent of GDP on healthcare has created impediments in public access to affordable mental healthcare.
- **Other Challenges:** Poor awareness about the symptoms of mental illness, social stigma and abandonment of mentally ill, especially old and destitute, leads to social isolation and reluctance on part of family members to seek treatment for the patient.
 - This has resulted in a **massive treatment gap**, which further worsens the present mental illness of a person.

➤ Steps Taken by the Government:

- **National Mental Health Program (NMHP):**
 - To address the huge burden of mental disorders and shortage of qualified professionals in the field of mental health, the government has been implementing the National Mental Health Program (NMHP) since **1982**.
 - The Program was **re-strategized in 2003** to include two schemes, viz. Modernization of State Mental Hospitals and Up-gradation of Psychiatric Wings of Medical Colleges/General Hospitals.
- **Mental HealthCare Act 2017:**
 - It guarantees every affected person access to mental healthcare and treatment from services run or funded by the government.
 - It has **significantly reduced the scope for the use of Section 309 IPC** and made the attempt to commit suicide punishable only as an exception.
 - Section 115(1) of the MHCA states: "Notwithstanding anything contained in section 309 of the Indian Penal Code any person who attempts to commit suicide shall be presumed, unless proved otherwise, to have severe stress and shall not be tried and punished under the said Code."

Hunter Syndrome: MPS II

Why in News

Two brothers suffering from **Mucopolysaccharidosis II or MPS II (Hunter Syndrome, Attenuated Type)** have approached the Delhi High Court seeking direction to the Centre and AIIMS to provide them free treatment.

- **MPS II is a rare disease** that is passed on in families.

Key Points

- **About:** MPS II mostly **affects boys** and their bodies **cannot break down a kind of sugar that builds bones, skin, tendons and other tissues**.
- **Cause:** It is **caused by changes (mutations) of the IDS gene** that regulates the production of the iduronate 2-sulfatase (I2S) enzyme.
 - This enzyme is **needed to break-down complex sugars**, known as **glycosaminoglycans (GAGs)**, produced in the body.
- **Impact:** Lack of I2S enzyme activity **leads to the accumulation of GAGs within cells**, specifically inside the **lysosomes**.
 - Lysosomes are compartments in the cell that **digest and recycle different types of molecules**.
 - Conditions that cause molecules to build up inside the lysosomes, including MPS II, are called **lysosomal storage disorders**.
 - The accumulation of GAGs increases the size of the lysosomes, which is why **many tissues and organs are enlarged in this disorder**.

Rare Diseases

- A rare disease is a **health condition of low prevalence** that affects a small number of people compared with other prevalent diseases in the general population.
- Though rare diseases are of low prevalence and individually rare, collectively they **affect a considerable proportion of the population**.
- **80% of rare diseases are genetic in origin** and hence disproportionately impact children.
- Recently, the Delhi High Court has directed the Centre to **finalise the National Health Policy for Rare Diseases of 2020** by March 2021 and **make operational provision of crowdfunding** envisaged under the law for treatment of high-cost rare diseases.

Note:

- **Symptoms:** It is characterized by **distinctive facial features, a large head, enlargement of the liver and spleen (hepatosplenomegaly)**, hearing loss, etc.
- **Inheritance:**
 - MPS II is inherited in an X-linked recessive pattern, which means that this condition occurs almost exclusively in males. **Females are generally unaffected carriers** of this condition.
 - In a family with more than one affected individual, the mother of the affected males must be a carrier. When a carrier female has a child, there is a 25% (1 in 4) chance that she will have an affected son.

MGNREGS Praised By the Standing Committee on Labour

Why in News

Recently, the **Parliamentary Standing Committee** on Labour in its report “**Social Security and Welfare Measures for Inter-State Migrant Workers**” praised **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)** for providing **sustainable livelihood** to the **unskilled workers** including the inter-state **migrant labourers**.

Key Points

- **Standing Committees Observation:**
 - **MGNREGS:**
 - The Mahatma Gandhi National Rural Employment Guarantee Act, 2005 provides for a **specific and significant welfare provision, constitutive of the very idea of citizenship**.
 - There is no “**better scheme**” to provide “**sustainable livelihood**” to unskilled workers.
 - Over 7 crore households (10.43 crore individuals) have already availed of the scheme and 330 crore person days have been created till February 2021 during the current **financial year**. This is the **highest for any year since inception of the scheme in 2006**.
 - **Migrant Workers:**
 - **1.08 crore migrant workers returned to their home states during the pandemic**.
 - The **absence of reliable and authentic data/information** on the numbers of migrant

workforce and their movement back to their home States following the outbreak of the **Pandemic** has apparently **impacted the relief and rehabilitation measures**.

- There were a number of appreciable initiatives launched by the Government (eg: **Pradhan Mantri Garib Kalyan Yojana**), which are aimed at benefiting the Migrant Labour.
- **However, no guidelines were issued** nor enforced for distribution of relief material to stranded Migrant Labourers.
- **No element of Social Audit** prescribed.
- **Standing Committees Suggestions:**
 - **Instant and Immediate Relief:**
 - **Covid-19 Pandemic** and the resultant challenges and lacunae observed in the system must be addressed so as to **strengthen the preparedness to effectively deal with any such emergent situations**.
 - **Credible Database to be Prepared:**
 - Credible databases of unorganized workers especially that of migrant labourers be put in place to **ensure seamless delivery of relief packages to them at the time of distress**.
 - Earlier in december 2020, the Government has decided to **create a database of migrant workers, including workers in the informal economy**.

Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

- **About:** It is one of the largest work guarantee programmes in the world.
- **Launch:**
 - It was launched on 2nd February 2006
 - The Mahatma Gandhi National Rural Employment Guarantee Act was passed on 23rd August 2005.
- **Objective:**
 - The primary objective of the scheme is to **guarantee 100 days of employment** in every financial year to **adult members of any rural household** willing to do public work-related unskilled manual work.
- **Legal Right to Work:**
 - Unlike earlier employment guarantee schemes, the act **aims at addressing the causes of chronic poverty through a rights-based framework**.

Note:



- At least **one-third of beneficiaries have to be women**.
- Wages must be paid according to the statutory minimum wages specified for agricultural labourers in the state under the **Minimum Wages Act, 1948**.
- **Demand-Driven Scheme:**
 - The most important part of MGNREGA's design is **its legally-backed guarantee for any rural adult to get work within 15 days** of demanding it, failing which an 'unemployment allowance' must be given.
 - This demand-driven scheme enables the self-selection of workers.
- **Decentralised planning:**
 - There is an emphasis on strengthening the process of decentralisation by giving a significant role in **Panchayati Raj Institutions (PRIs)** in planning and implementing these works.
 - The act mandates **Gram sabhas to recommend the works** that are to be undertaken and at least 50% of the works must be executed by them.



Pradhan Mantri Matru Vandana Yojana

Why in News

Recently, the government's maternity benefit scheme, or **Pradhan Mantri Matru Vandana Yojana (PMMVY)**, has crossed 1.75 crore eligible women till the financial year 2020.

- **A total sum of Rs. 5,931.95 crore** was paid to **1.75 crore eligible beneficiaries** between financial year 2018 and 2020.

Key Points

- **About:**
 - PMMVY is a **maternity benefit programme** being implemented in all districts of the country with effect from 1st January, 2017.
 - It is a **centrally sponsored scheme** being executed by the Ministry of Women and Child Development.
- **Direct Benefit Transfer Scheme:**
 - Cash benefits are provided to pregnant women in their bank account directly to meet enhanced nutritional needs and partially compensate for wage loss.
- **Target Beneficiaries:**
 - All **Pregnant Women and Lactating Mothers (PW&LM)**, excluding those who are in regular employment with the Central Government or the State Governments or PSUs or those who are in receipt of similar benefits under any law for the time being in force.
 - All eligible Pregnant Women and Lactating Mothers who have their **pregnancy on or after 1st January 2017 for the first child in the family**.
- **Benefits under the Scheme:**
 - Beneficiaries receive a **cash benefit of Rs. 5,000 in three installments** on fulfilling the following conditions:
 - Early registration of pregnancy
 - Ante-natal check-up
 - Registration of the birth of the child and completion of first cycle of vaccination for the first living child of the family.
 - The eligible beneficiaries also receive cash incentive under **Janani Suraksha Yojana (JSY)**. Thus, on an average, a woman gets Rs. 6,000.
- **Distinctive Feature:**
 - Implementation of the scheme is closely monitored by the central and state governments through the **Pradhan Mantri Matru Vandana Yojana - Common Application Software (PMMVY-CAS)**.
 - PMMVY-CAS is a web based software application that **enables tracking the status of each beneficiary under the scheme**, resulting in expedited, accountable and better grievance redressal.

Note:

MATTER OF HEALTH	THE INITIATIVE
<ul style="list-style-type: none"> ➤ Under-nutrition continues to adversely affect women in India ➤ Every third woman is under-nourished, while every second woman is anaemic ➤ Under-nourished women often give birth to babies with a low birth weight ➤ When poor nutrition starts in-utero, it extends throughout the life cycle ➤ Owing to economic and social distress, many women continue to work to earn a living for their family up to the last days of their pregnancy ➤ They resume work soon after childbirth, which prevents their bodies from fully recovering ➤ It also impedes their ability to exclusively breastfeed during the first six months 	<p>The Pradhan Mantri Matru Vandana Yojana provides maternity benefits of ₹5,000 for pregnant women and lactating mothers after their first delivery</p> <ul style="list-style-type: none"> ■ The benefit is provided in three instalments <ul style="list-style-type: none"> ■ It is a conditional cash transfer scheme and provides a partial wage compensation to women for wage-loss during childbirth and childcare ■ The scheme ensures safe delivery and good nutrition for women ■ The benefits are not available for employees of the Central or State governments and any public-sector undertaking



Janani Suraksha Yojana

➤ About:

- It is a **100% centrally sponsored scheme** which is being implemented with the objective of **reducing maternal and infant mortality** by promoting institutional delivery among pregnant women.
- As per the data of **National Family Health Survey-5**:
 - **Infant and child mortality rates** across most Indian states have declined.
 1. Bihar registered the highest prevalence of neonatal mortality rate (NMR-34), infant mortality rate (IMR-47), and under-five mortality rate (U5MR-56) across 22 surveyed states and Union territories while Kerala reported the lowest death rates.
- The **Maternal Mortality Ratio (MMR)** in India has declined to **113 (per 1,00,000 live births)** in 2016-18 from 122 in 2015-17 and 130 in 2014-2016, according to the **special bulletin on Maternal Mortality in India 2016-18**, released by the Office of the Registrar General's Sample Registration System (SRS).
- The **target 3.1 of Sustainable Development Goals (SDGs)** set by the United Nations aims at reducing the global maternal mortality ratio to less than **70 per 1,00,000 live births**.
- Basically, it is a safe motherhood intervention under the **National Health Mission (NHM)**.

➤ Benefit:

- Under the JSY, **eligible pregnant women are entitled for cash assistance irrespective of the age of mother and number of children**, for giving birth in a government or accredited private health facility.

- The scheme also provides performance based incentives to women health volunteers known as **Accredited Social Health Activist (ASHA)** for promoting institutional delivery among pregnant women.

➤ Other Schemes Focussing on Nutritional and Health Aspects of Women:

- **Indira Gandhi Matritva Sahyog Yojna (IGMSY)**:
 - The scheme aims to contribute to a better enabling environment by providing cash incentives for improved health and nutrition to pregnant and lactating mothers.
 - It is being implemented by the Ministry of Women and Child Development.
- **Kudumbashree in Kerala**:
 - It was launched in Kerala in 1998 to wipe out absolute poverty through community action. It is the largest women empowering project in the country. It has three components i.e., microcredit, entrepreneurship and empowerment.
- **Poshan Abhiyaan**:
 - Launched in March 2018, the goal of **Poshan Abhiyaan** is to achieve improvement in the nutritional status of Children (0-6 years) and **Pregnant Women and Lactating Mothers** in a time-bound manner.
- **Integrated Child Development Services (ICDS) Scheme**:
 - The scheme provides specific interventions targeted towards the vulnerable groups including children below 6 years and **women**.
 - It is being implemented by the Ministry of Women and Child Development.

Uniform Minimum Age for Marriage

Why in News

Recently, the **Supreme Court (SC)** decided to examine a plea to transfer to itself cases pending in the Delhi and Rajasthan High Courts to declare a **"uniform minimum age"** for marriage.

- The **Union government has also set up a committee** to reconsider the minimum age of marriage for women, which is currently 18.

Note:

Key Points

➤ About:

- A Bench led by **Chief Justice of India (CJI)** issued notice to the government on a plea, which was filed to “**secure gender justice, gender equality, and dignity of women**”.
- The plea sought a direction to the Union government to remove the anomalies in the minimum age of marriage and make it ‘**gender-neutral, religion-neutral and uniform for all citizens**’.
- Various laws state that the minimum age to get married should be **18 for women** and **21 for men**.
- The **SC has power under Article 139A to transfer to itself**, cases involving the same or substantially the same questions of law pending before two or more high courts.
- It has been argued that the different ages for marriage **violated the fundamental rights of equality (Article 14), protection against discrimination (Article 15), and dignity of life (Article 21)** of citizens and **went against India’s commitment under the convention on elimination of all forms of discrimination against women (CEDAW)**.

➤ Current Laws Related to Marriage in India:

- For Hindus, The **Hindu Marriage Act, 1955**, sets 18 years as the minimum age of marriage for the bride and 21 years as the minimum age for the groom.
- However, **child marriages are not illegal** even though **they can be declared void at the request of the minor** in the marriage.
- In Islam, the marriage of a minor who has attained puberty is considered valid.
- The **Special Marriage Act, 1954** and the **Prohibition of Child Marriage Act, 2006** also prescribe 18 and 21 years as the minimum age of consent for marriage for women and men respectively.

➤ Pros of Increasing Marriageable Age for Girls and Making it Uniform:

- **Socio-economic Fronts:** Increasing the legal age for the marriage of women has enormous benefits on social and economic fronts including:
 - Lowering the **Maternal Mortality Ratio (MMR)**.
 - Improvement of nutrition levels.

- **On the financial front, opportunities will be opened up** for women to pursue higher education and careers and become financially empowered, thus resulting in a more egalitarian society.

- **More female labour force participation:** Increasing the marriage age will push the mean marriage age higher and will lead to more females doing graduation and hence **improving the female labour force participation ratio**.

- The percentage of **females doing graduation will increase by at least 5-7 percentage points** from the **current level of 9.8%**.

- **The benefit for both:** Both men and women will gain economically and socially by marrying when they are more than the legal age, but added that the urge of the women is much higher as they always get a higher payoff by becoming financially empowered to take decisions.

➤ Cons of Increasing Marriageable Age for Girls and Making it Uniform:

- **Minimum is not mandatory:** Minimum age of marriage **does not mean mandatory age**.

- It only signifies that below that age there could be criminal prosecution under the child marriage law.

- **Rights of the girls are threatened:** Increasing the age of marriage to 21 years would mean that **girls will have no say in their personal matters until they are 21**.

- The elementary right that the Convention of the Right of Children of the **United Nation** bestows upon minors — the right to be heard, the right for their views to be considered — will be denied to girls right up till 21, beyond adulthood.

- **Exploitation of law by parents:** The child marriage law has been used by parents against eloping daughters. **It has become a tool for parental control and for punishment of boys or men whom girls choose as their husbands**.

- Most cases that are taken to court are self-arranged marriages.

- And only one-third of the cases relate to arranged marriages, which are sometimes brought by parents or husbands to dissolve or to nullify marriages that have broken down because of domestic violence, dowry or compatibility issues.

Note:



- **Social validity of marriages:** Even if the law declares a marriage before the specified age as void, in the eyes of the community, arranged marriages will have social validity.
 - This **worsens the condition of the girls who are widowed** even before reaching the new legal age for marriage.
- **Increased female infanticide:** Moreover, raising the female marriage age in the countries that have **high son preference** and high poverty may have the unintended consequence of **increasing the prevalence of female infanticide and sex-selective abortion**.

Bonded Labour in India

Why in News

Recently, fifteen bonded labourers were rescued by the district administration of Guna in Madhya Pradesh. These labourers were being subjected to inhuman treatment and torture by their employer.

Key Points

➤ Bonded Labour:

- It is a practice in which **employers give high-interest loans to workers who work at low wages** to pay off the debt.
- The **Supreme Court of India** has interpreted bonded labour as the **payment of wages that are below the prevailing market wages** and legal minimum wages.
- Bonded labour was **historically associated with rural economies** where peasants from economically disadvantaged communities were bound to work for the landlords.
- Bonded labour is found to **exist in both rural and urban pockets** in unorganized industries such as brick kilns, stone quarries, coal mining, agricultural labour, domestic servitude, circus, and sexual slavery.

➤ International Obligations:

- India is obliged to end modern slavery by 2030 under the **Sustainable Development Goal** (Target 8.7) of ending forced labour, **human trafficking** and **child labour**.
- India has also ratified the **ILO Abolition of Forced Labour Convention, 1957** (No. 105).

- India also **aspires to improve its rank** (53rd out of 167 countries in the year 2018) in the **Global Slavery Index**.
- **Constitutional Provisions:**
 - **Article 21** deals with the Right to Life and Personal Liberty.
 - **Article 23** of the Constitution prohibits forced labour.
 - **Article 24** prohibits the employment of children (below the age of fourteen years) in factories, etc.
 - **Article 39** directs the State to secure the health and strength of workers, men and women, and to see the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength.
- **Related Legislations:**
 - **Bonded Labour System (Abolition) Act 1976:**
 - The Act extends to the whole of India but implemented by respective state governments.
 - It provides for an institutional mechanism at the district level in the form of Vigilance Committees.
 - Vigilance committees advise District Magistrate (DM) to ensure the provisions of this Act are properly implemented.
 - The State Governments/UTs may confer, on an Executive Magistrate, the powers of a Judicial Magistrate of the first class or second class for the trial of offences under this Act.
 - **Central Sector Scheme for Rehabilitation of Bonded Labourers (2016):**
 - **Financial assistance to the extent of Rs. 3 lakhs** is provided to released bonded labourers along with other non-cash assistance for their livelihood.
- **Reasons for the Persistence of Bonded Labour:**
 - The lack of awareness among workers and employers.
 - Low conviction rates.
 - Social bias towards bonded labour.
 - Migratory nature of bonded labour.
 - Weaker implementation of Bonded Labour System (Abolition) Act 1976.
 - Punishment for forced labour (Section 374 of IPC—unlawful compulsory labour) is not appropriate.
 - Lack of proper coordination at the national and regional level, and among governments.
- **Measures Needed to End Bonded Labour:**

Note:



- Organising **national campaigns** to provide information to the public on how to report and identify victims of bonded labour.
 - Popularising the National Child Hotline which is partly supported by the Ministry of Women & Child Development, and a national helpline for trafficking victims exists, run by Operation Red Alert.
- Efficient rehabilitation of rescued victims to prevent them from being forced into bonded labour again.
 - **Productive and income generating schemes** must be formulated in advance otherwise they will again fall back upon the system of bonded labour after their release.



Note:

Security

Highlights

- TROPEX 21
- Three New Fighter Jets
- CCTNS Hackathon & Cyber Challenge
- Smart Walls For Borders

TROPEX 21

Why in News

Indian Navy's largest **biennial Theatre Level Operational Readiness Exercise (TROPEX 21)** is currently underway.

- Exercise commenced in **early January**, which will culminate by the **third week of February**.

Key Points

- **Theme:**
 - **'Combat Ready, Credible and Cohesive force'**.
- **Participants:**
 - Indian Navy, Coast Guard, Marine Police of 13 coastal States and Union Territories along with other stakeholders in the maritime domain.
- **'Sea Vigil':**
 - **'Sea Vigil'**: In the first phase, the Indian Navy had **conducted coastal defence exercise 'Sea Vigil'** along the entire coastline and Island territories of India on 12-13 January 2021.
 - Exercise Sea Vigil was followed by a large-scale Tri-Service joint amphibious exercise AMPHEX-21.
- **Location:**
 - The exercise is being conducted over a **vast geographical expanse** in the **Indian Ocean Region**.
- **Overseen By:**
 - Conduct of TROPEX is being overseen by **Naval Headquarters** with participation from all **three Commands of the Indian Navy (Eastern, Western and Southern Naval Command)** and the only **Tri-Service theatre command** of the Indian Armed Forces located at **Port Blair**.
- **Aims:**

- **Promote Stability and Peace:** The Theatre Level exercise also aims to validate the **Navy's offensive-defence capabilities, safeguard national interests** in the **maritime domain and promote stability and peace** in the **Indian Ocean Region**.
- **Coastal Defence Setup:** This exercise aimed to validate the coastal defence setup of the country, which was **entirely revamped after the 26/11 Terror attacks** at Mumbai.
- **Combat readiness:** It aimed at testing combat readiness of the Navy in a **complex multi-dimensional scenario** set in the context of the **current geo strategic environment**.

Three New Fighter Jets

Why in News

According to the Ministry of Defence, **three new fighter jets** will be flying by 2026, of which **two will be for the Air Force** and **one for the Navy**.

- This includes a new **LCA (the Mk-2 version)** and **AMCA (Advanced Medium Combat Aircraft)** for the Air Force and the **TEDBF (Twin-Engine Deck-Based Fighter)** for the Navy.
- Earlier, the **Cabinet Committee on Security (CCS)** had cleared a deal worth Rs. 48,000 crore for the acquisition of 83 **Tejas Light Combat Aircraft** (Mk-1A and Mk-1 versions) for the Indian Air Force.

Key Points

- **Light Combat Aircraft (LCA) Mk-2:**
 - **About:**
 - It is a **4.5 generation aircraft** which will be used by the **Indian Air Force**.
 - It is a replacement for the **Mirage 2000 class of aircraft**.

Note:



THE NEW TEJAS

The long-awaited indigenous fighter Tejas Mk II, which will be manufactured by HAL, will go into production by 2025-2026

17.5 ton
Tejas Mark II will be the same weight as the Mirage, Jaguar and Grippen

ADDITIONS THE NEW GEN

- Heavier stand-off weapon capacity
- State-of-the-art AESA radar
- Indigenously developed air-to-air missile Astra (with a range of 70km)

WHEN: Set to go into production after the Tejas LCA order of 123 aircraft to replace the IAF's ageing MiG-21s is completed

ALSO IN THE WORKS
Advanced medium combat aircraft (AMCA) given a go-ahead by IAF late last year

25-ton fighter will be powered by two engines capable of super-cruise speeds

Will have advanced tech to ensure minimum radar signatures

- It has got a bigger engine and can carry **6.5 tonnes of payload**.
- The technology is already developed in **Light Combat Aircraft (LCA)**.
- The **Light Combat Aircraft (LCA) programme began in the 1980s** to replace India's ageing MiG-21 fighters.
- **Following the Mk-1A is the Mk-2** which will provide a high degree of manoeuvrability.
- **Production:**
 - The roll-out is planned for 2022 and first flight by 2023 and production of the Mk-2 version by 2026.

➤ **AMCA (Advanced Medium Combat Aircraft):**

- **About:**
 - It is a **fifth generation aircraft**. And will be used by the **Indian Air Force**.
 - It is a **stealth aircraft**, i.e. designed for stealth and unlike the LCA, which is designed for maneuverability.
 - It has a **unique shape to achieve low radar cross-section** and has got internal carriage of weapons.
 - When the external weapons are removed, this aircraft has enough fuel and weapons inside to do a very capable operational role in stealth mode.
- **Range:**
 - It will have a range from over **1,000 km up to 3,000 km** in different modes.
- **Variants and Engine:**
 - It has **two variants Mk-1 and Mk-2**, While **AMCA Mk-1 will have an imported engine**, same as LCA Mk-2, the **AMCA Mk-2 will have an indigenous engine**.

India designing new stealth fighter

India is beginning preliminary design work for a new fifth generation fighter jet, named the **Advanced Medium Combat Aircraft (AMCA)**, with the first flight scheduled for 2024

AMCA: Multi-role aircraft designed to replace Mirage 2000 fighter and Jaguar strike aircraft in Indian Air Force service from 2030

Performance: Aircraft intended to fly supersonically without afterburning

Fuselage: Faceted design and blended wing-body. Radar-absorbing paint and composites

Crew
One

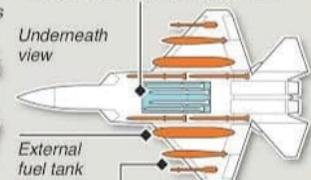
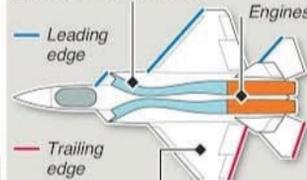
Tail
Canted twin fins

Avionics: Include AESA* radar, infrared search and track system and situational awareness sensors

Engines: Twin turbofans with thrust vectoring. Likely choice is upgraded General Electric F414 (115 kN class)

■ **Serpentine ducts:** Block direct line of sight to engine fan blades, hiding them from incoming radar

■ **Internal weapons bay**
Maintains stealthy configuration – capacity for four missiles or bombs



■ **Trapezoidal wing**
Aligned edges help to improve stealth characteristics by deflecting radar waves in different directions

■ **External weapons**
Non-stealth payload carried below fuselage and on three hardpoints under each wing

■ **Shape offers efficient supersonic flight**, and better handling at subsonic speeds needed for ground-attack role

■ **Specifications**
Maximum weight: **25 tonnes**
Endurance: **Two hours**

○ **Production:**

- The first flight is expected in 2024-25, followed by trials and tests. It will be in full production by 2029.

➤ **Twin-Engine Deck-Based Fighter (TEDBF):**

○ **About:**

- This fighter will be manufactured for the Navy.
- It will replace the Navy's **MiG-29K**.
- It will be the **first twin engine aircraft project in India** that too for dedicated carrier based operations.
- It will operate from the **INS Vikramaditya** and the upcoming indigenous aircraft carrier.



Note:

- **Weapons:**
 - The aircraft will be equipped **predominantly with domestic weapons.**
- **Size and Capacity:**
 - It will have a **maximum mach number of 1.6**, service ceiling of 60,000 feet, maximum **take off weight of 26 tons**, unfolded wing span of 11.2 meters, folded wing span of 7.2 and a **length of 16.3 meters.**
- **Engine:**
 - While the engine configuration has not been disclosed, it could well use the same engines that power the **LCA Tejas aircraft.**
- **Induction:**
 - It will be induced in the Navy by 2030.

INS Vikramaditya

- INS Vikramaditya is the country's **most powerful aircraft carrier.**
- It was **built in 1987.**
- The **Indian navy purchased the vessel in 2004** and commissioned it in November 2013 at Severodvinsk in Russia.
- It was retrofitted with a **Barak missile system** under joint development with Israel.

CCTNS Hackathon & Cyber Challenge

Why in News

Recently, the inaugural function of the 2nd **CCTNS Hackathon and Cyber Challenge 2020-21** of the **National Crime Records Bureau (NCRB)** was held in New Delhi.

Key Points

- **Background:**
 - This hackathon is **in continuation to the Hackathon & Cyber Challenge** which concluded in March 2020.
 - It aimed to **deepen understanding and enhance skills** of the law enforcement personnel across all ranks and file, empowering them to adopt **smart strategies** for **effectively addressing the evolving threats.**
- **About the 2nd CCTNS Hackathon and Cyber Challenge:**

- **Police officials** especially those from the cutting edge level, **academia, industry, students and others** are being invited to **help improve existing IT applications** as well as help identify new IT applications to **improve the CCTNS ecosystem.**
- The Mobile App: **"Locate Nearest Police Station"** was also launched at the function.
 - This App will help various users including women commuters, interstate travelers, domestic and foreign tourists etc. especially during any emergency and has the facility to dial 112. This is **another step towards improving accessibility of the police to the citizens.**
 - This will **add to other Central Citizen Services being provided by the NCRB** such as **"Missing Person Search", "Generate Vehicle NOC", "Proclaimed Offenders Information"** and various other services being provided by the State Citizen Police Portals.

Crime and Criminal Tracking Network & Systems

➤ Background:

- **Crime and Criminal Tracking Network & Systems (CCTNS)** is a plan scheme conceived in the light of experience of a non-plan scheme namely - **Common Integrated Police Application (CIPA).**

➤ Launch:

- CCTNS is a **Mission Mode Project** under the **National e-Governance Plan (NeGP)** of the **Ministry of Home Affairs.**
- Approx. 14,000 Police Stations throughout the country have been proposed to be automated besides 6000 higher offices in the police hierarchy.
- It was approved in **2009.**

➤ Objectives:

- Make the Police functioning **citizen friendly** and **more transparent** by automating the functioning of Police Stations.
- Improve delivery of **citizen-centric services** through effective usage of **ICT.**
- Provide the Investigating Officers of the Civil Police with **tools, technology and information** to facilitate investigation of crime and detection of criminals.

➤ Recent Initiatives:

- A **Memorandum of Understanding (MoU)** was signed between **National Intelligence Grid**

Note:



(NATGRID) and National Crime Records Bureau (NCRB) for the access of the CCTNS database.

National Crime Records Bureau

- NCRB, headquartered in New Delhi, was set-up in 1986 under the Ministry of Home Affairs to function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.
- It was set up based on the recommendations of the National Police Commission (1977-1981) and the MHA's Task Force (1985).
- NCRB brings out the annual comprehensive statistics of crime across the country ('Crime in India' report).
 - Being published since 1953, the report serves as a crucial tool in understanding the law and order situation across the country.

Smart Walls For Borders

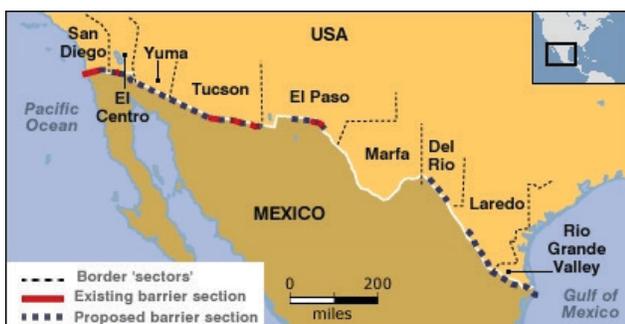
Why in News

Recently, an alternative **Smart Wall** has been proposed to replace the physical and armed patrolling with advanced surveillance technology at the **USA-Mexico border**.

- Earlier in 2019, the **USA declared a national emergency** to fund construction of a border wall along the USA-Mexico Border citing "invasion" of drugs and criminals from Mexico.

Key Points

- **About Smart Wall:**
 - There is no one single definition for this recently-conceived solution, however It is a **collection of discrete technologies** that work together to prevent illegal entry, smuggling, and all the various threats posed by a porous border.



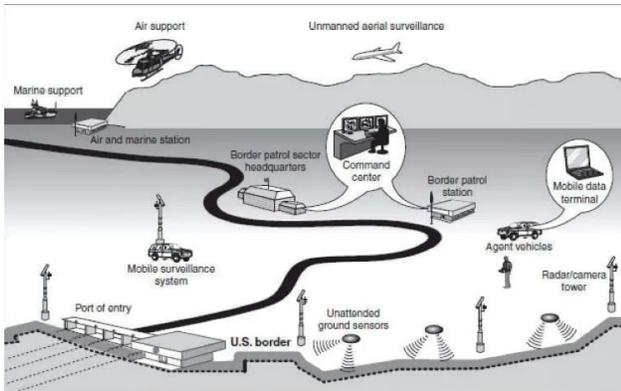
- It uses **drones, scanners, and sensors** to create a **technological barrier** too high to climb over, too wide to go around, and too deep to burrow under.
 - Using **Internet-of-Things (IoT)** technologies like in-ground sensors, security cameras and software solutions, a smart wall could **empower border officials with enhanced situational awareness** to prevent illicit activity.

➤ Benefits of Smart Wall:

- **Reduces Cost:**
 - A smart wall can accomplish the same goals as a physical wall with a much smaller price.
- **Decreases Deployment Time:**
 - Physical boundaries take years to build but smart border technology is ready to go.
- **Low Maintenance Costs:**
 - Unlike a physical barrier, a smart wall would **allow border security officials to continuously adjust tactics to changing conditions**.
 - Ground sensors and IoT devices are **quick and easy to deploy and inexpensive to move and update**.
 - They require only a **fraction of the costs to maintain**, and can be implemented gradually and as needed.
- **Decreases Environmental Concerns:**
 - A smart wall raises **minimal environmental concerns**, allowing wildlife and rainwater to pass freely through the area.
 - Most smart devices can tell the difference between people and animals, **alerting officers when a human attempts to cross the border illegally** while leaving wildlife alone.
- **Overcomes the Limitations of Terrain:**
 - Rough terrain is difficult to patrol, which could leave portions of the wall vulnerable to breaches.
 - Digital technology, however, allows for **enhanced surveillance across vast terrain**.
 - **Devices** like cameras and in-ground sensors **allow patrolmen to survey hundreds of miles at once**, and take informed action should the need arise.
 - **Real-time alerts** make it easy to respond to activity from immigrants approaching the border or to a lost hiker looking for supplies.

Note:

- **Reduces Land Requirement:**
- To construct a border wall, the government would need to seize property from local landowners.
- However, Small and relatively non-invasive, smart wall technologies would require far fewer land seizures.



➤ **Need of Smart Wall in India:**

- A critical factor that must be considered to enable the usage of such a system along Indian borders is that the **terrain in the region is rugged, and, furthermore, not even clearly defined.**
- Such a system, even if not feasible for India's long boundaries, may still be **deployed to enhance critical security establishments** of the country

and complement the already existing physical fencing and walls.

- It is **imperative for Indian armed forces to be well equipped and simultaneously have the latest technological** advantage over its enemies.
- Experts should explore this idea to **effectively counter the problem of border infiltration.**

➤ **Smart Fencing in India:**

- Two pilot projects covering about 71 Kms on Indo-Pakistan Border (10 Kms) and Indo-Bangladesh Border (61 Kms) of **Comprehensive Integrated Border Management System (CIBMS)** have been completed.
 - CIBMS involves deployment of a range of state-of-the-art surveillance technologies — **thermal imagers, infra-red and laser-based intruder alarms, aerostats for aerial surveillance, unattended ground sensors** that can help detect intrusion bids, **radars, sonar systems** to secure riverine borders, **fibre-optic sensors** and a command and control system that shall receive data from all surveillance devices in real time.
 - **BOLD-QIT** (Border Electronically Dominated QRT Interception Technique) under CIBMS on Indo- Bangladesh border in Dhubri district of Assam is also being used.

Note:

Miscellaneous

Highlights

- Arka Shubha: New Marigold Variety
- Ratha Saptami
- Vaghai-Bilimora Heritage Line
- Aero India 2021

Arka Shubha: New Marigold Variety

Why in News

The **Indian Institute of Horticultural Research (IIHR)** has developed a new marigold variety named **Arka Shubha**.

Key Points

- **About:**
 - **High Carotene Content:** Arka Shubha has carotene content of around 2.8% (for all marigolds, it's maximum upto 1.4%) which is the highest among all plant sources.
 - **Used after Spoiled:** This new variety of marigold can be used for extraction of crude carotene even if spoiled after full bloom, unlike that of other varieties.
- **Significance:**
 - **Ornamental & Carotene Extraction:** This new variety not only has ornamental purpose but is also a good source of crude carotene.
 - **Poultry Feed:** Its petals could be used as poultry feed to get quality yolk.

Carotene

- Carotenes are carotenoid pigments that are oxygen-free. Mostly they are unsaturated hydrocarbons that contain only carbon and hydrogen.
- Their color varies from yellow to orange to red. The color is attributed to the chain of alternating single and double bonds.
 - Carotene is responsible for the orange colour of carrots.

- α -carotene, β -carotene, and lycopene are examples of carotenes.
- Carotene is used in the pharmaceutical sector, there is always a high demand for it.

Indian Institute of Horticultural Research

- Indian Institute of Horticultural Research (**Indian Council of Agricultural Research**) is an autonomous organization under the Department of Agricultural Research and Education, Ministry of Agriculture & Farmers Welfare.
- IIHR has a **main research station at Bengaluru** and regional experiment stations at Bhubaneswar in Orissa and Chettalli in Karnataka with two Krishi Vigyan Kendras.
- The institute's main research agenda was to increase the yields of horticultural crop varieties by developing high yielding varieties in fruits, vegetables, ornamentals and medicinal products.
 - **Reduce Import Dependency:** India imports most of its carotene from other countries, including China. This development can significantly reduce import dependency. Therefore, both cultivation area and investment on carotene extraction should be increased.

Ratha Saptami

Why in News

This year's Ratha Saptami festival is being celebrated on 19th February 2021.

Key Points

- Ratha Saptami is an annual Hindu festival that is **dedicated to Surya**, the sun god.

Note:



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- It is made of two words- '**Ratha**' means Chariot and '**Saptami**' means seventh.
- A one-day **Brahmotsavam** is held in Tirumala (Andhra Pradesh) on this day.
- Ratha Saptami is also called Surya Jayanti as it marks the birth of Surya and referred as Magha Saptami as it falls on the seventh day (Saptami) of the Hindu month **Magha**.
- Ratha Saptami also marks the **change of season** to spring and the start of the harvesting season.

Vaghai-Bilimora Heritage Line

Why in News

The **Western Railway** has decided to **not stop the services of three trains**, including the **107-year-old narrow gauge heritage train between Vaghai and Bilimora**, in Gujarat permanently.

- Other **two narrow gauge** trains run between **Miyagam, Choranda and Malsar**, and **Choranda junction and Moti Karal**.
- In rail transport, track gauge or track gage is the **spacing of the rails** on a railway track.

Key Points

- **Background:**
 - The **Ministry of Railways**, previously issued a letter to the Western Railway ordering permanent closure of 11 "**uneconomic branch lines**" and **narrow gauge sections** of the Western Railway, including **three from Gujarat**.
- **About the Vaghai-Bilimora Train:**
 - It started in 1913, was a remnant of **Gaekwad dynasty** who ruled the **princely state of Baroda**. **Tribal people** from the interior commute by this train regularly. The train covers a distance of **63 kilometres**.
 - At the instance of Gaekwad rulers, the British laid railway tracks and it **was operated by Gaekwad Baroda State Railway (GBSR) owned by Sayajirao Gaekwad III**.
 - The **Gaekwad jurisdiction was spread across** parts of Saurashtra, Mehsana in north Gujarat, and Bilimora in South Gujarat.

- The **founder of the dynasty was Damaji I** who had risen to power by 1740. The last **Gaekwar, Sayaji Rao III**, died in 1939.
- For about 24 years the train **was run by a steam engine**, which was replaced by a diesel engine in 1937.
 - In 1994, the **original steam engine was put on the display at Churchgate Heritage Gallery in Mumbai**.
- This was **much before the Western Railway came into existence in 1951** with the merger of the Bombay, Baroda & Central India Railway, the Saurashtra, Rajputana and Jaipur state Railways.
- The 63-km Billimora-Vaghai and the 19-km Choranda-Moti Karal routes are **among those five routes the Indian Railways had proposed to be preserved as "industrial heritage"** in 2018.

Aero India 2021

Why in News

Recently, the **13th edition** of the **Aero India show** began at Bengaluru's **Yelahanka Air Force Station** (Karnataka).

Key Points

- **About Aero India:**
 - Aero India is a **biennial international military and civil airshow**.
 - It is a premier event that draws **international and Indian military and civil aircraft makers**, their support industries, military brass and government dignitaries, and business visitors.
 - **Bengaluru based Yelahanka air base**, about 30 km from the city centre, **has been hosting the air show in February** since it was started in Bengaluru in 1996.
- **Aero India 2021:**
 - This is the **first-of-its-kind 'hybrid' air show**, which means people can also attend it digitally.
 - The **focus region** for Aero India 2021 is the **Indian Ocean Region (IOR)**.
 - It has been organised by the **Defence Research and Development Organisation (DRDO)**.
 - Aero India 2021 has seen the participation of top aviation firms, while India is showcasing its indigenous defence capability.

Note:



- Apart from global aviation giants such as Boeing (USA), Lockheed Martin (USA), Dassault (France) and Airbus (Europe), the show will also see the participation of top defence firms involved in the aviation sector including Thales (France), BAE Systems (UK) and missile manufacturer MBDA (Europe).
 - India has been purchasing products from these major giants such as **Boeing P8-I**, **Rafale jets** from Dassault, other aircraft, etc.
 - During the Aero show, the government has also formally sealed the Rs. 48,000 crore deal to procure **83 Tejas light combat aircraft** from state-run aerospace company **Hindustan Aeronautics Ltd. (HAL)**.
 - **Tejas**, manufactured by the HAL, is a **single engine** and highly agile multi-role **supersonic fighter aircraft** capable of operating in high-threat air environments.
- **Importance:**
- India offers a unique opportunity in **defence and aerospace manufacturing**.
 - Under the **Atmanirbhar Bharat Abhiyan**, domestic manufacturing of bigger and complex defence platforms has become the focus of the country's defence policy.
 - Aero India 2021 will **boost investment, expand manufacturing ecosystem, support enterprises, appreciate and enhance the technology levels** and **propel the economic growth** for the country.



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Note:



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Key Points

Details

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Summary

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