Current Affairs
(Consolidation)

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(Part – II)

Contents

Polity and Governance

Highlights

- Belagavi Border Dispute
- Certification Course on Home Energy Audit
- Factors Determining Institutional Delivery in India
- Mob Lynching
- Vernacular Innovation Program: NITI Ayog
- Menace of Manual Scavenging
- Good Governance Week
- Right to Be Forgotten
- Global Cropland Expansion
- Transition of Livestock Operations into Plant-based Operations
- Good Governance Index 2021
- Star Rating Protocol of Garbage Free Cities

- Soya Meal as an Essential Commodity
- Hate Speech
- Use of Drone in Pesticide Application
- Election Laws (Amendment) Bill, 2021
- FCRA Licence of NGOs Revoked
- Amendment to Minerals Rules
- Water Innovation Challenges Initiative
- First Green Hydrogen Microgrid Project: Andhra Pradesh
- Demand for Including Ladakh under Sixth Schedule
- Pradhan Mantri Krishi Sinchayee Yojna
- Winter Session 2021
- Karnataka Protection of Right to Freedom of Religion Bill 2021
- Third Positive Indigenisation List

Belagavi Border Dispute

Why in News

The decades-old dispute between Karnataka and Maharashtra over the Belagavi or as Maharashtra likes to call it the Belgaum district, is back in the headlines.

➢ **Belgaum or Belagavi** is currently part of Karnataka but is claimed by Maharashtra.

Key Points

➢ **About:**
  - In 1957, slighted by the implementation of the **States Reorganisation Act, 1956**, Maharashtra demanded readjustment of its border with Karnataka.
  - Maharashtra invoked **Section 21 (2) (b) of the Act** and submitted a memorandum to the Ministry of Home Affairs stating its objection to Marathi-speaking areas being added to Karnataka.
  - It claimed an **area of 2,806 square miles** that involved 814 villages, and three urban settlements of Belagavi, Karwar and Nippani with a total population of about 6.7 lakh, all part of the Mumbai Presidency before independence.
    - The villages are spread across Belagavi and Uttar Kannada in north-western Karnataka, and Bidar and Gulbarga districts in north-eastern Karnataka — all bordering Maharashtra.
  - Later, when a **four-member committee was formed by both States**, Maharashtra expressed willingness to transfer predominantly Kannada-speaking 260 villages with a population of about 3.25 lakh and total area of 1,160 square miles.

- This was in lieu of accepting its demand for 814 villages and three urban settlements, which was turned down by Karnataka.

➢ **Basis of Maharashtra's Claim:**
  ○ Maharashtra's claim to seek the readjustment of its border **was on the basis of contiguity, relative linguistic majority and wishes of the people.** If the claim over Belagavi and surrounding areas was based on Marathi-speaking people and linguistic homogeneity, it laid its claim over Karwar and Supa where Konkani is spoken by citing Konkani as a dialect of Marathi.
  ○ Its argument was **based on the theory of villages being the unit for calculation** and enumerated linguistic population in each village. Maharashtra also points out the historical fact that the revenue records in these Marathi-speaking areas are also kept in Marathi.

➢ **Karnataka's Position:**
  ○ Karnataka has argued that the **settlement of boundaries as per the States Reorganisation Act is final.**
  ○ The boundary of the State was neither tentative nor flexible. The State argues that the **issue would reopen border issues** that have not been contemplated under the Act, and that such a demand should not be permitted.

➢ **Steps Taken to Resolve the Issue:**
  ○ In 1960, **both States agreed to set up a four-man committee** with two representatives from each State. Except on the issue of contiguity, the committee could not arrive at a unanimous decision.
  ○ Between the 1960s and 1980s, chief ministers of Karnataka and Maharashtra have met several times to find a solution to the vexed issue but with no avail.

➢ **Response of Union Government:**
  ○ The central government constituted the **Mahajan Committee in 1966** to assess the situation. Representatives from both sides, Maharashtra and the then Mysore state were part of the committee.
  ○ In **1967**, the committee recommended that **some villages in Karwar, Haliyal and Suparna talukas of Karnataka be given to Maharashtra but left Belagavi** with the southern state.

➢ **Response of the Supreme Court:**
  ○ In 2006, the **Supreme Court held that the issue should be resolved through mutual negotiation** and that linguistic criterion should not be considered as it may create more practical problems.
  ○ The case is **still being heard by the Supreme Court.**

➢ **Other Border Disputes between Different States:**
  ○ Boundary issue between Assam and Mizoram
  ○ Odisha's Border Disputes

Reorganization of States in India

➢ At the time of independence in 1947, **India consisted of nearly 550 disjointed princely states.**

➢ In 1950, the Constitution contained a four-fold classification of the states of the Indian Union—Part A, Part B, Part C and Part D States.
  ○ **Part-A** states comprised nine erstwhile governor's provinces of British India.
  ○ **Part-B** states consisted of nine erstwhile princely states with legislatures.
  ○ **Part-C** states consisted of the erstwhile chief commissioner's province of British India and some of the erstwhile princely states.
  ○ **Part-D** state comprised the Andaman and Nicobar Islands only.

➢ The grouping of states at the time was done **on the basis of political and historical considerations rather than on linguistic or cultural divisions,** but this was a temporary arrangement.

➢ On account of the multilingual nature and differences that existed between various states, there was a need for the states to be reorganized on a permanent basis.

➢ In this context, **in 1948, SK Dhar committee** - was appointed by the government to look into the need for the reorganization of states on a linguistic basis.
  ○ The Commission **preferred reorganisation of states on the basis of administrative convenience** including historical and geographical considerations instead of on linguistic lines.
  ○ This created much resentment and led to the appointment of another Linguistic Provinces Committee.

➢ In **December 1948, the JVP Committee** comprising Jawaharlal Nehru, Vallabh Bhai Patel and Pattabhi Sitaramayya was formed to study the issue.

Note:

○ The Committee, in its report submitted in April 1949, rejected the idea of reorganisation of states on a linguistic basis but said that the issue could be looked at afresh in the light of public demand.

➤ However, due to protests, **in October 1953, the Government of India created the first linguistic state, known as Andhra state**, by separating the Telugu speaking areas from the Madras state.

➤ On **22ⁿᵈ December 1953**, Jawaharlal Nehru **appointed a commission under Fazl Ali** to consider the reorganisation of states.

○ The commission submitted its report in 1955 and it suggested that the whole country be divided into 16 states and three centrally administered areas.

➤ The government, while not agreeing with the recommendations entirely, **divided the country into 14 states and 6 union territories under the States Reorganisation Act that was passed in November 1956.**

➤ Even after the large-scale reorganization of the states in 1956, the political map of India underwent continuous changes due to the pressure of popular agitations and political conditions.

➤ On 5ᵗʰ August 2019, President of India in the exercise of the powers conferred by **Clause (1) of Article 370 of the Constitution** had issued the Constitution (Application to Jammu and Kashmir) Order, 2019.

○ This divided the state of Jammu and Kashmir into two new Union Territories (UTs): Jammu & Kashmir, and Ladakh.

➤ Recently, **Dadra and Nagar Haveli and Daman and Diu (Merger of Union Territories) Act, 2019** have merged the Union Territories (UTs) of Daman and Diu (D&D) and Dadra and Nagar Haveli (DNH).

➤ Presently, India **comprises 28 states and 8 union territories.**

Certification Course on Home Energy Audit

Why in News

Recently, the **Bureau of Energy Efficiency (BEE)** has launched a **Certification Course on Home Energy Audit (HEA)** during **National Energy Conservation Week**: 8ᵗʰ–14ᵗʰ December 2021.

➤ Earlier **the BEE** had felicitated various industrial units, institutions and establishments with 31ˢᵗ **National Energy Conservation Awards (NECA)** on the occasion of **National Energy Conservation Day** (14ᵗʰ December) to showcase India's achievements in energy efficiency and conservation.

> **Bureau of Energy Efficiency**
>
> ➤ The BEE is a statutory body established through the **Energy Conservation Act, 2001** under the Union Ministry of Power.
>
> ➤ It **assists in developing policies and strategies** with the primary objective of **reducing the energy intensity** of the Indian economy.
>
> ➤ BEE **coordinates with designated consumers, designated agencies, and other organisations** to identify and utilise the existing resources and infrastructure, in performing its functions.

Key Points

➤ **About HEA:**

○ HEA enables appropriate **accounting, quantification, verification, monitoring, and analysis of energy use of various energy-consuming equipment** and appliances.

○ It also enables the submission of a **technical report with feasible solutions and recommendations for improving energy efficiency,** with a cost-benefit analysis and action plan to reduce energy consumption.

○ The certification program (Course) will **create awareness** on the importance and benefits of energy audit and **energy efficiency and conservation among students from engineering/diploma colleges.**

➤ **Objectives:**

○ Creation of a pool of professionals **to perform home energy audits** based on the needs of the consumer.

○ Domestic consumers **to get Home Energy Audit carried out through** their respective SDA (State Designated Agency) **Certified Home Energy Auditor.**

○ Dissemination of information and **raising awareness** among engineering/diploma/ITI students, energy professionals, and industry partners about the importance and benefits of energy auditing, energy efficiency, and conservation.

- ➤ **Significance:**
  - ❍ It will ultimately lead to a **reduction in energy bills and the carbon footprint** of the consumer.
    - ● A carbon footprint is **the total amount of greenhouse gases** (including carbon dioxide and methane) that are generated by our actions.
  - ❍ It will increase employability of youth **in the domain of energy efficiency, climate change mitigation, and sustainability.**
- ➤ **India's Status at Energy Conservation:**
  - ❍ At the **COP-26 summit in Glasgow,** India announced its plans to increase non-fossil fuel power generation capacity to 500 GW by 2030. India is running what will become the world's largest clean energy programme, with an aim of having 175 GW of clean energy capacity by 2022.
  - ❍ India's non-fossil fuel-based capacity has met the 40% target under its **Nationally Determined Contribution (NDC)** at COP 21.
  - ❍ Installed power capacity from **non-fossil fuels will go up to 66% by 2030.** Also, India has **already reached an emission reduction of 28%.**

Other Initiatives Related to Energy Conservation
- ➤ **Perform Achieve and Trade Scheme**:
- ➤ **National Action Plan on Climate Change (NAPCC).**
- ➤ **Standards and Labeling.**
- ➤ **Energy Conservation Building Code (ECBC).**
- ➤ **Demand Side Management.**
- ➤ **ECO Niwas Samhita 2018.**
- ➤ **Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI).**
- ➤ **UJALA scheme.**
- ➤ **International Solar Alliance.**
- ➤ **The National Action Plan on Climate Change (NAPCC).**

Factors Determining Institutional Delivery in India

Why in News

Recently, a paper published in the peer-reviewed journal **Global Health Action** analysed the **factors** that **act as a barrier in low coverage of institutional deliveries**.

- ➤ According to the study, **poverty**, **education**, and **exposure to a community health worker** are **more important than age at marriage** in determining whether a mother will be able to have a safe birth in a medical facility.
- ➤ The research comes at a time when the government has proposed to **raise the age of marriage for women to 21 years** in order to reduce maternal deaths.

Institutional Delivery
- ➤ It means giving birth to a child in a medical institution under the overall supervision of trained and competent health personnel.
- ➤ It also signifies an availability of amenities to handle the situation and save the life of the mother and child.

Key Points

- ➤ **About:**
  - ❍ **Study**: It is a first-of-its-kind study on utilisation of institutional delivery in the country.
    - ● The study is unique in its **exploration of socio-demographic factors** as well as **barriers in low coverage of institutional deliveries**, which is a key intervention in averting the risk of **maternal mortality** due to childbirth-related complications.
  - ❍ **Data**: The study analyses data on **State-level maternal mortality ratio** (2016 to 2018), as well as the **National Family Health Survey- (NFHS) 4** (2015-2016).
  - ❍ **Focus of Study**: It focuses on **nine Low-Performing States (LPS)** with high burden of maternal mortality — Assam, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh and Uttarakhand.
    - ● These States constitute **about half of the country's population** and **contribute 62% of maternal deaths**, **71% of infant deaths**, **72% of under-five (years) deaths**, and **61% of births in the country**.
    - ● They also account for **12% of global maternal deaths**.
    - ● India has a **maternal mortality rate of 113 per 100,000,** and the rate remains "alarmingly high" in these nine States at 161 deaths per 100,000.
- ➤ **Findings of the Study (Socio-demographic factors):**
  - ❍ **Poverty** is responsible for **more than twice** as much as age at marriage in determining whether a woman will seek institutional delivery.

Note:

Low coverage | The Janani Suraksha Yojana (JSY) coverage was 55.7% in the nine States evaluated for the study. It was less than 50% in Jharkhand, Uttar Pradesh and Bihar

Safe haven: A labour room in a health centre in Sitapur, U.P.

1 The total Janani Suraksha Yojana coverage in India was just 36%

2 Among the States in the study, the share of institutional deliveries was the highest in Odisha (86.6%), Rajasthan (85.8%) and M.P. (82.3)

- In Assam, **women from the richest wealth index were almost 14 times more likely to deliver in a health institution t**han those from the poorest wealth index.
- Similarly, the **odds of delivering in a health facility** among the richest women were about **five to six-fold higher in states like Jharkhand, Madhya Pradesh, and Uttarakhand** than the poorest women.
  - ○ **Education is 1.5 times more important** than age at marriage.
  - ○ Among other factors, interaction with a **community health worker** and **awareness campaigns** had a greater impact than age at marriage.
    - The **influence of educational attainment** appeared to be strongest in Assam and Chhattisgarh, where women with a higher level of education were about five times more likely to deliver in a health facility than women who had no education.
  - ○ However, **distance to the health facility** and **age at marriage** had almost similar influences on institutional deliveries.
    - As far as barriers in accessing institutional deliveries were concerned, about **17% of women expressed distance or lack of transportation**, and **16% cited costs**, to be some of the challenges.
  - ○ Other reasons were **facility closures (10%)**, **poor service or trust issues (6%)**.

➢ **Institutional Deliveries in India**:
- ○ **National Scenario**: Over the past two decades, India has made progress in increasing the number of institutional deliveries.
  - Institutional births have increased substantially with **over four-fifths of the women delivering in institutions in 19 States and UTs (NFHS-5).**
    - ■ Institutional delivery is over 90% in 14 out of the total 22 States and UTs.
  - According to the **NFHS-4**, institutional deliveries increased from 39% in 2005-06 to 79% in 2015-16.
    - ■ Further, the institutional births in public institutions increased from 18% to 52% in the same time period.
- ○ **Step Taken to Increase Institutional Deliveries**:
  - **Janani Suraksha Yojana**: **Janani Suraksha Yojana (JSY)** 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.
  - **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)**: It has been launched to focus on conducting special **AnteNatal Check-ups (ANC)** checkup on 9th of every month with the help of Medical officers to detect and treat cases of anaemia.
  - **Pradhan Mantri Matru Vandana Yojana (PMMVY)**: It is a **maternity benefit programme** being implemented in all districts of the country with effect from 1st January, 2017.
  - **LaQshya Programme**: **LaQshya (Labour room Quality Improvement Initiative)** intended to improve the quality of care in the labour room and maternity operation theatres in public health facilities.
  - **Poshan Abhiyaan**: 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

Mob Lynching

Why in News

The former Punjab Chief Minister expressed concern over the recent incidents of lynching reported in Amritsar and Kapurthala.

Note:

Key Points

➢ **About:**

- ○ Mob lynching is **a term used to describe the acts of targeted violence by a large group of people.**

- ○ The violence is **tantamount to offences against human body or property**- both public as well as private.

- ○ The mob believes that they are **punishing the victim for doing something wrong** (not necessarily illegal) and they **take the law in their own hands to punish** the purported accused without following any rules of law.

➢ **Causes for Mob Lynching:**

- ○ **Intolerance:**

  - ● People are **intolerant in accepting the acts of law** and go on to punish the alleged person assuming the act to be immoral.

- ○ **Biases:**

  - ● **Biases based on various identities** like caste, class, religion, etc: mob lynching is a hate crime that is rising due to the biases or prejudices among various castes, classes of people, and religions.

- ○ **Rise of Cow Vigilante:**

  - ● It is one of the crucial reasons that agitate the growing rise in mob lynching activities.

- ○ **Lack of Speedy Justice:**

  - ● Inefficient working of justice rendering authorities is the primary reason why people take law into their own hands and have no fear of the consequences.

- ○ **The Inefficiency of Police Administration:**

  - ● Police officers play an important role in protecting the life of the people and maintaining harmony among the people but due to their ineffective investigation procedure, this hate crime is rising day by day.

➢ **Types of Mob-lynching:** Mob-Lynching based on the causes can be classified into six types. They are:

- ○ Communal based
- ○ Witchcraft
- ○ Honour killing
- ○ Bovine-related mob lynching
- ○ Suspicion of Child lifting
- ○ Theft cases

➢ **Related Issues:**

- ○ Mob lynching is a **violation of human dignity, Article 21 of the Constitution**, and a gross infringement of the **Universal Declaration of Human Rights.**

- ○ Such incidents **violate the Right to Equality and Prohibition of discrimination**, which are enshrined in **Articles 14 and 15 of the Constitution of India.**

- ○ However, it is **nowhere mentioned in the law of the land** and is hence simply put as murder since it has not been yet incorporated under the **Indian Penal Code**.

➢ **Related Steps Taken:**

- ○ **Preventive Measures:**

  - ● In July 2017, the Supreme Court in the case of *Tahseen s. Poonawala v. UOI* had laid down several preventive, remedial and punitive measures to deal with lynching and mob violence.

    - ■ The Supreme Court in this case aptly **referred to mob lynching as a 'horrendous act of mobocracy.'**

- ○ **Designated Fast Track Courts:**

  - ● States were directed to set up **designated fast track courts in every district** to exclusively deal with cases involving mob lynchings.

- ○ **Special Task Force:**

  - ● The court had also mooted the **setting up of a special task force** with the objective of **procuring intelligence reports about the people involved** in spreading hate speeches, provocative statements and fake news which could lead to mob lynchings.

- ○ **Victim Compensation Schemes:**

  - ● Directions were also issued to set up **Victim compensation schemes** for relief and rehabilitation of victims.

  - ● A year later in **July 2019 the Supreme Court** issued notices to the Centre and several states asking them to submit the steps taken by them towards implementing the measures and file compliance reports.

  - ● As of now **only three states Manipur, West Bengal and Rajasthan have enacted laws against mob lynching.**

    - ■ The **Jharkhand** Assembly has passed Prevention of Mob Violence and Mob Lynching Bill, 2021 recently.

Note:

Vernacular Innovation Program: NITI Ayog

Why in News

Recently, **Atal Innovation Mission (AIM)**, **NITI Aayog** has launched **Vernacular Innovation Program (VIP)**, to enable innovators and entrepreneurs to have access to the innovation ecosystem in **22 scheduled languages.**

Key Points

- **About:**
  - VIP is an initiative to **lower the language barrier in the field of innovation and entrepreneurship** such that it will systematically decouple creative expressions and languages of transaction.
  - To build the necessary capacity for the VIP, AIM has identified and will be training **a Vernacular Task Force (VTF) in each of the 22 scheduled languages.**
  - Each task force comprises vernacular language teachers, subject experts, technical writers, and the leadership of regional Atal Incubation Centers (AICs).

- **Significance:**
  - It will be a stepping stone in the journey of the **Indian innovation and entrepreneurship ecosystem** which will cement the cognitive and design thinking attitude in young and aspiring minds.
  - It will assist India in building a strong local **network of design experts and innovation practitioners.**
  - It will help in overcoming the barriers of language and empower innovators in the farthest areas of the country.
  - It will create equal opportunity for the vernacular innovators who represent the staggering 90% of Indian population.
    - As per 2011 census, only 10.4% of Indians speak English, most as their second, third, or fourth language.
    - Only **0.02% of Indians spoke English as their first language.**
  - By providing access to learning in one's language and culture, AIM looks forward **to enriching the local, regional, national and global innovation pipelines.**

- **Other Initiatives Related to Innovation/ Entrepreneurship:**
  - **India Innovation Index**
  - **IMPRINT (IMPacting Research INnovation and Technology)**
  - **Uchhatar Avishkar Yojana (UAY)**
  - **StartUp India initiative**
  - **Mission Innovation 2.0**
  - **AIM-PRIME**
  - **AIM-iCREST: NITI Aayog**
  - **Atal Community Innovation Center**
  - **Atal Tinkering Labs**

Atal Innovation Mission

- **About:**
  - AIM is Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country. It has been set up by the NITI Aayog.

- **Objective:**
  - To develop new programmes and policies for fostering innovation in different sectors of the economy, provide platform and collaboration opportunities for different stakeholders, create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

- **Initiatives Undertaken:**

- **Major Achievement:**
  - AIM's initiatives have played an important contributory role in the advancement of India from a position of 81 in the **Global Innovation Index** in 2015 to a position of 48 in 2020.

Eighth Schedule
➢ It lists the **official languages of the republic of India**. Part XVII of the Indian constitution deals with the official languages in **Articles 343 to 351.**
  ○ However, it can be noted that there is no fixed criteria for any language to be considered for inclusion in the Eighth Schedule.
➢ The Eighth Schedule to the Constitution consists of the **following 22 official languages:**
  ○ Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi,Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.
➢ Of these languages, **14 were initially included** in the Constitution.
➢ **Sindhi** language was added by the 21ˢᵗ Amendment Act of 1967.
➢ **Konkani, Manipuri, and Nepal**i were included by the **71ˢᵗ Amendment Act of 1992.**
➢ **Bodo, Dogri, Maithili, and Santhal**i were added by the 92ⁿᵈ Amendment Act of 2003 which came into force in 2004.

Menace of Manual Scavenging

Why in News

Recently, the Ministry of Social Justice and Empowerment informed the Lok Sabha that 22 people had died while **Manual Scavenging** in 2021 so far.
➢ According to the **National Convener of the Safai Karmachari Andolan**, 472 manual scavenging deaths across the country were recorded between 2016 and 2020.
  ○ Safai Karmachari Andolan is **a movement for elimination of manual scavenging.**
➢ **Article 21 of the Constitution** guarantees **'Right to Life' and that also with dignity.** This right is available to **both citizens and non-citizens.**

Key Points

➢ **Manual Scavenging:**
  ○ Manual scavenging is defined as "the removal of human excrement from public streets and dry latrines, cleaning septic tanks, gutters and sewers".

➢ **Reasons for the Prevalence:**
  ○ **Indifferent Attitude:** A number of independent surveys have talked about the continued reluctance on the part of state governments to admit that the practice prevails under their watch.
  ○ **Issues due to Outsourcing:** Many times local bodies outsource sewer cleaning tasks to private contractors. However, many of them fly-by-night operators, do not maintain proper rolls of sanitation workers.
    ● In case after case of workers being asphyxiated to death, these contractors have denied any association with the deceased.
  ○ **Social Issue:** The practice is **driven by caste, class and income divides.**
    ● It is linked to India's caste system where so-called lower castes are expected to perform this job.
    ● In **1993,** India **banned the employment of people as manual scavengers (**The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993**),** however, the stigma and discrimination associated with it still linger on.
      ▪ This makes it difficult for liberated manual scavengers to secure alternative livelihoods.
➢ **Steps Taken:**
  ○ **The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013:**
    ● The act seeks to reinforce the prohibition of manual scavenging in all forms and ensures the rehabilitation of manual scavengers.
  ○ **Prevention of Atrocities Act:**
    ● It delineates specific crimes against **Scheduled Castes and Scheduled Tribes.**
  ○ **National Commission of Safai Karamcharis:**
    ● The Commission is acting as a non-statutory body of the Ministry of Social Justice and Empowerment whose tenure is extended from time to time through Government Resolutions.
  ○ **Swachh Bharat Mission:**
    ● swachh Bharat Abhiyan is a national campaign launched by the Government on 2nd October, 2014 to clean the streets, roads and build social infrastructure of the country.
  ○ **The Prohibition of Employment as Manual Scavengers and their Rehabilitation (Amendment) Bill, 2020:**

Note:

- It proposes to completely mechanise sewer cleaning, introduce ways for 'on-site' protection and provide compensation to manual scavengers in case of sewer deaths.
- It will be an amendment to **The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013.**
  - **Safaimitra Suraksha Challenge:**
    - It was launched by the **Ministry of Housing and Urban Affairs** on **World Toilet Day (19th November)** in 2020.
    - The Government launched this "challenge" for **all states to make sewer-cleaning mechanised by April 2021** — if any human needs to enter a sewer line in case of unavoidable emergency, proper gear and oxygen tanks, etc., are to be provided.
  - **'Swachhta Abhiyan App':**
    - It has been developed to **identify and geotag the data of insanitary latrines and manual scavengers** so that the insanitary latrines can be replaced with sanitary latrines and rehabilitate all the manual scavengers to provide dignity of life to them.
  - **SC Judgement:**
    - In 2014, a **Supreme Court** order made it **mandatory** for the government to **identify all those who died in sewage work** since 1993 and provide **Rs. 10 lakh each** as compensation to their families.

Good Governance Week

Why in News

The Union Government is set to launch a nationwide **'Good Governance Week'** from 20th December to 26th December, with the motto **to redress and dispose of public grievances and improvise service delivery down to the village level**

➢ Various events will be convened during the week under the campaign titled **"Prashasan Gaon Ki Aur"** aimed to be citizen-focused.

➢ **25th December** is celebrated as **'Good Governance Day'** to mark the birth anniversary of former Prime Minister **Atal Bihari Vajpayee.**

Key Points

➢ **About:**
  - It is observed to **celebrate the strides made by India in promoting citizen-centric governanc**e and improving service delivery in line with **Azadi ka Amrut Mahotsav** celebrations to commemorate 75 years of progressive India.
  - The series of programmes planned during the week **will aim to highlight various good governance initiatives taken** by the Centre.
  - It will also include **the inauguration of the Exhibition on Good Governance Practices.**

➢ **Events include:**
  - **Ease of Living and Next Phase of Reforms** for Reducing Compliance Burden
  - **Experience Sharing Workshop** by DARPG on Best Practices.
  - **Mission Karmayogi** - The Path Ahead.
  - **Good Governance Week Portal** will also be launched during the occasion and all district collectors of states and union territories will be given access to the online portal to upload and share the progress and achievements.
  - **Prashasan Gaon Ki Aur" campaign will be launched with an** aim to take good governance to the rural areas.

Governance

➢ **About:**
  - It is the process of **decision-making and the process** by which decisions are implemented (or not implemented).
  - Governance can be used in several contexts such as **corporate governance, international governance, national governance and local governance**.

➢ **Eight Principles of Good Governance (as identified by the United Nations):**
  - **Participation:**
    - People should have **a voice in decision-making**, either directly or through legitimate intermediate institutions that represent their interests.
  - **Rule of law:**
    - **Legal frameworks should be fair** and enforced impartially, particularly the laws on human rights.

Note:

○ **Transparency**:
  ● Transparency is built on the free flow of information. Processes, institutions and information are **directly accessible to those concerned with them**, and enough information is provided to understand and monitor them.

○ **Responsiveness:**
  ● Institutions and processes **try to serve all stakeholders within a reasonable timeframe.**

○ **Consensus orientation:**
  ● Good governance requires mediation of the different interests in society to reach a broad consensus in society on what is **in the best interest of the whole community** and how this can be achieved.

○ **Equity:**
  ● All groups, particularly the **most vulnerable, have opportunities to improv**e or maintain their well being.

○ **Effectiveness and efficiency:**
  ● Processes and institutions produce results that meet needs while making the best use of resources.

○ **Accountability:**
  ● Decision-makers in government, the private sector and civil society organisations are accountable to the public, as well as to institutional stakeholders.

➢ **Challenges to Good Governance in India:**
  ○ **Women Empowerment:**
    ● Women **are not adequately represented** in government institutions, and other allied sectors.
  ○ **Corruption:**
    ● The high level of corruption in India **has been widely perceived as a major obstacle** in improving the quality of governance.

○ **Delay in Justice:**
  ● A citizen has **the right to avail timely justice, but there are several factors, because of which a common man doesn't get timely justice**. One such factor is lack of personnel and logistics under disposal of the court.

○ **Centralisation of Administrative System:**
  ● Governments at lower levels can only function efficiently **if they are empowered** to do so. This is particularly **relevant for the Panchayati Raj Institutions (PRIs),** which currently suffer from inadequate devolution of funds as well as functionaries to carry out the functions constitutionally assigned to them.

○ **Criminalisation of Politics:**
  ● The criminalisation of the political process and the **unholy nexus between politicians, civil servants, and business houses** are having a baneful influence on public policy formulation and governance.

○ **Environmental security, sustainable development**.

○ **Challenges** of globalisation, liberalisation and market economy.

➢ **Indian Initiatives to improve Good Governance:**
  ○ **Good Governance Index:**
    ● GGI has been launched by the Ministry of Personnel, Public Grievances & Pensions to determine the status of governance in the country.
    ● It assesses the impact of various interventions taken up by the State Government and UTs.

  ○ **National e-Governance Plan:**
    ● It has the vision to "make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man."

  ○ **Right to Information Act, 2005:**
    ● It plays an effective role in ensuring transparency in governance.

  ○ **Other Initiatives:** Setting up of **NITI Aayog, Make in India programme, Lokpal**, etc.

Note:

Right to Be Forgotten

Why in News

Recently, the Union Government informed the Delhi High Court that the international legal concept of the **Right to Be Forgotten** is evolving in India and **it comes under the Right to Privacy**.

➢ As per **Supreme Court** Judgement the Right to privacy includes the **Right to Be Forgotten (RTBF) and the right to be left alone.**

The right to be forgotten (RTBF) is a right to have one's personal information removed from publicly available sources, such as search engines and online directories, on certain grounds.

INDIVIDUALS MAY SEEK TO HAVE THEIR INFORMATION (INCLUDING VIDEOS, PHOTOGRAPHS, IDENTIFYING INFO) DELETED.

AN ONGOING DEBATE

FOR THOSE IN FAVOUR OF RTBF ARGUE
- It is necessary due to issues such as **revenge porn uploads**
- To ensure references to petty crimes individuals may have **committed in the past don't haunt them**
- Potentially undue influence that such results exert upon a **person's reputation, if not removed**

AGAINST WHAT THOSE AGAINST THE RTBF SAY
- Questions about the practicality in **attempting to implement** such a right
- Concerns about its impact on the **right to freedom of expression**
- Concerns that it would **decrease the quality of the Internet** through censorship and the rewriting of history

Key Points

➢ **Right to Privacy:** In *Puttaswamy v. Union of India case, 2017,* the **Right to Privacy was declared a fundamental right** by the Supreme Court.
  ○ 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.

➢ **Right to be Forgotten :** It is the **right to have publicly available personal information removed from the internet, search, databases, websites or any other public platforms**, once the personal information in question is no longer necessary, or relevant.
  ○ The RTBF gained **importance after the 2014 decision of the Court of Justice of the European Union ("CJEU")** in the Google Spain case.
  ○ In the Indian context, the Supreme Court in *Puttaswamy v. Union of India, 2017* noted that the RTBF was a part of the broader right of privacy.
    ● The RTBF emerges from the right to privacy **under Article 21 and partly from the right to dignity under Article 21.**

➢ **Right to be Left Alone:** It doesn't mean that one is withdrawing from society. It is an expectation that society will not interfere in the choices made by the person so long as they do not cause harm to others.

➢ **Issues Associated with RTBF:**
  ○ **Privacy vs. Information:** The existence of RTBF in a given situation depends on **its balancing with other conflicting rights such as the right to free expression** or other publication rights.
    ● For example, a person may want to de-link information about his criminal records and make it difficult for people to access certain journalistic reports when they google him.
    ● This brings the person's right to be left alone, derived from Article 21, directly in **conflict with the rights of the media to report on issues, flowing from Article 19.**
  ○ **Enforceability Against Private Individuals:** The RTBF will normally be **claimed against a private party** (a media or news website).
    ● This raises the **question of whether fundamental rights can be enforced against the private individual**, which is generally enforceable against the state.
    ● Only Article 15(2), Article 17 and **Article 23** provides protection against a private act of a private party that is challenged based on its violation of the Constitution.
  ○ **Ambiguous Judgements:** In recent years, without a data protection law to codify RTBF, **there are some inconsistent and peculiar adjudications** of the right by various high courts.
    ● Courts in India have repeatedly **either accepted or rejected the application of RTBF** while completely ignoring the wider constitutional questions associated with it.

Government Steps to Protect Privacy

➢ **Personal Data Protection Bill 2019:**
  ○ To provide for **protection of privacy of individuals relating to their Personal Data** and to establish a Data Protection Authority of India for the said purposes and the matters concerning the personal data of an individual.
  ○ Framed on the recommendations of **B N Srikrishna Committee (2018).**

Note:

➢ **Information Technology Act, 2000:**
  ○ Provides for **safeguard against certain breaches in relation to data from computer systems**. It contains provisions to prevent the unauthorised use of computers, computer systems and data stored therein.

Global Cropland Expansion

Why in News

According to a new study, **cropland area** across the world **increased 9%** and **cropland Net Primary Production (NPP)** by 25% from 2003-2019.

➢ The growth was **primarily due to agricultural expansion** in Africa and South America.

Cropland Area
➢ Cropland is defined as 'land used for annual and perennial **herbaceous crops** for human consumption, forage (including hay) and biofuel'.
  ○ Perennial woody crops, permanent pastures and shifting cultivation are excluded from the definition.
  ○ Herbaceous energy crops are perennials that are **harvested annually.**

Cropland Net Primary Production
➢ Net Primary Production (NPP) is defined as the **difference between the energy fixed by autotrophs and their respiration**, and it is most commonly equated to increments in biomass per unit of land surface and time.
  ○ An autotroph is an **organism that can produce its own food** using light, water, carbon dioxide, or other chemicals.
  ○ Respiration is a **chemical reaction** which occurs in all living cells, releasing energy from glucose.

Key Points

➢ **Cropland Expansion:**
  ○ The **largest cropland expansion** was observed in **Africa.**
    • In Africa, cropland expansion accelerated from 2004-2007 to 2016-2019, with a more than two-fold increase in annual expansion rates.

○ The **largest proportions of natural vegetation conversion to croplands** (excluding dryland irrigation) were found in **Africa, southeast Asia and South America.**
○ **Global per capita cropland area** decreased 10% during the period due to population growth but the **per capita annual cropland NPP** increased by 3.5% as a result of intensified agricultural land use.

➢ **Reasons behind the Expansion:**
  ○ The agricultural expansion is often explained as a direct consequence of the **global increase in food and energy requirements** due to continuing population growth.
    • The global population increased by 21% from 2003-2019.

➢ **Issues with the Expansion:**
  ○ **Against SDG15:**
    • Cropland expansion is a **major factor in forest loss**, which comes in conflict with **Sustainable Development Goal 15 (SDG 15)**
      ■ SDG 15 aims to stop deforestation and degradation of natural habitats.
      ■ But 49% of the **new cropland area replaced natural vegetation** and tree covers, indicating a conflict with the sustainability goal of protecting terrestrial ecosystems.
  ○ **Ecological Threat:**
    • It is one of the **biggest threats to the planet's ecological health.**
      ■ Cropland expansion mostly affects **biodiversity hotspots in Central and South America**, while **cropland intensification** threatens biodiversity especially in Sub-Saharan Africa, India and China.
        ◆ **Agricultural intensification** can be technically defined as an increase in agricultural production per unit of inputs.
  ○ **Driver of Deforestation:**
    • Agricultural expansion **continues to be the main driver of deforestation** and forest fragmentation.
  ○ **FAO's Estimation:**
    • According to the **Food and Agriculture Organization (FAO)**, if current trends hold, by **2050** the **world's arable land will increase by some 70 million hectares**, and much of the new farmland will be in areas that are currently forested.

Note:

- ➢ **Agricultural land in India:**
  - ❍ Agricultural land in India was reported at 60.43% in 2018.
  - ❍ Agricultural land refers to the **share of land area that is arable**, under permanent crops, and under permanent pastures.
    - ● Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow.

Transition of Livestock Operations into Plant-based Operations

Why in News

There is a **revolution happening on farms** around the world where livestock operations are transitioning into plant-based operations and creating safer and better-paid jobs.

Key Points

- ➢ **About:**
  - ❍ **Livestock Farming:**
    - ● It is simply the **management and breeding of domestic, livestock or farm animals** for the purpose of obtaining their meat and products (milk, eggs, leather, etc.).
    - ● It can also be described as the **economic activity that involves raising domestic animals** for human consumption and obtaining meat, milk, wool, fur, honey, among others.
  - ❍ **Issues with Livestock Farming:**
    - ● Animal farming has trapped many farmers in notoriously exploitative contracts, with poor working conditions, low income, high vulnerability to market forces and extreme stress.
  - ❍ **Transition to Plant Based Operations:**
    - ● The idea of a Plant Based Operations **(just transition in agriculture)** refers to **frameworks for restructuring food systems based on production and consumption philosophies** that prioritize sustainability, decarbonization, and the wise and fair use of human, financial, and environmental resources.
    - ● Just transitions f**avor farming techniques and practices that do not come from the standard playbook of industrial agriculture,** which extracts profit from the natural world while harming animals, farming communities, and the environment.
    - ● Contrary to what is often claimed, **transitioning to plant-rich diets** could help improve equitable food distribution and nutrition security. Growing crops only for human use may boost available food calories by up to 70%, serving an additional four billion people.
- ➢ **Significance of the Transition:**
  - ❍ **Provide Healthier & Safer work:**
    - ● **Industrialised livestock production** is a dangerous business that poses a serious threat to human health and psychological well-being.
    - ● The impact of injuries, illness and trauma affects the individual worker and has devastating effects on the families and communities in which they live.
    - ● **Example:** Emergence of New strains of **bird flu** and **swine flu** every year poses a major threat to human health.
  - ❍ **Climate-friendly Food Systems:**
    - ● A transition away from industrialised livestock production **empowers farmers to protect the climate** and the very land on which they work.
    - ● The livestock sector is projected to account for up to **81% of the 1.5 degrees Celsius emissions budget by 2050** if production continues unabated.
    - ● **Livestock production exacerbates climate change** but a rise in global temperatures is equally damaging for livestock production, posing a major threat to farmers' livelihoods.
      - ■ Further, **climate change increases the emergence of livestock diseases**, reduces animal reproduction and exacerbates biodiversity loss.
  - ❍ **Enormous Job-Creation Potential:**
    - ● According to the **International Labour Organisation**, transitioning to environmentally and socially sustainable economies can **drive job creation, create better jobs, increase social justice and reduce poverty.**

Note:

drishti

- It is estimated that a just **energy transition will create 24-25 million jobs**, far surpassing the 6 or 7 million jobs lost by 2030. Similar benefits will be seen in a just livestock transition.

➢ **Related Example:**
  ○ **Denmark has recently announced** a binding decision to halve agricultural emissions by 2030 as a part of their ambition to reach **70% greenhouse gas reductions by 2030.**
    ● The government will make USD 90 million available for five years to farmers producing plant-based foods and has committed to creating an annual fund of USD11.7 million until 2030 to support the transition to plant-based food.

➢ **Challenges:**
  ○ Lack of technology access and investment in farming, lack of awareness of the benefits of transition to emission reduction, lack of institutional support for diversification within the food sector, lack of compensation payouts for losses, lack of guaranteed income streams, young people moving away from agriculture.
  ○ Furthermore, there is a **lack of financial incentives for farmers**, especially rural smallholders, to adopt sustainable and regenerative agricultural practices, as they cannot bear the associated costs and risks on their own.

➢ **State of India's Livestock:**
  ○ India is the **highest livestock owner of the world.** As per the **20th Livestock Census (2018)**, the total Livestock population is 535.78 million in the country showing an increase of 4.6% over Livestock Census-2012.
  ○ As per the **Economic Survey-2021**, the contribution of Livestock in total agriculture and allied sector **Gross Value Added** (at Constant Prices) has increased from 24.32% (2014-15) to 28.63% (2018-19).

➢ **Plant Based Operations in India:**
  ○ A slew of Indian startups are making **meat-eating which is cruelty-free and more eco-friendly.**
    ● Plant-based meats or smart proteins are next-generation food innovation that perfectly replicates the taste, smell, and sizzle of animal meat but is made entirely from plant ingredients.

  ○ Recently, a team of scientists from IIT Delhi has won an innovation contest (Innovate 4 SDG) organised by the United Nation Development Programme (UNDP) Accelerator Lab India for their innovation of a **"plant based mock egg".**

Good Governance Index 2021

Why in News

On the occasion of the **Good Governance Day (25thDecember),** the government released the **Good Governance Index 2021.**

➢ The index was prepared by the **Department of Administrative Reforms and Public Grievances (DARPG),** Ministry of Personnel, Public Grievances and Pensions.

➢ Earlier this year, India was ranked **49th in the Chandler Good Government Index (CGGI).**

Key Points

➢ **About:**
  ○ GGI is a **comprehensive and implementable framework** to assess the State of Governance across the States and UTs which enables ranking of States/Districts.
  ○ The objective of GGI is to **create a tool that can be used uniformly across the States** to assess the impact of various interventions taken up by the Central and State Governments including UTs.
  ○ Based on the GGI Framework, the **Index provides a comparative picture among the States** while developing a competitive spirit for improvement.
  ○ The GGI 2021 says that **20 States have improved their composite GGI scores** over the GGI 2019 index scores.
  ○ The GGI is envisaged as a **biannual exercise.**

➢ **Basis of the Ranking:**
  ○ It is based on **ten sectors and 58 indicators.** The sectors are
    ● Agriculture and Allied Sectors
    ● Commerce & Industries
    ● Human Resource Development
    ● Public Health
    ● Public Infrastructure & Utilities
    ● Economic Governance

- Social Welfare & Development
- Judicial & Public Security
- Environment
- Citizen-Centric Governance

➢ **Ranking of the States:** The Index categorises States and UTs into four categories, i.e.,

○ **Other States – Group A:**
  - **Gujarat has topped** the composite ranking in the Good Governance Index 2021 covering 10 sectors, followed by Maharashtra and Goa.

○ **Other States – Group B:**
  - **Madhya Pradesh tops** the list followed by Rajasthan and Chhattisgarh.

○ **North-East and Hill States:**
  - **Himachal Pradesh topped** the list followed by Mizoram and Uttarakhand.

○ Union Territories:
  - **Delhi tops the composite rank** registering a 14% increase over the GGI 2019 indicators.

➢ **Other Initiatives for Good Governance:**
  ○ **National e-Governance Plan**
  ○ **Right to Information Act, 2005**
  ○ **Digital India**
  ○ **MyGov**

Star Rating Protocol of Garbage Free Cities

Why in News

On the eve of **Good Governance Day** (25th December), the Ministry of Housing and Urban Affairs (MoHUA) launched the **'Star Rating Protocol of Garbage Free Cities-Toolkit 2022.**

➢ It is the most important governance tool of waste management – the **Star Rating Protocol for Garbage Free Cities.**

➢ In the revised protocol the **entire process of applying for certification has been simplified** and made completely digital, paperless.

➢ And **new components** pertaining to Information, Education & Communication (IEC), capacity building, and revenue from sale of waste by-products **have been added** to encourage cities to build an ecosystem **to strengthen waste management systems.**

Key Points

➢ **About:**
  ○ The Star Rating Protocol was launched by the MoHUA in **2018** to **institutionalise a mechanism for cities to achieve Garbage Free status**, and to motivate cities t**o achieve higher degrees of sustainable cleanliness**.
  ○ In the recently concluded certification exercise for Garbage Free Cities nearly 50% of **ULBs(Urban Local Bodies) (2,238 cities)** participated in the certification exercise, of which a total of 299 cities have been certified.
    - 9 cities have been rated as **5-star,** 143 cities rated as **3-star** and 147 cities as **1-star**.
    - In October 2021, **Swachh Bharat Mission-Urban 2.0** was launched, to create **"Garbage Free Cities" (GFC)**, thereby placing India on a new trajectory of growth towards an ecosystem of holistic sanitation and waste management.
  ○ It is one of the various initiatives which intends to make **Swachh Bharat Mission-Urban (SBM-U)** a successful project.

➢ **Based On:**
  ○ It is based on 12 parameters which follow a **SMART framework – Single metric, Measurable, Achievable, Rigorous verification mechanism and Targeted towards outcomes.**
    - The star rating conditions have been designed in a way to enable **cities to gradually evolve into a model (7-star) city**, with progressive improvements in their overall cleanliness.
  ○ It is a comprehensive framework that assesses cities across 23 different components of **Solid Waste Management (SWM)** and is graded based on overall marks received.

➢ **Procedure:**
  ○ The Star Rating is supported by self-assessment and self-verification for achieving a certain star rating. It also **ensures the involvement of citizen groups for a transparent system of self-declaration.**
  ○ Further, the self-declaration is further verified through an independent third party agency appointed by MoHUA.

➢ **Significance:**
  ○ The performance of cities under the Star Rating Protocol is **crucial as it carries significant weightage for their final assessment in Swachh Survekshan**.

- Swachh Survekshan is the **annual urban cleanliness survey** conducted by the government.
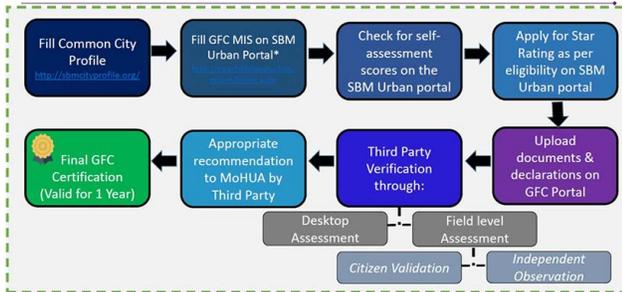
- ○ It also ensures **certain minimum standards of sanitation** through a set of prerequisites defined in the framework.
- ○ Since the rating is conducted at a city level, it **makes the process easier to implement and helps the cities incrementally improve** their overall cleanliness.
- ○ The rating protocol is **an outcome-based tool that helps MoHUA and other stakeholders to evaluate cities** on the basis of this single rating.

Garbage in India

➤ **About:**

- ○ India generates the **highest amount of waste** in the world (as of January 2020, 147,613 metric tonnes (MT) of solid waste is generated per day) — that's more than even China. But the **per person waste generated by both India and China** at present is a small fraction of that by developed countries.
- ○ The per capita waste generation in Indian cities ranges from 200 grams to 600 grams per day. Only **about 75-80% of the municipal waste gets collected** and only **22-28 % of this waste is processed** and treated.
- ○ It is estimated that by 2050, India's waste generation **will double** whereas growth in China's waste generation will be much slower.

➤ **Related Initiatives:**

- ○ **Open Defecation Free (ODF) Plus status**.
- ○ **Swachh Bharat Mission.**
- ○ **Solid Waste Management (SWM) Rules 2016.**
- ○ **CSIR-CMERI's Municipal Solid Waste Processing Facility.**

Soya Meal as an Essential Commodity

Why in News

Recently, the government has notified, under the **Essential Commodities Act 1955**, to declare **'soya meal' as an essential commodity** up to 30th June, 2022.

➤ This step is **expected to stop any unfair practises** (like **hoarding, black marketing** etc) in the market having the **potential to hike the prices of soya meal.**

➤ This will also enhance the **availability of the commodity for consumers** like poultry farms and cattle feed manufacturers.

Key Points

➤ **About Soybean Meal:**

- ○ Soybean meal is the **most important protein source** used to feed farm animals. It is also used for human consumption in some countries.
- ○ It represents nearly **two-thirds of the total world output** of protein feedstuffs, including all other major oil meals and fish meals.
- ○ Soybean meal is the **by-product of the extraction of soybean oil.**

➤ **About Essential Commodities Act 1955:**

- ○ **Background:** The ECA Act 1995, was legislated at a time when the country was facing a scarcity of foodstuffs due to persistent low levels of foodgrains production.
  - The country was dependent on imports and assistance (s**uch as wheat import form the US under PL-480)** to feed the population.
  - To prevent hoarding and black marketing of foodstuffs, the Essential Commodities Act was enacted in 1955.
- ○ **Essential Commodity:** There is **no specific definition of essential commodities** in the Essential Commodities Act, 1955.
  - **Section 2(A)** states that an "essential commodity" means **a commodity specified in the Schedule of the Act.**
- ○ **Legal Jurisdiction:** The Act gives powers to the central government to add or remove a commodity in the Schedule.

Note:

- The Centre, if it is satisfied that it is necessary to do so in public interest, can notify an item as essential, in consultation with state governments.
  - **Objective:** The ECA 1955 is used **to curb inflation** by allowing the Centre to enable control by state governments of trade in a wide variety of commodities.
  - **Implementing Agency:** The Ministry of Consumer Affairs, Food and Public Distribution, implements the Act.
  - **Impact:** By declaring a commodity as essential, the government can control the production, supply, and distribution of that commodity, and impose a stock limit.
- ➢ **Issues Related to Essential Commodities Act 1955:**
  - The **Economic Survey 2019-20** highlighted that government intervention under the ECA 1955 often distorted agricultural trade while being totally ineffective in curbing inflation.
    - Such intervention does enable opportunities for rent-seeking and harassment. Rent-seeking is a term used by economists to describe unproductive income, including from corruption.
  - Traders tend to **buy far less than their usual capacity and farmers** often suffer **huge losses during surplus harvests of perishables.**
  - This led to farmers being unable to get better prices due to **lack of investment in cold storage, warehouses, processing and export.**
  - Owing to these issues, the Parliament passed the **Essential Commodities (Amendment) Bill, 2020.** However, due to farmers' protest the Government had to repeal this law.

Hate Speech

Why in News

Recently, an FIR was filed against a leader in Uttarakhand for promoting enmity amongst different sections of the society.

Key Points

- ➢ **About:**
  - In general, it refers to words **whose intent is to create hatred towards a particular group**, that

group may be a community, religion or race. This speech may or may not have meaning, but is likely to result in violence.

  - The **Bureau of Police Research and Development** recently published a manual for investigating agencies on cyber harassment cases that defined hate speech as a language that denigrates, insults, threatens or targets an individual based on their identity and other traits (such as sexual orientation or disability or religion etc.).
  - In the **267th Report of the Law Commission of India**, hate speech is stated as an incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief and the like.
  - In order to determine whether a particular instance of speech is a hate speech or not, the context of the speech plays an important role.
  - One of the greatest challenges is **not to exercise the principle of autonomy and free speech principles** that are detrimental to any section of society.
    - Free speech is necessary to promote a plurality of opinions where hate speech becomes **an exception to Article 19(1) (a)** (Freedom of Speech and Expression)**.**
- ➢ **Major Reasons of Hate Speech:**
  - **Feeling of Superiority:**
    - Individuals believe in stereotypes that are ingrained in their minds and these stereotypes lead them to believe that a class or group of persons are inferior to them and as such cannot have the same rights as them.
  - **Stubbornness to Particular Ideology:**
    - The stubbornness to stick to a particular ideology without caring for the right to co-exist peacefully adds further fuel to the fire of hate speech.
- ➢ **Legal Position of Hate Speech:**
  - **Under Indian Penal Code:**
    - **Sections 153A and 153B of the IPC:** Punishes acts that cause enmity and hatred between two groups.
    - **Section 295A of the IPC:** Deals with punishing acts which deliberately or with malicious intention outrage the religious feelings of a class of persons.

- **Sections 505(1) and 505(2):** Make the publication and circulation of content which may cause ill-will or hatred between different groups an offence.
  ○ **Under Representation of People's Act:**
    - **Section 8 of the Representation of People's Act, 1951 (RPA):** Prevents a person convicted of the illegal use of the freedom of speech from contesting an election.
    - **Sections 123(3A) and 125 of the RPA:** Bars the promotion of animosity on the grounds of race, religion, community, caste, or language in reference to elections and include it under corrupt electoral practices.
- ➤ **Suggestion for Changes in IPC:**
  ○ **Viswanathan Committee 2019:**
    - It proposed inserting **Sections 153 C (b) and Section 505 A in the IPC** for incitement to commit an offence on grounds of religion, race, caste or community, sex, gender identity, sexual orientation, place of birth, residence, language, disability or tribe.
    - It proposed punishment of up to two years along with Rs. 5,000 fine.
  ○ **Bezbaruah Committee 2014:**
    - It **proposed amendment to Section 153 C of IPC** (promoting or attempting to promote acts prejudicial to human dignity), punishable by five years and fine or both and Section 509 A IPC (word, gesture or act intended to insult member of a particular race), punishable by three years or fine or both.
- ➤ **Some Cases Related to Hate Speech:**
  ○ **SC' s Recent Judgement:**
    - In the context of discussing the limits of free speech and what may tantamount to hate speech, the Supreme Court (SC) has recently held that "Historical truths must be depicted without in any way disclosing or encouraging hatred or enmity between different classes or communities."
  ○ **Shreya Singhal v. Union of India:**
    - Issues were raised about **Section 66A of the Information Technology Act**, 2000 relating to the fundamental right of free speech and expression guaranteed by **Article 19(1) (a) of**

the Constitution, where the Court differentiated between discussion, advocacy, and incitement and held that the first two were the essence of **Article 19(1)**.
  ○ **Arup Bhuyan vs State of Assam:**
    - The Court held that a **mere act cannot be punished unless** an individual resorted to violence or inciting any other person to violence.
  ○ **S. Rangarajan Etc vs P. Jagjivan Ram:**
    - In this case, the Court held that **freedom of expression cannot be suppressed unless the situation so created is dangerous** to the community/ public interest wherein this danger should not be remote, conjectural or far-fetched. There should be a proximate and direct nexus with the expression so used.

Use of Drone in Pesticide Application

Why in News

Recently, the Ministry of Agriculture & Farmers Welfare has released **Standard Operating Procedures (SOPs)** for **drone application in Agriculture.**

- ➤ The use of **Unmanned Aerial Vehicles (UAVs) commonly known as drones** have great potential to **revolutionize Indian agriculture** and ensure the **country's food security.**
- ➤ The drones were used for the first time in warding off **locust attacks** in various states of the country.
- ➤ Earlier, the Ministry of Health and Family Welfare had launched a Drone-Based vaccine delivery model named, **Drone Response and Outreach in North East (i-Drone).**

Key Points

- ➤ **About Standard Operating Procedures (SOP):** The SOP for drone regulation for pesticide application covers:
  ○ **Important aspects like statutory provisions**, flying permissions, area distance restrictions, weight classification, overcrowded areas restriction, drone registration, safety insurance, piloting certification, operation plan, air flight zones, weather conditions,
  ○ SOPs **for pre, post and during operation, emergency handling plan.**

➢ **Drone Technology in Use of Application of Pesticides:**

○ **Pesticides:** Pesticides are one of the important agri-inputs to **address protection of crops against a large number of pests** that can wash away entire investment of farmers and hence they act as an essential input that yields substantial returns to the farmers.

○ **Conventional Spraying of Pesticide:** Conventional methods of pesticide spray application lead to several problems like:

● Excessive application of chemicals, lower spray uniformity, unnecessary deposition and non-uniform coverage.

● Resulting in excessive usage, water & soil pollution as well as higher expenditure on pesticides.

● With conventional manual sprayers, the safety of operators is also a major concern.

○ **Use of Drone Technology:** The use of drone technology as a modern farming technique is aimed at making production more efficient through **precise spraying of pesticides and crop nutrients.**

● This approach would not onl**y ensure accuracy, uniformity in spray across the field,** reduction in the overall use of chemicals within the area, but will also take care of the safety of the operators.

➢ **Other Uses of Drone Technology in Agriculture & Their Advantages:**

○ **Crop Monitoring:** Drones are well-equipped with many features like multi-spectral and photo cameras.

● Drones can be used for assessing the health of any vegetation or crop, field areas inflicted by weeds, infections and pests.

○ **Optimum Nutrient Delivery:** Based on an assessment, the exact amounts of chemicals needed to fight infestations can be applied thereby optimizing the overall cost for the farmer.

● This will further help in **doubling farmer's income by 2022.**

○ **Better Crop Management:** Drone planting systems have also been developed by many start-ups which allow drones to shoot pods, their seeds and spray vital nutrients into the soil.

● Thus, this technology increases consistency and efficiency of crop management, besides reducing the cost.

● This will help in enhancing the productivity as well as efficiency of the agriculture sector.

● Use of drones in agriculture may also give **ample opportunities to provide employment to people in rural areas.**

Rules for Drone Regulations in India
➢ **Drone Rules, 2021.**
➢ **National Counter Rogue Drones Guidelines 2019.**

Election Laws (Amendment) Bill, 2021

Why in News

Recently, the **Election Laws (Amendment) Bill, 2021** was passed in the Lok Sabha. The bill seeks to **link electoral roll data and voter ID cards with the Aadhaar ecosystem.**

➢ However, the Opposition members have **raised several objections** to the Bill.

Key Points

➢ **Salient Features of the bill:**

○ **De-Duplication of Electoral Roll:** It provides for amendment of **section 23 of the Representation of People's Act, 1950,** enabling the linking of electoral roll data with the **Aadhaar ecosystem.**

● This aims to curb the menace of **multiple enrolment of the same person in different places.**

● This will help in **stopping bogus voting and fraudulent votes.**

● This linking is in consonance with 1**05th report of the Department Related Parliamentary Standing Committee on Personal, Public Grievances and Law and Justice.**

○ **Multiple Qualifying Dates:** The citizens get voting rights when they turn 18. However, many are left out of the electoral rolls even after turning 18. This is because in the system, **1st January is the qualifying date.**

● According to the bill, **four qualifying dates** will be declared for updating the voting rolls to include those who have turned 18 — the first day of the months of January, April, July and October.

Note:

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- **Bringing Gender Neutrality:** The language for registration of '**wives of service voters' will now be replaced by 'spouse**'. This will make the laws more **"gender-neutral".**
  - Service voters are those serving in the armed forces, armed police forces of a state serving outside it and government employees posted outside India.
- **Associated Concerns:**
  - **Aadhar is itself not Mandatory:** In 2015, the move to link voter ID to Aadhaar was put on the backburner after the **Supreme Court Judgement**.
    - When it held that **"the Aadhaar card Scheme is purely voluntary"**.
    - Besides this, Aadhaar was only meant to be proof of residence. It is not proof of citizenship.
  - **Fears of Mass Disenfranchisement:** The Bill allows electoral registration officers to ask for Aadhaar numbers of applicants wanting to register as voters to establish the identity of the applicant.
    - In the absence of Aadhar the government would be able to use voter identity details for disenfranchising some people and profile the citizens.
  - **No Data Protection Law:** Experts have said that in the absence of a robust **personal data protection law** (a Bill in that regard is yet to be cleared by Parliament) any move to allow sharing of data can prove to be problematic.
  - **Privacy Concerns:** Electoral data at present is held by the **Election Commission of India (ECI)** in its own database, has its own verification process, and is separate from other government databases.
    - The proposed linkage between the Aadhaar and election database will make data available to the ECI and **Unique Identification Authority of India (UIDAI).**
    - This could lead to **infringement of the privacy of citizens.**
- **Government's Stand:**
  - **Voluntary Linking:** The proposed linkage between the Aadhaar and election database is voluntary.
  - **No Risk of Disenfranchisement:** No application for inclusion of name in the electoral roll shall be denied and no entries in the electoral roll shall be deleted for inability of an individual to furnish or intimate Aadhaar number.

FCRA Licence of NGOs Revoked

Why in News

Recently, the **Union Ministry of Home Affairs (MHA)** has **cancelled the Foreign Contribution (Regulation) Act (FCRA), 2010** registration of various **non-governmental organisations (NGOs)**.

- Suspension of FCRA licence means that the **NGO can no longer receive fresh foreign funds from donors** pending a probe by the Home Ministry. The FCRA is **mandatory for associations and NGOs** to receive foreign funds.

Key Points

- **About:**
  - The FCRA registration of **Vadodara-based NGO** is cancelled because it was accused of **illegally converting members of the Hindu community**, **funding the anti-CAA protests** and for **criminal activities to strengthen Islam.**
  - The FCRA registration of two other Christian NGOs — the **New Hope Foundation**, based in Tamil Nadu, and **Holy Spirit Ministries** from Karnataka were also cancelled.
  - The FCRA registration of **AFMI Charitable Trust** was cancelled by the MHA for violating the provisions of the Act.
- **Prior Reference Category**:
  - THe MHA had put 10 Australian, American and European donors on its watchlist.
    - Following which the **Reserve Bank of India** wrote to all banks that any funds sent by the foreign donors should be brought to the notice of the Ministry and not cleared without its permission.
  - All the donors that were placed on the watchlist or **"prior reference category"** work in the field of **climate change**, environment and **child rights**.
- **Foreign Contribution (Regulation) Act (FCRA), 2010**: Foreign funding of persons in India is regulated under FCRA act and is i**mplemented by the Ministry of Home Affairs.**
  - Individuals are permitted to accept foreign contributions without permission of MHA.

Note:

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- ○ 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.
- ○ Registered NGOs **can receive foreign contributions for five purposes**:
  - Social, educational, religious, economic and cultural.
- ➢ **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 paid by 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 contributions **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.

Issues Related to FCRA

- ➢ The FCRA regulates the receipt of funding from sources outside of India to NGOs working in India. **It prohibits the receipt of foreign contributions "for any activities detrimental to the national interest".**

- ➢ The Act also held that the government can refuse permission if it believes that the donation to the NGO will adversely affect **"public interest"** or the **"economic interest of the state".**
  - ○ However, there is **no clear guidance** on what constitutes "public interest".
- ➢ 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.
- ➢ The **right to free speech** is affected in **two ways:**
  - ○ By **allowing only some political groups to receive foreign donations** and disallowing some others, can induce biases in favour of the government.
    - NGOs need to tread carefully when they criticise the regime, knowing that too much criticism could cost their survival.
    - FCRA norms can reduce critical voices by declaring them to be against the public interest. This chilling effect on free speech can lead to self-censorship.
  - ○ Similar to this on **unclear guidelines** on public interest, in *Shreya Singhal v. Union of India (2015)*, the **Supreme Court (SC)** struck down Section 66A of the Information Technology Act. The SC held that the Act could be used in a manner that has a chilling effect on free speech.
- ➢ Besides, given that the right to freedom of association is part of the **Universal Declaration of Human Rights** (**Article 20**), a violation of this right also constitutes a human rights violation.
- ➢ In April 2016, the **UN Special Rapporteur on the Rights to Freedom of Peaceful Assembly and of Association** undertook a legal analysis of the FCRA, 2010.
  - ○ It stated that restrictions in the name of "public interest" and "economic interest" as invoked under the FCRA failed the test of "legitimate restrictions".
  - ○ The terms were too vague and gave the state excessive discretionary powers to apply the provision in an arbitrary manner.
- ➢ In this context, though it is **necessary to regulate corrupt NGOs**, there needs to be **clarity on terms like public interest.**

Note:

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Amendment to Minerals Rules

Why in News

Recently, the **Minerals (Evidence of Mineral Contents) Second Amendment Rules, 2021** and the **Mineral (Auction) Fourth Amendment Rules, 2021** have been notified.

➢ These two rules will amend the **Minerals (Evidence of Mineral Contents) Rules, 2015 [MEMC Rules]** and the **Mineral (Auction) Rules, 2015 [Auction Rules]**, respectively.

➢ Earlier, Lok Sabha and Rajya Sabha both cleared the **Mines and Minerals (Development and Regulation) (MMDR) Amendment Bill, 2021.**

Minerals (Evidence of Mineral Contents) Rules, 2015

➢ It have been **recently amended in June, 2021**, inter alia, to **provide for auction to grant a composite licence in respect of areas** where at least Reconnaissance Survey (G4) level has been completed or where mineral potentiality of the block has been identified based on the available geoscience data but resources are yet to be established.

   ❍ A **Reconnaissance Survey** provides a snapshot of potential historic resources in a particular location at a specific point in time.

➢ These amendments were **aimed at identifying more mineral blocks for auction** and thereby increasing the pace of exploration and production resulting in improving the availability of minerals in the country and increasing employment in the sector.

Mineral (Auction) Rules, 2015

➢ It was amended, inter alia, to prescribe bid security, performance security and other eligibility conditions **to enable auction of such blocks for composite licence.**

➢ **Geological Survey of India (GSI)** has also made available the database of baseline geoscience data for geological potential areas in the **Online Core Business Integrated System Project (OCBIS) portal** for assistance of prospective bidders and other stakeholders.

Key Points

➢ **Minerals (Evidence of Mineral Contents) Second Amendment Rules, 2021:**

❍ It will **enable any person** (who is intending to participate in auction) to propose suitable blocks for auction for composite licence where mineral potentiality of the blocks has been identified based on the available geoscience data.

❍ A committee constituted by the State Government shall **assess the mineral potentiality of the blocks** so proposed and recommend the block for auction.

➢ **Mineral (Auction) Fourth Amendment Rules, 2021:**

❍ It would provide that in case the blocks proposed by any person are notified for auction, the said **person would be provided incentive of depositing only half of the bid security amount in auction** of the blocks proposed by him.

❍ **Part surrender of mining lease area has been allowed** in all cases.

   ● Till now, **part surrender was allowed only in case of non-grant of forest clearance.**

❍ Provisions have also been added to **allow disposal of overburden/ waste rock/ mineral below the threshold value**, which is generated during the course of mining or beneficiation of the mineral.

   ● **Minimum area** for grant of mining lease has been revised from 5 ha. (hectares) to 4 ha. For certain specific deposits, minimum 2 ha. is provided.

➢ **Aim:**

❍ To **identify more mineral blocks for auction** and thereby increase the pace of exploration and production resulting in improving the availability of minerals in the country,

➢ **Significance:**

❍ It will **encourage more participation in auctions** and promote competition.

❍ It will **facilitate State governments in identifying more blocks** for auction of composite licence.

➢ **Initiatives Related to Mining:**

❍ **The National Mineral Policy 2019**

❍ Initiatives are being taken to ensure early operationalisation of auctioned greenfield mineral blocks.

❍ Rationalisation of taxes in the mining sector is also being considered.

❍ Under the **Atmanirbhar Bharat scheme**, enhancing private investments in the mineral sector and bringing in other reforms has been announced.

❍ **District Mineral Foundation Funds**

Note:

Minerals in India

➤ India is richly endowed with mineral resources. Explorations have found **over 20,000 known mineral deposits** and recoverable reserves of more than 60 minerals.

➤ 11 states account for **90 % of the total number of operational mines** (Andhra Pradesh, Odisha, Chhattisgarh, Jharkhand, West Bengal, Maharashtra, Tamil Nadu, Gujarat, Madhya Pradesh, Rajasthan, and Karnataka).

➤ Globally, **India is ranked as one of the leading producers of valuable minerals** such as chromite, iron ore, coal and bauxite.

➤ The total geographical area of India is **around 328 million hectares** out of which mining lease (other than fuel, atomic and minor minerals) constitutes around 0.14%, barely 20% of it is mined.

➤ The Indian subsoils are rich in onshore and offshore crude oil and gas, coal, iron ore, copper, bauxite, etc.

➤ India **produces as many as 95 minerals**, which includes 4 fuel, 10 metallic, 23 non-metallic, 3 atomic and 55 minor minerals (including building and other materials).
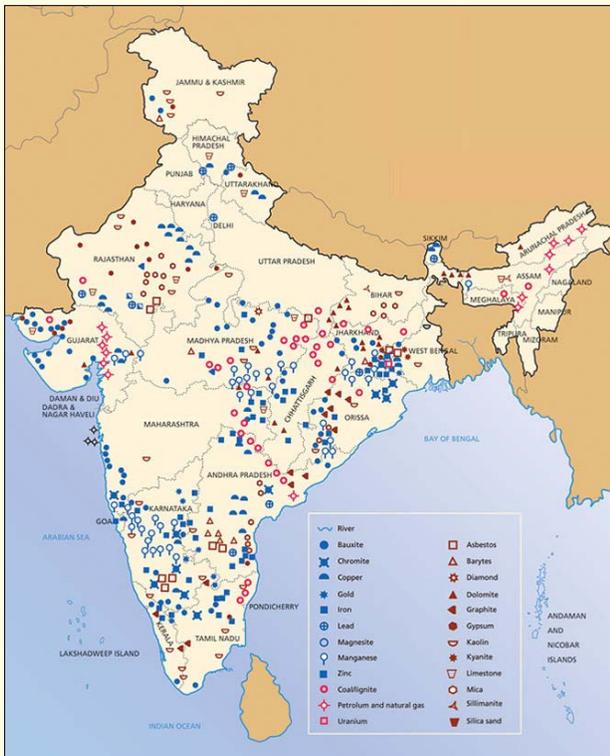
Water Innovation Challenges Initiative

Why in News

Recently, the **second edition of water innovation challenges** was announced to address the global water woes through innovations.

Key Points

➤ **About:**
- ❍ It was announced by the **Atal Innovation Mission, NITI Aayog** and the Royal Embassy of Denmark to India as part of the **Indo-Danish Bilateral Green Strategic partnership** in 2020.
  - An important driving force in the **green transition – and the Green Strategic Partnership** - is technology, especially entrepreneurship driven technology.
  - The **water challenge will foster this**, but also bring it to on the ground implementation.
- ❍ This collaboration will **provide solutions to improve sustainable water supply** in India and at the global level.
  - The winners of the challenges will also represent India at the **International Water Congress 2022.**

➤ **Objective:**
- ❍ The initiative aims to **identify innovative & next-gen solutions in the water sector** to solve proposed challenges in collaboration with corporate and public partners.
  - The initiative will **engage young talents from leading universities and innovation hubs** across the nation to build their skills and apply their technical disciplines and innovation capacity.

➤ **Need:**
- ❍ For India, it is significant because **India is currently facing massive water challenges**, which in recent years have become one of the most urgent policy issues.
- ❍ The problem ranges across **depleting underground water levels**, unsafe drinking water, water loss due to inadequate sewerage systems, access to water and untreated wastewater polluting India's major rivers.

Note:

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Green Strategic Partnership

➢ In September 2020, **India and Denmark entered into a new age Green Strategic Partnership** following a virtual summit chaired by both prime ministers.

➢ India and Denmark **both have ambitious goals** within the **climate agenda** and are including more **sustainable practices day by day.**

➢ The Green Strategic Partnership provides a **perfect framework** because it emphasizes how **international collaboration can help accelerate the green transition** and deliver on global goals.

➢ The Partnership focuses on **expanding economic ties, green growth, and cooperation on global challenges** such as **climate change.**

○ Green growth is a term to describe a path of economic growth that uses natural resources in a sustainable manner.

➢ Danish companies with niche technologies and expertise have offered to help India in meeting its **air pollution** control targets, including in the key area of tackling the problem of **burning crop stubble.**

➢ Other key points under the partnership include dealing with the **Covid-19 pandemic** and cooperation in water efficiency and water loss.

➢ The creation of **India-Denmark energy parks** in areas with large numbers of Danish firms and an India-Denmark skill institute to train Indian manpower has been proposed.

➢ The Green Strategic Partnership builds on an existing Joint Commission for Cooperation and existing joint working groups.

First Green Hydrogen Microgrid Project: Andhra Pradesh

Why in News

Recently, **National Thermal Power Corporation Ltd** has awarded the country's **first green hydrogen microgrid project** at its **Simhadri (near Visakhapatnam) plant in Andhra Pradesh.**
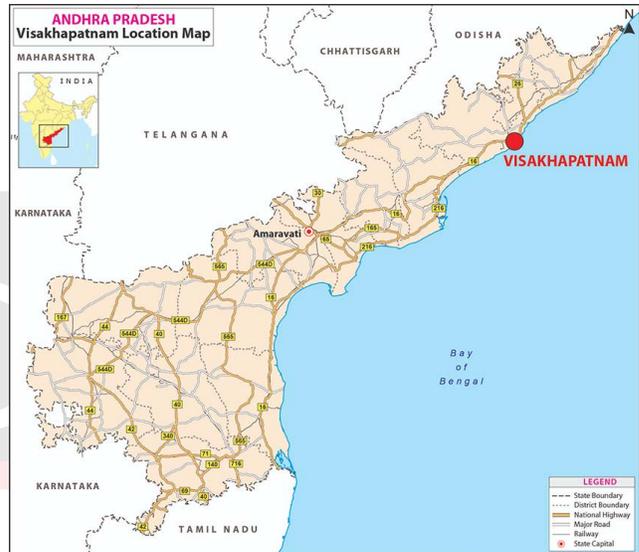
Key Points

➢ **About:**

○ This unique project configuration is **designed in-house by NTPC.** It would be a precursor to **large-scale hydrogen energy storage projects.** It is in line with **India's vision to become carbon neutral by 2070**.

○ The hydrogen would be **produced using the advanced 240 kW Solid Oxide Electrolyser** by taking input power from the nearby Floating Solar project.

● Earlier, NTPC had commissioned the development of **India's biggest floating solar plant** in Telangana's Ramagundam.

○ The hydrogen produced during the day will then be **stored at high pressure** and would be electrified using a 50 kW Solid Oxide Fuel Cell.

- A solid oxide fuel cell (or SOFC) is an **electrochemical conversion device** that produces electricity directly from oxidizing a fuel.

➢ **Significance:**

❍ **Helpful in Deploying Multiple Microgrids:**

- The project will be **useful for further studying and deploying multiple microgrids** in various off-grid and strategic locations of the country.

  ▪ **Clean energy development** is an **important weapon against climate change** and limiting its devastating effects.

❍ **Open Prospects for Decarbonizing:**

- It will **open prospects for decarbonizing** the far-off regions of the country such as Ladakh, J&K, etc., which are dependent on diesel generators.

  ▪ Decarbonizing means **removing or reducing the amount of gaseous carbon compounds** released in the environment.

  ▪ NTPC Renewable Energy Limited (NTPC REL) has also **inked a pact with the Union territory of Ladakh** for a green hydrogen mobility project.

❍ **Energy Security:**

- Hydrogen fuel can be a game-changer for the energy security of **India, which imports 85% of its oil and 53% of gas requirements**.

- To promote clean fuels, **India is considering making it mandatory for fertilizer plants and oil refineries to purchase green hydrogen.**

  ▪ NTPC is also looking to leverage hydrogen for transportation by **mixing the fuel with natural gas for the City Gas Distribution (CGD) network.**

➢ **Related Initiatives:**

❍ The **country's first experiment of a hydrogen-fuel cell technology-based train** by retrofitting an existing diesel engine has been announced by Indian Railways.

❍ **National Hydrogen Energy Mission (NHM):**

- The **Union Budget (2021-22)** has announced the mission for using hydrogen as an energy source.

❍ **Intended Nationally Determined Contributions (INDCs) target:** It targets installing 100 GW grid-connected solar power plants by the year 2022. **National Action Plan on Climate Change**

❍ **International Solar Alliance (ISA)**

Green Hydrogen

➢ It is produced by splitting water into hydrogen and oxygen using an electrolyzer powered by renewable energy sources such as wind and solar.

➢ The fuel can be a **game-changer for the energy security of India**, which imports 85% of its oil and 53% of gas requirements.

➢ To promote clean fuels, **India is considering making it mandatory for fertilizer plants** and oil refineries to purchase green hydrogen.

Other Forms of Hydrogen

➢ **Brown hydrogen:**

❍ It is produced using coal where the emissions are released to the air.

➢ **Grey hydrogen:**

❍ It is produced from natural gas where the associated emissions are released to the air.

➢ **Blue hydrogen:**

❍ It is produced from natural gas, where the emissions are captured using carbon capture and storage.

National Thermal Power Corporation Limited

➢ NTPC Ltd. is a **central Public Sector Undertaking (PSU)** under the Ministry of Power.

➢ It is **India's largest energy conglomerate** with roots planted way back in 1975 to accelerate power development in India.

➢ It **aims to provide reliable power** and related solutions in an economical, efficient and environment-friendly manner, driven by innovation and agility.

➢ It has a 67,907-MW installed capacity comprising 47 NTPC stations and 26 joint and 26 joint venture stations.

➢ It has been **pushing towards green energy and green hydrogen projects** to reduce carbon footprints. It has recently revised its **target of achieving 60GW renewables capacity by 2032.**

➢ It became a **Maharatna company** in May 2010.

➢ It is **located in New Delhi.**

Demand for Including Ladakh under Sixth Schedule

Why in News

Recently, a demand has been raised in **Parliament** to include the **Union Territory (UT) of Ladakh** in the **Sixth Schedule of the Constitution** to safeguard land, employment, and cultural identity of the local population.

➢ The **Jammu and Kashmir Reorganisation Act, 2019** was introduced to bifurcate the State into two separate **union territories of Jammu and Kashmir (with legislature)**, and **Ladakh (without legislature)**.

Key Points

➢ **Need of Inclusion in Sixth Schedule**:
  ○ The **administration of the UT of Ladakh region is now completely in the hands of bureaucrats**. The government now looks even more distant than Srinagar.
  ○ The **changed domicile policy** in Jammu and Kashmir has raised fears in the region about its own land, employment, demography, and cultural identity.
  ○ The UT has two Hill councils in Leh and Kargil, but neither is under the Sixth Schedule.
    ● Their **powers are limited to collection** of some local taxes such as parking fees and allotment and use of land vested by the Centre.

➢ **NCST Recommendation:**
  ○ The **National Commission for Scheduled Tribes (NCST)** has recommended that the **Union Territory (UT) of Ladakh be included in the Sixth Schedule of the Constitution.**

  ● **NCST, a constitutional body** to safeguard socio-cultural rights of Scheduled Tribes, was entrusted with the responsibility of examining the status of tribals in Ladakh, by the Centre.
  ● **If included, Ladakh will be the only UT in the Sixth Schedule.** Also, bestowing such a status to Ladakh would **require a constitutional amendment.**

○ **Reasons Behind the Recommendation**
  ● It is estimated that **more than 90% of Ladakh's population is tribal.** The primary **Scheduled Tribes (STs)** in Ladakh are **Balti Beda, Bot (or Boto), Brokpa (or Drokpa, Dard, Shin), Changpa, Garra, Mon and Purigpa.**
  ● The Ladakh region has **several distinct cultural heritages** by communities such as Drokpa, Balti and Changpa, among others, which needs to be preserved and promoted.
  ● **Prior to the creation of the Union Territory of Ladakh**, **people in Ladakh region had certain agrarian rights** including right on land which restricted people from other parts of the country to purchase or acquire land in Ladakh.
  ● Inclusion in the sixth schedule **will help in democratic devolution of powers** in the region and will also enhance the transfer of funds for speedy development of the region.

➢ **Difficulty Behind Ladakh's Inclusion**:
  ○ Ladakh's inclusion in the Sixth Schedule would be difficult. The Constitution is very clear, the Sixth Schedule is for the Northeast.
    ● For tribal areas in the rest of the country, there is the **Fifth Schedule**.
    ● Notably, no region outside the Northeast has been included in the Sixth Schedule.
    ● In fact, even in Manipur, which has predominantly tribal populations in some places, the autonomous councils are not included in the Sixth Schedule.
    ● Nagaland and Arunachal Pradesh, which are totally tribal, are also not in the Sixth Schedule.
  ○ However, it remains the **prerogative of the government**, it can, if it so decides, bring a Bill to amend the Constitution for this purpose.

Note:

Sixth Schedule

➢ **Article 244:** The Sixth Schedule under **Article 244** provides for the formation of autonomous administrative divisions — **Autonomous District Councils (ADCs)** — that have some legislative, judicial, and administrative autonomy within a state.

   ❍ The **Sixth Schedule** contains **special provisions for the administration of tribal areas** in the **four north-eastern** states of **Assam, Meghalaya, Tripura and Mizoram.**

➢ **Autonomous Districts:** The tribal areas in these four states have been constituted as autonomous districts. The **governor is empowered to organise and re-organise the autonomous districts.**

   ❍ The acts of Parliament or the state legislature do not apply to autonomous districts or apply with specified modifications and exceptions.

   ❍ The power of direction, in this regard, lies **either with the President or Governor.**

➢ **District Council:** Each autonomous district has a district council **consisting of 30 members, of whom four are nominated by the Governor** and the remaining 26 are elected on the basis of adult franchise.

   ❍ The elected members hold office for a term of five years (unless the council is dissolved earlier) and nominated members hold office during the pleasure of the governor.

   ❍ Each autonomous region also has a separate regional council.

➢ **Powers of the Council:** The district and regional councils administer the areas under their jurisdiction.

   ❍ They can make **laws on certain specified matters like land, forests, canal water, shifting cultivation**, village administration, the inheritance of property, marriage and divorce, social customs and so on. But **all such laws require the assent of the Governor.**

   ❍ They can **constitute** village councils or **courts for trial of suits and cases between the tribes**. They hear appeals from them. The jurisdiction of the high court over these suits and cases is specified by the governor.

   ❍ The district council **can establish, construct or manage** primary schools, dispensaries, markets, ferries, fisheries, roads and so on in the district.

   ❍ They are empowered to **assess and collect land revenue** and to impose certain specified taxes.

Pradhan Mantri Krishi Sinchayee Yojna

Why in News

Recently, the **Cabinet Committee on Economic Affairs (CCEA)** approved the extension of the **Pradhan Mantri Krishi Sinchayee Yojna (PMKSY)** till 2026, with an outlay of Rs 93,068 crore.

➢ The government also approved the **Accelerated Irrigation Benefit Programme (AIBP)**, **Har Khet ko Pani (HKKP)**, and **watershed development components** of the PMKSY for four years to 2025-26.

Key Points

➢ **About:**

   ❍ It is a **Centrally Sponsored Scheme (Core Scheme)** launched in 2015. Centre- States will be 75:25 per cent. In the case of the north-eastern region and hilly states, it will be 90:10.

   ● It will benefit about 22 lakh farmers, including 2.5 lakh **scheduled caste** and two lakh scheduled tribe farmers.

   ❍ In 2020, the Ministry of Jal Shakti launched **a mobile application for Geo-Tagging** of the components of projects under PMKSY.

   ❍ It has **three main components** namely the **AIBP, HKKP** and **Watershed Development.**

   ● **AIBP** was launched in 1996 with the **aim of accelerating the implementation of irrigation projects that exceed the resource capabilities of states.**

   ● HKKP aims to create **new water sources through Minor Irrigation**. **Repair, restoration and renovation of water bodies**; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures.

      ■ **It has sub components:** Command Area Development (CAD), Surface Minor Irrigation (SMI), Repair, Renovation and Restoration (RRR) of Water Bodies, Ground Water Development.

   ● Watershed Development is the **effective management of runoff water and improved soil & moisture conservation activities** such as ridge

Note:

area treatment, drainage line 5 treatment, rain water harvesting, in - situ moisture conservation and other allied activities o n watershed basis.

➤ **Objectives:**
- ○ **Convergence of investments in irrigation** at the field level,
- ○ To e**xpand the cultivable area** under assured irrigation (Har Khet ko pani),
- ○ To **improve on-farm water use efficiency** to reduce wastage of water,
- ○ To enhance **the adoption of precision-irrigation and other water saving technologies** (More crop per drop),
- ○ To enhance **recharge of aquifers and introduce** sustainable water conservation practices by **exploring the feasibility of reusing treated** municipal based water for peri-urban agriculture and attract greater private investment in a **precision irrigation system.**
  - ● **An aquifer** is **a body of porous rock or sediment saturated with groundwater.** Groundwater enters an aquifer as precipitation seeps through the soil. It can move through the aquifer and resurface through springs and wells.
  - ● **Peri-urban agriculture** refers to **farm units close to town which operate intensive semi- or fully commercial farms** to grow vegetables and other horticulture, raise chickens and other livestock, and produce milk and eggs.
  - ● **Precision Irrigation** is an innovative **technique that uses water wisely and helps farmers achieve higher levels of crop yield** in a minimal amount of water

➤ **Formulation**: It was formulated by **amalgamating following schemes:**
- ○ **Accelerated Irrigation Benefit Programme (AIBP)** - Ministry of Water Resources, River Development & Ganga Rejuvenation (now Ministry of Jal Shakti).
- ○ **Integrated Watershed Management Programme (IWMP)** - Department of Land Resources, Ministry of Rural Development.
- ○ **On-Farm Water Management (OFWM) -** Department of Agriculture and Cooperation (DAC).

➤ **Implementation:** Decentralized implementation through **State Irrigation Plan** and **District Irrigation Plan.**

Winter Session 2021

Why in News

Recently, the **Winter Session of Parliament** has been **adjourned sine die** (terminating a sitting of Parliament without naming a day for reassembly). The session witnessed **passing of some of the important legislations.**

Key Points

➤ **Termination of Sitting of Parliament:** The sitting of the Parliament in both the Houses can be terminated only by:
- ○ **Adjournment,**
- ○ **Adjournment sine die,**
- ○ **Prorogation**
- ○ **Dissolution** (not applicable for Rajya Sabha).

➤ **Adjournment:** An adjournment results in the **suspension of work in a sitting** for a **specified time,** which may be hours, days or weeks.
- ○ In this case, the time of reassembly is specified as **an adjournment only terminates a sitting and not a session of the House.**
- ○ The power of adjournment lies with the **presiding officer of the House.**

➤ **Adjournment sine die:** Adjournment sine die means terminating **a sitting of Parliament for an indefinite period,** that is, when the House is adjourned without naming a day for reassembly, it is **called adjournment sine die**.
- ○ The power of adjournment sine die lies with the presiding officer of the House.
- ○ However, the presiding officer of a House can **call a sitting of the House before the date or time to which it has been adjourned** or at any time after the House has been adjourned sine die.

➤ **Prorogation:** The term prorogation means the termination of a session of the House by an order made by the President under **Article 85(2)(a)** of the Constitution.
- ○ The prorogation **terminates both the sitting and session of the House** and is usually done within a few days after the House is adjourned sine die by the presiding officer.
- ○ The **President issues a notification** for the prorogation of the session.

Note:

- ❍ However, the president can also prorogue the House while in session.
- ❍ It must be noted that **all pending notices except those for introducing bills lapse.**
- ❍ The period between the prorogation of a House and its reassembly in a new session is called a **recess.**
- ➢ **Dissolution:** Whenever a dissolution happens, it ends the **very life of the existing House** and a **new House is constituted after the General Elections.**
  - ❍ However, only the Lok Sabha is subject to dissolution as the **Rajya Sabha, being a permanent House, is not subject to dissolution.**

Some of the Important Bills Passed by Houses of Parliament:

- ➢ **The Farm Laws Repeal Bill, 2021:** In view of protests by the farmers, the bill was introduced and passed to repeal the three farm laws namely:
  - ❍ Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020
  - ❍ Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020
  - ❍ Essential Commodities (Amendment) Act, 2020
- ➢ **The Dam Safety Bill, 2021:** It provides for surveillance, inspection, operation and maintenance of the specified dam for **prevention of dam failure related disasters.**
  - ❍ It also seeks to provide for institutional mechanisms to ensure their safe functioning and for matters connected therewith or incidental thereto.
- ➢ **The Assisted Reproductive Technology (Regulations) Bill, 2021:** It provides for **regulation and supervision of the assisted reproductive technology** clinics and the assisted reproductive technology banks, prevention of misuse, safe and ethical practice of assisted reproductive technology services.
  - ❍ It also envisaged establishment of the National Board, the State Boards and the National Registry.
- ➢ **The Surrogacy (Regulation) Bill, 2021:** It provides for **regulation of surrogacy services in the country.**
  - ❍ It also prohibits the potential exploitation of surrogate mothers and to protect the rights of children born through surrogacy.
- ➢ **The National Institute of Pharmaceutical Education and Research (Amendment) Bill, 2021:** It provides **clarity that the institutes established as well as any other similar institute** to be established under the National Institute of Pharmaceutical Education and Research Act shall be institutes of national importance.

- ❍ It also established a central body, to be called the Council to ensure coordinated development of pharmaceutical education and research and maintenance of standards, etc.
- ➢ **The High Court and Supreme Court Judges (Salaries and Conditions of Service) Amendment Bill, 2021:** It seeks to bring clarity on when Supreme Court and High Court judges are **entitled to an additional quantum of pension or family pension** on attaining a certain age.
- ➢ **The Narcotic Drugs and Psychotropic Substances (Amendment) Bill, 2021:** The bill would replace an ordinance promulgated earlier this year (2021) to correct a drafting error in **section 27A of the Act.**
- ➢ **The Delhi Special Police Establishment (Amendment) Bill, 2021:** It provides for **extension of tenure of Director of the Central Bureau of Investigation by up to one year** at a time in public interest, till the completion of five years in total including the period mentioned in the initial appointment.
- ➢ **The Central Vigilance Commission (Amendment) Bill, 2021:** It provides for **extension of tenure of Director of the Directorate of Enforcement by up to one year at a time** in public interest, till the completion of five years in total including the period mentioned in the initial appointment.
- ➢ **The Election Laws (Amendment) Bill, 2021:** It provides **linking of electoral roll data with the Aadhaar ecosystem** to curb the menace of multiple enrolment of the same person in different places.

Karnataka Protection of Right to Freedom of Religion Bill 2021

Why in News

Recently, the **Karnataka Protection of Right to Freedom of Religion Bill, 2021** was introduced in the state assembly of Karnataka. The Bill **prohibits conversion from one religion to another** by misrepresentation, force, fraud, allurement or marriage.

- ➢ Other States like **Arunachal Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Odisha, Uttar Pradesh and Uttarakhand** have also passed laws restricting religious conversion.

Note:

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Key Points

- ➢ **Main Provision of Bill:**
  - ○ **Penal Provision:** The offense of conversion is **cognisable and non-bailable offense.**
    - ● It will attract a jail term of three to five years and a fine of Rs 25,000 for people found violating the law and a jail term of three to 10 years, and a fine of Rs. 50,000 for people converting minors, women and persons from the SC and ST communities.
  - ○ **Locus Standi Doesn't Apply:** According to the proposed legislation, complaints of conversions can be filed by family members or relatives or any person in association.
  - ○ **Exemption:** The Bill provides an exemption in the case of a person who **"reconverts to his immediate previous religion"** as "the same shall not be deemed to be a conversion under this Act".
  - ○ **Provision for Willing Person:** After the law comes into force, any person intending to convert to another religion will have to **inform the district magistrate at least thirty days in advance.**
    - ● This will be followed by an inquiry to be conducted by the district magistrate through the police to establish the real intent of conversion.
    - ● Not informing the district magistrate will lead to the conversion being declared null and void.
- ➢ **Anti-Conversion Laws in India:**
  - ○ **Constitutional Provision:** The Indian Constitution under **Article 25 guarantees the freedom to profess, propagate, and practise religion,** and allows all religious sections to manage their own affairs in matters of religion; subject to public order, morality, and health.
    - ● However**, no person shall force their religious beliefs** and consequently, no person should be forced to practice any religion against their wishes.
  - ○ **Existing Laws:** There has been **no central legislation** restricting or regulating religious conversions.
    - ● However, since 1954, on multiple occasions**, Private Member Bills** have been introduced in (**but never approved by) the Parliament**, to regulate religious conversions.
    - ● Further, in 2015, the Union Law Ministry stated that **Parliament does not have the legislative competence** to pass anti-conversion legislation.

- ● Over the years**, several states have enacted 'Freedom of Religion' legislation** to restrict religious conversions carried out by force, fraud, or inducements.
- ➢ **Issues Associated with Anti-Conversion Laws:**
  - ○ **Uncertain and Vague Terminology:** The uncertain and vague terminology **like misrepresentation, force, fraud, allurement presents a serious avenue for misuse.**
    - ● These terms leave room for ambiguities or are too broad, extending to subjects far beyond the protection of religious freedom.
  - ○ **Antithetical to Minorities:** Another issue is that the present anti-conversion laws focus more on the prohibition of conversion to achieve religious freedom.
    - ● However, the broad language used by the prohibitive legislation might be used by officials to oppress and **discriminate against minorities.**
  - ○ **Antithetical to Secularism:** These laws may pose a threat to the s**ecular fabric of India** and the **international perception** of our **society's intrinsic values and legal system.**
- ➢ **Supreme Court on Marriage and Conversion:**
  - ○ **Hadiya Judgement 2017:**
    - ● Matters of dress and of food, of ideas and ideologies, of love and partnership are within the central aspects of identity.
    - ● Neither the State nor the law can dictate a choice of partners or limit the free ability of every person to decide on these matters.
    - ● The principle that the right to marry a person of one's choice is integral to **Article 21.**
  - ○ **K.S. Puttaswamy or 'privacy' Judgment 2017:**
    - ● Autonomy of the individual was the ability to make decisions in vital matters of concern to life.
  - ○ **Other Judgements:**
    - ● The SC in its various judgments, has held that **faith, the state and the courts have no jurisdiction over an adult's absolute right** to choose a life partner.
    - ● India is a **"free and democratic country"** and any interference by the State in an adult's right to love and marry has a **"chilling effect"** on freedoms.
    - ● Intimacies of marriage lie within a **core zone of privacy**, which is inviolable and the choice of a life partner, whether by marriage or outside it, is part of an **individual's "personhood and identity".**

Note:

- The absolute right of an individual to choose a life partner is **not in the least affected by matters of faith.**

Third Positive Indigenisation List

Why in News

Recently, the Ministry of Defence (MoD) has restricted the import of 351 systems and components as a part of **third Positive Indigenisation List** to **boost Indigenisation in Defence Manufacturing**.

➢ In June 2021, the MoD had notified the **second negative import list**, renamed as the **'positive indigenisation list' of 108 items.**

➢ The **'First Negative Indigenisation'** List comprising 101 items was notified in August 2020.

Key Points

➢ **Procurement:**
  ○ All the 351 items will now be procured from indigenous sources as per provisions given in **Defence Acquisition Procedure (DAP) 2020.**
    - The DAP 2020 includes the following procurement categories: Buy (Indian – Indigenously Designed Developed and Manufactured), Buy (Indian), Buy and Make (Indian), Buy (Global - Manufacture in India) and Buy (Global).

➢ **Timeline:**
  ○ The import of 172 systems and components will be stopped from December 2022, while curbs on another batch of **89 items will come into effect from December 2023**. The import of a **further 90 items will be stopped from December 2024**.

➢ **Items Included:**
  ○ It **includes components such as a** missile approach warning sensor, shells, propellants, electrical parts, missile containers, a torpedo tube launcher and a gun fire control system.

➢ **Significance:**
  ○ This Atmanirbhar (self-reliance) initiative will save foreign exchange **approximately equivalent to Rs 3,000 cr every year.**
  ○ It will give a boost to indigenisation with active participation of the public and private sector for **fulfilling the twin objectives of achieving self-reliance. (Atmanirbhar Bharat) and promoting defence exports.**

○ Not only does the list recognise the potential of the local defence industry, it will **also invigorate impetus to domestic Research & Development** by attracting fresh investment into technology and manufacturing capabilities.

○ It also provides an excellent opportunity for **'start-ups', as Micro, Small, and Medium Enterprises (MSMEs)** will get a tremendous boost from this initiative.

Indigenisation of Defence

➢ **About:**
  ○ Indigenisation is the **capability of developing and producing any defence equipment within the country** for the dual purpose of achieving self reliance and reducing the burden of imports.
  ○ **Self-reliance in defence manufacturing is one of the key objectives** of Department of Defence Production.
    - **Defence Research Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs)** and private organisations are playing a critical role in indigenisation of defence industries.
  ○ India is among the **world's largest arms importers, and the armed forces are expected to spend about USD 130 billion** on defence purchases over the next five years.

➢ **Background:**
  ○ Overdependence on the Soviet Union brought about a change in India's approach to defence industrialisation.
  ○ From the **mid-1980s, the government pumped resources into R&D (Research and Development)** to enable the DRDO to undertake high profile projects.
  ○ A significant beginning in defence indigenisation was made in 1983, when the government sanctioned the **Integrated Guided Missile Development Programme (IGMDP)** to develop **5 missile systems** (Prithvi, Agni, Trishul, Akash, Nag).
  ○ The indigenous efforts **were not adequate to meet the requirements of the armed forces,** this resulted in the shift of focus towards co-development and co-production in partnership with foreign companies.
  ○ A **beginning was made in 1998, when India and Russia signed** an inter-governmental agreement to jointly produce **Brahmos supersonic cruise missile.**

Note:

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- ➤ **Need:**
  - ○ **Reducing Fiscal Deficit:**
    - India is the **second largest arms importer** in the world (after Saudi Arabia).
    - Higher import dependency leads to an increase in the fiscal deficit.
      - Despite having the fifth largest defence budget in the world, **India procures 60% of its weapon systems** from foreign markets.
  - ○ **Security perspective:**
    - Indigenisation in defence is **critical to national security** also. It keeps intact the technological expertise and **encourages spin-off technologies and innovation** that often stem from it.
    - Indigenisation is needed in order **to avert the threats associated with the frequent ceasefire violations** like that of the Uri, Pathankot and Pulwama attacks..
  - ○ **Employment Generation:**
    - It will lead to the generation of satellite industries that in **turn will pave the way for generation of employment opportunities.**
    - As per government estimates, a reduction in 20-25% in defence related imports could **directly create an additional 100,000 to 120,000 highly skilled jobs** in India.
  - ○ **Strategic Capability:**
    - A self sufficient and self reliant defence industry will **place India among the top global powers.**
  - ○ **Notion of Patriotism:**
    - **Nationalism and Patriotism can increase** with indegenious production of defence equipment, that in turn will not only boost the trust and confidence of the Indian forces but will **also strengthen a sense of integrity and sovereignty in them.**
- ➤ **Challenges:**
  - ○ **Lack of an institutional capacity and capability** to take different policies aimed at indigenisation of defence to its logical conclusion.
  - ○ Infrastructural deficit **increases India's logistics costs thus reducing the country's cost competitiveness** and efficiency.

- ○ Land acquisition issues restrict entry of new players in the defence manufacturing and production.
- ○ **Policy dilemma offset requirements under the DPP** (Defence Procurement Policy, now replaced with DAP 2020) didn't help achieve its goal. (Offsets are a portion of a contracted price with a foreign supplier that must be re-invested in the Indian defence sector, or against which the government can purchase technology).
  - Only government-to-government agreements (G2G), ab initio single vendor contracts or inter-governmental agreements (IGA) will not have offset clauses anymore. According to DAP 2020, all other international deals that are competitive, and have multiple vendors vying for it, will continue to have a 30% offset clause.
- ➤ **Related Initiatives:**
  - ○ **Increased the FDI limit:**
    - **In May 2020**, the foreign direct investment (FDI) limit under the automatic route in the defence sector was hiked **from 49% to 74%.**
  - ○ **Corporatization of the Ordnance Factory Boards:**
    - In October 2021, the government dissolved the **four-decade-old Ordnance Factory Board (OFB) and amalgamated 41 factories** under seven new state-owned companies to **manufacture defence hardware** ranging from munitions to heavy weapons and vehicles.
  - ○ **Defence India Startup Challenge**
    - DISC aims at **supporting Startups/MSMEs/ Innovators to create prototypes and/or commercialize products/solutions** in the area of National Defence and Security.
    - It has been launched by the Ministry of Defence in partnership with **Atal Innovation Mission.**
  - ○ **SRIJAN Portal:**
    - It is a one stop shop online portal that provides access to the vendors to take up items for indigenization.
  - ○ **E-Biz Portal:**
    - Process of applying for Industrial License (IL) and Industrial Entrepreneur Memorandum (IEM) has been made completely online on ebiz portal.

■■■

Note:

Economic Scenario

Highlights

- State of India's Livelihood (SOIL) Report 2021: FPOs
- Anti-Dumping Duty
- ESG Funds
- SEBI Bans Derivative Trade in Agriculture Commodities
- Proposal on Algo Trading: SEBI
- Programme for Development of Semiconductors and Display Manufacturing Ecosystem
- Privatisation of Banks
- Dairy Sector & Opposition to Free Trade

- Global Cropland Expansion
- Online Certificate of Origin for Merchandise Export
- Consumer Protection (Direct Selling) Rules, 2021
- Card on File Tokenisation (CoFT)
- Spices Sector in India
- Multistate Cooperatives
- Depreciation of Indian Rupee
- Tariff Guidelines for the PPP Projects in Major Ports

State of India's Livelihood (SOIL) Report 2021: FPOs

Why in News

The **State of India's Livelihood (SOIL) Report 2021** has stated that **just 1-5% of Farmer Producer Organisations (FPOs) have received funding under central government schemes** introduced to promote them in the last seven years.

Key Points

➢ **About the Report:**
  ❍ Access Development Services, a national livelihoods support organisation has prepared the SOIL report.
  ❍ It has analysed only Farmer Producer Companies (FPC — FPOs registered under The Companies Act, 2013) since they make up a large majority of the organisations started in recent years.
    • The number of FPOs registered as cooperatives or societies is very small.

➢ **Farmer Producer Organisations (FPOs):**
  ❍ **Concept**: The concept of 'Farmer Producer Organisations (FPO)' consists of collectivization of producers especially small and marginal farmers so as to form an effective alliance to collectively address many challenges of agriculture such as

improved access to investment, technology, inputs, and markets.
  • FPO is one type of **Producer Organisation (PO)** where the members are farmers.
  • A PO is a **legal entity formed by primary producers**, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen.
  ❍ **Voluntary Organisations**: FPOs are voluntary organizations controlled by their farmer-members who actively participate in setting their policies and making decisions.
    • They are open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.
  ❍ **Provide Education and Training**: FPOs operatives provide education and training for their farmer-members, elected representatives, managers, and employees so that they can contribute effectively to the development of their FPOs.

➢ **Importance of FPOs:**
  ❍ **Declining Average Land Holding Size**: The average farm size declined from 2.3 hectares (ha) in 1970-71 to 1.08 ha in 2015-16. The share of small and marginal farmers increased from 70% in 1980-81 to 86% in 2015-16.
    • FPOs can engage farmers in collective farming and address productivity issues emanating from small farm sizes.

Note:

- Further, this may also result in additional employment generation due to the increased intensity of farming.
  ○ **Negotiating With Corporates**: FPOs can help farmers compete with large corporate enterprises in bargaining, as it allows members to negotiate as a group and can help small farmers in both input and output markets.
  ○ **Economics of Aggregation**: The FPO can provide low-cost and quality inputs to member farmers. For example, loans for crops, purchase of machinery, input agri-inputs (fertilizers, pesticides, etc.) and direct marketing after procurement of agricultural produce.
    - This will enable members to save in terms of time, transaction costs, distress sales, price fluctuations, transportation, quality maintenance, etc.
  ○ **Social Impact**: Social capital will develop in the form of FPOs, as it may lead to improved gender relations and decision-making of women farmers in FPOs.
    - This may reduce social conflicts and improve food and nutritional values in the community.
- **Support for FPOs**:
  ○ **Promoting Institutions/Resource Agencies (RAs)**: FPOs are generally mobilized by promoting institutions/ Resource Agencies (RAs).
    - **Small Farmers' Agribusiness Consortium (SFAC)** is providing support for the promotion of FPOs.
    - The resource agencies leverage the support available from governments and agencies like **National Bank for Agriculture and Rural Development (NABARD)** to promote and nurture FPOs.
  ○ **Formation & Promotion of 10,000 FPOs**: The Ministry of Agriculture and Farmers Welfare has launched the Central Sector Scheme titled **'Formation & Promotion of 10,000 Farmer Producer Organisations (FPOs)'**.
  ○ **Equity Grant Scheme**: SFAC has been offering equity grants up to a maximum of Rs 15 lakh in two tranches within a period of three years since 2014.
    - Over the past seven years, only 735 organisations have been given grants as of September 2021— just 5 % of the total Producer Companies (PCs) currently registered in the country.

  ○ **Credit Guarantee Scheme:** It provides risk cover to banks that advance collateral-free loans to FPCs up to Rs 1 crore.
    - Only about 1% of registered producer companies have been able to avail the benefits.
- **Challenges Faced by FPOs**:
  ○ **Lack of Business Skills**: While Resource Agencies (RAs) normally have social mobilization skills, **they lack business development and marketing skills**, which are critical for the success of FPOs as a business entity.
  ○ **Missing Supply Chain Operations Capabilities**: Focus on management capabilities in the supply chain operations, nuances of market dynamics and linkages, business planning according to market intelligence and market development is **clearly missing in the majority of the training programmes associated with FPOs**.
  ○ **Various Distortions**: The present system suffers from **distortions** like multiple intermediaries and levies, lack of vertical integration (is the combination in one firm of two or more stages of production normally operated by separate firms), poor infrastructure, restrictions on the movement of agricultural commodities, and so on.
  ○ **Limited Market Choices and Lack of Transparency:** The limited market choices and lack of transparency have been the major barriers in better price realisation for the farmers.
    - Finding the right markets bypassing the present maze of intermediaries is critical.
    - Many FPOs lack the capacity to manage the supply-chain operations and store the unsold produce, besides faltering in procurement, logistics and price negotiations

Anti-Dumping Duty

Why in News

As per Directorate General of Trade Remedies' **(DGTR)** recommendations, India has imposed **Anti-Dumping Duties** on five Chinese products, including certain aluminium goods and some chemicals, for five years.

- The DGTR has concluded that these products have been exported **at a price below normal value in Indian**

markets, which has resulted in dumping, causing injury to domestic markets.

➢ India's exports to China during the April-September 2021 period were worth USD 12.26 billion while imports aggregated at USD 42.33 billion, leaving **a Trade Deficit of USD 30.07 billion.**

Directorate General of Trade Remedies

➢ It is the **apex national authority under the Ministry of Commerce and Industry for administering all trade remedial measures** including anti-dumping, countervailing duties and safeguard measures.

➢ It provides **trade defence support to the domestic industry** and exporters in dealing with increasing instances of trade remedy investigations instituted against them by other countries.

Key Points

➢ **Dumping:**
  ○ Dumping is said to occur when the **goods are exported by a country to another country at a price lower than the price it normally charges** in its own home market.
  ○ This is **an unfair trade practice which can have a distortive effect** on international trade.

➢ **Objective of Anti-Dumping Duty (ADD):**
  ○ Imposition of Anti-dumping duty is **a measure to rectify the situation arising out of the dumping** of goods and its trade distortive effect.
    ● In the long-term, anti-dumping duties **can reduce the international competition of domestic companies** producing similar goods.
  ○ It is **a protectionist tariff that a domestic government imposes** on foreign imports that it believes are priced below fair market value.
  ○ The use of anti-dumping measures as an instrument of fair competition is **permitted by the World Trade Organisation.**

➢ **Different from Countervailing Duties:**
  ○ ADD is a customs duty on imports providing a protection against the dumping of goods at prices substantially lower than the normal value whereas **Countervailing duty is a customs duty on goods that have received government subsidies** in the originating or exporting country.

➢ **WTO's Provisions Related to Anti-Dumping Duty:**
  ○ **Validity:** An anti-dumping duty is valid for **a period of five years** from the date of imposition unless revoked earlier.
  ○ **Sunset Review:** It can be extended for **a further period of five years through a sunset or expiry review investigation.**
    ● A Sunset review/ expiry review is **an evaluation of the need for the continued existence of a program** or an agency. It allows for an assessment of the effectiveness and performance of the program or agency.
    ● Such a review can be initiated **suo moto or on the basis of a duly substantiated request** received from or on behalf of the domestic industry.

ESG Funds

Why in News

The asset size of **ESG (Environment, Social and Governance) Funds** has grown nearly five times to Rs 12,300 crore over the last couple of years.

➢ The demand and growth for ESG funds in Asia, especially in India, has been overwhelming; it is 32%.

Key Points

➢ **About:**
  ○ It is **a kind of Mutual Fund.** Its investing is **used synonymously with sustainable investing or socially responsible investing.**
  ○ Typically, a mutual fund looks for a good stock of a company that has potential earnings, management quality, cash flows, the business it operates in, competition etc.
  ○ However, while selecting a stock for investment, **the ESG fund shortlists companies that score high on environment, social responsibility and corporate governance**, and then looks into financial factors.
  ○ Therefore, the key difference between the ESG funds and other funds is 'conscience' i.e the ESG fund focuses on companies with **environment-friendly practices, ethical business practices and an employee-friendly record.**
  ○ The fund is regulated by **Securities and Exchange Board of India** (SEBI).

Note:

➢ **Factors Behind ESG Growth:**
  ○ Greater policy focus on aspects such as cleanliness, skill development, expanded healthcare coverage, and education **indicates potential public investment in these social development and environmentally sensitive sectors** of the economy.
  ○ There is increasing awareness and understanding among younger investors about the **impact of business on social development and environment.**
  ○ Modern investors are **re-evaluating traditional approaches, and look at the impact their investment has on the planet**. Thus, investors have started incorporating ESG factors into investment practices.
  ○ The **United Nations Principles for Responsible Investment (UN-PRI)** (an international organization) works to promote the incorporation of environmental, social, and corporate governance factors into investment decision-making.

➢ **Significance:**
  ○ As ESG funds gain momentum in India, c**ompanies will be forced to improve governance and ethical practices,** and act with greater social and environmental responsibility.
  ○ As the policy framework changes, companies that do not alter business models or become more environmentally sustainable, **could have their revenue and profits impacted in the long term.**
    ● Globally, many pension funds and sovereign wealth funds do not invest in companies that are seen as polluting or socially not responsible.

➢ **Concerns:**
  ○ Alongside the greater attention on issues such as climate risk, emissions, supply chains, labour rights, anti-corruption, etc., certain concerns have been flagged as well.
  ○ **Greenwashing is one of the top concerns** among global institutional investors.
    ● Greenwashing is considered an unsubstantiated claim to deceive consumers into believing that a company's products are environmentally friendly.
  ○ Investment experts have also pointed to **the tendency of fund managers to overweight certain stocks** and companies in a situation where most large investment-friendly companies have fallen short of the qualitative and quantitative parameters used for ESG investing.

SEBI Bans Derivative Trade in Agriculture Commodities

Why in News

Recently, the **Securities and Exchange Board of India (SEBI)** has banned the derivative trade of seven agricultural commodities on the future's platform of **National Commodities and Derivatives Exchange (NCDEX)** for a year.

➢ The regulator has banned derivative contracts trade in **chana, wheat, paddy (non-basmati), soyabean and its derivatives, mustard seed and its derivatives, crude palm oil and moong** for a year with immediate effect.

➢ The commodity derivatives market **has been prone to such sudden suspensions of trading in agriculture items** ever since it was introduced under the erstwhile **Forward Markets Commission (FMC).**

SEBI
➢ It is a **statutory body established on 12th April, 1992** in accordance with the provisions of the **Securities and Exchange Board of India Act, 1992.**
➢ The basic functions of the SEBI is to **protect the interests of investors in securities and to promote and regulate** the securities market.

Key Points

➢ **Reasons for Ban:**
  ○ **To cool off Food Inflation:**
    ● **India's retail inflation** rose to a three-month high of 4.91 % in November from 4.48 % in the previous month primarily because of **a rise in food inflation to 1.87 % from 0.85 % over this period**.
  ○ **Double Digits WPI:**
    ● **Wholesale Price Index-based inflation** has remained in double digits for eight consecutive months beginning in April, mainly because of surging prices of food items.
    ● In November, the wholesale price-based inflation surged to a **record high of 14.23 %** amid hardening of prices of mineral oils, basic metals, crude petroleum and natural gas.
  ○ **To insulate future Price Shock:**
    ● In view of **Rabi Output** that might be affected morbidly because of fertiliser shortage faced in many parts of the country.

Note:

- By banning future's trade, the government is trying to insulate any price shock the market might feel in the days to come in case the production is not up to par.

➢ **Impact:**
  ○ The suspension comes ahead of the rabi crop, sown in winter, hitting the markets in a couple of months. With no reference price**, traders will be clueless on future sentiment.**
  ○ **Importers**, who hedge on the derivative market to safeguard themselves from price moves, may be more **vulnerable**.
  ○ Impact on prices initially, the outlook will be bearish **as traders rush to square off open positions on derivatives.**

Derivatives

➢ **About:**
  ○ Derivatives are the instruments which include security **derived from a debt instrument share, loan, risk instrument or contract** for differences of any other form of security and a contract that derives its value from the price/index of prices of underlying securities.
  ○ In the finance field, a derivative is a contract **that derives its value from the performance of an underlying entity.** This underlying entity can be an asset, index, or interest rate, and is often called the **"underlying"**.

➢ **Types:**
  ○ **Forwards and futures:**
    - These are financial contracts that obligate the contracts' **buyers to purchase an asset at a pre-agreed price on a specified future date.** Both forwards and **futures** are essentially the same in their nature.
  ○ **Options:**
    - Options provide the buyer of the contracts the **right, but not the obligation, to purchase or sell the underlying asset** at a predetermined price.
    - Based on the option type, **the buyer can exercise the option on the maturity date** or on any date before the maturity.
  ○ **Swaps:**
    - Swaps are derivative contracts **that allow the exchange of cash flows between two parties.**

- The swaps **usually involve the exchange of a fixed cash flow for a floating cash flow.**
- The most popular types of swaps are interest rate swaps, commodity swaps, and currency swaps.

➢ **Significance:**
  ○ **Hedging Risk Exposure:**
    - Since the value of the derivatives is linked to the value of the underlying asset, the **contracts are primarily used for hedging risks**.
    - In this way, **profits in the derivative contract may offset losses** in the underlying asset.
  ○ **Underlying Asset Price Determination:**
    - Derivatives are frequently **used to determine the price of the underlying asset**. For example, the spot prices of the futures can serve as an approximation of a commodity price.
  ○ **Market Efficiency:**
    - It is considered that **derivatives increase the efficiency of financial markets**. By using derivative contracts, one can replicate the payoff of the assets.
    - Therefore, the prices of the underlying asset and the associated derivative tend to be in equilibrium to avoid arbitrage opportunities.
  ○ **Access to unavailable assets or markets:**
    - Derivatives can help organisations **get access to otherwise unavailable assets or markets.**
    - By employing interest rate swaps, a company may obtain a more favourable interest rate relative to interest rates available from direct borrowing.

➢ **Issues:**
  ○ **High Risk:**
    - The high volatility of derivatives **exposes them to potentially huge losses**. The sophisticated design of the contracts makes the valuation extremely complicated or even impossible. Thus, they bear a high inherent risk.
  ○ **Speculative Features:**
    - Derivatives are widely regarded as a **tool of speculation**. Due to the extremely risky nature of derivatives and their unpredictable behaviour, unreasonable speculation may lead to huge losses.

Note:

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○ **Counterparty Risk:**
- Although derivatives traded on the exchanges generally go through a thorough due diligence process, some of the contracts traded over-the-counter do not include a benchmark for due diligence. **Thus, there is a possibility of counterparty default.**

National Commodities and Derivatives Exchange

➤ NCDEX is **an online commodities exchange dealing primarily in agricultural commodities** in India.

➤ It is **a public limited company**, established on 23rd April 2003 under the **Companies Act, 1956.**

➤ The exchange was **founded by some of India's leading financial institutions** such as ICICI Bank Limited, the National Stock Exchange of India and the **National Bank for Agricultural and Rural Development,** among others.

➤ These include 25 contracts for agricultural products. NCDEX is run by an independent board of directors with no direct interest in agriculture.

Proposal on Algo Trading: SEBI

Why in News

Recently, the **Securities and Exchange Board of India (SEBI)** has issued a discussion paper on **regulating Algorithmic or Algo Trading**, or trades generated out of automatic execution and logic.

Algo Trading

➤ Almost everything in the digital world is based on algorithms. Algorithms leverage **user data, behaviour and usage patterns, and take in pre-specified instructions** to achieve certain goals.

➤ Algo trading refers to **orders generated at superfast speed by the use of advanced mathematical models** that involve automated execution of trade.
- ○ Even a split-second faster access is considered capable of bringing huge gains to a trader.

➤ The algo trading system **automatically monitors the live stock prices and initiates an order when the given criteria are met**.

➤ This **frees the trader from having to monitor live stock prices** and initiate manual order placement.

➤ It's like **asking a broker to buy or sell shares at a specific time or at a certain price**, except that algorithmic trading is faster – computers analyse a lot more data than a human can in a given time and have less scope for error.
- ○ Also, significant price changes can be **avoided because orders are executed within seconds.**
- ○ Thus, investors can execute **more trades faster since less time is required to manually monitor, select, buy, sell, initiate** order placements and so on.

Key Points

➤ **SEBI's Proposal:**
- ○ **Regulating Framework:** There is a **need to create a regulatory framework for algo trading.**
- ○ **Algo-Order**: All orders **emanating from an APIs (Application Programming Interface)**, **should be treated as an algo order** and be subject to control by stock broker and the APIs to carry out algo trading should be tagged with the unique algo ID provided by the stock exchange granting approval for the algo.
  - • An **API** is an interface that can be used to program software that interacts with an existing application.
- ○ **Exchange Approval:** Each algo strategy, **whether used by broker or client, has to be approved by exchange** and as is the current practice, each algo strategy has to be certified by Certified Information Systems Auditor (CISA)/ Diploma in Information System Audit (DISA) auditors.
- ○ **Algo-ID:** Stock exchanges have to develop a system to ensure that only those algos **which are approved by the exchange and having unique algo ID** provided by the Exchange are being deployed.
- ○ **Broker to Control Client Orders:** All algos developed by any entity **have to run on the servers of brokers wherein the broker has control of client orders**, order confirmations and margin information.
- ○ **Authentication:** Two factor authentication should be built in every such **system which provides access to an investor for any API/algo trade.**

➤ **SEBI's Concern:**
- ○ **Risk To Market:** Unregulated and unapproved algos **pose a risk to the market and can be misused**

for systematic market manipulation as well as to lure the retail investors by guaranteeing them higher returns.

- ○ **Identity Issue:** Currently, exchanges approve algos submitted by brokers. However, for algos deployed by retail investors using **APIs** neither the exchanges nor the brokers can identify if a trade emanating from the API link is an algo or a non-algo trade.

- ○ **No Redressal Mechanism:** Potential losses **in case of a failed algo strategy could be huge for retail investors** since third-party algo providers are unregulated and there is no investor grievance redressal mechanism in place.

➢ **Significance:**

- ○ **Protection of Retail Investors:** It will ensure that the **interest of retail investors is protected and it will boost investors' confidence** to undertake algo trading.

- ○ **Curb on Price Manipulation:** With a set of rules in place, **there won't be any price manipulations and the investors will not incur any heavy losses** in the process.

- ○ **Empowerment of Brokers:** Additionally, **it might be a blessing in disguise for brokers to scale up their technological prowess** and expand their clientele.

➢ **Market Concerns:**

- ○ **Makes Process Tedious:** Algo trading will deepen the **stock markets and aid retail investors who are not full-time engaged in stock trading.** However, as getting the requisite **permission from the stock exchanges is a tedious process**, brokers may have to stop using the API system.

- ○ **Negatively Impact Development of Market:** There's a chance that **investors might shift to some other system if API is not allowed**, putting restrictions **will impact development of the market.**

Function of Application Programming Interface

➢ Many brokers in India have started providing **API** access to their clients **which establishes an online connection between a data provider (stock broker) and an end-user (client).**

➢ API access **enables the investors to use a third-party application that suits their feature needs or investors who have technological capabilities** to build their own front-end features.

➢ These third-party applications **help an investor analyse market data or back-test a trading or investment strategy.** These APIs are being used by the investors for automating their trades.

- ○ Presently, though the broker can identify the orders emanating from an API, **they are unable to differentiate between an algo and non-algo** order emanating from an API.

Programme for Development of Semiconductors and Display Manufacturing Ecosystem

Why in News

Recently, the Ministry of Electronics and Information Technology (MeitY) has approved a comprehensive **Program for the Development of Semiconductors and Display Manufacturing Ecosystems** in the country.

➢ The government proposes to provide **incentives worth Rs 76,000 crore for the development of semiconductors and display manufacturing** ecosystems **over the next six years.**

Semiconductors

➢ Any of a class of crystalline solids **intermediate in electrical conductivity between a conductor and an insulator.**

➢ Semiconductors are employed in the manufacture of various kinds of electronic devices, **including diodes, transistors, and integrated circuits.** Such devices have found wide application **because of their compactness, reliability, power efficiency, and low cost.**

➢ As discrete components, **they have found use in power devices, optical sensors, and light emitters, including solid-state lasers.**

Key Points

➢ **Incentives Under the Programme**

- ○ **Semiconductor Fabs and Display Fabs:**
  - It would provide **fiscal support of up to 50% of the project cost** for setting up semiconductor and display fabrication units.

- The Union government will work with the States to **set up high-tech clusters with the required infrastructure** such as land and semiconductor-grade water.
  - **Semi-conductor Laboratory (SCL):**
    - MeitY **will take requisite steps for modernization and commercialization of Semi-conductor Laboratory (SCL)**.
    - MeitY will explore the possibility **for the Joint Venture of SCL with a commercial fab partner** to modernise the brownfield fab facility.
  - **Compound Semiconductors:**
    - It will support fiscal support **of 30% of capital expenditure to approved units.**
    - At Least **15 such units** of Compound Semiconductors and Semiconductor Packaging **are expected to be established** with Government support under this scheme.
  - **Semiconductor Design Companies:**
    - The **Design Linked Incentive (DLI) Scheme shall extend product design linked incentive of up to 50%** of eligible expenditure and product deployment linked incentive of 6% - 4% on net sales for five years.
    - **Support will be provided to 100 domestic companies** of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.
  - **India Semiconductor Mission:**
    - In order to drive the long-term strategies for developing a sustainable semiconductors and display ecosystem, a **specialised and independent India Semiconductor Mission (ISM) will be set up.**
    - ISM will be **led by global experts in the semiconductor and display industry.** It will act as the nodal agency for efficient and smooth implementation of the schemes on Semiconductors and Display ecosystem.
  - **Production Linked Incentives:**
    - Incentive support to the tune of Rs.55,392 crore (7.5 billion USD) have been approved under **PLI** for Largest Scale Electronics Manufacturing, PLI for IT Hardware, SPECS Scheme and **Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme.**

- In addition, PLI incentives to the quantum of Rs.98,000 crore (USD 13 billion) are approved for allied **sectors comprising ACC battery, auto components, telecom & networking products, solar PV modules and white goods.**

➤ **Significance:**
  - **Strategic Importance:** In the current geopolitical scenario, **trusted sources of semiconductors and displays hold strategic importance** and are key to the security of critical information infrastructure.
  - **Employment**: It will also create **highly skilled employment opportunities** to harness the demographic dividend of the country.
  - **Multiplier Effect:** Development of the semiconductor and display ecosystem will have a multiplier effect across different sectors of the economy with deeper integration to the global value chain.
  - **Boost to Electronic Sector:** The program will **usher in a new era in electronics manufacturing** by providing a globally competitive incentive package to companies in semiconductors and display manufacturing as well as design.
  - **Self Reliance:** This shall **pave the way for India's technological leadership** in these areas of strategic importance and economic self-reliance.

Indian Electronic Sector

➤ **About:**
  - The Indian electronics sector is **tremendously growing** with the demand expected to cross **USD 400 billion by 2023-24.**
  - Domestic production has grown from USD 29 billion in 2014-15 to nearly **USD 70 billion in 2019-20 (Compounded Annual Growth Rate of 25%).**
  - Most of this production takes place in the final assembly units (last-mile industries) located in India and focussing on them will **help develop deep backward linkages, thus inducing industrialisation.**

➤ **Need:**
  - **National Security Considerations:**
    - Most of the chips, as well as components used in Indian communication and critical systems, are imported.
    - This **could hamper national security and sovereignty** as backdoors could be programmed in chips during manufacturing, which could compromise networks and **cyber-security.**

Note:

○ **Increasing Imports:**

- It is expected that **electronics imports will soon overtake crude oil** as India's largest import commodity which will result in assembly units ending up as little more than mere packaging units.

○ **Increased Demand and Shortage Amid Covid:**

- The **Covid-19 pandemic** and the subsequent **lockdowns** across the world that **forced shut crucial chip-making facilities in countries including Japan, South Korea, China and the US.**
- Its shortage causes cascading effects, given that the first one creates pent-up demand that becomes the cause for the follow-up famine.

○ **Profiting from Anti-Chinese Sentiments:**

- Due to the **USA's allegations on China** for worsening **Covid-19** and **India-China conflict** and **recent developments as a result of it,** numerous multinational companies (MNCs) are shifting their production out of China.

○ **Pushing Make in India:**

- There is **a need to promote semiconductor manufacturing alongside assembly units** in India.
- This will induce greater local production of components and also fuel the growth of the industry as a whole, making **Make in India** successful.
- In 2019, the Union Cabinet gave its approval to the **National Policy on Electronics 2019** which envisions positioning India as a global hub for Electronics System Design and Manufacturing.

➢ **Challenges:**

○ **Missing Profits:**

- Despite the impressive growth of electronic production in India, **the net value added by production units is very low.**
- The net value addition ranges between 5% and 15%, as most components are imported rather than locally sourced.
- It implies that local value addition is a mere USD 7-10 billion out of a global market of USD 2.1 trillion.

○ **Limited Indigenous Capability in Upstream Industries:**

- In the era of **global supply chains**, the **value addition at the final stages of production is very low,** especially in electronics because the more complicated processes, involving greater value addition, occur prior to assembly, in 'upstream' industries.
- These include the production of processors, display panels, memory chips, cameras, etc.

○ **Absence of Foundries:**

- In the absence of **foundries (semiconductor fabrication plants where microchips are produced)**, India has to **rely on foreign contractors** to produce microchips.
- Set-up of Foundries requires **massive capital expenditure** to the tune of USD 2 billion and more.
  - Foundries are also required to adopt newer technologies and processes almost every 18 months to ensure competitiveness which means high capital depreciation and often accounts for 50-60% of the production cost.

Privatisation of Banks

Why in News

Recently, the government has decided to have a relook at some key aspects of **Banking Laws (Amendment) Bill 2021** - which aims to **Privatise Two Public Sector Banks (PSBs)** - during the Winter **session of Parliament.**

➢ In the last session, the government passed a bill that will allow the privatisation of state-owned general insurance companies, through the **General Insurance Business (Nationalisation) Amendment Bill, 2021**.

Banking Laws (Amendment Bill 2021

➢ The Bill aims to amend **banking companies acquisition and transfer laws of 1970 and 1980** and the **Banking Regulation Act, 1949** to achieve privatisation of two PSBs to meet disinvestment targets as stated by the finance minister in the **Union Budget 2021-22**.

○ These laws had **led to the nationalisation of banks**, so relevant provisions of these laws **have to be changed to pave the way for the privatisation.**

➢ This move will bring down the **minimum government holding in the PSBs from 51% to 26%.**

Note:

Key Points

➤ **About:**

  ❍ **Privatisation:**

    ● The transfer of ownership, property or business from the government to the private sector is termed privatisation. The **government ceases to be the owner** of the entity or business.

    ● Privatisation is considered **to bring more efficiency and objectivity to the company, something that a government company is not concerned about.**

      ■ India went for privatisation in the historic reforms **budget of 1991, also known as 'New Economic Policy or LPG policy'.**

  ❍ **Nationalisation:**

    ● Nationalisation is the **process of taking privately-controlled companies, industries, or assets and putting them under the control of the government.**

    ● It often happens **in developing countries and can reflect a nation's desire to control assets** or to assert its dominance over foreign-owned industries.

➤ **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.

➤ **Reasons 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 capitalization and dividend payment record.

PUBLIC SECTOR BANKS, OTHER BANKS: CREDIT & DEPOSIT GROWTH (YEAR ON YEAR, %)
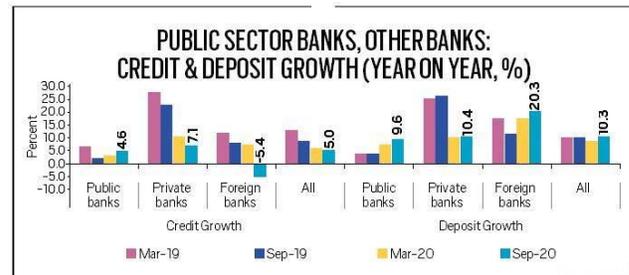
  ❍ **Part of a Long-Term Project:**

    ● 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.

      ■ 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 w**ill 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 **P J Nayak Committee suggested below 50%.**

    ● An **RBI Working Group** recently suggested the entry of business houses into the banking sector.

  ❍ **Creation of Big Banks:**

    ● One of the objectives of privatisation is also to create big banks. Unless privatised PSBs are merged with existing large private banks,

they cannot **ultimately attain the kind of scale and size to develop higher risk appetite and lending capacity.**

- Hence, privatisation is **a multifaceted task considering all angles to tackle multiple challenges and exploring new ideas** but it can pave the way for developing a more sustainable and strong banking system benefitting all stakeholders.

➢ **Issues:**

- ○ **Rewarding Crony Capitalism:**
  - The privatisation of the PSBs is tantamount **to selling the banks to private corporates, many of whom have defaulted on loans from the PSBs**, and will only **reward crony capitalism.**

- ○ **Job Losses:**
  - The privatisation will also **result in job losses, branch closures and financial exclusion**.
  - The privatisation **will shrink employment opportunities for Scheduled Castes, Scheduled Tribes and Other Backward Classes (OBC)** since the private sector does not follow reservation policies for the weaker sections.

- ○ **Financial Exclusion of Weaker Sections:**
  - The private sector **banks concentrate on the more affluent sections of the population** and the metropolitan/urban areas, leading to financial **exclusion of weaker sections** of the society, particularly in the rural areas.
  - Public sector banks were taking banking to the rural areas and ensuring financial inclusion. He feared reversal of these gains may take place if PSBs are privatised.

- ○ **Bailout operation:**
  - Bank unions have termed the privatisation process a "**bailout operation" for corporate defaulters.**
  - Private sector is responsible for the huge bad loans. In fact, they should be punished for this crime. But the g**overnment is rewarding them by handing over the banks to the private sector**.

- ○ **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.

Banking Regulation Act, 1949

➢ It regulates banking firms in India. It was **passed as the Banking Companies Act 1949**. and was changed to the Banking Regulation Act,1949 from 1st March 1966.

➢ This act empowers the **Reserve Bank of India (RBI) to**;

- ○ Issue licence to commercial banks, Regulate shareholders' shareholding and voting rights, Supervises the appointment of boards and management, Regulates the operations of banks, giving instructions for audit, Control moratorium, merger, and liquidation, Issues instructions to the banks in the interests of public welfare & banking policy, Impose a penalty on banks if required.

➢ In **2020**, the government passed an ordinance to change the **Banking Regulation Act, 1949**, making all the co-operatives c**ome under the supervision of the Reserve Bank**, so that the interests of the depositors can be protected properly.

Dairy Sector & Opposition to Free Trade

Why in News

According to some experts, India's withdrawal from the **Regional Comprehensive Economic Partnership (RCEP)** is a major victory for the **farmer's organisations, trade unions, associations of small and medium industrial producers.**

➢ Similar views are also shared by the **Indian Dairy Sector,** who opposed free trade in dairy products.

➢ RCEP is one of the world's largest trading blocs, signed between 15 countries (China, Japan, South Korea, Australia, New Zealand and the 10-state **ASEAN grouping**). India pulled out of RCEP negotiations in 2020

Key Points

➢ **India's Dairy Sector Opposition to RCEP:**

- ○ Some of the **major players in the global milk trade like Australia and New Zealand** are in the RCEP agreement.

Note:

○ Over the last 25 years, Indian policy has **consciously encouraged the growth of private milk companies.** At present, these firms are forced to buy milk from **Indian farmers.**

- The reason is that the applied tariff for **foreign dairy products in India is about 35%.**

- The bound tariff would have **fallen to zero if India had signed RCEP.**

○ It would have then been far more profitable for firms to import milk from New Zealand or Australia rather than buy it from Indian farmers. **Hence, India was in the opposition to the agreement.**

○ Moreover, there is no foreseeable future where India would be milk deprived. According to **NITI Aayog,** **India is likely to be a milk-surplus country by 2033.**

Note

➢ The **World Trade Organization (WTO)** allows a country to fix tariffs up to a certain maximum; or bound tariff, for a given commodity line.

  ○ On the other hand, the RCEP binds countries to reduce that level to zero within the next 15 years.

  ○ The maximum tariff in a product category is called the **bound tariff rate.**

  ○ However, the tariff rates differ across products and across countries. The actual tariff rate is called the **applied tariff rate.**

White Revolution 1970

➢ The White Revolution in India was the brainchild of **Dr Verghese Kurein**.

➢ Under him many important institutions were established like the Gujarat Cooperative Milk Marketing Federation Ltd and the **National Dairy Development Board (NDDB).**

➢ The bedrock of the revolution has been the village milk producers' cooperatives. Their major role during **Operation Flood**, was seen as **engines of growth.**

➢ Policy has also favoured the **entry of multinational dairy corporations** into the Indian dairy sector, through joint ventures: mergers and acquisitions.

India's Dairy Sector

➢ **Importance of Dairy Sector:**

  ○ **Labour Intensive Sector:** In the farm-dependent population comprising cultivators and agricultural labourers, those involved in **dairying and livestock constitute 70 million.**

  - Moreover, in the total workforce of **7.7 million engaged exclusively in raising cattle and buffalo, 69% of them are female workers.**

○ **Contribution in Economy:** In the **Gross Value Added (GVA)** from agriculture, the livestock sector contributed 28% in 2019-20.

  - A growth rate of 6% per annum in milk production provides a great support to farmers, especially during drought and flood.

○ **Helping Farmers During Calamities:** Milk production rises during crop failures due to natural calamities because farmers bank more on animal husbandry then.

➢ **Associated Issues:**

○ **Invisible Labour:** Farmers keep **two to five in-milk animals for livelihood.** In this setup**, unpaid female family labour** supplies a major part of the labour requirement for milk production.

  - The landless and marginal farmers among them have no livelihood options to fall back when they fall short of buyers for milk.

○ **Informal Nature of Dairy Sector:** Unlike sugarcane, wheat, and rice-producing farmers, cattle raisers are unorganised and do not have the political clout to advocate for their rights.

○ **Lack of Remunerative Pricing:** Though the value of milk produced outweighs the combined value of the output of wheat and rice in India, there is no official and periodical estimate of the cost of production and **Minimum Support Price** for milk.

○ **Negative Impact of Economies of Scale:** Even though dairy cooperatives handle about 40% of the total marketable surplus of the milk in the country, they are not a preferred option of landless or small farmers.

  - This is because more than 75% of the milk bought by dairy cooperatives is at its lower price band.

Government Initiatives Related to the Dairy Sector

➢ **National Action Plan on Dairy Development 2022:** **I**t seeks to increase milk production and double the income of dairy farmers.

Note:

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> ➤ **National Animal Disease Control Programme & National Artificial Insemination Programme:** It was launched to control and eradicate the Foot & Mouth Disease (FMD) and Brucellosis amongst the livestock in the country,
> ➤ **Pashu-Aadhar:** It is a unique ID on a digital platform for traceability for the animals.
> ➤ **Rashtriya Gokul Mission:** It was launched in 2019 for setting up of 21 Gokul Grams as Integrated Cattle Development Centres.

Global Cropland Expansion

Why in News

According to a new study, **cropland area** across the world **increased 9%** and **cropland Net Primary Production (NPP)** by 25% from 2003-2019.

> ➤ The growth was **primarily due to agricultural expansion** in Africa and South America.

Cropland Area
> ➤ Cropland is defined as 'land used for annual and perennial **herbaceous crops** for human consumption, forage (including hay) and biofuel'.
> > ❍ Perennial woody crops, permanent pastures and shifting cultivation are excluded from the definition.
> > ❍ Herbaceous energy crops are perennials that are **harvested annually.**

Cropland Net Primary Production
> ➤ Net Primary Production (NPP) is defined as the **difference between the energy fixed by autotrophs and their respiration**, and it is most commonly equated to increments in biomass per unit of land surface and time.
> > ❍ An autotroph is an **organism that can produce its own food** using light, water, carbon dioxide, or other chemicals.
> > ❍ Respiration is a **chemical reaction** which occurs in all living cells, releasing energy from glucose.

Key Points

> ➤ **Cropland Expansion:**
> > ❍ The **largest cropland expansion** was observed in **Africa.**

> > ● In Africa, cropland expansion accelerated from 2004-2007 to 2016-2019, with a more than two-fold increase in annual expansion rates.
> ❍ The **largest proportions of natural vegetation conversion to croplands** (excluding dryland irrigation) were found in **Africa, southeast Asia and South America.**
> ❍ **Global per capita cropland area** decreased 10% during the period due to population growth but the **per capita annual cropland NPP** increased by 3.5% as a result of intensified agricultural land use.

> ➤ **Reasons behind the Expansion:**
> ❍ The agricultural expansion is often explained as a direct consequence of the **global increase in food and energy requirements** due to continuing population growth.
> > ● The global population increased by 21% from 2003-2019.

> ➤ **Issues with the Expansion:**
> ❍ **Against SDG15:**
> > ● Cropland expansion is a **major factor in forest loss**, which comes in conflict with **Sustainable Development Goal 15** (SDG 15)
> > > ■ SDG 15 aims to stop deforestation and degradation of natural habitats.
> > > ■ But 49% of the **new cropland area replaced natural vegetation** and tree covers, indicating a conflict with the sustainability goal of protecting terrestrial ecosystems.
> ❍ **Ecological Threat:**
> > ● It is one of the **biggest threats to the planet's ecological health.**
> > > ■ Cropland expansion mostly affects **biodiversity hotspots in Central and South America**, while **cropland intensification** threatens biodiversity especially in Sub-Saharan Africa, India and China.
> > > > ◆ **Agricultural intensification** can be technically defined as an increase in agricultural production per unit of inputs.
> ❍ **Driver of Deforestation:**
> > ● Agricultural expansion **continues to be the main driver of deforestation** and forest fragmentation.
> ❍ **FAO's Estimation:**

Note:

- According to the **Food and Agriculture Organization (FAO)**, if current trends hold, by **2050** the **world's arable land will increase by some 70 million hectares**, and much of the new farmland will be in areas that are currently forested.

➢ **Agricultural land in India:**
  ○ Agricultural land in India was reported at 60.43% in 2018.
  ○ Agricultural land refers to the **share of land area that is arable**, under permanent crops, and under permanent pastures.
    - Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow.

Online Certificate of Origin for Merchandise Export

Why in News

The **Centre has suspended till 31st January 2022, a mandatory obligation imposed on exporters to obtain online Certificates of Origin (CoO)** for every outbound consignment.

Key Points

➢ **About:**
  ○ The online CoO system, put in place in late 2019 **for exports to countries with whom India had a Preferential Trade Agreement (PTA)**, was expanded to cover all merchandise exports from November 2021.
  ○ This platform acts as a **single access point for all exporters, all Free Trade Agreements (FTAs)/ Preferential Trade Agreements (PTAs),** and all concerned agencies.

➢ **Devised By:**
  ○ The platform has been designed and developed by the **Director-General of Foreign Trade (DGFT)** and Regional & Multilateral Trade Relations (RMTR) Division, Department of Commerce, **Ministry of Commerce and Industry.**

➢ **Significance:**
  ○ This online facility provides **'ease of doing business'** to the exporting community and gives a verifiable authentication mechanism to the partner countries to confirm the genuineness of the issued CoOs through a QR code which adds credibility to the issued e-CoO.

➢ **Status of Merchandise Export:**
  ○ India's monthly merchandise exports have crossed USD 30 billion for seven months in a row and are largely on course to reach the government's target of a record USD 400 billion in 2021-22.
    - Export merchandising is **a method of offering retail goods for sale in a foreign consumer market.**

➢ **India's Export Promotion Schemes:**
  ○ **Merchandise Exports from India Scheme:**
    - **MEIS** was introduced in the **Foreign Trade Policy (FTP)** 2015-20, under MEIS, the government provides duty benefits depending on product and country.
  ○ **Service Exports from India Scheme:**
    - Under it, incentives are given by the Ministry of Commerce and Industry to Service Exporters based in India to promote the export of services from India.
  ○ **Remission of Duties or Taxes on Export Product (RoDTEP):**
    - It is a fully automated route for Input Tax Credit (ITC) in the **GST (Goods and Service Tax)** to help increase exports in India.
    - It was started in **January 2021 as a replacement for the MEIS**, which was not compliant with the rules of the **World Trade Organisation.**
  ○ **Rebate of State and Central Taxes and Levies:**
    - Announced in March, 2019, RoSCTL was offered for embedded state and central duties and taxes that are not refunded through Goods and Services Tax (GST).
    - It is available only for garments and made ups. It was introduced by the Ministry of Textiles.
      - Previously, it was Rebate for State Levies (ROSL).

Note:

Types of Trade Agreements

➢ **Free Trade Agreement (FTA):**
  ❍ A free trade agreement is an agreement in which two or more countries agree to provide preferential trade terms, tariff concession etc. to the partner country.
  ❍ India has negotiated FTA with many countries e.g. Sri Lanka and various trading blocs as well e.g. **ASEAN.**

➢ **Preferential Trade Agreement (PTA):**
  ❍ PTAs or Generalized System of Preferences (GSP) is **a special status given in trade by various countries.** In this type of agreement, two or more partners give preferential right of entry to certain products by reducing duties on an agreed number of tariff lines.
  ❍ Tariffs may even be reduced to zero for some products even in a PTA. India signed a PTA with Afghanistan.

➢ **Comprehensive Economic Partnership Agreement (CEPA):**
  ❍ Partnership agreement or cooperation agreement are more comprehensive than an FTA.
  ❍ CEPA covers negotiation on the trade in services and investment, and other areas of economic partnership.
  ❍ India has signed CEPAs with South Korea and Japan.

➢ **Comprehensive Economic Cooperation Agreement (CECA):**
  ❍ CECA generally covers negotiation on trade tariff and TRQ (Tariff Rate Quotas) rates only. It is not as comprehensive as CEPA. India has signed CECA with Malaysia.

Consumer Protection (Direct Selling) Rules, 2021

Why in News

Recently, the Centre has **notified Consumer Protection (Direct Selling) Rules, 2021** for the direct selling industry.

➢ It **prohibits promotion of pyramid schemes** and participation in **money circulation** schemes.

➢ It has been notified in exercise of the powers conferred by the **Consumer Protection Act, 2019.**

➢ Earlier, the government notified and made effective the provisions of the **Consumer Protection (E-Commerce) Rules, 2020** under the Consumer Protection Act, 2019.

Key Points

➢ **About:**
  ❍ The rules **lay down duties and obligations** of both direct selling entities and their direct sellers to "safeguard the interest of consumers''.
  ❍ The **existing direct selling companies** will need to ensure they comply with the rules within 90 days.
  ❍ However the direct sellers as well as the **direct selling entities using e-commerce platforms** for sale shall comply with the requirements of the **Consumer Protection (e-Commerce) Rules, 2020.**

➢ **Applicability of the Rules:** It will **apply to:**
  ❍ All **goods and services bought or sold through direct selling**.
  ❍ All **models of direct selling**, all direct selling entities offering goods and services to consumers in India.
  ❍ All forms of **unfair trade practises** across all models of direct selling.
  ❍ To **direct selling entities which are not established in India**, but offers goods or services to consumers in India.

➢ **Major Provisions of the New Rules:**
  ❍ **Mechanism to Monitor Activities:**
    ● It directed **State governments to set up a mechanism to monitor or supervise the activities** of direct sellers and direct selling entities.
  ❍ **Grievance Redressal Mechanism:**
    ● Direct selling companies will **need to establish an adequate grievance redressal mechanism.**
      ■ Direct selling entities will have to **bear the liability in any action related to the authenticity** of such goods or services.
      ■ Every direct selling entity will have to **appoint a nodal officer** who shall be responsible for ensuring compliance with the provisions of the Act and the rules.
  ❍ **Cannot Induce Consumers:**
    ● Direct selling companies or their direct sellers **cannot persuade consumers to make a purchase based upon the representation** that they

can reduce or recover the price by referring prospective customers to the direct sellers for similar purchases.

○ **Obligation upon Direct Selling Entities:**

● **Incorporation Under Some Act:**

■ Incorporation under the **Companies Act 2013** or if a partnership firm, be registered under the **Partnership Act, 1932,** or if a limited liability partnership, be registered under the **Limited Liability Partnership Act, 2008.**

● **Have a Physical Location:**

■ A minimum of **one physical location** as its registered office within India will be necessary.

● **Self-declaration:**

■ Entities will have to **make self-declaration** to the effect that Direct Selling Entity has **complied with the provisions of the Direct Selling rules** and is not involved in any **Pyramid Scheme or money circulation scheme.**

➢ **Significance**:

○ These new rules would also **bring clarity in the marketplace** and would give **impetus to the direct selling industry**, which is already providing livelihood to over 70 lakh Indians, in which more than 50% are women.

Consumer Protection (e-Commerce) Rules, 2020

➢ **About:**

○ The Consumer Protection (E-commerce) Rules, 2020 are **mandatory and are not advisories.**

➢ **Applicability:**

○ Apply to all **e-commerce retailers**, whether registered in India or abroad, offering goods and services to Indian consumers.

➢ **Nodal officer:**

○ E-commerce entities need to appoint a nodal person, resident in India to ensure compliance with the provisions of the act or rules.

○ Prices and Expiry Dates:

○ The sellers through the e-commerce entities will have to display the total price of goods and services offered for sale along with the break-up of other charges.

○ Expiry date of the good needs to be separately displayed.

Card on File Tokenisation (CoFT)

Why in News

The **Reserve Bank of India (RBI)** has **extended the timeline for implementation of** the new credit and debit card data storage norms, or **card-on-file tokenisation (CoF) by six months to 30ᵗʰ June, 2022.**

➢ The digital payment firms, merchant bodies and banks had **sought more time to integrate the systems** and **onboard all the stakeholders** amid fears over disruption of business transactions.

➢ In September 2021, the **RBI prohibited merchants from storing customer card details** on their servers with effect from 1ˢᵗ January, 2022, and mandated the adoption of CoF tokenisation as an alternative to card storage.

PROCESS TO GET MORE TEDIOUS?

➢ E-tailers & payment gateways **currently offer to store card details,** including the 16-digit number

➢ RBI's ban on storing card data would require e-commerce firms to **opt for tokenisation** or ask customers to enter the card number

➢ Tokenisation refers to payment networks **linking card data to a token,** which is given to the merchant

➢ This token can be used for payments but **only by the specified merchant**

➢ The new rule will become the norm for all card-based transactions in e-commerce **from Jan 2022**

➢ According to a source, the **threat of ransomware attacks** have increased manifold

➢ Online firms **won't be able to store card info** & debit recurring payments (won't affect billers added with bank directly)

➢ It is thought RBI's move is aimed at **increasing customer safety & improving data security**

Key Points

➢ **About:**

○ **Tokenisation**: It **refers to replacement of actual credit and debit card details with an alternate code called the "token"**, which will be unique for a combination of card, token requestor and device.

● A tokenised card transaction is **considered safer** as the actual card details are not shared with the merchant during transaction processing.

● Customers who do not have the tokenisation facility will have to key in their name, 16-digit card number, expiry date and CVV each time they order something online.

○ **Card-on-File**: A CoF transaction is a transaction where a cardholder has authorised a merchant to store the cardholder's Mastercard or Visa payment details.

- The cardholder then authorises that same merchant to bill the cardholder's stored Mastercard or Visa account.
- **E-commerce** companies and airlines and supermarket chains normally store card details in their system.

➢ **More Time Sought for Implementation**:

○ If the new RBI mandate is implemented in the present state of readiness, it could cause **major disruptions and loss of revenue**, especially for merchants.

- Online merchants can **lose up to 20-40 % of their revenues** post 31st December due to tokenisation norms, and for many of them, especially smaller ones, this would sound the death knell, causing them to shut shop.
- Disruptions of this nature **erode trust in digital payments and reverses consumer habits** back towards cash-based payments.

○ Merchants **cannot start the testing and certification** of their payment processing systems until banks and card networks are certified and live with stable APIs (Application Programming Interface) for consumer-ready solutions.

Spices Sector in India

Why in News

Recently, the **Minister for Agriculture and Farmers Welfare** has released the book **'Spices Statistics at a Glance 2021.**

➢ The book highlights the growth achieved in the **production of spices and increase in area** during the last seven years from **2014-15 to 2020-21** in the country.

Key Points

➢ **About Spices:**

○ Spices are **aromatic flavorings from seeds, fruits, bark, rhizomes, and other plant parts.**

○ They are used to **season and preserve food**, and as **medicines, dyes, and perfumes.**

○ Spices have been highly valued as **trade goods for thousands of years.**

- The word spice comes from the **Latin species, which means merchandise, or wares.**

○ The demand of spices has tremendously increased due to the **recognition of spices as a health supplement especially during the pandemic period.**

- This can be clearly seen from the growing export of spices like **turmeric, ginger, cumin, chilli etc.**

➢ **Spices Production In India:**

○ India is the world's **largest producer, consumer and exporter of spices.**

○ Due to the varying climates - **from tropical to subtropical to temperate-almost all spices grow splendidly in India.**

○ In reality almost **all the states and union territories of India** grow one or the other spices.

○ Under the act of Parliament, a total of **52 spices are brought under the purview of the Spices Board.**

- Spices Board (**Ministry of Commerce and Industry**) is the flagship organization for the development and worldwide promotion of Indian spices.
- It was established by the **Spices Board Act, 1986.**

○ In India, there are some states which grow the spices that have **very high value in both national and international markets.**

- The best example is **Kashmiri saffron** which is the world's best saffron.
- The Kashmir saffron has got **Geographical Indication (GI) tag status.**

➢ **Spices Trade:**

○ The export of spices contributes **41% of the total export earnings** from all **horticulture crops** in the country.

Key Statistics for Spices Sector

Top 5 Spices Producing States are Rajasthan, Andhra Pradesh, Gujarat, Telangana, Karnataka

Major Export Destinations for Spices are US, China, Vietnam, Thailand, Bangladesh

India Produces Spice Varieties Listed by ISO 75 of the 109

Top 5 products for Exports are Chili, Mint Products, Cumin, Spices oil & Turmeric
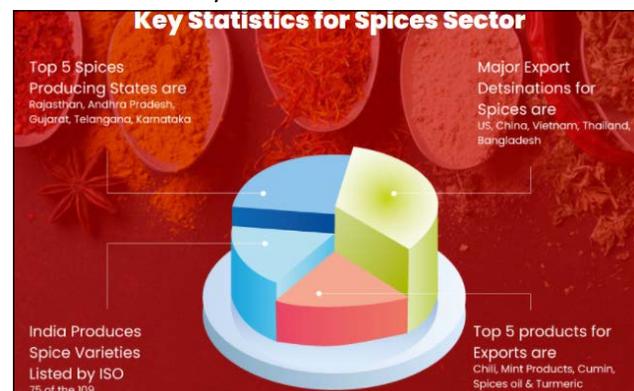
Note:

- ○ It ranks **fourth** among agricultural commodities, **falling behind only the marine products, non basmati rice and basmati rice.**
- ➢ **Related Government Initiative:**
- ○ Recently, th**e Food Safety and Standards Authority of India (FSSAI) i**naugurated the **fifth session of the Codex Committee on Spices and Culinary Herbs (CCSCH)** established under **Codex Alimentarius Commission (CAC).**
- ○ About the **Codex Committee on Spices and Culinary Herbs (CCSCH):**
  - ● **Establishment:** It was formed in 2013.
  - ● **Terms of Reference:**
    - ■ To elaborate worldwide standards for spices and culinary herbs in their dried and dehydrated state in whole, ground, and cracked or crushed form.
    - ■ To consult, as necessary, with other international organizations in the standards development process to avoid duplication.

Multistate Cooperatives

Why in News

The Centre has decided to amend the **Multi State Cooperative Societies (MSCS) Act, 2002** to "plug the loopholes in the Act".

- ➢ Earlier, a new **Ministry of Cooperation** was formed.

Key Points

- ➢ **About the Multi State Cooperative Societies (MSCS) Act, 2002:**
- ○ **Multi State Cooperative Societies:** Although **Cooperatives is a state subject,** there are **many societies** such as those for sugar and milk, banks, milk unions etc whose members and areas of operation are **spread across more than one state.**
  - ● For example, most sugar mills along the districts on the Karnataka-Maharashtra border procure cane from both states.
  - ● **Maharashtra has the highest number of such cooperative societies** at 567, followed by Uttar Pradesh (147) and New Delhi (133).
  - ● The **MSCS Act** was passed to govern such cooperatives.

- ○ **Legal Jurisdiction:** Their board of directors has representation from all states they operate in.
  - ● Administrative and financial control of these societies is **with the central registrar,** with the law making it clear that no state government official can wield any control on them.
  - ● The exclusive control of the central registrar was meant **to allow smooth functioning of these societies, without interference of state authorities.**
- ➢ **Associated Concerns:**
- ○ **Lack of Checks and Balances:** While the system for state-registered societies includes **checks and balances at multiple layers** to ensure transparency in the process, these layers do not exist in the case of multi state societies.
  - ● The **central registrar can only allow inspection of the societies** under special conditions.
  - ● Further, inspections can happen only after prior intimation to societies.
- ○ **Weak Institutional Infrastructure of Central Registrar:** The on-ground infrastructure for central registrar is thin — there are **no officers or offices at state level,** with most work being carried out either online or through correspondence.
  - ● Due to this, th**e grievance redressal mechanism has become very poor.**
  - ● This has led to several instances when credit societies have launched **ponzi schemes** taking advantage of these loopholes.
- ➢ **Possible Reforms/Amendments:**
- ○ **Strengthening Institutional Infrastructure:** The Centre government after consultation with various stakeholders should strengthen necessary institutional infrastructure to ensure better governance of the societies. For example:
  - ● Increasing the manpower.
  - ● Technology shall be used to bring in transparency.
- ○ **Involving States:** The administrative control of such societies should be vested in the state commissioners.

Cooperatives in India

- ➢ **Definition:**
- ○ The **International Cooperative Alliance** (ICA) defines a **Cooperative** as "an autonomous association of persons united voluntarily to meet their common

economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise."

- **Examples of Successful Cooperatives in India:**
  - **National Agricultural Cooperative Marketing Federation of India (NAFED),**
  - **Indian Farmers Fertilisers Cooperative Limited (IFFCO)**
  - AMUL

➢ **Constitutional Provisions:**

○ The **Constitution (97ᵗʰ Amendment) Act, 2011** added a **new Part IXB** regarding the cooperatives working in India.

- The word "**cooperatives" was added after "unions and associations"** in Article 19(1)(c) under Part III of the Constitution.
  - This enables all the citizens to form cooperatives by giving it the status of **fundamental right** of citizens.
- A **new Article 43B** was added in the **Directive Principles of State Policy** (Part IV) regarding the "promotion of cooperative societies".

➢ **Supreme Court Judgement:**

○ In July, 2021, the Supreme Court **struck down certain provisions of the 97ᵗʰ Amendment Act, 2011.**

- As per the SC, **Part IX B (Articles 243ZH to 243ZT)** has "significantly and substantially impacted" State legislatures' "exclusive legislative power" over its co-operative sector.
- Also, the provisions in the 97ᵗʰ Amendment were passed by Parliament without getting them **ratified by State legislatures** as required by the Constitution.
- The SC held that states have exclusive power to legislate on topics reserved exclusively to them (cooperatives are a part of State list).
  - The 97ᵗʰ Constitutional Amendment required ratification by at least one-half of the state legislatures as per Article 368(2).
  - Since the ratification was not done in the case of the 97ᵗʰ amendment, it was liable to strike it down.
  - It **upheld the validity of the provisions of Part IX B which are related to Multi State Cooperative Societies (MSCS).**

- It said that in case of MSCS with objects not confined to one state, the legislative power would be that of the Union of India.

Depreciation of Indian Rupee

Why in News

The Indian currency **declined 2.2% in the Sep-Dec 2021 quarter**. This **depreciation of currency** is due to global funds worth $4 billion having been pulled out of the country's **stock market.**

➢ This downfall of currency makes the **Indian rupee as Asia's worst-performing currency.**

Key Points

➢ **About Depreciation:**

○ Currency depreciation is a **fall in the value of a currency** in a floating exchange rate system.

○ Rupee depreciation means that the rupee has become less valuable with respect to the dollar.

- It means that the rupee is now weaker than what it used to be earlier.
- For example: **USD 1 used to equal to Rs. 70**, now **USD 1 is equal to Rs. 76,** implying that the rupee has depreciated relative to the dollar i.e. it takes more rupees to purchase a dollar.

➢ **Impact of Depreciation of Indian Rupee:**

○ Depreciation in rupee is a **double-edged sword** for the Reserve Bank of India.

- **Positive:** While a weaker currency may support exports amid a nascent economic recovery from the pandemic.
- **Negative: I**t poses risk of imported inflation, and may make it difficult for the central bank to maintain interest rates at a record low for longer.

Appreciation vs Depreciation of Currency

➢ In a floating exchange rate system, **market forces** (based on demand and supply of a currency) determine the value of a currency.

➢ **Currency Appreciation:** It is an increase in the value of one currency in relation to another currency.

○ Currencies appreciate against each other for a variety of reasons, including government policy, interest rates, trade balances and business cycles.

○ Currency appreciation discourages a country's export activity as its products and services become costlier to buy.

➤ **Currency Depreciation:** It is a fall in the value of a currency in a floating exchange rate system.

○ Economic fundamentals, political instability, or risk aversion can cause currency depreciation.

○ Currency depreciation encourages a country's export activity as its products and services become cheaper to buy.

Devaluation And Depreciation

➤ In general, devaluation and depreciation are often used interchangeably.

➤ They both have the same effect – a fall in the value of the currency which makes imports more expensive, and exports more competitive.

○ However, there is a difference in the way they are applied.

➤ A devaluation occurs when a country's central bank makes a conscious decision to lower its exchange rate in a fixed or semi-fixed exchange rate.

➤ A depreciation is when there is a fall in the value of a currency in a floating exchange rate.

➤ **Reasons for Current Depreciation of Indian Rupee:**

○ **Record-High Trade Deficit:** India's **trade deficit** widened to an all-time high of about $23 billion in November amid higher imports.

● This growing trade deficit is driven by a **rebound in oil prices.**

○ **Policy divergence Between RBI and Federal Reserve:** The strengthening of USD in line with expectations of better growth in the US economy and favorable interest offered by the **Federal Reserve (US' Central bank)**.

● The RBI has been continuously buying dollars to build its reserves and prepare itself for any volatility.

○ **Outflow of Capital:** Foreign capital exodus from stocks have led to the benchmark **S&P BSE Sensex Index** falling by about 10% below an all-time high touched in October 2021.

○ **Omicron Concerns:** When concerns about the **omicron virus variant** are roiling the global markets.

Tariff Guidelines for the PPP Projects in Major Ports

Why in News

The **Ministry for Ports, Shipping & Waterways** has announced the **new Tariff Guidelines, 2021** for the **Public-Private Partnership (PPP) projects** in Major Ports.

➤ The new guidelines have been released in consonance of **Major Port Authority Act, 2021.**

Key Points

➤ **New Guidelines:**

○ **Existing Scenario:** The PPP concessionaires at Major Ports were **constrained to operate under the stipulations of guidelines (by Tariff Authority for Major Ports (TAMP)).**

● On the other hand, **private operators/PPP concessionaires at non-major ports were free** to charge tariffs as per market conditions.

● Concessionaire can be a person or company that has the right to sell a product or to run a business in PPP projects.

● **TAMP stands abolished** according to the Major Port Authority Act, 2021.

○ **Transition to Market-linked Tariffs:** Currently, major port's PPP concessionaires handle around 50% of the total traffic handled by all the major ports in India.

● The new guidelines **allow the concessionaires at major ports to set tariffs as per market dynamics.**

➤ **Significance of these Guidelines:**

○ The **biggest benefit of transition to market linked tariff** is that a **level playing field** will be provided to the PPP concessionaires at Major Ports to compete with private ports.

○ This is a major reform initiative as the Government moves towards **deregulation of tariffs for PPP Projects at Major Ports.**

○ The guidelines will usher in a **new era of market economy** and make Major Ports more competitive.

➤ **Major Port Authority Act, 2021:**

○ In February 2021, Parliament passed the **Major Port Authorities Bill, 2020**, which seeks to provide **greater autonomy and flexibility t**o major ports in the country and professionalise their governance.

Note:

drishti

- ❍ **Objectives:**
  - **Decentralization:** It has granted port authority the power to fix tariffs, which will serve as a reference tariff for purposes of bidding for PPP projects.
  - **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.
    - In the Landlord Port Model, ports own the land and basic infrastructure, with operations and management being leased out to private players.

Public-Private Partnership (PPP) Projects

➢ Public-private partnerships involve **collaboration between a government agency and a private-sector company** that can be used to finance, build, and operate projects, such as public transportation networks, parks, and convention centers.

  - ❍ Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.

➢ **Different Models of PPP:** Commonly adopted model of PPPs include **Build-Operate-Transfer (BOT), Build-Own-Operate (BOO), Build-Operate-Lease-Transfer (BOLT), Design-Build-Operate-Transfer (DBFOT), Lease-Develop-Operate (LDO), Operate-Maintain-Transfer (OMT)**, etc.

  - ❍ These models are different on level of investment, ownership control, risk sharing, technical collaboration, duration, financing etc.

Major Ports in India

➢ **Legal Provisions:** Major Ports are under the **Union list of the Indian Constitution** and are administered under the **Indian Ports Act 1908** and the **Major Port Trust Act, 1963.**

➢ **Number of Major Ports:** There are **12 major ports** and **200 non-major ports** (minor ports) in the country.

  - ❍ Major ports includes Deendayal (erstwhile Kandla), Mumbai, JNPT, Marmugao, New Mangalore, Cochin, Chennai, Kamarajar (earlier Ennore), V O Chidambaranar, Visakhapatnam, Paradip and Kolkata (including Haldia).

➢ **Major Ports vs Minor Ports:** Ports in India are classified as Major and Minor Ports according to the jurisdiction of the Central and State government as defined under the Indian Ports Act, 1908.

  - ❍ The **Major Ports** are owned and managed by the **Central Government.**
  - ❍ The **Minor ports** are owned and managed by the **State Governments.**

➢ **Administration of Major Ports:** Each major port is governed by a **Board of Trustees** appointed by the Government of India.

  - ❍ The Trusts operate on the basis of policy directives and orders from the **Government of India.**

➢ **PPP Projects in Ports:** PPPs in the ports sector in India have been witnessed in the operations and management of ports, and construction of deep water ports, container terminals, shipping yards and bulk ports.

MAJOR PORTS
- Kolkata
- Paradip
- Visakhapatnam
- Kamarajar(Ennore)
- Chennai
- V.O. Chidambaranar
- Cochin
- New Mangalore
- Mormugao
- Mumbai
- J.N.P.T
- Deendayal

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Note:

International Relations

Highlights

- Chile Rewrites Its Constitution
- India-Myanmar
- Decline in China's BRI Investments
- Turkey's Stand in Russia- Ukraine Crisis
- Ramna Kali Temple: Bangladesh
- India and Vietnam Relation
- US Imposes New Sanctions on China

- Mutual Legal Assistance Treaty: India- Poland
- 3rd India-Central Asia Dialogue
- Fisherman Issue with Sri Lanka
- Humanitarian Trust Fund for Afghanistan: OIC
- Mission Sagar
- Trincomalee Oil Tank Farm Deal: India- Srilanka
- Nuclear Submarine Alliance: AUKUS

Chile Rewrites Its Constitution

Why in News

The South American country of Chile has formed a Constitution Convention to write a new constitution to tackle a **"climate and ecological emergency."**

➤ As climate catastrophes become inevitable, countries that are already struggling with resource depletion (water, in Chile's case) are being forced to take action by its people.

Key Points

➤ **Background:**

- ○ Chilean politicians want to **leverage its lithium to make the country richer.** As Most Chileans disagree with the government's approach, similar measures in the past (including privatisation of water) have **done little to help out people who need these resources the most.**

- ○ Under the leadership of military ruler Augusto Pinochet (who overthrew communist Salvador Allende in a coup in 1980), Chile began its ongoing journey of resource exploitation.

- ○ There's a problem - lithium mining causes soil moisture to decline and causes daytime temperatures to increase which in turn makes the area drier. While more lithium may be extracted, **it may become even more unfit for humans.**

➤ **About:**

- ○ The new constitution will focus on lithium mining and its regulation. In addition, it will foresee how lithium mining benefits indigenous communities. The architects of the new constitution will also assess whether Chile's political system needs a revamp.

- ○ Their work will not only shape how this country of 19 million is governed. It will also determine the future of a soft, lustrous metal — lithium — lurking in the salt waters beneath this vast desert beside the **Andes Mountains.**

- ○ This reworking of the constitution is **a reminder of changing priorities in a world moving towards climate catastrophes.**

➤ **Challenges:**

- ○ Many fear that the **new constitution will impose hefty royalties and restrictions** on mining and improve focus on local decision-making.

➤ **Lithium in Chile:**

- ○ Chile's **extremely rich in lithium** (second-largest lithium producer after Australia) - an essential component of batteries that support almost all modern smart devices.

- ○ As the world races to replace fossil fuel consumption, the demand for **lithium is causing a surge in its price**.

India- Chile Relations

➤ Chile is **India's window to Latin America and to the Pacific Alliance.**

➤ Chile is the **fifth largest trading partner of India** in the Latin American region.

- India- Chile signed the **Preferential Trade Agreement in 2017** to enhance the trade.
- The bilateral trade is growing and stood at **USD 2.8 billion in 2017-18.**
- India and Chile are **partners in the International Solar Alliance.**
- Both countries cooperate extensively in multilateral fora and share similar views on climate change/renewable energy issues and on expansion and reforms of the **UNSC (United Nations Security Council).**
- India- Chile has signed three Memorandum of Understandings (MoUs) in the fields of -mining, culture, disability.

Lithium's Usage in Batteries
- With countries looking for quick ways to decarbonise, lithium is **being seen as the choice of metal.** With electric vehicles being pitched as the future of transportation and all industries looking for cleaner alternatives, **lithium is seen as their best bet.**
  - Seen as a key part of renewable energy, lithium ion batteries are considered **"energy-dense, cheap and safe."**
- Lithium ion batteries do pack a **lot of power and energy into a small package** with a longer life-cycle.
  - Most gadgets including smartphones and laptops use **lithium-polymer batteries, an alternative** to lithium ion batteries.
- Since lithium is considered the standard non-renewable mineral that makes renewable energy possible, **its demand is expected to continue shooting up.**
- But in this fight against climate change, lithium mining **might create toxic regions where water (saltwater brine)** is unfit for human consumption and chances of growing vegetation are low.

Chile
- Chile is officially known as the Republic of Chile. Its capital is Santiago.
- It is a South American country occupying a narrow strip of land between the Andes to the east and the Pacific Ocean to the west.
- It borders Peru to the north, Bolivia to the northeast, Argentina to the east, and the Drake Passage in the south.

- The **Atacama desert** is one of the driest places in the world and touches Chile in its northern side and is a source of sodium nitrate fertilizer.

- It owes its aridity due to a constant temperature inversion of **cool north-flowing Humboldt ocean current.**
- **Chuquicamata is the World's largest copper town** of Chile.

India-Myanmar

Why in News

Recently, **India has provided 10 lakh doses of 'Made in India'** coronavirus vaccines and **a grant of 10,000 tonnes of rice and wheat to Myanmar** as part of its continued humanitarian support for the neighbouring country.

- It was the first visit of an Indian Foreign Secretary to Myanmar since **Myanmar's military deposed the democratically-elected government of Aung San Suu Kyi in a coup on 1st February 2021.**

Note:

Key Points

➢ Called for **"return of democracy"** at the **"earliest"** in the country and "release" of political prisoners; resolution of issues through dialogue; and complete cessation of all violence.

➢ Reaffirmed **India's strong and consistent support to the ASEAN initiative** and expressed hope that progress would be made in a pragmatic and constructive manner, based on the five point consensus.

   ○ The **ASEAN five-point consensus states** that there shall be an immediate cessation of violence in Myanmar and all parties shall exercise utmost restraint; constructive dialogue among all parties concerned shall commence to seek a peaceful solution in the interests of the people.

➢ Expressed India's continued **support for people-centric socio-economic developmental projects**, including those along the India-Myanmar border areas, as well as India's commitment for expeditious implementation of ongoing connectivity initiatives such as the **Kaladan Multimodal Transit Transport Project and the Trilateral Highway.**

➢ Reiterated India's commitment **to continue with the projects under Rakhine State Development Programme and Border Area Development Programme** for the benefit of the people of Myanmar.

➢ Emphasized that **peace and security in the North East states are affected if there is instability in Myanmar.**

   ○ In the recent past, it is **not just the Rohingyas** who tried to enter India from Myanmar. According to reports, police personnel and others serving in Myanmar forces fled the country and took shelter in the North East states like Mizoram, Manipur.

India-Myanmar Ties

➢ **Background:**

   ○ India and Myanmar relationship officially got underway **after the Treaty of Friendship was signed in 1951**, after which the foundation for a more meaningful relationship was established during Prime Minister Rajiv Gandhi's visit in 1987.

➢ **Muti-faceted Relationship:**

   ○ India and Myanmar have traditionally **had much in common, with cultural, historical, ethnic, and religious ties**, in addition to sharing a long geographical land border and maritime boundary in the Bay of Bengal.

➢ **Geo-Strategic Location of Myanmar:**

   ○ Myanmar is **geopolitically significant to India as it stands at the center of the India-Southeast Asia** geography.

   ○ Myanmar is the **only Southeast Asian country that shares a land border with northeastern India**, stretching some 1,624 kilometers.

   ○ The two countries a**lso share a 725-km maritime boundary** in the Bay of Bengal.

➢ **Confluence of Two Foreign Policy Doctrines:**

   ○ Myanmar is the only country that sits at the **intersection of India's "Neighborhood First" policy and its "Act East" policy.**

   ○ Myanmar is **an essential element in India's practice of regional diplomacy** in the **Indo-Pacific** and serves as a land bridge to connect South Asia and Southeast Asia.

➢ **Competition with China:**

   ○ If India is to become an assertive regional player in Asia, it has to work toward developing policies that would improve and strengthen its relationship with neighboring countries.

   ○ However, in pursuance of this, C**hina is a big roadblock, as it aims to diminish India's influence in its neighborhood.** Therefore, both India and China are **fighting for gaining influence in Myanmar.**

   ○ For example, as part of its policy for the Indian Ocean called **Security and Growth for All in the Region (SAGAR)**, India developed the Sittwe port in Myanmar's Rakhine state.

   ○ The **Sittwe port is meant to be India's answer to the Chinese-fronted Kyaukpyu port**, which is intended to cement China's geostrategic footprint in Rakhine.

➢ **Critical for India's National Security Interests:**

   ○ North-eastern states in India are affected by **left-wing extremism** and **narcotics trade routes (golden triangle).**

   ○ To counter these threats, the **Indian and Myanmar armies have carried out many joint military operations** like Operation Sunshine.

➢ **Economic Cooperation:**

   ○ Many Indian companies **made significant economic and trade agreements** in infrastructure and other areas.

Note:

○ Some other Indian companies such as Essar, GAIL, and ONGC Videsh Ltd. have invested in Myanmar's energy sector.

○ To elevate its **"Made in India"** arms industry, India has identified Myanmar as key to increasing its military exports.

Decline in China's BRI Investments

Why in News

According to a China based think tank report, **investments in China's much-touted Belt and Road Initiative (BRI) have fallen by 5% since 2019.**

➢ Unsuccessful deals and the **Covid-19 pandemic** contributed to the fall in the investments.

➢ Also, China is no longer doling out hard cash for projects in Africa, amid criticism over infrastructure debt and loan defaults.

Key Points

➢ **About BRI:**

○ It is **a multi-billion-dollar initiative launched in 2013.**

○ It aims to **link Southeast Asia, Central Asia, the Gulf region, Africa and Europe** with a network of land and sea routes.

○ It has been launched **to undertake big infrastructure projects** in the world which in turn would also enhance the global influence of China.

○ **More than 100 countries signed agreements** with China to cooperate in BRI projects like railways, ports, highways and other infrastructure.

● From 2000 to 2020, China helped African countries build more than 13,000 kms of roads and railways, and more than 80 large-scale power facilities, and funded over 130 medical facilities, 45 sports venues and over 170 schools and built the African Union Conference Centre.

➢ **Activities under BRI:**

○ It encompassed **five kinds** of activities:

● Policy coordination, Trade promotion, Physical connectivity, Renminbi internationalization (China's currency) and People to people contacts.

➢ **Routes of BRI:**

○ **New Silk Road Economic Belt:** It encompasses trade and investment hubs to the north of China; by reaching out to Eurasia including a link via Myanmar to India.

Note:

- **Maritime Silk Road (MSR):** It begins via the South China Sea going towards Indo-China, South-East Asia and then around the Indian Ocean thus reaching Africa and Europe.
- ➤ **Related concerns (for India and World):**
  - ○ **Hamper India's Strategic Interests:**
    - The **China-Pakistan Economic Corridor (CPEC)** passes through Pakistan-occupied Kashmir (PoK) and Baluchistan, both of which are home to a long-running insurgency.
    - CPEC would hamper India's strategic interests in the South Asian region and can aid Pakistan's legitimacy in the Kashmir dispute too.
    - Also, **attempts to extend CPEC to Afghanistan** may undermine India's position as economic, security and strategic partner of Afghanistan.
  - ○ **China's Strategic Rise in the Subcontinent:** Along with **China-Myanmar Economic Corridor (CMEC)** and CPEC, China is also developing the **China-Nepal Economic Corridor (CNEC)** which will link Tibet to Nepal.
    - The endpoints of the project will touch the boundaries of the Gangetic plain.
    - Thus three corridors signify the economic as well as strategic rise of China in the Indian subcontinent.
  - ○ **Lack of Transparency:**
    - **Lack of transparency of the BRI agreements** and mounting debt to China by smaller countries have raised global concerns.
      - The 99-year lease of **Hambantota port to China** by Sri Lanka has raised red flags about the downside of the BRI and push for major infrastructure projects **costing billions of dollars in small countries.**
- ➤ **Initiatives to Tackle BRI:**
  - ○ **B3W Initiative: The G7** Countries proposed a **'Build Back Better World (B3W) initiative'** at the **47th G7 summit** to counter China's BRI.
    - It aims to address the infrastructure investment deficit in developing and lower income countries - the space which has been increasingly captured by China.
  - ○ **Blue Dot Network (BDN):** It is a **multi-stakeholder initiative** formed by the US, Japan and Australia to bring together governments, the private sector and civil society to promote high-quality, trusted standards for global infrastructure development.

- **BDN** was formally announced in november, 2019 at the Indo-Pacific Business Forum in Bangkok, Thailand.
- ○ **Global Gateway:** In a bid to compete with BRI, the **European Union** recently launched the Global Gateway, a new infrastructure development scheme

Turkey's Stand in Russia-Ukraine Crisis

Why in News

Recently, Turkey urged Russia to drop its one-sided demands regarding **North Atlantic Treaty Organisation (NATO)** and Ukraine.

- ➤ It also requested **Russia to take a moderate approach** in its demands with the western alliance (US and other western countries).
- ➤ Earlier, the US intelligence reports said the **tension on the Russia-Ukraine border represents a major security crisis** for the region, with the potential to snowball into a broader conflict.

Key Points

- ➤ **Background:**
  - ○ **History:**
    - Ukraine and Russia **share hundreds of years of cultural, linguistic and familial links.**
    - For many in Russia and in the ethnically Russian parts of Ukraine, the shared heritage of the countries is an emotional issue that has been exploited for electoral and military purposes.
    - As part of the Soviet Union, **Ukraine was the second-most powerful Soviet republic after Russia,** and was crucial strategically, economically and culturally.

Note:

○ **The Conflict:**

- Ever since Ukraine split from the Soviet Union, **both Russia and the West have vied for greater influence in the country** in order to keep the balance of power in the region in their favour.

- Also the unique geography of the **Black Sea** region confers several geopolitical advantages to Russia.

- The **Donbass region (the Donetsk and Luhansk regions) of eastern Ukraine** has been facing a **pro-Russian separatist movement since 2014.**

- In 2014**, Russia seized Crimea from Ukraine** in what was the first time a European country annexed territory from another country since **World War-2 (1939 - 1945).**

- In 2015, an open conflict was averted after the '**Minsk II' peace agreement** was signed by Representatives of Russia, Ukraine, the **Organisation for Security and Cooperation in Europe (OSCE)** and the leaders of two pro-Russian separatist regions, under the mediation of France and Germany.

- Recently, **Ukraine urged NATO to speed up his country's membership** in the alliance.

- Russia **declared such a move a "red line",** and worried about the consequences of the US-led military alliances expanding right up to its doorstep.

➢ **Current Situation:**

○ Russia is seeking assurances from the US that **Ukraine will not be inducted into NATO.** However, the US is not prepared to give any such assurance.

- This has left the countries in a stand-off, with tens of thousands of Russian troops ready to invade Ukraine.

○ Russia is keeping the **tensions high at the Ukraine border** in order to get sanctions relief and other concessions from the West.

○ **Any kind of military action by the US or European Union (EU) against Russia would precipitate a major crisis for the whole world**, and has so far not been mooted by any of the parties involved.

○ However, the US has **offered to re-open talks between the NATO alliance and Russia** to ease Russia's concerns.

- A meeting of the NATO-Russia Council has been proposed for January 2022, though **Ukraine has not publicly agreed.**

➢ **Turkey's Stand:**

○ Turkey has **irritated Russia by supplying combat drones to Ukraine** that Russia fears could be used by Ukraine in its conflict with separatists in two eastern regions.

○ Turkey has also **upset the US and NATO by acquiring an advanced missile defence system from Russia** that resulted in sanctions from the United States.

○ It has **urged Russia and the Western defence alliance to remove their differences in direct negotiations** proposed by NATO chief Jens Stoltenberg.

➢ **India's Stand:**

○ India **did not join the Western powers' condemnation** of Russia's intervention in Crimea and kept a low profile on the issue.

○ In November 2020, **India voted against a Ukraine-sponsored resolution** in the **United Nations (UN)** that condemned alleged human rights violations in Crimea thereby backing old ally Russia on the issue.

North Atlantic Treaty Organisation

➢ It is a **military alliance established by the North Atlantic Treaty** (also called the **Washington Treaty**) of April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.

➢ A key provision of the treaty, the so-called **Article 5**, states that if one member of the alliance is attacked in Europe or North America, it is to be considered an attack on all members. That **effectively put Western Europe under the "nuclear umbrella" of the US.**

○ NATO has only **once invoked Article 5, in September, 2001 following the 9/11 attacks** on the World Trade Centre in the US.

➢ As of 2019, there are **29 member states,** with Montenegro becoming the latest member to join the alliance in 2017.

Organisation for Security and Co-operation in Europe

➢ It is the **world's largest security-oriented intergovernmental organisation.** Its mandate includes issues such as arms control, promotion of human rights, freedom of the press, and fair elections. Its **headquarters are in Vienna.**

○ It was **established in 1972**, and its first conference (1973–75) was attended by all 33 countries of Europe (with the exception of Albania) and by the United States and Canada.

Note:

drishti

> - All 57 **participating States enjoy equal status**, and decisions are taken by consensus on a politically, but **not legally binding basis.**
>   - ○ **India is not a participating state.**
> - The **Open Skies Consultative Commission regularly meets at the OSCE in Vienna**.
>   - ○ It is the **implementing body of the Open Skies Treaty,** which in 2002 established a regime of unarmed aerial observation flights over the territory of its 33 signatories.

Ramna Kali Temple: Bangladesh

Why in News

Recently, the Indian President has inaugurated the **reconstructed Ramna Kali temple in Ramna, Dhaka (Bangladesh),** where the **landmark Suhrawardy Udyan** (the former Ramna Race Course) is located.

> - The inauguration of the reconstructed Ramna Kalibari **coincided with the 50th anniversary of the victory of Bangladesh and India in the Liberation War**, which also marks the **golden jubilee of the bilateral relations** between the two sides.

Key Points

> - **About:**
>   - ○ The temple was destroyed by Pakistani forces **during their Operation Searchlight in March 1971,** the brutal crackdown that led to the genocide and the **Bangladesh War of Liberation.**

- In March 1971, West Pakistan led a genocide in East Pakistan to suppress calls for Bengali self-determination. East Pakistan fought and won to establish the People's Republic of Bangladesh. India played a crucial role in Bangladesh's freedom struggle.
- ○ After Bangladesh got rid of Pakistan, a small temple was set up at the site for people to offer prayers.
- ○ A **reconstruction of the complex was announced in 2017**, when then Indian External Affairs Minister inaugurated 15 development projects in Baridhara, Dhaka.
- ○ The historic Ramna Kali temple is **a symbol of the spiritual and cultural bonding among the people of India and Bangladesh**.

> - **Ramna Kali Temple:**
> - ○ The temple in the area, dedicated to the Goddess Kali, **is believed to have been built during the Mughal period.** It is believed to be 400 years old, even though it is difficult to pinpoint a year in which it was built.
> - ○ The temple was built by a Hindu sect, but it is difficult to identify exactly who built it. However, it is said that i**t was built by a certain Haricharan Giri** who was a mahant in the temple.
> - ○ It was not a very large temple, and was fairly ordinary in terms of its architecture. However, it is **the second oldest Hindu temple in Bangladesh**, the Dhakeshwari Temple being the oldest.
> - ○ The temple gained prominence in the **early 20th century when the renowned saint Ma Anandamayi built her ashram in its precincts.**
>   - Anandamayi was popularly addressed as "Shahbag-er ma", or the Mother of Shahbag.

> - **The Temple and the War:**
> - ○ On 27th March 1971, the **Pakistani army destroyed the temple and massacred 85 Hindus**, including priests and devotees.
> - ○ On 7th March 1971, Days before the temple was razed, **Bangabandhu Sheikh Mujibur Rahman delivered his historic speech at the Ramna Race Course maidan**, in which he exhorted Bengalis for the struggle for independence.
>   - Bangabandhu Sheikh Mujibur Rahman (1920-1975) is the founding leader of Bangladesh and the country's first Prime Minister.

Note:

India-Bangladesh Relations

➢ **Military Cooperation:**
  - The Bangladesh government has uprooted **anti-India insurgency elements from its borders**, making the India-Bangladesh border one of the region's most peaceful.
  - This has allowed India to **make a massive redeployment of military resources** to its more contentious borders elsewhere.

➢ **Land Boundary Agreement:**
  - Bangladesh and India **have achieved the rare feat of solving their border issues** peacefully by ratifying the historic Land Boundary Agreement in 2015.

➢ **Trade Relations:**
  - Bangladesh today is **India's biggest trading partner in South Asia** with exports to Bangladesh in **FY 2018-19 at USD 9.21 billion and imports at USD1.04 billion.**
  - Also, India has offered duty free access to multiple Bangladeshi products.

➢ **Development Sector:**
  - India extended three **lines of credit to Bangladesh in recent years** amounting **to USD 8 billion for the construction** of roads, railways, bridges, and ports.

➢ **Improved Connectivity:**
  - A direct bus service **between Kolkata and Agartala runs a route distance of 500 km**, as compared to the 1,650 km if it ran through the Chicken's Neck to remain within India.
  - **Bangladesh allows the shipment of goods** from its Mongla and Chattogram (Chittagong) seaports carried by road, rail, and water ways to Agartala.

➢ **New Areas of Engagement:**
  - Bangladeshis make up **a large portion of tourists in India, outnumbering all tourists arriving from western Europe in 2017**, with one in every five tourists being a Bangladeshi.
  - Bangladesh accounts for **more than 35% of India's international medical patients** and contributes more than 50% of India's revenue from medical tourism.

➢ **Recent Development:**
  - Earlier, a 122-member contingent of the Bangladesh Armed Forces had participated in the **72ⁿᵈ Republic Day** parade, **commemorating 50 years of the 1971 India-Pakistan war that led to the liberation of Bangladesh**.

India and Vietnam Relation

Why in News

Recently, **India and Vietnam** signed a **letter of intent (LOI)** to collaborate in the **field of digital media**, paving the way for further strengthening the partnership between the two countries.

➢ A LOI is a document that declares the **initial commitment of two parties** as they enter into a business deal with each other. It outlines the chief terms of the prospective deal.

➢ Earlier in 2020, **Defence Ministers of India and Vietnam** discussed collaboration in defence industry capability building, training and cooperation in **United Nations (UN)** peacekeeping operations, etc.

Key Points

➢ **Letter of Intent:** It recognises the **joint objectives of both the countries** to facilitate cooperation in the **field of Posts and Telecom.**

○ Promote **sharing of information and experience**, cooperate to implement projects in Human Resource Development.

○ Promote **enhanced cooperation of postal designated operators** and service providers of both the countries.

○ It will shape bilateral cooperation in the field of new technologies and challenges, such as the '**infodemic**', which all countries are grappling with during the COVID-19 pandemic.

➢ **Scope of Discussion**: Vietnam appreciated the efforts of India for developing indigenous 5G network under **"AtmaNirbhar Bharat"**.

○ The Vietnamese Minister of Information and Communications suggested that **India should collaborate in the field of 5G** to produce world class India has been developing indigenously designed 5G telecom equipment.

India- Vietnam Relation

➢ **Background**:

○ While defence cooperation has been one of the most significant pillars of the **Comprehensive Strategic Partnership** initiated by the two countries in 2016, the relationship between the two countries was established much earlier.

○ India had established the **Consul General's office** in **Hanoi** as early as 1956.

● Vietnam established its **diplomatic mission in 1972**.

○ India had stood by Vietnam in **opposing US intervention** in that country at the cost of embittering Indo-US relations.

○ The relationship was further strengthened when India, in the early 1990s, initiated its **"Look East Policy"** with the specific objective of economic integration and political cooperation with Southeast Asia and East Asia.

➢ **Areas of Cooperation**:

○ **Strategic Partnership**:

● India and Vietnam agreed to strengthen their strategic partnership "in line with India's

Indo-Pacific Oceans Initiative (IPOI) and the **ASEAN's** **Outlook on Indo-Pacific** to achieve shared security, prosperity and growth for all in the region."

○ **Economic Cooperation**:

● Trade and economic relations for mutual benefit, which have significantly improved over the years particularly after the **ASEAN- India Free Trade Agreement** was signed.

● India realises that Vietnam is a potential regional power in **South East Asia** with great political stability and substantial economic growth.

● India is investing in development and capacity assistance for Vietnam through **quick impact projects (QIP)**, **proposals in the area of water resource management** in **Vietnam's Mekong Delta region**, **Sustainable Development Goals (SDGs)**, and **digital connectivity**.

○ **Trade relations:**

● During the **Financial Year (FY)** April 2020 – March 2021, bilateral trade between India and Vietnam reached USD 11.12 billion.

■ Indian exports to Vietnam amounting to USD 4.99 billion and Indian imports from Vietnam at USD 6.12 billion.

○ **Defence Cooperation**:

● While Vietnam is interested in modernising its armed forces, India is interested in **developing defence capabilities** of its South-East Asian partners sufficiently to maintain peace in the strategic region.

● Vietnam is interested in India's **Akash surface-to-air systems** and **Dhruv advanced light helicopters** and **Brahmos missiles**.

● Apart from this, the defence relations include capacity building, dealing with common security concerns, training of personnel, and cooperation in defence R&D.

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

■ **This year completes five years of "Comprehensive Strategic Partnership" between India and Vietnam, and the year 2022 will mark fifty years of diplomatic relations between the two countries.**

- Indian Naval Ship INS Kiltan undertook a visit to Ho Chi Minh City to deliver flood relief materials for the people of Central Vietnam.
  - It also participated in the **PASSEX** Exercise with the Vietnam People's Navy.
- The **China factor also weighs heavily in the respective strategic calculus** of India and Vietnam.
  - Both countries had fought wars with China and both have border problems with that country. China aggressively continues to encroach in the territories of the two countries.
  - Hence, it is natural for both the countries to come closer with a view to restrain China from its aggressive actions.
- ❍ **Cooperation at Multiple Fora**:
  - At the **UN Security Council**, both India and Vietnam are serving concurrently as **non-permanent members in 2021**.
  - India and Vietnam closely cooperate in various regional forums such as **East Asia Summit**, **Mekong Ganga Cooperation**, **Asia Europe Meeting** (ASEM).
- ❍ **People-to-People Contacts**:
  - The year 2019 was celebrated as the **ASEAN-India Year of Tourism**. Both countries have facilitated a simplified visa regime to promote bilateral tourism.
  - The Embassy of India organised various events to **celebrate Mahatma@150** in 2018-19. These include Jaipur artificial limb fitment camps, which were organised in four provinces of Vietnam, benefitting 1000 people, under the **'India for Humanity'** initiative of the Government of India.

US Imposes New Sanctions on China

Why in News

The U.S is imposing new **sanctions on several Chinese biotech** and **surveillance companies** and government entities over **human rights** abuses of **Uyghur Muslims** in the **Xinjiang region** of China.

- ➤ **Xinjiang** is technically an **autonomous region within China** — its largest region, rich in minerals, and sharing

borders with eight countries, including India, Pakistan, Russia and Afghanistan.
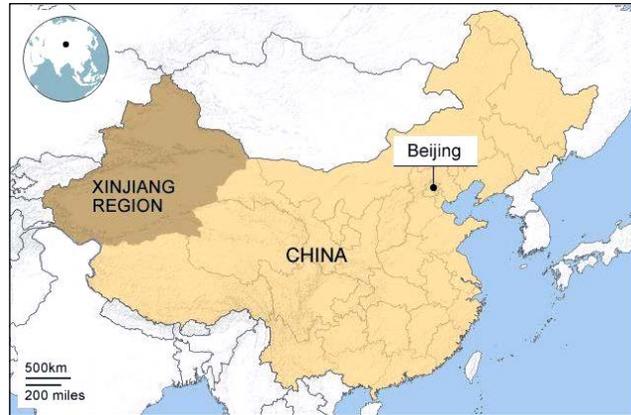
Key Points

- ➤ **US Sanctions**:
  - ❍ The **US Commerce Department** is targeting **China's Academy of Military Medical Sciences** and its 11 research institutes that focus on **using biotechnology to support the Chinese military**.
    - The US Treasury Department is also set to **issue penalties** against several Chinese entities.
    - The move will **bar American companies** from selling components to the entities without a license.
  - ❍ The US administration supported **bipartisan legislation** that **bans imports into the U.S. from Xinjiang** unless companies can demonstrate the goods were not produced by forced labour.
  - ❍ Earlier, in 2020 the **United States House of Representatives** approved a legislation calling for **sanctions on Chinese officials responsible for oppression of Uighur Muslims.**
    - The bill calls for sanctions against those responsible for repression of Uyghurs and other Muslim groups in China's Xinjiang province.
    - The bill also calls on USA companies or individuals operating in the Xinjiang region to take steps to ensure their products do not include parts using forced labor of Uyghurs.
- ➤ **Declaration for Uighur Muslims**:
  - ❍ Recently, **43 countries have signed a declaration**, calling on China to ensure full respect for the rule of law for the Muslim Uighur community in Xinjiang.
  - ❍ The declaration was signed by the US and other countries accusing China of **human rights** violations and **ethnic cleansing against the Uighur Muslims**.

Note:

- Similar **declarations** in 2019 and 2020 condemned China for its policies in Xinjiang, where United States has accused Beijing of carrying out genocide.

○ It also called for access to Xinjiang for independent observers, including the **UN High Commissioner for Human Rights.**

○ It noted the **existence of a large network of 'political re-education' camps** in Xinjiang Uighur Autonomous Region, where over a million people have been arbitrarily detained.

- However, China claims its camps to be 'educational centres' where the Uighurs are being cured of "extremist thoughts" and radicalisation, and learning vocational skills.

➢ **China's Stand**:

○ China claims that Uighur groups want to establish an independent state and, because of the Uyghurs' cultural ties to their neighbours, leaders fear that elements in places like **Pakistan may back a separatist movement in Xinjiang.**

○ China has denied any abuses and says the steps it has taken are necessary to combat terrorism and a separatist movement.

➢ **India's Stand**:

○ The Indian government has maintained near **silence on the Uighur crisis.**

Uyghurs Muslims

➢ **About:**

○ The Uyghurs are a predominantly **Muslim minority Turkic ethnic group**, whose origins can be traced to Central and East Asia.

- The Uyghurs speak their own language, similar to Turkish, and see themselves as culturally and ethnically close to Central Asian nations.

○ The Uyghurs are considered to be one of the **55 officially recognized ethnic minority communities in China.**

- However, China recognises the community only as a regional minority and rejects that they are an indigenous group.

○ Currently, the **largest population of the Uighur ethnic community** lives in the Xinjiang region of China.

- A significant population of Uyghurs also lives in the neighbouring Central Asian countries such as **Uzbekistan, Kyrgyzstan and Kazakhstan.**

- **Xinjiang** is technically an autonomous region within China — its largest region, rich in minerals, and **sharing borders with eight countries,** including India, Pakistan, Russia and Afghanistan.

➢ **Persecution of Uyghurs:**

○ **Intrusion of Majority Han Chinese:** Over the past few decades, as economic prosperity has come to Xinjiang, it has brought with it in large numbers the **majority Han Chinese.**

- They have cornered the better jobs, and left the Uyghurs feeling their livelihoods and identity were under threat.

- This led to **sporadic violence, in 2009** culminating in a riot that killed 200 people, mostly Han Chinese, in the region's capital Urumqi.

○ **Supression by State**: Uighur Muslims for decades have **suffered from abuses including persecution, forced detention, intense scrutiny, surveillance** and even slavery.

○ **Systematic Effort to Suppress Uyghurs**: U.S. intelligence has established that China has set up a **high tech surveillance system** across Xinjiang that uses **biometric facial recognition** and has **collected DNA samples** from all residents, ages 12 to 65, in Xinjiang as part of a systematic effort to suppress Uyghurs.

- China is choosing to **use these technologies to pursue control over its people** and its repression of members of ethnic and religious minority groups.

Mutual Legal Assistance Treaty: India- Poland

Why in News

Recently, the Union Cabinet has approved the **Treaty on Mutual Legal Assistance** in **Criminal Matters** between the Government of **India and Poland**.

Key Points

➢ **About:**

○ **Mutual Legal Assistance Treaties (MLATs):**

- The MLATs in criminal matters are the bilateral treaties entered between the countries **for providing international cooperation and assistance.**
- These agreements **allow for the exchange of evidence and information in criminal and related matters** between the signing countries.

- ○ **Benefits of Treaty:**
  - **Investigation and Prosecution of Crime:** It will **enhance effectiveness** of both the countries in **investigation and prosecution of crime**, through cooperation and mutual legal assistance in criminal matters.
  - **Transnational Crime and its Linkages to Terrorism**: It will provide a **broad legal framework for bilateral cooperation** with Poland in investigation and prosecution of crime as well as in tracing, restrain and confiscation of proceeds and instruments of crime as well as the funds meant to finance terrorist acts.
  - **Gaining Better Inputs**: It will be instrumental in gaining better inputs and insights in the modus operandi of organized criminals and terrorists.
    - These in turn can be used to fine tune policy decisions in the field of internal security.
- ○ **Nodal Agency in India**:
  - The **Ministry of Home Affairs is the nodal Ministry** and the Central authority for seeking and providing mutual legal assistance in criminal law matters.

- The **Ministry of External Affairs** may be involved in this process when such requests are routed through diplomatic channels by these Ministries.
- ○ **Legal Basis**:
  - **Section 105** of the **Criminal Procedure Code (CrPC)** speaks of reciprocal arrangements to be made by the Central Government with the Foreign Governments with regard to the service of summons/warrants/judicial processes.
  - India has entered into **Mutual Legal Assistance Treaties/Agreements with 42 countries** (November 2019).

India-Poland Relations

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

Note:

- ○ **Foreign Direct Investment (FDI):**
  - 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.
- ➤ **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.**
    - **Indology** is the academic study of the history and cultures, languages, and literature of India and as such is a subset of Asian studies.
  - ○ The 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.

3rd India-Central Asia Dialogue

Why in News

Recently, the 3rd meeting of the **India-Central Asia Dialogue** was held in New Delhi.

- ➤ It is a ministerial-level dialogue between India and the **Central Asian countries** namely **Kazakhstan**, **Kyrgyzstan**, Tajikistan, Turkmenistan and **Uzbekistan**.
- ➤ India virtually hosted the second meeting of the **India-Central Asia Dialogue in 2020**.

Key Points

- ➤ **International North-South Transport Corridor**:

- ○ Emphasis on **optimum usage of the International North-South Transport Corridor (INSTC)** as well as **Ashgabat Agreement** on International Transport and Transit Corridor to enhance connectivity between India and the Central Asian countries.
  - Stressed on including **Chabahar Port within the framework of INSTC** and **expressed interest in cooperation** on issues related to the **development and strengthening of regional connectivity** in Central and South Asia.
  - Agreed to **develop the transit and transport potential of their countries**, improve the regional logistics network and promote joint initiatives to create new transport corridors.
  - Agreed to explore the possibility of **establishing joint working groups** to address the **free movements of goods and services** between India and the Central Asian states.
- ➤ **Connectivity Projects**:
  - ○ The connectivity initiatives (**China's Belt and Road Initiative**) should be based on the principles of transparency, broad participation, local priorities, financial sustainability and respect for sovereignty and territorial integrity of all countries.
- ➤ **Situation of Afghanistan**:
  - ○ Discussed the **current situation in Afghanistan** and its impact on the region, following the **Taliban's occupancy**.
    - Issues like current humanitarian situation, terrorism, territorial integrity, respect for sovereignty and unity were discussed too.
  - ○ Pushed for concerted action against all terror groups.
    - The Afghanistan's soil must not be used for planning terror attacks, even as they pledged to provide immediate humanitarian aid to the Afghan people.
    - Condemned **all forms of terrorism** and opposed "providing safe haven, using terrorist proxies for cross-border terrorism, terror financing, arms and drugs trafficking, dissemination of a radical ideology and abuse of cyber space to spread disinformation and incite violence.
  - ○ Supported a **peaceful and stable Afghanistan** and emphasised respect for **sovereignty, territorial integrity and non-interference in its internal affairs.**

Note:

○ Pointed to the importance of **UN Security Council Resolution 2593**, which "unequivocally demands that Afghan territory not be used for sheltering, training, planning or financing terrorist acts and called for concerted action against all terrorist groups".

➢ **Counter Terrorism Efforts**:

○ Perpetrators, organisers, financiers and sponsors of terror acts must be brought to justice in accordance with principle of "extradite or prosecute".

○ Called on the world community to implement relevant **UN resolutions**, **global counter-terrorism strategy** and **Financial Action Task Force standards**.

➢ **Line of Credit**:

○ All the countries are currently discussing the use of a **USD 1 billion line of credit** announced by India last year for infrastructure projects in Central Asia.

  ● A **line of credit** is a preset borrowing limit that can be tapped into at any time.

  ● The borrower can take money out as needed until the limit is reached, and as money is repaid, it can be borrowed again in the case of an open line of credit.

➢ **Post-pandemic Recovery**:

○ All the countries **stressed the importance of extensive vaccination** and called for **cooperation through sharing of vaccine doses**, **transfer of technology**, **development of local production capacities**, **promotion of supply chains for medical products**, and **ensuring price transparency.**

➢ **Restoration of Tourism**:

○ Backed the **gradual restoration of tourism and business** ties between India and the Central Asian countries.

○ The foreign ministers of Kazakhstan and Kyrgyzstan welcomed the **mutual recognition of Covid-19 vaccination certificates** between India and their countries, while the ministers of Tajikistan, Turkmenistan and Uzbekistan sought early mutual recognition of certificates.

➢ **Historical and Cultural Ties**:

○ Need **to build on the historical and cultural ties of their region** with India and highlight the **potential for cooperation** in areas such as connectivity, transport, transit and energy.

➢ **International Solar Alliance (ISA)**:

○ India highlighted the role of "**International Solar Alliance (ISA)**" initiative in collective, rapid and massive deployment of solar energy for effective implementation of the Paris Agreement.

➢ **Coalition for Disaster Resilient Infrastructure**:

○ India also underlined the role of "**Coalition for Disaster Resilient Infrastructure (CDRI)**" in promoting disaster resilient infrastructure for reducing economic losses.

➢ **Permanent membership at UNSC**:

○ Reiterated support of their countries for **permanent membership of India** in an expanded and reformed **UN Security Council** (UNSC).

○ Welcomed the ongoing **non-permanent tenure of India in the UNSC** and its priorities.

➢ **Indian Technical and Economic Cooperation**:

○ Appreciated the important role of the **Indian Technical and Economic Cooperation (ITEC)** Programme in **capacity building** and **human resource development** of their countries, especially in **Information Technology and Communication Skills** in the **English language.**

India-Central Asia Dialogue

➢ It is a ministerial-level dialogue between India and the **Central Asian** countries namely **Kazakhstan**, **Kyrgyzstan**, Tajikistan, Turkmenistan and **Uzbekistan**.

  ○ All five nations became independent states after the collapse of the USSR in 1991, post-**Cold war**.

➢ All the countries participating in the dialogue, except for Turkmenistan, are also members of the **Shanghai Cooperation Organisation**.

➢ The dialogue focuses on a number of issues including ways to improve connectivity and stabilise war-ravaged Afghanistan.

Note:

Fisherman Issue with Sri Lanka

Why in News

Recently, as many as **43 fishermen from Tamil Nadu were arrested** and six boats seized by Sri Lankan Naval personnel.

- A total of **284 Indian fishermen** were arrested by Sri Lanka in **2019 (210) and 2020 (74).**
- Earlier in 2020, the **Fourth Meeting of the India-Sri Lanka Joint Working Group (JWG)** on Fisheries was held through virtual mode.

Key Points

- **Background:**
  - Both Indian and Sri Lankan fishermen **have been fishing into the Palk Bay area for centuries.**
    - Palk Bay is a **semi-enclosed shallow water body** between the southeast coast of India and Sri Lanka.
  - Problem emerged only after a **maritime agreement** was signed by India and Sri Lanka in **1974.**
  - In fact, initially the **1974 border agreement** did not affect fishing on either side of the border.
  - In 1976, through an exchange of letters, **both India and Sri Lanka agreed to stop fishing in each other's waters.**
    - In 1974 and 1976 treaties were signed between the two countries to demarcate the **International Maritime Boundary Line (IMBL).**

- The treaties also ended up making the Palk Strait connecting India and Sri Lanka a '**two-nation pond',** under the relevant **United Nations Convention on the Law of the Sea (UNCLOS)** rules to the exclusion of all third nations.
- Simply put, the bilateral arrangement bans international fishing and shipping.
  - However, the agreement could not stop the fishermen from fishing in these waters, as **fishermen know no boundary.**
    - Despite the signing of **maritime boundary agreements,** fishermen communities of both the countries continued their fishing in the Palk Bay area peacefully until the **Eelam war broke out in 1983.**
  - Nonetheless, after the **end of War in 2009**, the Sri Lankan fishermen have been raising their objection to Indian fishermen fishing in their waters.
  - Later, India and Sri Lanka agreed to set up a **Joint Working Group (JWG)** on Fisheries in **2016** between India and Sri Lanka as the m**echanism to help find a permanent solution to the fishermen issue.**

- **Katchatheevu Island Issue:**
  - The **small islet of Katchatheevu, hitherto used by the** fishermen for sorting their catch and drying their nets, fell on the other side of the IMBL
  - Fishermen often risk their lives and cross the IMBL rather than return empty-handed, but the Sri Lankan Navy is on alert, and have either arrested or destroyed fishing nets and vessels of those who have crossed the line.

- **Reasons for the continuation:**
  - The main problem with Indian fishermen is that **a large number of them are dependent on fishing** in Sri Lankan waters, which is prohibited by the **1976 Maritime Boundary Agreement.**

Note:

○ Also, a **large number of Indian fishermen are dependent on trawling** which is banned in Sri Lanka.

➢ **Related Initiatives Taken:**

○ The IMBL is imaginary, but it was geo-tagged and is visible to the fishermen, due to **Global Positioning System (GPS)** sets.

○ **Deep Sea Fishing Scheme:**

● Promoted as an **alternative to bottom trawling by Tamil Nadu's fishermen** off the Palk Bay, the scheme envisages the provision of 2,000 deep sea fishing boats in place of trawlers by 2019-20, which will be the third and final year of implementation of the scheme.

■ It aims to **put an end to disputes arising between the two countries.**

■ It has been taken up under the **'Blue Revolution' scheme.**

Humanitarian Trust Fund for Afghanistan: OIC

Why in News

A meeting of foreign ministers from the **Organisation of Islamic Cooperation (OIC)** agreed to establish a **humanitarian trust fund** to address th**e growing economic crisis** in **Afghanistan** which has left millions facing hunger over the winter.

➢ The meeting is the **biggest major conference on Afghanistan** since the **fall of the US-backed government.**

➢ In July 2021, India rejected the **OICs proposal to assist a dialogue between India and Pakistan.**

Key Points

➢ **Humanitarian Trust Fund**:

○ The fund will be set up under the **Islamic Development Bank** to channel **aid to Afghanistan** in coordination with other groups.

○ Allowing Afghanistan access to its financial resources would be pivotal to preventing economic collapse and said realistic pathways to unfreezing billions of dollars in frozen central bank reserves should be explored.

● The meeting also **called on the international community to provide urgent and sustained humanitarian aid to Afghanistan** as well as to the main countries housing Afghan refugees.

➢ **Trust Fund by United Nation**:

○ The **United Nations (UN)** has also set up a **special trust fund to provide urgently-needed cash directly to Afghans** through a system that taps into donor funds frozen since the **Taliban** takeover in August

○ It was set up with the aim of injecting liquidity into Afghan households in a bid to permit them to survive the upcoming winter and remain in their homeland.

○ Germany is a first contributor to the fund. It had pledged 50 million euros (USD58 million) for it.

Organisation of Islamic Cooperation

➢ **About:**

○ The OIC is the **second largest intergovernmental organisation** after the **United Nations** with a membership of 57 states.

○ It is the collective voice of the Muslim world. It endeavors to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.

○ It was established upon a decision of the historical summit which took place in **Rabat, Kingdom of Morocco** on the 25th of September 1969.

○ **Headquarters**: Jeddah, Saudi Arabia.

What is OIC?

■ Members Countries

OIC- Organization of the Islamic Cooperation

It was founded in **1969**

First OIC Charter Adopted in **1972**

Number of Member Countries **57**

Founding Members **30**

Key Bodies of OIC:
➤ Council of Foreign Ministers
➤ General Secretariat
➤ Islamic Summit
➤ Al-Quds Committee

Note:

- ➤ **India's relationship with OIC as an organisation:**
  - ❍ At the **45ᵗʰ session of the Foreign Ministers' Summit in 2018**, Bangladesh, the host, suggested that India, where more than 10% of the world's Muslims live, should be given **Observer status**, but Pakistan opposed the proposal.
  - ❍ In **2019, India** made its maiden appearance at the OIC **Foreign Ministers' meeting**, as a **"guest of honour".**
    - ● This first-time invitation was seen as a **diplomatic victory for India,** especially at a time of heightened tensions with Pakistan following the Pulwama attack.
- ➤ **India's relationship with OIC member countries**:
  - ❍ India is not a member of the OIC. However, India was invited as a guest of honour at the **46th Session of the Council of Foreign Minister** in 2019.
  - ❍ Individually, India has **good relations with almost all member nations.**
  - ❍ Ties with the **UAE** and **Saudi Arabia**, especially, have improved significantly in recent years.
    - ● The Crown Prince of Abu Dhabi (UAE) was a special chief guest at the 68ᵗʰ **Republic Day** celebrations in 2017.

Islamic Development Bank
- ➤ **About:**
  - ❍ The Islamic Development Bank is an international financial institution established in pursuance of the **Declaration of Intent issued by the Conference of Finance Ministers of Muslim Countries** held in Jeddah in December **1973,** and the Bank was **formally opened in October 1975.**
  - ❍ The purpose of the Bank is to **foster the economic development** and **social progress of member countries** and **Muslim communities** individually as well as jointly in accordance with the principles of Shari'ah i.e., Islamic Law.
  - ❍ The Bank's **principal office is in Jeddah in the Kingdom of Saudi Arabia.**
- ➤ **Functions**:
  - ❍ The functions of the Bank are **to participate in equity capital and grant loans for productive projects and enterprises** besides providing financial assistance to member countries in other forms for economic and social development.

- ➤ **Membership**: The present membership of the **Bank consists of 56 countries.**
  - ❍ The basic condition for membership is that the prospective member country should be a member of the **OIC,** pay its contribution to the **Capital of the Bank** and be willing to accept such terms and conditions as may be decided upon by the IDB Board of Governors.

Mission Sagar

Why in News

Recently, **Indian Naval Ship (INS) Kesari has reached the Port of Maputo, Mozambique** to deliver 500 tonnes of food aid to support the efforts of Government of Mozambique **to cope with ongoing drought and concurrent challenges of pandemic.**

- ➤ India has also **delivered two fast interceptor craft and self-defence military equipment** to Mozambique.
- ➤ This is the **eighth such deployment in consonance with the Prime Minister's vision of Security And Growth for All in the Region (SAGAR) and** is being conducted in close coordination with the Ministry of External Affairs, and other agencies of the Government of India.

Key Points

- ➤ **Mission Sagar:**
  - ❍ **Launched in May 2020,** **'Mission Sagar'** was **India's initiative to deliver Covid-19 related assistance to the countries in the Indian Ocean Littoral states.** The countries included were **Maldives, Mauritius, Madagascar, Comoros and Seychelles.**

Note:

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- Under 'Mission Sagar', the **Indian Navy has been deploying its ships to send medical and humanitarian aid** to the counties in the Indian Ocean Region (IOR) and beyond.
  - Under the mission, the **Indian Navy has delivered assistance** of more than 3,000 metric tons of food aid, over 300 metric tons of liquid medical oxygen, 900 oxygen concentrators and 20 ISO containers to 15 friendly foreign countries.
  - In November 2020, as part of **Mission Sagar-II**, INS Airavat delivered food aid to Sudan, South Sudan, Djibouti and Eritrea.
  - **Mission Sagar-III** is part of India's Humanitarian Assistance and Disaster Relief (HADR) assistance to friendly foreign countries during the ongoing **Covid-19 pandemic.**
    - The assistance has been delivered **to Vietnam and Cambodia.** It highlights the importance accorded to **ASEAN countries** and further strengthens the existing bonds.
- ➢ **Significance:**
  - ○ **India's extended Maritime Neighbourhood:**
    - These deployments were conducted in solidarity with **India's extended Maritime Neighbourhood** and highlights the importance accorded by India to these special relationships.
    - This is **in continuance with India's role as the first responder** at a time of an exigency to the friendly nations.
  - ○ **Useful in Tackling Terrorism:**
    - The equipment will be **useful as Mozambique is hit by terrorism** in its North.
      - **Terrorist group Islamic State**, also known as **Da'esh**, and its affiliates have rapidly spread in Central Africa.
  - ○ **Tackling Common Maritime Challenges:**
    - This also helps in tackling common maritime challenges (traditional maritime conflicts between nation-states, environmental threats, threats by non-state actors (maritime terrorism and piracy), illicit maritime trades and trafficking) in the region.
    - This was a **major theme of discussion** at the second edition of the **Goa Maritime Conclave** in November (2021) which brings together countries in the **Indian Ocean Region**.

Vision 'SAGAR'

➢ **Security and Growth for All in the Region (SAGAR)** was launched in 2015. It is India's strategic vision for the **Indian Ocean Region (IOR).**

➢ Through SAGAR, **India seeks to deepen economic and security cooperation** with its maritime neighbours and assist in building their maritime security capabilities.

➢ Further, India seeks to **safeguard its national interests** and ensure the Indian Ocean region to become inclusive, collaborative and respect international law.

➢ The key relevance of SAGAR emerges when seen in conjunction with India's other policies impacting the maritime domain like **Act East Policy**, **Project Sagarmala**, **Project Mausam**, India as 'net security provider', focus on **Blue Economy** etc.

Trincomalee Oil Tank Farm Deal: India- Srilanka

Why in News

In the coming days, India and Sri Lanka are going to sign the long pending deal to jointly develop the **Trincomalee oil tank farms**.

➢ The signing of **the deal will reflect a positive sign, amidst strained relationship** between the two countries.

Key Points

➢ **About Trincomalee Oil Tank Farms:**
  - ○ The oil tank farm was built by the British during **World War II** as a refuelling station,

Note:

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○ It is located in **'China Bay'** in close proximity to the internationally coveted deep **water natural harbour of Trincomalee**.

○ The proposal of this joint development was envisaged 35 years ago, in the **Indo-Lanka Accord 1987.**

○ It comprises **99 storage tanks,** with a capacity of 12,000 kilolitres each, spread across Lower Tank farm and Upper Tank Farm.

○ In 2003, **Indian Oil Corporation** set up its Sri Lankan subsidiary called **Lanka IOC, to work on this oil farm.**

○ Currently, Lanka IOC runs 15 tanks. The new agreement is being negotiated for the **remaining tanks.**

➢ **Significance of the deal:**

○ The Trincomalee Oil Tank Farms have been bestowed with several favourable factors of location. For example,

  ● **Easily Accessible:** It is located on a deep water natural harbour of Trincomalee.

  ● **Strategic Location in the Indian Ocean:** These oil farms are located along some of the world's busiest shipping lanes.

○ Thus, a well-developed oil storage facility and refinery adjacent to the Trincomalee Port would have **great economic value for both India and Sri Lanka.**

Indo-Lanka Accord

➢ It is popularly referred to as the **Rajiv-Jayewardene Accord**, after its architects Prime Minister of India Rajiv Gandhi and Sri Lankan President J.R. Jayewardene. It was **signed in 1987.**

➢ It was signed on the pretext of the **Civil War in Sri Lanka (**between Tamils and Sinhala community).

➢ The accord sought to balance India's **strategic interests**, interest of **people of Indian origin in Sri Lanka** and **Tamil minority rights** in Sri Lanka.

➢ The accord saw the placement of the **Indian Peace Keeping Force (IPKF)** in Sri Lanka to resolve the Sri Lankan Civil War.

➢ The accord also resulted in enactment of the **thirteenth Amendment to the Constitution of Sri Lanka** and the **Provincial Councils Act of 1987.**

➢ **Issues in India-Sri Lanka Relations**

○ **China's Intervention**: China's rapidly **growing economic footprint** (and political clout as a corollary) in Sri Lanka is straining India-Sri Lanka relations.

  ● China is already the largest investor in Sri Lanka, accounting for 23.6% of the total **Foreign Direct Investment (FDI)** during 2010-2019 as against 10.4% from India.

  ● **China is also one of the largest export destinations for Sri Lankan goods** and holds over 10% of its external debt.

  ● **China is also handling Hambantota Port of Sri Lanka**, the port is viewed as a part of China's String of Pearls Strategy.

○ **Katchatheevu Island Issue:** India ceded the uninhabited island to its southern neighbour in 1974 under a conditional accord.

  ● However, many times the fisherman issue arises more out of a domestic tussle rather than the India-Sri Lanka view on the issue.

○ **13th Amendment of the Sri Lankan Constitution:** Indo-Sri Lankan Accord was signed in 1987 to provide a political solution to Sri Lanka's conflict.

  ● It **envisages devolution of necessary powers to the provincial councils** to address the just demand of the Tamil people for equality, justice, peace, and respect within a united Sri Lanka.

  ● The provisions of this accord were made in the Sri Lankan constitution, by the Thirteenth Amendment.

  ● However, still the provisions are not implemented on ground. Even to this day, s lot of Srilankan Tamils who evaded from **Srilankan civil war (2009)** are seeking refuge in Tamil Nadu.

○ **Back Tracing of Sri-Lanka:** Recently, Sri Lanka backed out from a tripartite partnership with India and Japan for its **East Container Terminal Project** at the Colombo Port, citing domestic issues.

India-Sri Lanka Cooperation: Recent Developments

➢ **Four-Pillar Initiative:** Recently, India and Sri Lanka agreed to a four-pronged approach to discuss initiatives on food and energy security to help mitigate **Sri Lanka's economic crisis.**

○ **This Four-Pillar Initiative comprises Lines of Credit, currency swap agreement, Modernisation Project (like The Indian Housing Project) and Indian Investments**.

➢ **Joint Exercises:** India and Sri Lanka conducted joint Military (**Mitra Shakti**) and Naval exercise (**SLINEX**).

➢ **Participation in Groupings:** Sri Lanka is also a member of regional groupings like **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) and **SAARC** in which India plays a leading role.

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> ➤ **SAGAR Vision:** Srilanka supports India's concern for the security of the Indian ocean with its 'Neighbourhood First' policy and **SAGAR (Security and Growth for all in the Region).**

Nuclear Submarine Alliance: AUKUS

Why in News

Recently, **Australia, the US and the UK** signed an agreement allowing the exchange of sensitive **"naval nuclear propulsion information"** between their nations.

➤ It is the first agreement on the technology to be publicly signed since the three countries announced the formation of a **defence alliance, AUKUS**, to confront strategic tensions in the Pacific where China-US rivalry is growing.

➤ Under the AUKUS deal, Australia would obtain **eight state-of-the-art, nuclear-powered but conventionally armed submarines** capable of stealthy, long-range missions.

AUKUS

➤ **About:**
   ○ In September 2021, the US announced a new trilateral security partnership for the **Indo-Pacific**, between **Australia, the UK and the US (AUKUS).**
   ○ The major highlight of this arrangement is the sharing of US nuclear submarine technology to Australia.
   ○ Its Indo-pacific orientation **makes it an alliance against China's assertive actions in the South China Sea.**
   ○ It will involve **a new architecture of meetings and engagements between the three countries,** as well as cooperation across emerging technologies (**applied AI**, **quantum technologies** and **undersea capabilities).**

➤ **Impact on Indo-Pacific Realm/QUAD:**
   ○ There is concern that AUKUS **could leave a deep scar on US-EU relations and the North Atlantic Treaty Organisation (NATO)**, and weaken the international coalition in the Indo-Pacific.
      • NATO was established by the North Atlantic Treaty (also called the Washington Treaty) of 4th April, 1949, by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
      • NATO's primary goals are the collective defence of its members and the maintenance of a democratic peace in the North Atlantic area.
   ○ France had cancelled a scheduled meeting of the foreign ministers of Australia, France, and India at **the UN.**
      • In the last couple of years, the trilateral has become an important element in the emerging Indo-Pacific architecture. But the cancellation of the meeting is a blow to the trilateral engagement.
   ○ It is not clear whether **the QUAD and AUKUS will reinforce each other** or remain mutually exclusive.
      • There are some beliefs that the "Anglosphere nations" — which share common cultural and historical ties to the UK — inspire more confidence in each other.
      • **QUAD is a grouping of India, USA, Australia and Japan** which aims to safeguard the interests of democratic nations in the Indo-Pacific region and address global challenges.

➤ **Implications for India:**
   ○ India has stated that the **new partnership is neither relevant to the Quad, nor will it have any impact on its functioning**.
   ○ Despite indifference towards AUKUS, India **may derive secondary benefits from the AUKUS arrangement** having three advanced nations with arguably the most sophisticated military power in the world coming together to support a free and open Indo-Pacific in the light of the increasingly assertive attitude of China in the region. This could provide **some degree of deterrence to China.**
   ○ Also, India's concerns regarding 'encirclement' by China **may be partially mitigated by AUKUS.**
      • China has made **massive inroads in India's neighbourhood** in terms of infrastructure development projects and presence.
   ○ There is apprehension, the deal may eventually lead to crowding of nuclear attack submarines (SSNs/submersible ship nuclear) in the **Eastern Indian Ocean, eroding India's regional pre-eminence.**

■■■

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Social Issues

Highlights

- *Fourth Edition of State Health Index*
- *Raising Legal Age of Marriage for Women*

Fourth Edition of State Health Index

Why in News

NITI Aayog has released the **fourth edition** of the **State Health Index for 2019–20.**

➢ The report, titled **"Healthy States, Progressive India"**, ranks states and Union Territories on their year-on-year incremental performance in health outcomes as well as their overall status.

➢ Earlier, the **Global Health Security (GHS) Index 2021**, developed in partnership by the Nuclear Threat Initiative (NTI) and the Johns Hopkins Center was released. India, with a score of 42.8 (out of 100) has slipped by 0.8 points since 2019.

Key Points

➢ **About:**
  ○ The State Health Index is **an annual tool to assess the performance of states and UTs,** which has been compiled and published **since 2017.**
  ○ It is a weighted composite index **based on 24 indicators** grouped under the domains of **'Health Outcomes', 'Governance and Information', and 'Key Inputs/Processes'.**
    ● **Health Outcomes:**
      ▪ It **includes parameters** such as neonatal mortality rate, under-5 mortality rate, sex ratio at birth.
    ● **Governance and Information:**
      ▪ It **includes parameters** such as institutional deliveries, average occupancy of senior officers in key posts earmarked for health.

- **Key Inputs/Processes:**
    ▪ It **consists of proportion of shortfall in health care providers** to what is recommended, functional medical facilities, birth and death registration and tuberculosis treatment success rate.

➢ **Developed By:**
  ○ **NITI Aayog**, with technical assistance from the **World Bank**, and in close consultation with the **Ministry of Health and Family Welfare (MoHFW)**.

➢ **Focus of the Fourth Edition:**
  ○ Round IV of the report focuses on measuring and highlighting the overall performance and incremental improvement of states and UTs over the period 2018–19 to 2019–20.

➢ **Ranking of States:**
  ○ To ensure comparison among similar entities, the ranking is **categorized as:**
    ● **Larger States:**
      ▪ In terms of annual incremental performance, **Uttar Pradesh, Assam and Telangana** are the top three ranking states.
    ● **Smaller States:**
      ▪ **Mizoram and Meghalaya** registered the maximum annual incremental progress.
    ● **Union Territories:**
      ▪ **Delhi, followed by Jammu and Kashmir,** showed the best incremental performance.
    ● **Overall:**
      ▪ The top-ranking states were **Kerala and Tamil Nadu** among the 'Larger States', **Mizoram and Tripura** among the 'Smaller States', and Dadra and Nagar Haveli and Daman and Diu (DH&DD) and Chandigarh among the UTs.

Note:

SCORECARD

Top 5

Rank	2018-19* / 2019-20*
1	Kerala / Kerala
2	Andhra Pradesh / Tamil Nadu
3	Tamil Nadu / Telangana
4	Himachal Pradesh / Andhra Pradesh
5	Maharashtra / Maharashtra

Bottom 4**

Rank	2018-19* / 2019-20*
1	UP / UP
2	Bihar / Bihar
3	MP / MP
4	Jharkhand / Rajasthan

*According to Reference Year
**In ascending order (Lowest first)
Source: NITI Aayog Fourth Health Index

➢ **Significance of the Index:**
   ○ **Policymaking:**
      ● States use it in their **policy making and resource allocation.**
         ■ This report is an example of both competitive and cooperative federalism.
   ○ **Healthy Competition:**
      ● The index **encourages healthy competition and cross-learning among States and UTs.**
         ■ The aim is to **nudge states/UTs towards building robust health systems** and improving service delivery.
   ○ **Helpful in Achieving SDGs:**
      ● The exercise is expected to **help drive state and union territories' efforts** towards the achievement of health-related **Sustainable Development Goals (SDGs)** including those related to **Universal Health Coverage (UHC)** and other health outcomes.
   ○ **Role in National Health Mission:**
      ● The importance of this annual tool is reemphasized by MoHFW's decision to link the index to incentives under the **National Health Mission.**
➢ **Limitations of the Index:**
   ○ **Not Covered Critical Areas:**
      ● Some critical areas such as **infectious diseases, noncommunicable diseases (NCDs), mental health,** governance, and financial risk protection are not fully captured in the Health Index due to non-availability of acceptable quality of data on an annual basis.

   ○ **Limited Data:**
      ● For several indicators, the **data is limited to service delivery in public facilities** due to **paucity and uneven availability of private sector data** on health services.
         ■ For outcome indicators, such as **Neonatal Mortality Rate,** Under-five Mortality Rate, **Maternal Mortality Ratio** and **Sex Ratio at Birth**, data are available only for Larger States.
   ○ **Without any Field Verification:**
      ● For several indicators, **Health Management Information System (HMIS)** data and programme data were used without any field verification due to the lack of feasibility of conducting independent field surveys.

Related Initiatives
➢ **National Health Mission (NHM)**
➢ **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY)**
➢ **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)**
➢ **Pradhan Mantri Bhartiya Janaushadhi Pariyojana.**
➢ **Ayushman Bharat Digital Mission**

Raising Legal Age of Marriage for Women

Why in News

Recently, the Union Cabinet cleared a proposal to bring **uniformity in the marriageable age of men and women.**

➢ By amending the **Prohibition of Child Marriage Act (PCMA), 2006 and other personal law,** the legal age of marriage of women will be **raised rom 18 to 21 years.**

➢ The decision is based on the recommendation of a four-member task force led **by former Samata Party chief Jaya Jaitly.**

Note:
➢ The task force was set up to **re-examine the age of marriage and its correlation to health and social indices** such as infant mortality, maternal mortality, and nutrition levels among mothers and children.

Key Points

➢ **About Legal Framework of Minimum Age for Marriage:**
- **Background:**
  - In India, the minimum age of marriage was prescribed for the first time by the law known as the Sarda Act, 1929. It was later renamed as the **Child Marriage Restraint Act (CMRA), 1929.**
  - In 1978, the law was amended to raise the minimum age of marriage to 18 years for girls and 21 years for boys.
  - This position remains the same even in the new law called the **Prohibition of Child Marriages Act (PCMA), 2006**, which replaced the CMRA ,1929.
- **Marriage Minimum Age For Different Religion:**
  - For Hindus, **The Hindu Marriage Act, 1955** sets 18 years as the minimum age for the bride and 21 years as the minimum age for the groom.
  - 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.
  - For the new age of marriage to be implemented, these laws are expected to be amended.

➢ **Pros of Raising Minimum Age for Marriage For Women:**
- **Women and Child Welfare:** The poverty of the mother plays the greatest role of all by far — both in relation to her undernourishment and that of her child.
  - An early age of marriage, and consequent early pregnancies, also **have impacts on nutritional levels of mothers and their children**, and their overall health and mental wellbeing
- **Women's Empowerment And Gender Parity:** The mother's age at childbearing affects educational level, living conditions, health conditions, decision-making power of women.
- **Tackling Child Marriage:** India is home to the largest number of underage marriages in the world. The law will help to curb the menace of Child Marriage.

➢ **Cons of raising Minimum Age for Marriage For Women**
- **Difficulty in Fighting Child Marriage:** The implementation of the child marriage law is difficult.
  - The evidence suggests that when the law is used, it is mostly to penalise young adults for self-arranged marriages.
  - The law to prevent child marriage does not work very well.
  - While child marriage has declined, it has been marginal: from 27% in 2015-16 to 23% in 2019-20, according to **National Family Health Survey (NFHS) 5.**
  - 70% of early marriages take place in deprived communities such as **Scheduled Castes and Scheduled Tribes**, and the law will simply push these marriages underground instead of preventing them.
- **Criminalisation of a Large Number of Marriages:** The change will leave the vast majority of Indian women who marry before they are 21 without the legal protections that the institution of marriage otherwise provides, and make their families criminalisable.
- **Lack of Education is a Bigger Problem:** According to the **State of the World Report 2020 by UNFPA,** in India, 51% of young women with no education and 47% of those with only a primary education had married by age 18.
  - Further, a study by the **International Centre for Research on Women** has found that girls out of school are 3.4 times more likely to be married or have their marriage already fixed than girls who are still in school.

■■■

Note:

Science & Technology

Indian Army sets up Quantum Lab, Artificial Intelligence Centre

Why in News

The **Indian Army** has set up a **Quantum Computing Laboratory** and a **centre for Artificial Intelligence** in **Mhow, Madhya Pradesh.**

Key Points

➤ **About:**
  ○ The **Quantum Computing Laboratory** has been established with the help of the **National Security Council Secretariat (NSCS)**, to spearhead research and training in this key developing field.
    ● National Security Council is a three-tiered organization that **oversees political, economic, energy and security issues** of strategic concern.
  ○ Indian Army has also established an Artificial Intelligence (AI) Centre at the same institution with over **140 deployments in forward areas and active support of industry and academia.**
  ○ Training on cyber warfare is being imparted through **a state-of-the-art cyber range and cyber security labs.**

➤ **Objective:**
  ○ The two Centres will carry out **extensive research in developing the transformative technologie**s for use by the armed forces.
  ○ The Centres will also **facilitate the research and training in the developing field of Quantum and artificial intelligence.**

○ It will help it facilitate the next generation of communication and **transform the current system of cryptography to post-quantum cryptography**.
○ The key thrust areas of Quantum Technology are **Quantum Key Distribution**, **quantum computing and quantum communication.**
  ● **QKD**, also called Quantum Cryptography, is a mechanism to develop secure communication.

Quantum Technology/Computing

➤ **About:**
  ○ Quantum Technology is based on the principles of **Quantum mechanics that was developed in the early 20th century** to describe nature at the scale of atoms and elementary particles.
  ○ Using **quantum superposition,** a set of unbreakable codes or super-speedy information processing, **quantum computers** are able to mimic several classical computers working in parallel.
    ● Quantum computers **compute in 'qubits' (or quantum bits).** They exploit the properties of quantum mechanics, the science that governs how matter behaves on the atomic scale.
  ○ The first phase of this revolutionary technology has **provided the foundations of our understanding of the physical world, including the interaction of light and matter**, and led to popular inventions such as **lasers and semiconductor transistors.**

➤ **Applications:**
  ○ **Secure Communication:**
    ● **China recently demonstrated** secure quantum communication links between terrestrial stations and satellites.
    ● This area is **significant to satellites, military and cyber security among others** as it promises unimaginably fast computing and safe, unhackable satellite communication to its users.

Note:

![drishti logo]

○ **Research:**

- It can help in **solving some of the fundamental questions in physics** related to gravity, black holes etc.

- Similarly, the quantum initiative could give a big boost to the **Genome India project**.

○ **Disaster Management:**

- **Tsunamis**, **drought**, **earthquakes** and **floods** may become more predictable with quantum applications.

- The collection of data regarding **climate change** can be streamlined in a better way through quantum technology.

○ **Pharmaceutical:**

- Quantum computing could reduce the time frame of the discovery of new molecules and related processes to a few days from the present 10-year slog that scientists put in.

○ **Augmenting Industrial revolution 4.0:**

- Quantum computing is an integral part of **Industrial revolution 4.0.**

- Success in it will help in Strategic initiatives aimed at leveraging other Industrial revolution 4.0 technologies like the **Internet-of-Things,** machine learning, **robotics,** and **artificial intelligence** across sectors will further help in laying the foundation of the Knowledge economy.

➢ **Challenges Associated with Quantum Computing:**

○ The dark side of quantum computing is the **disruptive effect that it can have on cryptographic encryption**, which secures communications and computers.

○ It might pose a challenge for the government also because if this **technology goes into the wrong hands, all the government's official and confidential data will be at risk** of being hacked and misused.

➢ **Related Indian Initiatives:**

○ Budget 2020 allocated Rs 8000 Crore to a **National Mission on Quantum Technologies & Applications (NM-QTA)** for a period of five years.

○ In 2018, the Union Cabinet approved the launch of the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)** to make India a leading player in Cyber-Physical Systems.

○ In 2018, the government initiated serious discussions in quantum technologies and kick started research

projects across 51 organisations under QUEST – **Quantum Enabled Science and Technology.** However, no significant progress is made in this field until NM-QTA.

New Vaccines and Drug for Covid

Why in News

Recently, India has approved two **Vaccines Corbevax and Covovax**, one pill **Molnupiravir** for treating **Covid-19** patients.

Key Points

➢ **Corbevax - Protein Subunit Vaccine:**

○ **About:**

- It is **a protein subunit vaccine**, which means that instead of the whole virus, it uses **fragments of it to trigger an immune response**.

- In this case, the subunit vaccine contains **a harmless Spike (S) protein.**

  ■ The S protein is **a highly glycosylated and large type I transmembrane fusion protein that is made up of 1,160 to 1,400 amino acids**, depending upon the type of virus.

  ■ The S protein plays a crucial role in penetrating host cells and initiating infection.

- Once the immune system recognises the protein, it **produces antibodies to fight a real infection** when it happens.

○ **Efficacy:**

- Neutralising antibodies against **Delta strain** indicates a vaccine effectiveness of **more than 80 % for the prevention of symptomatic infections** based on published studies.

- In the pivotal Phase III study conducted with an endpoint of immunogenic superiority, it demonstrated **superior immune response in comparison with COVISHIELD vaccine** when **assessed for Neutralizing Antibody** (nAb) Geometric Mean Titers (GMT) against the Ancestral-Wuhan strain and the globally dominant Delta variant.

➢ **Covavax - Recombinant Nanoparticle Vaccine:**

○ **About:**

- Manufactured by **Serum Institute of India (SII)**, is also a protein subunit vaccine, **but uses**

Note:

Recombinant Nanoparticle Technology (RNT). It has been developed by **US-based Novavax.**

- Recombinant protein vaccine is another proven approach against Covid-19 virus. This technology teaches the body **how to develop immunity against the virus using spike protein.**.
- **Harmless copies of the spike protein are grown** in insect cells; the protein is then extracted and assembled into virus-like nanoparticles.
- Novavax has used an immune-boosting compound (adjuvant). The same technology is used in HPV and the Hepatitis B vaccine.

○ **Efficacy:**

- The vaccine has been evaluated in two Phase 3 trials: a trial in the UK that demonstrated **an efficacy of 96.4% against the original virus strain**, 86.3% against Alpha and 89.7% efficacy overall.

➢ **Molnupiravir - Oral Antiviral Drug:**

○ **About:**

- It works **by introducing errors into the virus's genetic code, which prevents replication.**

○ **Efficacy:**

- The UK cleared molnupiravir as **"safe and effective".**
- The US did not authorise it **for use for longer than five consecutive days, or in patients younger than 18** as it may affect bone and cartilage growth.
- In India, the recommendation is **for treatment of adult Covid patients with oxygen level over 93%**, and who have a high risk of progression of the disease, and that the drug be sold by retail only under prescription.

Types of vaccines

➢ **Inactivated vaccines:**

○ Inactivated vaccines use the **killed version of the germ** that causes a disease.

○ Vaccines of this type are created by **inactivating a pathogen, typically using heat or chemicals such as formaldehyde or formalin.** This destroys the pathogen's ability to replicate, but keeps it **"intact" so that the immune system can still recognize it.** ("Inactivated" is generally used rather than "killed" to refer to viral vaccines of this type, as viruses are generally not considered to be alive.)

○ They usually don't provide immunity (protection) **that's as strong as live vaccines**. So you may need several doses over time (booster shots) in order to get ongoing immunity against diseases.

- **They are Used to protect: Hepatitis A**, **Flu** (shot only), **Polio** (shot only), **Rabies**.

➢ **Live-attenuated Vaccines:**

○ Live vaccines use **a weakened (or attenuated) form of the germ** that causes a disease.

○ Because these vaccines are so similar to the natural infection that they help prevent, they create **a strong and long-lasting immune response.**

○ The limitation of this approach is that **these vaccines usually cannot be given to people with weakened immune systems.**

○ **Live vaccines are used against: Measles**, Mumps, Rubella (MMR combined vaccine), Rotavirus, Smallpox among others.

➢ **Messenger (m) RNA Vaccines:**

○ mRNA vaccines **make proteins in order to trigger an immune response**. mRNA vaccines have several benefits compared to other types of vaccines, **including shorter manufacturing times** and, because they do not contain a live virus, no risk of causing disease in the person getting vaccinated.

○ The vaccines are used to protect against: Covid-19.

➢ **Subunit, Recombinant, Polysaccharide, and Conjugate Vaccines:**

○ They use s**pecific pieces of the germ** - like its protein, sugar, or capsid (a casing around the germ). They give a very strong immune response.

○ They can also be used on people with weakened immune systems and long-term health problems.

○ These vaccines are used to protect against: Hib (Haemophilus influenzae type b) disease, **Hepatitis B**, HPV (Human papillomavirus), **Pneumococcal disease** among others.

➢ **Toxoid Vaccines:**

○ They use a toxin (harmful product) made by the germ that causes a disease. They **create immunity to the parts of the germ that cause a disease instead of the germ itself.** That means the immune response is targeted to the toxin instead of the whole germ.

○ Toxoid vaccines are used to protect against: **Diphtheria, Tetanus.**

➢ **Viral Vector Vaccines:**

○ Viral vector vaccines use **a modified version of a different virus as a vector** to deliver protection.

○ Several different viruses have been used as vectors, including **influenza, vesicular stomatitis virus (VSV), measles virus, and adenovirus, which causes the common cold.**

● Adenovirus is **one of the viral vectors used in some Covid-19 vaccines** being studied in clinical trials.

○ The vaccines are used to protect against:Covid-19

Controlled Aerial Delivery System

Why in News

Recently, a flight demonstration of the **Controlled Aerial Delivery System of 500 kg capacity (CADS-500)** was conducted by Aerial Delivery Research and Development Establishment (ADRDE).

➢ The flight demonstration is part of a series of activities organised towards celebrating **'Azadi Ka Amrit Mahotsav'**, commemorating **75 years of Independence.**

Key Points

➢ **About:**

○ The CADS-500 is **used for precise delivery of payload upto 500 kgs** at predetermined location by making use of manoeuvrable capabilities of **Ram Air Parachute (RAP).**

○ It uses the **Global Positioning System** for the coordinates, altitude and heading sensors for the heading information during its flight.

○ The CADS, with its **onboard electronics unit**, autonomously steers its flight path using waypoint navigation towards target location by operating controls.

Positioning System

➢ A positioning system is a **tool to determine the location of an individual or object**. The technology requires global coverage and sharp accuracy to achieve the exact location.

○ **For Example**: 'Google Maps' is one of the positioning and navigation systems that helps individuals to find their exact location as well as a path to their destination. However, the system only offers a satellite view of the region under navigation.

Global Positioning System (GPS)

➢ GPS is a **satellite navigation system,** used to determine the ground position of an object. It is a **U.S.-owned utility** that provides users with positioning, navigation, and timing (PNT) services.

➢ It is a **network 24 satellite** which provides service to civilian and military users. The civilian service is freely available to all users on a continuous, worldwide basis. The military service is available to U.S. and allied armed forces as well as approved Government agencies.

➢ **ADRDE:**

○ It is an Research & Development laboratory of the **Defence Research and Development Organisation (DRDO).**

○ It is involved in the **development of paratrooper parachute systems**, aircrew parachute systems, ammunition parachute systems, brake parachute, recovery parachute systems, aerial delivery parachute systems, heavy drop systems, inflatable systems, airship technologies and aircraft arrester barrier systems.

○ Currently, **it is involved in projects** such as armament delivery parachutes, balloon barrage and surveillance systems, airships and related applications and space recovery parachutes.

Note:

5G in India

Why in News

Recently, the **Department of Telecommunications (DoT)** has announced that India's major metros will have **5G** services next year.

➢ Like other global players, **India had, in 2018, planned to start 5G** services as soon as possible, with an aim to **capitalise on the better network speeds and strength that the technology promised.**

Key Points

➢ **About 5G Technology:**
   ○ 5G is the 5th generation mobile network. It is a n**ew global wireless standard after 1G, 2G, 3G, and 4G networks.**
   ○ It enables a new kind of network that is **designed to connect virtually everyone and everything together including machines, objects, and devices.**
   ○ Internet speeds in the high-band spectrum of 5G has been tested to be as h**igh as 20 Gbps (gigabits per second),** while, in most cases, the maximum internet data speed in 4G has been recorded at 1 Gbps.

Evolution from First Generation to Fifth Generation

➢ **1G** was launched in the **1980s** and worked on analog radio signals and supported only voice calls.
➢ **2G** was launched in the **1990s** which uses digital radio signals and supports both voice and data transmission with a bandwidth of 64 Kbps.
➢ **3G** was launched in the **2000s** with a speed of 1 Mbps to 2 Mbps and it has the ability to transmit telephone signals including digitised voice, video calls and conferencing.
➢ **4G** was launched in **2009** with a peak speed of 100 Mbps to 1 Gbps and it also enables 3D virtual reality.

➢ **Different Bands of 5G:**
   ○ 5G mainly works in **3 bands,** namely low, mid and high frequency spectrum — all of which have their own **uses as well as limitations.**
      ● **Low Band Spectrum:** In terms of coverage and speed of Internet and data exchange, **the maximum speed is limited to 100 Mbps** (Megabits per second).

FROM 1G TO 5G THE EVOLUTION

1G — FIRST GENERATION
YEAR: 1997
BASIC VOICE SERVICE ONLY
ANALOG-BASED
50 KPBS

SECOND GENERATION — 2G
YEAR: 1998
IMPROVED COVERAGE & CAPACITY
TEXT AVAILABLE (SMS/MMS)
DIGITAL (GSM, CDMA)
250 KBPS

3G — THIRD GENERATION
YEAR: 2001
VOICE WITH DATA (INTERNET, VIDEO CALLS, MOBILE TV)
DIGITAL (UMTS, HSPA)
SPEED: 384 KBPS

FOURTH GENERATION — 4G
YEAR: 2010
DESIGNED FOR DATA (INTERNET, IM, VIDEO CALLS, MOBILE TV HD/3D, CLOUD COMPUTING, GAMING)
DIGITAL (LET, LTE ADVANCED)
SPEED: 50 MBPS

5G — FIFTH GENERATION
YEAR: 2020+
DESIGNED FOR CONNECTIVITY (INTERNET, IM, VIDEO CALLS, MOBILE TV HD/3D, CLOUD COMPUTING, GAMING, IOT, INFINITE DATA BROADCAST)
DIGITAL (UBIQUITOUS CONNECTIVITY)
SPEED: 6,400 MBPS (1,000,000 KBPS)

Note:

drishti

- This means that **telecom companies can use and install it for commercial cellphone users** who may not have specific demands for very high speed Internet.
    - However, the low band spectrum may not be optimal for specialised needs of the industry.
- **Mid Band Spectrum:** It offers **higher speeds compared to the low band**, but has limitations in terms of coverage area and penetration of signals.
    - This band may be **used by industries and specialised factory units** for building captive networks that can be moulded into the needs of that particular industry.
- **High Band Spectrum:** It offers the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength.
    - This band **greatly enhances futuristic 5G technology applications** like **Internet of Things (IoT)** and smart technology but will require considerable infrastructure.

➤ **Uses of 5G:**

○ Broadly speaking, 5G is used across three main types of connected services, including enhanced mobile broadband, mission-critical communications, and the massive IoT.

- **Enhanced Mobile Broadband:** In addition to making our smartphones better, 5G mobile technology can usher in new immersive experiences such as **Virtual reality (VR) and Augmented Reality (AR)** with faster, more uniform data rates, lower latency, and lower cost-per-bit.

- **Mission-Critical Communications:** 5G can enable new services that can transform industries with ultra-reliable, available, low-latency links like remote control of critical infrastructure, vehicles, and medical procedures.

- **Massive Internet of Things :** 5G is meant to seamlessly connect a massive number of embedded sensors in virtually everything through the ability to scale down in data rates, power, and mobility—providing extremely lean and low-cost connectivity solutions.

○ Combined with **IoT**, cloud, **big data, Artificial Intelligence**, and **edge computing**, 5G could be a critical enabler of the **fourth industrial revolution.**

> **Note**
>
> ➤ **India's National Digital Communications Policy 2018** highlights the importance of 5G when it states that the convergence of a cluster of revolutionary technologies including 5G, the cloud, Internet of Things (IoT) and data analytics, along with a growing **start-up** community, promise to accelerate and deepen its digital engagement, opening up a new horizon of opportunities.

➤ **Challenges for 5G Rollout in India:**

○ **Low Fiberization Footprint:** There is a need to upgrade fibre connectivity across India, which at present connects only 30% of India's telecom towers.

- For an efficient 5G India launch and adoption, this number has to double.

○ **'Make in India' Hardware Challenge:** The ban on certain **foreign telecom OEMs (original equipment manufacturer)** upon which most of the 5G technology development depends, presents a hurdle in itself.

○ **High Spectrum Pricing:** India's 5G **spectrum** pricing is several times costlier than the global average.

- This will be of detriment to India's cash-strapped telcos.

○ **Choosing the Optimal 5G Technology Standard:** The tussle between the homegrown 5Gi standard and the global 3GPP standard needs to be concluded in order to hasten 5G technology implementation.

- While 5Gi brings obvious benefits, it also increases 5G India launch costs and interoperability issues for telcos.

■■■

Enivornment & Ecology

Highlights

- *India- US: Technology-based Energy Solutions*
- *India's Achievements of Renewable Energy Target*
- *Olive Ridley Turtles*
- *Black-browed Albatross*
- *Biological Diversity (Amendment) Bill, 2021*

- *Draft Resolution on Climate Change: U.N.*
- *Winter Air pollution in North India*
- *Green Financing*
- *Flex Fuel Vehicles*

India- US: Technology-based Energy Solutions

Why in News

Recently, India and the US launched a programme titled '**Technology-based Energy Solutions: Innovations for Net Zero**' to tackle **climate and clean energy challenges.**

➢ It constitutes **a call for Ignition Grants** by the **United States-India Science & Technology Endowment Fund (USISTEF).**

> **United States-India Science & Technology Endowment Fund**
>
> ➢ The governments of the US (through the Department of State) and India (through the **Department of Science & Technology**) have established the **US–India Science & Technology Endowment Fund (USISTEF).**
>
> ➢ It has been established **for the promotion of joint activities that would lead to innovation and entrepreneurship** through the application of science and technology.
>
> ➢ The aim of the Fund is **to support and foster joint applied R&D to generate public good through the commercialization of technology** developed through sustained partnerships between U.S. and Indian researchers and entrepreneurs.
>
> ➢ The U.S.-India Science and Technology Endowment Fund activities are implemented and administered through the bi-national **Indo-U.S. Science and Technology Forum (IUSSTF)**.

Key Points

➢ **About:**
  ○ It is a programme to support **India-US S&T (Science and Technology)-based entrepreneurial initiatives** that address the development and implementation of next-generation **clean and renewable energy, energy storage, and carbon sequestration**.
  ○ The new program aligns with the **goals of the U.S.-India Strategic Clean Energy Partnership** (SCEP) and will be administered by the bi-national Indo-U.S. Science and Technology Forum (IUSSTF).
    ● The SCEP was launched in accordance with the **US - India Climate and Clean Energy Agenda 2030 Partnership** announced by both countries at the **Leaders' Summit on Climate** held earlier this year (2021).
    ● The IUSSTF is a bilateral organisation under the **Department of Science and Technology (DST)**, Government of India, and U.S. Department of State.
  ○ It will **identify and support 'technology showstoppers'** or promising joint India-US S&T-based entrepreneurial initiatives in this area.
  ○ Climate Change is **one of the biggest challenges facing our world today**, spurring the call for global collaborations to tackle this crisis.

➢ **Recent Developments in US-India Relations:**
  ○ **Malabar Exercise:** The Navies of the **Quad (Quadrilateral Framework) Nations** (India, the United States, Japan, and Australia) participated in the 25th edition of the exercise.

Note:

○ **India-US Agreement on ALUAV**: India and the US have signed a Project Agreement (PA) to jointly develop an **Air-launched Unmanned Aerial Vehicle (ALUAV)** or **drones** that can be launched from an aircraft.

○ **Issues in Free Trade Agreement:** The US administration has indicated that it is no longer interested in securing a bilateral **Free Trade Agreement (FTA)** with India.

○ **NISAR: NASA and ISRO** are collaborating on developing an **SUV (Sport Utility Vehicle)-sized satellite called NISAR**, which will detect movements of the planet's surface as small as 0.4 inches over areas about half the size of a tennis court.

➢ **Partnership on Climate Change with Other Nations:**

○ **US-India Strategic Clean Energy Partnership.**

○ **India-European Union: Paris Agreement, Coalition for Disaster Resilient Infrastructure, Conference of the Parties (COP 26).**

○ **Glasgow Leaders' Declaration on Forests and Land Use.**

○ **Kunming Declaration on Biodiversity.**

Climate Change

➢ The term 'climate change' refers to **change in the longer term pattern of behaviour of the atmosphere** over millennia or, more recently, as a result of natural processes or human activity.

○ Climate is **distinguished from weather, which is the specific behaviour of the climate at a particular time.** Weather is made up of specific events, for example, a particular storm, the rainfall over a particular period, the temperature at a particular time.

➢ There are, however, many possible ways by which climate may be described. These are generally associated **with averages or variability in temperature, precipitation, wind and cloud.**

➢ The climate varies spatially, for example, depending on the distance from the equator or the sea, and temporally, for example, depending on seasonal and daily variations.

Some Indian Initiatives to Fight Climate Change:

➢ **National Clean Air Programme (NCAP)**

➢ **Bharat Stage-VI (BS-VI) emission norms**

➢ **UJALA scheme**

➢ **National Action Plan on Climate Change (NAPCC)**

India's Achievements of Renewable Energy Target

Why in News

India has achieved its target of achieving **40% of its installed electricity capacity from non-fossil energy sources by 2030** in November 2021.

➢ India had committed to this target at **COP 21** (UNFCCC), as part of its **Nationally Determined Contributions (NDCs)** (Paris Agreement).

Key Points

➢ **Renewable Energy (RE) Capacity of India:**

○ The country's installed Renewable Energy (RE) capacity stands at 150.54 GW (solar: 48.55 GW, wind: 40.03 GW, Small hydro Power: 4.83, Bio-power: 10.62, Large Hydro: 46.51 GW) as on 30th Nov. 2021 while its nuclear energy based installed electricity capacity stands at 6.78 GW.

● India has the **4th largest wind power capacity in the world.**

○ This brings the **total non-fossil based installed energy capacity** to 157.32 GW which is 40.1% of the total installed electricity capacity of 392.01 GW.

○ At the **COP26** India is committed to achieving **500 GW of installed electricity capacity from non-fossil fuel sources by the year 2030.**

➢ **Challenges in Achieving the Target:**

○ **Mobilization of the Necessary Finance:**

● Gearing up the banking sector for arranging finances for larger deployment goals, exploring low-interest rate, long-term international funding, and developing a suitable mechanism for risk mitigation or sharing by addressing both technical and financial bottlenecks are major challenges.

○ **Land Acquisition:**

● Identification of land with Renewable Energy potential, its conversion (if needed), clearance from land ceiling Act, decision on land lease rent, clearance from revenue department, and other such clearances take time.

● State governments have to play a major role in acquisition of land for RE projects.

○ **Creating Ecosystem:**

● Creating an innovation and manufacturing eco-system in the country.

○ **Other:**
  ● Integrating a larger share of renewables with the grid.
  ● Enabling supply of firm and dispatchable power from renewables.
  ● Enabling penetration of renewables in the so called hard to decarbonize sectors.

Initiatives Taken	
PM-KUSUM	➤ It was **launched by the Ministry of New and Renewable Energy (MNRE)** to support installation of off-grid solar pumps in rural areas and reduce dependence on grid, in grid-connected areas.
Production Linked Incentive (PLI) Scheme:	➤ Production Linked Incentive Scheme **"National Programme on High Efficiency Solar PV Modules"** was introduced with an outlay of Rs. 4500 crores to support and promote manufacturing of high efficiency solar PV modules, including the upstage vertical components like cells, wafers, ingots and polysilicon in India and thus reduce the import dependence in Solar PhotoVoltaic (PV) sector.
Solar Parks Scheme:	➤ To facilitate large scale grid connected solar power projects, a scheme for **"Development of Solar Parks and Ultra Mega Solar Power Projects"** is under implementation with a target capacity of 40 GW capacity by March 2022.
Roof Top Solar programme Phase-II:	➤ It provides for **financial assistance of upto 4 GW of solar roof top capacity** to the residential sector and there is a provision to incentivise the power distribution companies for incremental achievement over the previous year.
Central Public Sector Undertaking (CPSU) Scheme:	➤ A scheme for setting up **12 GW Grid- Connected Solar PV Power Projects** by **Central Public Sector Undertakings** with domestic cells and modules is under implementation. **Viability Gap Funding support** is provided under this scheme.
Hydrogen Mission:	➤ The Prime Minister announced the launch of the **National Hydrogen Mission** and stated the **goal to make India a global hub for Green Hydrogen production and export.**
International Solar Alliance	➤ The ISA is an **intergovernmental treaty-based organisation** with a global mandate to catalyse solar growth by helping to reduce the cost of financing and technology. Recently, the **United States of America has become the 101ˢᵗ member** country to join the **ISA.**
OSOWOG:	➤ The OSOWOG was jointly released by India and UK at the COP26 Climate Meet in Glasgow.
National Wind-Solar Hybrid Policy:	➤ The main objective of the National Wind-Solar Hybrid Policy, 2018 is to provide a framework for promotion of large grid connected wind-solar PV hybrid systems for optimal and efficient utilization of wind and solar resources, transmission infrastructure and land.
National Offshore Wind Energy Policy:	➤ The National Offshore wind energy policy was notified in October 2015 with an objective to develop the offshore wind energy in the Indian **Exclusive Economic Zone (EEZ)** along the Indian coastline of 7600 km.
Other Renewables for Power Generation:	➤ Programme on Energy from Urban, Industrial and Agricultural Wastes/ Residues ➤ Scheme to support Promotion of **Biomass** based cogeneration in sugar mills and other industries ➤ Biogas Power (Off-Grid) Generation and Thermal application Programme (BPGTP) ➤ New National Biogas and Organic Manure Programme (NNBOMP)

Note:

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Olive Ridley Turtles

Why in News

Researchers of the **Zoological Survey of India (ZSI)** are carrying out **tagging of Olive Ridley turtles at three mass nesting sites** – Gahirmatha, Devi River mouth and Rushikulya.

➢ The **exercise was undertaken in Odisha in January 2021** after a span of about 25 years and 1,556 turtles had been tagged.

Key Points

➢ **Tagging and its Significance:**
   ❍ The metal tags affixed to turtles are **non-corrosive, which can be removed later and they do not harm their body.**
   ❍ The tags are **uniquely numbered containing details** such as the name of the organisation, country-code and email address.
   ❍ If researchers in other countries come across the tagged turtles, they will email their location in longitude and latitude to researchers in India. There is an established network working on turtles.
   ❍ It would **help them identify the migration path and places** visited by the marine reptiles after congregation and nesting.

➢ **Olive Ridley Turtles:**
   ❍ **About:**
     ● The Olive ridley turtles are the **smallest and most abundant** of all sea turtles found in the world.
     ● These turtles are **carnivores and get their name** from their olive colored carapace.
     ● They are **best known for their unique mass nesting called Arribada,** where thousands of females come together on the same beach to lay eggs.

❍ **Habitat:**
   ● They are **found in warm waters of the Pacific, Atlantic and Indian oceans.**
   ● The **Odisha's Gahirmatha Marine Sanctuary** is known as the **world's largest rookery (colony of breeding animals)** of sea turtles.
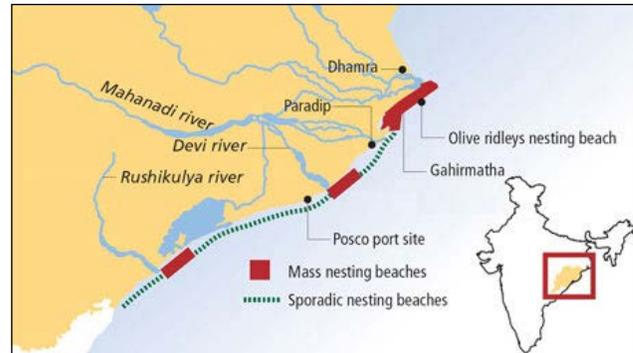
➢ **Protection Status:**
   ❍ **Wildlife Protection Act, 1972:** Scheduled 1
   ❍ **IUCN Red List:** Vulnerable
   ❍ **CITES:** Appendix I

➢ **Threats:**
   ❍ Marine pollution and waste.
   ❍ **Human Consumption:** They are extensively poached for their meat, shell and leather, and eggs.
   ❍ **Plastic Garbage:** An ever-increasing debris of plastics, fishing nets, discarded nets, polythene and other garbage dumped by tourists and fishing workers.
   ❍ **Fishing Trawlers**: Overexploitation of marine resources by use of trawlers often violates the rule to not fish 20 kilometers within a marine sanctuary.
     ● There were injury marks on many dead turtles indicating they could have been trapped under trawls or gill nets.

➢ **Initiatives to Protect Olive Ridley Turtles:**
   ❍ **Operation Olivia:**
     ● Every year, the **Indian Coast Guard's "Operation Olivia"**, initiated in the early 1980s, helps protect Olive Ridley turtles as they congregate along the Odisha coast for breeding and nesting from November to December.
       ■ It also intercepts **unlawful trawling activities.**
   ❍ **Mandatory use of Turtle Excluder Devices (TEDs):**
     ● To reduce accidental killing in India, the Odisha government has made it mandatory for **trawls**

Note:

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to use **Turtle Excluder Devices (TEDs)**, a net specially designed with an exit cover which allows the turtles to escape while retaining the catch.

Zoological Survey of India (ZSI)
➤ It is a **subordinate organization of the Ministry of Environment, Forest and Climate Change,** established in 1916.
➤ It is **a national centre for faunistic survey** and exploration of the resources leading to the advancement of knowledge on the exceptionally rich faunal diversity of the country.
➤ It has **its headquarters at Kolkata** and 16 regional stations located in different geographic locations of the country.

Black-browed Albatross

Why in News

A recent study has **provided evidence of the effect of environmental conditions** on the longevity of relationships — among a population of albatrosses
➤ According to the researchers, **climate change** and **warming waters** are pushing **black-browed albatross** break-up rates higher.

Key Points

➤ **Black-browed Albatross:**
   ○ **Scientific Name:** *Thalassarche melanophris*

   ○ They are a member of the **albatross family Diomedeidae**, the 'tube-noses', related to shearwaters, petrels, and fulmars.
      ● It is the **most common and widespread albatross**.
   ○ The name for this large seabird comes from the dark black plumage above their eyes.

   ○ Albatrosses are **true marine birds, traversing the oceans** in the southern hemisphere, returning to land only to breed.
➤ **Distribution:**
   ○ They are **found anywhere in the south Atlantic** and circumpolar in the southern hemisphere. It can travel further to the north with cold currents.
   ○ **During September and October**, these birds breed on south Atlantic islands such as South Georgia and the Falkland Islands, South Sandwich, and the Cape Horn islands.
➤ **Threats:**
   ○ Hunting & trapping terrestrial animals
   ○ Fishing & harvesting aquatic resources
   ○ Invasive and other problematic species, genes & diseases
   ○ Volcanoes
   ○ Climate change & severe weather
➤ **Protection Status:**
   ○ **IUCN:** Least Concern

Biological Diversity (Amendment) Bill, 2021

Why in News

Recently, the **Biological Diversity (Amendment) Bill, 2021** was tabled in the Parliament.
➤ The amendments seek to **decriminalise certain provisions** and bring m**ore foreign investments** in the chain of biological resources, including **research, patent and commercial utilisation**, without compromising the **national interest.**
➤ However, opposition parties have **cited concerns** over the bill and it is being referred to **a select committee**. They demanded the bill to be referred to the Parliament standing committee.

Note:
➤ A **Select Committee** is formed for examining a particular Bill and its membership is limited to Members of Parliament from one House. It's chaired by MPs from the ruling party.

Key Points

➤ **Objective:** The bill looks to relax certain rules in the **Biological Diversity Act, 2002.**

○ The 2002 Act imposed a heavy "compliance burden" on Indian medicine practitioners, seed sector, industry & researchers and made it hard to conduct collaborative research and investments.

➤ **Simplify Research Process:** The amendments also streamline the process of Patenting for Indian researchers to encourage patenting.

○ For this, **regional patenting centres** will be opened across the country.

➤ **Boosting Indian Medicine System:** It seeks to give a fillip to **"Indian system of medicine",** and facilitate fast-tracking of research, patent application process, transfer of research results while utilising the biological resources available in India.

○ It seeks to empower local communities to be able to utilise resources, particularly of medicinal value, such as seeds.

○ The Bill looks to encourage farmers to **increase cultivation of medicinal plants.**

○ These objectives to be achieved without compromising the objectives of the **United Nation Convention on Biological Diversity.**

➤ **Decriminalising Certain Provisions:** It seeks to decriminalise certain provisions in the chain of biological resources.

○ These changes were brought in consonance with **India's ratification of Nagoya Protocol** (access to generic resources and the fair and equitable sharing of benefits arising from their utilisation) in 2012.

➤ **Allowing Foreign Investments:** It also allows for **foreign investment in research in biodiversity.** However, this investment will necessarily have to be made through Indian companies involved in biodiversity research.

○ For foreign entities the approval from the **National Biodiversity Authority** is necessary.

➤ **Exempting AYUSH Practitioners:** The Bill seeks to exempt registered **AYUSH medical practitioners** and people accessing codified traditional knowledge, among others, from giving prior intimation to State biodiversity boards for accessing biological resources for certain purposes.

Note

➤ **Biological Diversity Act, 2002:** It was enacted by the Parliament, to provide for:

○ Conservation of biological diversity,

○ Sustainable use of its components

○ Fair and equitable sharing of the benefits arising out of the use of biological resources and knowledge.

➤ **Nagoya Protocol**

○ It is mandated that **benefits derived from the use of biological resources are shared in a fair and equitable manner** among the indigenous and local communities.

○ When an Indian or foreign company or individual accesses biological resources such as medicinal plants and associated knowledge, it has to take **prior consent from the national biodiversity board.**

○ The board **can impose a benefit-sharing fee or royalty or impose conditions so that the company shares the monetary benefit** from commercial utilisation of these resources with local people who are conserving biodiversity in the region.

Concerns Raised by The Experts:

➤ **Trade over Conservation:** It prioritises **intellectual property** and commercial trade at the expense of the act's key aim of conserving biological resources.

➤ **Threat of Bio-piracy:** The exemptions to **AYUSH Practitioners** no longer need to take approvals, would pave the way for **"bio piracy".**

○ **Biopiracy** is the practice of exploiting naturally occurring genetic or biochemical material in commerce.

➤ **Marginalising Biodiversity Management Committees (BMCs):** The proposed amendments allow for state biodiversity boards to represent BMCs to determine terms of benefit sharing,

○ Under the Biodiversity Act 2002, national and state biodiversity boards are required to consult the **biodiversity management committees (constituted by every local body)** while taking any decision relating to the use of biological resources.

➤ **Sidelining Local Communities:** The bill also exempts cultivated medicinal plants from the purview of the Act. However, it is practically impossible to **detect which plants are cultivated and which are from the wild.**

Note:

○ This provision could allow large companies to **evade the requirement for prior approval or share the benefit** with local communities under the access and benefit-sharing provisions of the Act.

Draft Resolution on Climate Change: U.N.

Why in News

Recently, India and Russia opposed a **United Nations Security Council (UNSC) draft resolution** on **climate change**.

➢ The **resolution** was co-sponsored by **Ireland and Niger** and it was **first proposed by Germany** in the **UNSC** in 2020.

➢ It was supported by **113 UN member countries (of a total of 193)**, which includes 12 of the 15 UNSC members.

Key Points

➢ **About:**
  ○ The draft resolution **sought to create a formal space in the Security Council** for discussions on **climate change** and **its implications on international security.**
  ○ It also asked that the **UN Secretary-General** provide periodic reports on how risks from climate change can be addressed to prevent conflicts.
  ○ It also asked the **Secretary General to appoint a special envoy** for climate security.
  ○ Further, it asked **UN field missions to regularly report on climate change** assessments in their areas of operation and take the help of climate experts in carrying out their routine functions.

➢ **Need:**
  ○ It has been **argued that climate change had an international security dimension.**
  ○ **Climate change-induced food or water shortage**, loss of habitat or livelihood, or migration can exacerbate existing conflicts or even create new ones.
  ○ This can have **implications for the UN field missions** that are deployed across the world in peacekeeping efforts.

➢ **Criticism:**
  ○ **Shift from UNFCCC:**
    ● India said that **it was an attempt to shift climate talks** from the **United Nations Framework Convention on Climate Change (UNFCCC)** to the **Security Council and a "step backward"** for collective action on the issue.
      ■ At the **annual climate change conference** also, India had **forced a last-minute amendment in the final draft agreement** to ensure that a provision **calling for "phase-out" of coal was changed to "phase-down".**
    ● The draft resolution, as per India**, would undermine the progress made in the right direction.**

> **UN Framework Convention on Climate Change**
> ➢ It discusses all matters related to climate change.
> ➢ The parties to the **UNFCCC — over 190 countries** — meet several times every year, including at a two-week year-ending conference like the one at Glasgow, to work on a global approach to combat climate change.
> ➢ It is this process that has **given rise to the Paris Agreement**, and its predecessor the **Kyoto Protocol**, the international instrument that is designed to respond to the climate change crisis.

  ○ **UNSC does not have Expertise:**
    ● It has been argued that the **UNFCCC must remain the appropriate forum** for addressing all climate change-related issues, and claimed the Security Council does not have the expertise to do so.
  ○ **Hegemony over Climate Action:**
    ● Unlike UNFCCC, where decisions are taken by consensus of all the 190-plus countries, the **UNSC would enable climate change decision-making by a handful of developed countries.**
      ■ The **UNSC members** are "**major contributors to climate change** due to historic emissions
    ● Also, the decision of bringing the issue to the security council was made **without the involvement of most developing countries** and without recognising consensus.

➢ **Recent Climate Related Measures by India:**
  ○ An ambitious **climate action vision with five elements** has been unveiled at **COP26.**

Note:

- Taking non-fossil energy capacity to 500 GW by 2030
- Meeting 50% of energy requirements from renewable energy by 2030
- Reducing total projected carbon emissions by one billion tons by 2030
- Reducing the carbon intensity of the economy to less than 45% by 2030
- Achieving the target of **"net zero"** by 2070.

❍ India now **ranks fourth in terms of installed renewable energy capacity** and non-fossil energy has increased by more than 25% in the past seven years and reached 40% of the total energy mix.

❍ India has also taken the lead in initiatives such as the **International Solar Alliance (ISA) and Coalition for Disaster Resilient Infrastructure (CDRI).**

United Nation Security Council

➢ The UNs Charter established **six main organs of the United Nations**, including the United Nations Security Council (UNSC). **Article 23** of the UN Charter concerns the composition of the UNSC.

➢ The UNSC has been given primary responsibility for maintaining **international peace and security to the Security Council**, which may meet whenever peace is threatened.

➢ While other organs of the United Nations make recommendations to member states, only the Security Council has the **power to make decisions that member states are then obligated to implement under the Charter.**

➢ **Permanent and Non-Permanent Members:** The UNSC is composed of 15 members, **5 permanent and 10 non-permanent.**

❍ **Five permanent members:** China, France, the Russian Federation, the United Kingdom, and the United States.

❍ **Ten non-permanent members:** Elected for two-year terms by the General Assembly.

- Each year, the General Assembly elects **five non-permanent members** (out of ten in total) for a **two-year term**. The ten non-permanent seats are distributed on a regional basis.
- As stipulated in rule 144 of the rules of procedure, a retiring member is not eligible for immediate re-election.

- In accordance with **rule 92 of the rules of procedure**, the election is held by secret ballot and there are no nominations. Under **rule 83 of the rules of procedure**, the non-permanent members of the Security Council are elected by a two-thirds majority.
  - Five for African and Asian countries.
  - One for Eastern European countries.
  - Two for Latin American and Caribbean countries.
  - Two for Western European and other countries.

➢ India has been advocating a permanent seat in UNSC.

➢ India has the following objective criteria, such as population, territorial size, **Gross Domestic Product**, economic potential, civilisational legacy, cultural diversity, political system and past and ongoing contributions to UN activities especially to **UN peacekeeping operations.**

Winter Air pollution in North India

Why in News

The **Centre for Science and Environment (CSE)** has analyzed air quality trends with special focus on cities outside **Delhi and the National Capital Region (NCR)**.

➢ The latest analysis by the has found that when **pollution spikes during winter**, entire northern India experiences smog episodes.

Note

➢ **Particulate Matter**:

❍ **Particulate Matter** (PM), also called **particle pollution,** is a term for a **mixture of solid particles and liquid droplets** found in the air.

❍ **It includes:**

- **PM 2.5:** It refers to fine **particulate matter** smaller than 2.5 micrometres in diameter.
- **PM10:** inhalable particles, with diameters that are **generally 10 micrometres and smaller.**

❍ **Sources of PM:** Some are emitted directly from a source, such as construction sites, unpaved roads, fields, smokestacks or fires.

> Centre for Science and Environment (CSE):
>> CSE is a **public interest research and advocacy organisation** based in New Delhi.
>> It researches into, lobbies for and communicates the urgency of development that is both sustainable and equitable.

Key Points

> **About:**
>> This analysis aims to understand the **synchronised pattern of pollution** during winter when **atmospheric changes entrap pollution** across the region.
>> This analysis has covered **137 continuous ambient air quality monitoring stations (CAAQMS)** spread across 56 cities in the six states.
>> • **CAAQMS** facilitates in measuring a real time monitoring of **Air Pollution**, including particulate matter, all round the year.
>> The **northern region has been divided into five sub-regions** which include:
>> • **Punjab** and **Chandigarh**
>> • **NCR** (includes Delhi and 26 other cities/towns that fall within NCR)
>> • **Haryana** (excluding cities already included in NCR)
>> • **Uttar Pradesh** (excluding cities in NCR)
>> • **Rajasthan** (excluding cities in NCR).
>> This is an assessment of annual and seasonal trends in **PM 2.5 concentration** for the period 1st January 2019 to 30th November, 2021.

> **Methodology and Data:**
>> A huge volume of data points have been cleaned and data gaps have been addressed based on the **USEPA (United States Environmental Protection Agency)** method.
>> Meteorological data for the analysis is sourced from the Palam weather station of the **India Meteorological Department (IMD)**.
>> Fire count data is from **National Aeronautics and Space Administration (NASA)'s Fire Information for Resource Management System**, specifically the **Visible Infrared Imaging Radiometer Suite (VIIRS)**.
>> Estimates of contribution of **farm stubble fire** smoke to Delhi's air quality is sourced from the Union Ministry of Earth Science's **System of Air Quality and Weather Forecasting and Research (SAFAR).**

> **Important Findings**:
>> **Pollution levels in smaller towns**: Most smaller towns have **considerably lower annual average PM2.5 levels,** but **during early winter** when the smog engulfs the entire region and farm stubble fires spike it further, **smaller towns report levels comparable to Delhi.**
>> **Early winter smog is synchronised across the region, but lasts longer in Delhi-NCR**: Normally, the smog episodes of November synchronise across the northern region.
>> • But they linger longer only in Delhi, NCR and Uttar Pradesh during the rest of the winter.
>> • Atmospheric changes during winter that **lead to inversion, calm conditions, change in wind direction, and seasonal drop in ambient temperature** entraps pollution across north India.
>> • This is further tripped into a severe category by **smoke from farm fires and Diwali firecrackers during November.**
>> **Number of days with air quality in 'very poor' and 'severe' categories**: Delhi and NCR cities lead the chart for the most 'severe' days in 2021.
>> **Cities vulnerable to the pollution build-up**: While the whole of north India is vulnerable to the pollution build-up, **the overall annual average of Delhi and NCR is among the highest in the region.**
>> **Industrial towns remain vulnerable throughout the year**: The heavy and prolonged **monsoon** this year brought down PM 2.5 levels substantially across the region.
>> • Even though the monsoon reduced overall pollution in the region, the levels in industrial cities were comparatively higher than other cities during monsoon.
>> **Problem of farm fires**: Farm fires are one of the biggest episodic events during winter.
>> • Two levels of analysis have been carried out: The **daily trend in fire count** and the **trend in average Fire Radiative Power (FRP) reported by NASA satellites**.
>> ■ **FRP** is the **rate of emitted radiative energy by the fire** at the time of observation that is reported in MW (megawatts).

Note:

- FRP is considered a better measure of emissions from biomass burning as intensity of FRP indicates the quantum of biomass burned.
  - This year, Punjab has noted the maximum number of fires after Haryana, UP, Rajasthan and Delhi.
- o **Nitrogen dioxide (NO$_2$) levels**: There is a **significant increase in the amount of NO$_2$ in air during November** compared to October and September.
  - NO$_2$ comes entirely from combustion sources and significantly, from vehicles.
- o **Diwali continues to be a mega pollution event**: Despite the restrictions on bursting firecrackers, Diwali night still got extremely toxic.

Initiatives to Control Air Pollution

➢ **The Commission for Air Quality Management in National Capital Region (NCR) and Adjoining Areas.**

➢ **Bharat Stage (BS) VI norms.**

➢ **Dashboard for Monitoring Air Quality.**

➢ **National Clean Air Programme.**

➢ **National Air Quality Index (AQI).**

➢ **Air (Prevention and Control of Pollution) Act, 1981.**

➢ **Pradhan Mantri Ujjwala Yojana (PMUY).**

Green Financing

Why in News

Recently, the Prime Minister of India **COP26 climate summit** announced that India will attain **net zero emissions by 2070.**

- In order to meet these climate targets, countries like India will need approximately **USD 1 trillion in additional financing** over the next ten years.
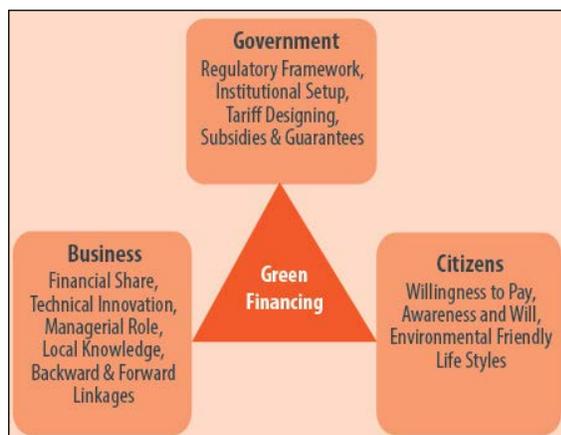
Key Points

➢ **About:**
  - o Green financing is to **increase the level of financial flows** (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors **to sustainable development priorities.**
  - o A key part of this is to **better manage environmental and social risks,** take up opportunities that bring both a decent rate of return and environmental benefit and deliver greater accountability.

➢ **Need for Climate (Green) Finance:**
  - o **Polluter Pays:**
    - The **'polluters pays' principle** is the commonly accepted practice according to which those who produce pollution should bear the costs of managing it to prevent damage to human health or the environment.
  - o **Common but Differentiated Responsibility and Respective Capability (CBDR–RC):**
    - It acknowledges the different capabilities and differing responsibilities of individual countries in addressing climate change.
  - o **Underlying Principle: Developed Countries historically have been the major environmental polluters.**
    - Therefore, based on above mentioned principles, the developed countries are morally responsible to provide technology and finance to combat **climate change.**

➢ **Status of Climate Financing:**
  - o **Expected Contributions from Developed Countries:** Required climate finance from developed countries is to transfer USD 1 trillion annually to developing countries to meet their climate targets.
  - o **Actual Contributions by Developed countries:** Through the **Cancun Agreements in 2010 developed countries** committed to a goal of mobilising jointly USD 100 billion per year by 2020 to address the needs of developing countries.
    - However, the **Glasgow Climate Pact (COP26)** noted that the goal of developed country parties has not yet been met.
    - In this regard, the COP26 has requested the Standing Committee on Finance to the **United Nations Framework Convention on Climate**

Note:

Change (UNFCCC) to prepare a report in 2022 on progress towards achieving the goal of mobilising **USD 100 billion per year** to address the needs of developing countries.

➢ **Global framework for Climate Financing:**

❍ To facilitate the provision of climate finance, the **UNFCCC** has established the financial mechanism to provide financial resources to developing country Parties.

● **The Adaptation Fund under Kyoto Protocol:** **I**t aims to finance concrete projects and programmes that help vulnerable communities in developing countries that are Parties to the **Kyoto Protocol** to adapt to climate change.

● **Green Climate Fund:** It is the financial mechanism of the UNFCCC, established in 2010.

■ India has been pushing for rich countries to meet their **Paris Accord** climate finance commitment of USD 100 billion per year.

● **Global Environment Fund (GEF)**: GEF has served as an operating entity of the financial mechanism since the Convention came into force in 1994.

■ It is a private equity fund focused on seeking long term financial returns by investments in clean energy under climate change.

■ GEF also maintains two additional funds, the **Special Climate Change Fund (SCCF) and the Least Developed Countries Fund (LDCF).**

Climate Financing in India

➢ **Financing From Domestic Resources:** India's climate actions have so far been largely financed by domestic resources.

❍ According to India's Third Biennial Update Report 2021 to the UNFCCC between 2014 and 2019, while the **Global Environment Facility** and **Green Climate Fund** has provided grants to a total of only US USD 165.25 million, the corresponding domestic mobilisation amounts to USD1.374 billion.

➢ **Funds for Green Financing:** Green financing related to climate change is majorly mobilised from **National Clean Energy Fund (NCEF)** and **National Adaptation Fund (NAF)**.

❍ The Government of India also provides funding through eight missions established under the **National Action Plan for Climate Change**.

❍ It has established a **Climate Change Finance Unit (CCFU)** in the Ministry of Finance, which is the nodal agency for all climate change financing matters.

Recent Indian Government Initiatives

➢ **Perform Achieve and Trade (PAT) Scheme:** The government has undertaken the **PAT scheme**, targeting carbon emission reduction in 13 energy intensive sectors.

➢ **Encouraging Foreign Capital:** The Government has permitted **Foreign Direct Investment (FDI)** up to 100 percent under the automatic route in the renewable energy sector.

➢ **Encouraging Renewable energy:**

❍ The Government has waived inter-state Transmission System (ISTS) charges for inter-State sale of solar and wind power for projects.

❍ Making provisions for **Renewable Purchase Obligation** (RPO) and setting up Renewable Energy parks

❍ Announcement of the National Hydrogen Mission.

➢ **India's Nationally Determined Contribution:** Under the Paris Agreement which was adopted by signatory countries in 2015, India had submitted **Nationally Determined Contribution (NDC) with quantified targets:**

❍ To reduce the emissions intensity of its **Gross Domestic Product (GDP)** by 33-35% till 2030 from the levels at 2005,

❍ To achieve about 40% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030,

❍ To create an additional carbon sink of 2.5-3 billion tonnes of carbon dioxide equivalent through additional forest and tree cover by 2030.

Flex Fuel Vehicles

Why in News

Recently, the Government has advised the **Automobile Manufacturers in India**, to start manufacturing **Flex Fuel Vehicles (FFV) and Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV)** complying with **BS-6 Norms** in a time bound manner.

Note:

Key Points

➤ **About FFV and FFV-SHEV:**

○ **Flex-fuel vehicles (FFV):** They have engines that can run on flexible fuel — a combination of petrol and ethanol, which can include up to **100% ethanol.**

○ **Flex Fuel Strong Hybrid Electric Vehicles (FFV-SHEV):** When FFV is integrated along with strong **hybrid electric technology**, it is referred as FFV-SHEVs.

● **Strong hybrid** is another term for full hybrid vehicles, which have the capability to run solely on **either electric or petrol modes.**

● In contrast, **mild hybrids** cannot run purely on one of these modes and use the secondary mode merely as a supplement to the main mode of propulsion.

○ In order to accelerate the introduction of FFVs, the **Production Linked Incentive (PLI) scheme** has included automobile and auto components of flex fuel engines.

➤ **Significance of the Move:**

○ **Easing Pressure on Import Bill:** The policy is expected to r**educe the demand for petroleum products.**

● India presently **imports more than 80%** of its petroleum requirement, and this also represents one of the biggest outflows of money from the country.

○ **Benefiting Farmers:** The wide uptake of ethanol or methanol as a fuel is intended to create an **additional revenue stream for farmers**.

● This will provide direct benefits to farmers and help in doubling the farmer's income.

○ **Boost to Atma Nirbhar Bharat:** It is in line with Prime Minister's vision of **Atma Nirbhar Bharat** and government's policy on promoting ethanol as a transport fuel.

○ **Reducing Greenhouse Gas & Tackling Climate Change:** This move will drastically reduce greenhouse gas emissions from vehicles on a well-to-wheel basis.

● Thereby, helping India to comply with its commitment made at **Conference of parties (COP26)** to reduce the total projected carbon emissions by one billion tonnes by 2030.

➤ **Related Government Initiatives:**

○ **National Policy on Biofuels–2018**

○ **E100 Project.**

○ **Pradhan Mantri JI-VAN Yojana, 2019**

○ **GOBAR (Galvanising Organic Bio-Agro Resources) DHAN Scheme, 2018**

○ **Repurpose Used Cooking Oil (RUCO)**

6 THINGS TO KNOW ABOUT ETHANOL AND FLEX FUEL

1 Flex fuel vehicles can run on both petrol and ethanol

2 India is aiming to achieve **E10 by 2022 and E20** (which would involve a 20% ethanol blend) **by 2025**

3 At present there are **no flex-fuel-powered engines or vehicles** with the exception of a limited-edition TVS Apache RTR motorcycle

4 Ethanol is hygroscopic, and has a tendency to absorb moisture making it **difficult to store in pure form**. Its affinity to attract moisture can also lead to impurities settling at the base of the fuel tank and contaminating the engine

5 At present **E10 isn't available** across the country, and will be made so by 2022

6 According to the government, **all vehicles manufactured since 2008 are E10 compatible** (but not optimised). E100 ethanol will be sold at a lower price from ethanol pumps

moneycontrol

BS-VI Fuel Norms

➤ The Bharat Stage (BS) are **emission standards instituted by the Government of India** to regulate the output of air pollutants from motor vehicles.

➤ India **directly shifted from BS-IV to BS-VI norms.** The switch to BS-VI vehicles was to happen in 2022 but looking at the poor air condition, the move was advanced by four years.

➤ In BS-VI fuel, the volume of **Particulate Matter 2.5** ranges from 20 to 40 micrograms per cubic metre whereas in BS-IV fuel it is up to 120 micrograms per cubic metre.

➤ BS-VI fuel **will bring down sulphur content by 5 times** from the current BS-IV levels. It has 10 ppm of sulphur as against 50 ppm in BS-IV.

○ Sulphur in the fuel contributes to fine particulate matter emissions. High sulphur content in the fuel also leads to corrosion and wear of the automobile engine.

➤ With BS-VI fuel, for every one kilometre, **a car will emit 80% less particulate matter** and nearly 70% less nitrogen oxide.

➤ **Air pollutants** in BS-VI fuel are much less as compared to BS-IV fuel.

➤ BS-VI norms also **seek to reduce the level of certain harmful hydrocarbons** in the emissions that are produced due to incomplete combustion of fuel.

■■■

Note:

History

Highlights

- Pt. Madan Mohan Malaviya
- Tamil Literature: Sangam Period
- Chalcolithic Culture in Central India
- Conservation of Konark Sun Temple: Odisha

Pt. Madan Mohan Malaviya

Why in News

Recently, the Prime Minister has paid tributes to Pt. Madan Mohan Malaviya on his Jayanti.

Key Points

➤ **Birth:** 25th December 1861, in Allahabad (now Prayagraj) in Uttar Pradesh.

➤ Brief Profile:
   - He was a **great educationist, pioneer, an eloquent rhetorician**, and a national leader.
   - He took part in numerous activities like the **freedom struggle movements, promotion of industries**, the economic and social development of the country, education, religion, social service, development of Hindi language and many other issues of national importance throughout his life.
   - He was given the **title of 'Mahamana' by Mahatma Gandhi** and the second President of India, **Dr. S. Radhakrishnan** gave him the status of a **'Karmayogi'.**

➤ Role in Freedom Struggle:
   - In the freedom struggle, he was midway between the Liberals and the Nationalists, the Moderates and the Extremists, as the followers of **Gokhale** and **Tilak** were respectively called.

   - In 1930, when **Mahatma Gandhi** launched the **Salt Satyagraha and the Civil Disobedience Movement**, he participated in it and courted arrest.

➤ **Role in Congress:**
   - He was elected as the **President of the Congress committee** (four times) in 1909, 1918, 1932 and 1933.
     - **Sengupta was elected Congress chief in 1933** after president-elect Madan Mohan Malviya was arrested.

➤ **Contributions:**
   - Remembered for hi**s role in ending the Indian indenture system**, especially in the Caribbean.
     - Indentured labour was a **system of bonded labour** that was instituted following the abolition of slavery in 1833.
     - Indentured labour were recruited to work on sugar, cotton and tea plantations, and rail construction projects in British colonies in West Indies, Africa and SouthEast Asia.
   - Apprehensive of the possibility of the British completely damming the flow of Ganga at Bhimgoda in Haridwar, he **set up the Ganga Mahasabha in 1905.**
   - He was a **social reformer and a successful legislator,** serving as a member of the Imperial Legislative Council for 11 years (1909–20).
   - **Popularized the term 'Satyamev Jayate'.** However, the phrase originally belongs to the **Mundaka Upanishad**. The term now is the national motto of India.
   - **Devnagri was introduced in the British-Indian courts** because of Malviya's efforts with the British government.
   - Worked immensely for **Hindu-Muslim unity**. He is known to have given **famous speeches on communal harmony.**

Note:

- He was expelled from the Brahmin community for expressing his views on caste discrimination and Brahmanical patriarchy.
  - He **helped establish the Hindu Mahasabha ("Great Society of Hindus")** in 1915.
  - He **founded the Banaras Hindu University (BHU) in 1916.**
- **Journalist:**
  - As a journalist, he started a **Hindi weekly, Abhyudaya in 1907** and made it a daily in 1915 and also **Hindi monthly, Maryada in 1910.**
  - He started **an English daily- Leader in 1909.**
  - Malaviya was the **editor of Hindi weekly, the Hindustan and Indian Union.**
  - He was also the **Chairman of the Board of Directors of the Hindustan Times** for many years.
- **Death:** He died on **12ᵗʰ November, 1946**, at the age of 84.
- **Awards and Honours:**
  - In 2014, he was posthumously conferred with **Bharat Ratna**, the country's highest civilian award.
  - In 2016, the Indian Railways started the Varanasi-New Delhi Mahamana Express in the leader's honour.

Tamil Literature: Sangam Period

Why in News

Recently, the Minister of State for Education, released the **Hindi translation of Tolkāppiyam and the Kannada translations of 9 books of Classical Tamil literature.**

- Tamil literature **goes back to the Sangam Era,** named after the assembly (sangam) of poets.

Key Points

- **About:**
  - **Sangam Period:**
    - The period roughly between the **3ʳᵈ century B.C. and 3ʳᵈ century A.D**. in South India (the area lying to the south of river **Krishna and Tungabhadra**) is known as **Sangam Period.**
    - It has been named after the **Sangam academies** held during that period that flourished under the royal patronage of the **Pandya kings** of Madurai.

- At the sangams, eminent scholars assembled and functioned as the board of censors and the choicest literature was rendered in the nature of anthologies.
- These literary works were the **earliest specimens of Dravidian literature**.
- South India, during the Sangam Age, was ruled by three dynasties-the **Cheras**, **Cholas** and **Pandyas**.
  - **Three Sangams:**
    - According to the Tamil legends, there were three Sangams (Academy of Tamil poets) held in the ancient South India popularly called **Muchchangam**.
      - The **First Sangam**, is believed to be held at **Madurai**, attended by gods and legendary sages. No literary work of this Sangam is available.
      - The **Second Sangam** was held at **Kapadapuram**, only Tolkappiyam survives from this.
      - The **Third Sangam** was also held at **Madurai.** A few of these Tamil literary works have survived and are a useful source to reconstruct the history of the Sangam period.
- **Sangam Literature**:
  - The Sangam literature includes Tolkappiyam, Ettutogai, Pattuppattu, Pathinenkilkanakku, and two epics named – Silappathikaram and Manimegalai .
    - **Tolkappiyam**: It was authored by Tolkappiyar and is considered the earliest of Tamil literary work.
      - Though it is a work on Tamil grammar, it also provides insights on the political and socio-economic conditions of the time.
      - It is a unique work on grammar and poetics, in its three parts of nine sections each, deals with Ezhuttu(letter), Col (word) and Porul (subject matter).
      - Almost all levels of the human language from the spoken to the most poetic lie within the purview of Tolkappiyar's analysis as he treats in exquisitely poetic and epigrammatic statements on phonology, morphology, syntax, rhetoric, prosody and poetics.
    - **Ettutogai (Eight Anthologies):** It consists of eight works – Aingurunooru, Narrinai, Aganaooru, Purananooru, Kuruntogai, Kalittogai, Paripadal and Padirruppatu.

- **Pattuppattu (Ten Idylls):** It consists of ten works – Thirumurugarruppadai, Porunararruppadai, Sirupanarruppadai, Perumpanarruppadai, Mullaippattu, Nedunalvadai, Maduraikkanji, Kurinjippatttu, Pattinappalai and Malaipadukadam.
- **Pathinenkilkanakku:** It contains eighteen works about ethics and morals.
  - The most important among these works is **Tirukkural authored by Thiruvalluvar,** the tamil great poet and philosopher.
- **Tamil Epics:** The two epics **Silappathikaram** is written by **Elango Adigal** and **Manimegalai** by **Sittalai Sattanar.**
  - They also provide valuable details about the Sangam society and polity.

Chalcolithic Culture in Central India

Why in News

Recently, **Archaeological Survey of India (ASI)** carried out excavations at two prominent sites of Chalcolithic affiliations in **Central India** (Eran, district Sagar and at Tewar, district Jabalpur) in the state of **Madhya Pradesh.**

Key Points

- **Chalcolithic Culture:**
  - **About:** The end of the Neolithic period saw the use of metals. Several cultures were based on the use of copper and stone implements.
    - Such a culture is called **Chalcolithic** and as the name indicates, during the **Chalcolithic (Chalco = Copper and Lithic = Stone) period**, both **metal and stone** were utilised for the manufacture of the equipment in day-to-day life.
    - The Chalcolithic cultures followed the **Bronze Age Harappa culture.**
    - It spanned around **2500 BC to 700 BC.**
  - **Salient Features:** The Chalcolithic culture of a region was defined according to certain salient features seen in ceramics and other cultural equipment like **copper artefacts, beads of semi-precious stones, stone tools and terracotta figurines.**

- **Characteristics:**
  - **Rural Settlements:** The **people were mostly rural** and lived near hills and rivers.
    - The people of Chalcolithic Age survived on **hunting, fishing, and farming**
  - **Regional Differences:** Regional differences in social structure, cereals and pottery become visible.
  - **Migration:** Migration and diffusion of population groups were often cited as causes for the origin of different cultures within the Chalcolithic period.
  - **First Metal Age of India:** Since this was the first metal age, copper and its alloy bronze which melt at low temperature were used for the manufacture of various objects during this period.
  - **Art and Craft:** The **specialty** of the Chalcolithic culture was **wheel made pottery mostly of red and orange colour.**
    - Different types of pottery were used by the people of the Chalcolithic phase. The Black-and-Red pottery among them was quite common.
    - The **Ochre-Coloured Pottery(OCP)** was also in use.

CHALCOLITHIC SITES
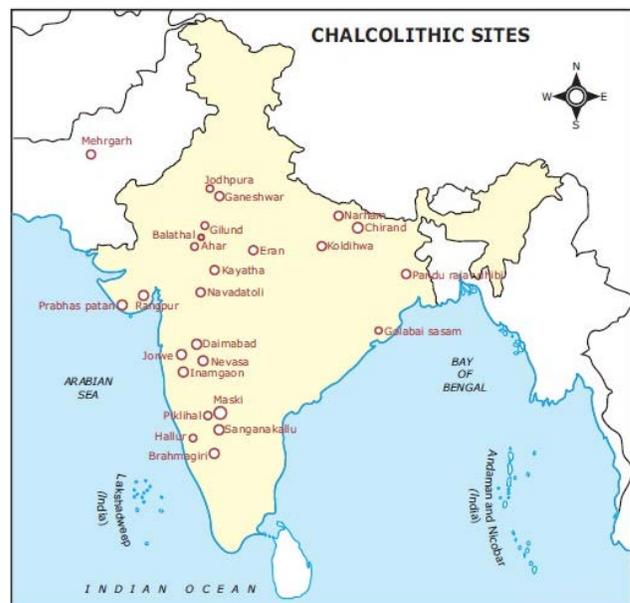
- **Excavation at Eran during 2020-21:**
  - Eran (ancient Airikina) is situated on the **left bank of the Bina (ancient Venva)** river and surrounded by it on three sides.

Note:

- **Bina river** is a river that flows in Madhya Pradesh state of India. It is a chief **tributary of the Betwa river,** which is itself a t**ributary of the Yamuna river.**
- ○ Eran is located 75 km north-west from Sagar district headquarter.
- ○ The recent excavation at this site, during 2020-21, has unearthed a variety of antiquities including a **copper coin, an iron arrowhead, terracotta bead, stone beads along with a copper coins, stone celt, beads of steatite and jasper, glass, carnelian, terracotta wheel, animal figurines, miniature pots, iron objects, stone querns, pestles and a red slipped terracotta** with inscription in Devnagari.
- ○ The occurrence of few specimens of plain, thin grey ware is noteworthy.
- ○ The use of **iron was evidenced by few metallic objects** at the site.
- ○ This excavation at the site also revealed the remains of Chalcolithic culture with four major periods i.e.
  - **Period I**: Chalcolithic (18th -7th BCE),
  - **Period II:** Early historic (7th– 2nd century BCE & 2nd century BCE – 1st century CE),
  - **Period III:** 1st – 6th century CE
  - **Period IV:** late mediaeval (16th – 18th century CE).
- ➤ **Excavation at Tewar during 2020-21:**
  - ○ Tewar (Tripuri) village is located 12 km west of Jabalpur district on Jabalpur – Bhopal highway.
  - ○ This excavation revealed **four folds of cultural sequences** i.e. **Kushana, Shunga, Satavahana, and Kalachuri.**
  - ○ Antiquarian **remains in this excavation i**nclude viz remains of sculptures, hopscotch, terracotta balls, Iron nails, copper coins, terracotta beads, implements of Iron and terracotta figurine, in ceramics red ware, black ware, red slipped ware with shapes of handi, bowl, spouted pot, small pot, big jar, etc., structural remains consist of brick wall and structure of sandstone columns.

Conservation of Konark Sun Temple: Odisha

Why in News

Recently, the **Archeological Survey of India (ASI)** has revealed it is working on a preliminary roadmap to **safely remove sand** from the interiors of **Konark Sun Temple.**

➤ The sand was filled over a century ago by the **British in Jaga Mohan (assembly hall)** of the Sun Temple for the stability of the temple.
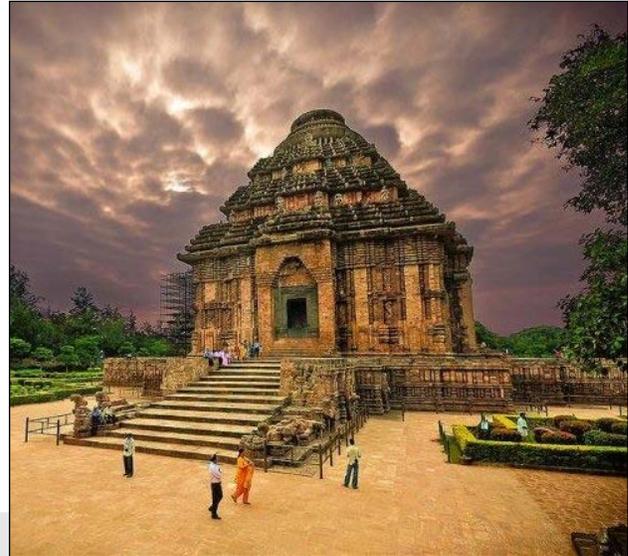
Key Points

➤ **Conservation Process:**
- ○ The **British administration in 1903** had filled the hall with sand and sealed it in order to maintain the durability of the **thirteenth-century world heritage site.**
  - They had made hole on the top portion of the J**aga Mohan and poured the sand through that.**
- ○ The need to remove the sand was felt after a study **warned of possible damage caused by the sand settling down** — resulting in a **gap of 17 feet** between the sand layer and the structure.
- ○ To carry out the sand-removing process, ASI is going to be assisted by the **Central Building Research Institute (CBRI) at Roorkee**, which had done a scientific study on the temple's structural stability between 2013 and 2018.

➤ **About Konark Temple:**
- ○ Konark Sun Temple, located in the **East Odisha near the sacred city of Puri.**
- ○ Built in the 13th century by **King Narasimhadeva I (AD 1238-1264).** Its scale, refinement and conception represent the strength and stability of the **Eastern Ganga Empire** as well as the value systems of the historic milieu.
  - The Eastern Ganga dynasty also known as Rudhi Gangas or Prachya Gangas.

Note:

- It was the large Indian royal dynasty in the medieval era that reigned from Kalinga from as early as the **5th century to the early 15th century.**
- The beginnings of what became the **Eastern Ganga dynasty** came about when **Indravarma I** defeated the Vishnukundin king.

○ The temple is designed in the shape of a **colossal chariot.**

○ It is dedicated to the **sun God.**

○ The Konark temple is widely known not only for its **architectural grandeur** but also for the **intricacy and profusion of sculptural work**.
  - It marks the highest point of achievement of Kalinga architecture depicting the grace, the joy and the rhythm of life in all its wondrous variety.

○ It was declared a **UNESCO world heritage site** in 1984.

○ There are two rows of **12 wheels on each side of the Konark sun temple.** Some say the wheels represent the **24 hours in a day** and others say the 12 months.

○ The seven horses are said to **symbolise the seven days of the week.**

○ Sailors once called this Sun Temple of Konark, the **Black Pagoda** because it was supposed to draw ships into the shore and cause shipwrecks.

○ Konark is the invaluable link in the history of the diffusion of the **cult of Surya,** which originating in Kashmir during the 8th century, finally reached the shores of Eastern India.

➢ **Other Important Monuments in Odisha:**
  ○ **Jagannath Temple**
  ○ **Tara Tarini Temple**
  ○ **Udaygiri and Khandagiri Caves**
  ○ **Lingaraja Temple**

Kalinga Architecture

➢ **About:**
  ○ The Indian temples are broadly divided into **Nagara**, **Vesara, Dravida** and **Gadag** styles of architecture.

○ However, the temple architecture of Odisha corresponds altogether to a different category for their unique representations called Kalinga style of temple architecture.

○ This style **broadly comes under the Nagara style.**

➢ **The Architecture:**

○ In Kalinga Architecture, basically a temple is **made in two parts**, a tower and a hall. The tower is called deula and the hall is called jagmohan.

○ The walls of both the **deula** and the **jagmohan** are lavishly sculpted with architectural motifs and a profusion of figures.

○ The most repeated form is the **horseshoe shape**, which has come from the earliest times, starting with the large windows of the chaitya-grihas.

○ It is the deula which makes three **distinct types of temples in Kalinga Architecture:**
  - Rekha Deula.
  - Pidha Deula.
  - Khakhara Deula.

○ The former two are associated with **Vishnu, Surya and Shiva temples** while the third is mainly with Chamunda and Durga temples.

○ The Rekha Deula and Khakhara Deula houses the sanctum sanctorum while the Pidha Deula constitutes outer dancing and offering halls.

Kalinga architecture

- Rekha-deula: (above shrine)
- Khakhara-deula
- Garba griha: (shrine)
- Pidha-deula(s): (commodities halls)
- Axis west-east

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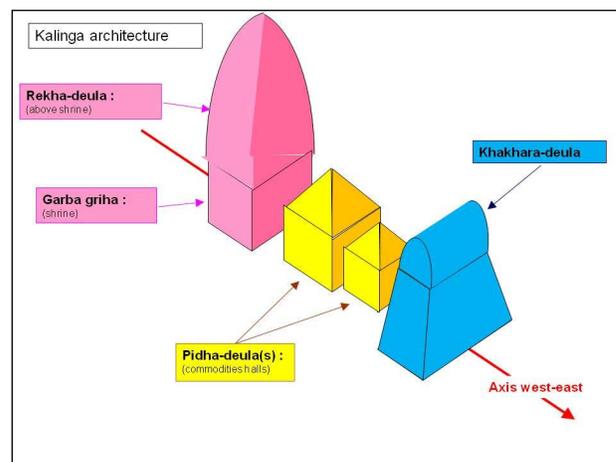
Note:

Art and Culture

Highlights

- *Durga Puja on UNESCO's ICH*

Durga Puja on UNESCO's ICH

Why in News

Recently, **Durga Puja in Kolkata** has been inscribed on the **UNESCO**'s Representative List of the Intangible **Cultural Heritage (ICH) of Humanity.**

➢ It is the **first festival in Asia** to achieve recognition as UNESCO ICH of Humanity.

➢ Earlier, UNESCO announced the Harappan city of **Dholavira in Gujarat as India's 40th world heritage site**.

Key Points

➢ **Durga Puja:**

○ Durga Puja is a **five-day festival** which begins on the **fifth night of the nine-day Navratri festival** and ends on the tenth day, which is Dashami.

○ During this time, people collectively worship and invoke Goddess Durga, who is regarded as the feminine energy of the cosmos, also known as **'Shakti'**.

○ It is **one of the largest cultural carnivals** and street art festivals of the country.

○ During this time, **intricately-designed clay models of the Goddess are worshiped** in 'pandals' and pavilions where people get together.

- Folk music, culinary, craft, and performing arts traditions are a part of the celebration.

○ Though originating in West Bengal, which has the **largest Bengali community in the country**, the festival is **celebrated in many other parts of India,** and also the world.

➢ **Significance:**

○ It **acknowledges the festival's contribution** in sustaining and safeguarding a multitude of traditional arts and crafts, well-being and economic empowerment of communities, and energizing creativity.

- Earlier this year (2021), the British Council in India had **mapped the creative economy of Durga Puja to over Rs. 32,000 crore** for the year 2019 and added that the **festival contributes 2.58% of West Bengal's Gross Domestic Product (GDP).**

➢ **UNESCO's List of Intangible Cultural Heritage:**

○ This coveted list is **made up of those intangible heritage element**s that help demonstrate diversity of cultural heritage and raise awareness about its importance.

○ According to **UNESCO cultural heritage** does not end at monuments and collections of objects.

- It also **includes traditions or living expressions inherited** from our ancestors and passed on to our descendants, **such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices** concerning nature and the universe or the knowledge and skills to produce traditional crafts.

○ The list was **established in 2008** when the Convention for Safeguarding of the Intangible Cultural Heritage came into effect.

Note:

- The Ministry of Culture (India) has also launched the **draft National List of Intangible Cultural Heritage (ICH) of India.**
- The National ICH List is an **attempt to recognize the diversity of Indian culture** embedded in its intangible heritage.
- This initiative is also a part of the **Vision 2024 of the Ministry of Culture.**
  - India is also a **signatory of the 2003 UNESCO Convention** which aims for the Safeguarding of the Intangible Heritage along with traditions and living expression.

➢ **Inscripted Elements:**
  - Currently, it has 492 elements from which India now has **14 intangible cultural heritage elements** on the prestigious UNESCO Representative List of ICH of Humanity.
  - Other than the Durga Puja there are **13 Traditions in India recognised by UNESCO** as ICH .

13 ICH traditions recognised by UNESCO

1.	Tradition of Vedic chanting, 2008	8.	Buddhist chanting of Ladakh: recitation of sacred Buddhist texts in the trans-Himalayan Ladakh region, Jammu and Kashmir, India, 2012
2.	Ramlila, the traditional performance of the Ramayana, 2008	9.	Sankirtana, ritual singing, drumming and dancing of Manipur, 2013
3.	Kutiyattam, Sanskrit theatre, 2008	10.	Traditional brass and copper craft of utensil making among the Thatheras of Jandiala Guru, Punjab, India ,2014
4.	Ramman, religious festival and ritual theatre of the Garhwal Himalayas, India, 2009	11.	Yoga, 2016
5.	Mudiyettu, ritual theatre and dance drama of Kerala, 2010	12.	Nowruz, 2016
6.	Kalbelia folk songs and dances of Rajasthan, 2010	13.	Kumbh Mela, 2017
7.	Chhau dance, 2010		

UNESCO
➢ **About:**
  - UNESCO is the United Nations Educational, Scientific and Cultural Organization. It seeks to **build peace through international cooperation** in Education, the Sciences and Culture.
  - UNESCO's programmes contribute to the achievement of the **Sustainable Development Goals** defined in Agenda 2030, adopted by the **UN General Assembly** in 2015.
  - It has 193 Members and 11 Associate Members. India joined UNESCO in 1946.
    - In 2019, **the USA and Israel formally quit UNESCO.**
  - It is headquartered in Paris, France.

  - UNESCO-IOC (Intergovernmental Oceanographic Commission) is **leading a global effort** to establish ocean-based tsunami warning systems as part of an overall multi-hazard disaster reduction strategy.
    - Last year (2020), UNESCO-IOC approved the **recognition of two communities of Odisha** viz., Venkatraipur and Noliasahi as Tsunami Ready Communities.
➢ **Other Initiatives of UNESCO**
  - **Man and Biosphere Programme**
  - **World Heritage Programme**
  - **UNESCO Global Geopark Network**
  - **UNESCO's Network of Creative Cities**

■■■

Note:

Security

Highlights

- *Pralay Missile*
- *Agni-P Missile*

Pralay Missile

Why in News

Recently, the **Defence Research and Development Organisation (DRDO)** has successfully conducted maiden flight test of a new **indigenously developed surface-to-surface missile 'Pralay'.**

➢ The missile was tested from the **Dr A.P.J. Abdul Kalam Island off the coast of Odisha**.

Key Points

➢ **About:** Pralay' is India's first conventional quasi-ballistic missile and is an answer to any conventional missile attack from northern or western borders.

- ○ A quasi-ballistic missile has **a low trajectory**, and while it is **largely ballistic,** it can **maneuver in flight.**
- ○ The missile has been developed in a way that it is able to **defeat the interceptor missiles** and also has the ability to **change its path after covering a certain range mid-air.**
- ○ It is powered with a **solid propellant rocket motor** and many new technologies.
- ○ The missile guidance system includes **state-of-the-art navigation system** and integrated **avionics.**

➢ **Background:** It is a derivative of the **Prahaar missile programme**, which was first tested in 2011.

- ○ Prahaar is a surface-to-surface missile with a **range of 150 km.**
- ○ Primary objective is to bridge the gap between the **unguided Pinaka multi-barrel rocket launcher** and the **guided Prithvi missile variants.**

➢ **Range:** The missile has a range of **150-500 kilometre** and can be launched from a mobile launcher.

- ○ Pralay will be the **longest-range surface-to-surface missile** in the inventory of the Army.

- The Army also has the **BrahMos supersonic cruise missile** in its arsenal, with a stated range of **290-plus kilometres.**

➢ **Significance:** It will completely change the **tactical battlefield dynamics** and India will have two conventional missiles with long range.

- ○ The BrahMos will be a **cruise option and this one will be the ballistic option.**

Ballistic Missile vs Cruise Missile	
Ballistic Missile	**Cruise Missile**
➢ Travel in projectile motion and trajectory depends on gravity, air resistance and Coriolis Force.	➢ Comparatively follows a straight trajectory of motion.
➢ Leave the earth's atmosphere and re enter it.	➢ The flight path is within the earth's atmosphere.
➢ Long-range missiles (300 km to 12,000 km)	➢ Short range missiles (range upto 1000 km)
➢ E.g. Prithvi I, Prithvi II, Agni I, Agni II and Dhanush missiles.	➢ E.g. BrahMos missiles

Agni-P Missile

Why in News

Recently, the **Defence Research and Development Organisation (DRDO)** successfully test-fired the new generation nuclear-capable ballistic missile **'Agni Prime'.**

➢ This is the second test of the missile, the **first test took place in June 2021.**

➢ The Agni-P missile aims to **further strengthen India's credible deterrence capabilities.**

Note:

Key Points

➢ **About:**

○ Agni-P is a **two-stage canisterised solid propellant missile** with dual redundant navigation and guidance system.

○ It has been termed as a **new generation advanced variant of Agni class of missiles** with improved parameters, including manoeuvring and accuracy.

● **Canisterisation of missiles reduces the time required** to launch the missile while improving the storage and ease of handling.

○ The surface-to-surface ballistic missile has a **range of 1,000 to 2,000 km.**

➢ **Agni Class of Missiles:**

○ Agni class of missiles are the **mainstay of India's nuclear launch capability**, which also includes the **Prithvi short-range ballistic missiles**, submarine launched ballistic missiles and fighter aircraft.

● **Agni-V**, an **Inter-Continental Ballistic Missile (ICBM)** with a range of over 5,000 km, had been tested several times and validated for induction.

○ The **Agni-P** and **Agni-5 ballistic missiles** trace their origins back to the **Integrated Guided Missile Development Programme (IGMDP)**, which was spearheaded by former DRDO chief and ex-Indian president Dr APJ Abdul Kalam in the early 1980s.

➢ **Other Ranges of Agni Missiles:**

○ **Agni I:** Range of 700-800 km.

○ **Agni II:** Range more than 2000 km.

○ **Agni III:** Range of more than 2,500 Km

○ **Agni IV:** Range is more than 3,500 km and can fire from a road mobile launcher.

○ **Agni-V:** The **longest of the Agni series**, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km.

➢ **Recently Tested Missile:**

○ **BrahMos supersonic cruise missile (air version)**

○ **Vertical Launch Short Range Surface to Air Missile (VL-SRSAM)**

IGMDP (Integrated Guided Missile Development Program)

➢ It was **conceived by Dr. A.P.J. Abdul Kalam** to enable India attain self-sufficiency in the field of missile technology. It was approved by the **Government of India in 1983 and completed in March 2012.**

➢ The 5 missiles (P-A-T-N-A) developed under this program are:

○ **P**rithvi: Short range surface to surface ballistic missile.

○ **A**gni: Ballistic missiles with different ranges, i.e. Agni (1,2,3,4,5)

○ **T**rishul: Short range low level surface to air missile.

○ **N**ag: 3rd generation anti-tank missile.

○ **A**kash: Medium range surface to air missile.

History of Missile Technology in India

➢ **About:**

○ Before Independence, several kingdoms in India were using **rockets as part of their warfare technologies.**

● **Mysore ruler Hyder Ali** started inducting iron-cased rockets in his army in the mid-18th century.

○ At the time of Independence, **India did not have any indigenous missile** capabilities.

○ The government created the **Special Weapon Development Team in 1958**.

● This was later expanded and called the **Defence Research and Development Laboratory (DRDL),** which moved from Delhi to Hyderabad by 1962.

○ In 1972, Project Devil, for the development of a **medium range Surface-to-Surface Missile** was initiated.

○ By 1982, **DRDL was working on several missile technologies** under the Integrated Guided Missiles Development Programme (IGMDP).

➢ **Kind of Missiles India Have:**

○ **Surface-Launched Systems:**

● **Anti-Tank Guided Missile:**

■ **Nag**

● **Surface-to-Air Missile:**

■ **Akash**

● **Medium-Range Sam:**

■ Production of MRSAM systems for the Navy is complete, and it is placing its order

● **Short-Range Sam:**

■ For the Navy, the first flight tests have been successfully conducted.

○ **Several Air-Launched Systems:**

● **Air-To-Air:**

■ **Astra**

Note:

- **Air-to-Ground:**
    - **Rudram**
    - **BrahMos**
- ➢ **Most Important India's Missile:**
  - ○ **Agni (range around 5,000):**
    - It is India's only contender for an Inter-Continental Ballistic Missile (ICBM), which is available with only a few countries.
  - ○ **Prithvi:**
    - It is a short-range surface-to-surface missile with a 350 km range and has strategic uses.
      - India also tested a anti-satellite system in April 2019.
      - A modified anti-ballistic missile named **Prithvi Defence Vehicle Mk 2** was used to hit a low-orbit satellite.
      - It put India only behind the US, Russia and China in this capability.
- ➢ **Hypersonic Technology:**
  - ○ India is just behind the US, Russia and China.
  - ○ DRDO successfully tested a **Hypersonic Technology Demonstrated Vehicle (HSTDV)** in September 2020, and demonstrated its hypersonic air-breathing scramjet technology.

- ➢ **Missile technology of India in Comparison to (Pakistan and China):**
  - ○ **India:**
    - Under the Integrated Guided Missile Development Programme (IGMP) first came Prithvi, then Agni.
    - BrahMos, at 2.5-3 times the speed of sound, was among the fastest in the world when developed.
    - India is working on **Agni VI and Agni VII**, which should have a much longer range.
  - ○ **China and Pakistan:**
    - While China is ahead of India, a "lot of things about China are psychological".
    - China has given Pakistan the technology, "but getting a technology and really using it, and thereafter evolving and adopting a policy is totally different".
    - India does not call BrahMos nuclear, it can be used.
    - India's only nuclear missiles are **Prithvi and Agni**, but beyond those, tactical nuclear weapons can be fired from some **Indian Air Force** fighter jets or from Army guns, which have a low range, around 50 km.

■■■

Note:

Miscellaneous

Highlights

- Sahitya Akademi Award
- Extreme Cold Weather Clothing System
- Sri Aurobindo
- Maharashtra can hold Bullock Cart Race: SC
- VIHANGAM
- Sardar Vallabh Bhai Patel
- Atmanirbhar Bharat Rojgar Yojana
- Goa Liberation Day
- Jaitapur Nuclear Reactors: Maharashtra
- Breastfeeding-friendly Tags for Hospitals

- Indian Desert Cat
- Gharials
- Chillai Kalan
- PM Gets Bhutan's Highest Civilian Award
- Kisan Diwas
- Sankalp Smarak: Andaman & Nicobar
- Indian Pangolin
- Key Points
- ARIIA 2021 Rankings

Sahitya Akademi Award

Why in News

Recently, the Sahitya Akademi announced the **Sahitya Akademi Award** 2021 in 20 languages. The Akademi **also announced Yuva Puraskar and Bal Sahitya Puraskar for 2021.**

Key Points

➢ **About:**

- ❍ Sahitya Akademi award **established in 1954**, is a literary honour that is conferred **annually by Sahitya Akademi**, India's National Academy of letters.

- ❍ Akademi gives **24 awards annually to literary works** in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India.

- **Besides the 22 languages** enumerated in the Constitution of India, the Sahitya Akademi has **recognised English and Rajasthani** as languages in which its programme may be implemented.
  - ❍ The Sahitya Akademi award is the **second-highest literary honour** by the Government of India, **after the Jnanpith award**.

➢ **Criteria for Choosing Awardee:**

- ❍ The author must be of **Indian Nationality.**
- ❍ Book/work eligible for the award must be **an outstanding contribution to the language and literature** to which it belongs.
- ❍ When equal merit for books of two or more are found, certain criteria like total literary contribution and standing of authors shall be taken into consideration for declaring the award.

➢ **Other Sahitya Akademi Awards:**

- ❍ **Sahitya Akademi Bal Sahitya Puraskar** is given to an author based on his/her total contribution to **children literature and** relates to books first published during the five years immediately preceding the year of Award.
- ❍ **Sahitya Akademi Yuva Puraskar** relates to books published by an **author of the age of 35 and below.**

Note:

Jnanpith Award

➤ The Jnanpith award is the **highest literary award** in India and can only be conferred **annually upon an Indian citizen.**

➤ **English** along with other languages mentioned in **Indian Constitution (8th Schedule)** is considered for the Award.

➤ The prize carries a cash award of Rs. 11 lakhs, a citation, and a bronze replica of Vagdevi (Saraswati), the goddess of learning.

➤ It is sponsored by the **cultural organization Bharatiya Jnanpith.**

➤ Assamese poet Nilmani Phookan Jr has won the 56th Jnanpith Award (2021), and Konkani novelist Damodar Mauzo has won the 57th Jnanpith Award (2022)

Extreme Cold Weather Clothing System

Why in News

Recently, **DRDO (Defence Research and Development Organisation)** has handed over a Technology for indigenous **Extreme Cold Weather Clothing System (ECWCS)** to five Indian companies.

➤ Earlier, DRDO successfully conducted maiden flight test of a new indigenously developed surface-to-surface missile **'Pralay'.**

Key Points

➤ **About:**

○ It is an **ergonomically designed modular technical clothing** with improved thermal insulation and physiological comfort based on the insulation required at **various ambient climatic conditions in Himalayan region**s during different levels of physical activity.

○ The ECWCS embodies physiological concepts related to **the reduction in respiratory heat and water loss, unhindered range of motions and rapid absorption of sweat** while providing waterproof, windproof features with adequate breathability and enhanced insulation as well as strength features required for high altitude operations.

○ It is designed **to suitably provide thermal insulation over a temperature range of +15 to -50 degrees Celsius** with different combinations of layers and intensity of physical work.

➤ **Significance:**

○ It is **required by the Indian Army for its sustained operations in glacier and Himalayan peaks.** The Army, till recently has been importing extreme cold weather clothing and several Special Clothing and Mountaineering Equipment (SCME) items for the troops deployed in high altitude regions.

○ It provides **an advantage of fewer combinations to meet the required insulation** for the prevailing climatic conditions, thereby providing a viable import alternative for the Indian Army.

Defence Research and Development Organisation

➤ DRDO was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).

➤ It works under the **administrative control of the Ministry of Defence** with the aim to establish **a world class science and technology base for India and provides our Defence Services decisive edge** by equipping them with internationally competitive systems and solutions.

Sri Aurobindo

Why in News

Recently, the Prime Minister has set up a 53-member committee to mark the 150th birth anniversary of spiritual leader **Sri Aurobindo** on 15th August 2022.

Key Points

➤ **About:**

○ Aurobindo Ghose was born in Calcutta on 15th August 1872. He was a yogi, seer, philosopher, poet, and Indian nationalist **who propounded a philosophy of divine life on earth** through spiritual evolution.

● He died on 5th December 1950 in Pondicherry.

➤ **Education:**

○ His education began in a **Christian convent school in Darjeeling.**

Note:

○ He entered the University of Cambridge, where he became **proficient in two classical and several modern European languages.**

○ I**n 1892**, he **held various administrative posts in Baroda (Vadodara) and Calcutta (Kolkata).**

○ He began the **study of Yoga and Indian languages, including classical Sanskrit.**

➢ **Indian Revolutionary Movement:**

○ From 1902 to 1910 he partook in the **struggle to free India from the British.** As a result of his political activities, **he was imprisoned in 1908 (Alipore Bomb case).**

○ Two years later **he fled British India and found refuge in the French colony of Pondichéry (Puducherry)**, where he devoted himself for the rest of his life to the development of his **"integral" yoga with an aim** of a fulfilled and spiritually transformed life on earth.

➢ **Spirituality:**

○ In Pondichéry he founded **a community of spiritual seekers, which took shape as the Sri Aurobindo Ashram in 1926**.

○ He believed that th**e basic principles of matter, life, and mind would be succeeded through terrestrial evolution by the principle of supermind as an intermediate power** between the two spheres of the infinite and the finite.

➢ **Literary Works:**

○ An English newspaper called **Bande Mataram (in 1905).**

○ Bases of Yoga

○ Bhagavad Gita and Its Message

○ The Future Evolution of Man

○ Rebirth and Karma

○ Savitri: A Legend and a Symbol

○ Hour of God

Maharashtra can hold Bullock Cart Race: SC

Why in News

Recently, the Supreme Court allowed **Maharashtra to hold the traditional bullock cart racing event,** which has been **prohibited since 2017.**

➢ The decision was **based on the amendments** to the Prevention of Cruelty to Animals (PCA) Act, 1960 implemented by the state, in line with Karnataka and Tamil Nadu.

> **Prevention of Cruelty to Animals Act, 1960**
>
> ➢ The legislative intent of the Act is to **"prevent the infliction of unnecessary pain or suffering on animals".**
>
> ➢ The **Animal Welfare Board of India (AWBI)** was established in 1962 under Section 4 of the Act.
>
> ➢ This Act **provides for punishment for causing unnecessary cruelty** and suffering to animals. The Act **defines animals and different forms of animals.**

Key Points

➢ **Background:**

○ In **2014**, the Supreme Court banned traditional sports like '**Jallikattu**', **bull race** and bullock-cart races across the country noting that they were **dangerous and violated provisions of the PCA Act.**

○ Subsequently, **Karnataka and Tamil Nadu had amended the law to continue the tradition in a regulated manner**, which are under challenge and pending before the Supreme Court since 2018.

○ In **February 2018**, the Supreme Court had **referred the pleas related to 'Jallikattu'** to a **five-judge Constitution Bench** which would decide if the bull-taming sport fell under cultural rights or perpetuated cruelty to animals.

➢ **Ruling:**

○ The court observed that **there was no reason to disallow it in the state** when similar sports were going on in other places across the country.

○ If it is a **traditional sport** and going on all across the country except Maharashtra, it does not appeal to common sense.

➢ **Bullock Cart Racing:**

○ It is a **popular and traditional sport** in Western Maharashtra and in Pune district.

Note:

drishti

○ Apart from a traditional sporting event, the **rural economy too is associated with bullock cart races.**

  ● Thousands of food stall vendors earn their livelihood through the races.
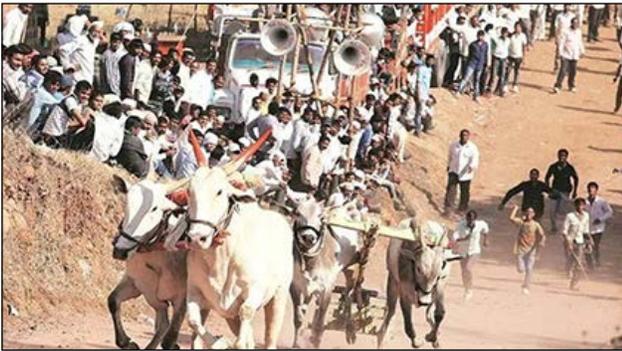
Other Animal Sports in India	
Jallikattu	➤ Jallikattu, also known as **'eruthazhuvuthal'**, is a bull-taming sport played in Tamil Nadu as part of the Pongal harvest festival.
kambala	➤ Kambala is a **traditional buffalo race** in paddy fields filled with slush and mud which generally takes place in coastal Karnataka (Udupi and Dakshina Kannada) from November to March.
Cock-fights	➤ Cockfight or the Rooster fight is **not indigenous to India.** It is a sport that exists across the world. In India, cock-fight is not just a sport but a gambling game.
Camel Race	➤ The race is all about Camels, in which **people ride and participate in the race.** ➤ It is also a part of many fairs and festivals in Rajasthan, India such as Pushkar Fair, Bikaner Camel Festival, etc.
Dog Fights	➤ Dog fighting is a **type of blood sport** with two game dogs against one another in a ring or a pit for the entertainment of the spectators. ➤ Even though it is **illegal under the Prevention of Cruelty to Animals Act** and was banned by the Supreme Court last year, these fights are organised secretly and illegally.
Bulbul fights	➤ It is organised in the state of **Assam during Bihu (harvest festival)** in the Hayagriva-Madhava Temple in Hajo near Guwahati, Assam. ➤ Often bulbuls are fed intoxicants to make them aggressive.
Horse Racing	➤ It is a **performance sport in vogue** since ancient times in Greece, Babylon, Syria, and Egypt and in India for over 200 years, involving jockeys riding horses over a distance. ➤ In 1996, the Supreme Court ruled that wagering on horse races is a **game of skill and not luck** and as such does not constitute illegal gambling. Horse racing, thus, is legal in the country.

VIHANGAM

Recently, an **internet-based platform called 'VIHANGAM'** integrated with a Remotely Piloted Aircraft System (RPAS) at Mahanadi Coalfields Limited (MCL) was inaugurated.

Mahanadi Coalfields Limited

➤ It is **one of the major coal producing companies** of India. It is one of the eight subsidiaries of Coal India Limited.

➤ MCL was the **first coal company** to introduce environment-friendly Surface Mining technology in 1999.

➤ The biggest fleet of 66 Surface Miners is contributing 95% of the total coal production of the company.

Key Points

➤ **About:**

  ○ The system consists of a **Ground Control Station (GCS),** an RPAS, internet lease line of 40 Mbps and VIHANGAM portal.

  ○ The system **enables real-time transmission of aerial video of mining activities** from mines to internet platforms which can be accessed through VIHANGAM portal by authorized personnel only having ID and password.

➤ **Remotely Piloted Aircraft System (RPAS):**

  ○ RPAS is one subset of the **Unmanned Aircraft System (UAS).**

○ There are **three subsets of Unmanned Aircraft**- Remotely Piloted Aircraft, Autonomous Aircraft and Model Aircraft.

- Drone is a layman terminology for Unmanned Aircraft (UA).

○ Remotely piloted aircraft have been divided into five categories based on their weight (existing rules).

- **Nano** : Less than or equal to 250 grams.
- **Micro** : From 250 grams to 2kg.
- **Small** : From 2 kg to 25kg.
- **Medium** : From 25kg to 150kg.
- **Large** : Greater than 150kg

○ Remotely Piloted Aircraft consists of remote pilot station(s), the required command and control links and any other components, as specified in the type design.

➢ **Other Initiatives Using UAVs:**

○ The Ministry of Health and Family Welfare has launched a Drone-Based vaccine delivery model named, **Drone Response and Outreach in North East (i-Drone).**

○ Telangana government has selected 16 Primary Healthcare Centres (PHCs) for pilot testing the ambitious **'Medicine from the sky', the first-of-its-kind project.**

○ The **International Crops Research Institute (ICRISAT)** was permitted to deploy drones for agricultural research activities, apart from some agriculture universities and educational institutions.

Sardar Vallabh Bhai Patel

Why in News

Recently, the Prime Minister paid tribute to India's first home minister, **Sardar Vallabhbhai Patel**, on his 71st death anniversary on 15th December.

Key Points

➢ **Born:**

○ **31st October 1875** in Nadiad, Gujarat.

○ **First Home Minister** and Deputy Prime Minister of India.

○ He always requested the people of India to live
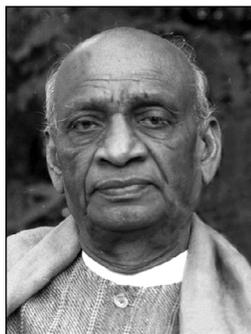
together by **uniting (Ek Bharat)** in order to create a **foremost India (Shresth Bharat).**

- This ideology still reflects in the **Atmanirbhar Bharat initiative** which seeks to make India **Self-Reliant.**

➢ **Headed various Committees** of the Constituent Assembly of India, namely:

○ Advisory Committee on **Fundamental Rights.**

○ Committee on Minorities and Tribal and Excluded Areas.

○ Provincial Constitution Committee.

➢ **Reforms:**

○ **He worked extensively against alcohol consumption, untouchability, caste discrimination and for women emancipation in Gujarat and outside.**

○ **Integrated the farmer's cause** in **Kheda Satyagraha** (1918) and **Bardoli Satyagraha (1928)** with the national freedom movement.

- Women of Bardoli bestowed the title **'Sardar' on Vallabhbhai Patel**, which means 'a Chief or a Leader'.

○ Remembered as the '**Patron Saint of India's Civil Servants'** as he **established the modern all-India services system.**

➢ **Integration of the Princely States:**

○ As India's first Home Minister and Deputy Prime Minister, Sardar Patel played a key role in the integration of about 565 princely states into the Indian Union.

○ Few princely states like **Travancore, Hyderabad, Junagadh, Bhopal and Kashmir were averse** to joining the state of India.

○ **Sardar Patel worked tirelessly to build a consensus** with the princely states but did not hesitate in **employing methods of Sama, Dama, Dand and Bhed** wherever necessary.

○ He had used force **to annex princely states of Junagadh ruled by Nawab and Hyderabad ruled by Nizam**, both of whom had wished not to merge their respective states with the Union of India.

○ Sardar Vallabhbhai Patel **stitched the princely states along with British Indian territory and prevented the balkanization** of India.

○ Known as the **"Iron Man of India"** for playing an important role in unification and integration of Indian princely states into the Indian federation and for convincing princely states to align with the Indian Union.

Note:

- ➤ **Death**:
  - ○ **15th December 1950** in Bombay.

Statue of Unity
- ➤ The Statue of Unity is built in **honor of Sardar Vallabhbhai Patel.**
- ➤ It was inaugurated on **31st October, 2018 to mark the 143rd birth anniversary** of Sardar Patel.
- ➤ The Statue of Unity is **the tallest statue in the world**. At 182 meters, it is 23 meters taller than China's Spring Temple Buddha statue and almost double the height of the Statue of Liberty (93 meters tall) in the US.
- ➤ In January 2020, it was added to the 'Eight Wonders' of the **Shanghai Cooperation Organization (SCO).**

Atmanirbhar Bharat Rojgar Yojana

Why in News

Maharashtra has topped the list of states with maximum number of beneficiaries under the **Atmanirbhar Bharat Rojgar Yojana (ABRY)**, followed by Tamil Nadu and Gujarat.

Key Points

- ➤ **About:**
  - ○ It was **launched in November 2020 to boost employment in the formal sector and incentivize creation of new employment opportunities** during the **Covid-19** recovery phase **under Atmanirbhar Bharat Package 3.0.**
- ➤ **Government Contribution:**
  - ○ It provides subsidy for **provident fund** contribution for adding new employees to establishments registered with the **Employees' Provident Fund Organization (EPFO).**
  - ○ The **organizations of up to 1000 employees** would receive employee's contribution (12% of wages) & employer's contributions (12% of wages), totalling 24% of wages, for two years.
  - ○ **Employers with over 1,000 employees** will get employees' contribution of 12%, for two years.

- ○ The subsidy amount under the scheme will be credited upfront only in **Aadhaar**-seeded EPFO accounts (UAN) of new employees.
- ➤ **Eligibility Criteria for Establishments:**
  - ○ Establishments registered with EPFO will be eligible for the benefits if they add new employees compared to the reference base of employees as in September 2020.
  - ○ Establishments, with up to 50 employees, would have to add a minimum of two new employees.
  - ○ The organizations, with more than 50 employees, would have to add at least five employees.
- ➤ **Target Beneficiaries:**
  - ○ Any new employee joining employment in EPFO registered establishments on monthly wages less than Rs. 15,000.
  - ○ Those who left their job between 1st March to 30th September and are employed on or after 1st October.
- ➤ **Time Period:**
  - ○ The scheme will be effective from 1st October, 2020 and operational till 30th June 2021.

Other Employment Related Initiatives
- ➤ **Pradhan Mantri Garib Kalyan Ann Yojana**
- ➤ **Mahatma Gandhi National Rural Employment Guarantee Scheme**
- ➤ **Pt. Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)**
- ➤ **Deendayal Antyodaya Yojana-National Urban Livelihoods Mission**
- ➤ **The Atma Nirbhar Bharat Rojgar Yojana as part of Atma Nirbhar Bharat package 3.0**
- ➤ **Emergency Credit Line Guarantee Scheme (ECLGS)**

Goa Liberation Day

Why in News

Recently, the **Indian Navy** conducted **a Seminar** to commemorate the **Diamond Jubilee (60 Years) of the liberation of Goa. Goa Liberation Day** is celebrated on 19th December every year.

Key Points

- ➤ The day marks the occasion when the Indian **armed forces freed Goa in 1961 from 450 years of Portuguese rule.**

○ The Portuguese colonized several parts of India in 1510 but by the end of the **19th-century Portuguese colonies in India were limited to Goa, Daman, Diu, Dadra, Nagar Haveli and Anjediva Island** (a part of Goa).

○ As India gained independence on 15th August, 1947, it requested the **Portuguese to cede their territories but they refused.**

➢ The Goa liberation movement started off **with small scale revolts, but reached its peak between 1940 to 1960.**

➢ In 1961, after the failure of diplomatic efforts with the Portuguese, the Indian Government launched **Operation Vijay** and annexed **Daman and Diu and Goa with the Indian mainland on 19th December.**

○ On 30th May 1987, the territory was split and Goa was formed. Daman and Diu remained a Union Territory.

○ Hence, 30th May is celebrated as the **Statehood Day of Goa.**

Goa
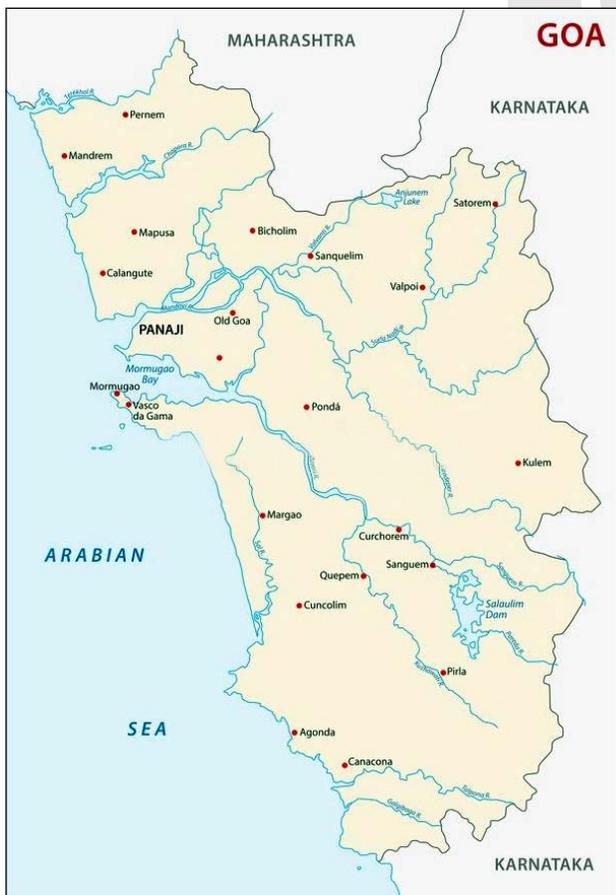
➢ **Location:** It is located on the **southwestern coast of India within the region known as the Konkan**, and geographically **separated from the Deccan highlands** by the **Western Ghats.**

➢ **Capital**: Panji.

➢ **Official Language:** Konkani.

○ Konkani is one of the 22 languages from the **Eight Schedule.**

○ It was added in the list along with Manipuri and Nepali by the **71st Amendment Act of 1992.**

➢ **Borders:** It is surrounded by Maharashtra to the north and Karnataka to the east and south, with the Arabian Sea forming its western coast.

➢ **Geography:**

○ The highest point of Goa is Sonsogor.

○ Goa's seven major rivers are the Zuari, **Mandovi** (also called Mhadei), Terekhol, Chapora, Galgibag, Kumbarjua canal, Talpona and the Sal.

○ Most of Goa's soil cover is made up of laterites.

➢ **Wildlife Sanctuaries and National Parks:**

○ Dr Salim Ali Bird Sanctuary

○ **Mhadei Wildlife Sanctuary**

○ **Netravali Wildlife Sanctuary**

○ **Cotigao Wildlife Sanctuary**

○ **Bhagwan Mahaveer Sanctuary**

○ Mollem National Park

Jaitapur Nuclear Reactors: Maharashtra

Why in News

Recently, the Centre has given **in-principle (first step) approval for setting up of six nuclear power reactors** at Jaitapur in Maharashtra.

➢ The Jaitpur Project is a **key component of the strategic partnership** between **India and France.**

Nuclear Power

➢ **About:**

○ Nuclear power is **clean and environment friendly**, apart from having a "huge potential to ensure the country's long-term energy security on a sustainable basis.

○ The nuclear power plants have so far generated about **755 billion units of electricity,** saving about 650 million Tonnes of CO_2 **emission.**

➢ **Contribution in Achieving Net Zero:**

○ **Net zero targets** are expected to be **met through a combination of various clean energy sources,** including nuclear power.

○ The present nuclear power capacity of **6,780 MW is expected to be increased to 22,480 MW by 2031** on completion of projects.

Key Points

➢ **About:**

○ Jaitapur would be the **world's most powerful nuclear power plant.** There would be six state-of-the-art **Evolutionary Power Reactors** with an installed capacity of 9.6 GWe that will produce low carbon electricity.

    ● The six nuclear power reactors, which will have a **capacity of 1,650 MW each**, will be set up with technical cooperation from France.

○ It would **provide electricity to seven crore households.** That's huge. It's a complex project. Both countries are dedicated to reaching an agreement.

○ This project will **embody the strong partnership between India and France**, a commitment to low carbon future, and will directly benefit Maharashtra with thousands of local jobs

➢ **Status of Nuclear Energy in India:**

○ India has consciously **proceeded to explore the possibility of tapping nuclear energy** for the purpose of power generation.

○ In this direction a **three-stage nuclear power programme** was formulated by Homi Bhabha in the 1950s.

○ The **Atomic Energy Act, 1962** was framed and implemented with the set objectives of using two naturally occurring elements **Uranium** and **Thorium** having good potential to be utilised as nuclear fuel in Indian Nuclear Power Reactors.

○ Other measures taken to **enhance the generation from nuclear power plants:**

    ● Administrative approval and financial sanction for **10 indigenous 700 MW Pressurised Heavy Water Reactors (PHWR).**

■ PHWR is a **nuclear power reactor**, commonly using **unenriched natural uranium as its fuel**. It uses heavy water (Deuterium oxide D_2O) as its coolant and moderator.

■ Presently, India has **22 operating nuclear power reactors**, with an installed capacity of 6780 MegaWatt electric (MWe).

    ◆ Among these eighteen reactors are Pressurised Heavy Water Reactors (PHWRs) and four are Light Water Reactors (LWRs).

● The **Atomic Energy Act 1962 has also been amended** to enable joint ventures of public sector companies to set up nuclear power projects.

Nuclear Power plants in Operation	➢ Rawatbhata (Rajasthan) ➢ Tarapur (Maharashtra) ➢ Kudankulam (Tamil Nadu) ➢ Kakrapar (Gujarat) ➢ Kalpakkam (Tamil Nadu) ➢ Narora (Uttar Pradesh) ➢ Kaiga (Karnataka)
Nuclear Power Plants under Construction	➢ Kakrapar 3&4 (Gujarat) ➢ Rawatbhata (Rajasthan) ➢ Kudankulam 3&4 (Tamil Nadu) ➢ Kalpakkam PFBR (Tamil Nadu)
Planned Nuclear Power Plants	➢ Jaitapur (Maharashtra) ➢ Kovvada (Andhra Pradesh) ➢ Mithi Virdi (Gujarat) ➢ Haripur (West Bengal) ➢ Gorakhpur (Haryana) ➢ Bhimpur (Madhya Pradesh) ➢ Mahi Banswara (Rajasthan) ➢ Kaiga (Karnataka) ➢ Chutka (Madhya Pradesh) ➢ Tarapur (Maharashtra)

Breastfeeding-friendly Tags for Hospitals

Why in News

Recently, the **Breastfeeding Promotion Network of India (BPNI)** launched the **National Accreditation Centre (NAC)** for **Breastfeeding Friendly Hospitals.**

Note:

➢ **BPNI** is a 30-year-old organisation for protection, promotion and support of breastfeeding in India, is a national organisation that **works towards protecting, promoting and supporting breastfeeding** and appropriate complementary feeding of infants & young children.

Key Points

➢ **About:**
  ○ It is a new initiative where hospitals across the country will be certified as **Breastfeeding Friendly.**
  ○ The move came in the wake of the **latest National Family Health Survey (NFHS)** showing a further increase in caesarean deliveries.
    ● A caesarean delivery, also called a C-section, is **a surgical procedure performed when a vaginal delivery is not possible** or safe. During this procedure, **the baby is delivered through surgical incisions made** in the abdomen and the uterus.
  ○ The objective is **to assess the hospitals on policy, programmes and practises.**
  ○ It will help in reducing neonatal mortality and will impact our **Infant Mortality Rate (IMR).**
    ● **Neonatal mortality** is defined as death **within the first 28 days of life.**

➢ **Significance of Breastfeeding:**
  ○ It is **optimal for both mothers and babies**. It can protect babies against infections and reduce the rates of later health problems like diabetes, obesity, and asthma.
    ● The protein present in breast milk **is easily digested by the baby rather than in formula or cow's milk**. Also, calcium and iron present in breast milk are more easily absorbed.
  ○ It is said that for mothers, breastfeeding helps the uterus to contract and bleeding to cease more quickly after delivery. Also, **it reduces the risk of breast and ovarian cancer** and helps to generate a great bond for mothers with their babies.

➢ **Related Data:**
  ○ According to the latest NFHS (2019-21), only **41.8% of mothers were able to breastfeed within the first hour of birth** and provide skin-to-skin contact to the baby shortly after birth. It means that 58 % of mothers are not enabled.

○ Going by approximately 24.5 million births annually, **14.2 million are deprived of the mother's milk and its benefits to the newborn** and moms, violating the human rights of mother and child.

Related Government Initiatives
➢ **MAA - "Mothers Absolute Affection"**
➢ **Adolescent Friendly Health Services Program**
➢ **Auxiliary Nurse Midwife**
➢ **Janani Suraksha Yojana (JSY)**
➢ **Pradhan Mantri Matru Vandana Yojana (PMMVY)**
➢ **Indira Gandhi Matritva Sahyog Yojna (IGMSY)**
➢ **Kudumbashree in Kerala**
➢ **Poshan Abhiyaan**

Indian Desert Cat

Why in News

Recently, an **Indian Desert Cat** has been spotted for the first time in **Madhya Pradesh's Panna Tiger Reserve (PTR)**.

➢ The Indian Desert Cat is also known as the **Asiatic Wildcat or the Asian Steppe Wildcat.**

Key Points

➢ **Scientific Name:** *Felis silvestris ornata*
➢ **About:**
  ○ It is usually a creature of the **Thar desert in Rajasthan, and inhabits scrub desert areas**.
  ○ The cat occurs in **arid and semi-arid zones of western India** which includes Gujarat, Rajasthan, Madhya Pradesh and Maharashtra up to Pune and Nagpur.

Note:

○ This cat is found in deserts **and can survive without water.**

○ The **toes of the species have cushion-like hair** which help it balance the fluctuating desert temperatures.

➢ **Habitat:**

○ It can be found mostly in **scrub deserts, up to 2,000-3,000 m elevation,** mountainous areas with sufficient vegetation, as well as **temperate forests.**

○ The Asiatic wildcat usually **occurs close to water sources but can also live in low-water areas.** It does not seem to avoid cultivated areas and human settlements.

● It avoids vast deserts, dense forests and deep snow.

➢ **Threats:**

○ It possesses beautiful soft fur, hence, most sought after in the **international fur trade.**

○ **Hybridisation** with domestic cats can lead to **the loss of genetic information and is thought to be one of the main threats.** Hybridisation was reported from Pakistan and Central Asia and is most likely also a problem in India.

○ Another important threat is from **poaching related to conflict with humans.**

○ **Habitat destruction** and reduced habitat quality remain important issues. The Asiatic wildcat is under heavy pressure due to **land use changes.**

○ **Rodenticides** and other chemicals may also threaten it.

➢ **Protection Status:**

○ **IUCN Red List:** Least Concern

○ **CITES:** Appendix-II

○ **Wildlife protection Act's**: Schedule-I.

Panna Tiger Reserve

➢ **Location:**

○ It was established in 1981 and is situated in the **Vindhya mountain range** in the northern part of Madhya Pradesh..

○ Ken river (a tributary of the Yamuna River) flows through the reserve.

○ The region is also famous for Panna diamond mining.

○ **Ken-Betwa river interlinking project** will be located within the tiger reserve.

➢ **Recognition:**

○ In July, 2021, PTR was awarded the **Conservation Assured Tiger Standards (CAITS) certificate** by the **National Tiger Conservation Authority** for meeting the established international standards for tiger conservation and management.

○ **The United Nations Educational, Scientific and Cultural Organization (UNESCO)** designated the Panna Tiger Reserve as a Biosphere Reserve on August 25, 2011.

➢ **Other Tiger Reserves in Madhya Pradesh:**

○ Sanjay-Dubri.

○ **Satpura.**

○ **Bandhavgarh.**

○ **Madhav National Park**

○ **Pench Tiger Reserves**

Gharials

Why in News

Recently, the Department of Punjab Forest and Wildlife Preservation, in collaboration with the **World-Wide Fund for Nature-India (WWF-India)** has released a lot of **24 gharials (*Gavialis Gangeticus*) into the Beas** Conservation Reserve.

➢ The gharial reintroduction in the **Beas Conservation Reserve is an ambitious programme of the Punjab government.**

Key Points

➢ **About:**

○ Gharials, sometimes called gavials, are a type of Asian crocodilian distinguished by their long, thin snouts. Crocodilians are a group of **reptiles** that includes crocodiles, alligators, caimans, and more.

Note:

○ India has **three species of Crocodilians namely:**

- **Gharial** (*Gavialis gangeticus*): **IUCN Red List**-Critically Endangered
- **Mugger crocodile** (*Crocodylus palustris*): IUCN-**Vulnerable.**
- **Saltwater crocodile** (*Crocodylus porosus*): IUCN- Least Concern.
  - All the three are listed on **Appendix I of CITES** and **Schedule I of the Wild Life (Protection) Act, 1972.**
  - **Exception**: Saltwater Crocodile populations of Australia, Indonesia and Papua New Guinea are included in **Appendix II of CITES.**

➢ **Habitat of Gharials:**
  ○ **Natural Habitat:** Fresh waters of the northern part of India.
  ○ **Primary Habitat: Chambal river** (a tributary of Yamuna).
  ○ **Secondary Habitat: Ghagra**, Gandak river, Girwa river (Uttar Pradesh), the Ramganga river (Uttarakhand) and the Sone river (Bihar).

➢ **Significance:** Population of Gharials are a good indicator of clean river water.

➢ **Conservation Efforts:**
  ○ Breeding Centres of Kukrail Gharial Rehabilitation Centre in Lucknow, Uttar Pradesh, National Chambal Sanctuary (Gharial Eco Park, Madhya Pradesh).

➢ **Threats:**
  ○ Increased river pollution, dam construction, massive-scale fishing operations and floods.
  ○ Illegal sand mining and poaching.

Beas Conservation Reserve
➢ It is **a 185-kilometre stretch of the Beas River located primarily in the north-west** of the State of Punjab.
➢ The Reserve **also hosts the only known population in India of the endangered Indus River Dolphin (Platanista gangetica minor).**
➢ In 2017, a programme was initiated to re-introduce the critically endangered gharial (Gavialis gangeticus) with 47 individuals released into the River 30 years after their disappearance.

Beas River
➢ It originates **near the Rohtang Pass, at a height of 4,062 m** above sea level, on the southern end of the **Pir Panjal Range, close to the source of the Ra**vi. It is a tributary of the **Indus river.**
➢ It meets the **Satluj river at Harike in Punjab. It is** a comparatively small river which is only 460 km long but lies entirely within the Indian territory.
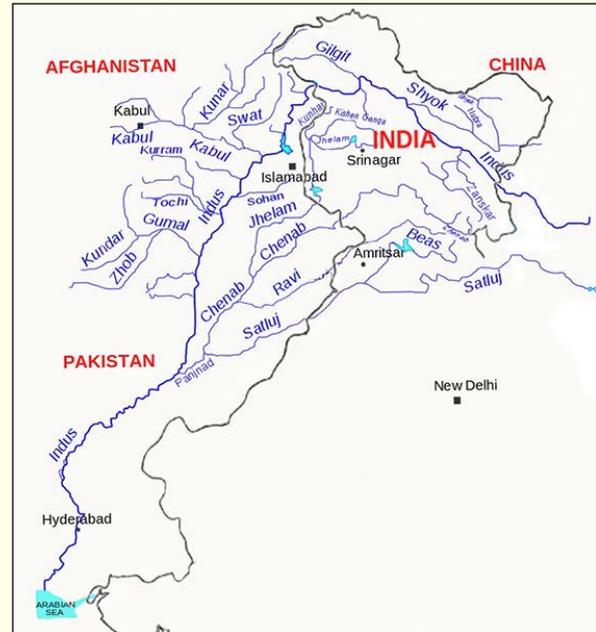
➢ It forms a **gorge at Kati and Largi in the Dhauladhar range.**
➢ The **major tributaries** of the Beas River are Bain, Banganga, Luni and Uhal, along with Banner, Chakki, Gaj, Harla, Mamuni, Parvati, Patlikuhlal, Sainj, Suketi and Tirthan.

Chillai Kalan

Why in News

One of the harshest winter periods of 40 days, called Chillai Kalan, has begun in Kashmir.

Key Points

➢ **About:**
  ○ It is the harshest winter period in Kashmir starting from 21st December to 29th January every year.
  ○ Chillai Kalan is **a Persian term that means 'major cold'.**

Note:

○ Chillai-Kalan is followed by **a 20-day long Chillai Khurd (small cold)** that occurs between January 30 and February 18 and **a 10-days long Chillai Bachha (baby cold)** which is from February 19 to February 28.

○ The 40-day period brings **a lot of hardships for Kashmiris as the temperature drops considerably** leading to the freezing of water bodies, including the famous Dal Lake here.

○ During these 40 days, **the chances of snowfall are the highest** and the maximum temperature drops considerably. The minimum temperature in the Valley hovers below the freezing point.

➢ **Impact on Daily Life of Kashmiris:**

○ Use of **Pheran (Kashmiri dress) and a traditional firing pot** called Kanger increases.

○ Due to subzero temperature, **tap water pipelines freeze partially during this period** and world-famous Dal Lake also freezes.

○ Kashmiris celebrate with sumptuous Harissa, a **dish made of lean mutton mixed with rice** and flavoured with spices like fennel, cardamom, clove and salt.

○ Besides, they frequently consume **dried vegetables as there is shortage of fresh supplies** due to blocking of roads following heavy snowfall.

PM Gets Bhutan's Highest Civilian Award

Why in News

Recently, the **Prime Minister of India has been conferred** by **Bhutan's highest civilian award**, 'Order of the Druk Gyalpo' also known as "**Ngadag Pel gi Khorlo"**.

Key Points

➢ **About:**

○ The announcement of the award coincided with the occasion of the **114th National Day of Bhutan.**

○ This is the **highest decoration of Bhutan** and is awarded in recognition of a **lifetime of service to the people** and the Kingdom of Bhutan.

○ Order of the Dragon King was founded on 7th November 2008, to **reward those who devoted a lifetime of service to the nation** and people of Bhutan.

○ The honours exist in two categories. **Order of the Dragon King** is the pinnacle of the honour system in Bhutan and also takes precedence over all other orders, medals and decorations.

Other Awards Won by the Indian PM

➢ **Order of Abdulaziz Al Saud (2016)**: The highest honour of **Saudi Arabia** awarded to non-muslim dignitaries.

➢ **State Order of Ghazi Amir Amanullah Khan (2016):** The highest civilian honour of **Afghanistan.**

➢ **Grand Collar of the State of Palestine Award (2018):** The highest honour of **Palestine** awarded to foreign dignitaries.

➢ **Order of Zayed Award (2019):** The highest civilian honour of the **United Arab Emirates.**

➢ **Order of St. Andrew award (2019):** The highest civilian honour of **Russia**

➢ 6. Order of the Distinguished Rule of Nishan Izzuddin (2019) The highest honour of the Maldives awarded to foreign dignitaries.

➢ **King Hamad Order of the Renaissance - First Class (2019): Bahrain's** top honour.

➢ **Legion of Merit by the US Government (2020):** The **United States Armed Forces award** given for exceptionally meritorious conduct in the performance of outstanding services and achievements.

➢ **Seoul Peace Prize (2018):** Seoul Peace Prize Cultural Foundation's biennial award (**South Korea**) to those individuals who have made their mark through contributions to the harmony of mankind, reconciliation between nations and world peace.

➢ **Champions of The Earth Award (2018):** The **United Nation's** highest environmental honour

➢ **First Philip Kotler Presidential award (2019):** Offered to the leader of a nation.

➢ **Global Goalkeeper Award:** Honour by **Bill and Melinda Gates Foundation** for **Swachh Bharat Abhiyan** (2019)

➢ **Global Energy and Environment Leadership Award (2021):** Awarded by the **Cambridge Energy Research Associates CERA** for commitment of leadership towards the future of global energy and the environment.

Note:

Kisan Diwas

Why in News

The **'Kisan Diwas' or National Farmers Day** is observed across the country on 23rd December to celebrate the birth anniversary of **Chaudhary Charan Singh**, the former Prime Minister of India.

➢ It is celebrated to **promote awareness among the citizens** to understand the importance of th**e contributions of the farmers** to the society and overall economic and social development of a country.

➢ Government also aims to **encourage the farmers** across the country by organising various activities like debates and seminars on agriculture.

Key Points

➢ He was born in 1902 at Noorpur in Meerut district of Uttar Pradesh and **was the Prime Minister of India from 28th July 1979 to 14th January 1980.**

➢ Being a proponent of rural and agricultural development he made continuous efforts for keeping agriculture at the centre of planning for India.

➢ He was given the nickname **'Champion of India's Peasants'** for his work towards upliftment of farmers and development of agriculture throughout the country.

➢ He took **a leading part in formulation and finalisation of the Debt Redemption Bill 1939,** in order to give relief to the peasantry from moneylenders.

➢ He was instrumental in bringing about the **Land Holding Act, 1960** which was aimed at lowering the ceiling on land holdings to make it uniform throughout the State.

➢ He **left Congress in 1967** and formed his independent party known as the **Bharatiya Lok Dal.**

➢ He served **twice as Chief Minister of Uttar Pradesh**. He became **Prime Minister of India in 1979.**

➢ He was the author of **several books and pamphlets,** including **'Abolition of Zamindari', 'Co-operative Farming X-rayed', 'India's Poverty and its Solution'**, 'Peasant Proprietorship or Land to the Workers' and 'Prevention of Division of Holdings Below a Certain Minimum'.
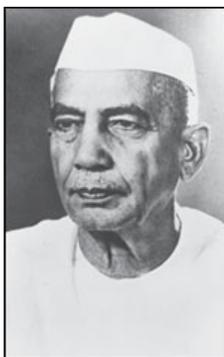
Importance of Agriculture in India

➢ Almost half of **India's rural households have insignificant stakes in agriculture.**

➢ According to the **2019 Situation Assessment Survey (SAS)**, there are **93.1 million agricultural households** in rural India.

➢ An agricultural household is defined as one **which produced field or horticultural crops, livestock, or other specified agricultural products** worth more than Rs 4,000 and had a member self-employed in agriculture in the 365 days preceding the survey.

Sankalp Smarak: Andaman & Nicobar

Why in News

Recently, a Sankalp Smarak was dedicated to the nation exactly 78 years **(29th December 2021)** after **Netaji Subhash Chandra Bose's arrival** to India.

➢ The purpose of smarak is to **preserve this important event in history.**

Key Points

➢ **About:**

○ The Smarak built in **Andaman and Nicobar** is a tribute to the **resolve of the soldiers of the Indian National Army** and their innumerable sacrifices.

○ It is also a remainder of the values enshrined by Netaji himself, **"Nishtha, Kartavya aur Balidan" or "Commitment, Duty and Sacrifice"** that continue to underscore the ethos of the **Indian Armed Forces** and the resolve of the Indian Soldier.

➢ **Significance:**
   ❍ It is also significant that **Netaji escaped British surveillance from Kolkata on 16th Jan 1941** and stepped back on Indian soil after nearly three years, at Port Blair Aerodrome on 29th Dec 1943.
   ❍ **On 30th December 1943**, he **hoisted the national flag for the first time** on Indian soil, at Port Blair.
   ❍ Netaji's visit to the islands as the **Head of the Provisional Government of Azad Hind (Known as Arzi Hukumat-e-Azad Hind)** and **Supreme Commander of Indian National Army** marked a symbolic fulfilment of his promise that the Indian National Army would stand on Indian soil by the end of 1943.
   ❍ This historic visit also marked a declaration of **Andaman and Nicobar Islands as the "first liberated territory of India".**

Subhash Chandra Bose
➢ **About:**
   ❍ Netaji Subhas Chandra Bose (23rd January 1897 – 18th August 1945) is one of the **most celebrated freedom fighters of India.**
   ❍ In 1942, he earned the **title 'Netaji'**, in Germany by the Indian soldiers of the **Azad Hind Fauj.**
   ❍ Bose is credited with the very famous slogan, **"Give me blood, and I shall give you freedom!"** as well as **"Jai Hind".**
   ❍ He is also credited to be the **first man to call Mahatma Gandhi "Father of the Nation"**, in his address from Singapore.
➢ **Indian National Army:**
   ❍ Netaji reached Japanese-controlled Singapore from Germany in July 1943, issued from there his famous call, **'Delhi Chalo',** and announced the formation of the **Azad Hind Government and the Indian National Army** on 21st October 1943.
   ❍ The INA was first formed under **Mohan Singh and Japanese Major Iwaichi Fujiwara** and comprised Indian prisoners of war of the British-Indian Army captured by Japan in the Malayan (present-day Malaysia) campaign and at Singapore.

   ❍ The INA included both the **Indian prisoners of war** from Singapore and **Indian civilians** in South-East Asia. It's strength grew to 50,000.
   ❍ The INA fought allied forces in 1944 inside the borders of India in Imphal and in Burma.
   ❍ However, with the fall of Rangoon, Azad Hind Government ceased to be an effective political entity.
   ❍ In November 1945 a British move to put the INA men on trial immediately sparked massive demonstrations all over the country.
   ● **Impact**: The I.N.A. experience **created the wave of disaffection in the British Indian army** during the 1945-46, which culminated in the great Bombay naval strike of February 1946 and was one of the most decisive reasons behind the British decision to make a quick withdrawal.
   ● **Composition of I.N.A:** The I.N.A. was essentially non-communal, with Muslims quite prominent among its officers and ranks, and it also introduced the innovation of a **women's detachment** named after the **Rani of Jhansi.**

Indian Pangolin

Why in News

Recently a radio-tagged Indian pangolin was released into the wild in **Nandankanan Zoological Park (Odisha)** following soft release protocols and provision for post-release monitoring.
➢ Radio-tagging involves **attaching a transmitter to an animal to monitor its movements**. Several wild animals — tigers, leopards and migratory birds — have been tagged over decades.

Key Points

➢ **About:**
   ❍ Pangolins are **scaly anteater mammals** and they have **large, protective keratin scales covering their skin**. They are the only known mammals with this feature.
   ❍ It uses these scales as armour to defend itself against predators by **rolling into a ball** when threatened.

➢ **Diet:**
- ○ **I**nsectivore- Pangolins are **nocturnal, and their diet consists of mainly ants and termites,** which they capture using their long tongues.

➢ **Types**:
- ○ Out of the eight species of pangolin, the **Indian Pangolin** (*Manis crassicaudata*) and the **Chinese Pangolin** (*Manis pentadactyla*) are **found in India.**
- ○ **Difference**:
  - Indian Pangolin is a large anteater covered by 11-13 rows of scales on the back.
  - A terminal scale is also present on the lower side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin.

➢ **Habitat:**
- ○ **Indian Pangolin:**
  - It is widely distributed in India, except the arid region, high Himalayas and the North-East.
  - The species is also found in Bangladesh, Pakistan, Nepal and Sri Lanka.
- ○ **Chinese Pangolin:**
  - It is found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, North-East Bangladesh and through Southern China.

➢ **Threats to Pangolins in India:**
- ○ **Hunting and poaching** for local consumptive use (e.g. as a protein source and traditional medicine) and international trade for its meat and scales in East and South East Asian countries, particularly China and Vietnam.
- ○ They are believed to be the **world's most trafficked mammal.**

➢ **Conservation Status:**
- ○ **Wildlife Protection Act, 1972:** Schedule I
- ○ **IUCN Red List**: Endangered
  - Chinese Pangolin is 'critically endangered'
- ○ **CITES:** Appendix I

Nandankanan Zoological Park

➢ It is 15 kms from Odisha's capital, Bhubaneswar. It was inaugurated in 1960.

➢ First zoo in the country to become **a member of the World Association of Zoos & Aquariums (WAZA).**
- ○ WAZA is the global alliance of regional associations, national federations, zoos and aquariums, dedicated to the care and conservation of animals and their habitats around the world.

➢ It is recognized as a leading zoo for the breeding of the **Indian pangolin** and **white tiger.**
- ○ Leopards, mouse deer, lions, rats and vultures are also bred here.

➢ It was the world's first captive crocodile breeding centre, where **gharials** were bred in captivity in 1980.

➢ The State Botanical Garden of Nandankanan is one of the pioneering plant conservation and nature education centres of Odisha.
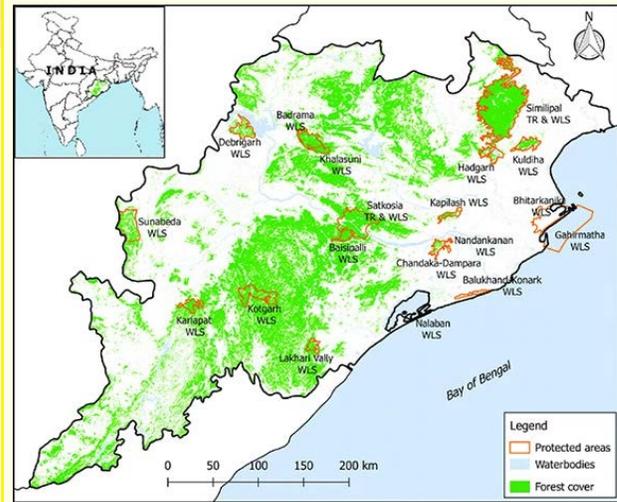
ARIIA 2021 Rankings

Why in News

Recently, the Ministry of Education's innovation cell released the **Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2021.**

➢ The very first edition of ARIIA started in 2019.

Key Points

➢ **About:**

- ○ It is a joint **initiative of the Ministry of Education and All India Council for Technical Education (AICTE)** to systematically rank all the major higher educational institutions and universities in India on indicators related to **"Innovation and Entrepreneurship Development"** amongst students and faculties.

- ○ More than quantity, **ARIIA focuses on quality of innovations** and tries to measure the real impact created by these innovations nationally and internationally.

➢ **Parameters of the Evaluation:** ARIIA evaluates institutions on parameters such as:

- ○ Budget & Funding Support
- ○ Infrastructure & Facilities
- ○ Awareness, Promotions & support for Idea Generation & Innovation
- ○ Promotion & Support for Entrepreneurship Development
- ○ Innovative Learning Methods & Courses
- ○ Intellectual Property Generation, Technology Transfer & Commercialization
- ○ Innovation in Governance of the Institution

➢ **Rank Categorisation:**

- ○ The rankings were made under two categories: **Technical and Non-Technical.**
  - The technical category included 5 sub-categories-
    - Central Funded Technical Institutes (CFTIs), Central University, & Institute of National Importance
    - State University & Deemed University (Govt. & Govt. Aided)
    - Govt. College/Institution (Govt. & Govt. Aided)
    - University & Deemed University (Self-Finance/Private)
    - Private College/Institute (Self-Finance/Private)
  - The non technical category included two sub-categories-
    - Central Funded Institutes (CFIs)/Central University/Institute of National Importance (Non-Technical)
    - General (Non-Technical).

➢ **Topper Institutes in 2021:**

- ○ **Institute of National Importance, Central Universities & CFTIs:**
  - IIT Madras followed by IIT Bombay and IIT Delhi.

- ○ **In government and government-aided universities:** Panjab University

- ○ **Govt. and Govt. Aided College/Institutes:** College of Engineering Pune

- ○ **Private or Self-Financed Universities:** Kalinga Institute of Industrial Technology Khordha

- ○ **Private or Self-Financed College/Institutes:** G H Raisoni College of Engineering, Nagpur

- ○ **Institute of National Importance, Central Universities & CFTIs (non-technical)**: Indira Gandhi National Open University

- ○ **General (Non-Technical):** Entrepreneurship Development Institute of India

➢ **Significance of the Ranking:**

- ○ The rankings will certainly **inspire Indian institutions to reorient their mind-set** and build ecosystems to encourage high quality research, innovation and entrepreneurship in their campuses.

- ○ Further, the recently announced **New Educational Policy 2020** will also make these efforts more effective and efficient, and impactful in the long run.

- ○ India is constantly improving on **Global Innovation Index (GII)** ranking and has now moved upward to **46th position in 2021 from 81st in 2015.** It has also emerged as the **world's third-largest startup hub.**

Other Rankings for Higher Educational and Universities

➢ **India Rankings 2021**:

- ○ It was released by the Ministry of Education instituted by the **National Institutional Ranking Framework (NIRF) (sixth edition).**

➢ **QS World University Rankings:**

- ○ It is an annual publication of university rankings which comprises the global overall and subject rankings released by **Quacquarelli Symonds (QS).**

➢ **World University Ranking**:

- ○ It is released by **Times Higher Education (THE).**

▪▪▪

Note:

Key Points

Details

Summary

Key Points

Details

Summary