



drishti

**Current
Affairs
(CONSOLIDATION)**

**NOVEMBER 2021
(PART – I)**

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Polity and Governance

Highlights

- Tenures of CBI & ED Directors Extended
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- Supreme Court on SC/ST Act
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- CharDham Project
- Privilege Motion
- National Achievement Survey 2021

Tenures of CBI & ED Directors Extended

Why in News

Recently, the President promulgated two ordinances that would allow the Centre to extend the tenures of the directors of the **Central Bureau of Investigation** and the **Enforcement Directorate** from two years to up to five years.

- The **Delhi Special Police Establishment (DSPE) Act, 1946** and the **Central Vigilance Commission (CVC) Act, 2003** have been amended to give the government the power to keep the two chiefs in their posts for one year after they have completed their two-year terms.
- The chiefs of the Central agencies currently have a fixed two-year tenure, **but can now be given three annual extensions.**

Key Points

- **Amendments in DSPE Act:**
 - Provided that the **period for which the Director holds the office on his initial appointment may, in public interest, on the recommendation of the Committee** (the committee led by the Prime Minister and leader of Opposition and CJI as members) and for the reasons to be recorded in writing, be **extended up to one year at a time.**

- Provided further that **no such extension shall be granted after the completion of a period of five years** in total including the period mentioned in the initial appointment.

➤ Amendments in CVC Act:

- Provided that the period for which the Director of Enforcement holds the office on his initial appointment may, in public interest, on the **recommendation of the Committee** (comprising of CVC chief, Revenue and Home Secretaries among others) and for the reasons to be recorded in writing, be **extended up to one year at a time.**
- Provided further that **no such extension shall be granted after the completion of a period of five years** in total including the period mentioned in the initial appointment.

Central Bureau of Investigation

- The **CBI was set up in 1963** by a resolution of the Ministry of Home Affairs.
 - Now, the CBI comes under the administrative control of the **Department of Personnel and Training (DoPT)** of the Ministry of Personnel, Public Grievances and Pensions.
- The establishment of the CBI was **recommended by the Santhanam Committee on Prevention of Corruption (1962–1964).**

Note:



- The CBI is not a statutory body. It derives its powers from the DSPE Act, 1946.
- The CBI is the main investigating agency of the Central Government.
 - It also provides assistance to the **Central Vigilance Commission** and **Lokpal**.
 - It is also the nodal police agency in India which coordinates investigations on behalf of **Interpol Member countries**.
- The CBI is headed by a **Director**.
- The CBI has jurisdiction to investigate offences pertaining to **69 Central laws, 18 State Acts and 231 offences in the IPC**.

Enforcement Directorate

- Directorate of Enforcement is a **specialized financial investigation agency** under the Department of Revenue, Ministry of Finance.
- On 1st May 1956, an 'Enforcement Unit' was formed, in the **Department of Economic Affairs, for handling Exchange Control Laws violations** under Foreign Exchange Regulation Act, 1947.
 - In the year 1957, this Unit was renamed as 'Enforcement Directorate'.
- ED enforces the following laws:
 - **Foreign Exchange Management Act, 1999 (FEMA)**
 - **Prevention of Money Laundering Act, 2002 (PMLA)**

Janjatiya Gaurav Divas: 15th November

Why in News

The Union Cabinet has approved **15th November as Janjatiya Gaurav Divas** to commemorate the brave tribal freedom fighters as part of the year-long celebrations of 75 years of India's Independence.

Key Points

- **About:**
 - The Janjatiya Gaurav Divas **will be celebrated every year** to recognize the efforts of the tribals in the preservation of cultural heritage and promotion of Indian values of national pride, valour, and hospitality.

- They held several tribal movements across different regions of India against the British colonial rule. These tribal communities include **Tamars, Santhals, Khasis, Bhils, Mizos, and Kols** to name a few.
- A **tribal freedom fighter museum at Ranchi** would be inaugurated by the Prime Minister.
- 15th November **also marks the birth anniversary of Birsa Munda** who is revered as God by tribal communities across India.

➤ Tribal Freedom Fighters:

○ Birsa Munda:

- He was born on 15th November 1875. He belonged to the **Munda tribe**.
- He spearheaded an **Indian tribal religious Millenarian movement during British rule** in the late 19th century across the **tribal belt of modern-day Jharkhand and Bihar**.



○ Shaheed Veer Narayan Singh:

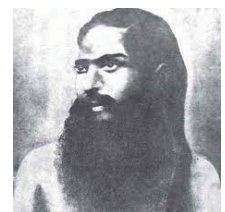
- He is considered the **Pride of Sonakhan in Chhattisgarh**, he looted trader's grain stock and distributed them amongst the poor after the 1856 famine.



- The sacrifice of Veer Narayan Singh made him a tribal leader and he **became the first martyr from Chhattisgarh in the independence struggle of 1857**.

○ Shri Alluri Seetha Ram Raju:

- He was born on 4th July, 1897 in a village called Mogallu near Bhimavaram in Andhra Pradesh.
- Alluri is best remembered **for leading the Rampa Rebellion against the British** in which he organised the tribal people of Visakhapatnam and East Godavari districts to revolt against the foreigners.
- He was inspired by the revolutionaries of Bengal to fight against the British government.



Note:

○ Rani Gaidinliu:

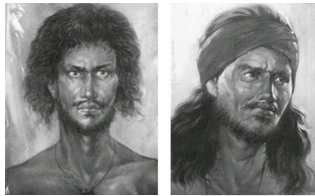
- She was a **Naga spiritual and political leader who led a revolt against British rule in India**. At the age of 13, she joined the Heraka religious movement of her cousin Haipou Jadonang.



- For her, the Naga people's journey to freedom was part of India's wider movement for freedom. She also spread the message of Gandhi ji in Manipur region.

○ Sidhu and Kanhu Murmu:

- On 30th June 1855, two years before the Great Revolt of 1857, two Santhal brothers Sidhu and Kanhu Murmu organised 10,000 Santhals and proclaimed a rebellion against the British.
- The tribals took an oath to drive away from the British from their homeland. The Murmu brothers' sisters Phulo and Jhano also played an active part in the rebellion.



MPLAD Scheme

Why in News

The Union Cabinet has approved the **restoration of the Member of Parliament Local Area Development Scheme (MPLADS) for the remaining part of Financial Year 2021-22 till 2025-26**.

- It will be **co-terminus with the period of the 15th Finance Commission**.
- The scheme was **suspended for two financial years (2020-21 and 2021-22)**.

Key Points

- **About:**
 - It is a **Central Sector Scheme** which was announced in December 1993.
- **Objective:**
 - To **enable MPs to recommend works of developmental nature** with emphasis on the creation of durable community assets in the areas of drinking

water, primary education, public health, sanitation and roads, etc. **primarily in their Constituencies**.

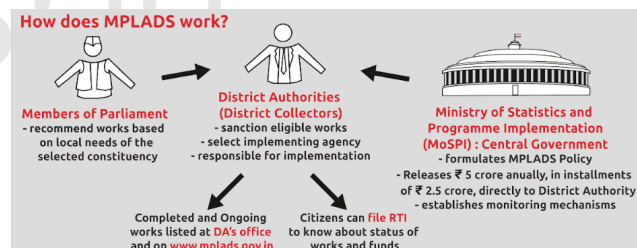
- Since June 2016, the MPLAD funds can also be used for implementation of the schemes such as **Swachh Bharat Abhiyan, Accessible India Campaign (Sugamya Bharat Abhiyan)**, conservation of water through rain water harvesting and **Sansad Adarsh Gram Yojana**, etc.

➤ Implementation:

- The process under MPLADS **starts with the Members of Parliament recommending works to the Nodal District Authority**.
- The **Nodal District concerned is responsible for implementing the eligible works** recommended by the Members of Parliament and maintaining the details of individual works executed and amount spent under the Scheme.

➤ Functioning:

- **Each year, MPs receive Rs. 5 crore in two instalments** of Rs. 2.5 crore each. Funds under MPLADS are **non-lapsable**.
- **Lok Sabha MPs** have to recommend the **district authorities projects in their Lok Sabha constituencies**, while **Rajya Sabha MPs** have to **spend it in the state that has elected them to the House**.
- **Nominated Members** of both the Rajya Sabha and Lok Sabha **can recommend works anywhere in the country**.



➤ Significance of Restoration of the Scheme:

- It will **restart fulfilling the aspirations and developmental requirements of the local community and creation of durable assets**, which is the primary objective of the MPLADS.
- It will also **help in reviving the local economy**.

➤ Issues with MPLADS:

- **Implementation Lapses:** The **Comptroller and Auditor-General of India (CAG)** has flagged instances of financial mismanagement and artificial inflation of amounts spent.

Note:

- **No Statutory Backing:** The scheme is not governed by any statutory law and is subject to the whims and fancies of the government of the day.
- **Monitoring and Regulation:** The scheme was launched for promoting participatory development but there is no indicator available to measure level of participation.
- **Breach of Federalism:** MPLADS encroaches upon the domain of local self governing institutions and thereby violates **Part IX and IX-A** of the Constitution.
- **Conflict with Doctrine of Separation of Powers:** MPs are getting involved in executive functions.

National Legal Services Day

Why in News

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

Key Points

- **About:**
 - NLS was **first started by the Supreme Court of India in 1995** to provide help and support to poor and weaker sections of the society.
 - **Free legal services are provided** in matters before Civil, Criminal and Revenue Courts, Tribunals or any other authority exercising judicial or quasi judicial functions.
 - It is observed **to make the citizens of the country aware of the various provisions under the Legal Services Authorities Act** and the rights of the litigants. On this day, each jurisdiction organizes legal aid camps, Lok adalats, and legal aid programmes.
- **Constitutional Provisions:**
 - **Article 39A** of the Constitution of India provides that State shall secure that the operation of the legal system promotes justice on a basis of equal opportunity, and shall in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disability.
 - **Articles 14 and 22(1)** also make it obligatory for the State to ensure equality before law and a legal system which promotes justice on a basis of equal opportunity to all.
- **Objectives of Legal Services Authorities:**
 - Provide free legal aid and advice.
 - Spread legal awareness.
 - Organise **lok adalats**.
 - Promote settlements of disputes through **Alternative Dispute Resolution (ADR)** Mechanisms. Various kinds of ADR mechanisms are Arbitration, Conciliation, Judicial settlement including settlement through Lok Adalat, or Mediation.
 - Provide compensation to victims of crime.
- **Legal Services Institutions for providing Free Legal Services:**
 - **National Level:**
 - **National Legal Services Authority (NALSA).** It was constituted under the Legal Services Authorities Act, 1987. The Chief Justice of India is the Patron-in-Chief.
 - **State Level:**
 - **State Legal Services Authority.** It is headed by the Chief Justice of the State High Court who is its Patron-in-Chief.
 - **District Level:**
 - District Legal Services Authority. The District Judge of the District is its ex-officio Chairman.
 - **Taluka/Sub-Division Level:**
 - Taluka/Sub-Divisional Legal Services Committee. It is headed by a senior Civil Judge.
 - **High Court:** High Court Legal Services Committee
 - **Supreme Court:** Supreme Court Legal Services Committee.
- **Persons Eligible for Getting Free Legal Services:**
 - Women and children
 - Members of SC/ST
 - Industrial workmen
 - Victims of mass disaster, violence, flood, drought, earthquake, industrial disaster.
 - Disabled persons
 - Persons in custody
 - Those persons who have annual income of less than the amount prescribed by the respective State Government, if the case is before any court other than the Supreme Court, and less than Rs. 5 Lakhs, if the case is before the Supreme Court.
 - Victims of Trafficking in Human beings or begar.

Note:

World Bank Loan for Strengthening Health System: Meghalaya

Why in News

Recently, India and the **World Bank** signed a USD 40 million for **Meghalaya Health Systems Strengthening Project**.

Why in News

➤ About:

- **Infection Prevention:** The project will invest in infection prevention and control for a more resilient response to future outbreaks, **pandemics**, and **health emergencies**.
- **Bio-medical Waste Management:** The project will invest in improving the overall ecosystem for bio-medical waste management (both solid and liquid waste).
 - It will include **segregation, disinfection, and collection while safeguarding the environment** and improving the quality of health service and patient safety.
- **Performance-based Financing System:** The project will move towards a performance-based financing system where **Internal Performance Agreements (IPAs)** between the **Ministry of Health and Family Welfare (MoHFW)** and its subsidiaries would foster more accountability at all levels.
 - **Performance Agreements** define accountability for specific personal and organizational goals. It establishes and agrees **results-oriented goals that are aligned with the overall objective**, and it concludes with the **formal, signed commitment to the agreement**.
- **Promoting Synergy:** It will also focus on **promoting synergy between various schemes** and augment the capacity of the state insurance agency.

➤ Significance:

- **Enhances Governance Capabilities:**
 - It will enhance the **management and governance capabilities of the state and its health facilities**; expand the design and coverage of the state's **health insurance** program; improve the quality

of health services through certification and better human resource systems; and enable efficient access to medicines and diagnostics.

○ Strengthen Health Insurance Programme:

- It will help strengthen the **effectiveness of Meghalaya's health insurance program** known as the **Megha Health Insurance Scheme (MHIS)** – which currently covers 56% of the households.

○ Women Empowerment:

- It will enable women to **better utilize healthcare services** at the community level.

World Bank

➤ About:

- It was created in 1944, as the **International Bank for Reconstruction and Development (IBRD)** along with the **International Monetary Fund (IMF)**. The IBRD later became the World Bank.
- The **World Bank Group** is a **unique global partnership of five institutions** working for sustainable solutions that reduce poverty and build shared prosperity in developing countries.

➤ Members:

- It has 189 member countries.
- India is also a member country.

➤ Major reports:

- **Ease of Doing Business** (Stopped publishing recently).
- **Human Capital Index**.
- **World Development Report**.

➤ Its Five development institutions:

- **International Bank for Reconstruction and Development (IBRD)**
- **International Development Association (IDA)**
- **International Finance Corporation (IFC)**.
- **Multilateral Guarantee Agency (MIGA)**
- **International Centre for the Settlement of Investment Disputes (ICSID)**
 - India is not a member of this.

Supreme Court on SC/ST Act

Why in News

Recently, in a judgement, the **Supreme Court** has observed that the **apex court and high courts have the**

Note:

power to quash criminal cases filed under various 'special statutes' including the SC/ST Act.

- The Supreme Court has inherent powers under **Article 142 of the Constitution** or that of the High Court under **Section 482 of the Code of Criminal Procedure** to quash proceedings under the **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities Act), 1989** (SC/ST Act).

Key Points

- **Situations on Quashing Cases under 'Special Statutes':**
 - When the court is **satisfied that the offence in question**, although covered under the SC/ST Act, is **primarily private or civil in nature** or when this offence has not been committed on account of the victim's caste or where the continuation of legal proceedings would constitute an abuse of process of law.
 - When **considering a prayer for quashing** on the basis of a compromise/settlement between the two parties, the court is satisfied that **the underlying objective of the SC/ST Act would not be contravened** if the crime goes unpunished.
- **Article 142:**
 - **About:** It provides **discretionary power to the Supreme Court** as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is **necessary for doing complete justice** in any cause or matter pending before it.
 - **Constructive Application:** In the early years of the evolution of Article 142, the general public and the lawyers both lauded the Supreme Court for its efforts to bring complete justice to various deprived sections of society or to protect the environment.
 - In the **Union Carbide case**, relating to the victims of the Bhopal gas tragedy, the Supreme Court placed itself above the laws made by the Parliament or the legislatures of the States by saying that, to do complete justice, it could even override the laws made by Parliament.
 - However, in the **Supreme Court Bar Association v. Union of India**, the Supreme Court stated that **Article 142 could not be used to supplant the existing law, but only to supplement the law.**
 - **Cases of Judicial Overreach:** In recent years, there have been several judgments of the Supreme Court

wherein it has been **foraying into areas which had long been forbidden to the judiciary by reason of the doctrine of 'separation of powers'**, which is part of the basic structure of the Constitution. One such example is:

- The **ban on the sale of alcohol along national and state highways:** While the notification by the central government prohibited liquor stores along National Highways only, the Supreme Court put in place a **ban on a distance of 500 metres by invoking Article 142.**

➤ Section 482 of the Code of Criminal Procedure:

- The section **allows the High Court to pass any order so as to ensure justice.** It also gives the court power to quash the proceedings of lower court or to quash FIRs.

➤ SC/ST Act:

- SC ST Act 1989 is an Act of Parliament enacted to **prohibit discrimination against SC & ST communities members** and prevent atrocities against them.
- The Act is also a **recognition of the depressing reality** that despite undertaking several measures, the **Scheduled Castes/ Scheduled Tribes** continue to be subjected to various atrocities at the hands of upper-castes.
- The Act has been enacted keeping in view the express constitutional safeguards enumerated in **Articles 15 (Prohibition of Discrimination), 17 (Abolition of Untouchability) and 21 (Protection of Life and Personal Liberty) of the Constitution**, with a twin-fold objective of **protecting the members of these vulnerable communities** as well as to **provide relief and rehabilitation** to the victims of caste-based atrocities.
- In the **amended SC/ST Act (2018)**, preliminary inquiry is not a must and no prior approval is also required for appointing authorities for senior police officers to file FIRs in cases of atrocities on SC and ST.

Destination Northeast India

Why in News

Recently, a seven-day cultural festival of the northeast as part of the celebrations of **75 years of Independence** under the **Azadi Ka Amrut Mahotsav programme** concluded at the **National Museum, Delhi.**

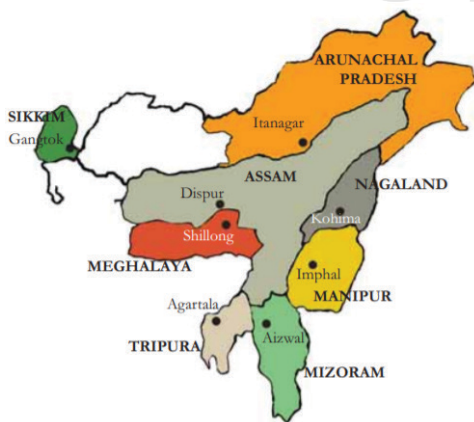
Note:

- It is celebrating the rich heritage of North East India, under the **Ministry of Development of North Eastern Region & North Eastern Council (NEC)**'s initiative titled "**Destination NorthEast India**".

Key Points

- **Aim:** To bring the rest of India closer to **North East (NE)** India.
 - It holds a special presentation of art and craft, textiles, ethnic products, tourism promotion etc. of the eight northeastern states.
- **Organisations Involved:**
 - **Ministry of Development of North-East Region.**
 - **North Eastern Council (NEC):** It is the nodal agency for the economic and social development of the NE Region which consists of the eight States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. It was **constituted in 1971 by an Act of Parliament.**
 - **National Museum:** The **blueprint** for establishing the National Museum in Delhi was **prepared by the Maurice Gwyer Committee in May 1946.**
 - It was **initially looked after by the Director General of Archaeology** until 1957, when the **Ministry of Education declared it a separate institution** and placed it under its own direct control.
 - At present, the National Museum is **under the administrative control of the Ministry of Culture.**

Importance of NE Region



- **Strategic Location:** The NER is strategically located with access to the traditional domestic market of eastern India, along with proximity to the major states in the east and adjacent countries such as Bangladesh and Myanmar.

- **Links with Southeast Asia:** With **ASEAN** engagement becoming a central pillar of India's foreign policy direction, NE states play an important role as the physical bridge between India and Southeast Asia.
 - The India's **Act East Policy** places the northeastern states on the territorial frontier of India's eastward engagement.
- **Economic Significance:** The NER has immense natural resources, accounting for around 34% of the country's water resources and almost 40% of India's hydropower potential.
 - Sikkim is India's first **organic state.**
- **Tourism Potential:** Northeast of India is home to many wildlife sanctuaries like **Kaziranga National Park** famous for the **one horned rhinoceros**, Manas National Park, Nameri, Orang, Dibru Saikhowa in Assam, Namdapha in Arunachal Pradesh, Balpakram in Meghalaya, Keibul Lamjao in Manipur, Intanki in Nagaland, Khangchendzonga in Sikkim.
- **Cultural Significance:** Tribes in NER have their own culture. Popular festivals include **Hornbill Festival** of Nagaland, Pang Lhabsol of Sikkim, etc.

Government Initiatives for NE Region

- **Ministry of Development of North Eastern Region (DoNER):** A Department of Development of North Eastern Region (DoNER) was established in 2001. It was elevated to a full ministry in 2004.
- **Infrastructure Related Initiatives:**
 - Under **Bharatmala Pariyojana (BMP)**, road stretches aggregating to about 5,301 km in NER have been approved for improvement.
 - The North East has been kept as a **priority area under RCS-UDAN** (to make flying more affordable).
- **Connectivity Projects:** **Kaladan Multi-Modal Transit Project** (Myanmar) and **Bangladesh-China-India-Myanmar (BCIM) Corridor.**
- **For Promoting Tourism:** Under the **Swadesh Darshan Scheme** of the Ministry of Tourism, projects worth Rs. 1400.03 crore have been sanctioned for the NER in the last five years.
- **Mission Purvodaya:** **Purvodaya** in the steel sector is aimed at driving accelerated development of Eastern India through the establishment of an integrated steel hub.
 - The Integrated Steel Hub, encompassing Odisha, Jharkhand, Chhattisgarh, West Bengal and Northern

Note:

Andhra Pradesh, would serve as a torchbearer for socio-economic growth of Eastern India.

- **North-East Industrial Development Scheme (NEIDS):** In order to promote employment in the North East States, the Government is incentivizing primarily the MSME Sector through this scheme.
- **The National Bamboo Mission** has a special significance for the Northeast.
- **North Eastern Region Vision 2020:** The document provides an overarching framework for the development of the NE Region to bring it at par with other developed regions under which different Ministries, including the Ministry of DoNER have undertaken various initiatives.
- **Digital North East Vision 2022:** It emphasises leveraging digital technologies to transform lives of people of the north east and enhance the ease of living.

Mineral Conservation and Development (Amendment) Rules, 2021

Why in News

Recently, the **Ministry of Mines** has notified the **Mineral Conservation and Development (Amendment) Rules, 2021** to amend the Mineral Conservation and Development Rules (MCDR), 2017.

- The MCDR has been framed **under section 18 of the Mines and Minerals (Development and Regulation) Act, 1957** [MMDR Act].
- They provide rules regarding conservation of minerals, systematic and scientific mining, development of the mineral in the country and for the protection of the environment.

Key Points

- **Compulsory Drone Survey:**
 - Rules prescribed that all plans and sections related to mine shall be prepared by combination of **Digital Global Positioning System (DGPS)** or **Total Station** or by **drone** survey in relation to certain or all leases as may be specified by **Indian Bureau of Mines (IBM, Nagpur)**.
 - A **total station** is an optical instrument commonly used in construction, surveying and civil engineering. It is useful for measuring horizontal angles, vertical angles and distance.

➤ Digital Image Submission:

- New Rule inserted to provide for **submission of digital images of mining areas by lessees and Letter of Intent holders**.
- Lessees having annual excavation plans of 1 million tonne or more or having leased area of 50 hectare or more are **required to submit drone survey images** of leased area and up to 100 meters outside the lease boundary every year.
 - **Other lessees** submit high resolution satellite images.
- This step will not only **improve mine planning practices, security and safety** in the mines but also **ensure better supervision of mining operations**.

➤ Reduction of Compliance Burden:

- Provision of **daily return omitted to reduce compliance burden**. Power of taking action against incomplete or wrong or false information in monthly or annual returns given to IBM, in addition to State Government.

➤ Penalty Provisions:

- Penalty provisions in the rules have been **rationalized**. Amendment in the rules **categorized the violations** of the rules under the following major heads:
 - **Major Violations:** Penalty of imprisonment, fine or both.
 - **Minor Violations:** Penalty reduced. Penalty of only fine for such violations prescribed.
 - **Decriminalization of Rules:** Violation of other rules has been decriminalized. These rules did not cast any significant obligation on the concession holder or any other person.

➤ Financial Assurance:

- Provision of forfeiture of financial assurance or performance security of the lease holder added **in case of non-submission of final mine closure plan within the period specified**.

➤ Increased Employment Opportunity:

- Allowed engagement of a **part-time mining engineer or a part-time geologist** for small mines which will **ease compliance burden for small miners**.
- Diploma in mining and mine surveying granted by duly recognized institute along with a second class certificate of competency issued by the Director General of Mines Safety is added in qualification for full time Mining Engineer.

Note:

- Also, qualification for part time Mining Engineer added.

Minerals Concession (Fourth Amendment) Rules, 2021

Why in News

Recently, the Ministry of Mines has notified the Minerals (other than Atomic and Hydro Carbons Energy Mineral) Concession (Fourth Amendment) Rules, 2021.

- It will amend the Minerals (other than Atomic and Hydro Carbons Energy Mineral) Concession Rules, 2016 [MCR, 2016].

Minerals Concession Rules, 2021

Amend the MCR 2016 and pave the way for:



Key Points

- **Amendments:**
 - **Sale from Captive Leases:**
 - New rules inserted to provide a **manner of sale of 50% of minerals** produced from the captive leases.
 - With this amendment, the **way for releasing of additional minerals** in the market by greater utilization of mining capacities of captive mines has been paved.
 - **Captive mines** are those that **produce coal or mineral for exclusive use by the company** that owns the mines, while **non-captive ones** are those that produce as well as sell the fuel.

- **Disposal of Overburden (OB):**
 - Provision 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.
 - This will enable **ease of doing business** for the miners.
- **Area for Grant of Mining Lease:**
 - Minimum area for grant of mining lease **has been revised from 5 ha. to 4 ha.** For certain specific deposits, minimum 2 ha. is provided.
- **Part Surrender for all Cases:**
 - Part surrender of mining lease area allowed in all cases.
 - Earlier, part surrender was allowed **only in case of non-grant of forest clearance.**
- **Transfer of Composite Licence:**
 - Rules amended to **allow transfer of composite licence** or mining lease of all types of mine.

Objective:

- To **increase employment and investment in the mining sector**, increasing revenue to the States, increasing the production and time bound operationalisation of mines, increasing the pace of exploration and auction of mineral resources, etc.

Mining Sector in India

About:

- India holds a **fair advantage in production and conversion costs** in steel and alumina. Its strategic location enables export opportunities to develop as well as fast-developing Asian markets.
- India is the **world's second-largest coal producer** as of 2021.
- India is the **world's second-largest crude steel producer**, as of 2020.
- India has the **same mineral potential as South Africa and Australia**. It produces 95 types of minerals but despite this huge mineral potential, the mining sector of India **still remains underexplored**.
- The mining sector contributes around 7 to 7.5% of the GDP of countries like South Africa and Australia whereas it is **only 1.75% in India**.
- **11 states account for 90% of the total number of operational mines** (Andhra Pradesh, Odisha, Chhattisgarh, Jharkhand, West Bengal, Maharashtra,

Note:

Tamil Nadu, Gujarat, Madhya Pradesh, Rajasthan, and Karnataka).

- **Constitutional Provision Related to Mining:**
 - The entry at serial No. 23 of List II (State List) to the Constitution of India mandates the **state government to own the minerals located** within their boundaries.
 - The entry at serial No. 54 of List I (Central List) **mandates the central government to own the minerals** within the **Exclusive Economic Zone of India (EEZ)**.
 - The **central government has the ownership over all offshore minerals** (ie, minerals extracted from the sea or ocean floor in the Indian maritime zones such as the territorial waters, continental shelf and exclusive economic zones).
- **Related Schemes:**
 - **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.**

All India Judicial Service

Why in News

The central government is preparing to give a fresh push to the establishment of an **All India Judicial Service (AIJS)** on the lines of the central civil services.

Key Points

- **About:**
 - The AIJS is a **reform push to centralise the recruitment of judges** at the level of **additional district judges and district judges** for all states.
 - In the same way that the **Union Public Service Commission** conducts a central recruitment process and assigns successful candidates to cadres, judges of the lower judiciary are proposed to be recruited centrally and assigned to states.

➤ **Previous Proposals:**

- The AIJS was first **proposed by the 14th report of the Law Commission in 1958.**
 - A statutory or constitutional body such as the UPSC to conduct a standard, centralised exam to recruit and train judges was discussed.
- The idea was **proposed again in the Law Commission Report of 1978**, which discussed delays and arrears of cases in the lower courts.
- In 2006, the **Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice in its 15th Report** backed the idea of a pan-Indian judicial service, and also prepared a draft Bill.

➤ **Supreme Court's Stand:**

- In 1992, the **Supreme Court (SC)** in **All India Judges' Association v. The Union of India** directed the Centre to set up an AIJS.
- In a 1993 review of the judgment, however, the **court left the Centre at liberty to take the initiative on the issue.**
- In 2017, the SC took suo motu cognizance of the issue of appointment of district judges, and **mooted a Central Selection Mechanism.**
 - Senior advocate Arvind Datar, who was appointed amicus curiae (friend of the court) by the court, circulated a concept note to all states in which he **recommended conducting a common examination** instead of separate state exams.
 - Based on the merit list, High Courts would then hold interviews and appoint judges. Datar submitted that this would not change the constitutional framework or take away the powers of the states or High Courts.

➤ **Benefits of AIJS:**

- **Efficient Judiciary:** It will **ensure an efficient subordinate judiciary**, to address **structural issues** such as varying pay and remuneration across states, to **fill vacancies faster**, and to ensure standard training across states.
- **Ease of Doing Business:** The government has targeted the reform of lower judiciary in its effort to improve **India's Ease of Doing Business ranking**, as efficient dispute resolution is one of the key indices in determining the rank.
- **Addressing Judges To Population Ratio:** A Law Commission report (1987) recommended that

Note:

India should have 50 judges per million population as against 10.50 judges (then).

- Now, the figure has crossed 20 judges in terms of the sanctioned strength, but it's nothing compared to the US or the UK — 107 and 51 judges per million people, respectively.
- **Higher Representation of Marginalised Sections of Society:** According to the Government, the AIJS to be an **ideal solution for equal representation** of the marginalised and deprived sections of society.
- **Attracting Talent Pool:** The government believes that if such a service comes up, it would **help create a pool of talented people** who could later become a part of the higher judiciary
- **Bottoms-Up Approach:** The bottoms-up approach in the recruitment would also **address issues like corruption and nepotism in the lower judiciary.**
- **Criticism:**
 - **Encroaching States Power:** A centralised recruitment process is seen as an **affront to federalism and an encroachment on the powers of states** granted by the Constitution.
 - **Wont Address Unique Issues:** This is the main contention of several states, which have also argued that **central recruitment would not be able to address the unique concerns** that individual states may have.
 - **Language and representation**, for example, are key concerns highlighted by states.
 - Judicial business is conducted in regional languages, which could be affected by central recruitment.
 - **Not Good For Local Reservation:** Also, **reservations** based on caste, and even for rural candidates or linguistic minorities in the state, could be **diluted in a central test.**
 - **Against Separation of Powers:** The opposition is also based on the **constitutional concept of the separation of powers.** A central test could give the executive a foot in the door for the appointment of district judges, and dilute the say that High Courts have in the process.
 - **Wont Address Structural Issues:** The creation of **AIJS will not address the structural issues** plaguing the lower judiciary.
 - The issue of different scales of pay and remuneration has been **addressed by the SC in**

the **1993 All India Judges Association case** by bringing in uniformity across states.

- Experts argue that **increasing pay across the board** and ensuring that a **fraction of High Court judges are picked from the lower judiciary**, may help better than a central exam to attract quality talent.

Current Appointment Method

- **Articles 233 and 234** of the Constitution of India deal with the **appointment of district judges**, and place it in the domain of the states.
- The **selection process is conducted by the State Public Service Commissions** and the concerned High Court, since High Courts exercise jurisdiction over the subordinate judiciary in the state.
- Panels of **High Court judges interview candidates** after the exam and select them for appointment.
- All judges of the lower judiciary up to the level of district judge are selected through the **Provincial Civil Services (Judicial) exam.** PCS(J) is commonly referred to as the judicial services exam.
- The **Appointment of Judges of the Supreme Court and the High Court and the transfer of judges** from one High Court to another had to be made **in accordance with Articles 124, 217 and 222 of the Constitution of India.** The appointment of judges is made by the President in consultation with the Chief Justice and other judges (**Collegium System**).

Constitutional Provision For Bringing the Change:

- The **42nd Constitutional amendment in 1976** amended **Article 312 (1)** empowering Parliament to make laws for the creation of one or more All-India Services, including an AIJS, common to the Union and the States.
 - Under **Article 312**, Rajya Sabha is required to pass a resolution supported by not less than two-thirds of its members present and voting. Thereafter, Parliament has to enact a law creating the AIJS.
 - This means **no constitutional amendment will be required for establishment of AIJS.**

Whistle Blower Portal: IREDA

Why in News

Recently, the **Indian Renewable Energy Development Agency (IREDA)** has launched a '**whistle-blower Portal**', as a part of '**Vigilance Awareness Week 2021**'.

Note:

- It is a part of IREDA's "zero tolerance" of corruption. Through this portal, IREDA employees can raise concerns related to fraud, corruption, abuse of power etc.
- IREDA is a **Mini Ratna (Category – I)** Government of India Enterprise under the administrative control of the **Ministry of New and Renewable Energy (MNRE)**.

Key Points

- **Whistleblowing:**
 - According to the **Companies Act 2013**, **whistleblowing is an action aimed at drawing the attention of stakeholders** to instances of unethical practices in an organization.
 - A whistleblower can be anyone who chooses to expose wrong practices and has evidence to support the allegations.
 - They can be either from within or outside the organization, such as current and former employees, shareholders, external auditors, and lawyers.
 - In India, whistleblowers are protected by the **Whistleblowers Protection Act, 2014**.
 - In January 2020, the **Securities and Exchange Board of India (SEBI)** came out with a **new mechanism to reward whistle-blowers** and other informants for sharing information about insider trading cases.
 - **Insider trading** is an unfair and illegal practice in the stock market, wherein other investors are at a great disadvantage due to the lack of important insider non-public information about a company.
- **Vigilance Awareness Week:**
 - **About:**
 - It is celebrated every year in the birthday week of **Sardar Vallabhbhai Patel**, often referred to as the '**Bismark of India**'. It is observed by the **Central Vigilance Commission**.
 - **National Unity Day or Rashtriya Ekta Diwas** is celebrated on 31st October every year to mark the birth anniversary of Sardar Vallabhbhai Patel.
 - This year, Vigilance Week is being observed from 26th October to 1st November.
 - **Theme:**
 - 'Independent India @ 75: Self Reliance and Integrity'.

- **Aim:**
 - Various activities are planned through the week, which are aimed at **recognising the ills of corruption and promoting ways to combat it** at an individual as well as systemic level.

Corruption in India

- **Prevalence:**
 - The **Global Corruption Barometer (GCB) – Asia 2020**, found that nearly 50 of those who paid bribes were asked to, while 32% of those who used personal connections said they would not receive the service otherwise.
 - As of 2020, India stands at the **86th spot on the corruption perception index** among a list of 180 countries. This is worse than 2019 when India stood at the 80th spot.
- **Causes:**
 - The important causes of corruption in India are poor regulatory framework, exclusivist process of decision making aggravated by discretion and official secrecy, rigid bureaucratic structures and processes; and absence of effective internal control mechanism.
- **Impact:**
 - It promotes inefficiencies in utilisation of resources, distorts the markets, compromises quality, destroys the environment and of late has become a serious threat to national security.
- **Initiatives Taken:**
 - **Prevention of Corruption Act, 1988.**
 - **The Prevention of Money Laundering Act, 2002.**
 - **The Companies Act, 2013.**
 - **The Foreign Contribution (Regulation) Act, 2010.**
 - **The Lokpal and Lokayuktas Act, 2013**
 - **Central Vigilance Commission.**

Exemption from Personal Data Protection (PDP) Law

Why in News

The **Unique Identification Authority of India (UIDAI)** has **asked for exemption from the Personal Data Protection (PDP) Law (Data Protection Bill 2019)**.

Note:

Key Points

- **Privacy Law:** It is commonly referred to as the “**Privacy Bill**” and intends to **protect individual rights** by regulating the collection, movement, and processing of data that is personal, or which can identify the individual.
 - It derives its inspiration from a previous draft version prepared by a committee headed by retired **Justice B N Srikrishna**.
 - The Supreme Court in the **Puttaswamy judgement (2017)** held that the **right to privacy is a fundamental right**.
- **Provisions:**
 - The Bill gives the government powers to **authorise the transfer of certain types of personal data overseas** and has given exceptions **allowing government agencies to collect personal data of citizens**.
 - The Bill divides the data into three categories and mandates their storage depending upon the type.
 - **Personal Data:** Data from which an individual can be identified like name, address, etc.
 - **Sensitive Personal Data:** Some types of personal data like financial, health-related, sexual orientation, biometric, genetic, transgender status, caste, religious belief, and more.
 - **Critical Personal Data:** Anything that the government at any time can deem critical, such as military or national security data.
 - It mandates **data fiduciaries** to provide the government with any **non-personal data** when demanded.
 - **Data Fiduciary** may be a service provider who collects, stores and uses data in the course of providing such goods and services.
 - **Non-Personal Data** refers to anonymised data, such as traffic patterns or demographic data.
 - A **Data Protection Authority** has been envisaged for ensuring the compliance of the law.
 - It also mentions ‘**Right to be Forgotten**.’ It states that the “data principal (the person to whom the data is related) shall have the right to restrict or prevent the continuing disclosure of his personal data by a data fiduciary”.
- **Issues Involved:**
 - If Personal Data Protection (PDP) Law is implemented in the present form, it may create **two distinct ecosystems**.

- One with the **government agencies** who will be completely out of the ambit of the law, giving them complete freedom to deal with the personal data.
- The second will be **private data fiduciaries** who will have to deal with every letter in the law.
- **Section 35:** It invokes “**sovereignty and integrity of India**,” “**public order**,” “**friendly relations with foreign states**” and “**security of the state**” to give powers to the Central government to suspend all or any of the provisions of this Act for government agencies.
- **Duplicity:** Section 12 of the Act gives UIDAI some leeway from the rigours of the Bill as it enables for processing data for provision of a service or benefit to the data principal. However, even then prior notice has to be given.
 - The UIDAI authority is already being governed by the **Aadhaar Act** and there cannot be **duplicity of laws**.
 - The **Supreme Court (SC) in 2018 struck down the national security exception under the Aadhaar Act**. It indirectly ensures greater privacy of an individual’s Aadhaar data while restricting the government accessibility to it.
- **Data Localization**

Unique Identification Authority of India (UIDAI)

- It is a **statutory authority** established on 12th July 2016 by the Government of India under the **jurisdiction of the Ministry of Electronics and Information Technology**, following the provisions of the **Aadhaar Act 2016**.
- The UIDAI is mandated to assign a **12-digit unique identification (UID) number (Aadhaar)** to all the residents of India.
- The UIDAI was initially set up by the Government of India in January 2009, as an attached office under the aegis of the Planning Commission.

Bhasha Sangam Initiative: Ek Bharat Shreshtha Bharat

Why in News

Recently, the **Ministry of Education** launched various initiatives under **Ek Bharat Shreshtha Bharat (EBSB)** to commemorate **Rashtriya Ekta Diwas**.

Note:



- The **Ek Bharat Shreshtha Bharat** was announced by the Prime Minister in 2015 on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel.
- The **Rashtriya Ekta Diwas** is celebrated to mark the birth anniversary of **Shri Sardar Vallabhbhai Patel**.

Key Points

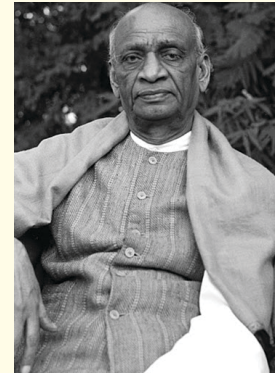
- **About the Initiatives:**
 - **Bhasha Sangam:**
 - It is an initiative of the **Ministry of Education** under Ek Bharat Shreshtha Bharat, to **teach basic sentences of everyday usage in 22 Indian languages (Eight Schedule languages)**.
 - It is **developed by the National Council of Educational Research and Training (NCERT)**.
 - The idea is that people should **acquire basic conversational skills in an Indian language other than their mother tongue**.
 - It is available on **DIKSHA, ePathshala** and through 22 booklets.
 - Other initiatives launched include **Bhasha Sangam Mobile App** and the **Ek Bharat Shreshtha Bharat (EBSB) Quiz App**.
- **Ek Bharat Shreshtha Bharat:**
 - It was **launched in 2015 to promote engagement amongst the people of different States/UTs** so as to enhance mutual understanding and bonding between people of diverse cultures, thereby securing stronger unity and integrity of India.
 - It is **an initiative of the Ministry of Education**.
 - **Every State and UT in the country would be paired with another State/UT** for a time period, during which they would carry out a structured engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.

Sardar Vallabhbhai Patel

- He was born on **31st October 1875** in Nadiad, Gujarat.
 - The **National Unity Day (Rashtriya Ekta Diwas)** is celebrated on 31st October to commemorate the **birth anniversary of Sardar Vallabhbhai Patel**.
- He was the **first Home Minister and Deputy Prime Minister of India**.
- **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

- 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'.



- **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.
- Requested the people of India to live together by uniting (Ek Bharat) in order to create a foremost India (Shreshth Bharat).
 - This ideology still reflects in the **Atmanirbhar Bharat** initiative which seeks to make India self-reliant.
- Remembered as the **'Patron Saint of India's Civil Servants'** as he established the modern all-India services system.
- In 2018, the Government unveiled the **Statue of Unity** in Gujarat in Patel's honour.

Ganga Utsav 2021 – The River Festival

Why in News

- Recently, the 5th edition of **Ganga Utsav-The River Festival 2021** has begun which celebrates the glory of the **National river Ganga**.
- Ganga was declared as the **National River of India on 4th November 2008**.
 - The event will also comprise, **launch of the Ganga Tarang Portal, curtain raiser on Ganga Knowledge Portal and many more**.

Note:

Key Points

➤ About:

- The **National Mission for Clean Ganga (NMCG)** celebrates the festival every year to strengthen the Public – River Connection.
 - NMCG is the implementation wing of **National Ganga Council**, set up in 2016, which replaced the National Ganga River Basin Authority (NRGBA).
 - The **NMCG has been registered in the Guinness Book of World Records on the first day of Ganga Utsav 2021** for the highest number of photos of handwritten notes that were uploaded on Facebook in an hour.
- The Utsav **celebrates the mystical and cultural river Ganga through** storytelling, folklore, dialogues with eminent personalities, quizzes, displaying traditional artforms, dance and music performances by renowned artists, photo galleries and exhibitions and much more.
- It highlights the **significance of Jan Bhagidari** (People's Participation) in the revival of Ganga, with a **focus on encouraging stakeholder engagement and public participation** towards the rejuvenation of river Ganga.

➤ Programmes Held During the Festival:

- Continuous Learning and Activity Portal (CLAP):
 - It is a learning portal that will be **buzzing with activities, quizzes, crosswords, discussion forums** to keep children engaged throughout the year.
 - The objective of all the activities will be to sensitize and motivate the children and youth for **action to protect and restore our rivers**.
- **Ganga Mashal:**
 - It is an expedition led by the **Ganga Task Force (GTF)** that will travel the route including 23 stations along the river Ganga which will help sensitization of the local people and bodies like **Nehru Yuva Kendra Sangathan**) and Voluntary groups such as Ganga Mitras, Ganga Praharis, Ganga Doots.
 - Ganga Mitras, Ganga Praharis, Ganga Doots are dedicated voluntary groups formed at the grassroot level, whose resources are channelized **for engagement of the community and public at large**.

- **GTF** is a unit of battalion of ex-servicemen deployed in the services of the Ganga with the approval of the Ministry of Defence for the period of four years till December 2020.

○ Ganga Quest:

- It is a **national online quiz on Ganga**, rivers, and environment that was first conceptualized in 2019 as an educational program to sensitize children and youth towards River Ganga to strengthen the **Namami Gange program**.

➤ Government Initiatives on River Ganga:

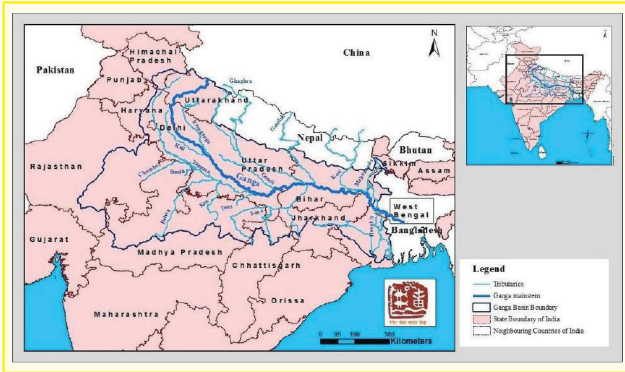
- **Ganga Action Plan:** It was the **first river action plan** to improve the water quality by the interception, diversion and treatment of domestic sewage.
 - The **National River Conservation Plan** is an extension to this plan, which aims at cleaning the Ganga river under **Ganga Action Plan phase-2**.
- **National River Ganga Basin Authority:** It was formed in the year 2009 under Section-3 of the **Environment Protection Act 1986**.
- **Clean Ganga Fund:** In 2014, it was formed for cleaning up of the Ganga, setting up of waste treatment plants and conservation of biotic diversity of the river.
- **Bhuvan-Ganga Web App:** It ensures the involvement of the public in the monitoring of pollution entering into the river Ganga.
- **Ban on Waste Disposal:** In 2017, the **National Green Tribunal (NGT)** banned the disposal of any waste in the Ganga.

River Ganga

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

Note:





Vanniakula Reservation Unconstitutional: Madras HC

Why in News

Recently, the Madras High Court has declared as **unconstitutional a reservation law** passed by the Tamil Nadu legislative Assembly.

- The law envisaged providing **10.5% internal reservation to Vanniakula Kshatriya community**, within the 20% earmarked for **Most Backward Classes (MBCs)** in education and public employment.

Key Points

- **About Vanniakula Kshatriya Reservation:**
 - The reservation was provided under the State within the reservation for the **Most Backward Classes and Denotified Communities Act, 2021**.
 - Vanniakula Kshatriya (including **Vanniar, Vanniya, Vannia Gounder, Gounder or Kander, Padayachi, Palli and Agnikula Kshatriya**) community.
 - The **second Tamil Nadu Backward Commission in 1983**, held that the population of Vanniakula Kshatriyas was found to be 13.01% of the State's total population.
 - Therefore, provision of **10.5% reservation** to a community with a population of 13.01% could not be called disproportionate.
- **Grounds for Challenging the Bill:**
 - The law was challenged on account of the law being **passed just hours** before the **Model Code of Conduct (MCC)** came into force in the State in February 2021.
 - Further, the petitioner argued that the **enactment was politically motivated** and that the law was **passed hastily**.

➤ Tamil Nadu Government's Argument:

- In a democratic polity, an **elected government cannot be barred** from exercise of its power to make a policy to legislate any law during its **tenure/ until the last minute** it holds power to meet the **public opinion at large**.
- In 2020, a commission to collect quantifiable data on castes, communities and tribes in the State was established in chairmanship of **retired High Court judge A. Kulasekaran** within six months.
 - The Tamil Nadu government held that the **commission did not submit any report within its tenure**.
- Further, asserting that the **government was empowered to pass such a law for providing internal reservation**, it referred to a **2007 enactment through which Backward Class Muslims** in the State were being actively provided separate reservation.

Model Code of Conduct

- The MCC is a **set of guidelines** issued by the **Election Commission of India** to regulate political parties and candidates prior to elections.
- It **helps EC in keeping with the mandate it has been given** under **Article 324** of the Constitution, which gives it the power to supervise and conduct free and fair elections to the Parliament and State Legislatures.
- The MCC is operational from the date on which the **election schedule** is announced until the date of result announcement.
- **Evolution:**
 - The origins of the **MCC lie in the Assembly elections of Kerala in 1960**, when the State administration prepared a 'Code of Conduct' for political actors.
 - Subsequently, in the **Lok Sabha elections** in 1962, the ECI circulated the code to all recognised political parties and State governments and it was wholeheartedly followed.
 - It was in 1991 after repeated flouting of the election norms and continued corruption, the **EC decided to enforce the MCC more strictly**.

Constitutional Provisions for Elections

- **Part XV** of the Indian constitution deals with elections, and establishes a commission for these matters.

Note:

- The Election Commission was established in accordance with the **Constitution on 25th January 1950**.
- **Article 324 to 329** of the constitution deals with powers, function, tenure, eligibility, etc of the commission and the members.

Articles Related to Elections

324	Superintendence, direction and control of elections to be vested in an Election Commission.
325	No person to be ineligible for inclusion in, or to claim to be included in a special, electoral roll on grounds of religion, race, caste or sex.
326	Elections to the House of the People and to the Legislative Assemblies of States to be on the basis of adult suffrage.
327	Power of Parliament to make provision with respect to elections to Legislatures.
328	Power of Legislature of a State to make provision with respect to elections to such Legislature.
329	Bar to interference by courts in electoral matters.

Note:

- KHADC is a body under the **Sixth Schedule** of the Constitution.
- It does not have the power to legislate.
- Paragraph 12 A of the Sixth Schedule gives the final right of passing a law to the state legislature.
- The Sixth Schedule of the Constitution provides for the **administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram** to safeguard the rights of the tribal population in these states.
 - This special provision is provided under **Article 244 (2) and Article 275 (1) of the Constitution**.
 - It provides for **autonomy in the administration of these areas through Autonomous District Councils (ADCs)**, which are empowered to make laws in respect of areas under their jurisdiction.

youngest daughter (khatduh) of the family is entrusted the full share of the ancestral - or the clan's - property.

- The **khatduh becomes the "custodian" of the land**, and assumes all responsibility associated with the land, including taking care of aged parents, unmarried or destitute siblings.

- This inheritance tradition **applies only to ancestral or clan/community property**, which has been with the family for years. The **self-acquired property can be distributed equally among siblings**.
- In this traditional set-up, **if a couple does not have any daughters**, then the **property goes to the wife's elder sister**, and her daughters.
- If the wife does not have sisters, then the **clan usually takes over the property**.
- **Effect of this System on Women Empowerment:** Women activists have often pointed out that the matrilineal system in Meghalaya rarely empowers women.
 - **Issue in Custodianship:** Custodianship is often misconstrued as ownership vested in just one person, that is the youngest daughter.
 - This custodianship comes with the responsibility to care for aged parents, unmarried or destitute siblings and other clan members.
 - Moreover, the custodian cannot buy or sell the land, without taking permission from her maternal uncle.

Khasi Inheritance of Property Bill, 2021

Why in News

Recently, the **Khasi Hills Autonomous District Council (KHADC)** in Meghalaya announced that it would introduce the '**Khasi Inheritance of Property Bill, 2021**'. The bill is aimed at "equitable distribution" of parental property among siblings in the Khasi community.

- If implemented, the proposed Bill would modify an age-old customary practice of inheritance of the matrilineal Khasi tribe.

Key Points

- **About Matrilineal System of Inheritance:**
 - The **three tribes of Meghalaya — Khasis, Jaintias, and Garos** — practise a matrilineal system of inheritance.
 - In this system, **lineage and descent are traced through the mother's clan**.
 - In other words, children take the mother's surname, the husband moves into his wife's house, and the

Note:



- **Matrilineal is Not Matriarchal:** People often confuse matrilineal with matriarchal, where women function as heads.
- While women may have freedom of mobility and easier access to education, they are not decision makers in Meghalaya.
- There are barely any women in positions of power, in politics, or heading institutions.

➤ About the Bill:

○ Provisions:

- The proposed Bill is envisaged to **provide the “equitable distribution” of parental property among siblings – both male and female.**
- The Bill would **let parents decide** who they want to will their property to.
- It **would prevent a sibling from getting parental property if they marry a non-Khasi** and accept the spouse’s customs and culture.

- **Need For the Bill:** Over the years, a few groups have protested the system of property inheritance, saying it **“disinherits” men**, and pressed for equitable property distribution between all children in the family.

- **Impact:** This would modify an age-old customary practice of inheritance of the matrilineal Khasi tribe.

- The legislation is aimed at **economic empowerment based on the principle of equitable distribution of property.**

CharDham Project

Why in News

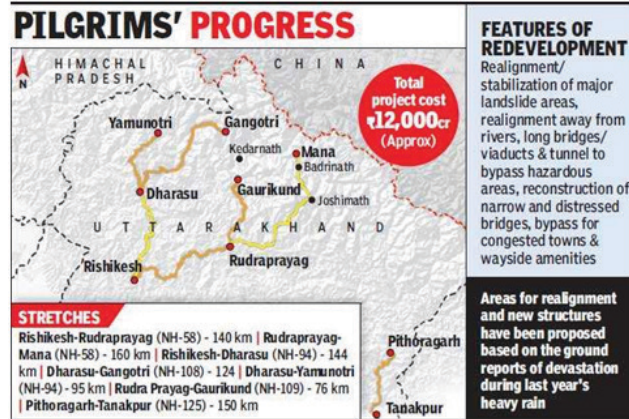
Recently, the **Supreme Court (SC)** has spoken of the **need to balance national security concerns with environmental issues in the context of the Army’s request to expand the CharDham Project (CDP) roads leading to the Indo-China border.**

- The request came in the context of construction being carried out by China across the border. However, expansion of roads has been **opposed by an NGO citing environmental concerns.**

Key Points

➤ About Chardham Project:

- **Objective:** CharDham Pariyojana aims to **“improve the connectivity** to the Chardham pilgrimage centres



(Badrinath, Kedarnath, Gangotri, Yamunotri) in the Himalayas, making journeys to these centres safer, faster and more convenient.

- It will widen almost 900 km of highways connecting the pilgrimage sites and the Tanakpur-Pithoragarh stretch of National Highway (NH) 125, a part of the **Kailash Mansarovar Yatra route.**

- **Role in National Security:** This project can act as the strategic feeder roads which connect the India-China border with the Army camps in Dehradun and Meerut where missile bases and heavy machinery are located.

- **Implementing Agencies:** Uttarakhand State Public Works Department (PWD), **Border Roads Organisation (BRO)** and the National Highway & Infrastructure Development Corporation Limited (NHIDCL).

- NHIDCL is a fully owned company of the Ministry of Road Transport & Highways.

➤ Environmental Concerns About the Project:

- The project **may destroy about 690 hectares of forests** with 55,000 trees and **evacuate an estimated 20 million cubic metres of soil.**

- Ruthless harvesting or uprooting of vegetation in the widening of roads **can prove to be perilous for the biodiversity and regional ecology.**

- Birds like Kalij Pheasant (*Lophura leucomelanos*, **Schedule-I**), Tragopans (Tragopan melanocephalus & Tragopan satyra, Schedule-I), and various species of Vultures (Schedule-I) along with endangered fish Golden Mahseer (*Tor putitora*) are among the wonderful species found there.

- While there is no link between the CharDham project and the recent **glacier broken tragedy of Chamoli**, indiscriminate blasting during road construction

Note:

makes cracks in soil and rocks that may enhance the possibility of flash-flood in the future.

Privilege Motion

Why in News

Congress' chief whip in the **Rajya Sabha** sought to move a **privilege motion** against the **Union Culture Minister over the appointment of chairperson of the National Monuments Authority (NMA)**.

- The educational and professional background of the current chairperson of NMA does not meet the requirements of law passed by Parliament in March 2010.

National Monuments Authority (NMA)

- **Established:** NMA is set up under the **Ministry of Culture** as per the provisions of the **Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act (AMASR)** which was enacted in March, 2010.
- **Functions:** Several functions have been assigned to the NMA for the protection and preservation of monuments and sites through management of the prohibited and regulated areas around the centrally protected monuments.
 - NMA also considers grant of permissions to applicants for construction related activity in the prohibited and regulated areas.
- **Qualifications for the Appointment of the Chairman:** AMASR Act says that the **chairperson of the NMA** should have "proven experience and expertise in the field of archaeology, country and town planning, architecture, heritage, conservation architecture or law".

Key Points

- **About:** It is concerned with the **breach of parliamentary privileges by a minister**.
- **Breach of Parliamentary Privileges:** Parliamentary Privileges are **certain rights and immunities enjoyed by members of Parliament**, individually and collectively, so that they can "effectively discharge their functions".
 - When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.

- **A notice is moved in the form of a motion by any member of either House against** those being held guilty of breach of privilege.
- Its purpose is to **censure the concerned minister**.
- **Role of the Speaker/Rajya Sabha (RS) Chairperson:**
 - The Speaker/RS chairperson is the **first level of scrutiny** of a privilege motion.
 - The Speaker/Chairperson can decide on the privilege motion himself or herself **or refer it to the privileges committee of the Parliament**.
 - If the Speaker/Chairperson gives consent under relevant rules, the member concerned is given an opportunity to make a short statement.
- **Rules Governing Privilege:**
 - **Rule No 222** in Chapter 20 of the **Lok Sabha Rule Book** and correspondingly **Rule 187** in Chapter 16 of the **Rajya Sabha rulebook** governs privilege.
 - Rules say that a member may, with the consent of the Speaker or the Chairperson, raise a question involving a breach of privilege either of a member or of the House or a committee thereof.

Parliamentary Privileges

- Parliamentary privileges are **special rights, immunities and exemptions enjoyed by the two Houses of Parliament, their committees and their members**.
- The Constitution also extends the parliamentary privileges to those persons who are entitled to speak and take part in the proceedings of a House of Parliament or any of its committees. These **include the Attorney General of India and Union ministers**.
- The parliamentary privileges **do not extend to the President** who is also an integral part of the Parliament. **Article 361** of the Constitution provides for privileges for the President.
- **Article 105** of the Constitution expressly mentions **two privileges**, that is, freedom of speech in Parliament and right of publication of its proceedings.
- Apart from the privileges as specified in the Constitution, **the Code of Civil Procedure, 1908**, provides for freedom from arrest and detention of members under civil process during the continuance of the meeting of the House or of a committee thereof and forty days before its commencement and forty days after its conclusion.

Note:



- It needs to be noted that the **Parliament, till now, has not made any special law** to exhaustively codify all the privileges.

Privilege Committee

- It is a **Standing Committee**. It examines the cases of breach of the privileges of the House and its members and recommends appropriate action.
- The **Lok Sabha** committee has **15 members**, while the **Rajya Sabha** committee has **10 members**.

National Achievement Survey 2021

Why in News

Recently, the **Union Government has conducted the National Achievement Survey (NAS) across India**, assessing about 38 lakh students from 1.23 lakh schools in 733 districts in 36 States and Union Territories.

- The survey was **last conducted in 2017** and was scheduled to take place in 2020. However, due to the Covid situation, it was postponed until this year (2021).

Key Points

- **About:**
 - It is a nationwide survey **to assess the learning outcomes and health of the education system**.
 - It is the **largest, nationwide, sample-based education survey** conducted across India.
 - It is undertaken **by the Ministry of Education**.
 - The **Central Board of Secondary Education (CBSE)** conducted NAS 2021.
 - The **National Council of Educational Research and Training (NCERT)** designed an assessment framework and tools for NAS-2021.
 - It provides a **system-level reflection on the effectiveness of school education**.
 - It **collects information on relevant background variables** such as school environment, teaching processes, and student home and background factors.
 - It covers **the whole spectrum of schools** including Government schools (both State and Central government), Government-aided schools, and Private schools across India.

Medium and Grades:

- The NAS 2021 was **conducted in 22 mediums of instruction** that covered English, Assamese, Bengali, Gujarati, Kannada, Hindi, Malayalam, Marathi, Manipuri, Mizo, Punjabi, Odia, Telugu, Tamil, Bodo, Urdu, Garo, Konkani, Khasi, Bhutia, Nepali, and Lepcha.
- It was conducted in **different subjects for different grades**. The subject and grades wise break up is below:
 - **Grade 3 and 5:** Language, EVS, and Mathematics
 - **Grade 8:** Language, Science, Mathematics, and Social Science
 - **Grade 10:** Language, Science, Mathematics, Social Science, and English

Education in India

➤ Constitutional Provisions:

- **Part IV of Indian Constitution, Article 45 and Article 39 (f) of Directive Principles of State Policy (DPSP)**, has a provision for state-funded as well as equitable and accessible education.
- The **42nd Amendment to the Constitution in 1976** moved education from the State to the Concurrent List.
- The **86th Amendment in 2002** made education an enforceable right under **Article 21-A**.

➤ Related Laws:

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

➤ Government Initiatives:

- **National Education Policy 2020**
- **Samagra Shiksha (SS) 2.0**
- **NIPUN Bharat Mission**
- **PM Poshan Scheme**
- **Unified District Information System for Education (UDISE)**
- **Performance Grading Index**

➤ Objective:

- To provide **structured feedback on student learning levels at District, State, and national levels**. These

Note:

inputs are **used for policy planning and designing pedagogical interventions** to improve quality and ensure equity in learning.

➤ **Significance:**

- It will help in assessing the learning interruptions and new learnings during the Covid-19 pandemic which will in turn help to take remedial measures.
- The findings of NAS 2021 will help in diagnosing a **systematic understanding of the consequences**

that prolonged closure of schools has had on the learning of students in terms of their **socio-emotional and cognitive development.**

- It will help at **resolving the learning gaps of students and devising education policies**, learning, and teaching practices.
- Through its diagnostic report cards, NAS findings **help in capacity building for teachers, officials involved** in the delivery of education.



Note:

Economic Scenario

Highlights

- RBI Integrated Ombudsman Scheme
- RBI's Retail Direct Scheme
- CBIC Guidelines on Blocking Input Tax Credit
- Legal Metrology (Packaged Commodities), Rules 2011
- Increasing Export of Technical Textile
- Oil and Food Prices
- LEADS Report 2021
- RBI Committee on Asset Reconstruction Companies
- PCA Framework Revised
- Boosting Services Export
- Rising Current Account Deficit
- US Inflation and Impact on India

RBI Integrated Ombudsman Scheme

Why in News

Recently, the Prime Minister has launched the integrated ombudsman scheme.

- In 2019 the **Reserve Bank of India (RBI)** had launched the **Complaint Management System (CMS)** in order to improve the customer experience in the **grievance redressal process of banking services**.
- The PM has also launched the **RBI's Retail Direct Scheme**.

Ombudsman

- A government official **who deals with complaints made by ordinary people** against public organizations. This concept of Ombudsman **arrived from Sweden**.
- It means **an officer appointed by the Legislature to handle complaints against a service or administrative authority**.
- In India an Ombudsman is appointed to resolve grievances in the following sectors.
 - Insurance Ombudsman
 - Income Tax Ombudsman
 - Banking Ombudsman

Key Points

- **About:**
 - It **amalgamates** three ombudsman schemes of RBI - **banking ombudsman scheme of 2006, ombudsman**

scheme for NBFCs of 2018 and **ombudsman scheme of digital transactions of 2019**.

- The unified ombudsman scheme will provide **redress of customer complaints involving deficiency in services rendered by RBI regulated entities** viz. banks, **NBFCs (Non banking Financial Companies)** and pre-paid instrument players **if the grievance is not resolved to the satisfaction of the customers or not replied within a period of 30 days** by the regulated entity.
- It also includes **non-scheduled primary co-operative banks with a deposit size of Rs 50 crore and above**. The integrated scheme makes it a **"One Nation One Ombudsman"** approach and **jurisdiction neutral**.
- **Need:**
 - The **first ombudsman scheme was rolled out in the 1990s**. The system was always viewed as an issue by consumers.
 - One of the primary concerns **was the lack of maintainable grounds on which the consumer could challenge the actions** of a regulated entity at the ombudsman or a rejection of the complaint on technical grounds, resulting in a preference for the **consumer court** notwithstanding the extended timelines for redressal.
 - The move to integrate the systems (banking, **NBFC**, and **digital payments**) and expand the grounds for complaints is expected to see a positive response from consumers.
- **Features:**
 - The Scheme **defines 'deficiency in service' as the ground for filing a complaint**, with a specified list of exclusions.

Note:



- Therefore, the complaints would no longer be rejected simply on account of “not covered under the grounds listed in the scheme”.
- The scheme is jurisdiction neutral and **a centralised receipt and processing centre has been set-up in Chandigarh** for initial handling of complaints in any language.
- RBI had created a provision for the use of **Artificial Intelligence** tools so that banks and investigating agencies could coordinate in a better way in the fastest time possible.
- The bank customers will be able to file complaints, submit documents, track status, and give feedback **through a single email address**.
- There will also be **a multilingual toll-free number** that will provide all relevant information on grievance redress.
- The **regulated entity will not have any right to appeal in cases** where an award is issued by the ombudsman against it for not furnishing satisfactory and timely information.
- **Appellate Authority:**
 - RBI’s Executive Director-in charge of Consumer Education and Protection Department would be the Appellate Authority under the integrated scheme.
- **Significance:**
 - This will help in improving the grievance redress mechanism for resolving customer complaints against RBI’s regulated entities.
 - It is expected **to ensure uniformity and streamlined user-friendly mechanisms which will add value to the scheme** and bring customer delight and financial inclusion.
 - 44 crore loan account holders and 220 crore deposit account holders would directly benefit from the single ombudsman, they would now be able to lodge a complaint and track their complaints on the same platform.

RBI’s Retail Direct Scheme

Why in News

Recently, the Prime Minister has launched the **Reserve Bank of India (RBI)- Retail Direct Scheme to open up the Government bond market for the retail investors**.

Key Points

- **About:**
 - In February 2021, **RBI proposed to allow retail investors to open gilt accounts with the central bank to invest in Government securities (G-secs) directly**.
 - Under the scheme, retail investors (individuals) will have the **facility to open and maintain the ‘Retail Direct Gilt Account’ (RDG Account) with the RBI**.
 - Retail Investor is **a non-professional investor** who buys and sells securities or funds that contain a basket of securities such as mutual funds and **Exchange Traded Funds (ETFs)**.
 - **A Gilt Account can be compared with a bank account**, except that the account is debited or credited with treasury bills or government securities instead of money.
 - The scheme places India in a list of select few countries offering such a facility.
- **Aim:**
 - The move is **aimed at diversifying the government securities market**, which is dominated by institutional investors such as banks, insurance companies, mutual funds and others.
 - While **foreign portfolio investors** were allowed to invest in G-secs, their holding is around 2-3% in the overall market.
- **Scope:**
 - It offers a portal avenue to invest in **Central government securities, treasury bills, State development loans and sovereign gold bonds**.
 - They **can invest in primary as well as secondary market** government securities markets.
 - **Negotiated Dealing System-Order Matching Segment (NDS-OM)** means RBI’s screen based, anonymous electronic order matching system for trading in Government securities in the secondary market.
- **Significance:**
 - **Building an Atmanirbhar Bharat:**
 - So far, in the government securities market, small investors class, salaried class, small traders **had to invest through banks and mutual funds in an indirect manner**.
 - **Improved Ease of Access:**

Note:

- It will **make the process of G-sec trading smoother for small investors** therefore it will **raise retail participation in G-secs** and will improve ease of access.
- **Facilitate Government Borrowings:**
 - This measure together with relaxation in mandatory Hold To Maturity (securities that are purchased to be owned until maturity) provisions **will facilitate smooth completion of the government borrowing** programme in 2021-22.
- **Financialise Domestic Savings:**
 - Allowing direct retail participation in the G-Sec market **will promote financialisation of a vast pool of domestic savings** and could be a game-changer in India's investment market.
- **Other Measures Taken to Increase Retail Investment in Government Securities:**
 - **Introduction of non-competitive bidding** in primary auctions.
 - Non-competitive bidding means the bidder would be able to participate in the auctions of dated government securities without having to quote the yield or price in the bid.
 - **Stock exchanges to act as aggregators** and facilitators of retail bids.
 - Allowing a **specific retail segment in the secondary market.**
 - The secondary market is the **market where investors buy and sell securities they already own.**
 - **Primary market** deals with new securities being issued for the first time.

Government Security

- A G-Sec is a **tradable instrument issued by the Central Government or the State Governments.**
- It **acknowledges the Government's debt obligation.** Such securities are **short term (usually called treasury bills**, with original maturities of less than one year- presently issued in three tenors, namely, 91 day, 182 day and 364 day) **or long term (usually called Government bonds or dated securities** with original maturity of one year or more).
- In India, the **Central Government issues both treasury bills and bonds or dated securities** while the **State Governments issue only bonds or dated securities**, which are called the **State Development Loans (SDLs).**

- G-Secs carry practically no risk of default and, hence, **are called risk-free gilt-edged instruments.**
 - Gilt-edged securities are high-grade investment bonds offered by governments and large corporations as a means of borrowing funds.

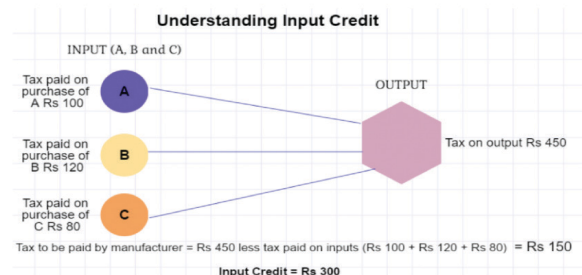
CBIC Guidelines on Blocking Input Tax Credit

Why in News

Recently, the **CBIC (Central Board of Indirect Taxes and Customs)** issued guidelines on **blocking of tax credit by GST (Goods and Services Tax) field officers**, saying that such blocking should be on the basis of 'material evidence' and not just out of 'suspicion'.

Key Points

- **Input Tax Credit:**
 - It is the tax that a business pays on a purchase and that it can use to reduce its tax liability when it makes a sale.
 - It means **at the time of paying tax on output, one can reduce the tax that has already been paid on inputs** and pay the balance amount.
 - **Exceptions:** A business under composition scheme cannot avail of input tax credit. ITC cannot be claimed for personal use or for goods that are exempt.
 - **Composition Scheme** is a scheme under GST which can be opted to get rid of tedious GST formalities. It can be opted by any taxpayer whose turnover is **less than Rs. 1.5 crore.**



- **Provisions for Claiming ITC:**
 - The **amended Rule 36 (4) of the CGST (Central GST) Rules, 2017**, provides that the input tax credit can be availed only when a supplier of goods updates and uploads online the details of supplies through each of the bills.

Note:

➤ New Guidelines:

- It laid down **some specific circumstances** in which such ITC could be blocked by a senior tax officer.
- These **include availment of credit without any invoice** or any valid document, or availing of credit by purchasers on invoices on which GST has not been paid by sellers.
- The **commissioner, or an officer authorised by him, not below the rank of assistant commissioner**, must form an opinion for blocking of ITC **only after “proper application of mind”** considering all the facts of the case.
 - The government **had introduced Rule 86A in GST rules in December 2019** giving powers to taxmen to block the ITC available in the electronic credit ledger of a taxpayer if the officer has “reasons to believe” that the ITC was availed fraudulently.
- The **reasons are to be on the basis of material evidence** available or gathered in relation to fraudulent availment of input tax credit or ineligible input tax credit availed as per the conditions/ grounds under sub-rule (1) of Rule 86A.
- These guidelines **have recommended monetary limits** for the division of powers between commissions, joint commissioners, and assistant commissioners on blocking of the tax credit.
 - A deputy or assistant commissioner can block ITC up to Rs 1 crore, additional or joint commission above Rs 1 crore but not exceeding Rs 5 crore and principal commissioner or commissioner above Rs 5 crore.
- In case an officer blocks the ITC under due procedure, the **taxpayer will be informed about the action on the GST portal** along with details of the officer who has blocked it.

Central Board of Indirect Taxes and Customs

- It is a **part of the Department of Revenue under the Ministry of Finance**.
- The Central Board of Excise and Customs (CBEC) was **renamed as the CBIC in 2018 after the roll out of the GST**.
- It deals with the tasks of formulation of policy concerning levy and collection of customs, central excise duties, Central GST (CGST) and Integrated GST (IGST).

- **GST Law** comprising (i) Central Goods and Services Tax Act, 2017 (ii) State Goods and Services Tax Act, 2017 (iii) Union Territory Goods and Services Tax Act, 2017, (iv) Integrated Goods and Services Tax Act, 2017 (v) Goods and Services Tax (Compensation to States) Act, 2017.

Legal Metrology (Packaged Commodities), Rules 2011

Why in News

The Department of Consumer Affairs has omitted the **Rule 5 of the Legal Metrology (Packaged Commodities), Rules 2011** to safeguard interest of consumers.

- Rule 5 **defines the Schedule II** prescribing the pack sizes of various types of commodities.

Key Points

➤ About the Amendment:

○ Declaration of MRP:

- **Declaration of Maximum Retail Price (MRP)** in Indian currency inclusive of all taxes on pre-packaged commodities and **date of manufacture** has been made **mandatory**.

○ New Provision of Unit Sale Price:

- Now the quantities can be expressed in terms of the **number or unit or piece or pair or set or such other word** which represents the quantity in the package.
 - It will **allow easier comparison** of the prices of the commodities at the time of purchase.
 - **Earlier**, for items sold by number, the symbol used were **N or U**.

➤ Legal Metrology (Packaged Commodities) Rules, 2011:

- It **regulates pre-packaged commodities in India and inter – alia** mandate certain labeling requirements prior to sale of such commodities.
- The **main aim of the Legal Metrology Act, 2009** is to establish and enforce standards of weights and measures, regulate trade and commerce in weights, measures and other goods which are sold or distributed by weight, measure or number and any other matter that is connected to the same.
 - According to the Act, the **Central Govt. may appoint a Director of Legal Metrology** to

Note:



perform duties related to inter-state trade and commerce.

- The **State Govt. may appoint a Controller of Legal Metrology** to perform duties related to intra-state trade and commerce.

➤ **Related Initiatives:**

- **Consumer Protection Act, 2019**
- **Draft Food Safety And Standards (Labelling And Display) Regulation**

Increasing Export of Technical Textile

Why in News

Recently, the Union Minister of Commerce and Industry targeted a five times increase in the export of **Technical Textiles in three years**, from the current **USD 2 billion to USD 10 billion**.

Key Points

➤ **Technical Textiles:**

- Technical textiles are **functional fabrics that have applications across various industries** including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc.
 - Technical Textile products **derive their demand from development and industrialization in a country**.
- Based on usage, there are **12 technical textile segments**; Agrotech, Meditech, Buildtech, Mobiltech, Clothtech, Oekotech, Geotech, Packtech, Hometech, Protech, Indutech and Sportech.
 - **For example**, 'mobiltech' refers to products in vehicles such as seat belts and airbags, airplane seats; geotech, which is incidentally the fastest growing sub-segment, used to hold back soil, etc.

➤ **Scenario of Technical Textile:**

- The growth of technical textiles in India has gained momentum in the past five years, **currently growing at an 8% per annum rate**.
 - It is aimed to hasten this growth to 15-20% range during the next five years.
- The current world market is USD 250 billion (Rs 18 lakh crore) and **India's share in it is USD 19 billion**.

What are Technical Textiles?

Conventional Textiles	Technical Textiles
<ul style="list-style-type: none"> ➤ Manufactured primarily for aesthetic or decorative purpose. ➤ Fiber (natural or synthetic) is usually first Spun into Yarn and then Yarn is Woven/ Knit into Fabric 	<ul style="list-style-type: none"> ➤ Manufactured primarily for performance or function rather than aesthetics. ➤ May be both woven and non woven, and is made out of primarily synthetic and some natural fibers.

- India is an aspiring player with **USD 40 billion in this market (8 % Share)**.

- The biggest players are the USA, western Europe, China and Japan (20-40% share).

➤ **Challenges:**

- **Lack of Awareness:**
 - Benefits of technical textiles are still unknown to the larger masses of the country.
- **Development of Skilled Workforce:**
 - Technical textiles **require different and high levels of skill sets** from workers which is currently absent in the domestic industry.
- **Lack of Research & Development:**
 - One of the key issues that the Indian technical textiles industry is facing is the **lack of product diversification**.
- **Imports of Technical Textiles:**
 - India imports a significant amount of technical textiles consisting of cheap products from China and hi-tech products from US & Europe. This signifies that the Indian technical textiles industry is lacking scale and the capacities to manufacture high-tech products.

➤ **Opportunities:**

- **Growth in manufacturing sector:**
 - Technical textile primarily finds usage in various manufacturing industries such as **automobile, construction, aviation, etc.**
 - Manufacturing sector has been a **pillar of growth for the Indian economy with many such industries registering double digit growth** over the last decade.
 - Automobile sector is expected to grow at 12% rate over the next decade to reach an

Note:



estimated production of 75 million vehicles in 2025.

- **Rising Importance of Healthcare & Hygiene:**
 - With the ever-growing danger of pollution and diseases in the country, people are gradually shifting towards more hygienic and healthy ways of living which involves using **products like wipes, face masks, diapers, dental floss, earbuds, sanitary napkins etc.**
 - All these products consume various technical textile items in different forms.
- **Increasing focus on Sports:**
 - Sporting equipment, artificial turfs and composites, sportswear and activewear, sports footwear etc., all of these items consume technical textiles.
 - This **growing fitness and sports phenomena** presents a big opportunity for technical textiles.
- **Increased spending on defence and security:**
 - Government's **increasing focus on defence and security** has led to an increasing demand for technical textile equipment such as bullet proof jackets, high altitude clothing, gloves, shoes etc.

➤ **Initiatives Related to Technical Textile:**

- **National Technical Textile Mission:**
 - It was launched with a total outlay of USD 194 Mn in February 2020 with a view to position the country as a global leader in technical textiles.
- **Production Linked Incentive (PLI) Scheme for Textiles Sector:**
 - It aims to promote the production of high value Man-Made Fibre (MMF) fabrics, garments and technical textiles.
- **Harmonized System of Nomenclature (HSN) Codes for Technical Textile:**
 - In 2019, Government of India dedicated **207 HSN codes to technical textiles** to help in monitoring the data of import and export, in providing financial support and other incentives to manufacturers.
- **100% FDI under Automatic Route:**
 - The Government of India allows 100% **Foreign Direct Investment (FDI)** under automatic route. International technical textile manufacturers such as Ahlstrom, Johnson & Johnson etc have already initiated operations in India.

○ **Technotex India:**

- It is a flagship event organised by the Ministry of Textiles, in collaboration with **Federation of Indian Chambers of Commerce & Industry (FICCI)** and comprises **exhibitions, conferences and seminars with participation of stakeholders from across the global** technical textile value chain.

○ **Amended Technology Upgradation Fund Scheme:**

- Objective is **to improve exports and indirectly promote investments in textile machinery.**
- Under **ATUFS**, technology upgradation and CIS are offered to entities that are engaged in manufacturing textile and technical textile products under the guidance of TAMC (Technical Advisory Monitoring Committee).

Oil and Food Prices

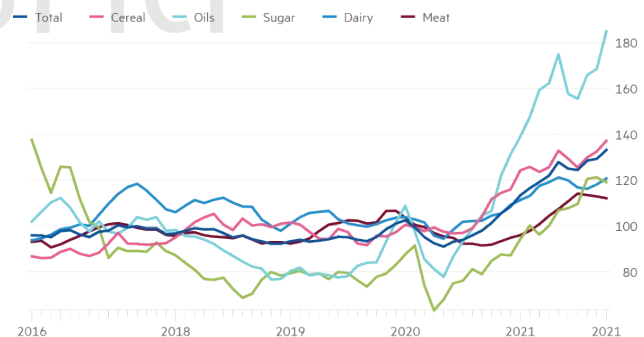
Why in News

Recently, the **United Nations Food and Agriculture Organisation (FAO)** released data showing its **world Food Price Index (FPI)** the highest since July 2011.

- Food supplies and prices are under pressure from extreme weather, disturbed supply chains, worker shortages and rising costs.

The FAO food index has surged

Nominal, 2014-2016=100



Sources: FAO, Refinitiv

Key Points

➤ **Food & Fuel Move Intandem:**

- One reason why petroleum and agri-commodity prices move in tandem is the **bio-fuels link.**
- When crude prices rise, **blending ethanol** from sugarcane and corn (maize) with petrol or diverting

Note:



palm and soybean oil for **biodiesel** production becomes that much more attractive.

- Cotton, likewise, turns relatively affordable vis-à-vis petrochemicals-based synthetic fibres.
- Also, since **corn is primarily an animal feed, its diversion to ethanol leads to substitution by other grains**, including wheat, for livestock use.
 - That, then, **pushes up prices of foodgrains as well**.
- The same happens to sugar, as mills step up the proportion of cane crushed for fermenting into alcohol.
- But it is not only the bio-fuels effect alone, **large price increases** also tend to have an effect on other farm produce through creation of positive sentiment.

➤ Economic Activity and Stimuli:

- The **positive sentiment** of the market is connected with two things:
 - The first is the **demand returning with revival of economic activity worldwide** amid receding **pandemic** cases and rising vaccination rates.
 - The second is the **liquidity infused** by the **US Federal Reserve and other global central banks**, to limit the economic damage wreaked by **Covid-19**.
 - All this money, combined with the policy-induced **ultra-low global interest rates**, has found its way into stock markets, start-up investments and also commodities.

- However, since **restoration of supply chains** hasn't kept pace with the demand recovery — manifested in **congestion at ports, shortage of shipping containers/vessels** and labourers yet to fully return to plantations — the overall result has been **inflation**.

➤ Impact on Farmers:

- Some products like Kapas (raw unginned cotton) and Soyabean are selling at prices **well above the government's Minimum Support Price (MSP)**.
- On the flip side, however, **farmers are being forced to pay much more for fuel and fertilisers**, as their international prices have shot up.

➤ Fertilizers:

- The situation is worse in fertilisers, **Di-ammonium phosphate (DAP)** is currently being imported into India at USD 800 per tonne, including cost and

ocean freight. **Muriate of potash (MOP)** is available for no less than USD 450 a tonne.

- These are close to the prices that prevailed during the world food crisis of 2007-08.
- DAP and MOP are **non-urea fertilisers**.
- Together with fertilisers, the **prices of their intermediates and raw materials such as rock phosphate, sulphur, phosphoric acid and ammonia have also skyrocketed** due to a combination of demand-pull (from higher crop plantings) and cost-push (from oil and gas).

Food Price Index

- It was **introduced in 1996** as a public good to help in monitoring developments in the global agricultural commodity markets.
- The **FAO Food Price Index (FFPI)** is a measure of the **monthly change in international prices** of a basket of food commodities.
- It **measures changes for a basket** of cereals, oilseeds, dairy products, meat and sugar.
- **Base Period: 2014-16.**

LEADS Report 2021

Why in News

Recently, the Ministry of Commerce and Industry has released the **Logistics Ease Across Different States (LEADS) Report (Index) 2021**.

Key Points

- **About:**
 - The **LEADS report** is aimed at gauging the logistics performance of **states and Union Territories (UT)** and identifying areas where they can improve logistics performance.
 - It was **launched in 2018**.
 - States are ranked based on **quality and capacity of key infrastructure** such as road, rail and warehousing as well as on **operational ease of logistics** including security of cargo, speed of terminal services and regulatory approvals.
 - The report is structured along the three dimensions which collectively influence logistics ease- **Infrastructure, Services, and Operating and Regulatory**

Note:

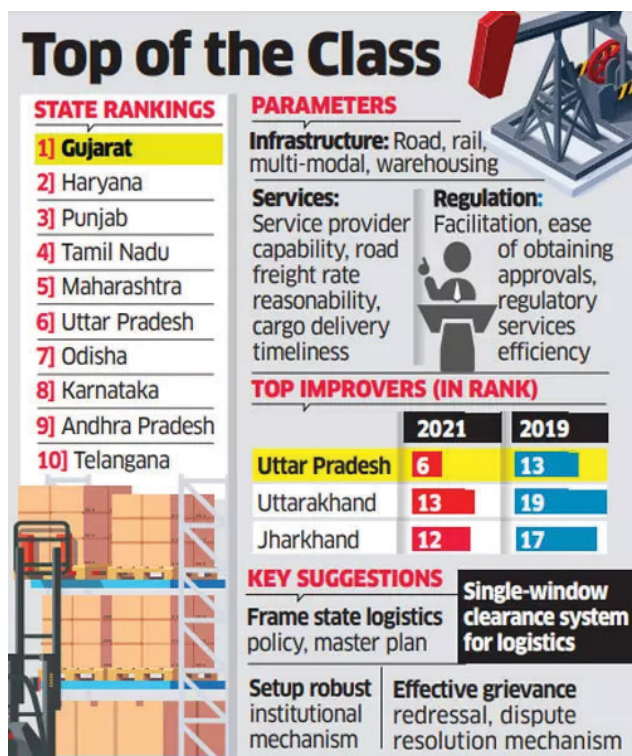
Environment which are further categorised into 17 parameters.

➤ **Need:**

- India's logistics costs account for **13-14% of Gross Domestic Product (GDP)**, compared to 7-8% in developed countries.
- The government was aiming to **bring down logistics costs by 5%** over the next 5 years.
 - Estimated **logistics costs in India are currently about 14%**, which is quite high compared to 8-10% globally.
- **Efficient logistics was pivotal** to bring ease and empowerment to businesses as well as citizens.
 - Logistics contributed immensely in our fight against **Covid-19** by taking essential supplies including liquid Medical Oxygen throughout the country during the **2nd wave**.

➤ **Ranking of States:**

- **Top Performers:**
 - **Gujarat, Haryana and Punjab** have emerged as the top performers in the LEADS 2021 index respectively.
 - This is the **third year in a row** that Gujarat remained on top of the rankings.
 - **Delhi** stands at the top rank among Other UTs.



- North Eastern States and Himalayan Region:
 - **Jammu and Kashmir** is the top ranker followed by Sikkim and Meghalaya.

➤ **Suggestion:**

- States should **frame state level logistics policy & logistics master plan**, use **single-window clearance system** for logistics, establishment of **grievance redressal mechanism** and enable skilling in logistics through **State skilling infrastructure**.

➤ **Related Initiatives:**

- **PM GatiShakti Master Plan**
- **Dedicated Freight Corridor (DFC)**
- **Sagarmala**
- **Bharatmala Pariyojana**
- **E-Way Bill Integration with FASTag, RFID**

RBI Committee on Asset Reconstruction Companies

Why in News

A **Reserve Bank of India (RBI)** committee has come out with a **host of suggestions** in a bid to streamline the functioning of **Asset Reconstruction Companies (ARCs)**.

Asset Reconstruction Companies (ARCs)

- It is a **specialized financial institution** that buys the **Non Performing Assets (NPAs)** from banks and financial institutions so that they can clean up their balance sheets.
 - A **NPA is a loan or advance** for which the principal or interest payment remained overdue for a period of 90 days.
 - Typically, ARCs buy banks' bad loans by paying a portion as cash upfront (15% as mandated by the RBI), and **issue security receipts (SRs)** for the balance (85%).
- This **helps banks to concentrate on normal banking activities**. Banks, rather than going after the defaulters by wasting their time and effort, can sell the bad assets to the ARCs at a mutually agreed value.
- The **Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002** provides the legal basis for the setting up of ARCs in India.

Note:

- The Act **helps reconstruction of bad assets** without the intervention of courts. Since then, a large number of ARCs were formed and were registered with the RBI.

➤ **RBI has got the power to regulate the ARCs.**

Key Points

➤ Background:

- The **performance of the ARCs** has so far **remained lacklustre**, both in ensuring recovery and in revival of businesses.
- Lenders could **recover only about 14.29% of the amount** owed by borrowers in respect of stressed assets sold to ARCs in the 2004-2013 period.
- To **improve the performance of ARCs**, the RBI had appointed the committee (**headed by Sudarshan Sen**) to examine the issues and recommend measures for enabling ARCs to meet the growing requirements of the financial sector.

➤ Suggestions:

- **Online Platform for Sale of Stressed Assets:**
 - Recognising the **need for transparency and uniformity of processes** in sale of stressed assets to ARCs, the Committee feels that an online platform may be created for sale of stressed assets.
- **Expanding Scope of SARFAESI Act:**
 - The **scope of Section 5 of the SARFAESI Act** may be expanded **to allow ARCs to acquire 'financial assets'**, for the purpose of reconstruction, **not only from banks and 'financial institutions' but also from such entities** as may be notified by the RBI.
 - Under these proposed powers, the RBI may consider permitting ARCs to acquire financial assets from all regulated entities, including **Alternative Investment Fund (AIFs), Foreign Portfolio Investors (FPIs), Asset Management Company (AMCs)** making investment on behalf of **Mutual Funds (MFs)** and all **Non-Banking Financial Companies (NBFCs)**.
- **Providing Additional Resources:**
 - ARCs are to **be allowed to sponsor SEBI-registered Alternative Investment Funds** to raise resources for facilitating restructuring of bad loans purchased by them.

○ Using IBC:

- Envisaging ARCs as a prime vehicle for resolution of stressed assets, the regulations **should allow ARCs to also use the Insolvency and Bankruptcy Code (IBC) framework for this purpose.**

○ Large Loans for sale to ARCs:

- **Large loans and loans that have been in default for over two years should be considered for sale to ARCs by banks. Final approval of the reserve price should be given by a high-level committee.**
 - Reserve price plays a critical role in ensuring true price discovery in auctions conducted for sale of stressed assets.

○ For Ensuring Debt Aggregation:

- The Committee has said that **if 66% of lenders (by value) decide to accept an offer by an ARC**, the same may be binding on the remaining lenders and it must be implemented within 60 days of approval by majority lenders (66%).
 - **Aggregate Debt** means the total of principal and interest that is owed by the debtor to the creditors at the time of execution of the debt settlement agreement.
- If a lender fails to agree, it will be subjected to **100% provisioning on the loan outstanding.**
 - **Provisioning of loan:** Booking a provision means that the bank recognises a loss on the loan ahead of time.

○ For NARCL:

- In respect of the proposed **National Asset Reconstruction Company Limited (NARCL)** by India for cleaning the books of Public Sector Banks (PSBs), the RBI **should ensure fair competition** between the NARCL and private ARCs to promote the objectives of true price discovery through the market mechanism.

➤ Expected Benefits:

○ Get Rid of Stressed Loans:

- The suggestions are aimed at **enabling banks to get rid of stressed loans** in the early stage of default and nudge reluctant minority lenders into joining the sale. The norms also seek to appoint valuers for large-value loans that are sold.

○ Help ARCs Raise Resources:

Note:



- The recommendations are timely and will **help ARCs raise resources by tapping different categories** of market participants eligible for investment in security receipts.
- Banks have also been incentivised for sale of **NPA (Non-Performing Asset)** early with provision to spread loss over two years.

PCA Framework Revised

Why in News

Recently, the **Reserve Bank of India (RBI)** has announced a revised **Prompt Corrective Action (PCA) framework**.

- The PCA framework **enables supervisory intervention of RBI** over Banks at an appropriate time and ensures effective market discipline.

Key Points

➤ Revised Framework:

○ Applicability:

- The framework applies to all banks operating in India, including foreign banks operating through branches or subsidiaries based on breach of risk thresholds of identified indicators.
- However, **payments banks** and **small finance banks (SFBs)** have been removed from the list of lenders where prompt corrective action can be initiated.
 - The new provisions will be effective from **January, 2022**.

○ Monitored Areas:

- **Capital, Asset Quality and Capital-To-Risk Weighted Assets Ratio (CRAR), NPA ratio, Tier-I Leverage Ratio**, will be the key areas for monitoring in the revised framework.
- However, the revised framework **excludes** return on assets as a parameter that may trigger action under the framework.

○ Invocation of PCA:

- The **breach of any risk threshold** may result in the invocation of the PCA. Stressed banks may not be allowed to expand credit/investment portfolios.

- However, they are allowed to invest in government securities/other high-quality liquid investments.

- In the **case of a default on the part of a bank** in meeting the obligations to its depositors, possible **resolution processes may be resorted to without reference to the PCA matrix**.

○ RBI's Powers:

- In governance-related actions, the RBI can supersede the board under Section 36ACA of the **Banking Regulation Act, 1949**.
- **Amendment to Section 45 of the BR Act** enables the Reserve Bank to reconstruct or amalgamate a bank, with or without implementing a moratorium, with the approval of the Central government.
- The RBI, as part of its mandatory and discretionary actions, **may also impose appropriate restrictions on capital expenditure**, other than for technological upgradation within Board approved limits, under the revised PCA.

○ Withdrawal of PCA Restrictions:

- Withdrawal of restrictions imposed will be considered **if no breaches in risk thresholds in any of the parameters are observed** as per **four continuous quarterly financial statements**.

➤ Prompt Corrective Action:

- **Background:** PCA is a framework under which banks with weak financial metrics are put under watch by the RBI.

- The RBI introduced the **PCA framework in 2002** as a structured early-intervention mechanism for banks that become undercapitalised due to poor asset quality, or vulnerable due to loss of profitability.
- The framework was reviewed in 2017 based on the recommendations of the working group of the **Financial Stability and Development Council** on Resolution Regimes for Financial Institutions in India and the Financial Sector Legislative Reforms Commission.

- **Objective:** The objective of the PCA framework is to **enable supervisory intervention at an appropriate time** and require the supervised entity to initiate and implement remedial measures in a timely manner, so as to restore its financial health.

Note:



- It aims to **check** the problem of **Non-Performing Assets (NPAs)** in the Indian banking sector.
- It is intended to **help alert the regulator as well as investors** and depositors if a bank is heading for trouble.
- The idea is to head off problems before they attain crisis proportions.
- **Audited Annual Financial Results:** A bank will generally be placed under the PCA framework based on the audited annual financial results and the ongoing supervisory assessment made by the RBI.

Non Performing Asset:

- It is a loan or advance for which the principal or interest payment remains overdue for a period of 90 days.
- Banks are required to classify NPAs further into Substandard, Doubtful and Loss assets.

Capital Adequacy Ratio (CAR):

- The CAR is a measure of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures.
- The Capital Adequacy Ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world.

Tier 1 Leverage Ratio:

- It is the **relationship between a banking organization's core capital and its total assets**.
- The tier 1 leverage ratio is **calculated by dividing tier 1 capital by a bank's average total consolidated assets** and certain off-balance sheet exposures.
 - A leverage ratio is any one of several financial measurements that assesses the ability of a company to meet its financial obligations. Some of the examples are:
 - **Equity Ratio:** This ratio indicates total owner contribution in the company.
 - **Debt Ratio:** This ratio indicates total leverage used in the company.
 - **Debt To Equity Ratio:** This ratio indicates total debt used in the business in comparison to equity.

Boosting Services Export

Why in News

Recently, the **Ministry of Commerce and Industry** announced that it is working on a plan to reach a **services export target of USD 1 trillion by 2030**. This target is nearly five times of what India exported last fiscal (FY 2020).

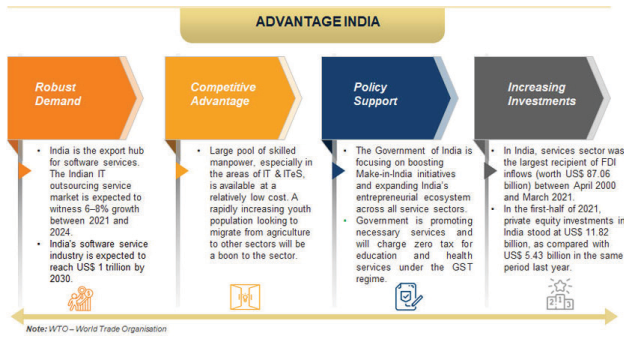
Key Points

➤ Services Sector in India:

- **Data Analysis:** India is the **world's seventh-largest services exporter**.
 - Share of the services sector accounted for **54% of the total Gross Value Added (GVA) in FY21**.
 - The services sector is a key driver of India's economic growth, providing **employment to nearly 26 million** and contributing about **40% to India's total global exports**.
 - The services sector has also been the **largest recipient of foreign direct investment**, making up for **53% of the total inflows between 2000 and 2021**.
- **Spread:** India's services sector covers a wide variety of activities such as trade, hotel and restaurants, transport, storage and communication, financing, insurance, real estate, business services, community, social and personal services, and services associated with construction.
- **Significance:**
 - Surplus in services trade has long **narrowed the often-huge deficit in India's merchandise shipments**.
 - With renewed focus and targeted government intervention, services trade surplus could rise further from as much as \$89 billion in FY21 and almost wipe out the deficit caused by merchandise exports.
 - This sector is **boosting India's transition from an 'assembly economy' to a 'knowledge-based economy'**.
 - **Skill India programme** envisages to provide adequate training in market-relevant skills to over 40 crore youth by 2022.

Note:

- **Purchasing Managers Index (PMI)** is an indicator of business activity in the manufacturing and services sectors.



➤ Plan to Boost Services Exports:

- **Diversifying Services Sector:** There is a need to boost opportunities in high-growth segments **beyond the dominant information technology and IT-enabled services (ITeS)**. For example:
 - The **opening up of the domestic legal services sector** will benefit Indian lawyers as they would get huge opportunities in countries such as Europe, Australia and America.
 - Further, the need is to **focus on promising areas like higher education, hospitality and medical tourism**.
- **FTAs in Services:** To support the services sector, the government has been actively pursuing market access opportunities via **Free-Trade Agreements (FTAs)** with key economies (including the UK, the EU, Australia and the UAE).
- **Fine Tuning SEIS Scheme:** The government is working on a programme that could replace the **Service Exports from India Scheme (SEIS)** in its current form.
 - According to the government, the services industry needs to shun the crutches of government subsidies.
 - This will encourage firms to raise competitiveness.
 - Also, the subsidy amount can be utilised for those who need it more.

Service Exports from India Scheme

- It was introduced in April 2015 for 5 Years under the Foreign Trade Policy of India 2015-2020.
 - Earlier, this Scheme was named as Served from India Scheme (SFIS Scheme) for Financial Year 2009-2014.

- Under the scheme, the government gives 3-5% incentive on net foreign exchange earned in the form of duty-credit scrips. Scrips can be used for payment of basic and additional Customs duties on goods imported.

Rising Current Account Deficit

Why in News

According to a recent report by British brokerage Barclays, India's trade deficit has been jumping continuously since July 2021. The **widening Current Account Deficit (CAD)** is driven by the massive spike in commodity prices led by crude oil.

- The CAD is **expected to reach \$45 billion or 1.4% of GDP by March 2021**. This will put pressure on the fragile economic recovery.

Key Points

- **Definition:** A current account deficit occurs **when the total value of goods and services a country imports exceeds the total value of goods and services it exports**.
 - The **balance of exports and imports of goods** is referred to as the **trade balance**. Trade Balance is a **part of 'Current Account Balance'**.
- **Factor involved in India's Current Account Deficit:**
 - **High Oil Imports:** In India, close to 85% of the oil demand is met through imports.
 - Due to this it is estimated that every \$10 per barrel rise in global crude prices will widen the trade deficit by \$12 billion or 35 bps of **Gross Domestic Product (GDP)**.
 - **High Gold Imports:** Another force driving down the foreign exchange is gold imports.
 - Recovering domestic demand and the ongoing festive season are boosting Gold imports.
 - The **World Gold Council** expects gold demand this year to surpass the 2020 levels and it expects the demand for gold to remain high given the rising wealth effects and incomes.
 - **Services, the Positive side:** The report held that the monthly services surplus has improved from an average of \$6.6 billion in 2019 to \$7 billion in 2020, and to \$8 billion in the first nine months of 2021.

Note:



- **Overall Impact:** The report ruled out an alarming situation and said that **with record high foreign reserves, there are no major risks to macro stability or balance of payments conditions.**
 - However, the widening deficit trend may continue for some time as a combination of demand recovery and rising commodity prices will continue to widen the trade deficit sharply.

Balance of Payments

- **Definition:**
 - Balance of Payments (BoP) of a country can be defined as **a systematic statement of all economic transactions of a country with the rest of the world** during a specific period usually one year.
- **Purposes of Calculation of BoP:**
 - Reveals the financial and economic status of a country.
 - Can be used as an indicator to determine whether the country's currency value is **appreciating or depreciating.**
 - Helps the Government to decide on fiscal and trade policies.
 - Provides important information to analyze and understand the economic dealings of a country with other countries.
- **Components of BoP:**
 - For preparing BoP accounts, economic transactions between a country and the rest of the world are **grouped under - Current account, Capital account and Errors and Omissions. It also shows changes in Foreign Exchange Reserves.**
 - **Current Account:** It shows export and import of visibles (also called merchandise or goods - represent trade balance) and invisibles (also called non-merchandise).
 - Invisibles include services, transfers and income.
 - **Capital Account:** It shows a capital expenditure and income for a country.
 - It gives a summary of the net flow of both private and public investment into an economy.
 - **External Commercial Borrowing (ECB), Foreign Direct Investment, Foreign Portfolio Investment,** etc form a part of capital account.
 - **Errors and Omissions:** Sometimes the balance of payments does not balance. This imbalance is

shown in the BoP as errors and omissions. It reflects the country's inability to record all international transactions accurately.

- **Changes in Foreign Exchange Reserves:** Movements in the reserves comprises **changes in the foreign currency assets held by the Reserve Bank of India (RBI) and also in Special Drawing Rights (SDR) balances.**
- Overall the BoP account can be a surplus or a deficit. If there is a deficit then **it can be bridged by taking money from the Foreign Exchange (Forex) Account.**
 - If the reserves in the forex account are falling short then this scenario is referred to as **BoP crisis.**

US Inflation and Impact on India

Why in News

Over the last few days, the **retail inflation** in the US has risen to 6.2%, the highest year-on-year jump in 3 decades. These rising prices have cornered a lot of attention, both **globally and in India.**

Key Points

- **About Inflation:**
 - **Mechanism:** It is the rate at which prices increase over a given period. Typically, in India, the inflation rate is calculated on a year-on-year basis.
 - In other words, if the inflation rate for a particular month is 10%, it means that the prices in that month were 10% more than the prices in the same month a year earlier.
 - In India, inflation is primarily **measured by two main indices — WPI (Wholesale Price Index) and CPI (Consumer Price Index)** which measure wholesale and retail-level price changes, respectively.
 - India has **adopted a flexible inflation targeting** mandate of 4 (+/-2)%.
 - **Effect of Inflation on People:** A high inflation rate erodes the purchasing power of people. Since the poor have less money to withstand fast-rising prices, high inflation hurts them the hardest.

Note:



- However, a **moderate level of inflation is required** in the economy to ensure that production is promoted.
- **Reasons for Rising Inflation in US:**
 - The Federal Reserve, the US central bank, targets an inflation rate of just 2%. Seen in that context, 6.2% inflation rate is a very sharp increase in prices.
 - Typically, inflation spikes **can be assigned to either an increase in demand or a decrease in supply.**
 - In the US, both factors are at play.
 - The **pace of economic recovery has been much faster than the supply chain recovery**, and this has worsened the mismatch between demand and supply, thus triggering a sustained price rise.
 - **Demand Side Inflation:** With the rapid rollout of the Covid-19 vaccination drive, the US economy posted a sharp recovery.
 - A part of the inflationary spike came from this unexpectedly fast recovery **in all-round demand from consumers.**
 - This recovery was **further fuelled by billions of dollars pumped by the government** to not only provide relief to consumers and those who lost their jobs, but also to stimulate demand.
 - **Supply Side Inflation:** The pandemic in 2020 **led to widespread lockdowns and disruptions not just in the US, but across the world.**
 - Companies let go of employees and sharply curtailed production.
 - In essence, the global supply chain of production hasn't resumed production on pre-pandemic levels.
 - **Inflation Globally:** While the US has seen the sharpest increase in prices, inflation has surprised policymakers across most of the major economies, be it Germany, China or Japan.
- **Inflation, Indian Perspective:**
 - **Inflation, the Pre-Pandemic Phenomena:** While most other economies were surprised by a spike in inflation in the wake of the pandemic, **India was one of those rare major economies where high inflation predates the pandemic.**
- The pandemic did make matters worse because of supply constraints even when in India demand has not yet recovered to pre-Covid levels.
- Due to this, despite India entering a **“technical” economic recession**, the RBI has not once lowered its **benchmark interest rates (repo rate)** since May 2020.
- The RBI has decided **to continue with an accommodative stance** as long as necessary to revive and sustain growth on a durable basis and continue to mitigate the impact of Covid-19 on the economy, while ensuring that inflation remains within the target going forward.
- **Core Inflation, the Worrisome Factor:** While the overall inflation average appears quite manageable at present, it is the “core” inflation that is worrying.
 - Core inflation rate is the **rate of inflation when we ignore the prices of food and fuel.**
 - It is high, and now threatens to breach the RBI's comfort zone.
 - India's inflation may worsen in light of the global increase in prices.
- **Effect of US Inflation on India:**
 - When prices increase globally, it will **lead to higher imported inflation.** In other words, **everything that India and Indians import will become costlier.**
 - High inflation in the advanced economies, especially the US, **will likely force their central banks to abandon their loose monetary policy.**
 - A tight money policy in advanced economies **would imply higher interest rates.**
 - A tight monetary policy involves increasing interest rates to constrain borrowing and to stimulate savings.
 - That will **affect the Indian economy in two broad ways.**
 - Indian firms trying to raise money outside India will find it costlier to do so.
 - The RBI will have to align its monetary policy at home by raising interest rates domestically. That, in turn, may further raise inflation because the production costs would go up.



Note:



International Relations

Highlights

- Belarus-Poland Border Crisis
- China Delivers Largest Warship to Pakistan: PNS Tughril
- India-France Defence Partnership
- Enriched Uranium Stockpile by Iran
- Italy-India Strategic Partnership in Energy Transition
- 18th India-ASEAN Summit
- India's De-Hyphenated Policy: Israel and Palestine
- Pakistan Violating Freedom of Air
- India Sweden Innovation Meet
- Delhi Declaration on Afghanistan

Belarus-Poland Border Crisis

Why in News

Recently, Belarusian and Russian paratroopers staged joint drills near the Polish and Lithuanian borders.

- It is taking place during a **standoff between Belarus and the European Union (EU)** over migrants camped in freezing forests at the frontier.

Key Points

➤ Background:

- In Belarus there were **months of protests following the August 2020 election** that gave authoritarian President Alexander Lukashenko a sixth term in office.
 - The **opposition and the West rejected the result** as a sham.
- Belarusian authorities responded to the demonstrations with a **fierce crackdown that saw more than 35,000 people arrested** and thousands beaten by police.
- The **EU and the US reacted by imposing sanctions** on the Belarus government.
- In May 2021 **Belarus forcibly diverted a passenger jet** and scrambled a warplane to arrest an opposition journalist in an act denounced by Western powers as "state piracy" (an act of piracy where the state is involved). After which the **sanctions were further strengthened**.



- The Belarus government reacted by saying he **would no longer abide by an agreement to stem illegal migration**, arguing that the EU sanctions deprived his government of funds needed to contain flows of migrants.
- And it **would stop trying to prevent undocumented migrants and refugees from reaching the EU**.
- The Belarusian **opposition has urged the EU to take even tougher measures**, including a trade embargo and a ban on transit of cargo via Belarus.
- However the **Belarus government has threatened to cut off Russian gas supplies to Europe** through pipelines over Belarus. But Russia appeared to distance itself from that threat.

➤ Current Crisis:

- Thousands of people arriving from the Middle East are camping at the border with Poland, enduring **freezing conditions**, the migrants also include women and children.
 - **Poland** is a member of the EU.
- The government in Poland is not even allowing aid organizations access to provide them with supplies. This violates **international conventions (United Nations Refugee Convention 1951)**.
 - **Poland** is ruled by the right-wing populist Law and Justice party (PiS), which is **hostile to immigrants**.

➤ Russia's Support:

- Belarus **has received strong support from its main ally, Russia**, which has helped buttress Lukashenko's government with loans and political support.
- Russia said the **migrant flows resulted from the US-led wars in Iraq and Afghanistan** and Western-

Note:

backed **Arab Spring uprisings** in the Middle East and North Africa.

- In a response to Poland's troop build-up along its border with Belarus, **Russia dispatched two strategic, long-range Tu-22M3 bombers to patrol the border region.**
- Russia has also squarely **blamed the EU for the migrant crisis**, arguing that it was the EU's refusal to accept asylum-seekers that is creating the crisis.

➤ **EU's Stand:**

- The EU has **made a strong show of solidarity with Poland, Lithuania and Latvia.** EU officials are expected to discuss **another round of sanctions against Belarus.**
- The EU has **accused Belarus of mounting a "hybrid attack"** on the bloc by flying in thousands of migrants, mainly from West Asia, and pushing them to try to cross illegally into Poland.
 - Neighbours of Belarus have **expressed concern that the crisis could escalate into a military confrontation.**
 - However, Belarus also denies encouraging the flow of migrants and said the **EU is violating migrants' rights by denying them safe passage.**

➤ **Global Reaction:**

- Western members of the **United Nation Security Council** have condemned Belarus for the escalating crisis over migrants stranded on its border with Poland.
- **The UN Refugee Agency**, and the **International Organization for Migration (IOM)** are calling for an urgent resolution of the situation and immediate and unhindered access to the EU to ensure that humanitarian assistance is provided.

China Delivers Largest Warship to Pakistan: PNS Tughril

Why in News

Recently, **China handed over the first Type 054A/P frigate (warship) to Pakistan.** It is named the PNS Tughril.

- The PNS Tughril is the **first hull of four Type 054 frigates being constructed for the Pakistan Navy.**

Key Points

➤ **Features:**

- The ship is a **technologically advanced and highly capable platform** with enormous **surface-to-surface, surface-to-air and underwater firepower**, besides extensive **surveillance potentials.**
- This warship has world-class stealth capability and **can easily dodge any radar.**
- It **also has long-range missiles** and a state-of-the-art cannon capable of firing multiple rounds in a minute.
- The warship is fitted with a state-of-the-art **Battle Management System (BMS)**, which will increase the fighting capability of the Pakistan Navy manifold.
 - BMS basically helps communicate between the radar and the interceptor missile.

➤ **Concerns for India:**

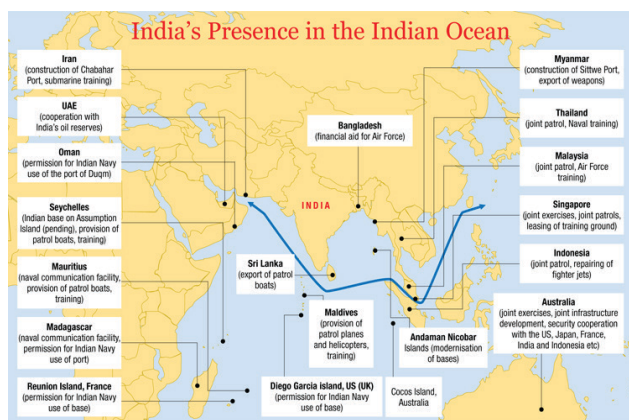
- It will **strengthen Pakistan Navy's capabilities to respond to maritime challenges to ensure seaward defence in the Indian Ocean region.**
 - It will form the mainstay of the Pakistan Navy fleet while bolstering the Pakistan Navy's maritime defence capabilities.
- Besides the advanced naval ships, **China also partners with the Pakistan Air Force to build JF-17 Thunder fighter aircraft.**
- Besides building its **first military base in Djibouti in the Horn of Africa** in the Indian Ocean, **China has acquired Pakistan's Gwadar port** in the Arabian Sea which connects with China's Xinjiang province by land in the USD 60 billion **China Pakistan Economic Corridor (CPEC).**
 - **China is also developing Sri Lanka's Hambantota port** after it acquired it on 99 years' lease.
- The modernisation of the Pakistan Navy coupled with the acquisition of the naval bases was **expected to shore up the Chinese Navy's presence in the Indian Ocean and the Arabian Sea.**

India's Rising Profile in the Indian Ocean Region

- **Various Agreements with Littoral Nations:** India has negotiated agreements with several states in the **littoral IOR to obtain military access** to their bases.
 - Such agreements, including **access to Indonesia's strategically-located deep-sea Sabang port** and **Oman's Duqm port**, enhance New Delhi's geopolitical positioning as it looks to counter **China's "string of pearls."**

Note:

- **Engagement Outside IOR:** India has engaged with powers outside of the IOR, deepening **cooperation with France and the United States through logistics agreements**,
 - This grants India **access to port facilities at the US base on Diego Garcia** (southernmost member of the **Chagos Archipelago**, in the central Indian Ocean) and the **French base on Reunion Island**.
- **Quadrilateral Dialogue:** The United States engages with India through the **informal Quadrilateral Security Dialogue**, or the **“Quad,”** which also includes Australia and Japan.
- **Paris-New Delhi-Canberra Axis:** France has called for the creation of a **“Paris-New Delhi-Canberra” axis in the Indo-Pacific**, underscoring India’s growing influence on geopolitics in the IOR.
- **Information Fusion Centre for the Indian Ocean Region (IFC-IOR):** **IFC-IOR** is established with the vision of strengthening maritime security in the region, by building a common coherent maritime situation picture and acting as a maritime information hub for the region.
- **Maritime Exercises:** India concluded an edition of its **“Malabar” naval exercise**, which included the US, Japan and Australia.
 - In 2018, India also held multilateral naval exercises called **“Milan”** in the Andaman and Nicobar Islands with 16 other countries and in the **Rim of the Pacific Exercise (RIMPAC)**, sailing alongside the Australian, Japanese, and US naval forces.
- **Naval Ships:** While India already has one commissioned carrier, the **INS Vikramaditya**, and plans to commission a second, the **INS Vikrant**, it has outlined an ambitious plan to develop a class of aircraft carriers to follow the Vikrant.



- India’s navy has further outlined plans to **procure 57 carrier-based fighter jets**, as well as modernize its submarine fleet with a **new Arihant -class of nuclear-powered attack vessels**.

India-France Defence Partnership

Why in News

Recently, at the India-France strategic dialogue, both countries resolved to expand the defence and security partnership by enhancing intelligence sharing, bolstering capabilities, expanding military drills and pursuing new initiatives in maritime, space and cyber domains.



Key Points

- **Highlights of the Dialogue:**
 - **Support to ‘Atmanirbhar Bharat’:** France reiterated its commitment to India’s vision of **“Atmanirbhar Bharat (self-reliant India)”** and defence industrialisation, joint research and technology development in India across a wide range of advanced capabilities.
 - **France’s Indo-Pacific Strategy:** France stressed its continuing commitment to the Indo-Pacific region as a **“resident power”**, and partnership with India as a **“major pillar”** of its strategy for the region.
 - Moreover, the **French Presidency of the European Union (EU)** in the first half of 2022 is expected to give a further shape to the EU’s engagement in the Indo-Pacific region.
 - A **resident power** is one that does not own territory or have a territorial presence in a particular region of the world, but is nevertheless a force to be reckoned with in the international politics of that region.

Note:

- **Significance of the Meeting:** France's reiteration to expand strategic cooperation with India has come after the unveiling of a new **security alliance (AUKUS) by Australia, the UK and the US.**
 - The unexpected announcement of the alliance, which involves building submarines for Australia, had angered the French government after Australia pulled out of a separate submarine deal with France.
 - **AUKUS** is a new trilateral security partnership for the Indo-Pacific, between Australia, the UK and the US (AUKUS).
- **India-France Strategic Relations:**
 - **Background:**
 - France was one of the first countries with which India signed a "strategic partnership" after the end of the Cold War, in January 1998.
 - France was one of the very few countries to support India's decision to test nuclear weapons in 1998.
 - **Defence Cooperation:** Both countries have a defence dialogue at the Ministerial level.
 - The three services have regular defence exercises; viz.
 - **Exercise Shakti** (Army)
 - **Exercise Varuna** (Navy)
 - **Exercise Garuda** (Air Force)
 - Recently, the Indian Air Force (IAF) has inducted **French Rafale multi-role combat aircraft.**
 - India entered into a contract with a **French firm to build six Scorpene submarines** in India's Malegaon dockyards through a technology-transfer arrangement in 2005.
 - The two countries also signed the **Agreement regarding the Provision of Reciprocal Logistics Support.**
 - This agreement will help to facilitate the replenishment of fuel, rations, spares, and berthing and maintenance for the other nations' warships, military aircraft and troops during routine port calls, as well as during **Humanitarian Assistance and Disaster Relief (HADR).**
 - **Indian Ocean, the Common Shared Interest:**
 - France needs to protect its colonial territorial possessions like reunion island and Indian ocean being the zone of influence for India.

- Recently, **France became the 23rd member of the Indian Ocean Rim Association (IORA).**
 - It is the first time that a country whose mainland is not on the Indian Ocean has been brought into the fold of the IORA.
- **Counter Terrorism:** France backed the India's proposal for a global conference on terrorism. Both the countries also support organising a new **"No Money for Terror"** - an International Conference on Fighting Terrorist Financing.
- **France Backing India:** France also continues to steadfastly back India on Kashmir while its relations with Pakistan have plummeted in the recent past and China has become an object of suspicion.

Enriched Uranium Stockpile by Iran

Why in News

- Recently, Iran's atomic agency said that **its stockpile of 20% enriched uranium** has reached over 210 kilograms.
- In April 2021, the **International Atomic Energy Agency (IAEA)** said Iran had begun the process of enriching uranium to 60% fissile purity at an above-ground nuclear plant at Natanz.
 - Under the **historic 2015 nuclear deal** between Iran and the World Powers, **Iran was not meant to enrich uranium above 3.67%.** Enriched uranium above 90% can be used for nuclear weapons.

Key Points

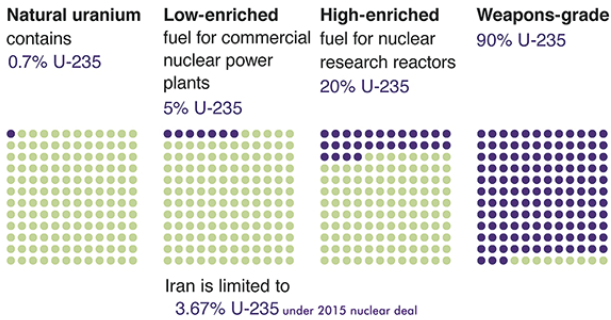
- **Uranium Enrichment:**
 - **Natural uranium** consists of two different isotopes - **nearly 99% U-238** and only around **0.7% of U-235.**
 - **U-235 is a fissile material** that can sustain a chain reaction in a nuclear reactor.
 - **Enrichment process increases the proportion of U-235** through the process of isotope separation (U-238 is separated from U-235).
 - For **nuclear weapons**, enrichment is required upto **90% or more** which is known as weapons-grade uranium.
 - **Low-enriched uranium, which typically has a 3-5% concentration of U-235,** can be used to produce fuel for commercial nuclear power plants.

Note:



Uranium enrichment process

Increasing the concentration of **U-235** atoms, by removing **U-238**, means it can be used for nuclear fuel or bombs



How much effort is required to get to weapons-grade uranium?

Very little extra effort is needed to get from 20% enriched uranium to bomb material

83.5% effort needed to reach 4% U-235 > +8.5% effort needed to reach 20% U-235 > +8% more effort to reach 90% U-235

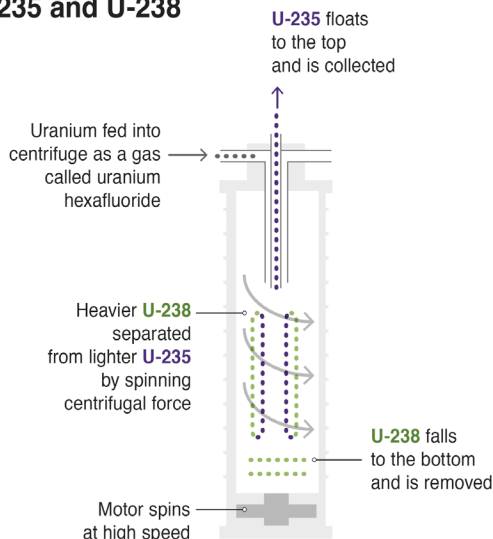


- **Highly enriched uranium has a purity of 20% or more** and is used in research reactors.

➤ Associated Concerns:

- The tricky process of enrichment becomes far easier and requires fewer centrifuges as it moves into the higher purities.
- In other words, getting to 90% purity is much easier starting from 20%, and easier still starting from 60%.

How a centrifuge separates uranium atoms, U-235 and U-238



➤ 2015 Nuclear Deal:

- In 2015, **Iran with the P5+1 group of world powers** - the USA, UK, France, China, Russia, and Germany agreed on a long-term deal on its nuclear programme.
 - The deal was named as **Joint Comprehensive Plan of Action (JCPOA)** and in common parlance as Iran Nuclear Deal.
 - Under the deal, **Iran agreed to curb its nuclear activity** in return for the lifting of sanctions and access to global trade.
 - The agreement **allowed Iran to accumulate small amounts of uranium** for research but it **banned the enrichment of uranium**, which is used to make reactor fuel and nuclear weapons.
 - Iran was also **required to redesign a heavy-water reactor being built**, whose spent fuel would contain plutonium suitable for a bomb and to allow international inspections.
- In **May 2018, the USA abandoned the deal** criticising it as flawed and reinstated and tightened its sanctions.
 - Since sanctions were tightened, **Iran has been steadily breaking some of its commitments** to pressure the remaining signatories to find a way to provide sanctions relief.
- After months of delays, the **European Union, Iran and the US** have recently announced that **indirect talks to resuscitate the deal would resume on 29th November 2021 in Vienna**.

Iran's nuclear facilities covered under the nuclear deal



Italy-India Strategic Partnership in Energy Transition

Why in News

Recently, at a bilateral meet, India and Italy released

Note:

the Joint Statement on **Italy-India Strategic Partnership in Energy Transition.**

- The two nations acknowledged significant progress in bilateral relations since the **adoption of the Action Plan for an enhanced Partnership** between India and Italy (2020 –2024) in **November 2020.**



Key Points

- **Joint Working Group:**
 - Tasked the Joint Working Group to explore cooperation in areas such as:
 - **Smart Cities;** mobility; smart-grids, electricity distribution and storage solutions.
 - Gas transportation and promoting natural gas as a bridge fuel.
 - **Integrated waste management** (waste-to-wealth).
 - Green energies (**green hydrogen;** Compressed Natural Gas (CNG) & Liquefied Natural Gas (LNG); bio-methane; bio-refinery; second-generation **bio-ethanol;** castor oil; bio-oil –waste to fuel).
 - The **Joint Working Group was established** by the Memorandum of Understanding on Cooperation in the field of Energy, signed in Delhi in **October 2017.**
- **Green Corridor Project:**
 - Consider working together to support a large size green corridor project in India to capitalize on India's target to produce and integrate **450 GW of renewable energy by 2030.**
 - The Green Energy Corridor Projects aim at **synchronizing electricity produced from renewable sources,** such as solar and wind, with conventional power stations in the grid.
- **Investments:**
 - Encourage joint investments of Indian and Italian companies in energy transition-related fields.

➤ **Sharing Information:**

- Share useful information and experiences especially **in the field of policy and regulatory framework.**
- Including possible **means to facilitate the transition to cleaner and commercially viable fuels/ technologies,** long-term grid planning, incentivizing schemes for renewables and efficiency measures, as well as with regard to financial instruments for accelerating clean energy transition.

Significance of Italy for India

- 2021 is the year of the **73rd anniversary of diplomatic relations** between India and Italy.
- India has recently been identified by Italy as **one of the top five priority countries** for internationalization of business.
- **Italy acknowledges both geopolitical and economic importance of India** and is actively trying to step up its relations to a new high, based on good diplomatic relations and economic exchanges.
- The economic importance of relations can be understood from the fact that **Italy is the eighth largest economy in the world and the third largest in the Eurozone.**
 - It is also the **world's sixth largest manufacturing nation,** dominated by small and medium enterprises clustered in many industrial districts.
 - **India,** on the other hand, is the **sixth-largest economy** and a large market for over 600 Italian companies operating in India.
- Italy has **supported India's membership** to export control regimes like the **Missile Technology Control Regime (MTCR), Wassenaar Arrangement** and the **Australia Group.**
- Italy **hosts the third largest Indian community** in the **European Union,** with an estimated 1,80,000 people, after the UK and the Netherlands. Indian labor is particularly active in the agriculture and dairy industry.
- Italy, being a part of the European Union, can **prove to be an important partner for India in the post-Brexit Europe** and can prove to be a favorable base for India companies to operate in Europe.
- The **Indo-Pacific,** at one end, is becoming the leading route for international maritime trade, and the **Mediterranean Sea,** on the other, is the natural point of arrival for ship cargo arriving from Asia.

Note:

- Acting jointly in both areas would mean promoting values such as democracy, free trade, security, and rule of law, that denote India and Italy's international behaviour, with consequences in terms of planning and policymaking.
- **2021 and 2023 will see Italy and India respectively preside over the G20** during what is expected to be a critical phase in the recovery of global economy and inter-state relations after the **Covid-19 pandemic**.
 - Recently, **Italy has joined the International Solar Alliance (ISA)**.

18th India-ASEAN Summit

Why in News

Recently, India participated in the **18th India-ASEAN Summit** at the invitation of **Brunei, the current Chair of ASEAN**.

- The **Year 2022** has been highlighted as **India-ASEAN Friendship** by the leaders.
- India-ASEAN Summit is **held every year** and provides an opportunity for India and Asean to **engage at the highest level**.

Key Points

- **ASEAN in Act East Policy:**
 - The centrality of ASEAN in **India's Act East Policy** and in India's Vision for the wider **Indo-Pacific Vision** has been underlined.
 - Welcomed the adoption of the **India-ASEAN Joint Statement** on cooperation for peace, stability and prosperity in the region, building upon the synergies between the **ASEAN Outlook for the Indo-Pacific (AOIP)** and **India's Indo-Pacific Oceans Initiative (IPOI)**.
 - Recently, India also addressed the **16th East Asia Summit**, where it **reaffirmed India's focus on a free, open and inclusive Indo-Pacific** and the principle of Asean Centrality in the region.
- **India-ASEAN Connectivity:**
 - Exchanged views on enhancing **India-ASEAN connectivity** in broadest terms including physical, digital and people to people.
 - India announced its support for establishing the **ASEAN Cultural Heritage List** to further strengthen **India-ASEAN cultural connectivity**.

Trade and Investment:

- The importance of diversification and **resilience of supply chains** for post-Covid economic recovery and in this regard, the need to revamp the **India-ASEAN Free Trade Agreement (FTA)** has been underlined.
- **Rule-Based Order:**
 - Regional and international issues of common interest and concern, including **South China Sea** and **terrorism**.
 - The importance of promoting a **rules-based order** in the region including through upholding adherence to international law, especially the **UNCLOS**.
- **Covid-19:**
 - Highlighted **India's efforts** in the fight against the **pandemic** in the region and also reiterated support for ASEAN's initiatives in this regard.
 - India has contributed medical supplies worth USD 200,000 to **ASEAN's humanitarian initiative** for Myanmar and USD 1 million for **ASEAN's Covid-19 Response Fund**.

India-ASEAN and China

- Traditionally the basis of **India-ASEAN ties** has been trade and people-to-people ties due to shared historical and cultural roots, a more recent and urgent area of convergence has been balancing China's rise.
 - Both India and ASEAN aim to **establish a rules-based security architecture for peaceful development in the region**, in contrast to China's aggressive policies.
- Like India, **several ASEAN members** such as Vietnam, the Philippines, Malaysia, and Brunei have territorial disputes with China, the China factor does form an important component of the relationship.
 - India in 2014 reinvigorated the **Look East policy into Act East**, with a more strategic outlook than its previous incarnation, **focusing on engagement not just with Southeast Asian countries but also those in the Pacific**.

Association of Southeast Asian Nations (ASEAN)

About:

- It is a **regional grouping** that promotes economic, political, and security cooperation.
- It was established in **August 1967 in Bangkok, Thailand** with the signing of the **ASEAN Declaration (Bangkok Declaration)** by the founding

Note:

fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.

- Its **chairmanship rotates annually**, based on the alphabetical order of the English names of Member States.
- ASEAN countries have a total population of 650 million people and a combined **Gross Domestic Product (GDP)** of USD 2.8 trillion. It is **India's 4th largest trading partner** with about USD 86.9 billion in trade.

➤ **Members:**

- ASEAN brings together ten Southeast Asian states – Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam – into one organisation.



ASEAN Outlook on the Indo-Pacific

- It offers an outlook to **guide cooperation in the region and enhance ASEAN's Community building process** and further strengthen the existing ASEAN-led mechanisms, such as the East Asia Summit.
- Its main objectives are helping to **promote an enabling environment for peace, stability and prosperity** in the region in **addressing common challenges**, upholding the rules-based regional architecture, and promoting closer economic cooperation, and thus strengthening confidence and trust.
- And implementing existing and **exploring other ASEAN priority areas of cooperation**, including maritime cooperation, connectivity, the **Sustainable Development Goals (SDGs)**, and economic and other possible areas of cooperation.

India's Indo-Pacific Oceans Initiative (IPOI)

- It is an **open, non-treaty based initiative for countries to work together for cooperative and collaborative solutions to common challenges** in the region. IPOI draws on existing regional architecture and mechanisms to focus on seven pillars: Maritime Security. Maritime Ecology.
- It draws on existing regional architecture and mechanisms to focus on **seven pillars**:
 - Maritime Security
 - Maritime Ecology
 - Maritime Resources
 - Capacity Building and Resource Sharing
 - Disaster Risk Reduction and Management
 - Science, Technology and Academic Cooperation
 - Trade Connectivity and Maritime Transport

India's De-Hyphenated Policy: Israel and Palestine

Why in News

Recently, on the sidelines of the **COP26 summit in Glasgow**, the Prime Minister of Palestine called for India's support to play a **stabilising role in West Asia** by maintaining cooperation with **all related parties**.

- This statement is significant in the context of India's External Affairs Minister visit to Israel, whereby he **excluded a trip to the Palestinian territory**.
- India in the recent year has been following a **dehyphenation policy** between Israel and Palestine.

Key Points

➤ **India's Policy Towards Israel and Palestine:**

- The **Israeli-Palestinian conflict** dates back to the end of the nineteenth century. It is linked to the **age-old tussle over identity and land** starting with Jerusalem.
 - In 1947, the **United Nations (UN)** adopted **Resolution 181**, known as the Partition Plan, which sought to divide the **British Mandate of Palestine into Arab and Jewish states**.
 - This led to unresolved conflict between Israel and Palestine.

Note:



Israel's boundaries today



- Traditionally, India's foreign policy towards Israel and Palestine has been a **hyphenated foreign policy**.
 - However, **hyphenating the ties with Israel – linking them to ties with the Palestinian Authority** – essentially **prevented** India from pursuing a pragmatic policy of what was in **India's best interests**.
 - In recent times, India is being seen shifted towards a **Dehyphenation of Policy**.
- **Dehyphenation of Policy:**
 - India's policy on the longest running conflict in the world **has gone from being unequivocally pro-Palestine for the first four decades, to a tense balancing act** with its three-decade-old friendly ties with Israel.
 - In recent years, India's position has also been perceived as pro-Israel.
 - In 2017, in an unprecedented move, India's PM visited **only Israel** and not Palestine.
 - Then, the recent visit of the Prime Minister to Palestine, Oman and the UAE is again a continuation of similar policy.
 - This departure from earlier policy and endorsing an independent policy towards these two rivals is called the **de-hyphenation in India's foreign policy**.
 - **It means India's relationship with Israel would stand on its own merits, independent and separate from India's relationship with the Palestinians.**

- The de-hyphenation is **actually a careful balancing act**, with India shifting from one side to another as the situation demands.
- As India moves towards **becoming a larger player in global politics and economics**, these pre-existing policies are increasingly in need of review, and de-hyphenating Israel and Palestine was a process long past its due date.
- In recent years, India has **broken the tradition of supporting Palestine at the UN**.
 - In 2019, India voted in favour of Israel at the **ECOSOC (Economic and Social Council)** to deny observer status to a Palestinian organisation named Shahed.
 - Further, India abstained during the voting on a resolution calling for investigation into Israeli actions in the Gaza Strip at the **Human Rights Council**.

➤ **Palestine Call For India:**

- India had a historic tradition of supporting the rights of the Palestinian people. Palestine wants India's technical support to be **"parallel to the political support"**.
- It wants India to reaffirm supporting the **Palestinian people's right to self-determination and the establishment of an independent State of Palestine**, with Jerusalem as its capital.

Pakistan

Violating Freedom of Air

Why in News

Recently, India has launched a direct flight between **Srinagar and Sharjah (UAE)** operated by budget airline **GoFirst (formerly known as GoAir)**. The flight was to operate through Pakistani airspace.

- However, the flight was **denied permission to enter Pakistan** and the flight had to take a longer route to reach the destination.
- This has raised the concern of **Pakistan violating the first freedom of the air**.

Key Points

- **Freedom of Air:**

Note:



- The freedom of air means a country grants airlines of a particular country the **privilege to use and/or land in another country's airspace**.
- Freedom of air rule emanates from the **Chicago Convention** in 1944.
- The signatories to the convention decided to set rules that would act as fundamental building blocks to **international commercial aviation**.
- The convention provides **Nine freedoms of air**, but only the **first five freedoms** have been officially recognized by the **International Civil Aviation Organisation (ICAO)**.
 - **First Freedom Right:** It is granted by one State to another State or States to fly across its territory without landing.
 - In the case of the GoFirst flight (Indian carrier) was using the airspace of Pakistan (the second country) and was landing in the UAE (the third country).
 - **Second Freedom Right:** The right or privilege, in respect of scheduled international air services, granted by one State to another State or States **to land** in its territory for non-traffic purposes.
 - This means an **Air India flight from New Delhi to New York can land at a British airport to get refuelled** without embarking or disembarking passengers.
 - **Third Freedom Right:** To put down, in the territory of the first State, traffic coming from the home State of the carrier.
 - **Fourth Freedom Right:** To take on, in the territory of the first State, traffic destined for the home State of the carrier.
 - **Fifth Freedom Right:** To put down and to take on, in the territory of the first State, traffic coming from or destined to a third State.

➤ **India's Options:**

- Pakistan's denial of airspace is arbitrary and against the principles laid down by the Chicago convention.
 - Earlier also, there are several such instances where Pakistan has denied access to its airspace.
- India can take up this issue with the **International Civil Aviation Organisation (ICAO)**.

International Civil Aviation Organisation:

- It is a **United Nations (UN)** specialized agency, established in 1944, which laid the foundation for

the **standards and procedures for peaceful global air navigation**.

- The **Convention on International Civil Aviation** was signed on 7th December 1944 in Chicago.
- It **established the core principles permitting international transport by air**, and also led to the creation of the ICAO.
- One of its **objectives is to foster the planning and development of international air transport** so as to ensure the safe and orderly growth of international civil aviation throughout the world.
 - India is among its 193 members.
- It is **headquartered in Montreal, Canada**.

India Sweden Innovation Meet

Why in News

On 26 October, 2021, India and Sweden celebrated the **8th Innovation Day**.

- **Theme:** Accelerating India Sweden Green Transition

Key Points

- **Green Transition:**
 - **India** is well on its way to meet and **exceed its Paris Climate commitments**.
 - **Sweden's** goal is of achieving **net-zero emissions by 2045** and negative net emissions following that.
 - India and Sweden are **together in the UN (United Nations) led industrial transition programme (Leadership Group for Industry Transition)**.
 - Both have the impacts of innovation with the **launch of Hybrit Green Steel** (with low carbon footprint), in a sector that accounts for approximately 30% of global greenhouse gas emission.
- **Science & Technology & Research and Innovation:**
 - The India Sweden innovation collaborations are **guided by the India Sweden Innovation Partnership and the Joint Action Plan (JAP)**.
 - In 2018, the JAP was signed to include smart cities, innovation, and next generation transport.
 - In addition, the Department of Biotechnology is already engaged with Swedish Partners on Incubator Connect, Digital Health Care and Global Bio India programmes, enhancing the **partnerships in the field of Biotechnology**.

Note:



➤ Call on Circular Economy:

- Both countries had a new joint call on **Circular economy** including the theme such as Health Science and Waste to Wealth.
 - Circular Economy entails markets that give incentives to reusing products, rather than scrapping them and then extracting new resources.
- Agreed to launch the new call in 2021-2022 on broad themes viz., Public health, prevention, and health promotion Organization and provision of care for the elderly.

India - Sweden Relations

➤ Political Relations:

- Diplomatic relations **were established in 1948 and steadily strengthened** over the decades.
- The **first India-Nordic Summit** (India, Sweden, Norway, Finland, Iceland and Denmark) took place in the year 2018 in Sweden.
- Sweden also participated in the First **India Nordic Baltic** (including Estonia, Latvia and Lithuania) **Conclave** co-chaired by India in November 2020.

➤ Multilateral Engagement:

- India and Sweden jointly launched the **Leadership Group on Industry Transition (LeadIT)** in association with **World Economic Forum (WEF)** at the **UN Climate Action Summit** in 2019.



- In the 1980s **India and Sweden worked together on nuclear disarmament** issues within the framework of the **'Six Nation Peace Summit'** (that also included Argentina, Greece, Mexico and Tanzania).
- At the UN General Assembly, India and Sweden present an **annual Joint Statement on Humanitarian Affairs**.
- In 2013, during the Swedish Presidency, **India joined the Arctic Council as an Observer** at the Kiruna Ministerial Meeting.

➤ Economic and Commercial relations:

- India is Sweden's **third-largest trade partner after China and Japan in Asia**.
- **Trade in goods and services** has increased from USD 3 billion (2016) to USD 4.5 billion (2019).

➤ Defence and Aerospace (Sweden-India Joint Action Plan 2018):

It highlights collaboration on space research, technology, innovation, and applications.

Delhi Declaration on Afghanistan

Why in News

Recently, the **Delhi Regional Security Dialogue** on Afghanistan was held. The meeting was composed of National Security Advisors' (NSA) of regional countries and **chaired by the Indian NSA**.

- The meeting called for **"urgent humanitarian assistance"** to the Afghan people and urged close cooperation and consultation among the regional countries over the Afghan scenario.



Note:

- This is the **third meeting** of the Regional Security Dialogue (the earlier two meetings were held in in Iran, in 2018 and 2019).

Key Points

- **Invited Participants:** Afghanistan's neighbours such as **Pakistan, Iran, Tajikistan, and Uzbekistan, Turkmenistan**, and other key players including **Russia, and China**.
- **Need:** After the **withdrawal of US forces** and the **Taliban's takeover of Afghanistan**, India is concerned about security in the region.
 - There is a possibility of terrorism spreading from the territory of Afghanistan.
- **Highlights of the Delhi Declaration:**
 - **Secure and Stable Afghanistan:** Reiterated strong support for a peaceful, secure and stable Afghanistan while emphasising the respect for sovereignty, unity and territorial integrity and non-interference in its internal affairs.
 - **Condemning Terrorism:** Committed to combat terrorism in all its forms and manifestations.
 - Urged the regional members to ensure that Afghanistan would never become a safe haven for global terrorism.
 - **Ensuring Fundamental Rights:** That is, the fundamental rights of women, children and minority communities are not violated.
 - The assistance should be provided in non-discriminatory manner across all sections of the Afghan society.
 - **Collective Cooperation:** Called for a collective co-operation against the menace of **radicalization,**

extremism, separatism and drug trafficking in the region.

- **Central Role of UN:** Recalling the relevant UN Resolutions on Afghanistan, they noted that the **United Nations' (UN)** continued presence in the country must be preserved.
 - The recent **UN Resolution 2593** reiterates the importance of combating terrorism in Afghanistan, including those individuals and entities designated pursuant to **resolution 1267**.
- **Response by the Regional Countries:**
 - **Russia** held that **multiple dialogue mechanisms "should not complicate"** the unfolding situation in the Taliban controlled Afghanistan.
 - **Pakistan and China** too were invited to participate in the consultation but both **stayed away**.
 - Moreover, there was **no representation from the erstwhile Afghan government or the Taliban**.
 - **Uzbekistan and Turkmenistan's NSAs did not mention the word terrorism** at all in their opening statements.
- **Other Afghan Peace Process Framework:**
 - **Troika Plus Meeting on Afghanistan:** The U.S.-Russia-China-Pakistan grouping on Afghanistan peace process.
 - **Moscow Format on Afghanistan:** It was set up by Russia for Peace and stability in Afghanistan in the year 2017.
 - It is a six-party mechanism. It involved Russia, India, Afghanistan, Iran, China and Pakistan.



Note:



drishti

Science and Technology

Highlights

- Kamo'oailewa
- Preserving Landraces
- Double Asteroid Redirection Test (DART) Mission: NASA
- Learning Farming Practices from World

Kamo'oailewa

Why in News

Recently, scientists have observed a **quasi-satellite named Kamo'oailewa**, tracking the Earth's orbit around the Sun, could be a fragment from the moon.

- A **mission to collect Kamo'oailewa's samples** has been scheduled for a launch in **2025**.

Key Points

- **Kamo'oailewa:**
 - **Discovered in 2016** (through the **PanSTARRS telescope in Hawaii**), Kamo'oailewa is a word that is part of a Hawaiian chant, and alludes to an offspring that travels on its own.
 - It is **one of Earth's quasi-satellites, a space rock that orbits the Sun, but remains relatively close to the planet** – in this case about **9 million miles away**.
 - The asteroid is **roughly the size of a Ferris wheel – between 150 and 190 feet in diameter**.
 - Because of its small size (about 50 metres wide), this quasi-satellite has been difficult for scientists to study, **and little was known about it so far**.
- **Findings-Three Possibilities:**
 - **Part of Earth Moon:**
 - It could have **broken away from the Moon due to a possible impact, and gone on to orbit the Sun rather than the Earth-like** its parent does.
 - Spectrum of reflected light from Kamo'oailewa closely matched lunar rocks from **Nasa's Apollo missions**, suggesting it originated from the moon.
 - It is **in an unusual orbit, one that would be unlikely for objects that had drifted towards Earth** from the **asteroid belt** between Mars and Jupiter.

- The team are unsure how the piece of moon came to be adrift in space, in part, because **there are no other known asteroids with lunar origins**. However, they narrowed down the timeframe for the violent event to have occurred between 1,00,000 and 500 years ago.

➤ Near Earth Objects:

- Captured in its Earth-like orbit from the **general population of Near Earth Objects**.

➤ Earth's Trojan Asteroids:

- It originated from an as-yet-undiscovered quasi-stable population of **Earth's Trojan asteroids** (Trojans are a group of asteroids that share an orbit with a larger planet).

Near-Earth Objects (NEOs)

- NEOs are comets and asteroids pushed by the gravitational attraction of nearby planets into orbits which allow them to enter the Earth's neighbourhood.
- These objects are composed mostly of water ice with embedded dust particles.
- NEOs occasionally approach close to the Earth as they orbit the Sun.
- NASA's Center for Near-Earth Object Study (CNEOS) determines the times and distances of these objects, when their approach to the Earth is close, through the Asteroid Watch Widget.

Preserving Landraces

Why in News

Recently, **Padma Shri award** was given to **Rahibai Popere**, popularly known as **Seedmother**, from Akole taluka of Ahmednagar, Maharashtra.

Note:



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- She was awarded for recognition of her work that **has helped save hundreds of landraces (wild varieties of commonly grown crops) at the village level.**
- Presently, farmers mainly **grow hybrid crops.**

Key Points

- **Hybrid Crops:**
 - **About:** A hybrid crop is a **result of two different varieties of plant being cross-pollinated** to create an off-spring or hybrid that contains the best traits of each of the parents.
 - With **hybrid rice and wheat**, for example, selective breeding over a period of time **has allowed scientists to develop varieties that have higher yield** or other desirable traits.
 - Over the years, **farmers have adopted these varieties.**
 - **Related Issues:** Crop improvement through selection and breeding over several decades **has narrowed the genetic base of most crops.**
 - Biodiversity allows a natural mechanism for crops to develop traits to face challenging situations.
 - However, given the **large-scale human interference** in crop selection, that ability is now lost in most commercial crops.
- **Landraces:**
 - **About:** Landraces **refer to naturally occurring variants of commonly cultivated crops.**
 - These are as **opposed to commercially grown crops**, which are developed by selective breeding (hybrids) or through **genetic engineering** to express a certain trait over others.
 - **Utility of Landraces:** Amid the threat of climate change, a challenge before scientists and policy-makers is to develop varieties that can withstand both abiotic and biotic stresses.
 - **Rich Genetic Pool:** Naturally occurring landraces have a large pool of still untapped genetic material, which can provide solutions.
 - The wider the gene pool, the more the chance of developing a trait that can help in surviving extreme climate events.
 - **Higher Yields With Proper Input:** There is a common misconception that landraces have lower yields than hybrids. However, with proper agricultural practices, landraces can give better yield with lower input costs.

- **High Nutrition Profile:** Many landraces are richer in nutrients than commercially grown variants.
- **Examples of Landraces:** Kalbhat is a unique **landrace of scented rice.**
 - Over the years, this variant had almost vanished from cultivators' fields as hybrid variants became popular.
 - It has better climate resilience than popularly grown rice and can withstand floods or drought better

Double Asteroid Redirection Test (DART) Mission: NASA

Why in News

NASA will launch its **first planetary defense test mission** named the **Double Asteroid Redirection Test (DART).**

- The DART spacecraft **will be launched on a SpaceX Falcon 9 rocket.**

Key Points

- **Aim of the Mission:**
 - The mission is to test the new technology **to be prepared in case an asteroid heads towards Earth in the future.**
 - The aim is to test the newly developed technology that **would allow a spacecraft to crash into an asteroid and change its course.**
 - After the mission has collided with the asteroid, **scientists will study its impact on the trajectory of the asteroid** with a range of telescopes deployed on different regions of the planet.
 - DART will be the **first demonstration of the kinetic impactor technique** to change the motion of an asteroid in space.
 - The target of the spacecraft is a **small moonlet called Dimorphos** (Greek for "two forms").
 - **Dimorphos** orbits a **larger asteroid named Didymos** (Greek for "twin").
 - It is a **suicide mission** and the spacecraft will be completely destroyed.
 - The collision is expected to take place **between 26th September and 1st October, 2022.**

Note:

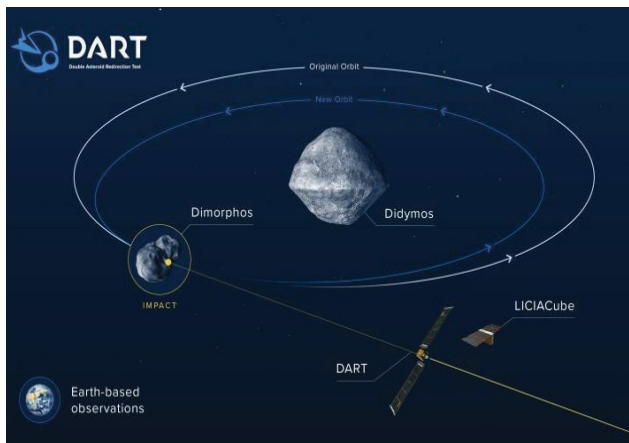


➤ About the Mission:

- DART is a **low-cost spacecraft**.
- It has **two solar arrays** and uses **hydrazine propellant** for maneuvering the spacecraft.
- It also carries about 10 kg of xenon which will be used to demonstrate the **agency's new thrusters called NASA Evolutionary Xenon Thruster–Commercial (NEXT-C)** in space.
 - **NEXT-C** gridded ion thruster system provides a combination of performance and spacecraft integration capabilities that **make it uniquely suited for deep space robotic missions**.
- The spacecraft carries a **high-resolution imager called Didymos Reconnaissance and Asteroid Camera for Optical Navigation (DRACO)**.
 - Images from DRACO will be sent to Earth in real-time and will help study the impact site and surface of Dimorphos (the target asteroid).
- DART will also carry a **small satellite or CubeSat named LICIAcube (Light Italian CubeSat for Imaging of Asteroids)**.
 - LICIAcube is expected to **capture images of the impact and the impact crater** formed as a result of the collision.

➤ Reason for Choosing Dimorphos:

- **Didymos is a perfect system** for the test mission because it is an **eclipsing binary** which means it has a **moonlet that regularly orbits the asteroid** and which can be seen when it passes in front of the main asteroid.
- **Earth-based telescopes can study this variation in brightness** to understand how long it takes Dimorphos to orbit Didymos.



Learning Farming Practices from World

Why in News

According to the recently appeared paper titled: **“Integrated farming with intercropping increases food production while reducing environmental footprint”**, small farm holders in India can grow more food and have reduced environmental footprint.

Key Points

➤ Findings of the Work:

- **“Relay Planting” Enhances Yield:**
 - Relay planting means the **planting of different crops in the same plot**, one right after another, in the same season.
 - **Example:** Small farmers in **Telangana, Karnataka and Maharashtra** are earning money out of relay farming. They plant onions, turmeric, chillies, ginger, garlic and even some native fruits, thus making profit, during these relay times.
 - It also means **better distribution of labour, insects spread less, and any legumes actually add nitrogen** to the soil.
 - However, there are **difficulties** involved in relay cropping, namely **mechanisation and the management requirements are somewhat higher**.
- **Strip Cropping was More Fruitful:**
 - Strip cropping has been used in the US (where the fields are larger than those in India), where they grow wheat, along with corn and soyabean, in the same farm in an alternative manner. However, this needs large lands.
 - In India, where there are **large fields (such as the ones owned by cities and state governments)**, the land is divided into strips, and strips of grass are left to grow between the crops.
 - Planting of trees to create shelters has helped in stabilising the desert in Western India.
- **Soil Mulching and No Till:**
 - **“Soil mulching,”** that is, available means such as crop straw, in addition to the major crop such as wheat or rice.
 - **“No-till” or a reduced tillage** increases the annual crop yield up by 15.6% to 49.9%, and decreases

Note:

the environmental footprint by 17.3%, compared with traditional monoculture cropping.

- While these **methods are not easy for small farmers in India**, they could be **practised at least in larger farms** such as the ones owned by industry and governments.
- **Soil mulching requires keeping** all bare soil covered with straw, leaves, and the like, even when the land is in use.
- Erosion is curtailed, moisture retained, and beneficial organisms, such as earthworms, kept in place. The same set of benefits are also offered by not tilling the soil.

➤ **Importance for India:**

- **Current statistics reveal** that our country has a significant population of small farmers, many owning less than 2 hectares of land.
- **About 70% of its rural households** still depend primarily on agriculture for their livelihood, with 82% of farmers being small and marginal.
- The **total production of food-grains in 2017-18** was estimated to be 275 million tons.
- Some others have pointed out that **only 30% of all farmers borrow from formal sources**.
 - The **farm loan waivers from the state governments** have been helpful in this regard.



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Note:



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Environment and Ecology

Highlights

- National Interlinking of Rivers Authority
- Ganges River Dolphin
- India to Reach Carbon Neutrality by 2070
- Glasgow Glacier: Antarctica
- World Heritage Sites & Climate Change
- Climate Change & Locust Infestations
- Mass Extinction
- Indian Flapshell Turtles
- Glasgow Leaders' Declaration on Forests and Land Use
- G20 Summit & Climate Change
- New Pledges at CoP26 Summit
- Adi Shankaracharya
- Increased Risk of Extinction: Leopards
- Mass Fish Death in Kameng River
- Global Resilience Index Initiative
- Important Terms at COP 26

National Interlinking of Rivers Authority

Why in News

The Centre Government is contemplating creation of the **National Interlinking of Rivers Authority (NIRA)**.

- NIRA is supposed to be an **independent autonomous body** for planning, investigation, financing and the implementation of the **river interlinking projects** in the country.

Key Points

- NIRA will function as an **umbrella body** for all river linking projects and to be headed by a Government of India **Secretary-rank officer**.
- It will **replace the existing National Water Development Agency (NWDA)**.
- It will coordinate with neighbouring countries and concerned states and departments and will also have powers on **issues related to environment, wildlife and forest clearances** under river linking projects and their legal aspects.
- NIRA will have the power to raise funds and act as a **repository of borrowed funds** or money received on deposit or loan given on interest.
- It will also have the power to set up a **Special Purpose Vehicle (SPV)** for individual link projects.

Inter-Linking of Rivers Programme

- **Origin of Idea:** The idea was first mooted during the British Raj when **Sir Arthur Cotton**, a British general and irrigation engineer suggested linking the Ganga and the Cauvery for navigational purposes.
- **Aim:** The **InterLinking of Rivers programme (ILR) programme** is aimed at linking different surplus rivers of the country with deficient rivers so that the excess water from surplus regions could be diverted to deficient regions.
- **Need for Such Projects:**
 - **Reducing Regional Imbalance:** India depends on monsoon rains that are erratic as well as regionally imbalanced. Interlinking of rivers will reduce the amount of surplus rain and river water which flows into the sea.
 - **Irrigation for Agriculture:** Interlinking can provide a solution to the rain-fed irrigation problems of Indian agriculture through the transfer of surplus water to deficit regions.
 - **Reducing Water Distress:** This can help in mitigating the effect of drought and floods to a certain extent.
 - **Other Benefits:** Hydropower generation, Round the year navigation, Employment generation, Ecological benefits as dried up forests and lands will be replenished.
- **Associated Challenges:**
 - **Environmental Costs:** The project threatens to obstruct the natural ecology of rivers.
 - The proposed dams could **threaten the forests of the Himalayas** and impact the functioning of the monsoon system.

Note:

- **Convention on Migratory Species (CMS):** Appendix II (migratory species that need conservation and management or would significantly benefit from international co-operation).

➤ **Steps Taken:**

- **Project Dolphin:** The Prime Minister announced the government's plan to launch a Project Dolphin in his Independence Day Speech 2020. It is on the lines of **Project Tiger**, which has helped increase the tiger population.
- **Dolphin Sanctuary: Vikramshila Ganges Dolphin Sanctuary** has been established in Bihar.
- **National Ganga River Dolphin Day:** The **National Mission for Clean Ganga** celebrates 5th October as National Ganga River Dolphin Day.
- **Conservation Plan:** The Conservation Action Plan for the Ganges River Dolphin 2010-2020, which "identified threats to Gangetic Dolphins and impact of river traffic, irrigation canals and depletion of prey-base on Dolphins populations".

India to Reach Carbon Neutrality by 2070

Why in News

Recently, India announced that it will reach **carbon neutrality by 2070** as part of a **five-point action plan** that included reducing emissions to 50% by 2030.

- India made this pledge at the **Conference of the Parties (COP) 26 climate summit in Glasgow**, where it also urged developed countries to deliver on their promise of **climate financing**.
- However, India hasn't submitted an updated **Nationally Determined Contribution (NDCs)** with these commitments to the **United Nations Framework Convention on Climate Change (UNFCCC)** yet.

Key Points.

- **About:**
 - Net Zero is a **state in which a country's total emissions are offset by absorptions of carbon dioxide** from the atmosphere, like that done by trees and forests, and physical removal of carbon dioxide through futuristic technologies.

PM MAKES FIVE PLEDGES

- 1 India will increase its non-fossil energy capacity to 500GW by 2030
- 2 India will meet 50% of its energy requirements from renewable energy by 2030
- 3 India will reduce the total projected carbon emissions by one billion tonnes from now to 2030
- 4 By 2030, India will reduce the carbon intensity of its economy by 45% (from a previous target of 35%)
- 5 By 2070, India will achieve the target of net zero

WHAT IS NET ZERO?

Net zero refers to a balance where emissions of greenhouse gases are offset by the absorption of an equivalent amount from the atmosphere. Experts see net zero targets as a critical measure to successfully tackle climate change and its devastating consequences

PLEDGES BY TOP THREE EMITTERS

- CHINA: Beijing announced no new pledges on Monday. It previously pledged net zero by 2060.
- UNITED STATES: The US touted domestic legislation to spend \$555bn to boost renewable power and electric vehicles. It has pledged net zero by 2050.
- INDIA: The country's economy will become carbon neutral by the year 2070

- More than **70 countries have promised to become Net Zero by the middle of the century**, and this is being considered vital for meeting the Paris Agreement goal of keeping global temperatures within 2 degrees Celsius from pre-industrial times.
- India's Net Zero target of 2070 silences its critics but it is along expected lines.
 - The big thing here is not the target itself but the fact that **India finally relented and decided to take up a target**, something it had been holding back on for quite some time.
 - In its climate action plan submitted under the **Paris Agreement**, India had promised to reduce its emissions intensity, or emissions per unit of **Gross Domestic Product**, by 33 to 35% by the year 2030 compared to 2005 levels.

➤ **Reducing India's Emissions:**

- India **has the lowest per capita emissions** of the world's major economies – emitting **5% of the total**, despite accounting for **17% of the world's population**.
- According to the **World Resources Institute**, India's total **greenhouse gas** emissions were about 3.3 billion tonnes in 2018.
 - It's **projected to rise above 4 billion tonnes per year by 2030**.
- That would mean between now and 2030, **India could be emitting anywhere between 35 to 40 billion tonnes** at the current rates of growth.
- Cutting 1 billion tonnes would, therefore, represent a reduction of **2.5 to 3% in its absolute emissions** in the business-as-usual scenario in the next nine years.

➤ **India's New Renewables Target:**

- In 2019 India announced that it would take up its installed capacity of **renewable energy to 450 GW by 2030**.

Note:

- At that time, India's publicly stated target was **175 GW by the year 2022.**
- The installed renewable capacity has been growing rapidly in the last few years, and the **enhancement as per it's pledge from 450 GW to 500 GW is not likely to be very challenging.**
- The **increase in the proportion of non-fossil fuel energy** in the energy mix, to 50% is a natural corollary of this.
- Most of the new capacity additions in the energy sector are being done in the renewable and non-fossil fuel space.
 - In fact, India has already said **it does not plan to start any new coal power plants after 2022.**
 - As of now, India was already targeting 40% electricity production through non-fossil fuel sources by 2030.
- **Climate Finance:**
 - India's efforts though will have to be supported by the **availability of climate finance from developed countries.** Without foreign capital, on concessional terms, this transition will prove to be difficult.
 - India **demands USD 1 trillion of climate finance as soon as possible** and will monitor not just climate action, but deliver climate finance.
 - Most importantly, India has called, once again, for a **change in lifestyles.**
- **Steps Needed to Achieve Net Zero:**
 - According to the **Council on Energy, Environment and Waters** implications of a Net-zero Target for India's Sectoral Energy Transitions and Climate Policy' study, **India's total installed solar power capacity would need to increase to over 5,600 gigawatts to achieve net-zero by 2070.**
 - The **usage of coal, especially for power generation, would need to drop by 99% by 2060,** for India to achieve net-zero by 2070.
 - Consumption of **crude oil, across sectors,** would need to peak by 2050 and **fall substantially by 90% between 2050 and 2070.**
 - **Green hydrogen** could contribute 19% of the total energy needs of the industrial sector.

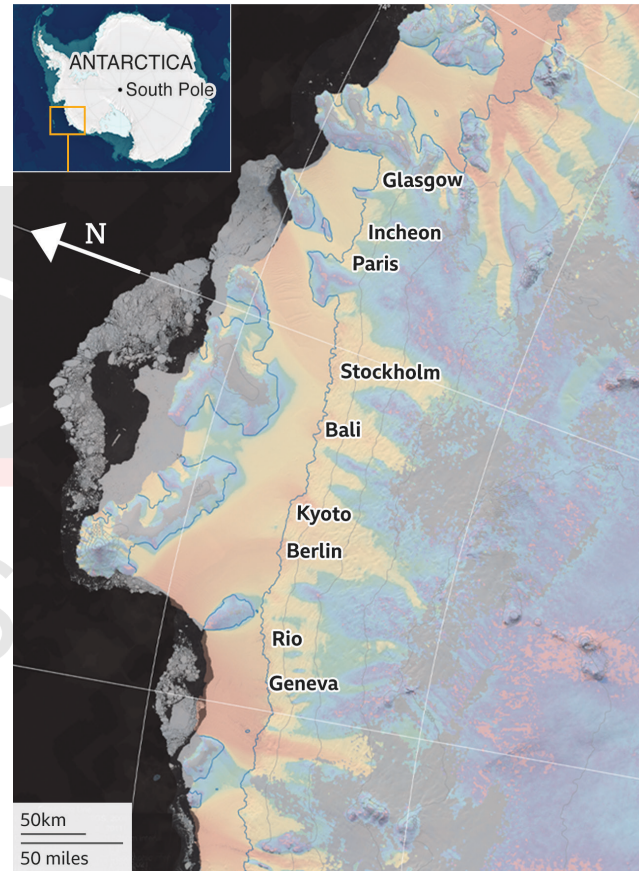
Glasgow Glacier: Antarctica

Why in News

Recently, the 100-km long body of ice in Antarctica, which has been experiencing rapid melting, was formally named Glasgow after the **Glasgow climate summit.**

- The 26th session of the **Conference of the Parties (COP 26)** to the **United Nations Framework Convention on Climate Change (UNFCCC)** is being held in **Glasgow, UK.**

Getz glaciers named after 'climate cities'



Source: British Antarctic Survey

BBC

Key Points

- **Research:** Scientists from the University of Leeds in England have **studied a chain of glaciers in the Getz basin of Antarctica.**
 - **14 glaciers** in the Getz Basin of West Antarctica are **thinning by an average of 25% between 1994 and 2018** due to climate change. The 315 gigatonnes of ice were lost from the region in the last 25 years and **contributing to rising global sea levels.**

Note:

- The Getz basin is **part of Antarctica's largest ice shelf**. The shelf is **subject to more changeable oceanic forcing** - a process where relatively warm deep ocean water melts the glaciers from below - than other Antarctic shelves.
- **Other Glaciers Named:** The eight newly named glaciers are based on:
 - **Stockholm Conference (1972):** One of the major results of the Stockholm conference was the creation of the **United Nations Environment Programme (UNEP)**.
 - **World Climate Conference, Geneva (1979):** The World Climate Conference, now usually referred to as the First World Climate Conference was held in Geneva.
 - **Rio Summit (1992):** It recommended a list of development practices called **Agenda 21**. It gave the concept of **sustainable development** to be combined economic growth with ecological responsibility.
 - **COP1 (Berlin, Germany, 1995):** The first Conference of the Parties to the **UN Framework Convention on Climate Change** (COP-1) met in Berlin in 1995.
 - **Kyoto Protocol (1997):** In Kyoto, developed countries agreed to a collective target of a 5.2% reduction in greenhouse gas emissions below 1990 levels by between 2008 and 2012.
 - **COP13 (Bali, Indonesia, 2007):** Parties agreed on the Bali Road Map and Bali action plan, which charted the way towards a post-2012 outcome.
 - **COP21 (Paris, 2015):** To keep global temperature well below 2.0C above pre-industrial times and endeavor to limit them even more to 1.5C.
 - It requires rich nations to maintain USD 100bn a year funding pledge beyond the year 2020.
 - **Incheon:** The **Green Climate Fund (GCF)** is based in Incheon, South Korea.
- **Significance:** Over the past 40 years, satellites have observed huge **iceberg calving events**, changes in the flow of glaciers and rapidly thinning ice demonstrating the devastating impact of global warming.
 - The naming of the glaciers after the locations of major climate treaties, conferences and reports is a great way to celebrate the international collaboration on climate change science and policy over the last 42 years.

World Heritage Sites & Climate Change

Why in News

The first ever scientific assessment of the amounts of **greenhouse gases** emitted from and absorbed by forests (2001-2020) in **UNESCO World Heritage sites** has found that forests in World Heritage sites **play a vital role in mitigating climate change**.

Key Points

- **Mitigating Climate Change:**
 - World Heritage sites play a vital role in mitigating climate change by **absorbing 190 million tons of CO₂ from the atmosphere each year**.
 - Carbon sequestration by world heritage forests over long periods has led to **total carbon storage of approximately 13 billion tons of carbon**.
 - If all this stored carbon were to be released into the atmosphere as CO₂, it would be akin to emitting 1.3 times the world's total annual CO₂ emissions from fossil fuels.
 - However, **ten forests released more carbon than they sequestered** due to pressure from human activity and climate change, which is alarming.
 - UNESCO under its **World Heritage Marine Programme** lists **50 sites across the globe for their unique marine values**. These represent just **one per cent of the global ocean area**. But they comprise at least **15% of global blue carbon assets**.
 - **Blue Carbon** is organic carbon that is mainly obtained from decaying plant leaves, wood, roots and animals. It is captured and stored by coastal and marine ecosystems.
 - India's **Sundarbans National Park** (60 million tonnes of carbon) is among five sites that have the highest blue carbon stocks globally.
- **Reason for High Emissions:**
 - At some sites the **clearance of land for agriculture caused emissions to be greater than sequestration**.
 - The increasing scale and severity of **wildfires**, often linked to severe periods of drought, is also a predominant factor in several cases.
 - Other extreme weather phenomena, such as **hurricanes**, contributed at certain sites.

Note:



➤ Recommendations:

○ Protection of Heritage Sites:

- **Strong and sustained protection of UNESCO World Heritage sites** and their surrounding landscapes to ensure their forests could continue to act as strong carbon sinks and stores for future generations.

○ Rapid Response:

- **Rapidly responding to climate-related events**, as well as maintaining and strengthening ecological connectivity through improved landscape management.

○ Integrated Protection:

- Integrating the continued protection of UNESCO World Heritage sites into international, national and local climate, biodiversity and sustainable development strategies.
- It should be in line with the **Paris climate agreement**, the **Post-2020 Global Biodiversity Framework and the Sustainable Development Goals**.

Sundarban National Park

- It is **located in the south-east of Kolkata in the District of West Bengal** and forms part of the Gangetic Delta.
- The Sundarbans are **mangrove forest**, on the delta of the **Ganges, Brahmaputra** and Meghna rivers on the Bay of Bengal.
- The area is **known for its wide range of fauna**. It is **home to many rare and globally threatened wildlife species** such as the estuarine crocodile, Royal Bengal **Tiger**, Water monitor lizard, **Gangetic dolphin**, and **olive ridley turtles**.

World Heritage Marine Programme

- It is a global collection of unique ocean places stretching from the tropics to the poles.
- Today, **the List includes 50 unique ocean places across 37 countries** – recognized for their **unique marine biodiversity, singular ecosystem, unique geological processes or incomparable beauty**.
- **India's Sundarban National Park** is the only listed site under this programme.

World Heritage Sites

- A World Heritage Site is a place that is **listed by UNESCO for its special cultural or physical significance**.



- The list of World Heritage Sites is maintained by the international '**World Heritage Programme**', administered by the UNESCO **World Heritage Committee**.
- This is embodied in an international treaty called the **Convention concerning the Protection of the World Cultural and Natural Heritage**, adopted by UNESCO in 1972.
- **India has 40 world heritage sites**, including 32 cultural properties, 7 natural properties and 1 mixed site. The latest one included is **Dholavira in Gujarat**.

Climate Change & Locust Infestations

Why in News

Infestation of desert locusts, which has plagued a vast swathe **from eastern Africa to India** in recent years, has been **closely linked to climate change**.

- In this context, the **Global Landscapes Forum Climate Hybrid Conference** has proposed that plans to mitigate climate change must include action against pests and diseases.
- The conference was recently held alongside the **26th Conference of Parties (CoP26)** to the **United Nations Framework Convention on Climate Change**.

Global Landscapes Forum

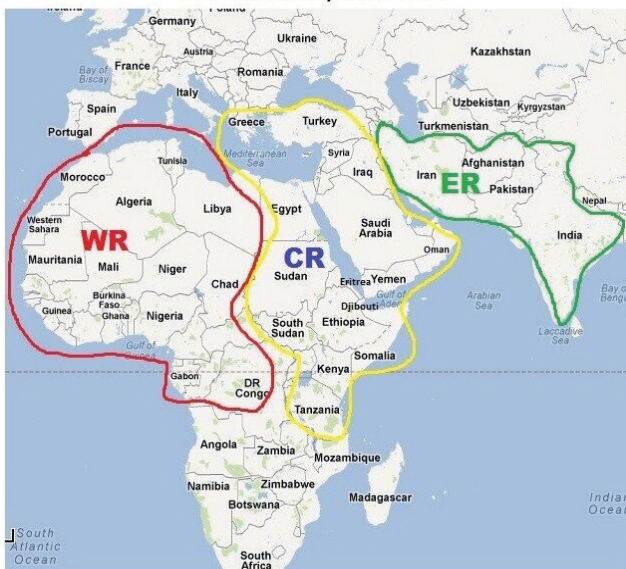
- The Global Landscapes Forum (GLF) is the world's largest knowledge-led platform on integrated land use, dedicated to achieving the **Sustainable Development Goals** and **Paris Climate Agreement**.
- It is led by the **Center for International Forestry Research (CIFOR)**, in collaboration with its co-founders **UNEP** and the **World Bank** and Charter Members.

Note:

Key Points

- **Locust Attack and its Impact:**
 - **About:** The **desert locust** (*Schistocerca gregaria*) is a short-horned grasshopper.
 - Harmless when solitary, locusts undergo a **behavioural change** when their population builds up rapidly.
 - They enter the **'gregarious phase'** by forming huge swarms that can travel up to 150 km per day, eating up every bit of greenery on their way.
 - **Impact:** Locust infestations can harm livelihoods and be a threat to regional investments in ensuring food security.
 - **According to the World Bank:** In East Africa and Yemen alone, damages and losses in 2020 due to locusts could amount to as much as \$8.5 billion.
 - **According to the World Food Program:** The long-term response and recovery costs could top \$1 billion if swarm growth is not controlled.
- **Locust Breeding and Linkage With Climate Change:**
 - **Affected Area:** Locusts have been a bane especially to farmers in several countries, including **India, Pakistan and Iran.**
 - **Effect of Climate Change:** Change in cyclonic patterns over the Arabian Sea is behind the locust invasions in east Africa, west and south Asia, in 2020.
 - Unusual rainfall in Iran helped in their breeding.
 - Locusts are known to be passive flyers and generally follow the wind.

Areas Affected By Desert Locust



- Their movement has been aided by westerly winds, which were further strengthened by the low-pressure area created by **Cyclone Amphan** (2019) in the Bay of Bengal.

➤ Pesticide is Not the Appropriate Solution:

- It said that heavy use of a **broad-spectrum pesticide may slow down the desert locust invasion** but they also exert **significant external costs on the environment and human health.**
 - They are a threat to pollinators and wildlife.
 - A broad-spectrum pesticide is a powerful pesticide that targets entire groups or species of organisms that are commonly harmful to plants.
- According to the **Food and Agriculture Organization (FAO)**, by March 2021, 1.8 million litres of pesticides were used to control locusts in East Africa. This may increase to over two million litres by the end of 2021.
 - Organophosphate pesticides such as Malathion and Chlorpyrifos, for instance, are highly toxic to humans and animals.

Mass Extinction

Why in News

Recently, a paper published in the international journal Nature Geoscience **has come up with a new reason behind the first mass extinction, also known as the Late Ordovician mass extinction.**

- It notes that the cooling climate likely changed the ocean circulation pattern. This caused a disruption in the flow of oxygen-rich water from the shallow seas to deeper oceans, leading to a mass extinction of marine creatures.

Key Points

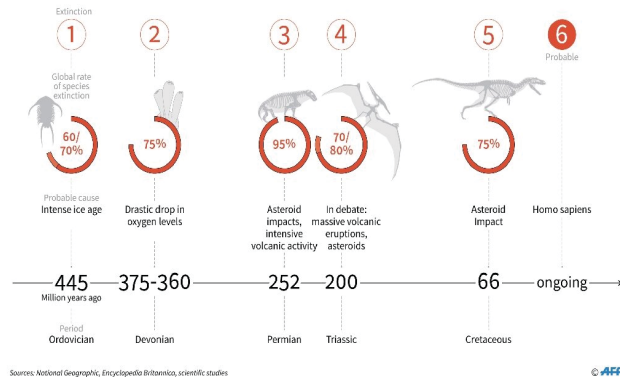
- **Mass Extinction (Meaning):**
 - A mass extinction event is **when species vanish much faster than they are replaced.**
 - This is usually **defined as about 75% of the world's species being lost in a 'short' amount of geological time - less than 2.8 million years.**
- **Mass Extinctions So Far:**
 - **First Mass Extinction:** The **Ordovician mass extinction** that occurred about 445 million years ago killed about 85% of all species.

Note:

- **Second Mass Extinction:** The **Devonian mass extinction** (about 375 million years ago) wiped out about 75% of the world's species.
- **Third Mass Extinction:** The **Permian mass extinction** (about 252 million years ago) also known as the Great Dying caused the extinction of over 95% of all species.
- **Fourth Mass Extinction:** The **Triassic mass extinction** (about 200 million years ago) eliminated about 80% of Earth's species, including some dinosaurs.
- **Fifth Mass Extinction:** This **Cretaceous mass extinction** (about 65 million years ago) is known for wiping out non-avian dinosaurs.

Earth's "mass extinctions"

During the last 500 million years, Earth has experienced five periods when at least half the living creatures were wiped out



➤ About the Latest Findings:

- **New Explanations:** There have been several theories behind each mass extinction and with advances in new technologies, researchers have been uncovering more intricate details about these events.
- **Traditional Thought:** For decades, the prevailing school of thought was that **volcanism-induced global warming** causes the oceans to lose oxygen and thus impact marine habitability, potentially destabilising the entire ecosystem.
- **New School of Thought:** In recent years, mounting evidence points to several episodes in the Earth's history when **oxygen levels also dropped in cooling climates**.
 - Ordovician climate and marine biogeochemical cycles during that period showed "seafloor and upper-ocean oxygenation in response to ongoing global cooling."
 - This led to **deep-sea anoxia affecting ocean circulation**.

- Thus, the paper concludes that **climate cooling may have led to changes in nutrient cycling, primary producer communities** which ultimately drove the Late Ordovician mass extinction.

➤ Ongoing Sixth Mass Extinction and Impact:

○ Sixth Mass Extinction:

- Some researchers have pointed out that we are currently experiencing a **sixth mass extinction** as the result of human-induced climate change (referred to as the **Anthropocene extinction**).
 - Currently, only an **estimated 2% of all of the species** that ever lived are alive but the absolute number of species is greater than ever before.
- It is described as the most serious environmental problem since the **loss of species will be permanent**.
 - The loss of species has been occurring since human ancestors developed agriculture over 11,000 years ago. Since then, the human population has increased from about 1 million to 7.7 billion.

○ Possible Impact:

- The extinction of the species causes tangible impact such as in the form of a loss in crop pollination and water purification.
- Further, if a species has a specific function in an ecosystem, the loss can lead to consequences for other species by impacting the food chain.
- The effects of extinction are expected to worsen the genetic and cultural variability which would change entire ecosystems.
 - When genetic variability and resilience is reduced, its contribution to human welfare may be lost.

Indian Flapshell Turtles

Why in News

Recently, forest officials from Odisha found **40 Indian flapshell turtles** in baskets in an alleged smuggling racket.

Key Points

➤ About:

- The **Indian flapshell turtle** is a **freshwater species of turtle** and is found in many states.

Note:





- The “flap-shelled” name stems from the presence of femoral flaps located on the plastron. These flaps of skin cover the limbs when they retract into the shell.
- It is a **relatively small soft-shell turtle** with a carapace length of up to 350 millimetres.
- **Scientific Name:** *Lissemys punctata*
- **Distribution:**
 - They are found in **Pakistan, India, Sri Lanka, Nepal, Bangladesh (Indus and Ganges drainages), and Myanmar** (Irrawaddy and Salween Rivers).
 - They live in the **shallow, quiet, often stagnant waters** of rivers, streams, marshes, ponds, lakes and irrigation canals, and tanks.
 - These turtles prefer waters with sand or mud bottoms because of their tendency to burrow.
- **Conservation Status:**
 - **IUCN Red List:** Vulnerable
 - **CITES:** Appendix II
 - **Wildlife (Protection) Act, 1972:** Schedule I
- **Threats:**
 - Turtles are **smuggled and killed** for their supposed aphrodisiac properties, livestock feed, to make leather from their skins, to make potions from their blood and to use as fishing bait.
 - Turtles are also used for meat and medicines.
- **Steps Taken for Conservation:**
 - **KURMA App:**
 - It has a **built-in digital field guide** covering 29 species of freshwater turtles and tortoises of India.

- It was developed by the **Indian Turtle Conservation Action Network (ITCAN)** in collaboration with the Turtle Survival Alliance-India and Wildlife Conservation Society-India.
- **World Turtle Day** is observed every year on **23rd May**.

Glasgow Leaders' Declaration on Forests and Land Use

Why in News

Recently, an ambitious declaration was initiated by the United Kingdom to “**halt deforestation**” and **land degradation by 2030**.

- It is being referred to as the **Glasgow Leaders' Declaration on Forests and Land Use**.
- **India did not sign** this, as it objected to “trade” being interlinked to **climate change** and forest issues in the agreement.

Key Points

➤ About the Declaration:

- **Integrated Approach:** The declaration recognises that to meet our land use, climate, biodiversity and sustainable development goals, both globally and nationally will require **transformative further action in the interconnected areas**:
 - Sustainable production and consumption.
 - Infrastructure development; trade; finance and investment.
 - Support for smallholders, Indigenous Peoples, and local communities, who depend on forests for their livelihoods and have a key role in their stewardship.
 - To help achieve a **balance between anthropogenic greenhouse gas emissions and removal by sinks**; to adapt to climate change; and to maintain other **ecosystem services**.
- **Signatories:** The declaration has over **105 signatories including the UK, US, Russia and China**.
 - These countries represent **75% of global trade and 85% of global forests** in key commodities that can threaten forests – such as palm oil, cocoa and soya.
 - They have also committed **USD 12 billion in public funds from 2021-25**.

Note:

- **Commitment to Multilateral Agreement:** It reaffirmed respective commitments to the **UN Framework Convention on Climate Change** and the **Paris Agreement**, the **Convention on Biological Diversity**, the **UN Convention to Combat Desertification**, the **Sustainable Development Goals**; and other relevant initiatives.

➤ **Major Highlights of the Declaration:**

- **Conservation:** Conserve forests and other terrestrial ecosystems and accelerate their restoration.
- **Sustainable Development:** Facilitate trade and development policies, internationally and domestically, that promote **sustainable development**, and sustainable commodity production and consumption.
- **Building Resilience:** Reduce vulnerability, build resilience and enhance rural livelihoods, including through empowering local communities.
- **Recognising Indigenous Rights:** The development of profitable, sustainable agriculture, and recognition of the multiple values of forests, while recognising the rights of Indigenous.
- **Financial Commitments:** Reaffirm international financial commitments and significantly increase finance and investment from a wide variety of public and private sources.

➤ **India's Stand:**

- **India, Argentina, Mexico, Saudi Arabia and South Africa** are the only **G20** countries that did not sign the declaration.
- The **declaration interlinks trade to climate change and forest issues**. Trade falls under the **World Trade Organization** and should not be brought under climate change declarations.
- India and others had **asked the word "trade" to be removed**, but the demand was not accepted. Therefore they didn't sign the declaration.
 - The **issue of deforestation in India is a hotly contested one**. The **government has repeatedly said that the tree cover and forest cover in India have increased** over the past few years.
 - However, **environmentalists have long pointed out that the government is busy diluting existing environmental protections** to open them up for mining and other infrastructure projects that will alter the forests, wildlife, and the people living around it forever.

G20 Summit & Climate Change

Why in News

In the recently concluded **G20 summit**, the leaders made a commitment to reach carbon neutrality by or around mid-century.

- They have adopted the **Rome Declaration** (the **current presidency** of G20 countries is **being held by Italy**).
- Earlier, the **G20 Climate Risk Atlas** was released which provides climate scenarios, information, data and future changes in climate across the G20 countries.

Key Points

➤ **Highlights of the Declaration:**

- **Roadmap for COP 26:** It urged leaders of the world's biggest economies to put their action plans to tackle the global climate change crisis.
 - This is a significant step in the context of the upcoming **UN climate conference (COP 26)** in Glasgow, Scotland.
- **Restricting Aid to Coal Based Plants:** It included a pledge to **halt financing of overseas coal-fired power generation** by the end of this year (2021).
- **PPP Model of Finance Mobilisation:** **Public-Private Partnerships (PPP)** are the only way to achieve the trillions of dollars in annual investment needed to transition to **clean, sustainable energy sources** that will mitigate the warming of global temperatures.

➤ **Declaration by India:**

- **Addressing Vaccine Inequality:** Underlining the need to address vaccine inequity across the world, India is ready to produce over **5 billion vaccine doses by the end of next year (2022)**.
 - India also emphasised on vaccine research, manufacturing and innovation.
- **One Earth One Health:** The vision of "One Earth One Health", or the need for a collaborative approach in the international domain in the fight against the pandemic.
- **Resilient Global Supply Chains:** India highlighted the need for resilient global supply chains and invited G-20 countries to make India their partner in economic recovery and supply chain diversification.
- **Support for Global Minimum Tax:** India also lauded the G-20's decision to come up with a **15-percent**

Note:



minimum corporate tax to make the global financial architecture “more just and fair”.

- **Welcoming Indo-Pacific Strategy:** India welcomed the European Union’s **Indo-Pacific strategy** and French leadership in it.
- **Associated Concerns:**
 - **Half-Hearted Steps:** The statement contained few concrete actions and made **no reference to a specific 2050 date to achieve net-zero carbon emission**.
 - Moreover, the statement removed references in a previous draft to the target to “reduce emissions significantly”.
 - **No target for Phasing Out Coal:** It set no target for phasing out coal domestically, a clear nod to top carbon polluters China and India.
 - For example, China has not set an end date for building domestic coal plants at home.
 - Coal is still China’s main source of power generation, and both China and India have resisted attempts for a G-20 declaration on phasing out domestic coal consumption.
 - **No resolution on Vaccine Patent Waiver:** It did not touch upon the dispute over **vaccine patent waivers**.
 - **Pressing India’s developmental Imperative:** Climate negotiators from the US, EU and UK had made a number of visits to India over the past few months, pressing for India to update its **Nationally Determined Contributions (NDCs)** to include its target of 450 GW of renewable energy by 2030.

G20

➤ About:

- It is an **informal group of 19 countries and the European Union (EU)**, with representatives of the **International Monetary Fund** and the **World Bank**.
 - It **does not have a permanent secretariat or Headquarters**.
- The membership comprises a mix of the world’s largest advanced and emerging economies, representing about two-thirds of the world’s population, 85% of global **gross domestic product**, 80% of global investment and over 75% of global trade.

➤ Members:

- Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the EU.

New Pledges at CoP26 Summit

Why in News

Recently, leaders at the **CoP26 global climate conference in Glasgow** have pledged to **stop deforestation** by the end of the decade and slash emissions of **methane** to help slow **climate change**.

- Earlier, India announced that it will reach **carbon neutrality by 2070 as part of a five-point action plan** that included reducing emissions to 50% by 2030.

Key Points

➤ Methane Pledge:

- The **European Union (EU)** and the US have launched a landmark **pledge to slash emissions of the powerful greenhouse gas methane**, a commitment that could prevent 0.2 degrees Celsius of global warming.
- The alliance’s members will seek to lower global emissions of methane - the second-largest contributor to climate change after carbon dioxide - by 30% below 2020 levels by 2030.
- Besides the EU and the US, **more than 103 countries have signed up so far**, including major methane emitters like Nigeria and Pakistan.
 - The **Global Methane Pledge (US)**, first announced in September 2021, now covers emissions from two-thirds of the global economy.
 - **China, Russia and India - have not signed up**, while Australia has said it will not back the pledge.

➤ Deforestation Pledge:

- More than **100 national leaders pledged to halt and reverse deforestation and land degradation** by the end of the decade, underpinned by USD 19 billion in public and private funds to invest in protecting and restoring forests.
 - In 2020, the **world lost 258,000 sq km of forest** — an area larger than the United Kingdom, according to WRI’s Global Forest Watch.

Note:

Methane: A Concern

- Methane is more **short-lived in the atmosphere than carbon dioxide but 80 times more potent** in warming the earth.
 - Humanity has also boosted the **greenhouse gases** in the atmosphere by hacking away at the forests that absorb roughly 30% of carbon dioxide emissions, according to the nonprofit **World Resources Institute**.
 - Human sources of methane include landfills, oil and natural gas systems, agricultural activities, coal mining, wastewater treatment, and certain industrial processes.
- The agreement vastly expands a commitment made by 40 countries as part of the 2014 **New York Declaration of Forests, and promises more resources**.
- **Call for Climate Finance:**
 - India noted that **climate finance** cannot continue at the levels decided in 2009 (100 billion USD), and emphasised that it **should be at least USD 1 trillion to meet the goals of addressing climate change**.
 - India underlined the unity and strength of **Like-Minded Developing Countries (LMDC)** as fundamental in the **UNFCCC (United Nations Framework Convention on Climate Change)** negotiations.
 - To **preserve the interest of the Global South in the fight against climate change**, India highlighted that **recognition of the current challenges** being faced by developing countries required intensified multilateral cooperation, not intensified global economic and geopolitical competition and trade wars.
 - India requested the LMDC members to join hands with India to support the global initiatives it has pioneered, including the **International Solar Alliance (ISA)**, **Coalition for Disaster Resilient Infrastructure (CDRI)** and the **Leadership Group for Industry Transition (LeadIT)**.
 - **Infrastructure for Resilient Island States:**
 - India launched this initiative as a **part of the CDRI** that would **focus on building capacity**, having pilot projects, especially in small island developing states.
 - Small Island Developing States or SIDS face the biggest threat from climate change, India's space agency **ISRO** will build a special data window

for them to provide them timely information about cyclones, coral-reef monitoring, coast-line monitoring etc. through satellite.

- **One Sun One World One Grid Group (OSOWOG) Launched:**

- It is an **initiative by India and the United Kingdom** to tap solar energy and have it travel seamlessly across borders.
- It includes a group of governments called the **Green Grids Initiative (GGI) - One Sun One World One Grid group**.
 - The aim of GGI is to help achieve the pace and scale of reforms to infrastructure and market structures needed to underpin the global energy transition.
- It **has the potential to be a modern engineering marvel, and a catalyst for greatly expanding renewable electricity generation, and effectively mitigating climate change** in the next decade.
- According to the ISA's concept note on OSOWOG, the global solar grid **will be implemented in three phases**.
 - In the first phase, the **'Indian Grid' will interconnect with the Middle East, South Asia and Southeast Asia grids** to share solar and other renewable energy resources for meeting electricity needs, including during peak demand.
 - It will then be **interconnected with the African power pools** in the second phase.
 - The **third phase would cover global inter-connection** of the power transmission grid to achieve the OSOWOG's vision.

Adi Shankaracharya

Why in News

Recently, the Prime Minister has unveiled a **12-foot statue of Adi Shankaracharya at Kedarnath (Uttarakhand)**.

Key Points

- **About:**
 - Known as **Adi Shankara**, born 11th May 788 AD, at Kaladi near Kochi, Kerala.
 - Took Samadhi at the age of 33, at Kedar tirth.
 - He was a devotee of Shiva.

Note:



- Propounded the **Doctrine of Advaita (Monism)** and wrote many commentaries on the Vedic canon (Upanishads, Brahma Sutras and Bhagavad Gita) in Sanskrit.
- He was opposed to **Buddhist philosophers**.
- **Major Work:**
 - Brahmasutrabhasya (Bhashya or commentary on the Brahma Sutra).
 - Bhaja Govindam Stotra.
 - Nirvana Shatakam.
 - Prakaran Granths.
- **Other Contributions:**
 - Was **responsible for reviving Hinduism in India** to a great extent when Buddhism was gaining popularity.
 - Established four Mathas in the four corners of India at **Shingeri, Puri, Dwaraka and Badrinath— for propagation of Sanathana Dharma**.
- **Advaita Vedanta:**
 - It articulates a philosophical position of radical nondualism, a revisionary worldview which it derives from the ancient Upanishadic texts.
 - According to Advaita Vedantins, the Upanishads reveal a fundamental principle of nonduality termed 'brahman', which is the reality of all things.
 - Advaitins understand **brahman as transcending individuality and empirical plurality**. They seek to establish that **the essential core of one's self (atman) is brahman**.
 - The fundamental thrust of Advaita Vedanta is that the atman is pure non-intentional consciousness.
 - It is one without a second, nondual, infinite existence, and numerically identical with brahman.

Increased Risk of Extinction: Leopards

Why in News

According to a study published in the journal Global Ecology and Biogeography, the **leopard faces an 83% increased risk of extinction in North India due to roadkill**.

Key Points

- **Findings of the Study:**
 - The **leopard population of North India is at highest risk** among four animal populations identified as being the **most vulnerable to extinction in the next 50 years** if observed roadkill levels persist.
 - Leopard is **followed by the maned wolf and the little spotted cat**, both of Brazil, and the brown hyena of southern Africa.
 - At an **83% increased risk**, the study estimates the time to the North Indian leopard **population's extinction at 33 years**.
 - Other populations found highly vulnerable include the **lion-tailed macaque (Macaca silenus)** and **sloth bear (Melursus ursinus)** in South India.
 - The study **brings attention to Sub-Saharan Africa and south-eastern Asia as regions where roads can lead to loss of mammalian biodiversity** and thus, areas where future road development and road mitigation need to be carefully considered.

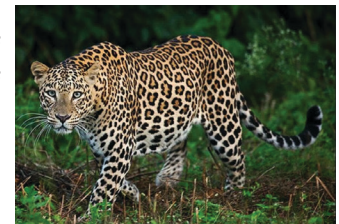
VULNERABLE TO EXTINCTION DUE TO ROADKILL

Species, location	Population road-killed	Probability of extinction	Time to extinction
Leopard, North India (<i>Panthera pardus</i>)	19.4%	83%	33 years
Maned wolf, Brazil	36.4%	34%	30 years
Little spotted cat, Brazil	20-37%	0-75%	0-36 years
Brown hyena, Southern Africa	6-43%	3-100%	0-21 years

OTHER SPECIES VULNERABLE TO ROADKILL

Lion-tailed macaque (South India), sloth bear (South India), Amur tiger, Goa antelope (Tibet), wild yak (Tibet), Iberian lynx, African lion

- **Leopard:**
 - **Scientific Name:** *Panthera pardus*
 - **About:**
 - The leopard is the **smallest of the Big Cats (Of genus Panthera namely the Tiger, Lion, Jaguar, Leopard, and Snow Leopard)**, and known for its ability to adapt in a variety of habitats.
 - A nocturnal animal, the **leopard hunts by night**.
 - It **feeds on smaller species of herbivores** found in its range, such as the **chital, hog deer and wild boar**.



Note:

- **Melanism** is a common occurrence in leopards, wherein the entire skin of the animal is black in colour, including its spots.
 - A melanistic leopard is often called **black panther** or jaguar, and mistakenly thought to be a different species.
- **Habitat:**
 - It occurs in a wide range in **sub-Saharan Africa**, in **small parts of Western and Central Asia**, on the **Indian subcontinent** to Southeast and East Asia.
 - The **Indian leopard (*Panthera pardus fusca*)** is a leopard widely distributed on the Indian subcontinent.
- **Population in India:**
 - As per a recent report '**Status of leopards in India, 2018**' released by the Ministry of Environment, Forest and Climate Change, there has been a **"60% increase in the population count of leopards in India from 2014 estimates"**.
 - The 2014 estimates placed the population of leopards at nearly 8,000 which has increased to 12,852.
 - The **largest number of leopards have been estimated in Madhya Pradesh** (3,421) followed by Karnataka (1,783) and Maharashtra (1,690).
- **Threats:**
 - Poaching for the illegal trade of skins and body parts.
 - Habitat loss and fragmentation
 - Human-Leopard conflict
- **Conservation Status:**
 - **IUCN Red List:** Vulnerable
 - **CITES:** Appendix-I
 - **Indian Wildlife (Protection) Act, 1972:** Schedule-I

Mass Fish Death in Kameng River

Why in News

Recently, the landslides caused by an earthquake of 3.4 magnitude close to the border with China has led to mass fish death in the **Kameng river in Arunachal Pradesh**.

- The region has been placed into **Seismic Zone V**, thus most vulnerable to earthquakes.



Key Points

- **About:**
 - The **earthquake** happened in the vicinity of the source of the river at an elevation of about 6,300 metres above Mean Sea Level.
 - The **landslides dumped several tonnes of mud and rocks** into the river, substantially reducing the flow of water.
 - The river **turned blackish due to very high turbidity** resulting in **low dissolved oxygen** that killed the fish.
 - Low dissolved oxygen concentrations **can arise through** natural phenomena that include seasonality, changes in river flow, and both saline and thermal stratification of the water column.
 - Low dissolved oxygen levels can also indicate an **excessive demand on the oxygen** in the system.
- **Kameng River:**
 - It originates in **Tawang district** from the glacial lake below snow-capped **Gori Chen mountain** on the India-Tibet border.
 - **Kameng is not a transboundary river.**
 - It flows through Bhalukpong circle of **West Kameng District, Arunachal Pradesh** and **Sonitpur District of Assam**.
 - It becomes a braided river in its lower reaches and is one of the **major tributaries of the Brahmaputra River**.
 - It joins Brahmaputra river at Tezpur, just east of the **Kolia Bhomora Setu bridge, Assam**.
 - It forms the boundary between East Kameng District and West Kameng Districts.
 - It also forms the boundary between the **Sessa and Eaglenest sanctuaries** to its west (Arunachal Pradesh) and the **Pakke tiger reserve** to the east (Arunachal Pradesh).

Note:

- The **Dafla Hills** are east and the **Aka Hills** are located west of the Kameng River.
- **Tributaries:** Tippi, Tenga, Bichom and Dirang Chu.
- **Historical Significance:**
 - During the medieval period i.e. between 13th to early 16th century, it marked the **borders between the Chutiya kingdom and the Kamata kingdom**.
 - Later, in the 16th century, after the annexation of the Chutiya kingdom by the Ahoms and the downfall of Kamata kingdom, it acted as the border between the **Ahom kingdom** and **Baro-Bhuyan rule**.
 - The **Chutiya Kingdom (also Sadiya)** was a late medieval state that developed around Sadiya in present Assam and adjoining areas in Arunachal Pradesh.
 - The **Kamata Kingdom** emerged in western Kamarupa probably when Sandhya, a ruler of Kamarupanagara, moved his capital west to Kamatapur sometime after 1257 CE.
 - (i) Kamarupa is an ancient state corresponding roughly to what is now the state of Assam.
 - **Sukapha** was a 13th-century ruler who **founded the Ahom kingdom** that ruled Assam for six centuries.
 - The **Baro-Bhuyans** refers to the confederacies of soldier-landowners in Assam and Bengal in late middle age and early modern period.

Global Resilience Index Initiative

Why in News

Recently, a global coalition of ten organisations launched the **Global Resilience Index Initiative (GRII)**.

Key Points

- **About:**
 - It was launched during the **Conference of Parties (CoP) 26** adaptation day (8th November 2021), it will be the **world's first curated, open-source reference index**.
 - It has been launched **to build a universal model for assessing resilience to climate risks**.

- It will **provide reference data on climate and natural hazard risks** to inform and protect populations and economies, particularly in emerging and developing countries, form a basis for mobilising the trillions of investment needed to meet the **Paris goals** on climate-resilient development.
- It **can be used in aggregated risk management** across sectors and geographies.
- **Goal:** The coalition wants to achieve two immediate goals.
 - First, they want **to provide global open reference risk data** developed using insurance risk modelling principles.
 - Second, they want **to provide shared standards and facilities applicable to a wide range of uses:**
 - **Corporate climate risk disclosure.**
 - National adaptation planning and reporting.
 - Planning of pre-arranged humanitarian finance.
- **Partners & Supporters:** GRII has been initiated with partial funding and in-kind contributions from the insurance sector and partner institutions such as:
 - **Coalition for Disaster Resilient Infrastructure (CDRI)**
 - Coalition for Climate Resilient Investment (CCRI)
- **Need:**
 - Natural **catastrophes cost nearly USD 200 billion globally in 2020**. Since 1970, over 2 million people have died in climate-related disasters; 9 out of every 10 in developing countries.
 - **Almost every country has felt the harsh impact of climate change** in recent years in some form or another.
 - Systems and economies resilient to climate disruption **can save millions of lives and livelihoods**.
- **Significance:**
 - The outcomes of this risk analysis **will help close the insurance protection gap and direct investment and aid to where they are needed the most**.
 - It will **help global economic sectors** understand, in concrete terms, the value of building climate resilience and the costs of doing nothing, this **will address the data emergency that is contributing to the climate crisis**.
 - It will **enable asset owners to compare portfolio risks** across geographies and hazards, as well as helping countries to prioritise **national adaptation investments**.

Note:

Important Terms at COP 26

Why in News

Recently, five terms came up frequently at the 26th session of the Conference of Parties to the United Nation Framework Convention on Climate Change, or COP26.

Important Terms

NET ZERO

Amount of greenhouse gases (the ones that cause the Earth to heat up) released in the atmosphere



Amount of these gases removed from atmosphere, through processes like photosynthesis, or physical removal using futuristic tech

- At Glasgow meet, PM Modi pledged Net Zero for India by 2070

MITIGATION

Refers to the reduction of greenhouse gases — the only way the rise in global temperatures can be halted in the long term

- At Glasgow meet, one of the main discussions was to increase the ambition of mitigation actions



ADAPTATION

All the ways in which human beings, and others, need to adapt to climate change and extreme weather patterns — making agriculture resilient, flood defences, etc

- At Glasgow meet, developed countries were asked to at least double their contribution for adaptation efforts in the developing world

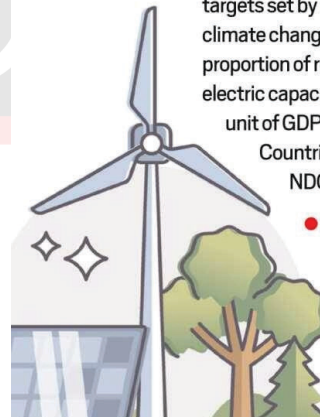


NDCs

Nationally Determined Contributions or targets set by individual countries to fight climate change. India's NDC: increasing proportion of renewable energy in installed electric capacity, decreasing emissions per unit of GDP, increasing forest cover.

Countries have to update their NDCs every five years

- At Glasgow meet, countries that had not submitted their NDCs for 2020 were asked to do so by 2022



CLIMATE FINANCE

All the money required to fund the actions needed to fight climate change. Money is needed for mitigation, adaptation, and to monitor actions countries are taking to keep global temperatures from rising beyond 2 degree Celsius from pre-industrial times.

- At Glasgow meet, developing countries asked developed countries to mobilise at least US\$ 1.3 trillion every year from 2030 onwards

Note:

History

Highlights

- Pasumpon Muthuramalinga Thevar
- Abul Kalam Azad: National Education Day

Pasumpon Muthuramalinga Thevar

Why in News

Recently, the Prime Minister has paid homage to **Pasumpon Muthuramalinga Thevar** on 114th **Thevar Jayanthi (Guru Pooja)**.

- It is celebrated on **30th October** every year to **commemorate the birth anniversary** of Pasumpon Muthuramalingam Thevar.

Key Points

➤ Born:

- He was born on **30th October 1908** in Pasumpon in Ramana-thapuram district in Tamil Nadu.



➤ About:

- He was a freedom-fighter-cum-spiritual leader. He is seen as a deity among the **Mukulathor community**, a cluster community comprising the **Kallar, Maravar and Ahambadiar**.
 - People of the Mukulathor community still make offerings as is done for deities in temples to the statue on his Jeyanthi and **Guru Pooja celebrations**.
- He **did not accept the traditional Hinduism** because it supported '**Varnashrama**'. He always fought against the evils of Hindu religion.
 - He openly **condemned religious superstitions** and narrow mindedness.
- **Connection with Subhash Chandra Bose:**
 - Being a socialist and a colleague of **Subhash Chandra Bose**, he served as the **national deputy chairman of All India Forward Bloc (AIFB)** from 1952.

- He was **elected three times** to the national parliamentary constituency of AIFB.

➤ Temple Entry Movement:

- The Temple Entry Authorisation and Indemnity Act was passed by the government of **C. Rajagopalachari in 1939**.
 - It removed restrictions prohibiting Dalits from entering Hindu temples.
- He supported this reform and in July 1939 he helped the activist A. Vaidyanatha Iyer **taking Dalits to Meenakshi Temple in Madurai**.

➤ Criminal Tribes Act:

- The **Criminal Tribes Act (CTA)**, enacted by the British in 1920, against the Mukulathor community, **against which Thevar protested** by mobilising the people and launching protests that was a major milestone in his career.
 - CTA **criminalized entire communities by designating them as habitual criminals**.
- He was **instrumental in getting the act repealed** after continuous efforts in 1946.

➤ Death:

- He died on **30th October in 1963** due to illness.

All India Forward Bloc

- It was **formed in May 1939** by **Subhash Chandra Bose**. It was a **left-wing nationalist political party in India** which emerged as a faction within the **India Congress in 1939**.
 - First All India Conference of Forward bloc was held in Nagpur in **June 1940**. And it passed a resolution titled '**All Power to the Indian People**', urging militant action for struggle against British colonial rule.
- The prime objective of the Forward Bloc was to **bring all radical elements of the Congress party together**. So that it could **spread the meaning of complete independence of India** with adherence

Note:



drishti

to the application of principles of equality and social justice.

- It was declared banned on 23 June 1942. Even when it was declared illegal, **it played a revolutionary role to crown the struggle** of the people with success and glory.
 - The party **re-established itself as an independent political party** after the independence of India.

Abul Kalam Azad: National Education Day

Why in News

Every year, **11th November** is celebrated as **National education day**, which commemorates the **birth anniversary of independent India's first education minister, Maulana Abul Kalam Azad**.

- In 2008, the Ministry of Human Resource Development (Now Ministry of Education) decided to celebrate Azad's birthday as National Education Day. Educational institutions across India mark the event with seminars, essay-writing, workshops etc to highlight the importance of education.

Key Points

- **Birth:** Maulana Abul Kalam Azad, originally named **Muhyiuddin Ahmad**, was born on **11th November 1888 in Mecca, Saudi-Arabia**.
 - Azad was a **brilliant debater**, as indicated by his name - "Abul Kalam" which literally means "Lord of Dialogues".
- **Brief Profile:**
 - He donned many hats of being a **journalist, freedom fighter, politician, and educationist**.
- **Contributions (Pre-Independence):**
 - He was a **proponent of Hindu Muslim unity, opposed to Partition**.
 - In **1912**, he started a **weekly journal in Urdu called Al-Hilal** which played an important role in forging Hindu-Muslim unity after the bad blood created between the two communities in the aftermath of **Morley-Minto reforms (1909)**.



- Under the 1909 reforms, the **provision of separate electorates for Muslims was resented by Hindu**.

- The government regarded Al-Hilal as a propagator of secessionist views and **banned it in 1914**.
- Maulana Abul Kalam Azad then **started another weekly called Al-Balagh** with the same mission of propagating Indian nationalism and revolutionary ideas based on Hindu-Muslim unity.
 - In **1916**, the government **banned this paper too** and expelled Maulana Abul Kalam Azad from Calcutta and exiled him to Bihar from where he was released after the **First World War 1920**.

- Azad **supported the Non-Cooperation Movement (1920-22)** started by Gandhiji and **entered the Indian National Congress in 1920**.

- In **1923**, he was **elected as the president of Indian National Congress**. At an age of 35, he **became the youngest person** to serve as the President of the Indian National Congress.

- Maulana Azad was **arrested in 1930 for violation of the salt laws** as part of **Gandhiji's Salt Satyagraha**. He was put in Meerut jail for a year and a half.

- He **again became the president of Congress in 1940** and remained in the post till 1946.

➤ An Educationist:

- In the field of education, Maulana Azad had been **an uncompromising exponent of universalism**, a truly liberal and humanitarian educational system.
- Azad's ideal was **a fusion of the Eastern and Western concepts of man**, to create a fully integrated personality. Whereas the Eastern concept dwelt on spiritual excellence and individual salvation, the Western concept laid stress on worldly achievements and social progress.

- He was **one of the founding members of the Jamia Milia Islamia University**, originally established at Aligarh in the United Provinces in 1920.

- **His Works:** Basic Concept of Quran, Ghubar-e-Khatir, Dars-e-Wafa, India Wins Freedom, etc.

➤ Contributions (Post-Independence):

- In 1947, he became the **first education minister of free India and remained at this post till his death in 1958**. In his tenure, he did tremendous work for the upliftment of the country.

Note:

- The first IIT, IISc, School of Planning and Architecture and the University Grants Commission were established under his tenure as the education minister.
- **Indian Council for Cultural Relations**, for introduction of Indian culture to other nations.
- Following **three academics** were formed:
 - **Sahitya Academy** for development of literature;
 - **Sangeet Natak Academy** for the development of Indian music and dance;
 - **Lalit Kala Academy** for the development of painting.
- Maulana Abul Kalam Azad was posthumously awarded India's highest civilian honour, **Bharat Ratna in 1992**.



Note:

Geography

Highlights

- Flood Plain Zoning
- Emergence of Earliest Continental Landmass
- Leonids Meteor Shower

Flood Plain Zoning

Why in News

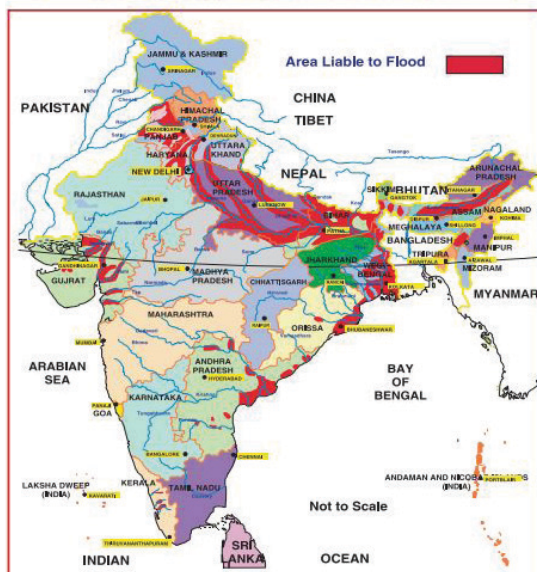
Recently, a **Comptroller and Auditor General of India (CAG) report on preparedness and response to floods** was presented in the Kerala assembly.

- The report was prepared against the backdrop of the devastating **Kerala floods of 2018**.
- The report pointed out that the state is yet to enact **flood plain zoning legislation**, 45 years after the Union Government circulated to all states a model draft bill for flood plain zoning legislation.

Key Points

- **About:**
 - **Concept:** The basic concept of flood plain zoning is to regulate land use in the flood plains to restrict the damage caused by floods.

AREA LIABLE TO FLOODS



- **Determining Developmental Activities:** It aims at determining the locations and the extent of areas for developmental activities in such a fashion that the damage is reduced to a minimum.
- **Adds Limitations:** It envisages laying down limitations on development of both the unprotected as well as protected areas.
 - In the **unprotected areas**, boundaries of areas in which developmental activities will be banned, are to be established to prevent indiscriminate growth.
 - In the **protected areas**, only such developmental activities can be allowed, which will not involve heavy damage in case the protective measures fail.
- **Utility:** Zoning cannot remedy existing situations, although, it will definitely help in minimising flood damage in new developments.
 - Flood plain zoning is not only necessary in the case of floods by rivers but it is **also useful in reducing the damage caused by drainage congestion particularly in urban areas.**
- **Vulnerability to Floods:**
 - India's high risk and vulnerability is highlighted by the fact that **40 million hectares out of a geographical area of 3290 lakh hectares is prone to floods.**
 - On an average every year, **75 lakh hectares of land is affected, 1600 lives are lost and the damage caused to crops, houses and public utilities is Rs. 1805 crores** due to floods.
- **Model Bill for Flood Plain Zoning:**
 - **About:** The Bill provides clauses about flood zoning authorities, surveys and delineation of flood plain area, notification of limits of flood plains, prohibition of the use of the flood plains, compensation and most importantly removing obstructions to ensure free flow of water.

Note:

- It will seek to replace dwellings in low-lying areas by parks and playgrounds as absence of human settlement in those areas would cut down loss of lives and property.
- **Challenges in Implementation:**
 - There has been **resistance on the part of the states** to follow-up the various aspects of floodplain management including possible legislation.
 - The reluctance of the states is **mainly due to population pressure and want of alternative livelihood systems.**
 - The lukewarm response of the states towards the enactment and enforcement of the floodplain regulations has fuelled a **significant increase in the encroachments into the flood plains**, sometimes authorised and duly approved by the town planning authorities.
- **Related Constitutional Provisions and Other Measures:**
 - Based on the inclusion of **drainage and embankments as entry 17 of List II (State List)**, flood control has been seen to fall under the purview of the state government, except in the case of “**regulation and development of inter-state rivers and river valleys,**” which is mentioned in **entry 56 of List I (Union List)**.
 - **Floodplain zoning** is firmly **within the state government’s ambit** as it deals with the land along the riverbanks and **land is a state subject under entry 18 of List II.**
 - The central government’s role can only be to issue advisories and prescribe guidelines.
 - Flood control and mitigation are **not directly mentioned** in any of the three legislative lists included in the **seventh schedule** Constitution.
 - The **National Disaster Management Authority (NDMA)** in 2008 has issued guidelines for states for floodplain zoning as an important “non-structural measure” to mitigate floods.
 - It suggested that **areas likely to be affected by floods in a frequency of 10 years should be reserved for green areas** like parks, gardens and others while concrete structures should not be allowed there.
 - It also talked about other zones in the floodplain like in areas of flooding in a 25-year frequency and asked states to make plans accordingly in those areas.

Emergence of Earliest Continental Landmass

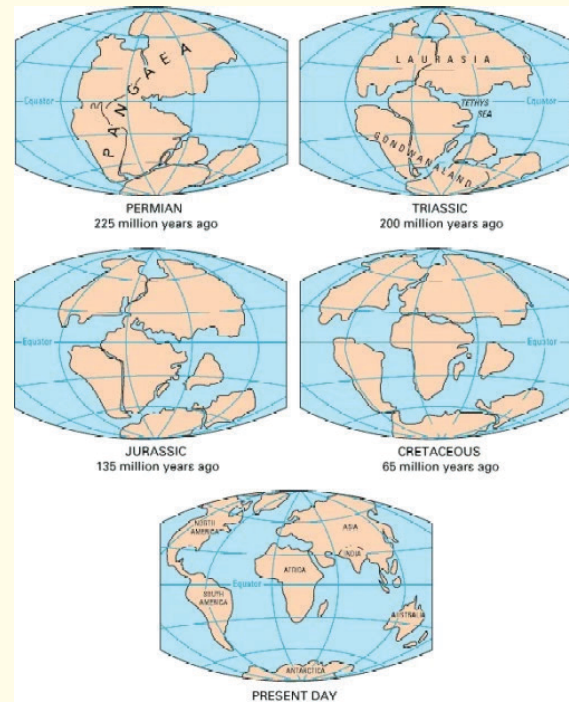
Why in News

A new study has suggested that the **earliest continental landmass emerged 3.2 billion year ago instead of 2.5 billion years ago** (as per the continental drift theory).

- The study was conducted by researchers from **India, Australia and the US.**

Continental Drift Theory

- Continental drift theory **deals with the distribution of the oceans and the continents.** It was first suggested by a German meteorologist, **Alfred Wegener in 1912.**
- According to the theory, **all the continents formed a single continental mass- Pangea** and mega ocean-Panthalassa surrounded it.
- Around **200 million years ago Pangea started splitting** and broke down into two large continental masses as **Laurasia and Gondwanaland** forming the northern and southern components respectively.
- Subsequently, **Laurasia and Gondwanaland continued to break into various smaller continents** that exist today.



Note:

Key Points

➤ About:

- The study has **challenged** the widely accepted view that the **continents rose from the oceans about 2.5 billion years ago**.
- It suggests **this happened 700 million years earlier — about 3.2 billion years ago** — and that the **earliest continental landmass to emerge may have been Jharkhand's Singhbhum region**.
 - Patches of the earliest continental land, however, exist in Australia and South Africa, too.
 - Geological similarities have linked the Singhbhum craton to cratons in South Africa and Western Australia.

➤ Major Findings:

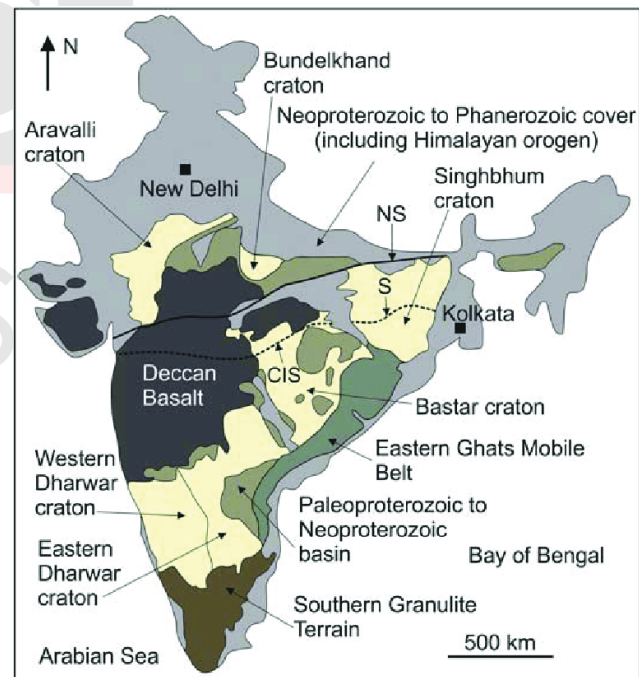
- **River Channels, Tidal Plains and Beaches:**
 - The answer to when the first land masses were formed lay in the sedimentary rocks of the region. **Scientists have found a particular type of sedimentary rocks, called sandstones.**
 - Later on they **found the age by analysing the uranium and lead contents of tiny minerals.**
 - These **rocks were 3.1 billion years old**, and were formed in ancient rivers, beaches, and shallow seas.
 - All these water bodies could have only existed if there was continental land. Thus the inference was drawn that the **Singhbhum region was above the ocean before 3.1 billion years ago.**
- **Extensive Volcanism:**
 - The researchers also **studied the granites** that form the continental crust of Singhbhum region.
 - These granites are **3.5 to 3.1 billion years old** and formed **through extensive volcanism** that happened about 35-45 km deep inside the Earth and continued on-and-off for hundreds of millions of years until all the magma solidified to form a thick continental crust in the area.
 - Due to the thickness and less density, the **continental crust emerged above the surrounding oceanic crust owing to buoyancy** (the quality of being able to float).
- **Evolution of Organisms:**
 - The earliest emergence of continents would have **contributed to a proliferation of photosynthetic organisms**, which would have increased oxygen levels in the atmosphere.

- Weathering of the cratons would have led to nutrient runoff, supplying the ocean with phosphorus and **other building blocks for early life.**

- **Craton** are the stable interior portion of a continent characteristically composed of ancient crystalline basement rock.

➤ Significance:

- At a time when the **entire world was debating about changes in climate**, it is very **important to understand how our atmosphere, oceans and climate came into existence** and how they interacted with geological processes operating deep inside Earth to make our planet habitable.
- It will allow us to link the interior of Earth to its exterior in deep time.
 - India has three other ancient continental fragments — **Dharwar, Bastar and Bundelkhand regions**. To understand their evolution the study will serve as a template for studying these other cratons.



Leonids Meteor Shower

Why in News

The annual **Leonids Meteor Shower** has begun and will be active between **6th and 30th November**, with peak activity expected on **17th November**.

Note:



Key Points

- **Meteor:** It is a **space rock or meteoroid** that enters Earth's atmosphere.
 - **Meteoroids are objects in space** that range in size from dust grains to small asteroids.
 - Most are pieces of other, larger bodies that have been broken or blasted off. These come from **comets, asteroids**, planets and the Moon.
 - When **meteoroids enter Earth's atmosphere** (or that of another planet, like Mars) at high speed and burn up, the **fireballs or "shooting stars"** are called meteors.
 - **Fireballs are larger explosions of light and color** that can persist longer than an average meteor streak. This is due to the fact that fireballs originate from larger particles of cometary material.
 - **When a meteoroid survives its journey through the atmosphere and hits the ground, it's called a meteorite.**
- **Meteor Shower:**
 - When **Earth encounters many meteoroids at once**, it is called a meteor shower.
 - Comets, like Earth and the other planets, also orbit the sun. Unlike the nearly circular orbits of the planets, the **orbits of comets are usually quite lop-sided.**
 - As a **comet gets closer to the sun**, some of its icy surface boils off, releasing lots of particles of dust and rock (meteoroids).
 - This comet debris gets scattered along the comet's path, **especially in the inner solar system** (including planets Mercury, Venus, Earth and Mars).
 - Then, several times each year as **Earth** makes its journey around the sun, **its orbit crosses the orbit of a comet**, which means Earth encounters a bunch of comet debris.
 - Meteor showers are **named for the constellation where the meteors appear to be coming from.** So, for example, the Orionids Meteor Shower, which occurs in October each year, appears to be originating near the constellation '**Orion the Hunter**'.
- **Leonids Shower:**
 - The debris that forms this meteor shower **originates from a small comet called 55P/Tempel-Tuttle in the constellation Leo**, which takes 33 years to orbit the sun.
 - The Leonids are **considered to be a major shower** that features the fastest meteors which typically travel at speeds of 71 km per second, although the rates are often as low as 15 meteors per hour.
 - The Leonids are **also called fireballs and earthgrazer meteors.**
 - Fireballs, because of their bright colours, and earthgrazer, because they streak close to the horizon.
 - A **Leonid shower turns into a meteor storm every 33 years** and when it happens hundreds to thousands of meteors can be seen every hour. The **last Leonid meteor storm took place in 2002.**
 - A **meteor storm** should have at least 1,000 meteors per hour.



Note:

Social Issues

Highlights

- Nutrition Smart Village Initiative
- HPV Vaccine Reducing Cervical Cancer
- Protocol to Prevent Human Trafficking: SCO
- New Draft Guidelines for Accessibility Standards
- Issue of Mental Health
- Health Insurance for India's Missing Middle
- Haryana State Employment of Local Candidates Act, 2020
- Impact of Stubble Burning on Respiratory Health
- Global Drug Policy Index 2021

Nutrition Smart Village Initiative

Why in News

A programme on "Nutrition Smart Village" will be initiated to strengthen the **Poshan Abhiyan**.

- It will be part of the **Azadi Ka Amrit Mahotsav**, to commemorate the 75th year of Independence of India.

Key Points

- **About:**
 - The initiative is **in line with the Prime Minister's call to adopt and transform 75 villages**.
 - A total of 75 villages **will be adopted by All India Coordinated Research Project (AICRP) centres and Indian Council of Agricultural Research -Central Institute for Women in Agriculture (ICAR-CIWA)**.
- **Objective:**
 - To **promote nutritional awareness, education and behavioural change** in rural areas involving farm women and school children.
 - **Harnessing traditional knowledge** through the local recipe to overcome **malnutrition**.
 - Implementing **nutrition-sensitive agriculture** through homestead agriculture and Nutri-garden.
- **Poshan Abhiyan:**
 - **About:**
 - Also called **National Nutrition Mission**, was launched on the occasion of the **International Women's Day** on 8th March, 2018.

- The Abhiyan targets to **reduce Stunting, undernutrition, Anemia** (among young children, women and adolescent girls) and reduce low birth weight by 2%, 2%, 3% and 2% per annum respectively.

- It also targets to **bring down stunting among children** in the age group 0-6 years from 38.4% to 25% by 2022.

○ Poshan 2.0:

- Recently, the **Ministry for Women and Child Development inaugurated Poshan 2.0** and urged all **Aspirational Districts to establish a Poshan Vatika (nutrition garden)** during the **Nutrition Month (Poshan Mah)** (from 1st September, 2021).

➤ Scenario of Malnutrition in India:

- Despite decades of investment to tackle this malaise, **India's child malnutrition rates** are still one of the most alarming in the world.
 - The **Global Hunger Index (2021)** — which is calculated on the basis of total undernourishment of the population, child stunting, wasting and child mortality — places India at the **101st spot among 116 countries**.
- The bane of child and maternal malnutrition is **responsible for 15% of India's total disease burden**.
- According to the data from the **fifth round of National Family Health Survey (NFHS) (2019-2021)** from the 22 states surveyed so far, only 9 showed a decline in the number of stunted children, 10 in wasted children and six in underweight children.
- Research suggests that USD 1 spent on nutritional interventions in India could generate USD (34.1 to

Note:



38.6) in public economic returns three times more than the global average.

- Studies reveal that **India loses up to 4% of its Gross Domestic Product (GDP) and up to 8% of its productivity** due to child malnutrition.

➤ **Other Related Government Initiatives:**

- **Anemia Mukd Bharat Abhiyan**
- **Pradhan Mantri Poshan Shakti Nirman (PM POSHAN)**
- **The National Food Security Act (NFSA), 2013**
- **Pradhan Mantri Matru Vandana Yojana (PMMVY)**
- **Integrated Child Development Scheme (ICDS)**

HPV Vaccine Reducing Cervical Cancer

Why in News

Recently, new research has found that the **Human papillomavirus (HPV) vaccine (Cervarix) reduces the risk of Cervical Cancer significantly in women.**

- The results are important because the vaccine was introduced in the 2000s and studies confirming that it is effective against cancer have come up only recently.

Key Points

➤ **Findings:**

- The Human papillomavirus (HPV) vaccine **reduced cervical cancer cases by 87% among women in the U.K. who received the vaccine when they were 12 or 13 years old.**
- It **reduced the risk by 34% in women who were aged 16-18 years** when they were offered the jab.
- Over a **period of 11 years (since 2006)**, the vaccine **prevented around 450 cervical cancers** and around 17,200 cases of precancerous conditions.

➤ **Cervical Cancer:**

- It is a type of cancer that occurs **in the cells of the cervix** - the lower part of the uterus that connects to the vagina.
- Various strains of the **Human papillomavirus (HPV) play a role in causing most cervical cancer.**
- When exposed to HPV, the body's immune system typically prevents the virus from doing harm. In a small percentage of people, **however, the virus**

survives for years, contributing to the process that causes some cervical cells to become cancer cells.

- The **HPV vaccine (Cervarix)** protects against two of the cancer-causing strains, which are HPV 16 and 18.

➤ **Human papillomavirus:**

- Human papillomavirus (HPV) is the **most common viral infection of the reproductive tract.**
- There are **more than 100 types of HPV.**
 - More than 40 types of HPV are **spread through direct sexual contact.**
 - Out of these 40, **two cause genital warts**, while **about a dozen of HPV cause different types of cancer** including cervical, anal, oropharyngeal, penile, vulvar and vaginal.

➤ **Types of HPV Vaccines:**

- **Quadrivalent vaccine (Gardasil):** It protects against **four types of HPV (HPV 16, 18, 6 and 11).** The latter two strains cause genital warts.
- **Bivalent vaccine (Cervarix):** It protects against **HPV 16 and 18 only.**
- **Non valent vaccine (Gardasil 9):** It protects against **nine strains of HPV.**
 - These vaccines prevent cervical cancer in women and girls who have not yet been exposed to the virus.

➤ **Indian Scenario:**

- India is home to 16-17% of the world's population, **globally 27% of total cervical cancer cases are from here.**
- Further, in India about **77% cases of cervical cancer are caused by HPV 16 and 18.**
- In India, **bivalent and quadrivalent HPV vaccines were licensed in 2008** and a **non valent vaccine was licensed in 2018.**
- Officially, the HPV vaccine has **not been recommended for boys and males in India.**

Cancer

- It is a large group of diseases **that can start in almost any organ or tissue of the body** when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called metastasizing and **is a major cause of death from cancer.**

Note:

- A **neoplasm and malignant tumor** are other common names for cancer.
- Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women.
- **World Cancer Day** is organized by the **Union for International Cancer Control (UICC)** and celebrated each year on **4th February**.
- **Related Indian Initiatives:**
 - **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS).**
 - **National Cancer Grid (NCG).**

Protocol to Prevent Human Trafficking: SCO

Why in News

Recently, the **Shanghai Cooperation Organisation (SCO)**, in its 19th meet (of Prosecutors General) held in New Delhi, adopted a **protocol to strengthen cooperation in preventing and combating growing menace of human trafficking**, especially women and children.

- The **current chair of SCO is Tajikistan**.

SCO

- It was **founded at a summit in Shanghai in 2001** by the presidents of **Russia, China, the Kyrgyz Republic, Kazakhstan, Tajikistan and Uzbekistan**.
- Presently, it comprises **nine member states** namely India, Kazakhstan, China, the Kyrgyz Republic, Pakistan, the Russian Federation, Tajikistan, Uzbekistan and Iran.
 - India was made an observer at the SCO in 2005.
 - **India and Pakistan became its permanent members in 2017.**
- It is headquartered in **Beijing, China**.
- **RATS (Regional Anti-Terrorist Structure)** is a permanent organ of the SCO, headquartered in Tashkent, Uzbekistan.
- The **summit is held annually** and chairmanship goes to the member states for a year on rotation basis.

Key Points

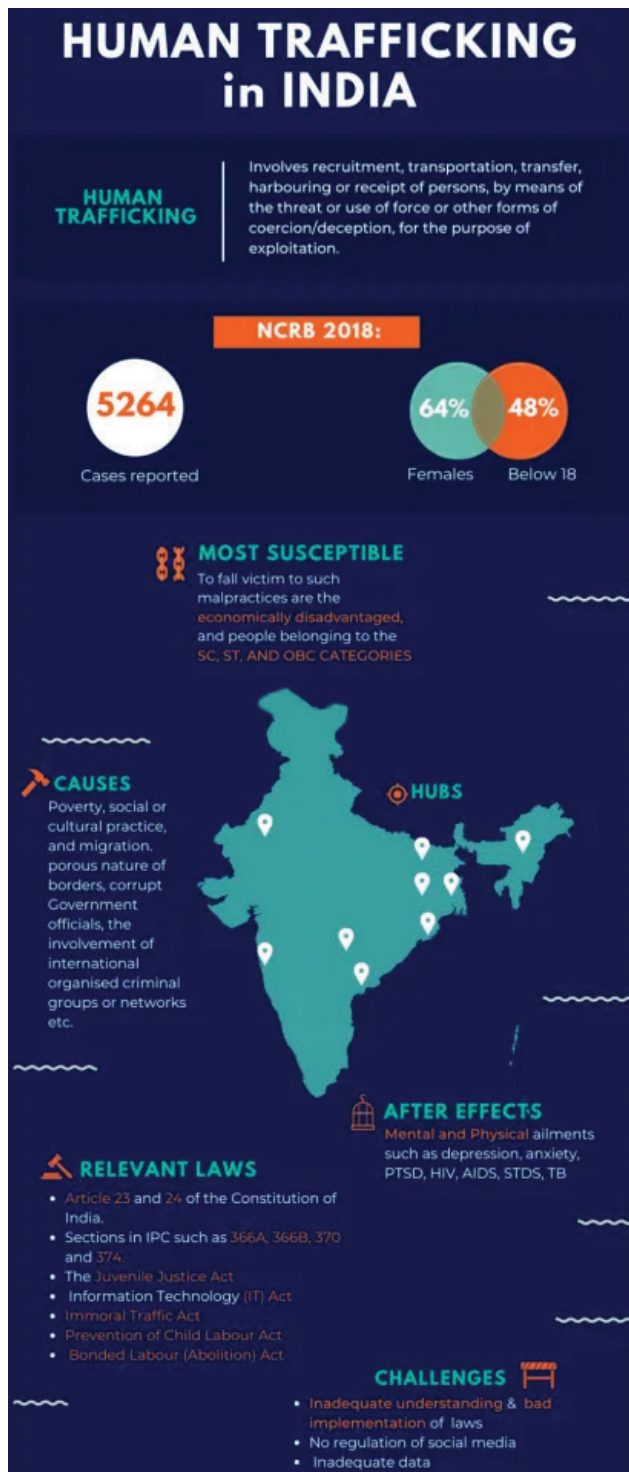
- **Human Trafficking:**
 - Human trafficking involves recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, for the purpose of exploitation.
 - Exploitation include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude, or the removal of organs.
- **About the Protocol:**
 - Calls for **continuation of exchange of national legislation** to combat the menace of trafficking in persons.
 - Seeks to provide **protection and assistance to victims** of trafficking within their competence.
 - Calls for **developing cooperation between the educational organisations of the SCO member states** in the field of advanced training of prosecutors, whose competence include combating trafficking in persons especially, women and children.
- **Relevant Laws in India:**
 - **Immoral Traffic (Prevention) Act 1956** is the premier legislation to deal with this issue.
 - **Article 23 and 24** (Right Against Exploitation) of the Constitution of India.
 - **25 sections in IPC** such as 366A, 366B, 370 and 374.
 - The **Juvenile Justice Act** and the **Information Technology (IT) Act** and also the **Prevention of Child Labour Act**, the **Bonded Labour (Abolition) Act**, among others.
- **India's Efforts in Combating Human Trafficking:**
 - In July 2021, the Ministry of Women and Child Development released **Draft anti-trafficking Bill**, the Trafficking in Persons (Prevention, Care and Rehabilitation) Bill, 2021.
 - India has ratified the **United Nations Convention on Transnational Organised Crime (the Palermo Convention)** which among others has a Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children.
 - India has ratified the **SAARC Convention** on Preventing and Combating Trafficking in Women and Children for Prostitution.
 - **Anti-Trafficking Nodal Cell was set up in the Ministry of Home Affairs (MHA) in 2006** to act as a focal point

Note:



for communicating various decisions and follow up on action taken by the State Governments to combat the crime of Human Trafficking.

- **Judicial Colloquium:** In order to train and sensitize the trial court judicial officers, Judicial Colloquium on human trafficking are held at the High court level.



- Ministry of Home Affairs under a Comprehensive Scheme ‘**Strengthening Law Enforcement Response in India against Trafficking in Persons**’ through Training and Capacity Building, has released fund for establishment of Anti Human Trafficking Units for 270 districts of the country.
- The **Ujjawala scheme was launched in 2007** to put an end to the trafficking of children and women. The objective of the scheme is to prevent, rescue, rehabilitate, reintegrate, and repatriate victims trafficked for commercial sexual exploitation.
- Various initiatives such as “**SwadharGreh Scheme**”, “**Sakhi**”, “**Universalization of Women Helpline**”, provide for a supportive institutional framework and mechanism for addressing concerns of women affected by violence.

New Draft Guidelines for Accessibility Standards

Why in News

Recently, the **Ministry of Information and Broadcasting** has issued draft guidelines for new accessibility standards.

- Under these **almost all television channels** are required to ensure that they either **carry captions or sign language** to help the hearing impaired understand the programming.
- Earlier, the Indian Sign Language Research and Training Centre (ISLRTC) and the National Council of Educational Research and Training (NCERT) signed a memorandum of understanding (MoU) **to make NCERT textbooks accessible to hearing-impaired students in sign language.**

Key Points

- **About Draft Guidelines:**
 - **Objective:** The draft is released in process to get the “**Accessibility Standards for Television Programmes for Hearing Impaired**”.
 - These standards will be notified under the **Rights of Persons with Disabilities Act, 2016**, to make television content more inclusive for persons with hearing disabilities.
- **Scope:** All programming or content like music shows, debates, scripted/ unscripted reality shows, etc.;

Note:

and advertisements and teleshopping content will have to adhere to these standards.

○ **Exemptions:**

- **Live and deferred live content/events** such as sports: live news, events like live music shows, award shows, live reality shows, etc.

- Channels which have **less than 1% average audience share** for all households over a year.

○ **Type of Service:** The service providers or broadcasters will have the right to choose any one or more options from “**Closed Captioning, Subtitles, Open Captioning and/or Sign Language** (not only hand but facial expression also).

- Open captions always are in view and cannot be turned off, whereas closed captions can be turned on and off by the viewer.

○ **Responsibility:** The **creators of the content will be responsible** to create the content for these services and deliver it to the concerned channels and broadcasters.

➤ **Earlier Instances to Support Hearing Impaired:**

○ **Doordarshan has been carrying sign language** interpretation of the address of President of India on the eve of Independence Day and Prime Minister’s address from the ramparts of Red Fort on Independence Day every year.

○ Recently, the Ministry of Information & Broadcasting has asked **Private Satellite News TV channels** also to telecast a short programme on Independence Day Celebrations, along with corresponding sign language interpretation, in the afternoon/evening of 15th August.

Constitutional and Legal Framework for Disabled People

➤ **Article 14:** The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

- In this context, Persons with Disabilities should have similar and equal rights in the eyes of the Constitution.

➤ **UN Convention the Right of Persons with Disabilities:** India is a signatory to the **United Nations Convention the Right of Persons with Disabilities**, which came into force in 2007.

- The Convention recognizes accessibility as a human right and requires signatories to adopt

appropriate measures to ensure access by persons with disabilities.

➤ **Accessible India Campaign:** The ‘**Accessible India Campaign**’ also known as the **Sugamya Bharat Abhiyan** to enable Persons with disabilities to gain universal access, equal opportunity for development.

- The campaign seeks to enhance accessibility by making significant changes to the infrastructure, information and communication systems.

➤ **Rights of Persons with Disabilities Act, 2016:** The Government of India enacted The Rights of Persons with Disabilities Act, 2016, which is the principal and comprehensive legislation concerning persons with disabilities.

- The Act defines the responsibilities of the Central and State governments with regard to the services for persons with disabilities.

- The Act also recommends creating a **barrier-free environment** by removing all type of discrimination against persons with disabilities where they can share the development benefits which a normal person enjoys.

Issue of Mental health

Why in News

Recently, the **Supreme Court** has said the judiciary should not treat the mental health of a person with a **one-size-fits-all approach**, upholding the need for judges to be sensitive to the gravity of mental health issues.

➤ SC noted that **an individual copes with a threat** — both physical and emotional, expressing (or refraining to express) love, loss, sorrow and happiness, varies greatly in view of the **multi-faceted nature of the human mind and emotions**.

➤ **World Mental Health Day** is observed on 10th October every year

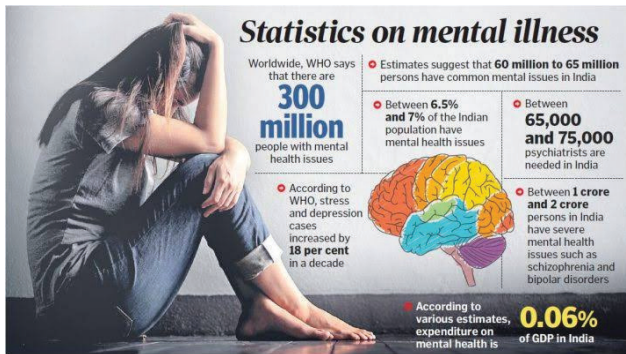
Key Points

➤ **About:**

- According to the **World Health Organization (WHO)**, mental health is ‘a **state of well-being** in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.’

Note:

- Like Physical health, Mental health is also important at every stage of life, from childhood and adolescence through adulthood.



➤ Challenges:

- **High Public Health Burden:** An estimated **150 million people across India** are in need of mental health care interventions, according to India's latest **National Mental Health Survey 2015-16**.
 - **Lack of Resources: Low proportion of the mental health workforce** in India (per 100,000 population) include psychiatrists (0.3), nurses (0.12), psychologists (0.07) and social workers (0.07).
 - **Low financial resource allocation** of just over a percent of **Gross Domestic Product** on healthcare has created impediments in public access to affordable mental healthcare.
 - **Other Challenges: Poor awareness about the symptoms of mental illness**, social stigma and abandonment of mentally ill, especially old and destitute, leads to social isolation and reluctance on part of family members to seek treatment for the patient.
 - This has resulted in a massive **treatment gap**, which further worsens the present mental illness of a person.
 - **Post-Treatment gap:** There is **need for proper rehabilitation** of the mentally ill persons post his/her treatment which is currently not present.
 - **Rise in Severity:** Mental health problems tend to **increase during economic downturns**, therefore special attention is needed during times of economic distress.
- **Steps Taken by the Government:**
- **Constitutional Provision:** SC has held healthcare to be a fundamental right under **Article 21** of the Constitution.

- **National Mental Health Program (NMHP):** To address the huge burden of mental disorders and shortage of qualified professionals in the field of mental health, the government has been implementing the **National Mental Health Program (NMHP) since 1982**.

- The Program was **re-strategize in 2003** to include two schemes, viz. Modernization of State Mental Hospitals and Up-gradation of Psychiatric Wings of Medical Colleges/General Hospitals.

- **Mental HealthCare Act 2017:** It guarantees **every affected person access to mental healthcare** and treatment from services run or funded by the government.

- It has significantly reduced the scope for the use of Section 309 IPC and made the attempt to commit suicide punishable only as an exception.

- **Kiran Helpline:** In 2020, the Ministry of Social Justice and Empowerment launched a **24/7 toll-free helpline 'Kiran'** to provide support to people facing anxiety, stress, depression, suicidal thoughts and other mental health concerns.

Health Insurance for India's Missing Middle

Why in News

Recently, **NITI Aayog** has released a comprehensive report titled **Health Insurance for India's Missing Middle**.

- The report brings out the **gaps in the health insurance coverage** across the Indian population and **offers solutions** to address the situation.

Key Points

➤ Importance of Health Insurance:

- Health insurance is a mechanism of pooling the high level of **Out of Pocket expenditure (OOPE)** in India to provide greater financial protection against health shocks.
- Pre-payment through health insurance emerges as an **important tool for risk-pooling and safeguarding** against catastrophic (and often impoverishing) expenditure from health shocks.
- Moreover, pre-paid pooled funds can also improve the **efficiency of healthcare provision**.

Note:

➤ Health Insurance: Need And Landscape

- **Achieving Universal Health Coverage:** Expansion of health insurance coverage is a vital step, and a pathway in India's effort to achieve **Universal Health Coverage (UHC)**.
 - Low Government expenditure on health has constrained the capacity and quality of healthcare services in the public sector.
 - It diverts the majority of individuals – about two-thirds – to seek treatment in the costlier private sector.
- **High Out-of-Pocket Expenditure:** India's health sector is characterized by low Government expenditure on health, high **out-of-pocket expenditure (OOPE)**, and low financial protection for adverse health events.
 - The private sector is characterized by high OOPE, leading to low financial protection.
- **Missing Middle:** According to the report, **at least 30% of the population**, or 40 crore individuals (referred as the missing middle in this report) are devoid of any financial protection for health.
 - The **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)** and various State Government extension schemes, provide comprehensive hospitalization cover to the **bottom 50% of the population**.
 - Around the top **20% of the population** – 25 crore individuals – are covered through social health insurance, and private voluntary health insurance.

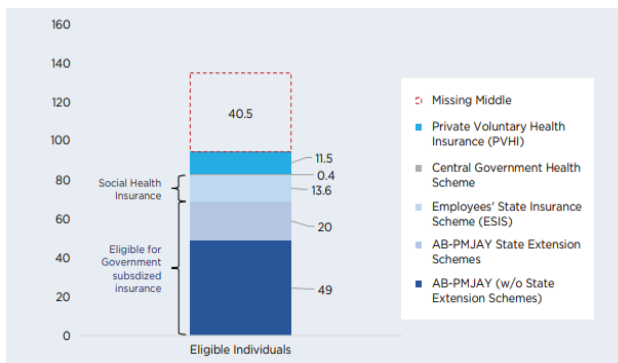


Figure 4: Number of individuals eligible or covered, by health insurance scheme type

- **Existing Health Insurance, But not Suitable For The Missing Middle:**
 - In the absence of a low-cost health insurance product, the missing middle remains uncovered despite the ability to pay nominal premiums.

- Affordable contributory products such as **Employees' State Insurance Corporation (ESIC)**, and Government subsidized insurance including AB-PMJAY are closed products.

- They are not available to the general population due to the risk of adverse selection.

- **Recommended Insurance Models:** The report has recommended **three models** for increasing the health insurance coverage in the country:

- **Creation of a Large and Diversified Risk Pool:** The success of a private voluntary contributory health insurance product requires creation of a large and diversified risk pool.

- For this to happen the Government should build consumer awareness of health insurance through **Information Education Communication campaigns**.

- **Developing a Modified, Standardized Health Insurance Product:** The cost of health insurance i.e., the premium needs to come down, in line with the affordability of the missing middle.

- **For example**, Aarogya Sanjeevani can be made affordable.

- Aarogya Sanjeevani is a standardised health insurance product launched by the **Insurance Regulatory Development Authority of India (IRDAI)** in April 2020.

- **Government Subsidized Health Insurance:** This model can be **utilized for segments of the missing middle** which remain uncovered, due to limited ability to pay for the voluntary contributory models outlined above.

- In the medium-term, once the supply-side and utilization of PMJAY is strengthened, their infrastructure can be leveraged to allow voluntary contributions to the missing middle.

- Government can provide public data and infrastructure as a public good to reduce operational and distribution costs of insurers.

Haryana State Employment of Local Candidates Act, 2020

Why in News

Recently, the Haryana Government has said that the

Note:



Employment of Local Candidates Act, 2020 will be implemented in the state from 15th January 2022.

Key Points

➤ About the Law:

- It requires **firms with 10 or more employees to reserve 75% of all jobs** offering a salary of less than Rs. 30,000 a month for eligible candidates of State domicile.
 - **Jobs will be provided in various** companies, societies, trusts, and limited liability partnership firms situated in the state.
- The move is **aimed at disallowing the influx of talent from other parts of the country** even in sectors like **IT and IT-enabled services (ITes)**, which the State does not have enough captive supply of.
- The law will be applicable for a **period of 10 years**.
- The state government also **relaxed the residency (domicile) requirement from 15 to 5 years** for a person to get a bona fide resident certificate in the state to provide some flexibility to the private companies in hiring.
- It will be **mandatory for all these employers** to register all their employees drawing gross monthly salary or wages not more than Rs 30,000 on the designated portal available on the official website of the Labour Department, Haryana.
- **Violation of any provision of this Act** will be a punishable offence.

➤ Concerns:

- **Can Trigger Exodus of Investors:**
 - It could **trigger an exodus of large domestic and multinational investors** across sectors such as auto, IT that rely on highly skilled manpower.
- **Affect Existing Industries:**
 - **Raising the son of the soil issue** and preventing free movement of manpower resources in the State from other regions can have an adverse effect on the existing industries in the State.
 - This **may force those tech giants and other industries** to shift their base from **Haryana to other States** and drain out the State's monetary resources to that extent.

○ Can Cause Extreme Talent Crunch:

- Moreover, **imposing the reservations on gig and platform companies** could create a crippling talent crunch.

○ Against the Constitution:

- The Constitution of India **guarantees freedom of movement and consequently employment within India** through several provisions.
 - **Article 14** provides for equality before law irrespective of place of birth.
 - **Article 15** guards against discrimination based on place of birth.
 - **Article 16** guarantees no birthplace-based discrimination in public employment.
 - **Article 19** ensures that citizens can move freely throughout the territory of India.

➤ Other Such Attempts:

- AAP (Political Party) chief has promised 80% reservations for locals in private jobs in poll-bound Goa and he made a similar promise for Uttarakhand too.
- This follows in the footsteps of states like Haryana, Jharkhand, Maharashtra, Andhra and Madhya Pradesh that have already implemented or tried to implement similar populist policies.

➤ Reasons Behind Such Legislations:

- **Vote Bank Politics:** Inter-state migrant workers (ISMW) **constitute a sizeable "under-used or un-used" electorate** as they often do not exercise voting rights. If these workers and potential migrants could be retained through **Job For Locals Legislations (JRFL)** and provided with jobs, the parties' electoral causes will be served.
- **Economic Sluggishness:** The native unemployment issue assumes relevance as **joblessness has intensified** in the context of shrinking government employment.
- **Increased Incomes and Talent:** Job For Locals Legislations will **not only retain talent but also incomes** which otherwise will go to "other regions".
- **Precondition for Land Acquisition:** Farmers and villagers, who lose their land in the process of land acquisition for industries, keep such preconditions in which industries have to provide jobs to local youth.

Note:

Impact of Stubble Burning on Respiratory Health

Why in News

A study was conducted in Punjab that showed **pollution from stubble burning significantly reduced lung function** and was particularly harmful to women in rural Punjab.

- The study was conducted in **two phases**: The first was in **October 2018** and again the following summer from **March to April 2019**.

Key Points

- **High PM2.5 levels:**
 - The concentration of **PM2.5** (Particulate Matter-2.5) was found to **increase more than twice between the two phases**, from 100 g/m³ to 250 g/m³.
 - PM2.5 refers to particles that have a diameter **less than 2.5 micrometres** (more than 100 times thinner than a human hair) and remain suspended for longer.
 - It causes respiratory problems and also reduces visibility. It is an endocrine disruptor that can affect insulin secretion and insulin sensitivity, thus contributing to diabetes.
 - Incidentally **these are around 10-15 times the WHO (World Health Organisation) prescribed air quality standards** though the permissible standards by India's **Central Pollution Control Board (CPCB)** are higher.
 - **WHO**: The annual average concentrations of PM2.5 should not exceed 5 µg/m³, while 24-hour average exposures should not exceed 15 µg/m³ more than 3-4 days per year.
 - **CPCB**: The annual average concentrations of PM2.5 should not exceed 40 µg/m³, while 24-hour average exposures should not exceed 60 µg/m³ more than 3-4 days per year.
- **Impact:**
 - A **two to three-fold increase was noted in most of the respiratory symptoms** including wheezing, breathlessness on exertion, skin rashes, itchiness of eyes etc. across **all age groups (10-60 years)**.

- The **highest number of respiratory complaints were reported by the elderly population (> 40 - 60)**.
- There was **decline in lung function** with an increase in PM2.5 concentration.
 - A **10-14% decline in lung function in men and nearly 15-18% decline in women** across all age categories was noted.

Stubble Burning

➤ About:

- Stubble (parali) burning is **the act of setting fire to crop residue to remove them from the field to sow the next crop**.
- In order to plant the next **winter crop (Rabi crop)**, farmers in Haryana and Punjab have to move in a very short interval and if they are late, due to short winters these days, they might face considerable losses. Therefore, burning is the cheapest and fastest way to get rid of the stubble.
- It begins around October and peaks in November, coinciding with the withdrawal of **southwest monsoon**.

➤ Effects of Stubble Burning:

○ Pollution:

- Emits large amounts of **toxic pollutants in the atmosphere which contain harmful gases** like methane (CH₄), Carbon Monoxide (CO), Volatile Organic Compound (VOC) and carcinogenic polycyclic aromatic hydrocarbons.
- These pollutants disperse in the surroundings, may undergo a physical and chemical transformation and eventually adversely affect human health by causing a **thick blanket of smog**.

○ Soil Fertility:

- Burning husk on the ground **destroys the nutrients in the soil**, making it less fertile.

○ Heat Penetration:

- Heat generated by stubble burning **penetrates into the soil, leading to the loss of moisture and useful microbes**.

➤ Alternatives to Stubble Burning:

- **In-Situ Treatment of Stubble**: For example crop residue management by zero-tiller machine and Use of bio-decomposers.

Note:



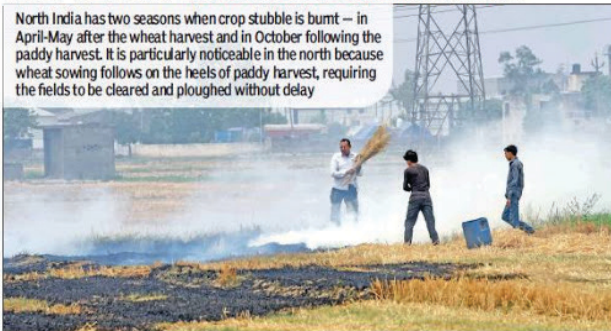
- **Ex-Situ (off site) Treatment:** For example use of rice straw as cattle fodder.
- **Use of Technology-** For example **Turbo Happy Seeder (THS) machine**, which can uproot the stubble and also sow seeds in the area cleared. The stubble can then be used as mulch for the field.
- **Changing Cropping Pattern:** It is the deeper and more fundamental solution.
- **Bio Enzyme-PUSA:** The Indian Agriculture Research Institute has devised a radical solution for stubble burning in the form of a bio-enzyme called PUSA.
 - It leads to an increase in organic carbon and soil health while significantly reducing the fertiliser expense for the next cropping cycle.

➤ Other Action Plan:

- The State Governments of Punjab, National Capital Region (NCR) States and Government of National Capital Territory of Delhi (GNCTD) have developed **detailed monitorable action plans** based on the framework by the Commission for Air Quality Management (CAQM) to tackle the problem of air pollution.

THE YEAR'S DOUBLE BLACK MARKS

North India has two seasons when crop stubble is burnt – in April-May after the wheat harvest and in October following the paddy harvest. It is particularly noticeable in the north because wheat sowing follows on the heels of paddy harvest, requiring the fields to be cleared and ploughed without delay



➤ 5.5 kg nitrogen, 2.3 kg phosphorus, 25 kg potassium and 1.2 kg sulphur lost when one tonne of straw is burnt
➤ 3 kg of particulate matter, 60 kg CO₂, 1,460 kg CO₂, 199 kg ash and 2 kg SO₂ released by burning a tonne of straw
➤ Heat from burning straw penetrates 1 cm into the soil
➤ Burning reduces bacterial

and fungal populations immediately and substantially only in the top 2.5 cm of the soil
➤ Repeated burning permanently reduces bacterial population by more than half
➤ Farmers know of pollution, heat stress and fertility loss due to stubble burning, but have problems availing subsidies for expensive farm

equipment that can plough back stubble into soil
➤ Combine harvesters leave 10-inch crop stubble that is difficult to plough back
➤ Many farmers wish to give up paddy because of stubble problem and heavy dependence on water in generally parched regions

Global Drug Policy Index 2021

Why in News

Recently, the inaugural **Global Drug Policy Index** was released by the **Harm Reduction Consortium**.

- It is a **data-driven global analysis of drug policies** and their implementation which comes at a time when the Indian government is reviewing the provisions of the **Narcotics Drugs and Psychotropic substances act 1985**.

- The **Harm Reduction Consortium** is a **global consortium of networks** aiming to challenge the global “**war on drugs**”, scale up access to harm reduction services, and advocate for increased resources for harm reduction.

RANKINGS OF SELECTED COUNTRIES

RANK	COUNTRY	SCORE
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TOP 5

1	Norway	74/100
2	New Zealand	71/100
3	Portugal	70/100
4	UK	69/100
5	Australia	65/100

18	India	46/100
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BOTTOM 5

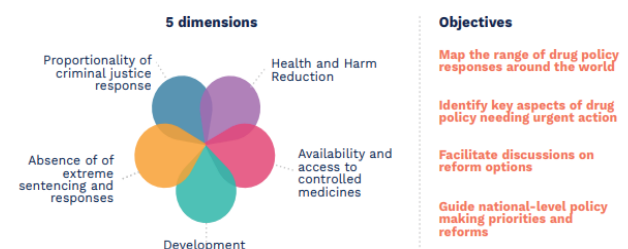
26	Mexico	35/100
27	Kenya	34/100
28	Indonesia	29/100
29	Uganda	28/100
30	Brazil	26/100

Key Points

- **About the Index:** It is a unique tool that documents, measures and compares national-level drug policies.
 - It provides each country with a score and ranking that shows how much their drug policies and their implementation align with the **United Nations principles of human rights, health and development**.
 - The Index provides an essential accountability and evaluation mechanism in the field of drug policy.
 - It evaluates the performance of 30 countries covering all regions of the world.

➤ Major Findings:

- The **global dominance of drug policies based on repression and punishment** has led to low scores overall, with a median score of just 48/100, and the top-ranking country (Norway) only reaching 74/100.



Note:

- Standards and expectations from civil society experts on drug policy **implementation vary from country to country.**
- **Inequality is deeply seated** in global drug policies, with the top-ranking 5 countries scoring 3 times as much as the lowest-ranking 5 countries.
 - This is in part due to the colonial legacy of the 'war on drugs' approach.
- Drug policies disproportionately **affect people marginalised** on the basis of their gender, ethnicity, sexual orientation and socio-economic status.
- There are **wide disparities between state policies** and how they are implemented on the ground.
- With a few exceptions, the **meaningful participation** of civil society and affected communities in drug

policy processes **remains severely limited.**

➤ **India's Performance:**

- **Ranking:**
 - India's rank is 18 out of 30 countries. It has an overall score of 46/100.
- **Scores:**
 - Using extreme sentencing and responses, it has a score of 63/100.
 - Health and harm reduction, 49/100.
 - Proportionality of criminal justice response, 38/100.
 - Availability and access of internationally controlled substances for the relief of pain and suffering, 33 /100.



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Note:



drishti

Art & Culture

Highlights

- Srinagar: UNESCO Creative Cities Network
- Logos of Darjeeling Toy Train as Intellectual Property

Srinagar: UNESCO Creative Cities Network

Why in News

Recently, the **United Nations Educational, Scientific and Cultural Organization (UNESCO)** designated Srinagar as a part of **UNESCO Creative Cities Network (UCCN)**.

- After Mumbai, Chennai, Hyderabad, Varanasi and Jaipur, **Srinagar is the sixth Indian city** to achieve this distinction.

Key Points

- **About:**
 - The **Srinagar city has been designated the creative city in the field of Crafts and Folk Arts** - only second city in India in this category **after Jaipur**.
 - It will not only give global recognition to the Srinagar city but also help it **in international funding, tie-ups with craft universities** and pitching craft as a product.
 - With this, the capital city of Jammu and Kashmir (Srinagar) **has entered the club of 295 creative cities network** across the world.
 - Every year, UNESCO seeks applications for various cities across the globe for putting them under its UCCN project. **The applications in India are routed through the Ministry of Culture.**
- **UNESCO Creative Cities Network (UCCN):**
 - It was **created in 2004**.
 - It **aims** to “promote cooperation among cities which recognize creativity as a strategic factor in their urban development”.
 - **Sustainable Development Goal 11** aims for Sustainable Cities and Communities.
 - The **network covers seven creative fields:** crafts and folk arts, media arts, film, design, gastronomy, literature and music.

➤ Indian Cities on UCCN:

- Srinagar – Crafts and Folk Arts (2021).
- Mumbai – Film (2019).
- Hyderabad – Gastronomy (2019).
- Chennai – Creative city of Music (2017).
- Jaipur – Crafts and Folk Arts (2015).
- Varanasi – Creative city of Music (2015).

UNESCO

➤ About:

- It is a **specialized agency of the United Nations (UN)**. It seeks to build peace through international cooperation in Education, the Sciences and Culture.
- It was **founded in 1945** and is located in **Paris, France**.

➤ Major Initiatives of UNESCO:

- **Man and Biosphere Programme**
- **World Heritage Programme**
- **Global Geopark Network**
- **Network of Creative Cities**
- **Atlas of World Languages in Danger**

➤ Reports:

- UNESCO Science Report
- Global Education Monitoring Report
- **State of the Education Report for India**

Logos of Darjeeling Toy Train as Intellectual Property

Why in News

Recently, **India has finally registered the logos (two) of the iconic 'Toy Train' internationally as its intellectual property.**

Note:

- The claim for registration was sent to the **World Intellectual Property Organisation (WIPO)** with the procedure laid down in WIPO's Vienna Classification (VCL). There is a six-month window to register any counter-claims, following which the Indian government's claim will receive international approval.

Key Points

- **About:**
 - The use of these logos anywhere in the world will now require written permission from India and the payment of a fee.
 - The **DHR has two logos**, both of which have been patented. The process of registering the logo with the Controller General of Patents, Designs and Trademarks under the Union Ministry of Commerce and Industry was initiated in August 2021. It was then sent to the WIPO.



Darjeeling Himalayan Railway...
A UNESCO world heritage site



- Both logos are **over a century old, and popular in world heritage circuits.**
- They are **used randomly on merchandise and communications** materials by various commercial organisations in Europe, the UK and the US; even the West Bengal government has used it in communications and on merchandise in the past.
- **Significance:** This will put the Darjeeling Toy Train's 'Iron Sherpa' blue steam locomotives on the same pedestal as the legendary transalpine Rhaetian

Railway in Switzerland, and is likely to boost its recognition and prominence around the world.

➤ DHR:

- DHR was built in the British era between 1879 and 1881.
- It is located in the foothills of the Himalayas in West Bengal.
- It is the most outstanding example of a hill passenger railway. Its design applies bold and ingenious engineering solutions to the problem of establishing an effective rail link across a mountainous terrain of great beauty.
- It was **declared a UNESCO (United Nations Educational, Scientific and Cultural Organization) World Heritage Site in 1999.**
 - **Other Mountain Railways Declared as World Heritage Sites:**
 - **Nilgiri Mountain Railways** located in the Nilgiri Hills of Tamil Nadu (South India) (2005)
 - **Kalka Shimla Railway** located in the Himalayan foothills of Himachal Pradesh (Northwest India) (2008).

WIPO's Vienna Classification

- VCL is an international classification system **established in 1973 by the Vienna Agreement** Establishing an International Classification of the Figurative Elements of Marks, and administered by the **World Intellectual Property Organization (WIPO)**.
 - WIPO is one of the oldest **specialized agencies of the United Nations**. It is headquartered in Geneva, Switzerland.
- It consists of a hierarchical system that proceeds from the general to the particular, classifying the **figurative elements of marks into categories, divisions and sections**, on the basis of their shape.



Note:

Security

Highlights

- New Army Aviation Brigade: LAC
- Project-15B Class Destroyer Ship: Visakhapatnam
- India's Submarine Strength
- NHRC on Police Reforms
- 6th Edition of Shakti 2021

New Army Aviation Brigade: LAC

Why in News

Recently, India raised a new army aviation brigade in the eastern sector of Line of Actual Control (LAC) in the Arunachal Pradesh sector.

- Also, China's legislature has adopted a new border law that calls on the state and military to safeguard territory and "combat any acts" that undermine China's territorial claims.
- The LAC is the demarcation that separates Indian-controlled territory from Chinese-controlled territory. The recent stand-off at Ladakh's Galwan Valley has escalated due to the infrastructure projects that India has undertaken in recent years.

Key Points

- **About:**
 - The new army aviation brigade was raised in March 2021 at Missamari air base, close to Tezpur, Assam and has capabilities such as Advanced Light Helicopters (ALH), US' Cheetah helicopters and Israel's Heron drones.
 - While the function of the new brigade is largely for Intelligence, Surveillance and Reconnaissance (ISR) activities of the Army, it has the capability to support the Army for other objectives as well on the LAC.
- **Line of Actual Control (LAC):**
 - Demarcation Line: Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh and the Union Territory of Ladakh share a border with China.

- **Sectors:** The LAC is generally divided into three sectors namely: Western sector, Middle sector, and Eastern sector.

- **Eastern Sector:** In this sector, India shares a 1346 km long boundary with China.

- It spans Sikkim and Arunachal Pradesh.
- The alignment of the LAC in the eastern sector is along the 1914 McMahon Line.
- China considers the McMahon Line illegal and unacceptable claiming that Tibetan representatives who had signed the 1914 Convention held in Shimla which delineated the McMahon line on the map were not having rights to do so.

- China claims the entire Arunachal Pradesh as South Tibet.

- **Middle Sector:**

- In this sector, India shares about a 545 km long boundary with China which runs along the watershed from Ladakh to Nepal.
- Himachal Pradesh and Uttarakhand touch this border with Tibet (China) in this sector. Both sides do not have much disagreement over the border in this area.

- **Western Sector:**

- India shares about 1597 km of border with China. It is between the Union Territory of Ladakh (erstwhile state of Jammu and Kashmir) and Xinjiang Province of China.
- In this sector, there is a territorial dispute over Aksai Chin. India claims it as part of erstwhile Kashmir, while China claims it is part of Xinjiang.
- The boundary dispute in the Western Sector pertains to the Johnson Line proposed by the

Note:

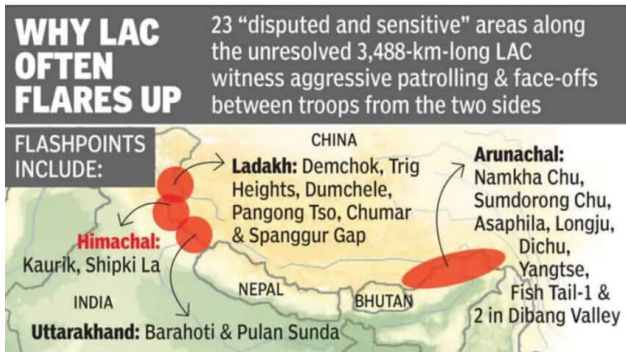


British in the 1860s that extended up to the Kunlun Mountains and put Aksai Chin in the then princely state of Jammu and Kashmir.

(i) **Independent India used the Johnson Line and claimed Aksai Chin as its own.**

- **Eleven of the 23 contested areas on the LAC are identified in Ladakh** under the western sector, four in the middle sector and eight in the eastern sector.

(i) 23 contested areas were identified by the government through various mechanisms since India first accepted the concept of LAC in 1993.



Project-15B Class Destroyer Ship: Visakhapatnam

Why in News

Recently, the **first ship of the four Project-15B state-of-the-art stealth guided missile destroyers** i.e. 'Y 12704 (Visakhapatnam)', was delivered to the Navy.

- The ship is constructed using **indigenous steel DMR 249A** and is **amongst the largest destroyers constructed** in India.

Key Points

- **India's Destroyer Construction Programme:**
 - India's indigenous Destroyer construction programme **commenced in the late 1990s with the three Delhi class (P-15 class) warships** and this was **followed by three Kolkata class (P-15A) destroyers** commissioned a decade later.
 - Presently, under the **P-15B (Visakhapatnam Class)**, a total of four warships are planned (Visakhapatnam, Mormugao, Imphal, Surat).

- The Destroyers **come next only to an Aircraft Carrier (INS Vikramaditya)** in terms of their reach and endurance.

➤ Project-15B:

- **Four Guided missile Destroyers of Project 15B (P 15B)** are under construction at M/s Mazagaon Dock Shipbuilders Limited, Mumbai. The contract for construction of these four ships was signed in 2011.
- These ships are **amongst the most technologically advanced Guided Missile Destroyers** of the world, with **state-of-the-art weapon/sensor package**, advanced stealth features and a high degree of automation.

➤ Features of the P-15B Ships:

- These ships are equipped with **BrahMos supersonic cruise missiles** and long-range **Surface-to-Air Missiles (SAM)**.
- The ship has several indigenous weapons systems like **medium range Surface-to-Air Missile (SAMs)**, indigenous torpedo tube launchers, anti-submarine indigenous rocket launchers and 76-mm super rapid gun mount.

➤ Other Three Ships of Project 15B:

- The **second ship of P15B, Mormugao** was launched in 2016, and is being readied for harbour trials.
- The **third ship (Imphal)** was launched in 2019, and is at an advanced stage of outfitting.
- The **fourth ship (Surat)** is under block erection and will be launched within this current financial year (2022).

➤ Role of P-15B:

- The **Indian Navy's responsibilities** to safeguard a large coastline of 7516 Kms and about 1100 offshore islands along with 2.01 million sq km **Exclusive Economic Zone (EEZ)** have been enhanced in the present geopolitical scenario.
- Destroyers like the P-15B class shall **play an important role** in the larger oceans of the **Indo-Pacific**, making the Indian Navy a potent force.
- The guided missile Destroyers are deployed for various responsibilities like escort duties with the Carrier Battle Group **to protect the Naval fleet against any air, surface and underwater threats.**

➤ Other Recent Projects:

- **Project 75 (I):** It envisages indigenous construction of submarines equipped with the state-of-the-art

Note:



Air Independent Propulsion system at an estimated cost of Rs. 43,000 crore.

- **Project 75:** It is a **programme by the Indian Navy** that entails building six Scorpene-Class attack submarines. The programme has been undertaken with transfer of technology from French company Naval Group (formerly known as DCNS) at the Mazagon Dock Limited (MDL).

India's Submarine Strength

Why in News

Experts say India has lost a decade in modernising its submarine fleet, while China has marched ahead in its larger naval and more specific submarine capabilities.

- Submarines first became a major factor in naval warfare during **World War I (1914–18)**, also played a similar role on a larger scale in **World War II (1939–45)**.

Key Points

- **Number of Submarines in India:**
 - Currently, India has **15 conventional diesel-electric submarines, classified as SSKs, and one nuclear ballistic submarine, classified as SSBN**. Most of India's submarines are over 25 years old, and many are getting refitted.
- **Classification of Submarines:**
 - **Diesel-Electric Submarines (SSK):**
 - Diesel-electric submarines use electric motors charged by diesel engines to move. These engines require air and fuel to operate, which means they **need to resurface more frequently**, making them easier to detect.
 - Of the SSKs, **four are Shishumar Class**, which were bought and then built in India in collaboration with the Germans starting in the 1980s.
 - **Eight are Kilo Class or Sindhughosh Class** bought from Russia (including erstwhile USSR) between 1984 and 2000.
 - **Three are Kalvari Class Scorpene submarines (P-75)** built at India's Mazagon Dock in partnership with France's Naval Group.
 - **Nuclear-Powered Attack Submarine (SSN):**
 - SSNs can stay and operate under water almost indefinitely; their endurance is limited only

by food supplies for the crew. They are also equipped with a range of tactical weapons, such as torpedoes, anti-ship cruise missiles and land-attack cruise missiles.

- **India is among six nations that have SSNs**, alongside the US, the UK, Russia, France and China.
- India has **INS Chakra 2 SSN Submarine** leased from Russia until 2022.
- **Nuclear-Powered Ballistic Missile Submarine (SSBN):**
 - A **slow-moving 'bomber' and a stealthy launch platform** for nuclear weapons.
 - The **Arihant and three more SSBNs** under construction are part of the **Strategic Forces Command**.
- **India's Modernisation Plan:**
 - **30 Year Plan:** The 30-year plan (2000-30) for indigenous submarine construction, **approved by the Cabinet Committee on Security in 1999**, envisaged two production lines of six submarines each, built in India in partnership with a foreign **Original Equipment Manufacturer (OEM)**.
 - The projects were called **P-75 and P-75I**.
 - It anticipated that India would get the 12 new submarines by 2012-15. Subsequently, India would make 12 of its own by 2030, taking the fleet size to 24, with the older submarines getting decommissioned.
 - But the **contract for P-75 was signed only by 2005**, with France's DCNS, now the Naval Group.
 - **P-75:** Of the six being built, **P-75 has delivered three Kalvari Class Scorpene submarines so far**.
 - **P-75I:** It is **yet to take off**; the Request for Proposal was issued in July 2021.
 - It will be **India's first under the Strategic Partnership Model**, which came up in 2015.
- **Challenges to Indian Naval Buildup:**
 - **China's Naval Prowess:**
 - India's underwater fleet continues to lack the requisite teeth despite the fact that high seas are the only domain in which India can checkmate China given its natural geographic advantages.
 - China already has the world's largest navy with 350 warships, including 50 conventional and 10 nuclear submarines.

Note:



- **India's Delay in Modernisation:**
 - For example, delay in signing the contract for P-75.
- **Shortfall in Indian Navy Essentials:**
 - There are other significant shortfalls of the Indian Navy including essentials capacities such as **"Advanced Towed Array Sonars (ATAS) to detect enemy submarines, heavyweight torpedoes** to neutralize them, and varied air defense systems, all of which are critical not only to their survivability, but also their overall offensive capability.
- **Deal Cancellation:**
 - India cancelled a deal for the **heavy-weight Black Shark torpedoes**, built by the Finmecannica subsidiary WASS, as a result of an unrelated **corruption scandal** that involved another subsidiary of Finmecannica, Augusta-Westland.
- **Slow Development of AIP System:**
 - The Air Independent Propulsion (AIP) system allows submarines to stay underwater for longer periods of time without being detected.
 - However, the development of the indigenous AIP system by the **Defence Research and Development Organization (DRDO)** has been delayed.
- **Government's Less Attention to Navy:**
 - Much of the Indian budget is focused on the Army, with the air force being a distant second and the navy a poor third.
 - And with naval capability **building proving time-consuming and capital-intensive**, that leaves India stuck with a continued slow pace of development of its naval capabilities relative to other actors, even as competitors such as China forge ahead more quickly.

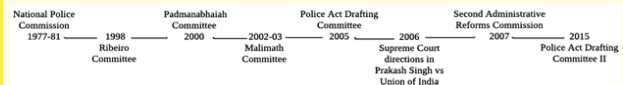
NHRC on Police Reforms

Why in News

Recently, the **National Human Rights Commission (NHRC)** has asked the **Union Ministry of Home Affairs (MHA)** and the State Governments to set up **Police Complaints Authorities** as per the judgment in **Prakash Singh vs. Union of India, 2006**.

Police Reforms

- Police reforms aim to transform the values, culture, policies and practices of police organizations.
- It envisages police to perform their duties with respect for democratic values, human rights and the rule of law.
- It also aims to improve how the police interact with other parts of the security sector, such as the courts and departments of corrections, or executive, parliamentary or independent authorities with management or oversight responsibilities.
- Police come under the state list of **schedule 7** of the Indian constitution.



Key Points

- **NHRC Recommendations:**
 - **Burden of Proof:** The MHA and the Law Ministry should consider implementing the recommendations of the **113th report of the Law Commission of India** to add Section 114 B to the **Indian Evidence Act, 1872**.
 - This would ensure that in case a person sustains injuries in police custody, it is presumed that the injuries were inflicted by the police and the burden of proof to explain the injury lies on the authority concerned.
 - **Technology-Friendly Criminally Justice System:** The legal framework should be made technology-friendly to speed up the criminal justice system.
 - Presently the legal framework is not suitable for the adoption of technology in the criminal justice system.
 - **Ensuring Accountability:** The group also recommended that the Supreme Court's December 2020 order to **instal CCTV cameras** with night vision in all police stations should be **"implemented immediately"** to ensure accountability.
 - **Community Policing:** It also pitched for the involvement of trained social workers and law students with police stations as part of **community policing** and incorporating community policing in police manuals, laws and advisories.
- **Supreme Court Directives in Prakash Singh Case 2006:**

Note:

- The **seven main directives** from the Supreme Court in the verdict were **fixing the tenure and selection of the DGP** (Director General of Police) to avoid situations where officers about to retire in a few months are given the post.
- In order to ensure no political interference, a **minimum tenure was sought for the Inspector General of Police** so that they are not transferred mid-term by politicians.
- The SC further directed postings of officers being done by Police Establishment Boards (PEB) comprising police officers and senior bureaucrats **to insulate powers of postings and transfers from political leaders.**
- Further, there was a recommendation of **setting up the State Police Complaints Authority (SPCA)** to give a platform where common people aggrieved by police action could approach.
- Apart from this, the SC directed **separation of investigation and law and order functions** to better improve policing, **setting up of State Security Commissions (SSC)** that would have members from civil society and **forming a National Security Commission.**

SEVEN DIRECTIVES OF SUPREME COURT	
1	Constitute a State Security Commission
2	Fixed two-year tenure for DGP
3	Two-year term for SPs & SHOs
4	Separate Investigation and L&O functions
5	Set up Police Establishment Board
6	Set up Police Complaints Authorities at State & Dist levels
7	Set up National Security Commission at Centre level



6th Edition of Shakti 2021

Why in News

The **sixth edition of the Indo-French Shakti 2021** (bilateral joint training exercise), will be conducted in **November in Frejus, France.**

- From the Indian side, a platoon strength of a **Gorkha Rifles** Infantry Battalion **will participate** in the exercise.

Key Points

➤ About:



- It will **focus on Counter Terrorism operations in backdrop of semi-urban terrain under United Nations Mandate** with an aim to enhance military cooperation and inter-operability between the two Armies.
- The **biennial exercise between the armies of the two countries had started in 2011.**
 - It is **conducted alternately in India and France.**
- The **last edition of the Shakti exercise** had taken place in **Rajasthan in 2019**, in which **“Counter Terrorism operations in semi-desert terrain were practised”.**
- **Defence Exercises between India and France:**
 - **Varuna – Naval exercise**
 - **Desert Knight-21 and Garuda (Air exercise)**
 - **Shakti – Army exercise**

Note:

- **Gagan Shakti** is conducted **by the Indian Air Force** to showcase its air dominance over the entire extended area of the Indian Ocean Region.
- **Garuda Shakti** is the **joint military exercise** between **India and Indonesia.**
- **Mitra Shakti** is the joint military exercise between **India and Sri Lanka.**
- **Harimau Shakti** is **India-Malaysia** joint military exercise.



Note:

Miscellaneous

Highlights

- 32nd Edition of Indo-Thai Coordinated Patrol (CORPAT)
- Kaiser-i-Hind Butterfly
- First Joint Naval Exercise: US, UAE, Bahrain and Israel
- US Joins International Solar Alliance
- Frothing in the Yamuna
- 2020 Padma Awards
- Kaho Village: Arunachal Pradesh
- Goddess Annapurna Idol
- Molnupiravir: A Drug for Covid-19
- SUBMARINE 'VELA'
- Onake Obavva
- National Sports Awards 2021
- Ocean Research Vessel-Sagar Nidhi
- Gurupurab Proposed to be Declared "Pedestrian Day"
- Swarna Jayanti Fellowship: DST
- CRPF Launches Chaupal to De-Stress Personnel
- Acharya Kriplani
- Norovirus

32nd Edition of Indo-Thai Coordinated Patrol (CORPAT)

Why in News

Recently, the 32nd edition of **India-Thailand Coordinated Patrol (Indo-Thai CORPAT)** between the Indian Navy and the Royal Thai Navy was conducted.

Key Points

➤ About Naval Exercise:

- India and Thailand have been carrying out CORPAT along their International Maritime Boundary Line **twice a year since 2005**.
- **Indian Naval Ship (INS) Karmuk**, an indigenously built Missile Corvette and **His Majesty's Thailand Ship (HTMS) Tayanchon**, a Khamrosin Class Anti-submarine Patrol Craft, along with Maritime Patrol Aircraft from both navies participated in the CORPAT.

➤ Aims:

- The exercise is aimed towards reinforcing maritime links between the two countries and with an aim of keeping this vital part of the **Indian Ocean safe and secure for international trade**.
- It facilitates institution of measures to **prevent and suppress unlawful activities** like Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.



- It further helps **enhance the operational synergy by exchange of information** for prevention of smuggling, illegal immigration and for conduct of search and rescue (SAR) operations at sea.
- **In line with India's SAGAR Vision:**
 - As part of Government of India's vision of **SAGAR (Security And Growth for All in the Region)**, the Indian Navy has been proactively engaging with the countries in the Indian Ocean Region towards enhancing regional maritime security.
 - This has been through bilateral and multilateral exercises, Coordinated Patrols, Joint **EEZ (Exclusive Economic Zone)** Surveillance, and Humanitarian Assistance and Disaster Relief (HADR) operations.
- **Other Military Exercises between India and Thailand:**
 - **Exercise MAITREE (Army)**.
 - Exercise SIAM BHARAT (Air Force).

Note:



Kaiser-i-Hind Butterfly

Why in News

Recently, Arunachal Pradesh has approved the large, brightly coloured Kaiser-i-Hind as the State butterfly.

➤ **Kaiser-i-Hind** literally means **Emperor of India**.

Key Points

➤ **Scientific Name:** *Teinopalpus imperialis*

➤ **Habitat:**

- It is one of the **very rare and elusive swallowtail butterflies** which are found at medium and higher elevations.
 - Swallowtail butterfly is any of a group of butterflies in the family **Papilionidae** (order **Lepidoptera**).
- It flies high in the canopy of broad leaved **temperate evergreen forests**.
 - The temperate evergreen forests are found in the **Eastern and Western Himalayas**.
- This butterfly with a 90-120 mm wingspan is found in (**West Bengal, Meghalaya, Assam, Sikkim and Manipur**) along the **Eastern Himalayas**.
 - Its presence indicates the existence of a good forest ecosystem and protection.
- The butterfly also flutters in **Nepal, Bhutan, Myanmar, Laos, Vietnam and southern China**.

➤ **Protection Status:**

- **IUCN:** Near Threatened
- **CITES:** Appendix II
- **Wildlife (Protection) Act, 1972:** Schedule II



Butterfly

➤ **About:**

- Butterflies are insects from the order **Lepidoptera** of **phylum Arthropoda** which also includes moths.
- Adult butterflies have large, often brightly coloured wings, and conspicuous, fluttering flight.
- Recently, a Himalayan butterfly known as **Golden Birdwing** (*Troides aeacus*) has been discovered as **India's largest butterfly** after 88 years.

➤ **Significance:**

- **Rich Biodiversity:** Abundance of butterflies in any area represents the rich biodiversity.
- **Indicator Species:** The butterfly acts as an **indicator species**.
 - An indicator species **provides information on the overall condition** of the ecosystem and of other species in that ecosystem. They reflect the quality and changes in environmental conditions as well as aspects of community composition.
- **Pollinator:** It acts as a **pollinator** by helping in pollination and conserving several species of plants.

First Joint Naval Exercise: US, UAE, Bahrain and Israel

Why in News

Forces from the **United Arab Emirates, Bahrain, Israel and the United States Naval Forces Central Command (NAVCENT)** began a **multilateral maritime security operations exercise in the Red Sea**.

➤ This is the **first publicly acknowledged naval exercise** between the United States, Israel and the two Gulf countries.

Key Points

➤ **About:**

- The **UAE and Bahrain in 2020 normalised diplomatic relations with Israel under a US-brokered deal known as the Abraham Accords**, brought together by shared worries about Iran and hopes of economic gains.
 - The **US 5th Fleet/NAVCENT** is based in the Gulf island state of Bahrain and operates in the Arabian Gulf, Gulf of Oman, Red Sea and parts of the Indian Ocean.
- Since February 2021, **Iran and Israel have been accused of engaging in what analysts have called a "shadow war"**, in which vessels linked to each nation have come under attack in waters around the Gulf in tit-for-tat exchanges.
- **Negotiations between Iran and major powers (P5+1) on reviving a 2015 nuclear deal** will resume

Note:

in Vienna on 29th November 2021, with failure carrying the risk of a sharp spike in regional tensions.

- The **five-day exercise** in the Red Sea is **intended to enhance interoperability between participating forces**.
 - Maritime collaboration **helps safeguard freedom of navigation and the free flow of trade**, which are essential to regional security and stability.
- The exercises include **boarding, search and seizure training on the USS Portland**, an amphibious transport dock ship.

➤ Red Sea:

- The Red Sea is a **semi-enclosed tropical basin**, bounded by **northeastern Africa, to the west**, and the **Arabian peninsula, to the east**.
- The elongated and narrow-shaped basin **extends between the Mediterranean Sea, to the north-west**, and the **Indian Ocean, to the south-east**.
- At the northern end, it **separates into the Gulf of Aqaba and the Gulf of Suez**, which is connected to the Mediterranean Sea via the **Suez Canal**.



- At the southern end, it is **connected to the Gulf of Aden, and the outer Indian Ocean**, via the Strait of Bab-el-Mandeb.
- It is **surrounded by desert or semi-desert areas**, with no major freshwater inflow.
- **6 Bordering Countries:** Yemen; Saudi Arabia; Egypt; Sudan; Eritrea; Djibouti.

US Joins International Solar Alliance

Why in News

Recently, the **United States of America has become the 101st member country to join the International Solar Alliance (ISA)**.

- Earlier, the **fourth general assembly of ISA** was held.

Key Points

➤ About:

- 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.
- ISA is the **nodal agency for implementing One Sun One World One Grid (OSOWOG)**, which seeks to transfer solar power generated in one region to feed the electricity demands of others.

➤ Launch:

- It is an **Indian initiative** that was launched by the Prime Minister of India and the President of France on **30th November 2015 in Paris, France** on the side-lines of the **UNFCCC Conference of the Parties (COP-21)**, with 121 solar resource rich countries lying fully or partially between the tropic of Cancer and tropic of Capricorn as prospective members.

➤ Members:

- **101** members, after being joined by the US.

➤ Headquarters:

- The Headquarters is in India with its **Interim Secretariat being set up in Gurugram**.

➤ Objectives:

- To collectively address key common challenges to the scaling up of solar energy in ISA member countries.

Note:

- **New ISA Programmes:**
 - New ISA programmes have been launched on **management of solar PV panels & battery usage waste and solar hydrogen programme.**
 - The new Hydrogen initiative is aimed at enabling the use of solar electricity to produce hydrogen at a more affordable rate than what is available currently (USD 5 per KG), by bringing it down to USD 2 per KG.

Frothing in the Yamuna

Why in News

Recently, a **layer of froth was seen floating over parts of the Yamuna river**, which has now become a repeat occurrence in Delhi.

- Earlier, **high levels of ammonia in Yamuna** resulted in frequent disruption to Delhi's water supply.

Key Points

- **About:**

River of foam cuts across Delhi

Every year, as winter sets in, the Yamuna begins to resemble a glacier, as thick sheets of foam blanket the river. This froth is toxic, and can have extremely adverse effects if consumed, or even touched



AJAY AGGARWAL/HT PHOTO

What is foam or froth formation?

Foam or froth formation is a phenomenon that takes place on many lakes and streams. Foam bubbles are produced when organic matter decomposes. These foam-producing molecules have one end that repels water and another end that attracts water and they work to reduce the surface tension on the water surface. These foam bubbles are lighter than water, so they float on the surface as a thin film that gradually accumulates.

What is foam made of?

About 1% of the foam is made up of foaming agents like phosphates and surfactants. The remaining 99% is air and water.

Why does foam form in places like the Kalindi Kunj Okhla barrage?

When water with surfactants or detergent-like molecules fall from a height (such as the Okhla barrage), they churn to form bubbles in water. Foam begins to form after monsoon, but intensify as winter approaches, because foam bubbles are much more stable in lower temperatures

How can froth formation be stopped?

IN THE SHORT-TERM

- Rid Okhla pondage of water hyacinth
- Detergents must be biodegradable so they do not persist and lose their ability to cause foam

IN THE LONG TERM

- UP, Haryana, Delhi need to upgrade sewage treatment plants
- Industrial pollution to be stopped
- Increasing the flow of the river

What are the sources of pollution that cause foam formation?

- Untreated sewage may contain soap/detergent particles
- Industrial run-off
- Organic matter from decomposing vegetation
- Presence of filamentous bacteria that let out surfactant molecules
- Pollutants from sugar and paper industries in UP that travel through the Hindon Canal

Health hazards

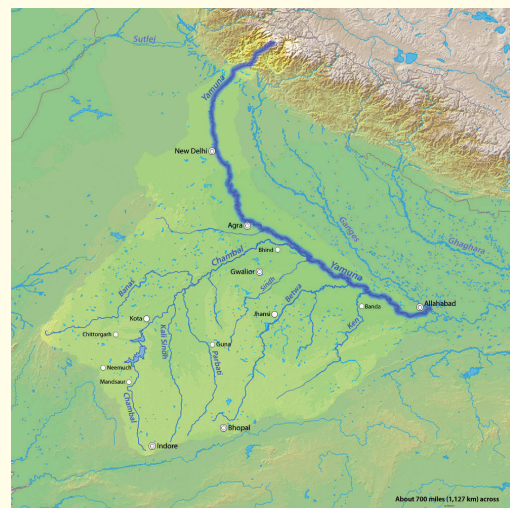
- Short-term exposure can lead to skin irritation, allergies
- Ingestion may cause gastrointestinal problems and diseases like typhoid
- Long term exposure to heavy metals in industrial pollutants can cause neurological issues and hormonal imbalances

- **Steps Taken to Stop Froth Formation:**

- The Delhi Pollution Control Committee (DPCC) **banned the sale, storage and transportation of soaps and detergents not conforming to the quality standards** set by the **Bureau of Indian Standards (BIS)**.
- The fifth report of the **National Green Tribunal (NGT)** -appointed **Yamuna Monitoring Committee** notes that though **BIS standards for detergents have been improved**, it is not clear whether these standards will actually be enforced.
 - The **role of regulatory bodies** like the **Central Pollution Control Board (CPCB)**, **DPCC** and **Pollution Control Boards (PCBs)** is generally limited to implementing discharge/effluent standards.

Yamuna

- **Source:**The river Yamuna, a major tributary of river Ganges, originates from the **Yamunotri glacier** near **Bandarpooch peaks** in the Mussoorie range of the lower Himalayas at an elevation of about 6387 meters above mean sea level in **Uttarkashi district of Uttarakhand**.
- **Basin:** It meets the Ganges at the **Sangam** (where **Kumbh mela** is held) in **Prayagraj, Uttar Pradesh** after flowing through **Uttarakhand**, Himachal Pradesh, **Haryana** and Delhi.
- **Length:** 1376 km
- **Important Dam:** Lakhwar-Vyasi Dam (Uttarakhand), Tajewala Barrage Dam (Haryana) etc.
- **Important Tributaries:** **Chambal**, **Sindh**, **Betwa** and **Ken**.



Note:

2020 Padma Awards

Why in News

Recently, the **President of India** presented the **Padma awards** to 119 recipients for the year 2020 at **Rashtrapati Bhavan**.

- The list comprises 7 Padma Vibhushans, 10 Padma Bhushans and 102 Padma Shri awards.



Key Points

- **About:**
 - The Padma Awards are announced annually on **Republic Day (26th January)**.
 - It was instituted in 1954, except for brief interruption (**suspended**) during the years **1978 and 1979 and 1993 to 1997**.
 - It is **one of the highest civilian honours** of India. A higher category of Padma award can be **conferred on a person only where a period of at least five years has elapsed** since conferment of the earlier Padma award.
- **Objective:**
 - It seeks to **recognize achievements in all fields** of activities or disciplines where an element of public service is involved.
- **Categories:**
 - The Awards are given in three categories:
 - **Padma Vibhushan** (for exceptional and distinguished service),
 - **Padma Bhushan** (distinguished service of higher-order) and
 - **Padma Shri** (distinguished service).
 - **Padma Vibhushan** is highest in the hierarchy of Padma Awards followed by Padma Bhushan and Padma Shri.
- **Disciplines:**

- The Awards are given in **various disciplines/ fields of activities**, viz.- art, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports, civil service etc.

➤ Selection Process:

- **Padma Awards Committee:** The Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.
- **Awarded by President:** The awards are presented by the President of India usually in the month of March/April every year.

Bharat Ratna

- Bharat Ratna is the **highest civilian award** of the country. It is awarded in **recognition of exceptional service/performance** of the highest order in any field of human endeavour.
- It is treated on a different footing from Padma Award. The **recommendations for Bharat Ratna are made by the Prime Minister** to the President of India. No formal recommendations for Bharat Ratna are necessary.
- The number of Bharat Ratna Awards is **restricted to a maximum of three** in a particular year. Government has conferred Bharat Ratna Award on 45 persons till date.

Kaho Village: Arunachal Pradesh

Why in News

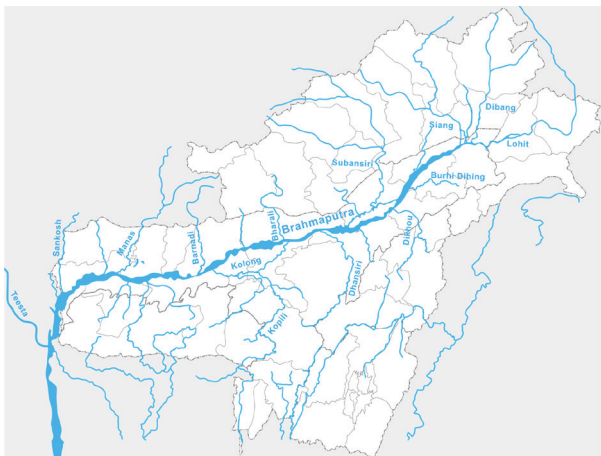
Arunachal Pradesh is planning to make a **documentary on Kaho, a village on the China border** to mark the **75th year of Independence**.



Note:

Key Points

- **About:**
 - Kaho is the **first village from the China border** in Anjaw district.
 - **Anjaw is one of the 11 districts of Arunachal Pradesh** that share their border with China.
 - According to the **2011 census**, Kaho has only 65 residents and a literacy rate of 64.15%.
 - A **documentary on the village** and the locals who belong to the **Meyor tribe** will be made.
 - **Meyor is a small tribe constituting a small population** that dwells in Kibithoo and Walong circles of the district.
 - **Meyors are also animists** like the Mishmis but they have also adopted **Mahayana Buddhism**.
 - **All tribes of Arunachal Pradesh include:** Abor, Aka, Apatani, Dafla, Galong, Khampti, Khowa, Mishmi, Monpa, Momba, Any Naga tribes, Sherdukpen, Singpho”.
 - **One of seven villages in the Kibithoo block bisected by the Lohit river, Kaho had weathered the Chinese attack in 1962.** Its people had assisted the Indian soldiers who had been outnumbered.
- **Lohit River:**
 - It is a **tributary to the Brahmaputra River**.
 - **Brahmaputra River** originates under the name of **Siang or Dihang**, from the **Chemayungdung glacier of the Kailash range** near the Mansarovar lake (Tibet). It enters India west of Sadiya town in Arunachal Pradesh.
 - It **originates in eastern Tibet**, in the **Zoyal Chu range** and surges through Arunachal Pradesh for 200 km, before reaching in the plains of Assam.



Note:

Goddess Annapurna Idol

Why in News

- Recently, an ancient **idol of Goddess Annapurna was brought back to India** after over a century from Canada.
- The Idol was **received by the Archaeological Survey of India (ASI)**. It will be placed in its original location - **the Kashi Vishwanath temple**.
- This idol was smuggled out of the country somewhere around 1913.

Key Points

- **About:**
 - **Goddess Annapurna:** She is the **goddess of food**. She is also known as the manifestation of the goddess Parvati, partner to Lord Shiva.
 - The idol holds a bowl of kheer in one hand and a spoon in the other.
 - **Benares Style:** The **18th century idol**, carved in the **Benares style**, was part of the collection at the MacKenzie Art Gallery at the University of Regina, Canada.
 - Varanasi, also known as Benares, Banaras, or Benaras or Kashi or Kasi, is a famous Hindu holy city situated on the banks of the river Ganges in the Indian state of Uttar Pradesh. It is the rich cultural tradition of Varanasi that makes it the cultural capital of India.
- **Kashi Vishwanath Temple:** It is one of the most famous Hindu temples **dedicated to Lord Shiva**.
 - It is **located in Varanasi, Uttar Pradesh**.
 - The temple stands on the **western bank of the river Ganga**, and is one of the **twelve Jyotirlingas**, the holiest of Shiva temples.
 - It was **constructed in the year 1780 by the Maratha monarch, Maharani Ahilyabai Holkar of Indore**.



Archaeological Survey of India (ASI)

- ASI, under the **Ministry of Culture**, is the premier organization for the **archaeological research and protection of the cultural heritage of the nation**.



- It administers more than 3650 ancient monuments, archaeological sites and remains of national importance.
- Its activities include carrying out surveys of antiquarian remains, **exploration** and **excavation** of archaeological sites, **conservation** and **maintenance** of protected monuments etc.
- It was founded in 1861 by **Alexander Cunningham**—the first Director-General of ASI. Alexander Cunningham is also known as the “**Father of Indian Archaeology**”.
- ASI functions under the provisions of the **Ancient Monuments and Archaeological Sites and Remains Act, 1958 (or AMASR Act)**.

Molnupiravir: A Drug for Covid-19

Why in News

Recently, it is claimed that Molnupiravir, an oral drug, can cut the risk of hospitalisation in **Covid-19** patients by half, in phase 3 trials.

- In India, the Optimus Group recently announced the results of phase 3 clinical trials, which found 91.5% of patients given the drug tested **RT-PCR (Reverse Transcription Polymerase Chain Reaction)** negative.

Key Points

- **Molnupiravir:**
 - It belongs to a class of **broad spectrum antiviral drugs called nucleoside analogues**.
 - They act by interfering with the function of **viral RNA (Ribonucleic Acids) polymerases** – which are enzymes that make new viral RNA in infected cells.
 - RNA is a polymer of ribonucleotides and an important biological macromolecule that is present in all biological cells.
 - It is principally involved in the synthesis of proteins, carrying the messenger instructions from **Deoxyribonucleic acid (DNA)**, which itself contains the genetic instructions required for the development and maintenance of life.
 - It works by **causing viruses to make errors when copying** their own RNA, introducing **mutations that inhibit replication**.

- It was initially invented as a **drug for the influenza virus**.

➤ Mechanism:

- These drugs work **by preventing the process of replication of the virus inside human cells**.
 - A **virus** is a biological agent that can self-replicate inside a host cell. The infected cells by viruses may produce thousands of new copies of the original virus at an extraordinary rate.
- It **alters critical enzymes** that were necessary to the virus for replicating in the human body cells.
 - As of now, the **Emergency Use Authorization is awaited** for the drug but currently, it can be administered as a pill in a **5-day regimen**.

SUBMARINE ‘VELA’

Why in News

Recently, the fourth **Scorpene Submarine ‘INS Vela’** of **Project P-75** has been delivered to the **Indian Navy**.

Key Points

- **Scorpene Class Submarine:**
 - The submarines in the **Project-75 Scorpene Class** are powered by **diesel-electric propulsion systems**.
 - Scorpene is one of the most sophisticated submarines, **capable of undertaking multifarious missions** including anti-surface ship warfare, anti-submarine warfare, intelligence gathering, mine laying, and area surveillance.
 - The Scorpene class is the **Navy’s first modern conventional submarine series in almost two decades since INS Sindhusashtra**, procured from Russia in July 2000.



Note:

➤ Project 75:

- It is a programme by the Indian Navy that entails **building six Scorpene Class attack submarines**.
 - The design of the **Kalvari class of submarines** is based on the French Scorpene class of submarines.
- It is given support by the **Department of Defence Production (Ministry of Defence)** and **Indian Navy** throughout its various phases of construction.
- The **Mazagon Dock limited (MDL)** is manufacturing six Scorpene submarines with **technology assistance from Naval Group of France** under a **USD 3.75 bn deal signed in October 2005**.
 - MDL is a defence public sector undertaking shipyard under the Ministry of Defence.
- **Other Submarines under Project-75:**
 - Two submarines, **Kalvari** and **Khanderi**, have been commissioned into the Indian Navy.
 - The Scorpene '**Vagir**' is under trials.
 - The sixth one, **INS Vagsheer**, is under construction.

Onake Obavva

The Karnataka government has decided to celebrate '**Onake Obavva Jayanti**' on **11th November** throughout the state from this year (2021).

Key Points

- **About:**
 - Onake Obavva was a **woman warrior who fought the forces of Hyder Ali** single-handedly with a **pestle** ('onake' in Kannada) in Chitradurga in the 18th century.
 - **Hyder Ali**, a ruler of the Mysore Kingdom and father of **Tipu Sultan** invaded the **Chitradurga Fort**, which was ruled by **Madakari Nayaka** in the 18th century.
 - **Chitradurga Fort**, locally known as **Elusuttina Kote**, (the fort of seven circles in Kannada), is situated in Chitradurga, 200 km northwest of Bengaluru.
 - Onake Obavva was the **wife of soldier Kahale Mudda Hanuma**, who was the guard of the fort.
- **Significance of Obavva:**
 - Obavva is considered to be the **epitome of Kannada pride** and celebrated along with other **women warriors of Karnataka state** like.



- **Abbakka Rani** (first Tuluva Queen of Ullal in coastal Karnataka who fought the Portuguese).
- **Keladi Chennamma** (the queen of the Keladi Kingdom who is known for fighting against Mughal emperor Aurangzeb), and
- **Kittur Chennamma** (Queen of Kittur known for the 1824 revolt against the British East India Company).
- Inspired by Onake Obavva, in 2018, the Chitradurga police started '**Obavva Pade**', a squad of women police constables to protect and educate women in the district.

National Sports Awards 2021

Why in News

Recently, the **Ministry of Youth Affairs & Sports** announced the **National Sports Awards 2021**.

- The National Sports Awards of India **comprise six different awards** given to sportspersons of India by the Central Government.

Key Points

- **About:**
 - **Major Dhyan Chand Khel Ratna Award:**
 - Formerly known as the **Rajiv Gandhi Khel Ratna**, it is the **highest award bestowed to a sports person in India** and was instituted in the year 1991-1992.
 - It is given for the spectacular and **most outstanding performance in the field of sports by a sportsperson over a period of the previous four years**.
 - It comprises a medallion, a certificate, and a cash prize of Rs 25 lakh.

Note:



○ Arjuna Award:

- It was **instituted in 1961** by the Government of India to recognise outstanding achievement in national sports events.
- It is given for **good performance over a period of previous four years** and showing qualities of leadership, sportsmanship and a sense of discipline.
- The award carries a cash prize of Rs 15 lakh, a bronze statue of Arjuna and a scroll of honour.

○ Dronacharya Award:

- It was **instituted in 1985** by the Government of India to **recognise excellence in sports coaching**.
- It is **given to coaches** for doing outstanding and meritorious work on a consistent basis and enabling sportspersons to excel in International events.
- It carries a cash prize of Rs 15 lakh, a bronze statue of Dronacharya and a scroll of honour.

○ Dhyan Chand Award:

- It was instituted **in the year 2002** and comprises a Dhyan Chand statuette, a cash prize of Rs 10 lakh, a certificate and a ceremonial dress.
- It is given to honour sportspersons who have contributed to sports by their performance and **continue to contribute to promotion of sports events after their retirement**.

○ Maulana Abul Kalam Azad Trophy:

- It was instituted in the year 1956-1957.
- It is for **university-level sports performances**.
- It is given to a university for **“top performance in the inter-university tournaments”** over the **period of the last one year**.

○ Rashtriya Khel Protsahan Puruskar:

- It was instituted in the year 2009
- It is **given to corporate entities** (both in private and public sector), **sports control boards, NGOs** including sports bodies at the State and National level who have played a visible role in the area of sports promotion and development.

➤ Government Initiatives for Sports Development:

- **Khelo India Scheme.**
- **National Sports Development Fund.**
- The National Sports Talent Contest (NSTC) Scheme.
- Sports Authority of India Training Centres Scheme (STC).
- Special Area Games (SAG) Scheme.

Ocean Research Vessel – Sagar Nidhi

Why in News

Recently, the Union Minister of Earth Sciences visited the Indian Subcontinent’s Pioneer **Ocean Research Vessel (ORV) Ship SagarNidhi**.

- Earlier, the **Ministry of Earth Sciences (MoES)** has launched India’s first manned ocean mission **“Samudrayaan”** in Chennai.

Key Points

➤ About:

- It was commissioned in 2008 for the **country’s marine research programme**.
 - It is the third research vessel after **Sagar Purvi** and **SagarPaschimi**.
- The vessel is capable of carrying out **geo-scientific, meteorological and oceanographic research**, and is designed with blue-water capability with ranges of up to 10,000 nautical miles (19,000 km) for voyages lasting up to 45 days.
 - A **blue-water capability** refers to an oceangoing fleet able to operate on the high seas far from its nation’s home ports.
- It is the first Indian flagged research ship that reached **the 66°S latitude [Antarctic waters]**, facing 11 storms and 73 nm/hr wind speed, witnessing nature’s harshest conditions.
- MoES has, at present 6 ships, **SagarNidhi, Sagar-Manjusha, SagarKanya, SagarSampada, Sagar Tara & SagarAnveshika**, which are used for many ocean studies and applications including ocean observations.

➤ Significance:

- Research Vessels (Ships) are required for exploration and harnessing ocean resources for the **Blue**

Note:



Economy and participation in search and rescue operations, more specifically for the implementation of the **Deep Ocean Mission**.

- It is used for launching **tsunami monitoring systems** and remotely operable vehicles, for identifying **mines** and **gas hydrates**
- It will also be used for conducting **oceanic studies on the fuel** of the future gas hydrates and search for scientific evidence about **origin of life and cures for chronic diseases** (Diseases that last one year or more).

Ministry of Earth Sciences (MoES)

- It has the mandate of **providing weather, climate, Ocean and seismological services** and to harness living and non-living resources.
- It is also involved in development of relevant **Ocean Technology and Ocean Survey** of the **Exclusive Economic Zone (EEZ)** and deep oceans for minerals and energy.
 - **National Institute of Technology (NIOT)** Chennai has the mandate to develop technologies for the sustainable harvesting of living and non-living resources of the ocean.

Gurupurab Proposed to be Declared “Pedestrian Day”

Why in News

Recently, Punjab Police has proposed to the Union Ministry of Road Transport and Highways that the birth anniversary (Gurpurab) of **Guru Nanak Dev** be declared as ‘**Pedestrian Day**’ to spread awareness on road safety.

- In 2021, Guru Nanak’s 552nd Gurpurab will be celebrated on 19th November.

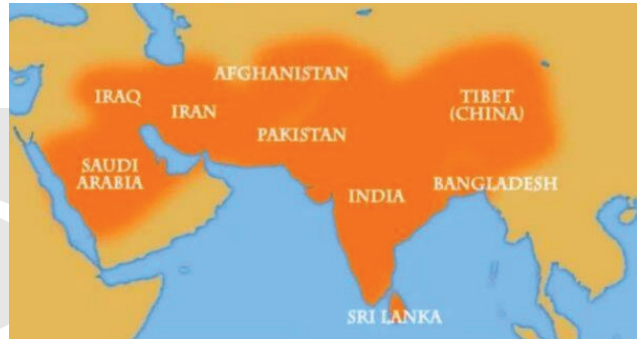
Key Points

- **About:**
 - To spread **the message of oneness and to break barriers across faiths by engaging in spiritual dialogues**, Guru Nanak Dev, travelled far and wide during the 15th and 16th centuries.
 - It is believed that during those times, when early modes of transport were limited and were mostly restricted to boats, animals (horses, mules, camels, bullock carts), Guru Nanak Dev, **along**

with his companion Bhai Mardana, undertook **most part of his journeys on foot**.

➤ Journey of Guru Nanak Dev:

- From Mecca to Haridwar, from Sylhet to **Mount Kailash**, he **visited hundreds of interfaith sites** related to **Hinduism**, Islam, Buddhism, and Jainism throughout his journeys (also called **udaasis**).
- At some sites, **gurdwaras were constructed to commemorate his visit**. Later his travels were documented in texts called ‘**janamsakhis**’.
- These sites are now spread across nine nations as per current geographical divisions — **India, Pakistan, Iran, Iraq, China (Tibet), Bangladesh, Saudi Arabia, Sri Lanka, and Afghanistan**.



➤ Significance of the Proposal:

- It highlights the government’s commitment towards “**Right to walk**” or **pedestrian rights**. It will encourage citizens’ participation to introduce the ‘**Save Pedestrian**’ pledge for giving pedestrians the first right on the roads.
- A community which safeguards **its pedestrian is treated as developed and contributes to sustainable development goals**.
- On an average, **at least a thousand pedestrian deaths** are reported in Punjab alone each year.

About Guru Nanak

- He was born in 1469 at Talwandi Rai Bhoie village near Lahore.
- **Sikhism** was established by **Guru Nanak** and subsequently led by a succession of nine other Gurus.
- His teachings attributed to that **there is only one God**, and that **all human beings can have direct access to God** without rituals or priests.
- His teachings denounces the caste system and teaches that **everyone is equal, regardless of caste or gender**.

Note:

- He introduced the concept of **god- that is 'Vahiguru'**, an entity that is shapeless, timeless, omnipresent and invisible. Other names for God in the Sikh faith are Akal Purakh and Nirankar. He advocated the **'Nirguna' (devotion to and worship of formless divine) form of bhakti.**
- He died in **1539 at Kartarpur, Punjab** (Now Pakistan).
- **Guru Granth Sahib**, the holiest book of the Sikhs, contains 974 poetic hymns composed by Guru Nanak.

Swarna Jayanti Fellowship: DST

Why in News

The **Department of Science & Technology (DST)** has selected 17 scientists for the **Swarna Jayanti fellowship.**

- They were awarded for their **innovative research ideas and the potential of creating an impact on Research and development (R&D) in different disciplines**, the Science and Technology Ministry.

Key Points

- The Swarna Jayanti Fellowships scheme was instituted by the Government of India **to commemorate India's fiftieth year of Independence (1997).**
- It provides **special assistance and support to a selected number of young scientists** with a proven track record to enable them to pursue basic research in frontier areas of science and technology.
- The award consists of a **Fellowship of Rs. 25000 per month** in addition to the salary drawn from the parent Institute along with a Research Grant of **Rs. 5 lakh per annum by Department of Science and Technology (DST) for a period of 5 years.**
 - In addition to fellowship, grants for equipment, computational facilities, consumables, contingencies, national and international travel, and other special requirements, if any, are covered based on merit.
 - The **fellowships are scientist specific** and not institution-specific, very selective, and have close academic monitoring.
- Scientists selected for the award are allowed to pursue unfettered research with freedom and flexibility in terms of expenditure as approved in the research plan.

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

CRPF Launches Chaupal to De-Stress Personnel

Why in News

Recently, the **Central Reserve Police Force (CRPF)** has decided to start a **'Chaupal'** like **get-together for its personnel to vent their mental agony.**

- Chaupal is a popular meeting activity in the rural areas.

Key Points

- **About:**
 - Once or twice a week, 18-20 personnel will sit in chairs in a circle outdoors, perhaps under a tree. The chaupal, which shall be planned beforehand, **will be attended by personnel of all ranks**, all of whom will be in civilian clothes.
 - Company, platoon, or section commanders must necessarily be part of the chaupal "group sharing exercise".
 - **Senior officials will interact with the troopers** to know their difficulties and other issues which can lead to mental stress.
 - Regular Yoga classes, daily exercises, counselling and other remedial measures are there in the system but something more has to be done to weed out the mental stress and fatigue of the forces.
- **Incidents of Suicide:**
 - There have been **over 100 cases of suicides** in the largest para- military force from 2020 till September 2021. **The highest number of fratricides have been committed in 2021.**
 - In 2017, 2018, 2019 and 2020 the number of suicides among the CRPF **were 38, 38, 43 and 60, respectively.**

Note:



➤ **Reasons for Suicide:**

- Domestic problems, illness, financial problems, sanction of leave to the jawans, and sometimes tough postings are some of key factors behind the suicides.

Central Reserve Police Force (CRPF)

- CRPF came into existence as **Crown Representative's Police on 27th July 1939**. It became the Central Reserve Police Force on enactment of the CRPF Act on 28th December 1949.
- The mission of the CRPF is **to enable the government to maintain Rule of Law, Public Order and Internal Security effectively and efficiently**, to Preserve National Integrity and Promote Social Harmony and Development by upholding the supremacy of the Constitution.
- It is **one of the premier Central Armed Police Forces of India** (under the Ministry of Home Affairs).

Acharya Kriplani

Why in News

Recently, The Prime Minister has paid tributes to Acharya Kripalani on his Birth Anniversary (11th November).

Key Points

➤ **About:**

- He was **born on 11th November 1888 in Hyderabad, Sindh**.
- His original name was **Jivatram Bhagwandas Kripalani** but was popularly known as Acharya Kripalani. He was **an independence activist, Indian politician and an Educationist**.

➤ **Educationist:**

- From 1912 to 1927, he taught at various places before becoming wholly involved in the freedom movement.
- He earned the **moniker 'Acharya' around 1922 when he was teaching at the Gujarat Vidyapith**, founded by the Mahatma a couple of years before.



➤ **An Environmentalist:**

- He, along with Vinoba Bhave, was involved in preservation and conservation activities throughout the 1970s.

➤ **Independence Activist:**

- He was part of the **Non-Cooperation Movement (1920-22)** and the **Civil Disobedience movements (started in 1930)** and **Quit India Movement (1942)**.
- He was the **President of Indian National Congress (INC) at the time of independence**. He served in the Interim government of India (1946–1947) and the Constituent Assembly of India.

➤ **Political Career:**

- He became **one of the founders of the Kisan Mazdoor Praja Party (KMPP)** after independence leaving congress.
 - He was **elected to the Lok Sabha in 1952, 1957, 1963 and 1967** as a member of **Praja Socialist Party**.
 - He **moved the first-ever No confidence motion in Lok Sabha in 1963**, immediately after the **India-China War (1962)**.
 - In 1963, Sucheta Kripalani, a Congress leader became the **Chief Minister of Uttar Pradesh, a first for any woman in the country while her husband Acharya remained an opponent to the Congress**.
 - He was a **critic of Nehru's policies and Indira Gandhi's rule**. He was **arrested during Emergency (1975)**.
- **My Times**, his autobiography published posthumously in 2004.

Norovirus

Why in News

Recently, a **highly contagious virus named Norovirus** has been detected in Kerala.

Key Points

➤ **About:**

- It is a group of viruses that leads to **gastrointestinal illness**.
- It causes **inflammation of the lining of the stomach and intestines**, in addition to severe vomiting and diarrhoea.

Note:



- Norovirus is **resistant to many disinfectants and can heat up to 60°C**. Therefore, merely steaming food or chlorinating water does not kill the virus. The virus can **also survive many common hand sanitisers**.
- **Transmission:**
 - A person can be infected with **different varieties of norovirus several times in their lives**, but developing immunity to one type doesn't provide protection against other varieties.
 - The virus can be transferred **from an infected to a healthy individual through contaminated surfaces or food**.
 - The virus can primarily be **transmitted from oral-faecal**.
 - Disease outbreaks typically occur aboard cruise ships, in nursing homes, dormitories, and other closed spaces.
- **Vulnerable Group:**
 - The virus can affect people **across all age groups** but is known to cause **serious symptoms in children, the elderly and people with comorbidities**.
- **Symptoms:**
 - Diarrhoea, Vomiting, Stomach ache, Gastrointestinal problems etc are the symptoms.
- **Treatment:**
 - While there is no specific treatment available to cure the virus, generic medications for diarrhoea and vomiting can help cure the disease.
- **Status:**
 - There are 685 million cases annually, of which 200 million are detected among children younger than five years.
 - Nearly 50,000 children die every year due to diarrhoea caused by the virus.



drishti

Note:



drishti

