



VAJIRAM & RAVI

(Institute for IAS Examination)

Current Affairs (November 2021)

the RECITALS



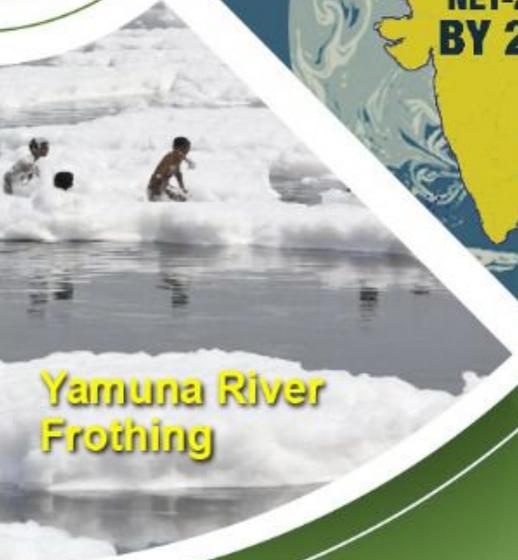
41st Scientific Expedition to Antarctica



OMICRON - NEW 'Variant of Concern'



NET-ZERO BY 2070



Yamuna River Frothing

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 - G20 Summit 2021
- Kulbhushan Jadhav Gets Right Of Appeal
- Pak Navy Kills Indian Fisherman
 - China Eyes BRI Rebrand
- UNGA Graduates Bangladesh, Nepal
 - US Inflation & Impact On India
 - Cryptocurrency Regulation
- One Sun, One World, One Grid
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 - S-400 Missile System



CSIR Jigyasa



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All India Judicial Service (AIJS)

Time and again, the need for the formation of an All-India Judicial Service, on the lines of the Central Civil Services, has been emphasized for improving quality of subordinate courts. This would entail the formation of an all-India cadre for officers appointed in the **rank of additional district judge**. The recruitment would be through a national-level examination and it is being suggested that up to 25% of the officers in each State could be drawn from this all-India cadre.

Idea is to ensure an efficient subordinate judiciary, to address structural issues such as:



History Of Proposed AIJS

- The idea of an AIJS has been deliberated since Independence. The idea was first mooted in the **Law Commission's 1958 'Report on Reforms on Judicial Administration'**.
- After the Swaran Singh Committee's recommendations in 1976, the provision of AIJS was included in **Article 312(1)** of the Constitution through the **42nd amendment in 1976**. But it would still **require a bill** to decide on its broad contours.
 - **Article 312:** Rajya Sabha is required to pass a resolution supported by not less than 2/3rd of its members present and voting. Thereafter, Parliament has to enact a law creating the AIJS.
 - Thus, no constitutional amendment will be required for establishment of AIJS.
- The **First National Judicial Pay Commission** (Justice Jagannath Shetty Commission) in 1996, also recommended it at the district judge-level.
- Moreover, the vision document titled Strategy for **New India @ 75**, released by the NITI Aayog, amongst other things, proposed creation of an AIJS akin to the other central services like the IAS and the IPS.

How Are District Judges Currently Recruited

- **Articles 233 and 234** of the Constitution deal with appointment of district judges, and place it in the domain of the states.
- 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 judicial services exam.
- 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.

Argument For Creation Of AIJS

- An All India service will offer a more **streamlined, objective, and regularized recruitment process** for the vacancies of District judges in the country. The open competition would provide objectivity in the hiring process of the judiciary by reducing the *discretion of the selection panel*.
- It will ensure that subordinate court judges are paid salaries and given perks at parity with government bureaucrats, thereby **incentivizing the option of state judiciary as a viable career prospect**.
- The **quality of judges** will improve as the best legal talent (from our law schools and young and well-informed judicial officers) across the country would be selected on the basis of merit. The prospects for promotion to the superior courts, for the lower judiciary, at an early age would also increase, as they currently join at a much later age than Bar Association judges.
- The AIJS is also being proposed as a **panacea to cure the chronic vacancy crisis** plaguing the Indian subordinate judiciary, and the **resultant pendency of cases**. The lower judiciary — which has a sanctioned strength of more than 22,000 judges — is staring at more than 5,000 vacancies in judicial officers' posts as of

July 2021. The backlog in the lower judiciary stood at 3.8 crore cases, thus accounting for more than 4.4 crore cases pending across the Indian judiciary.

- The **efficiency and efficacy of judiciary** would be increased and the issue of corruption, nepotism *etc.* would be strongly dealt with. A career in judicial service will make the judiciary more responsible, more professional, and possibly also more equitable.
- **Promote national integration:** AIJS will lead to the appointment of the best talents from other states in states with scarce resources.
- **Uniformity throughout the country:** The quality of adjudication and administration of justice would achieve uniformity throughout the country by eliminating differences at the state level in laws, practices, and standards.
- **Representation of the marginalized section:** By following the reserve system in recruitment, underrepresented communities will be represented in the judiciary. It was reported in 2018 that **OBC** accounted for only **12% of the judges** in the lower judiciary in 12 states.

Arguments Against Creation Of AIJS

- As the Constitution only permits the appointments of District Judges to such a prospective AIJS, it will **not magically remedy the shortage of judges at the subordinate level.**
- The idea of an AIJS has been significantly *contentious within the legal fraternity and other concerned stakeholders.* The idea has been vehement **disagreed by almost half the High Courts.**
- Many states see this as an attempt by the central government to **encroach state's domain.** Thus, it will be another ground for conflict between the Union and other federal units.
- If the control over State judiciary is transferred to Union government by removing control of High Court as currently provided under **Article 235**, the **independence of judiciary** would be undermined. A central test could give the executive a foot in the door for the appointment of district judges and dilute the say of High Courts.
- **Language and representation** are key concerns highlighted by states. Judicial business is conducted in regional languages, which could be affected by central recruitment. The judges appointed by the All India process will need to familiarize themselves with the **local languages, customs and laws of the State.**

As per, **Code of Civil Procedure, 1908** and **Code of Criminal Procedure, 1973** the proceedings of civil and criminal courts are to be conducted in a language prescribed by the State Government. Only High Courts are required to conduct their proceedings in English, although some High Court have a special exemption and conduct their proceedings in Hindi.

Way forward

- Any ground-breaking reform is bound to receive criticism. The feasibility of the AIJS in the current context requires to be studied, especially when reliance is placed upon archaic reports of the Law Commission.
- It is for the Union to dispel doubts and at the same time give wings to the aspirations of all stakeholders when implementing the proposal.
- Besides creation of AIJS, it will also be prudent to investigate the reasons and causes for the large number of vacancies in lower judiciary so that the timely corrective steps can be taken.
- Moreover, even after the selection, **a continuing training may be introduced** to ensure the development of skills, ethics, knowledge and awareness of international best practices.
- Introduce a **performance index for judges**, separate state wise index for ease of getting justice & also an administrative cadre in the judicial system to streamline processes.

Judiciary's View on AIJS

- In 1992, the Supreme Court in **All India Judges' Assn. (1) v. 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 Supreme Court took **suo motu cognizance** of the issue of appointment of district judges, and mooted a **"Central Selection Mechanism"**.
- An amicus curiae (friend of Court) appointed by 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.
- The amicus curiae submitted that this would not change the constitutional framework or take away the powers of the states or High Courts.



JPC Adopts Personal Data Bill

Recently, a Joint Parliamentary Committee (JPC) has finalised and adopted the draft report on The Personal Data Protection (PDP) Bill, 2019 by a majority. The JPC has got five extensions to submit a report on the Bill in two years. JPC on Personal Data Protection (PDP) Bill 2019 has argued in its report defending the controversial **exemption clause 35** that allows the Government to keep any of its agencies outside the purview of the law. The committee has retained the Clause with minor change.

What Is Clause 35?

Clause 35 in the name of "public order", 'sovereignty', "friendly relations with foreign states" and "security of the state" allows **any agency under the Union Government exemption from all or any provisions of the law**.

Personal Data and Data protection

- Data can be broadly classified into two types: personal and non-personal data. **Personal data** pertains to characteristics, traits or attributes of identity, which can be used to identify an individual. **Non-personal data** includes aggregated data through which individuals cannot be identified.

Key suggestions on data protection law



STRICT NEW NORMS

- 72-hour deadline for notification of breach, including of non-personal data
- Companies need to ensure fairness of algorithm or method used for processing personal data
- A data protection officer needs to be from senior management
- Companies will need to mandatorily disclose to data principals if their information is passed on to third party

RELAXATIONS FOR GOVERNMENT

- If data is passed on to another entity for purposes of State use, there need not be mandatory disclosure
- Government departments to carry out in-house inquiry to fix blame in case of breach, instead of head of department being responsible
- Government should quantify penalties for companies violating provisions of the law

SOCIAL MEDIA AS PUBLISHERS?

The report recommends that social media companies mandatorily verify users to keep their status as intermediaries. They will be liable for posts by unverified accounts

PUSH ON LOCALISATION

The commission also suggested that the central government bring back copies of sensitive and critical personal data that is already with foreign entities in a time-bound manner

- For example, while an individual's own location would constitute personal data; information derived from multiple drivers' location, which is often used to analyse traffic flow, is non-personal data.
- It trifurcates personal data. Some types of personal data are considered **sensitive personal data (SPD)**, which the Bill defines as financial, health, sexual orientation, biometric, genetic, transgender status, caste, religious belief, and more. Another subset is **critical personal data**. The government at any time can deem something critical, and has given examples as military or national security data.
 - **Sensitive personal data** may be transferred outside India for processing if explicitly consented to by the individual and after the approval of a Data Protection Agency (DPA). However, such sensitive

personal data should continue to be stored in India. Certain personal data notified as **critical personal data** by the government can only be processed in India.

- Data protection refers to policies and procedures seeking to minimise intrusion into the privacy of an individual caused by collection and usage of their personal data.

Why Does Data Matter?

- Data is any collection of information that is stored in a way so computers can easily read them (binary format). Data usually refers to information about your messages, social media posts, online transactions etc.
- This large collection of information about persons and their online habits has become an important source of profits, but also a potential avenue for invasion of privacy because it can reveal extremely personal aspects.
- Companies, governments, and political parties find it valuable because they can use it to find the most convincing ways to advertise online.
- Currently, the usage and transfer of personal data of citizens is regulated by the Information **Technology (IT) Rules, 2011**, under the IT Act, 2000.

The Personal Data Protection Bill, 2019

It was introduced in Lok Sabha, on December 11, 2019.

- **Objective:** The Bill seeks to provide for protection of personal data of individuals, and establishes a **Data Protection Authority** for the same.
- **Applicability:** The Bill governs the processing of personal data by: (i) government, (ii) companies incorporated in India, and (iii) foreign companies dealing with personal data of individuals in India.
- **Obligations of data fiduciary:** All data fiduciaries must undertake certain transparency and accountability measures such as:
 - **Implementing security safeguards** (such as data encryption and preventing misuse of data),
 - **Instituting grievance redressal mechanisms** to address complaints of individuals.
- **Rights of the individual:** The Bill sets out certain rights of the individual (or data principal). These include the right to:
 - **Obtain confirmation from the fiduciary** on whether their personal data has been processed and **Seek correction** of inaccurate, incomplete or out-of-date personal data.
 - **Have personal data transferred** to any other data fiduciary in certain circumstances.
 - **Restrict continuing disclosure** of their personal data by a fiduciary, if it is no longer necessary or consent is withdrawn.
- **Grounds for processing personal data:** The Bill allows processing of data by fiduciaries only if consent is provided by the individual. However, in certain circumstances, **personal data can be processed without consent**. These include: (i) if required by the State for providing benefits to the individual, (ii) legal proceedings, (iii) to respond to a medical emergency.
- **Social media intermediaries:** Intermediaries which enable online interaction between users and allow for sharing of information, which have users above a notified threshold, and whose actions can impact electoral democracy or public order, have certain obligations, which include providing a voluntary user verification mechanism for users in India.
- **Data Protection Authority:** It may take steps to protect interests of individuals, prevent misuse of personal data and ensure compliance with the Bill. It will consist of a chairperson and six members, with at least 10 years' expertise in the field of data protection and information technology.

- **Transfer of data outside India:** Sensitive personal data may be transferred outside India for processing if explicitly consented to by the individual, and subject to certain additional conditions. However, such sensitive personal data should continue to be stored in India.
- **Exemptions:** The central government can exempt any of its agencies from the provisions of the Act:
 - **In interest of security of state**, public order, sovereignty and integrity of India and friendly relations with foreign states, and
 - **For preventing incitement to commission of any cognisable offence** relating to the above matters.
 - **Processing of personal data is also exempted** from provisions of the Bill for certain other purposes such as: (i) prevention, investigation, or prosecution of any offence, or (ii) personal, domestic, or (iii) journalistic purposes. However, such processing must be for a specific, clear and lawful purpose, with certain security safeguards.
- **Sharing of non-personal data with government:** The central government may direct data fiduciaries to provide it with any: (i) non-personal data and (ii) anonymised personal data (where it is not possible to identify data principal) for better targeting of services.
- **Amendments to other laws:** The Bill amends the **Information Technology Act, 2000** to delete the provisions related to compensation payable by companies for failure to protect personal data.

Criticisms Against The Bill

- A Bill that seeks to provide blanket exemptions either in perpetuity or even for a limited period to the 'state' and its instrumentalities, it is **ultra vires of the Fundamental Right to privacy** as laid down by the Supreme Court of India in Puttaswamy (2017) judgement.
- While some national security concerns may require the state to access and maintain records of public data, it is **important that the Bill does not make the citizens' right to privacy secondary to the nation's security interests.**
- **Security and government access are not achieved by localisation.** Even if the data is stored in the country, the **encryption keys may still be out of reach of national agencies.**
- In case of data transfer to fiduciaries or data collectors outside India, it states that the Central Government by notification can permit such fiduciaries to work outside India after consulting from the authority. But again, it **does not state any criteria or on what grounds such companies, agencies or data fiduciaries will be permitted to process the data.**
- **Protectionism may backfire on India's own young startups** that are attempting global growth, or on larger firms that process foreign data in India, such as Tata Consulting Services and Wipro.
- India reported 1.16 million cyber security cases in 2020, that's 3 times more than those of 2019. The Bill must take into **consideration data security and privacy risks** posed such modern surveillance technologies such as Pegasus.
- The Data Protection Authority is to determine whether a **data breach needs to be reported to the affected individuals or not.** Further, the draft Bill **does not specify any timeline** for notification once the breach is identified. In the case of GDPR, for instance, it is **72 hours** once the breach is identified.
- The bill leaves the procedure of selection and tenure of the adjudicating officer entirely up to the central government. It is likely that this regulator will **never be sufficiently independent** to enforce rights against the government.

Arguments In Favour Of The Bill

- **Enhanced control to consumers:** The PDP Bill would provide more control and transparency to consumers, enabling them to become 'owners' of their information.

- **Increased accountability for handling citizens' data:** The PDP Bill would hold both private and government organisations accountable for how sensitive and personal data is used by them, hence bringing in more transparency.
- **The applicability of the bill is extraterritorial,** which means that it seeks to protect the data of not only Indian citizens but any data principal within the territory of India whose data is being processed by Indian companies or MNCs situated in India or outside.
- **Data localisation:** It will help law-enforcement access data for investigations and enforcement. As of now, much of **cross-border data transfer** is governed by individual bilateral “mutual legal assistance treaties” — a process that almost all stakeholders agree is cumbersome.
- **Clause 35:** This clause is for “certain legitimate purposes” and also there is precedent in the form of the reasonable restrictions imposed upon the liberty of an individual, as guaranteed under **Article 19**.

Conclusion

- The PDP bill seems to have a clear focus on empowering citizens by giving them considerably more control over their data. The bill would certainly change the way Indians deal with and perceive their own personal data and that of others. Once the bill becomes a law, it would also help in better data management practices and data-related awareness in society
- However, the ultimate beneficiaries of the Bill, the data principals, will be deprived of their rights granted by the Bill if the data processing is done by government agencies. Amidst all the data leakages caused by Aadhar, the Bill was expected to cure a lot of data-related problems. But exemption of Central Government agencies can defeat a lot of purposes intended by this much-needed legislation.



Dark Net

- Three-day 56th conference of **DGPs and IGPs** was held at the Police Headquarters in Lucknow.
- PM Modi also participated in the Conference and presentations were made regarding the use of Darknet and associated challenges.

All about Dark Net

- Dark Net, also referred to as dark web, is a maze of **secret websites** which can be **accessed only through encrypted channels**.
- In other words, it is the hidden collective of internet sites only accessible by a specialized web browser.
- It is used for **keeping internet activity anonymous and private**, which can be helpful in both legal and illegal applications.

About The Conference

- Since 2014, the DGP/IGP conference has been held outside Delhi, with the PM and Home Minister leading the deliberation.
- The conference is organised by the Intelligence Bureau.

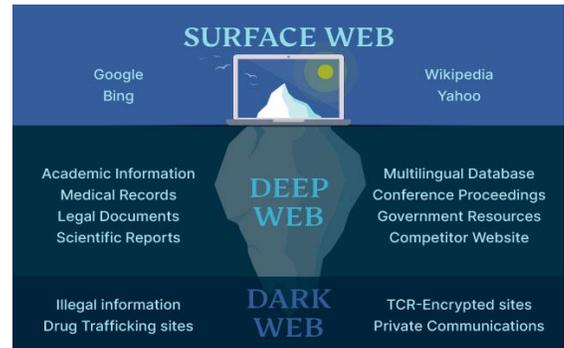
How It Operates?

- The dark web operates in secrecy using **The Onion Router (ToR)**.
 - ✓ Tor is **free and open-source software** for enabling anonymous communication.
 - ✓ It is an Internet based system to prevent eavesdropping and traffic analysis attacks.
- Experts say darknet is very tough to penetrate owing to its end-to-end encryption.
- The access to darknet is possible only through specialized browsers like Tor, Freenet, I2P and Tails to surf the darknet anonymously.

- The privacy-centric browser like Tor routes the web page requests through proxy servers thus making your **IP address untraceable**.

Dark Web Vs. Deep Web

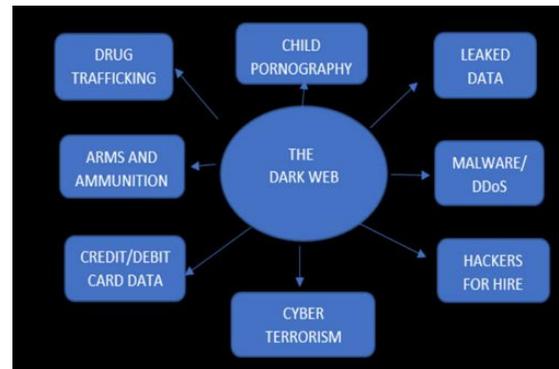
- Both the dark and deep web share one thing in common: Neither can be found in search engine results.
- The difference between them primarily lies in **how their content is accessed**.
 - ✓ Deep web pages can be accessed by anyone with a standard web browser, not indexed by Google or other search engines, who knows the URL.
 - ✓ Dark web pages, in contrast, require **special software** with the correct decryption key, as well as access rights and knowledge of where to find the content.



Use of Dark Net

- On dark web, people can search the internet **without leaving their online footprint** and without fear of being caught. Thus, due to its ability to provide an anonymous cover, the platform has become a safe haven for criminals dealing in every kind of illegal activity.
- Nowadays, darknet has become a hidden platform meant for the **sale and purchase of much of the contraband** items like drugs, arms, pornographic content and other illegal activities.

In 2017, there were at least two cases – in Chennai and Mumbai - where LSD (lysergic acid diethylamide, also called lysergide, potent synthetic hallucinogenic drug) was purchased on the dark web using bitcoins.



- The matter gets complicated with the evolution of **cryptocurrencies like bitcoin**. For transactions, the criminals take advantage of the cryptocurrencies, which leave no trace of where the money was sent and from where it was originated.
- It is also used by people who **require privacy for entirely legal reasons**, such as
 - ✓ Exchange of proprietary business information or communication by political activists.
 - ✓ One ethical use for the dark web is for law enforcement and threat intelligence agencies.
 - ✓ These types of professionals may search the dark web for signs of cybersecurity or data breaches, illegal activity, scams or other emerging threats.

Legality Of Accessing The Dark Web In India

- Accessing the dark web is **legal in India**. The Indian government does not recognize it as an illegal activity, because
 - ✓ It is just another part of the internet that one is surfing, through TOR, Freenet, etc.
 - ✓ Also, our Indian Constitution gives us the right to access Internet under Article 21.
- However, this doesn't mean one is free to do whatever he/she wants. Various activities like child pornography, buying guns, pistols, rifles, drugs, etc. are considered to be illegal.
- Hence, the dark web is not illegal. But it is the **activity or the intent of a person that is taken into account while using the dark web**.

Regulatory Challenges

- The biggest challenge with respect to regulation of the dark web is its **encryption technique and anonymity**.

- Apart from the strong encryption techniques, most financial transactions on the dark web are performed in cryptocurrencies which provide further anonymity.

What India Is Doing?

- In August 2021, at the BRICS meeting, India discussed the misuse of the darknet for drug trafficking. The group of nations will soon be coming up with a solution.
- A comprehensive legislative policy to deal with this domain is being discussed. It was deliberated upon in 56th All-India DGP-IGP Conference.
- India is also planning to implement such a system where **freely available VPNs** (Virtual Private Networks) are banned. For this, the government should create an authority under Chapter-VI of the Information Technology Act, 2000 where the government may create a mandatory charge for VPN registration.



India-France Strategic Dialogue

Recently, India-France strategic dialogue was held in **Paris**, France. It was co-chaired by NSA Ajit Doval and Emmanuel Bonne, the Diplomatic Advisor to French President.

Key Outcome

- **Resolved to expand defence & security ties** by enhancing intelligence and information sharing, bolstering capabilities, expanding military drills and pursuing new initiatives in maritime, space and cyber domains.
- **Cooperation in green development** by stressing the need to accelerate cooperation in clean energy, including civil nuclear energy and green hydrogen.
- **French support to India's vision of Atmanirbhar Bharat** by supporting defence industrialization, joint research and technology development in India across a wide range of advanced capabilities.
- France stressed on **partnership with India as a major pillar in Indo-Pacific region**.

Significance Of Current Summit Against Backdrop Of AUKUS Deal

- France's reiteration to expand strategic cooperation with India comes nearly two months after the unveiling of a new security alliance – AUKUS. AUKUS is a security alliance by Australia, the UK and the US. It is perceived as a counter to China's aggression in the Indo-Pacific region.
- It involves building submarines for Australia. The unexpected announcement of AUKUS had angered the French government after Canberra pulled out of a separate submarine deal with Paris.

[For detailed analysis of **AUKUS deal**, please refer The Recitals - *September 2021*]

India-France Bilateral Relation

Brief Overview

- In 1998, India and France established a Strategic Partnership which has since emerged as a close and growing bilateral relationship. The principal pillars of our Strategic Partnership constitute:

Defence & security cooperation

Space cooperation

Civil nuclear cooperation

- France was one of the very few countries to support India's nuclear weapons test in 1998.
- In addition, India and France are increasingly engaged in new areas of cooperation such as in the **Indian Ocean region, climate change** (including International Solar Alliance) and **sustainable growth & development, governance of cyberspace** etc.

✓ France became the 23rd member of 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.

- ✓ Also, during French President's Visit to India in March 2018, a "Joint Strategic Vision of India-France Cooperation in the Indian Ocean Region" was issued.

Defence Cooperation

- In March 2018, the two countries decided to create an annual defence dialogue at the Ministerial level, the first of which was held in October 2018.
- The three services also have regular defence exercises:

Exercise Shakti (Army)

Exercise Varuna (Navy)

Exercise Garuda (Air Force)

- Major ongoing defense related projects:
 - ✓ **Rafale aircraft:** Purchase of 36 Rafale jets by India in flyaway condition.
 - ✓ **P-75 Scorpene Project:** The contract for six Scorpene submarines from M/s DCNS (now Naval Group) was signed in October 2006. All six vessels are to be built under technology transfer at Mazagaon Docks Ltd.
- The two countries also signed the Agreement regarding the **Provision of Reciprocal Logistics Support** which will help facilitate the replenishment of fuel, rations, spares, berthing and maintenance for other nations' warships, military aircraft and troops during routine port calls, as well as during Humanitarian Assistance and Disaster Relief (HADR).

Space Cooperation

- India and France have a rich history of cooperation in the field of space for over 50 years.
- Both India and France issued a "**Joint Vision for Space Cooperation**" during the visit of President Macron to India (March 2018).
- Two sides have jointly developed **Megha-Tropiques satellite** providing valuable scientific data.
- ISRO and CNES will realize their third joint satellite mission – **TRISHNA** which is meant for eco-system stress and water use monitoring as also accommodation of a French instrument of India's OCEANSAT – 3 satellite.
- The two countries are also cooperating in the training of medical support personnel for Indian astronauts, who will be part of India's manned space mission by 2022.

Civil Nuclear Cooperation

An agreement on civil nuclear cooperation was signed between India and France in September 2008. Under that framework, **six EPR units**, of 1650 MWe each, will be constructed by France at Jaitapur.

Economic Cooperation

- In 2020, the India-France bilateral trade in goods stood at € 9.04 billion (-21.99%) as compared to the corresponding period the previous year.
 - ✓ India's exports to France were valued at € 4.80 billion, down by 22.9% during this period.
 - ✓ Indian imports from France also decreased by 20.95% to € 4.23 billion.
- The overall volume of bilateral trade remains low; constituting only 1.41% of India's total international trade.
- France is the **11th largest foreign investor** in India with a cumulative investment of USD 9.83 billion from April 2000 to March 2021 which represents 1.86% of the total FDI inflows into India.

Cultural/Tourism Cooperation

- The Namasté France cultural festival was held in India in November 2016. India will organize **Namasté**

France again in 2021-2022.

- French cultural festival **Bonjour India** was held in India from November 2017 to February 2018.
- India was to be the **Country of Honour** for the 2020 edition of the Paris International Book Fair (Livre Paris). The event was called off due to Covid-19 pandemic.

Indian Community in France

- Indian community, including NRIs in mainland France number is around 109,000.
- In March 2018, the two sides signed a **Migration and Mobility Partnership Agreement**.
- o It aims to facilitate temporary circular migration based on mobility and the encouragement for a return of skills to the home country.

Way Forward

- India and France have multi-dimensional relations which stretch in several directions reflecting the great bond between the two countries.
- However, many avenues of cooperation between Indo-French remain underexplored. Both nations have significant interests in the Indian Ocean, West Asia and North Africa. More meaningful cooperation is possible here through a robust platform
- France has hosted many climate conventions and was an important player in finalising Paris agreement. Hence, Climate change is an important area where the two countries can cooperate.
- As strategic partners, India and France should continue to support each other on international matters in a spirit of mutual understanding and commitment.
- France opens the pathway for deeper engagement with Europe on global issues, especially after uncertainty in the region due to BREXIT.
- The Covid-19 pandemic has accentuated the emergence of cracks in various multilateral institutions.
- France and India have shared a common belief in the importance of multilateralism. Hence, they can increase cooperation to strengthen multilateralism..



G20 Summit 2021

The two-day G20 summit concluded with the **G20 Rome Leaders' Declaration**. Italy being the chair hosted the summit. Indonesia will host the 2022 summit while **India will host in 2023**.

About G-20

- As a group of Finance Ministers & Central Bank Governors from 19 individual countries and European Union, it was established in 1999.
- It was **elevated to a forum of Heads of State/Government in 2008** to effectively respond to the global financial crisis of 2008.
- It is a forum, not a legislative body.
- Its agreements and decisions have **no legal impact**, but they do influence countries' policies and global cooperation



Key Outcome Of The Declaration

On Global economy

It promised to continue to sustain the recovery, avoiding any premature withdrawal of support measures.

On Health

- It promised to take steps in order to achieve the global goals of vaccinating at least 40% of the population in all countries by the end of 2021 & 70% by mid-2022 (as recommended by WHO).
- In order to reduce to vaccination gap, the summit committed to increase the provision of and access to vaccines, as well as to therapeutics and diagnostics.
- It established a G20 Joint Finance-Health Task Force aimed at
 - enhancing dialogue and global cooperation on issues relating to pandemic prevention, preparedness and response (PPR),
 - promoting the exchange of experiences and best practices,
 - promoting collective action,
 - assessing and addressing health emergencies with cross-border impact,
 - adopting a One Health approach.

Support to vulnerable countries

- It welcomed *G20 Debt Service Suspension Initiative* (decided in 2020). It means that bilateral official creditors are, during a limited period, suspending debt service payments from the poorest countries that request the suspension.
- It called on the IMF to establish a new *Resilience and Sustainability Trust (RST)* to provide affordable long-term financing to help low-income countries.

Food security, nutrition, agriculture and food systems

Commitment to achieve food security and adequate nutrition for all, leaving no one behind

Environment

- Acknowledging the urgency of combating land degradation and creating new carbon sinks, the summit sets an aspirational goal to collectively plant 1 trillion trees.
 - This goal will focus on the most degraded ecosystems on the planet
 - It also urged other countries to join forces with the G20 to reach this global goal by 2030.

Energy and Climate

- To stop funding coal-fired power plants in poor countries by the end of 2021.
- It also made a commitment to seek carbon neutrality "by or around mid-century".
- Western countries like US, EU etc. have set 2050 as their own deadline for reaching net-zero emissions, while China, Russia and Saudi Arabia are aiming for 2060. Hence, as a compromise, G20 declaration made a vague commitment to seek net zero emission
- The Group of 20 countries represent more than three-quarters of the world's greenhouse gas emissions. The commitments they agree on are seen as key in setting an example for COP26.
- The declaration reaffirmed past commitments by rich countries to mobilise \$100 billion annually to help poorer countries cope with climate change.

International taxation

- It endorsed the **Two-Pillar Solution** to Address the Tax Challenges Arising from the Digitalisation of the Economy.
- It was proposed and endorsed by the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS)

[For detailed discussion on the global minimum tax rate (Two-Pillar Solution), please refer the topic "Deal on Global Minimum Corporate Tax" from October 2021 edition of CA magazine]

India's Stand At The Summit

1) Climate Change and Environment

- Indian PM called on developed nations to set a target of providing at least 1% of their GDP for financing green projects in the developing world.

2) India Presented Three Actionable Points Before G20 Partners

Create a '**clean energy projects fund**' to be used in countries where peaking has not happened yet.

Create a network of **clean-energy research institutions** in G20 countries.

Form an **organisation** to create global standards in the field of **green hydrogen**

3) India Linked Membership to NSG to Achieving Climate Goals

- India said that achieving its climate goals may be linked to issues like membership to Nuclear Suppliers' Group (NSG) and availability of technology.
- If India is required to make a transition from coal to, say nuclear, it will need large amount of capital and safe nuclear technologies for setting up nuclear plants.
- As a result, membership of NSG would ensure adequate availability of raw material for nuclear supply and several other associated concerns around cost and power.

Summit on Global Supply Chain Resilience

- On the sidelines of G20, a summit on Global Supply Chain Resilience was convened by United States

President Joe Biden.

- The meeting discussed ways in which governments could **alleviate pressure points** in the global supply chain ecosystem.
- While participating in this summit, Indian PM underlined **three critical requirements** for improving global supply chains: **trusted source, transparency and time-frame**.
- India highlighted the fact that it is already a “trusted source” in the IT and pharma supply chains and expressed its keenness to **participate in the clean technology supply chain**.

Relevance of G20: Debate

G20 Has Outlived Its Usefulness	G20 Is Still Relevant
<ul style="list-style-type: none">• Failed to revive the sluggish global growth and falling trade• Failed to find a solution to tariff war between US and China.• The rivalry between the United States and China hijacks the agenda of this platform.• It has failed to check the rising tendency of protectionism and xenophobia. E.g., BREXIT, termination of GSP by USA etc.• Failed to initiate reforms in multilateral institutions such as IMF, WTO etc.	<ul style="list-style-type: none">• Carries significant weight - G20 members represent around 85% of global GDP, over 75% of global trade, and 65% of the world’s population.• Promotes Multilateralism - the practice of rotating the chair gives all the members a chance to shape the global agenda.• A number of overarching themes - It has gradually broadened its focus to areas like counterterrorism, Climate change, North Korea and Iran.• United Fight against COVID-19 Pandemic – In March 2020, G20 leaders pledged to inject \$5 trillion into the global economy to reduce the economic impact of the coronavirus pandemic.• In addition to this, they also agreed to contribute to WHO’s COVID-19 Solidarity Response Fund on voluntary basis.



Kulbhushan Jadhav Gets Right of Appeal

- Pakistan’s Parliament has passed a Bill to provide the **right of review and reconsideration** in the case of Kulbhushan Jadhav.
- In this regard, the **ICJ (Review & Reconsideration) Bill, 2020** has been passed with a majority vote in a joint session of Pakistani Parliament.

Why Does This Law Do?

- The law brings into effect the **2019 judgment of the International Court of Justice (ICJ)**.
- The 2019 judgement of ICJ asked Pakistan to give India consular access to Jadhav and also provide him right of review and reconsideration against his **conviction and sentence** by military court.

Why India Is Unhappy With This Law?

- India believes the Bill reiterates a **2019 ordinance** passed by Pakistan and there is nothing new in the law.
- As per India, the bill has **not created a machinery** to facilitate an effective review and reconsideration in Kulbhushan Jadhav’s case.

- The bill invites municipal courts in Pakistan to decide whether or not any prejudice has been caused to Jadhav on account of the failure to provide consular access. It further invites a municipal court to sit in appeal.
- This is clearly a breach of the basic tenet, that municipal courts cannot be the arbiter of whether a State has fulfilled its obligations under international law.
- Despite Pakistan's Parliament passing the bill, the issue is likely to remain deadlocked till Islamabad allows New Delhi to appoint a **lawyer of its choice** to represent Jadhav. India has been refusing to appoint a local lawyer and is demanding Pakistan to let an Indian lawyer represent Jadhav in the court which is not accepted by Pakistan.

Implications of 'Effective Review and Reconsideration' for India

In 2019, the ICJ ruled that Pakistan was obliged under international laws to provide by means of its own choosing "effective review and reconsideration" of Jadhav's conviction. Effective review and reconsideration is a phrase which is **different from 'review'** as one understands in a domestic course.

- It includes giving consular access and helping Jadhav in preparing his defence.
- It means that Pakistan has to disclose the charges and also the evidence which it has been absolutely opaque about uptill now.
- Pakistan would also have to disclose the **circumstances** in which Jadhav's confession was extracted by the military.

About Kulbhushan Jadhav Case

- Jadhav, an Indian national, had been arrested in Pakistan's restive province of Balochistan in 2016.
 - He was accused of terrorism, spying, & subversive activities. He was sentenced to death by a Pakistani military court in 2017.
- In May 2017, India appealed against Pakistan in ICJ to render justice for Jadhav.
- Finally, in July 2019, ICJ stayed the execution of Jadhav. It directed Pakistan to stay his execution and allow him consular access.
- The ruling upheld that Islamabad had violated Article 36 of Vienna Convention of Consular Relations, 1963.

Vienna Convention on Consular Relations

- It is an international treaty that defines a framework for consular relations between independent sovereign states.
- **Article 5** of the convention defines consular functions. It lists 13 functions of a consul, including:
 - Protecting in the receiving State the interests of the sending State and of its nationals, both individuals and bodies corporate, within the limits permitted by international law.
- **Article 36** addresses communications between consular officers and nationals of the sending state.
 - The Convention provides that consular officers shall be free to communicate with nationals of the sending State and to have access to them.

International Court of Justice (ICJ)

- ICJ is the **principal judicial organ** of the United Nations (UN).
- Established in June 1945 by the Charter of the United Nations. It began work in April 1946.
- The seat of the Court is at the Peace Palace in The Hague (Netherlands).
- Its official languages are **English and French**.
- All members of the UN are parties to the statute of ICJ. Non-members may also become parties.

Jurisdiction of the court

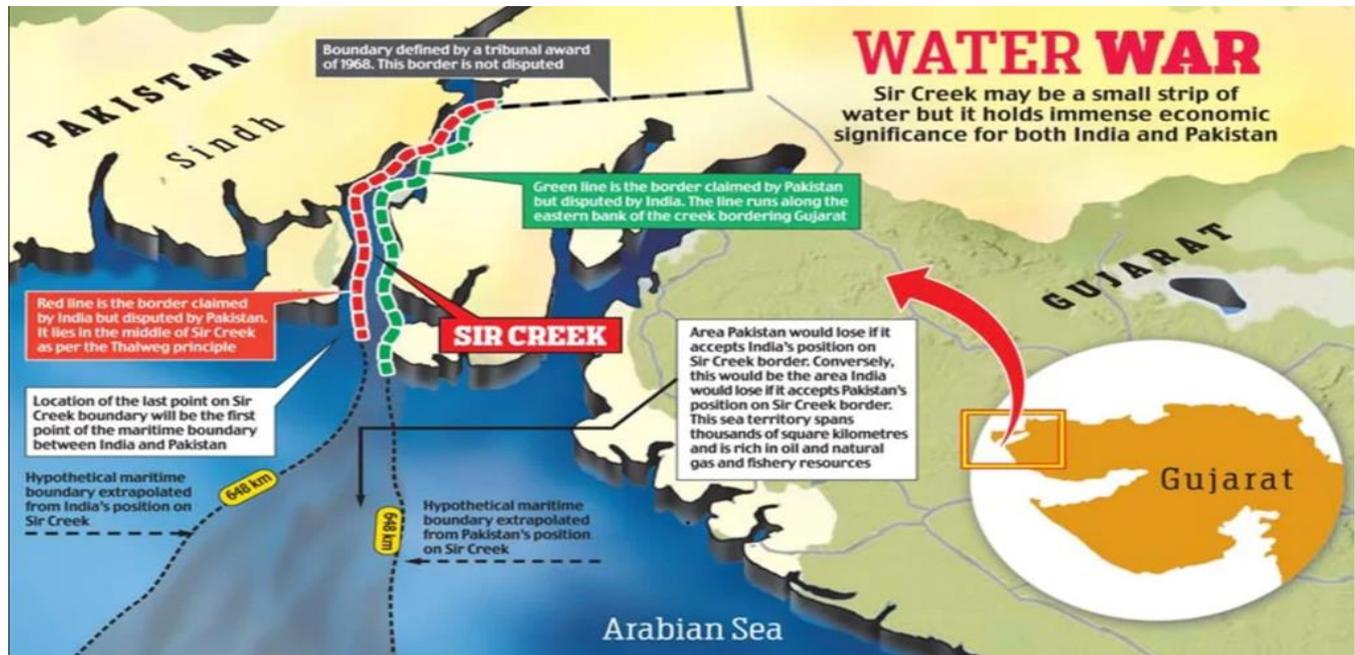
- The Court's role is to settle in accordance with international law, legal disputes submitted to it by States and to give advisory opinions on legal questions referred to it by authorized United Nations organs and specialized agencies.
- The Court is composed of 15 judges who are elected for terms of office of 9 years by the United Nations General Assembly and the Security Council.
- It is assisted by a Registry, its administrative organ.
- The court's judgment is **final and without appeal**.

Pak Navy Kills Indian Fisherman

A fisherman from Maharashtra was killed and another was injured after Pakistan Marine Security Agency troops fired at a fishing boat off the Okha Coast in Porbandar, Gujarat.

Coastal Conflicts between India and Pakistan (Sir Creek Dispute)

- Sir Creek is a **96 km (60 mile) estuary in Rann of Kutch**. An estuary is an area where a freshwater river or stream meets the ocean.
- Originally named **Ban Ganga**, Sir Creek is named after a British representative. The Creek opens up in the Arabian Sea and roughly divides the Kutch region of Gujarat from the Sindh Province of Pakistan.



Importance Of Sir Creek?

- **Fishing:** Apart from strategic location, Sir Creek's core importance is fishing resources, considered to be among the largest fishing grounds in Asia.
- **Energy security:** The region has immense economic potential. Much of the region is rich in **oil and gas** below the sea bed. Control over the creek would have a huge bearing on the energy security of each nation.

What's The Dispute?

The dispute lies in the interpretation of the maritime boundary line between Kutch and Sindh. Before India's independence, the provincial region was a part of the Bombay Presidency of British India. But after India's independence, Sindh became a part of Pakistan while Kutch remained a part of India.

A CENTURY-OLD DISPUTE

<p>1908</p> <ul style="list-style-type: none"> ■ Dispute arise between the Rao (ruler) of Kutch and the Sindh government over the collection of firewood from the creek area 		<p>2005-2007</p> <ul style="list-style-type: none"> ■ Two rounds of joint surveys of Sir Creek carried out by a joint India-Pakistan team
<p>1914</p> <ul style="list-style-type: none"> ■ Bombay government resolution map places the boundary on the eastern bank of the creek but its para 10 speaks of the mid-channel being the boundary. All these areas were under the jurisdiction of the Bombay province 		<p>2008</p> <ul style="list-style-type: none"> ■ At the fourth round of the composite dialogue in Islamabad, the two sides agree on a joint map of the area, which had been worked out through the joint survey
<p>APRIL-MAY 1965</p> <ul style="list-style-type: none"> ■ India & Pakistan armies clash in the Rann of Kutch 	<p>FEBRUARY 1968</p> <ul style="list-style-type: none"> ■ India-Pakistan tribunal on the Kutch border gives its award, which upholds 90 per cent of India's claim. But it does not cover Sir Creek 	<p>JUNE 2012</p> <ul style="list-style-type: none"> ■ After dialogue resumes on the Sir Creek issue in New Delhi, the two sides "reiterate their desire to find an amicable solution of issue through sustained dialogue"
<p>1997</p> <ul style="list-style-type: none"> ■ India and Pakistan resume composite dialogue and, among the issues, is the resolution of the Sir Creek dispute 		

Pakistan's Claim	India's Claim
<p>Pakistan <u>claims the entire creek</u> as per paragraphs 9 and 10 of the Bombay Government Resolution of 1914 signed between the then Govt of Sindh and Rao Maharaj of Kutch.</p> <ul style="list-style-type: none"> The resolution demarcated the boundaries between the two territories. It included the creek as part of Sindh, thus setting the boundary as the eastern flank of the creek popularly known as Green Line. 	<p>India claims that the <u>boundary lies mid-channel</u> as depicted in another map drawn in 1925, and implemented by the installation of mid-channel pillars back in 1924.</p>

What Does International Laws Say?

- According to international law and the Thalweg principle, a boundary can only be fixed in the middle of the navigable channel.
- If this is to be upheld, Pakistan would lose a considerable portion of the territory that was historically part of the province of Sindh.

Impact Of This Dispute

- The biggest casualty of not solving the Sir Creek dispute is that of thousands of innocent fishermen from the border region.
- They are routinely arrested and their boats and materials confiscated under the premise of illegal intrusion.
- In December 2020, the Gujarat government told the state Assembly that 345 fisherfolk from the state were lodged in Pakistani jails.

War in 1965 and Tribunal

- After the 1965 war, British Prime Minister Harold Wilson successfully persuaded both countries to end hostilities and set up a tribunal to resolve the dispute.
- The verdict of the tribunal came in 1968 which saw Pakistan getting 10% of its claim of 9,000 km (3,500 sq. miles).
- Since 1969, 12 rounds of talks have been held over the issue of Sir Creek, but both sides have denied reaching any solution.
- The region fell amid tensions in 1999 after the Pakistan Navy shot down a MiG-21 fighter plane.



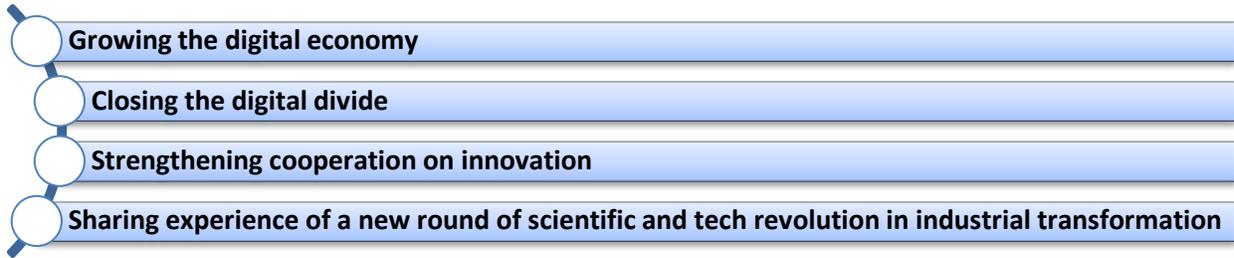
China Eyes BRI Rebrand

China is planning to rebrand its Belt and Road Initiative (BRI) in order to give strong competition to Build Back Better World (B3W) initiative of the United States.

Proposed Steps By China To Rebrand Its BRI

- Focus On Enhancing Connectivity And Realising Common Development:** China has announced that it remains open to international cooperation conducive to enhancing connectivity and realising common development.
- Green And Sustainable Development:** China is planning to lay great emphasis on *green belt and road development*, giving importance to *green infrastructure, green energy and green finance*.
 - New railway projects being undertaken under the BRI to ensure **animal passages**.
 - In his recent address to the UN, Chinese President announced that **China will not build new coal-fired power projects abroad**. It will lay greater emphasis on the sustainable development of BRI cooperation.

3. **Greater emphasis on inclusive development of BRI cooperation:** For that, it will support BRI countries in:



4. **Addressing The Issue Of Debt Trap:** China has been putting a **policy system** for debt risk prevention and control and enhancing the quality of the investment by.

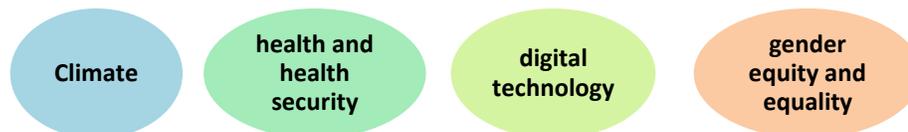


Build Back Better World (B3W) Initiative

- In order to counter China's growing economic clout, G7 countries (during **G7 summit 2021**) offered developing nations an infrastructure plan. Known as the B3W initiative, this plan is being led by United States President Joe Biden.
- It calls for spending hundreds of billions of dollars in infrastructure in collaboration with the private sector while adhering to climate standards and labour practices.
- B3W initiative is a values-driven, high-standard, and transparent infrastructure partnership led by major democracies to help narrow \$40+ trillion infrastructure need in the developing world.
- The project will catalyse infrastructure investment for **low- and middle-income countries (in Asia and Africa)**.

Focus Areas

- The initiative will coordinate in mobilizing private-sector capital in **four** areas of focus:



Global In Scope

- From Latin America and the Caribbean to Africa to the Indo-Pacific.
- Different G7 partners will have different geographic orientations, but the sum of the initiative will cover low- and middle-income countries across the world.

Guiding Principles of B3W

- **Values-Driven:** Infrastructure development carried out in a transparent and sustainable manner will lead to a better outcome for recipient countries and communities.
- **Strong Strategic Partnerships:** Infrastructure created under the B3W will be developed through consultation with communities and **assessing local needs** as a true partner.
- **Good Governance and Strong Standards:** The initiative is committed to providing citizens of recipient communities with the long-run benefits they expect and deserve from infrastructure projects.
- **Climate-Friendly:** The investments will be made in a manner consistent with achieving the goals of the Paris Climate Agreement.
- **Mobilize Private Capital Through Development Finance**

- **Enhancing the Impact of Multilateral Public Finance:** Multilateral development banks and other international financial institutions (IFIs) have developed rigorous standards for project planning, implementation, social and environmental safeguards, and analytical capability.

How B3W Aims To Counter China's BRI?

- The B3W is not merely a financial spin to BRI or responding to the debt trap diplomacy of China's political ambitions. It is a geopolitical kickback around the BRI that should help create a new development model.
- In Chinese BRI, there is **limited clarity** officially on:



- B3W will take care that infrastructure development is carried out in a transparent and sustainable manner — financially, environmentally, and socially.
- The biggest issue in BRI is the large amounts of debt that developing countries have come to owe China for joining BRI
- Basically, the B3W aims to counter the BRI by offering a higher-quality choice via a model that reflects their shared values.

Significance of B3W for India

- India refused to join the Chinese initiative in the past and raised its voice against the BRI.
- B3W will provide a good alternative to India. India will be able to attract **foreign investments** in infrastructure creation under this initiative.
- This initiative will also provide India a platform to forge partnerships in order to invest in other developing countries such as African countries.
- So far, India has decided to study the plan, and might engage with it at a later stage.



UNGA Graduates Bangladesh, Nepal

The United Nations General Assembly has adopted a resolution to graduate three nations from the least developed country (LDC) category to the developing country grouping.

Key Highlights

- The three countries are **Bangladesh, Nepal and the Lao People's Democratic Republic**.
- These countries will graduate from the LDC category after an exceptionally extended preparatory period of five years (the standard period is of three years).
- This preparatory period will enable them to prepare for graduation while planning for a post-COVID-19 recovery.

Advantages Associated With LDC Tag

- The LDC list is a means of giving a strong signal to the international community to the **need of special concessions** in support of LDCs.
- These cover the areas of development financing, like the **award of grants and loans, and special trade concessions like preferential market access**.
- Countries are also encouraged to provide **technical assistance to the LDCs**.

Purpose of categorisation

A proper classification based on resources and needs go a long way towards enabling a country to find the support and assistance it needs to help its people achieve their fullest human potential.

What is an LDC?

- The LDC classification was introduced by the UN in 1971 to identify countries that are deemed highly disadvantaged in their development process, for structural, historical and also geographical reasons.
- LDC designated countries are those that are in need of the highest degree of attention from the international community.
- According to the UN Committee on Development Policy (CDP), there are now 46 nations, including Bangladesh, Nepal and Laos on the LDC list.
 - These countries comprise around 880 million people, representing 12% of the global population, but less than 2% of world GDP and around 1% of world trade.

Criteria for Classification as LDC

- The CDP measures the LDC category on the basis of
 - Per capita income;
 - Human assets index (includes indicators of nutrition, health, school enrolment and literacy);
 - Economic vulnerability Index (includes indicators of natural and trade-related shocks, physical and economic exposure to shocks, and smallness and remoteness).

How Does A Country Graduate Out Of LDC Category

- Every three years, the **Committee for Development Policy (CDP)** reviews the list of LDCs. Based on rigorous assessment; it makes its recommendations for inclusion in and graduation from the category. Decision in that regard is made by the **UN Economic and Social Council** and ultimately by the **General Assembly**.
- A country must exceed thresholds on **two of the three criteria** at **two consecutive triennial reviews** to be considered for graduation.
 - ✓ E.g., on GNI per capita, the inclusion threshold is set at a three-year average in keeping with the cut-off determined by the World Bank for identifying low-income countries. As of 2021, the threshold is USD 1,018.
 - ✓ To exit the LDC group, a country has to have this GNI per capita rise 20% above the inclusion threshold, which in 2021 is USD 1,222.
 - ✓ On the human assets index, a country's score has to improve by 10% (that is, it has to score 66) above the inclusion cut-off of 60.
 - ✓ On the vulnerability index, its score has to come down by 10% to 32 from the inclusion threshold of 36.

Drawbacks Of Being Out Of LDC Group	Advantages Of Being Out Of LDC Group
<ul style="list-style-type: none"> • Graduating countries stand to lose preferential support, grants and subsidies, etc. The loss of preferential market access can affect their export competitiveness, industrial production and jobs. • These countries would see a shift from the International Development Association (IDA)-type of concessional foreign aid to International Bank for Reconstruction and Development (IBRD)-type of non-concessional finance with a <u>higher interest rate and stringent conditions.</u> • The graduation would also cause an erosion of 	<ul style="list-style-type: none"> • A developing status will attract the confidence of investors and creditors, potentially drawing more investment into the country. • The enhanced status will also allow these countries greater access to <u>multilateral as well as public and private funds and credits with more favourable terms.</u> • The LDC graduation may also help negotiate for and engage in free trade agreements, regional trade agreements or preferential trade agreements with the major trading partners,

facilities and relaxations in relation to intellectual property rights as well as other obligations in trade matters under the WTO.

which are expected to boost trade and exports.



US Inflation & Impact On India

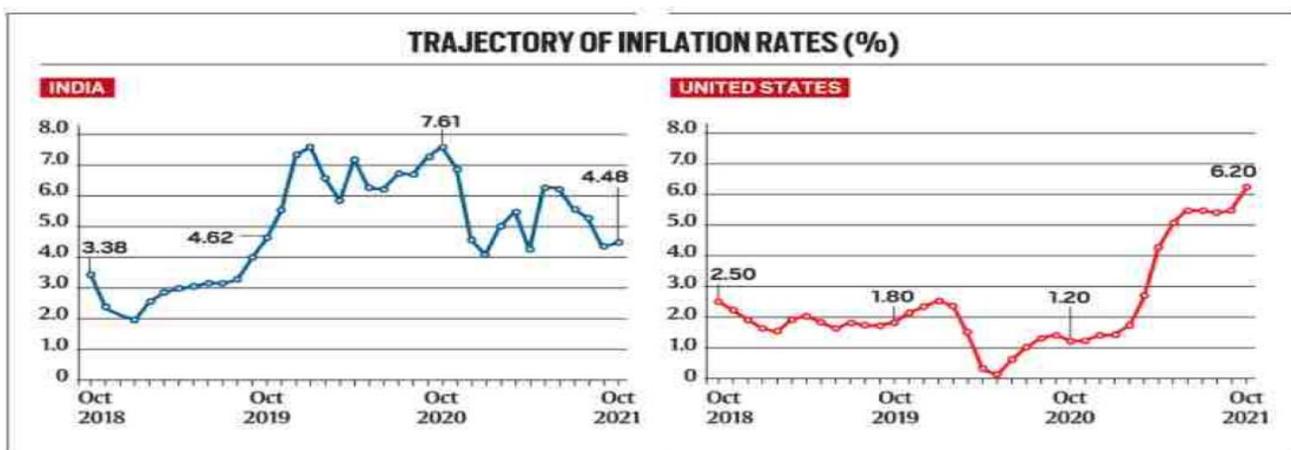
- Recently, retail inflation in US rose to **6.2%**. Retail inflation in the US has been rising sharply almost every passing month since May 2020. However, this is the largest year-on-year increase in US in the last three decades.
- The Federal Reserve (US central bank) targets inflation rate of just 2%. Thus, this has generated a lot of attention both globally and in India.
- While the US has seen the sharpest increase in prices, inflation is high in most major economies, like Germany, China or Japan.

Cause of Current High Inflation in US

- Due to fast Covid-19 vaccination drive, the US economy recovered quickly. This recovery was further aided by the government injecting billions of dollars to provide relief to those who lost their jobs and to stimulate demand. Partly, this unexpectedly fast recovery in all-round demand is responsible for the inflationary spike.
- The pandemic in 2020 led to **widespread supply disruptions** not just in the US, but across the world. However, the **pace of supply chain recovery has been much slower than the economic recovery**, and this has worsened the gap between demand and supply, leading to a sustained price rise.

Inflation Status In India

- India was one of the rare major economies where inflation was high even before the pandemic.
- As the chart below shows, retail inflation had **frequently been above the comfort zone** of the RBI (i.e. between 2% and 6%) for an extended period since late 2019. Due to this, the RBI has not lowered its benchmark interest rates since May 2020.
- Thus, India's inflation has stayed high even when demand hasn't recovered. This means that inflation will increase further when demand recovers.



- Furthermore, another worry for India is that core inflation is now over 6%. It was always high, and now threatens to go above the RBI's comfort zone.

Core inflation is the rate of inflation without taking into account the prices of food and fuel. Typically, food and fuel prices tend to fluctuate a lot. Thus, core inflation is a better measure of what is happening to the general price level.

Impact Of Global Price Rise On India

- When prices increase globally, it will lead to **higher imported inflation** i.e. everything that India and Indians import will become costlier.
- Moreover, high inflation in the advanced economies, especially the US, will likely force their central banks, especially the Fed, to stop their loose monetary policy. A tight money policy would **imply higher interest rates**. That will affect the Indian economy in two broad ways.
 - ✓ It will become costlier for Indian firms trying to raise money outside India.
 - ✓ 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.

Basics of Inflation

- Inflation refers to the rise in the prices of goods and services of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
- Inflation measures the average price change in a basket of commodities and services over time. It is indicative of the decrease in the **purchasing power** of a country's currency.
- When inflation is high, the cost of living gets higher as well, which ultimately leads to a deceleration in economic growth.
- However, a healthy inflation rate (**2-3%**) is considered positive because it directly results in increasing wages and corporate profitability and maintains capital flowing in a growing economy.

Factors Affecting Inflation

Money Supply

- Excess money supply in an economy is one of the primary causes of inflation. This happens when the money supply/circulation in a nation grows above the economic growth. Excess circulation of money leads to inflation as money loses its purchasing power.

Demand Pull inflation

- With people having more money, they also tend to spend more, which causes increase in demand. This leads to a situation where too much money is chasing fewer goods, eventually resulting in companies raising prices of goods and services.

Cost push inflation

- A rise in production prices of certain commodities causes inflation as the price of the final product increases

Exchange Rates

- An economy with **exposure to foreign markets** mostly functions on the basis of the dollar value. Thus, in a trading global economy, exchange rates play an important factor in determining the rate of inflation.

National Debt

- In a situation where a country's debt increases, the respective country generally exercises the following options which have an impact on inflation:
 - **Increase in taxes;** **Print additional money**

Measuring Inflation

In India, there are two main sets of inflation indices to measure changes in price levels

Consumer Price Index (CPI)

Wholesale Price Index (WPI)

These indices measure changes at the **retail and wholesale price levels**, respectively.

CPI

- Tracks any shift in retail prices of essential and daily goods and services consumed by households across the country. In short, it captures changes in price level at the consumer level.

WPI

- It is the average change in the price of commodities at the wholesale level. It considers the price of goods traded among corporations, not goods purchased by consumers
- WPI's aim is to monitor price changes that reflect demand and supply in manufacturing, industry and construction.

Inflation Targeting

- Inflation targeting is a central bank strategy of specifying an inflation rate as a goal and adjusting monetary policy to achieve that rate.
- In India, **CPI inflation** is chosen as the indicator for targeting. The inflation target is set by the Central Government in consultation with the RBI once every **five years**.
- The current target is to retain inflation at **4% with a tolerance band of +/- 2% points**.

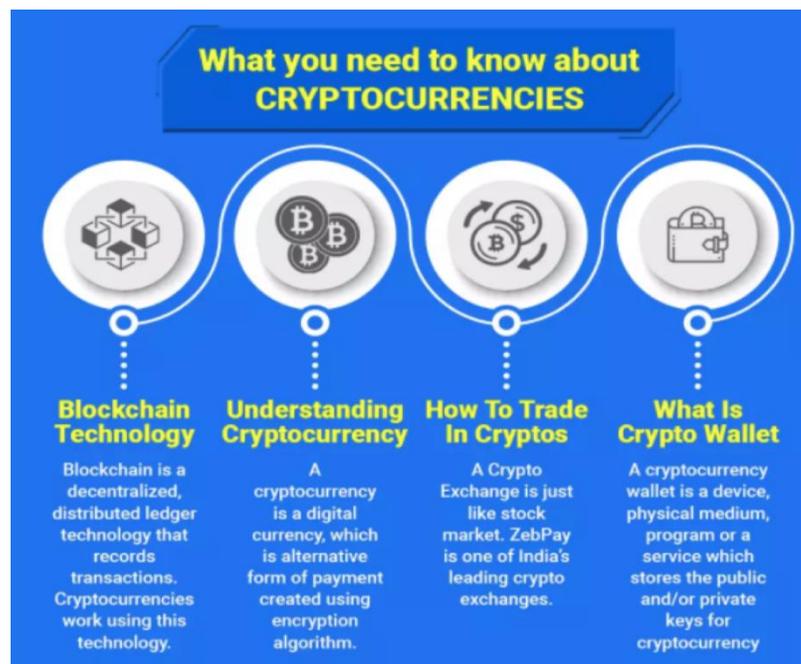


Cryptocurrency Regulation

- The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021 was recently listed for introduction in Parliament's Winter Session.
- The Bill seeks to create a facilitative framework for creation of the official "**Central Bank Digital Currency**" to be issued by the RBI".
 - ✓ CBDC is a digital form of Fiat Currency which can be transacted using wallets backed by blockchain and is regulated by the central bank. It is a **legal tender** issued by a central bank in a digital form.
 - ✓ Though the concept of CBDCs was directly inspired by bitcoin, it is different from decentralised virtual currencies and crypto assets, which are not issued by the state and lack the 'legal tender' status.
- It also seeks to **prohibit all private cryptocurrencies in India**; however, it allows for **certain exceptions** to promote the underlying technology of cryptocurrency and its uses.

Cryptocurrency

- Cryptocurrencies are **digital assets**—that can be used as a form investment and even as a **medium of exchange** to purchase goods and services.
- Each coin/token of cryptocurrency is a **digital file** that consists of a **unique line of program or code**. This means that it **can't be copied**, which makes them easy to track and identify as they're traded.
- Usually, the files are created using the methods of **cryptography** (the science of hiding information).
- Cryptocurrencies are **decentralized**—which means no government or bank



manages how they're made, what their value is, or how they will be exchanged. These tasks are broadly distributed across a large number of users (computers) via the internet and are exchanged from **peer-to-peer** on the web without a middleman.

Is Cryptocurrency Similar To Blockchain

- Although these terms are used together quite frequently, they are not similar. Blockchain is the **technology** that enables the existence of cryptocurrency.
- A blockchain is a **digital ledger of transactions** that is distributed across the entire network of computer systems. It is like a ledger that shows the entire history of that piece of currency.
- To put it simply, it is a system of recording information that makes it impossible to hack the system.
- Each block in the blockchain contains several transactions, and every time a new transaction occurs on it, a record of that transaction is added to every participant's ledger.
- A blockchain database can store a large quantity of information that can be utilized and accessed by many users at the same time. But what makes Blockchain unique is that it is **not owned by a single person or entity**— making it more secure and trustworthy.
- Today, blockchains have applications in diverse fields like video and audio streaming, supply chain management, social media, real estate documentation, etc.

Cryptocurrency Trading

- Bitcoin is the topmost traded cryptocurrency, but it's not the only kind of cryptocurrency. Currently, there are more than 6,000 cryptocurrencies like Ethereum, Polkadot, Solana, Dogecoin etc.
- Just like the stock market, the crypto market has exchanges or brokers which act as facilitators. These exchanges often charge a fee or commission for each transaction.
- Crypto exchanges rely on investors for the possession of cryptocurrency. This happens when users deposit crypto to sell and some new users come to the exchange to buy it—thereby, facilitating trading.

Advantages Of Cryptocurrencies	Concerns Associated With Cryptocurrencies
<ul style="list-style-type: none"> • The primary advantage of cryptocurrencies is the mathematically designed blockchain network with finite supply. The main problem with the current monetary set-up is that when the government starts printing more money, the value of money gets wiped out due to high inflation. • Traditionally, gold has been one of the options for investors to hedge against inflation, but the supply of gold is not mathematically designed. Cryptocurrencies like Bitcoin give a better hedge against inflation compared to gold by ensuring a limited supply. Thus, it can act as a store of value. • Further, there are systems and processes that can be developed around the blockchain network, such as decentralized finance systems, which can provide greater efficiency compared to the traditional finance systems. <ul style="list-style-type: none"> ✓ For example, international payments through cryptocurrencies are easy and cheap as they are not tied to any country or banking institution. Moreover, cryptographic techniques provide enhanced 	<ul style="list-style-type: none"> • Transaction records of cryptocurrencies are publicly available in an open ledger (blockchain) for record keeping in an anonymous (unnamed) and an encrypted form. • Though each transaction is recorded in a public log, names of buyers and sellers are never revealed and only their wallet IDs are revealed. • This keeps cryptocurrency users' transactions private but it also lets them buy or sell anything without easily tracing it back to them. That's why it has become the preferred currency for buying drugs online or other illicit activities like terror financing. • Further, the anonymous nature of cryptocurrencies goes against the global money laundering rules. • Moreover, investments in cryptocurrencies are highly volatile, which leads to

<p>security.</p> <ul style="list-style-type: none"> ✓ Blockchain technology itself has great potential to reform financial record-keeping and keeping track of asset transactions. ✓ Furthermore, entry barriers for new players to create new protocols and applications are significantly lower than traditional financial institutions like banks 	<p>significant investment risks.</p> <ul style="list-style-type: none"> • Central banks are concerned that if acceptance of cryptocurrencies as a medium of exchange grows, it can potentially <u>undermine their control on monetary policies.</u>
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Cryptocurrency Regulation Around The World

- The regulatory architecture, the rules of governance and taxation depends on *how the country views cryptocurrency* — as a currency, an asset, or a commodity.
- The stand of regulators has ranged from a total ban, to allowing them to operate with some regulations, to the other extreme of allowing Bitcoin as a legal tender in **El Salvador**.
- For example, in September, China imposed a complete ban on crypto transactions. At the same time, countries including Japan and the UK have created space for their operation.

Regulatory Background in India

- In 2018, the RBI had banned banks from dealing with cryptocurrency exchanges and individual holders. However, in March 2020, the ***ban was overturned by the Supreme Court.***
- This led to top investment firms across the world, such as Tiger Global, Sequoia Capital, etc to invest over half-a-billion dollars in India's cryptocurrency space in 2021.
- Significantly, most large banks, including State Bank of India, ICICI Bank, HDFC Bank, have not yet allowed use of their infrastructure by these exchanges.
- According to conservative estimates, India has around 15 million people involved with trading or investments in cryptocurrencies — almost 60% of the 25 million investors in its 58-year old mutual fund industry.
- In the first half of 2021, the government was also planning to ban all private cryptocurrencies, through a new bill. However, later, the Finance Ministry said that the Centre will try to regulate cryptocurrencies and will not ban experimentation with cryptocurrencies.
- Recently, in November, a meeting chaired by the Prime Minister was in favour of "progressive and forward looking" steps in the field of cryptocurrency. Similarly, members of the standing committee on finance were reportedly more in favour of regulating and not banning cryptocurrencies.

Way Ahead

- Prime Minister delivered the keynote at the inaugural **Sydney Dialogue** citing the unregulated nature of the crypto market and called for taking progressive and forward-looking steps.
- At this point, it is less certain that cryptocurrencies will not be allowed to function as a medium of exchange in India. So, it would be illegal to purchase goods and services using any cryptocurrency.
- Banning cryptocurrencies would actually mean saying no to a big part of technology that can prove revolutionary. For example, if India decides to ban Ethereum, which is the foundation of the largest decentralized finance network, it would restrict the growth of decentralized finance systems in India.
- Ban on cryptocurrencies in other countries has not led to a halt in crypto trading. Thus, a ban would push cryptocurrencies into the black market.
- Thus, the government should build a proper regulatory framework and allow investment in cryptocurrencies because it's like any other asset.

- This will also help to lay the foundation of decentralized applications based on blockchain architecture and take a big step to realize the goal of Digital India.



One Sun, One World, One Grid

Recently, India and UK has jointly launched the **Green Grids Initiative** - One Sun One World One Grid, the first international network of global interconnected solar power grids, at **COP26**.

About

- The concept of 'One Sun, One World, One Grid' (OSOWOG) was first floated by the India in 2018 during the first assembly of the International solar alliance (ISA).
- This project is about setting a **trans-national electricity grid** to supply solar power across the world. It will facilitate the pooling and balancing of renewable energy across international borders.
- The blueprint for the OSOWOG will be developed under the World Bank's technical assistance programme that is implemented to accelerate the deployment of grid connected rooftop solar installations.

Phases of OSOWOG

OSOWOG is planned to be completed in three phases --



Significance

- The move is critical for the global future of renewable energy systems, as integrated regional and international green grids can facilitate the pooling and balancing of renewable energy across international borders.
- The OSOWOG will bring together a global coalition of governments, international financial and technical organisations, power system operators and knowledge leaders to accelerate the construction of the new infrastructure needed for a world powered by clean energy.
- It will not only **reduce storage needs** but also enhance the viability of solar projects.
- This creative initiative will not only reduce carbon footprints and energy cost but also open a new avenue for cooperation between different countries and regions.

Issues With The Project

- The mechanism of **cost-sharing** will be challenging, given the varied priorities of participating countries depending on their socio-economic orders.
- Dealing with different governments and market forces will be a dreadful experience for the developers that can be easily extrapolated from the experience of the renewable energy developers.
- There is a difference in **voltage, frequency and specifications** of the grid in most regions. Maintaining grid stability with just renewable generation would be technically difficult.
- OSOWOG does not take into account the overlaps with the solar generation across regions, which would mean that the actual transmission capacity would need to be much higher and thus have lower utilisation or there would be significant solar curtailment.

Way Forward

Institutional development is critical to achieving the goals, in this setting, the ISA can act as an autonomous international institution, deciding how the grid should be operated and resolving problems.

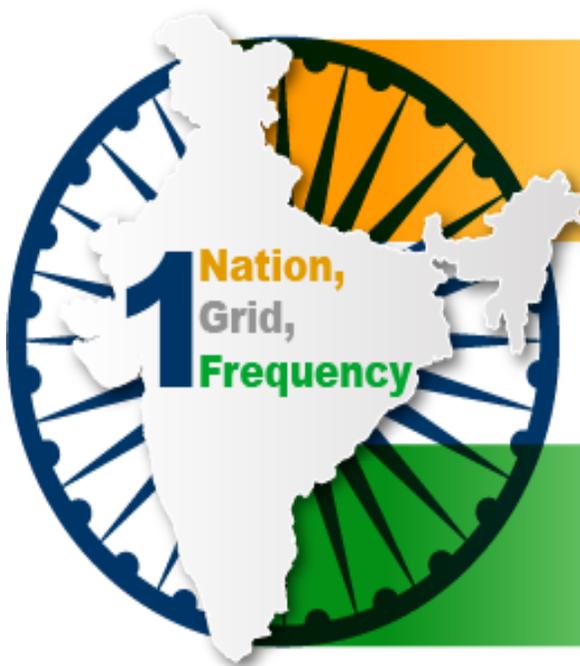
Real Time Market In Electricity In India

- It is an organised market platform enabling **buyers and sellers** to meet their energy requirement closer to real time operation.
 - It helps in **Grid management** due to intermittent and variable nature of renewable energy generation (especially solar and wind energy).
 - It ensures optimal utilization of surplus electricity by those discoms which are facing supply shortage.
- Under this, auctions will be held 48 times a day, **once every half an hour**.
- It became operational on two platforms:

Indian Energy Exchange (IEX)

Power Exchange India Limited (PXIL)

- (IEX) is the first energy exchange in India, providing automated trading platform for delivery of electricity, Renewable Energy Certificates, and Energy Saving Certificates.
- (PXIL) is India's first institutionally promoted power exchange providing electronic platform for transactions in power and allied products
- **POSO** will route electricity from **supply sources to consumption point** with help of **RLDC**.



- **Power System Operation Corp. Ltd (POSOCO)** manages these complex functions through the National Load Despatch Centre (NLDC), Regional Load Despatch Centres (RLDCs) and State Load Despatch Centres (SLDCs).
- POSOCO is a wholly owned Government of India enterprise under the Ministry of Power
- It has 33 SLDCs, five RLDCs (5 regional grids form the national grid) and one NLDC.
- India has interconnected power grid that requires close coordination between **grid operators and power project generators** across coal, gas, hydro, nuclear and green energy sources run by the Centre, states and private sector.
- Indian grid system has achieved larger **inter-regional transfers of electricity**



Manipur Ambush

- An Assam Rifles Colonel, his wife and eight-year-old son, and four soldiers were killed in an ambush by terrorists near the border with Myanmar in Manipur.
- This was one of the deadliest ambushes in the northeast in **six years** carried out jointly by the militants of the banned People's Liberation Army (PLA) and Manipur Naga People's Front (MNPF).

In June 2015, militants ambushed a convoy of 6 Dogra Regiment in Manipur's Chandel district in which 18 Army personnel were killed.

Key Takeaways from This Attack

Role of Non-State Actors

- Attack was well-planned and executed with precision by a heavily-armed insurgent group.
- This highlights the role of non-state actors in supplying arms, ammunitions and training and information.

Manipur remains last bastion of active insurgency in NE

- No peace initiative in Manipur has yet materialised into a fruitful dialogue ever since the oldest of the outfits, UNLF, hit the road to insurrection in 1964.
- The only outfits of Manipur to have started a peace process with Centre and state government represent Kuki community.

Role of Unstable Neighbours and Porous Borders

- Indian and Myanmar armies have been regularly conducting coordinated operations to flush out militants along their porous 1,643-km border.
- However, the current ambush points towards the fact that the insurgents infiltrated from the Myanmar border.
- Also, there has been an increase in the **inflow of illegal Chinese-made weapons** like AK-47 assault rifles, machine guns etc. into Myanmar recently. These weapons are making their way to Indian insurgent groups with hideouts along the border.

Insurgency in Manipur

About

- There is an ongoing armed conflict between India and a number of separatist rebel groups in Manipur.
- This insurgency in Manipur is part of the wider Insurgency in Northeast India which combines elements of a **liberation war** as well as an **ethnic conflict**.

Historical Background

- Following the brief **Anglo-Manipur War of 1891**, the Kingdom of Manipur was conquered by **Britain**. After this war, Manipur kingdom became a British protectorate.
- Manipur became a part of India in October 1949 and became a **separate state in 1972**.

Rise of Insurgency

- Manipur's incorporation into the Indian state led to the formation of a number of insurgent organisations. These groups demanded the creation of an independent state within the borders of Manipur, and dismissed the merger with India as involuntary.
- The insurgency problem in Manipur came into existence in the late 1960s and 1970s.
- The first separatist faction, **United National Liberation Front (UNLF)**, was founded in November 1964. Now, the region is infested with many insurgent groups.

Major Insurgent Groups in Manipur

- **People's Liberation Army (PLA)**
 - PLA aims to organise a revolutionary front covering the entire Northeast and unite all ethnic groups, including the Meiteis, Nagas and Kukis, to liberate Manipur.
 - PLA, **though a Meitei outfit**, claims itself to be a trans-tribal organisation seeking to lead the non-Meiteis as well.



- **People’s Revolutionary Party of Kangleipak (PREPAK)** - Their aim is the expulsion of ‘outsiders’ from the State.
- **Kangleipak Communist Party (KCP)** –Aims to restore the independence of the erstwhile Manipur kingdom and to bring about an egalitarian society.
- **Kanglei Yawol Kanna Lup (KYKL)** – Aim is to ‘rebuild’ the Manipuri society by clearing it of all vices like immoral activities, drug trade and corruption.
- **United National Liberation Front (UNLF)** – A the oldest insurgent group of the region, it aims to establish an independent socialist Manipur.

Reasons for Insurgency in Manipur

1. Merger with India

- ✓ Meiteis are the majority community of Manipur. Their influence declined after Indian Independence.
- ✓ This led to resentment in a section of Meities about the merger of the State with the Indian Union, which led to the Meitei insurgency from the 1960s.

2. Ethnic Conflict

- ✓ Manipur has a diverse ethnic population with:



- ✓ This leads to clashes between these communities.
- ✓ Kukis and Nagas of Manipur have overlapping and conflicting territorial interests over almost all the hill districts of Manipur.
- ✓ Similarly, there are competing interests between the Nagas and Meitis.
- ✓ The demand for Nagalim or Greater Nagaland includes the Naga inhabited areas of Manipur. On the other hand, the Meitis want to preserve what has been a single geographic entity for centuries.

3. Lack Of Socio-Economic Development

Over the years, difficult terrain, endless corruption, mismanagement of funds and the failure to devolve power to common people have led to the rise of dissatisfaction.

Steps Taken To Address The Issue

- The Govt has negotiations with the **Hill-based groups** in the region.
 - ✓ NLFT Tripura Agreement, Bru Accord, Naga peace accord etc. are few examples.
 - ✓ Govt signed the Bodo agreement in January 2020 and the Karbi Anglong agreement in September 2021.
- The **Ministry of Development of North Eastern Region** has been created to provide an impetus to the socio-economic development of the region.
- Also, the **North Eastern Council** was created as the nodal agency for the economic and social development of the North Eastern Region.
- Armies of India and Myanmar jointly carry out **joint operations** along the Myanmar border targeting camps of insurgent groups operating in North East.

E.g., **Operation Sunrise 2** was launched in June 2019. It was the second phase of the operation aimed at hitting the militants along the border.

Extra Mile

Assam Rifles

- Assam Rifles is one of the six Central Armed Police Forces (CAPFs) that come under the MHA's administrative control.
- Its history dating back to 1835 when its precursor, Cachar Levy, was formed in the Northeast to protect British Tea estates and their settlements against tribal raids.
- Over the period of time, it was expanded and rechristened as Assam Military Police Battalion, with additional battalions.
- It was later renamed as Assam Rifles. This is where the dual structure was perhaps born because even as it continued to operate as a police force, the Rifles tag indicated it was on a par with Army units.
- Besides maintaining law and order in the Northeast (a task it performs together with the Army), the Assam Rifles also guards the border with Myanmar in the region.

Dual Control of Assam Rifles

- Under the existing mechanism, Assam Rifles comes under both the Ministry of Defence (MoD) and Ministry of Home Affairs (MHA).
 - The MHA only exercises administrative control of the Assam Rifles;
 - Its operational control is with the MoD (Army).
- Although, the Assam Rifles personnel operate alongside the Army on similar duties, there is a disparity in the pay scale.
- Many believe that this dual control structure is arbitrary, unreasonable and in violation of the rights of Assam Rifles personnel.



S-400 Missile System

- In October 2018, India had signed a \$5 billion deal with Russia to buy **5 units** of the S-400 defence missile systems. All 5 Squadrons will be delivered by 2023.
- Russia has started the delivery of its S-400 Triumf air defence systems to the country. The first unit of the system will arrive in India by the end of this year.
- The first squadron of this missile systems will become **operational** by **January-February 2022**. It will be deployed in the **western sector** to tackle aerial threats from both Pakistan and China before they can enter Indian airspace.

About S-400 Triumf

- The Russian-built S-400 Triumf is the world's most dangerous operationally deployed modern **long-range surface-to-air** missile system. A missile defence system is intended to act as a shield against incoming ballistic missiles.
- It is considered much more effective than the **Terminal High Altitude Area Defence (THAAD)** system developed by US.
- The S-400 was made operational in 2007, and is responsible for defending Moscow. It was deployed in Syria in 2015 to guard Russian and Syrian naval and air assets.
- The S-400 is a **mobile system** that integrates **5 systems (Refer the diagram)**.
- It can be deployed within five minutes, and is capable of firing **four types of missiles to create a layered defence** (ranges of these missiles can be seen in the diagram)
- It can simultaneously track 100 airborne targets, including super fighters such as the US-built F-35, and engage six of them at the same time.

- Recently, Iron Dome was used by Israel to protect against incoming rockets from Gaza. Only S-400 has the capacity to protect a much larger area from threats that are much farther.

Why India Need This

- India must have the capability to **thwart missile attacks from the two likeliest quarters**, Pakistan and China.
- Beijing signed a deal with Moscow in 2015 to buy six battalions of the S-400 system, and deliveries began in January 2018. During the standoff in eastern Ladakh, China had reportedly deployed its S-400 along LAC.

S-400 Triumph Features

- Can engage all types of aerial targets including aircraft, unmanned aerial vehicles and all types of missiles
- Locates targets at 600 km and can destroy them at 400 km range, up to an altitude of 30 km
- The system can engage multiple targets simultaneously

Integrates:

- Multifunction radar
- Anti-aircraft missile systems
- Launchers
- Autonomous detection and targeting systems
- Command and control centre

Range of missiles:

Capable of firing different types of missiles to create a layered defence shield

- 40N6: 400 km
- 48N6: 250 km
- 9M96E2: 120 km
- 9M96E: 40 km

Map not to scale

KBK InfoGraphics

- A report by the think tank Observer Research Foundation mentioned the S-400 can constrain the adversary's air operations even within their own airspace, a capability unmatched by typical Western systems.
- While the 36 Rafales armed with Meteor and Scalp missiles being inducted by IAF are primarily meant for an offensive role, the **S-400 systems are defensive in nature**.

Threat of America's CAATSA (Countering America's Adversaries Through Sanctions Act)

- In August 2017, President Donald Trump signed this law which specifically targets **Russia, Iran, and North Korea**. The act empowers US President to impose at least five of 12 listed sanctions — enumerated in Section 235 — on persons engaged in a "significant transaction" with the Russian defence and intelligence sectors.
- It was enacted to prevent countries from buying Russian weapons or Iranian oil.
- In July 2018, US communicated that it was ready to grant India (along with Indonesia and Vietnam) a **waiver** on CAATSA sanctions. However, off late, US seems to have changed its stand as Washington told India it was unlikely to get a waiver from CAATSA.
 - In January 2021, a **US Congressional report warned** that if India goes ahead with the purchase of the S-400 system, it may lead to sanctions.
 - Last year, US sanctions were imposed on **Turkey and China** over the procurement of S-400 missile systems.
 - Hence, there were renewed apprehensions that US may impose similar punitive measures on India.
- The US embassy in India said that the US sanctions were aimed to punish Russia, not to damage military capabilities of 'our allies'.
- Nevertheless, citing the **strategic defence partnership** between the two countries, India is confident of getting a waiver from CAATSA.

India's Ballistic Missile Defence System

- DRDO is developing a **two-tier Ballistic Missile Defence (BMD) system** that provides a multi-layered shield against ballistic missile attacks.
- The two-tier system is intended to destroy an incoming missile at a higher altitude, **in exo-atmosphere** (altitudes of 150km); and if that miscarries, an **endo-atmospheric interception** (altitudes of 80 km) will

take place.

- The BMD system consists of a **Prithvi Air Defence (PAD)** missile and an **Advanced Air Defence (AAD) Missile** for high and low altitude interception.
- The PAD intercepts missiles at altitudes between 50km-80km and the AAD missile destroys them at altitudes of 15km-30km.

Swordfish radar

- Swordfish is a long-range **tracking radar** developed for the BMD system. It was derived from the Israeli Green Pine long range radar.
- Swordfish guides the exo-atmospheric interceptor missile PAD to engage aerial targets at altitudes over 80km. The radar can detect very small targets within the range of 600km-800km.

Other Missile Shields In India

1. Outermost BMD layer <ul style="list-style-type: none">➤ Two-tier indigenous system of AAD (advanced air defence) & PAD (Prithvi air defence) interceptor missiles➤ Designed to track & destroy ballistic missiles both inside (endo) and outside (exo) at altitudes from 15-25 km to 80-100 kmPhase-1 (interceptor missiles with 4.5 Mach speed) meant for 2,000-km range enemy missiles. System almost readyPhase-2 (interceptor missiles with 6-7 Mach speed) will be for 5,000-km class missiles	2. S-400 layer <ul style="list-style-type: none">➤ Russian Triumf surface-to-air missile (SAM) systems➤ \$5.43 billion (Rs 40,000 crore) deal inked in October 2018➤ Missiles with interception ranges of 120, 200, 250 & 380 km➤ Deliveries of 5 squadrons from Oct 2020 to April 2023	3. Barak-8 layer <ul style="list-style-type: none">➤ Medium & long-range SAM systems jointly developed by Israeli Aerospace Industries & DRDO➤ Interception range of 70 to 100 km➤ Systems being delivered to Navy (initial cost Rs 2,606 crore), IAF (Rs 10,076 crore) & Army (Rs 16,830 crore)
4. Akash layer <ul style="list-style-type: none">➤ Indigenous area defence missile systemRange: 25-km 	<ul style="list-style-type: none">➤ IAF inducting 15 squadrons of Akash-1 & 2 systems for Rs 10,900 cr➤ Army has inducted 2 regiments for Rs 14,180 cr. Two Akash-2 regiments on the way	5. NASAMS layer <ul style="list-style-type: none">➤ Quick reaction, networked system of Stingers, gun systems & AMRAAM missiles➤ Geared to track & destroy small incoming targets, shoot around buildings➤ Deal for almost \$1 billion being finalized with the US

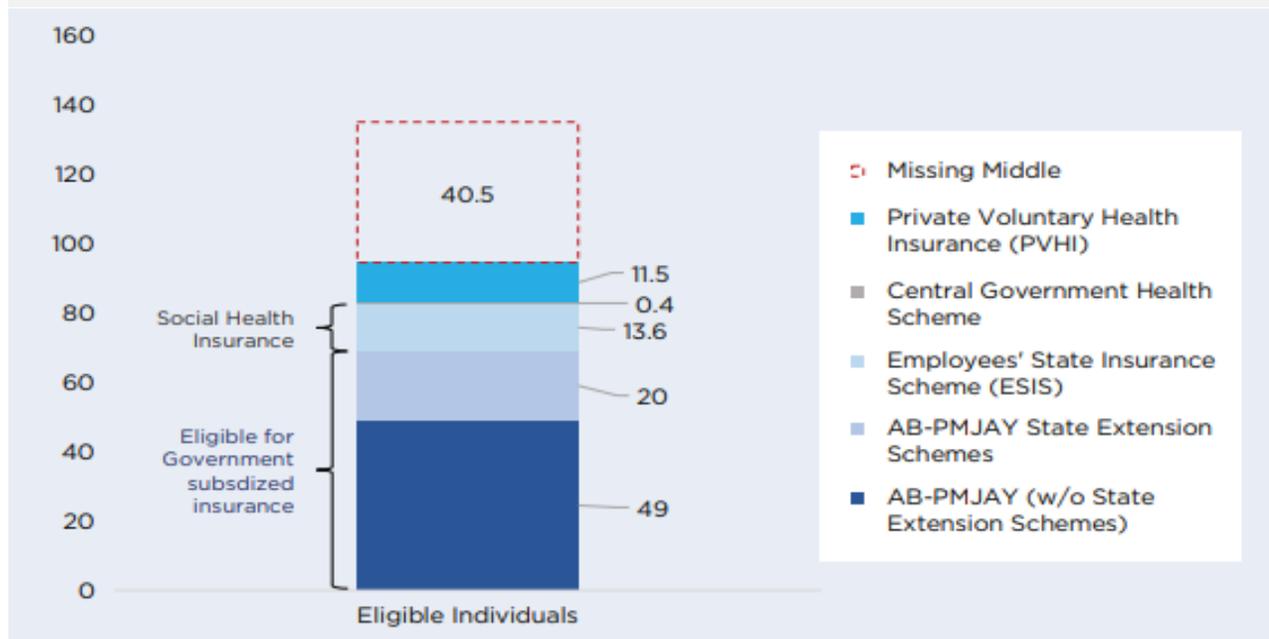
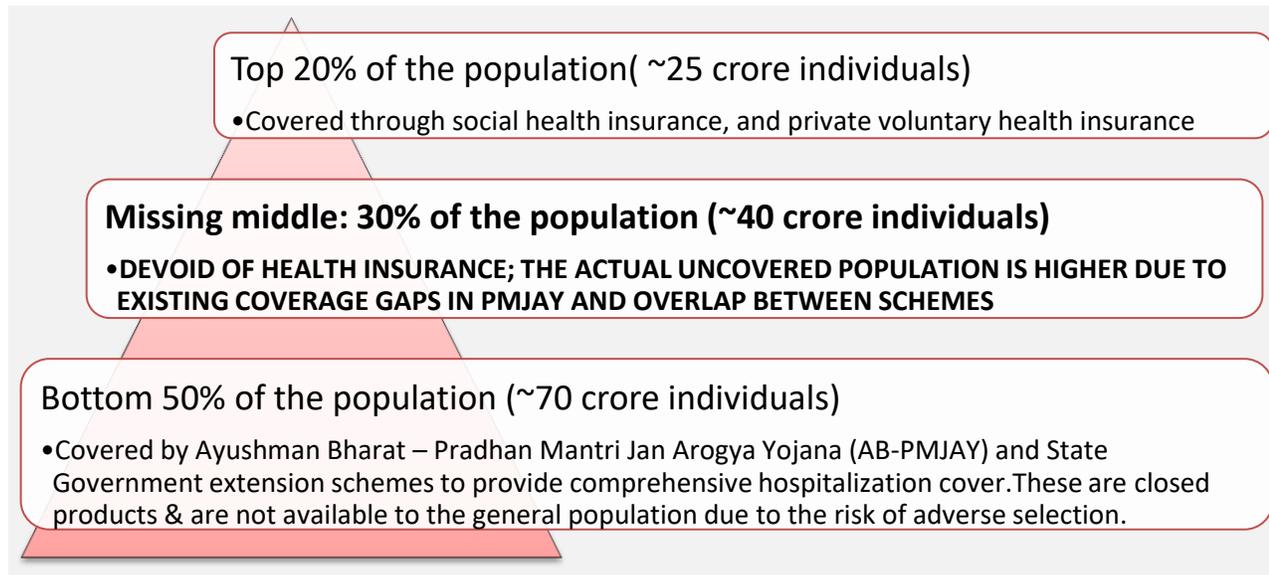
SOCIAL ISSUES

Health Insurance for India's Missing Middle

NITI Aayog has released a comprehensive report titled **Health Insurance for India's Missing Middle**. It brings out the gaps in the health insurance coverage across the Indian population and offers solutions to address the situation.

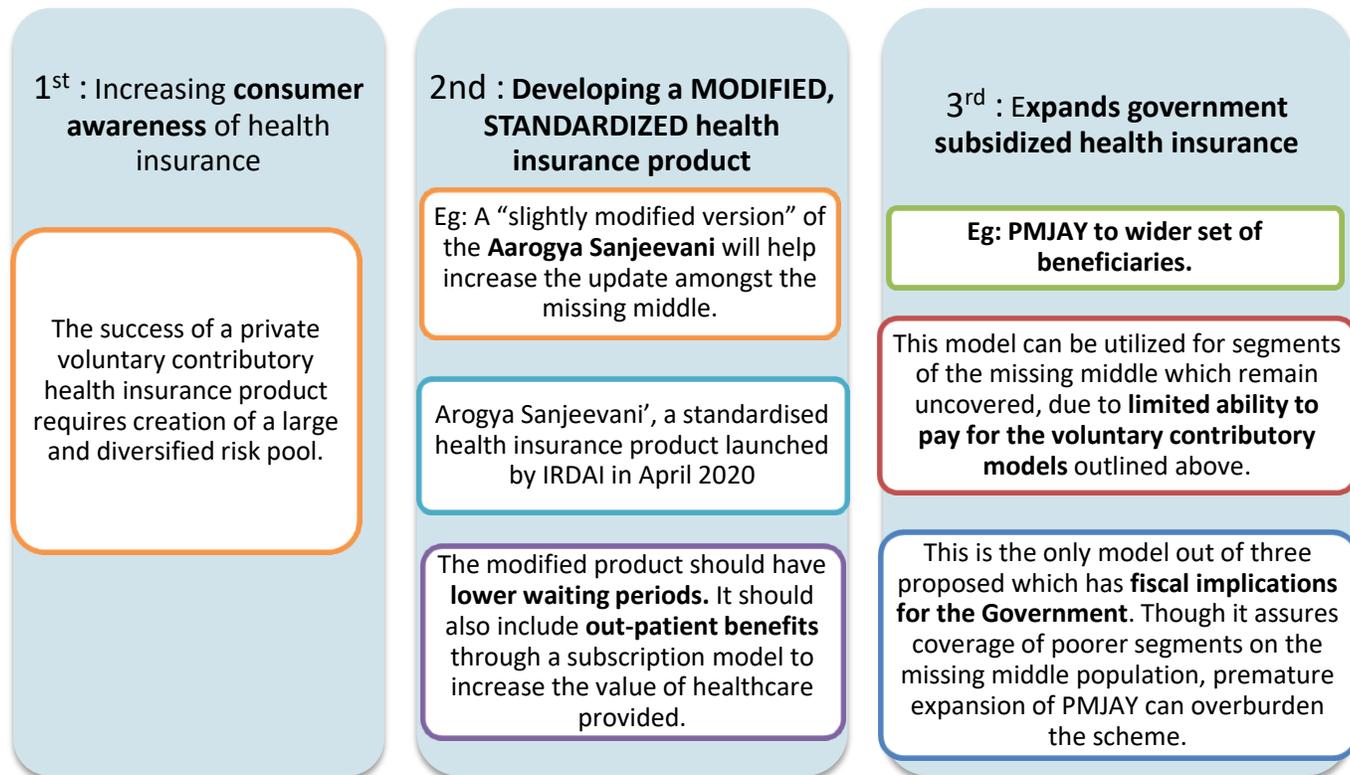
- Health insurance is a mechanism of pooling the high level of Out of Pocket expenditure (OOPE) in India to provide greater financial protection against health shocks.
- India's health sector is characterized by **low Government expenditure** on health, high out-of-pocket expenditure (OOPE), and low financial protection for adverse health events.

Who Constitute Missing Middle



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

The report has recommended **three models** for increasing the health insurance coverage in the country.



A combination of the three models, phased in at different times, can ensure coverage for the missing middle population

- **Short-term:** Focus should be on **expanding private voluntary insurance** through commercial insurers.
- **Medium-term:** once the supply-side and utilization of PMJAY and ESIC is strengthened, their infrastructure can be leveraged to allow voluntary contributions to a PMJAY plus product, or to ESIC’s existing medical benefits.
- **Long-term:** Once the **low-cost voluntary contributory** health insurance market is developed, expansion of PMJAY to the uncovered poorer segments of the missing middle should be considered.

The report has also suggested sharing of the government scheme data with the private insurance companies. Government databases such as National Food Security Act (NFSA), Pradhan Mantri Suraksha Bima Yojana, or the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) for agricultural households can be shared with private insurers after taking consent from these households, the report said, suggesting an outreach strategy.

Bhasha Sangam Initiative

Ministry of Education launched Bhasha Sangam under Ek Bharat Shreshtha Bharat (EBSB) to commemorate Rashtriya Ekta Diwas.

- Ek Bharat Shreshtha Bharat was announced in 2015 on the occasion of the 140th birth anniversary of Sardar Vallabhbhai Patel under which every State and UT would be paired with another State/UT for a time period, during which they would carry out engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.

Bhasha Sangam is to teach **basic sentences of everyday usage in 22 Indian languages**. The idea is that people should acquire basic conversational skills in an Indian language other than their mother tongue. It is aimed that

at least 75 lakh people should acquire this skill during the Azadi Ka Amrit Mahotsav period. Initiatives launched under Bhasha Sangam:

<p>Bhasha Sangam Initiative for schools (Developed by NCERT)</p>	<ul style="list-style-type: none"> • 100 sentences (audio and video form with Indian Sign Language) in 22 scheduled languages are presented in such a way that children in school will be able to read in the Indian language, in Devanagari script, in roman script and translations into Hindi and English. • Available on DIKSHA, ePathshala and 22 booklets
<p>Bhasha Sangam Mobile App (Developed by a start up Multibhashi)</p>	<ul style="list-style-type: none"> • App initially has 100 sentences of every day usage in 22 Indian languages. These sentences are available in both Roman script and in the script of the given language, and also in audio format. More sentences will be added to the list • A learner will pass through stages on the basis of testing. • There is also a detailed testing in the end with generation of digital certificate. It is available in both Android and iOS
<p>EBSB Quiz App</p>	<ul style="list-style-type: none"> • EBSB Quiz game is targeted toward children and youngsters for helping them learn more about our different regions, states, culture, national Heroes, monuments, traditions, tourist locations, languages, geography, history, topography, • More than 10,000 questions as part of this quiz. The game play is simple – Play Quizzes, Learn & Achieve Grades. Moreover, this quiz has 15 different levels of toughness. • Currently available in English and Hindi. In the next 3 months EBSB quiz will be also available in 12 other different regional languages.

Safaimitra Suraksha Challenge

Recently, the Ministry of Housing and Urban Affairs (MoHUA) has launched a **week-long awareness campaign** on SafaiMitra Suraksha Challenge (SSC) as part of the ‘World Toilet Day’ (19th November) celebrations, to run up to the ‘Swachh Amrit Diwas’.

Ministry of Housing and Urban Affairs (MoHUA) launched Safaimitra Suraksha Challenge (SSC) on the occasion of World Toilet Day (19th November 2020). SSC has main objective of eradicating the practice of hazardous cleaning of sewers and septic tanks and promote mechanized cleaning of the same.

Important Features of SSC

- Total 246 cities are going to participate in the challenge. The state capitals, urban local bodies and smart cities will be eligible to participate.
- SSC is aimed to encourage cities to **mechanize their sewer and septic tank cleaning operations** in order to prevent deaths and fatalities of sanitation workers from ‘hazardous entry’.
- The initiative is in line with the core of the Swachh Bharat Mission-Urban (SBM-U)

Components of Safaimitra Suraksha Challenge

1. Skill Development Trainings of Safaimitras have been conducted through the support of Ministry of Social Justice and Empowerment. It will also include ‘**Recognition of prior learning**’ (RPL) model for **Green jobs**.
2. Under SSC, National Safai Karamcharis Finance & Development Corporation (NSKFDC), Ministry of Social Justice and Empowerment, supported by MoHUA are organizing Loan Melas across the country.
3. All 246 participating cities have already notified ban on single-use plastic (SUP)
4. **Separate Standard uniform designs** for different categories of sanitation workers across urban India. It will include :



5. Assessment by **independent third party**.
6. Cities can try to implement innovative solutions for this like **Bandicoot robot** deployed by Kerala government for cleaning of sewer.
7. 31 states/UTs have established a Responsible Sanitation Authority (RSA) and 210 cities are having the Sanitation Response Units (SRU)
8. A dedicated helpline number has been set up to register complaints and provide real-time solutions on desludging or sewer overflow.
9. Cities being awarded a cash prize based on their performance.

Need of Safaimitra Suraksha Challenge

- Supreme court through different judgements prohibited hazardous cleaning, i.e. manual entry into a septic tank or sewer without protective gear and observing operating procedures.
- Same provision is there under The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (2013).
- Still this practice is prevalent in municipalities across India. There are instances of death of manual scavengers in Delhi, Hyderabad, Mumbai.
- As per SECC, 2011 there are 180000 manual scavengers in India.
- SSC stresses on the fact that safety and dignity of sanitation workers is the core of Swachh Bharat Mission.

Hence such kind of challenges will bring together all stakeholders to curb this inhuman practice and ensure cleanliness through technology interventions.

Legal Metrology Rules 2011 Amended

Centre has **amended** the Legal Metrology (Packaged Commodities) Rules 2011 to protect the interest of consumers (January 2021). Rules are being made under Legal Metrology Act 2009.

Legal metrology is the application of legal requirements to **measurements and measuring instruments**. Important examples are Medicines, pre-package food items, medical devices like oxygen support devices in COVID-19 times are comes under ambit of legal metrology for description rules and regulations.

Provisions Under Legal Metrology (Packaged Commodities) Rules 2011

- The objective of Legal Metrology is to ensure public guarantee from the point of view of security and accuracy of the weighments and measurements.
- The act provides for application of legal requirements to measurements and measuring instruments.
- The Department of Consumer Affairs, administers the Legal Metrology Act 2009.
- Rules are primarily intended to ensure that the consumers are able to make informed choices by being informed of essential declarations on the pre-packed commodities.

Recent Amendments

1. 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**.
2. Companies selling packaged commodities with a quantity of **more than one kilogram** are required to print 'unit sale price' per kg along with its maximum retail price (MRP).
 3. Rule regarding mentioning of quantity on a packaged commodity was amended.
 - 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
 - Earlier Quantity should either be in 'number' or 'unit' and it should be mentioned as "xxN or xxU".
 4. **Date declaration** has now been required to the month and year in which the pre packed commodity is manufactured.
 5. The provisions of **declarations of MRP** has been simplified by removing illustration and providing for making the mandatory declaration of MRP in Indian currency inclusive of all taxes.

With Changes, Following Positive Implications for Customer

- It will be easier for consumers to find the cost in unit terms which will help for conscious purchase decision.
- It will lessen compliance burden on industries.
- Easier for domestic customer who are using internationally produce goods.
- These amendments will ensure transparency and accountability in pre-packaged goods market.

Multidimensional Poverty Index

Multidimensional poverty index seeks to measure poverty across multiple dimensions in country. It is to quantify poverty in all of its forms. **NITI Aayog** has released **first national multidimensional poverty index**.

- First national multi-dimensional poverty index shows that 25% of India's population is poor. The figure is higher than income based measures of poverty.
- The MPI released by Niti Ayog used data from **4th National Family Health Survey 2015-16**.

The index used **three equally weighed dimensions** of **Health, education and standard of living**. It has used **12** indicators like nutrition, sanitation housing bank account.

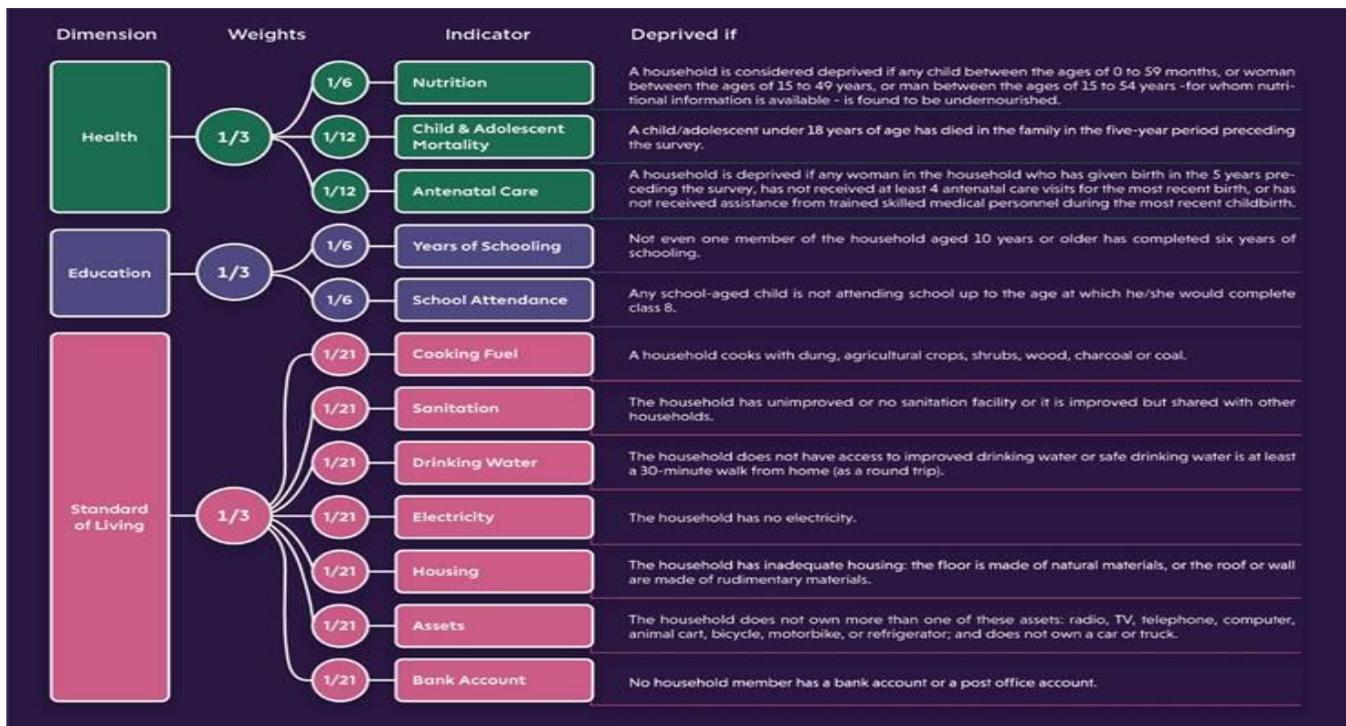


FIGURE 1: INDICATORS IN INDIA'S NATIONAL MPI

Salient Feature Of Index

1. The index is first ever country's own poverty index.
2. To track poverty across subnational regions
3. It can be used to deconstruct Global MPI and to improve India's ranking in global position.
4. It will complement monetary poverty reduction efforts.
5. It provides ample of data to help policy maker to make effective decision. This report delves in to in-depth analysis of the **head count ratio** and **intensity** of multidimensional poverty at the national, state and district levels.

Purpose: National MultiPoverty index is tailored to national priorities. It has break down by sub national regions, urban or rural areas, age and other factors.

Key Findings

- Bihar has the highest proportion of poor people. It is followed by Jharkhand and then Uttar Pradesh.
- Kerala has lowest number of poor people followed by Goa and Sikkim

Top	Bottom
Kerala 0.71%	Bihar 51.91 %
Pondicherry 1.72%	Jharkhand 42.16%
Lakshadweep 1.82%	Uttar Pradesh 37.79%
Goa 3.76	Meghalaya 32.67%

- Bihar has also highest number of malnourished people. It is followed by Jharkhand, Madhya Pradesh, Uttar Pradesh and Chhattisgarh.
- Pondicherry has least poor people among union territories. It is being followed by Lakshadweep.
- National capital is performing low on maternal health index. It weighted only 15.9%.
- Uttar Pradesh performed worst on child mortality rate with 4.97%.
- Manipur has highest number of people deprived of drinking water
- Jammu and Kashmir has highest number of people with bank account.

Methodology: Used the globally accepted and robust methodology developed by Oxford Poverty and Human Development Initiative (OPHI) and United National Development Programme (UNDP).

NFHS-5 -Women Related Data

Recently, the latest data from the National Family Health Survey (NFHS 2019-21) has been released. It is conducted by Ministry of Health and Family welfare in coordination with International institute of Population Science Mumbai. 5th National Family Health Survey was from 2019 to 2021 and conducted in around 6.1 lakh household. Survey has taken parameter like Fertility rate, Infant mortality rate, child mortality rate, maternal mortality rate. Along with this, survey also gives insights on practice of Family planning and Nutritional status of population and reproductive health of women in country.

Fifth NFHS survey has spot lighted **women health** as one of its core dimension. It has also included some new dimensions like details on the percentage of women and men who have ever used internet. It has also surveyed some in-depth issues like component of micro-nutrient to children, menstrual hygiene, reproductive health etc. The result of the survey has mixed finding. Some of the findings are great achievement for country and some needs urgent attention.

Major Positive Result Of Survey

Decline in total fertility rate (TFR)

There is major decline in total fertility rate with most state reduced their fertility rate below replacement level. This is major demographic achievement. TFR has declined further from 2.2 reported in 2015-16 to 2.0 at the all-India level.

- The TFR is at 1.6 in urban areas and 2.1 in rural India.
- TFR of about 2.1 children per woman is called Replacement-level fertility.

Major factors contributing to achieve decline in TFR are:

- **Increased use of modern contraceptive:** Bihar and Uttar Pradesh has improved much better. Contraceptive Prevalence Rate has increased substantially from 54% to 67% at the all-India level.
- **Socio political change:** Delay in marriage due to education has affected the total fertility rate.
- **Reversible Spacing:** Introduction of new reversible spacing (gaps between children) methods , wage compensation systems to undergo sterilisation, and the promotion of small family norms also worked well over the years
- **Push in family planning:** Schemes like National population stabilisation fund and RMNCH+A by government has encouraged and educated people to adopt family planning.
- **Closing of urban rural gap** for the first time. It has narrowed to 0.5 in last 30 years.
- **Women Empowerment:** There is increase in women empowerment as result of education which in turn translates to have say in family matter.

Worrying Trends Regarding TFR

- **Increasing Female Sterilization:** The survey reveals that the uptake of female sterilisation has gone up to 38% against 36% in 2015-16
- **Concerns of Lower TFR:** TFR lower than 2.1 children per woman — indicates that a generation is not producing enough children to replace itself, eventually leading to an outright reduction in population.

Marriage Age: The share of women aged 20-24 who married before turning 18 has declined from 27% to 23% in the last five years.

- West Bengal and Bihar, with around 41% such women each, had the highest prevalence of girl child marriage.
- The maximum reduction in the proportion of underage marriages was observed in Rajasthan, Madhya Pradesh, and Haryana.

Performance in Malnutrition indicators: The three indicator of mal-nutrition are stunting, wasting shows an overall improvement. E.g. Bihar has reduced from 48.3 to 42.9 in child stuning.

Difference in sex ratio at birth and adulthood: For first time in India there are **1020 adult women per 1000 men**. This is one of astonishing data. And total number of female babies has increased to 929 per 1000 male babies.

- There has been improvement on other dimensions such as educational attainment, institutional deliveries, vaccinations and infant mortality etc.

Some Areas Of Concern For The Country

1. There is poor performance in dealing with Anaemia.

- 57% of women of reproductive age in the country are anaemic.
- 21% of males are anaemic.
- 66.1% children under 5 year old are anaemic.

2. Increase in proportion of overweight children, women and men. It is becoming major health challenge in India. It is reflection of poor eating habit leading to serious health consequence in the form of non-communicable disease.

3. **Women reproductive Health:** Problems like high rate of C-section is high as 47.5% in private hospital compared to 14.7% in public facility. Addressing issues like menstrual hygiene are still taboo.

Male engagements in family planning are low.

Conclusion

The decrease in Total fertility rate is sign of increasing prosperity. There are definitely increasing number of literate women. The numbers of empowerment women are also going up. These major achievement is a welcoming step in women welfare. It is duty of policymakers to ensure the hard earned gain go towards positive achievement further. Also concerns about rise in anaemia are an alarming and needs immediate attention. Programmes like “eat right movement” should be implemented effectively. Government’s schemes like National nutrition mission (Poshan abhiyan) should be implemented effectively at grass root level.

EXCERPTS FROM NFHS SURVEY



WOMEN'S EMPOWERMENT (WOMEN AGE 15-49 YEARS)

	2020-21	2015-16
Participation of married women in household decisions	92%	73.8%
Women who worked in last 12 months and paid in cash	24.9%	21.1%
Women owning a house and/or land (alone or jointly)	22.7%	34.9%
Women having a bank or savings account that they use	72.5%	64.5%
Women having a mobile phone that they themselves use	73.8%	66.6%

NUTRITIONAL STATUS OF ADULTS (AGE 15-49 YEARS)

	2020-21	2015-16
Women whose Body Mass Index (BMI) is below normal	10%	14.9%
Men whose Body Mass Index (BMI) is below normal	9.1%	17.7%
Women who are overweight or obese	41.3%	33.5%
Men who are overweight or obese	38%	24.6%
Average out-of-pocket expenditure per delivery in a public health facility (in Rs)	2,548	8,518
Women who have ever used the internet	63.8%	NA
Men who have ever used the internet	85.2%	NA
Households with any usual member covered under a health insurance/financing scheme	25%	15.7%

Internal Displacement UNHRC Report

Internal displacement is described as situations that forced people to leave home but are staying inside the political boundary of country. This report is published annually by **United Nation High Commission for Refugee**. This year focus on relationship between climate change, disaster and displacement. 51 million people are displaced internally across 33 countries due to conflict, violence in first six months of 2021. The lethal combination of climate emergency, COVID-19 pandemic, food insecurity has swelled the percentage of internal displacement.

The Report Has Two Components

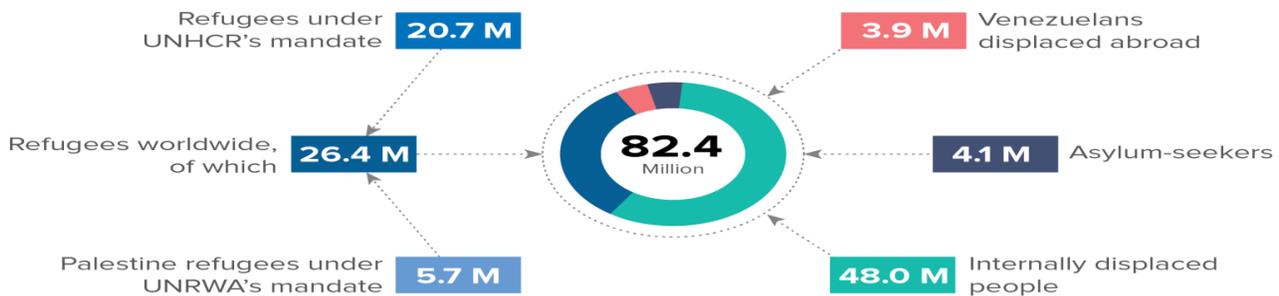


United Nations High Commissioner for Refugee is UN’s refugee agency and a world organisation dedicated to save lives, protect rights and shape healthier future for refugee, forcibly displaced communities and stateless people. It was created in 1950 to help millions of Europeans who had fled or lost their homes. Geneva Switzerland is the head quarter for UNHRC.

Key Findings Of Report

- Global displacement is climbing over 82 million despite pandemic. It has swelled around three million in 2020.
- Africa Violence in Ethiopia and Mozambique are causing surge in displacement.
- Deadly Jihadist violence has led to displacement in Mozambique.

- Freshly displacement in Sahel region.
- Only 3.2 million IDPs has returned home in 2020 marking drop of 40% from 2019.
- 20 million displaced due to climate change issue.
- Problem of internal displacement has increased straight for nine years.
- 42% displaced are girls and boys under the age of 18.



Internal Displacement In India

According to 'The Global Report on Internal Displacement (GRID 2020)' five million people were displaced internally in India. The problem of internal displacement is a neglected crisis. Following issues are pertaining with internal displacement in India:

- No regular monitoring due to diverse status of country.
- There is no national policy and legal institution framework for IDPs.
- India has not ratified 1951 convention and 1967 protocol of human rights.
- Federal structure has created a barrier as land, public order is under state subject.

Reasons for Internal Displacement

- 1. Secessionist Displacement:** Arm conflicts in different part of country have become reason of displacement in Nagaland, Assam, displacement of Kashmiri Pundit etc.
- 2. Environmental Displacement:** Displacement due to flood in Uttrakhand, water scarcity in Ladakh has forced people to displace internally. People in Godhamara and Mousuni island located on shores of West Bengal are displaced due to rising sea level.
- 3. Identity based displacement:** Bodo land, Punjab, Bru Reanng tribe are example of identity based displacement.
- 4. Tribal displacement:** Tribal displacement due to development projects make tribal people to go away from their natural habitat.
- 5. Caste based violence:** State like Uttar Pradesh, Bihar witness displacement due to caste and religion based migration.

SWAMIH Fund

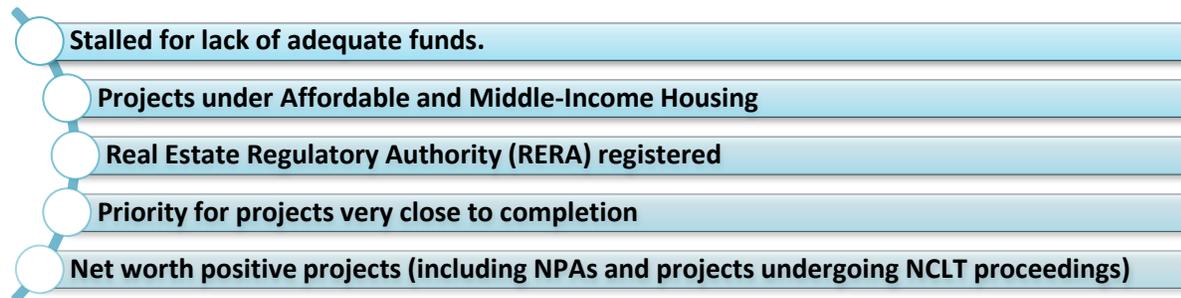
- The government-backed **Special Window for Affordable and Mid Income Housing** (SWAMIH) Fund recently made a complete exit from its investment made in a Mumbai based housing project.
- The fund achieved its twin targets – of completing the project and redeeming its investment successfully. This is the first stalled project completed with funding from SWAMIH Fund.

Details of SWAMIH Fund

- At the time of the launch of SWAMIH fund, many real estate projects that were near completion or two-thirds completed were stalled because of last mile funding.
- Thus, the fund was launched in November 2019, to provide relief to real estate developers that require funding to complete their unfinished projects and ensure the timely delivery of homes to home-buyers.
- It has been set up as a **Category-II AIF** (Alternate Investment Fund) debt fund registered with SEBI.
- The **central government** through the Department of Economic Affairs, is the **sponsor** of the fund. It has infused Rs 10,000 crore in the fund. The fund is seeking matching contributions from Banks, LIC and others to generate a total corpus of around Rs 25,000 crore.
- **Investment Manager** of the fund is SBICAP Ventures, a wholly-owned subsidiary of SBI Capital Markets, which in turn is a wholly-owned subsidiary of the State Bank of India.
- SWAMIH has given final approval to 95 projects, sanctioning more than Rs 9,500 crore, which will complete over 57,700 homes.
- It has already completed more than 1,500 homes in 7 projects and is on track to complete at least 10,000 homes every year.

Criteria For Project Selection

Funding shall be provided to the projects that meet the following criteria:

- 
- **Stalled for lack of adequate funds.**
 - **Projects under Affordable and Middle-Income Housing**
 - **Real Estate Regulatory Authority (RERA) registered**
 - **Priority for projects very close to completion**
 - **Net worth positive projects (including NPAs and projects undergoing NCLT proceedings)**

Net-worth positive projects are projects for which the value of their receivables (debts owed to them by buyers), plus the value of their unsold inventories is greater than their completion costs & outstanding liabilities.

Impact

- Once these homes are constructed and completed, a large amount of capital locked up in these projects will be released.
- Besides, it will provide employment to construction workers as well as a boost to the allied industries such as steel and cement.
- Further, it will improve portfolios of banks and NBFCs, and significantly improve the economic sentiment in the nation.
- The current successful exit (from the project in Mumbai) would strengthen the Fund and other private investors to take exposure to stalled projects.

Alternative Investment Fund (AIF)

- As per, **Regulation Act, 2012** of SEBI, AIF is any fund incorporated in India which is a **privately pooled investment vehicle**.
- It collects funds from both Indian and foreign investors. Generally, high net worth individuals and institutions invest in AIFs as it requires a high investment amount, unlike Mutual Funds.
- It can be established in the **form of a company or a corporate body or a trust or a Limited Liability Partnership (LLP)**.
- AIFs are divided into 3 unique categories – **Category I, Category II and Category III**.
- **Category-II AIF** are funds that do not borrow money other than to meet day-to-day operational requirements. Real estate funds, private equity funds (PE funds), funds for distressed assets are all Category-II AIF funds.

Real Estate Regulatory Authority (RERA)

- Established under Real Estate (Regulation and Development) Act, 2016 to enhance accountability & transparency with respect to housing transactions & real estate.
- The Act establishes RERA in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute redressal.

Dairy Sahakar Scheme

- The government recently launched the **Dairy Sahakar scheme** to encourage **cooperative dairy businesses** in the country. It will initially be implemented from 2021-22 to 2025-26 for a period of five years.
- The scheme with a total investment of Rs 5000 crore will be implemented **by National Cooperative Development Corporation (NCDC) under Ministry of Cooperation** to realize the vision, “**from cooperation to prosperity**”.
- The scheme will **provide financial support** extended by NCDC **to eligible cooperatives** for activities such as bovine development, milk procurement, processing, quality assurance, value addition, marketing and branding, exports etc.
- Period of loan will be for 5-10 years, including 1-2 years of moratorium on repayment of principal, depending on the type of project and revenue streams.
- There is no minimum or maximum limit on financial assistance to projects by eligible cooperatives.
- Various central schemes will also be converged with that of state governments, Union Territory administrations, development agencies and others for the benefit of the beneficiaries.
- This is the first ever and the only dairy focused comprehensive framework from NCDC utilising different schemes of the Union Government.

National Cooperative Development Corporation (NCDC)

- (NCDC) was established as a **statutory corporation** by an Act of Parliament in 1963 under the Ministry of Agriculture & Farmers Welfare.
- Its **objectives** are planning and promoting programmes for production, processing, marketing, storage, export and import of agricultural produce, foodstuffs, industrial goods, livestock etc. on cooperative principles.
- It gives **loans and grants** to state governments for financing *primary and secondary level cooperative societies* and direct funding to the national level and other societies having objects extending beyond one State.
- It can also give direct funding to projects under its various schemes of assistance.

Revised Prompt Corrective Action

- The Reserve Bank of India recently revised the Prompt Corrective Action (PCA) framework. The revised PCA framework will be effective from January 1, 2022.
- Introduced in 2002 by RBI, PCA is a framework under which banks with weak financial health are put under monitoring by the RBI. The framework was last revised by RBI in 2017.

Earlier PCA norms	Revised Framework
Banks were evaluated on <u>capital, asset quality, return on assets (profitability) and leverage</u> .	It excludes the return on assets (RoA) parameter and retains the other three parameters from the previous framework.
It excluded Regional Rural Banks	In addition, the revised framework excludes small finance banks and payment banks too.

- The **leverage ratio** shows how much a lender has stretched itself in borrowing funds to generate income. More the leverage, higher the risk.
- The Revised framework will continue to apply to all banks operating in India, including foreign banks operating through branches or subsidiaries.
- The RBI also stated that exit from the PCA would be based on four continuous quarterly results, with one being Audited Annual Financial Statement apart from Supervisory Comfort of RBI and assessment on sustainability of profitability.

Revised PCA Matrix

Parameter	Indicator	Risk Threshold 1	Risk Threshold 2	Risk Threshold 3
Capital	CRAR - Minimum regulatory prescription for Capital to Risk Assets Ratio + applicable Capital Conservation Buffer	Upto 250 bps below the Indicator	More than 250 bps but not exceeding 400 bps below the Indicator	In excess of 400 bps below the Indicator
	OR			
	Regulatory PreSpecified Trigger of Common Equity Tier 1 Ratio (CET 1 PST) + applicable Capital Conservation Buffer	Upto 162.50 bps below the Indicator	More than 162.50 bps below but not exceeding 312.50 bps below the Indicator	In excess of 312.50 bps below the Indicator
Asset Quality	Net NonPerforming Advances	>=6.0% but <9.0%	>=9.0% but < 12.0%	>=12.0%
Leverage	Regulatory minimum Tier 1 Leverage Ratio	Upto 50 bps below the regulatory minimum	More than 50 bps but not exceeding 100 bps below the regulatory minimum	More than 100 bps below the regulatory minimum

RoA Exclusion

- One view in the financial sector is that the RoA should have been retained as it indicates business performance.
- However, according to another view, RBI need not monitor RoA and the profitability of the bank is the lookout of the banks and its shareholders lookout.
- Moreover, controls over capital adequacy indirectly include profitability. As, retained profits become reserves that help to increase capital.

{For more details regarding PCA framework refer Recitals October}

Preserving Landraces

- **Rahibai Popere**, popularly known as Seedmother, from Ahmednagar, Maharashtra was recently awarded the **Padma Shri**, for her work that has **helped save hundreds of landraces** (wild varieties of commonly grown crops) at the village level.
- Landraces refer to **naturally occurring variants of commonly cultivated crops**.
- Landraces are unlike commercially grown crops, which are developed by selective breeding (hybrids) or through genetic engineering to express a certain trait over others.

Significance of Landraces

- **Genetic diversity is nature's survival mechanism**. It allows a natural mechanism for crops to develop traits that can help in surviving extreme climate events.
- However, due to large-scale human interference through selection and breeding over several decades, that ability is now lost in most commercial crops (due to a narrow genetic base).
- Naturally occurring landraces have a large pool of still untapped genetic material, which can provide solutions.
- For example, **kalbhat**, a unique landrace of scented rice has better climate resilience than popularly grown rice and can withstand flood or drought better. However, it had almost vanished from cultivators' fields as hybrid variants became popular.
- A common misconception was that landraces have lower yields than hybrids. But with proper agricultural practices, landraces can give better yield with lower input costs.

Community led Conservation

- Since 2008, Bharatiya Agro Industries Foundation (BAIF) has initiated a community-led programme to preserve landraces. **It aims to identify germplasm available and through community participation, create seed banks**.
- At present, it is implemented in 94 villages in Maharashtra and also in Uttarakhand and Gujarat.
- The programme has deposited 150 landraces of paddy, finger millet, and little millet to the National Bureau Plant Genetic Resource. A network of 5,000 seed savers has also been developed.

Way Ahead

- Today, landraces survive in only a few **rural and tribal pockets**, and even they are depleting due to lack of proper conservation. Traditional knowledge about the way they need to be grown, or how seeds are to be saved, is also vanishing.
- It is necessary to understand through research how these landraces can contribute to climate-resilient agriculture
- Moreover, nutritional profiling too can help to fight deficiencies, as many landraces are richer in nutrients than commercially grown variants.

Hybrid Crops

- A hybrid crop is a result of two different varieties of plant that are cross-pollinated to create an offspring or hybrid, that contains the best traits of each of the parents.
- They offer some combination of various favourable traits like dependability, less required care, early maturity, higher yield, improved flavour, specific plant size and better disease resistance.

Germplasms

- These are living genetic resources such as seeds or tissues that are maintained for the purpose of animal and plant breeding, preservation, and other research uses.

- These resources may take the form of seed collections stored in seed banks, trees growing in nurseries, animal breeding lines maintained in animal breeding programs or gene banks, etc.
- Germplasm collection is important for maintenance of biological diversity & food security.

Reserve Bank - Integrated Ombudsman Scheme

- PM recently launched the Reserve Bank - Integrated Ombudsman Scheme (RB-IOS) to strengthen the grievance redress mechanism for consumers.

- RB-IOS integrates the existing **three Ombudsman schemes of RBI**:



- Having evolved over different periods of time, the three schemes had different grounds of complaints and had different compensation structures, resulting in uneven grievance redressal across customers of different entities.
- Thus, there was a need to simplify the procedure by integrating the schemes.

Features of the Scheme

- The scheme is based on the concept of '**One Nation One Ombudsman**' with one portal, one email, and one address for the customers to lodge their complaints. It also removes the jurisdictional limitations of each ombudsman's office.
- Unlike earlier, it will no longer be necessary for a complainant to identify under which scheme he/she should file complaint with the Ombudsman.
- The Scheme also defines '**deficiency in service**' as the ground for filing a complaint, with a specified list of exclusions. Therefore, the complaints would no longer be rejected simply on account of "not covered under the grounds listed in the scheme".
- The scheme prescribes a **15-day timeline** for the regulated entity to share information/documents to the office of the ombudsman as against none at present.
 - If they do not reply in time, they will lose the right to appeal in cases where an award is issued by the ombudsman against them.

Appellate Authority

• Executive Director-in charge of Consumer Education and Protection Department of RBI

- In addition to integrating the three existing schemes, the Scheme also covers **Non-Scheduled Primary Co-operative Banks** with a deposit size of ₹50 crore and above.
- The complaints that are not covered under the scheme will continue to be handled by the Customer Education and Protection Cells (CEPCs) which are located in the 30 regional offices of RBI.

Benefits

- The redressal will continue to be **cost-free** for customers of banks and members of the public.
- It will enable the customers to file complaint, submit documents, track status of complaints and provide feedback, from anywhere at any time.

- It is expected to ensure uniformity and streamlined user-friendly mechanism which will facilitate customer satisfaction and financial inclusion. This may also help in evolving better processes too, based on holistic analysis.

Duare Ration Scheme

- West Bengal government launched the **Duare Ration** (ration at the doorstep) scheme for the entire population of the State.
- A similar scheme of delivering food grains was earlier started by the Delhi government. However, the Centre approached the court on this issue, arguing the attempt to provide ration at doorsteps was against the provisions of National Food Security Act.
- The Bengal government's move is different because it aims to bring the **state's own scheme**, to bring subsidised rice and wheat closer to citizens. The Calcutta High Court had earlier cleared legal challenges to the Duare Ration scheme.

Scheme Details

- People of a particular area would be informed through SMS about when and where they need to collect their subsidised ration.
- Each vehicle would be parked at a convenient location in a neighbourhood so that residents need not walk more than 500 metres to avail the ration.
- Government would provide around 21,000 ration dealers with financial assistance of ₹1 lakh each to purchase vehicles for delivering ration to people
- It also allows ration dealers to recruit two delivery assistants, with a monthly wage of Rs 10,000 each. The state government will bear half the salary.

India Tops Remittance Inflows

The World Bank recently released its Migration and Development Brief.

Key Findings

- **India** is projected to receive USD 87 billion in 2021 in remittances, making it the **largest recipient of remittances**. India had received over USD 83 billion in remittances in 2020.
- United States was the biggest source for India, accounting for over 20% of funds in 2021. India is followed by China, Mexico, Philippines and Egypt.
- Remittance flows to following regions are projected to have grown by:

Europe and Central Asia •By 5.3% to \$67 billion	Middle East and North Africa •By 9.7% to \$62 billion	Sub-Saharan Africa •By 6.2% to \$45 billion
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- Remittances to **low- and middle-income countries** are projected to have grown a strong 7.3% to reach USD 589 billion in 2021.
- For a second consecutive year, remittance flows to low- and middle-income countries (excluding China) are expected to be more than the sum of FDI and overseas development assistance (ODA).
- This highlights the importance of remittances in supporting household spending on essentials such as food, health, and education during periods of economic hardship in migrants' countries of origin.

Factors For Growth In Remittances

- Migrants' determination to support their families in times of need, aided by economic recovery in Europe and the United States.
- This was further supported by the fiscal stimulus and employment support programs.
- Stronger oil prices and the resulting pickup in economic activity also facilitated remittances from Gulf Cooperation Council (GCC) countries and Russia.

Future Projections

- **Globally**, remittances are expected to grow by 2.6% in 2022, with the downside risks focused on a resurgence of COVID-19 cases and mobility restrictions.
- Lower fiscal stimulus in developed countries could also weaken remittance flows.
- In India, remittances are projected to grow 3% in 2022 to USD 89.6 billion.

Way Ahead

- To keep remittances flowing, especially through digital channels, providing access to bank accounts for migrants and remittance service providers is a key requirement.
- Policy responses also must continue to be inclusive of migrants especially in the areas of access to vaccines and protection from underpayment.
- Facilitating remittances to provide relief to strained household budgets should be a key component of government policies to support a global recovery from the pandemic.

World Bank's Migration and Development Brief

- Produced twice a year, the brief provides updates on developments in the area of migration and remittance flows and related policies over the past six months.
- It also provides medium-term projections of remittance flows to developing countries.

Proposed Norms for Digital Lending

A working group (WG) set up by the RBI has proposed stringent norms for digital lenders, to prevent illegal digital lending activities in the country.

Digital Lending

- Digital lending is the process of availing credit online. With new innovations, digital lending has enabled many Financial Service Providers to offer better products to the masses at a much faster rate and in a cost-efficient way.
- It has played a big role in evading red-tapism usually involved while getting loans offline in a traditional setting and is a powerful tool that can aid financial inclusion.
- Its increased popularity amongst new-age lenders is due to expanding smartphone penetration, credit range flexibility and speedy online transactions.
- It has also gained massive popularity among MSMEs post Covid as they were unable to secure finance through the traditional lending institutions.
- As per RBI, lending through digital mode relative to physical mode for:

Banks

- It is still at a **nascent stage**
- Rs 1.12 lakh crore via digital mode against Rs 53.08 lakh crore through physical mode

NBFCs

- **Higher proportion** of lending is happening through digital mode
- Rs 0.23 lakh crore via digital mode against Rs 1.93 lakh crore through physical mode

Issues With Digital Lending

- There have been numerous instances where unauthorized lenders provided credit to customers without any collateral and at very high rates along with unachievable deadlines.
- Borrowers have been forced by the lenders for recollection. This hurts the trust of consumers and harms the growth of FinTech companies.
- To address these issues the Working Group was constituted in January 2021 to enhance customer protection and make digital lending ecosystem safe while encouraging innovation.

Norms Proposed

- Digital lending apps should be subjected to a verification process by a nodal agency to be set up in consultation with stakeholders.
- Setting up of a Self-Regulatory Organisation(SRO) covering the participants in the digital lending ecosystem.
- Disbursement of loans should be directly into bank accounts of borrowers. Algorithmic features used in digital lending should be documented to ensure necessary transparency.
- Data collection with prior consent of borrowers should have verifiable audit trails and should be stored in servers located in India.
- Use of unsolicited commercial communications for digital loans should be governed by a Code of Conduct (CoC) to be put in place by the proposed SRO.
- The lending companies should also be required to follow standardized CoC for recovery to be framed by the proposed SRO in consultation with RBI.
- Each digital lender should be required to provide a key fact statement in a standardized format including the Annual Percentage Rate
- A negative list of lending service providers should also be maintained by the SRO.

Staff Accountability Framework For NPA Accounts

- The Ministry of Finance recently issued norms to guide state-owned banks in adopting a uniform staff accountability framework for non-performing asset (NPA) accounts up to Rs 50 crore (other than fraud cases).
- These guidelines will be implemented with effect from April 1, 2022, for accounts turning NPAs starting next financial year.

Need For The Guidelines

- Currently, different banks are following different procedures for conducting staff accountability exercises. Moreover, staff accountability exercise is carried out for all accounts which turn NPA.
- A series of bank frauds in the past has made public sector banks extremely cautious and risk averse even in case of genuine corporate loans.
- While punitive action needs to be taken against the officers having malafide intent/involvement, there is a need to protect people taking genuine business decisions that can go wrong.
- Also, at a time when the country is in need of an economic boost, slow credit delivery to industries due to the fear, is a matter of concern and had to be addressed urgently.

Staff Accountability Framework

- It advises public-sector banks to revise their staff accountability policies and frame procedures with approval of their respective boards.
- Banks will have to complete an accountability exercise within **six months** from the date an account is classified as NPA.

- If NPA is caused by external factors — such as change in government policy, natural calamities, non-release of government subsidy/grant — it should not attract a staff accountability examination.
- Past track record of the officials in appraisal or sanction/monitoring will also be given due weightage.
- Depending on the banks' business size, the guidelines suggest threshold limits for scrutiny of the accountability by the chief vigilance officer.

Impact

- The framework will ensure a common approach across state-owned banks in dealing with staff accountability for accounts becoming NPA.
- It will also help bankers to take credit decisions faster and support the economy.

Proposed Action Under Various Categories Of NPAs

For examining staff accountability, banks may decide on a threshold of **Rs 10 lakh or Rs 20 lakh**, depending on their business size.

Up to Rs 10 lakh.	•Staff accountability need not be examined
Rs 10 lakh - Rs 1 crore	•For such loans, which mainly include home and car loans, SME and agriculture credit, staff accountability is to be examined by a committee formed at regional/controlling offices
Rs 1 crore - 50 crores	<ul style="list-style-type: none"> •Accounts between should undergo a preliminary examination by a committee constituted at one level higher than the sanction level. •For example, an account sanctioned at the regional office will be taken up at the zonal level, those at the zonal level by circle office or head office, and so on.
Above Rs 50 crores	•Staff accountability is to be examined as per the existing guidelines.

SDG Urban Index

- NITI Aayog recently released the inaugural Sustainable Development Goals (SDG) Urban Index and Dashboard.
- It has been developed by **NITI Aayog** in collaboration with German International Cooperation Agency (GIZ) under the Indo-German Development Cooperation.

Methodology of The Index

- A comprehensive list of 77 indicators, covering 46 global SDG targets across 15 SDGs is used in the index.
- No poverty, zero hunger, good health, quality education, gender equality, clean water and sanitation, good jobs and economic growth are among the goals on which urban areas have been ranked.
- For each SDG, the urban areas are ranked on a **scale of 0-100**. A score of 100 implies that the urban area has achieved the targets set for 2030.
- Urban areas have been classified based on their composite score as follows:



Significance Of The Index

- The index highlights the strengths and gaps of ULB (urban local body) level data, monitoring and reporting systems.

- It seeks to empower local administrations to adopt a measurement-based approach to decision making.
- Thus, the index will strengthen the SDG localization journey.
- This transformative change is quite essential, due to the increasing prominence of cities and urban areas in the future of development in India.

Findings Of The Index

- Overall, Shimla has topped the index, with the highest score of (75.5), followed by Coimbatore (73.29), Thiruvananthapuram (72.36), Chandigarh (72.36) and Kochi (72.29).
- India's coal capital Dhanbad scored the worst (52.43); Meerut (54.64), Itanagar (55.29), Guwahati (55.79) and Patna (57.29) make up the bottom five.

Jobs and Economic Growth

- Bengaluru is the best and only city in the country that is providing decent jobs and ensuring economic growth. It was the only city, which managed the 'front-runner' category under this goal, with a score of 79.
- The second-best city under this goal was Raipur (64), followed by Dehradun (59) and Panaji (59) — but they were still in the performer's category.
- Of the 56 cities only 13 scored above 50. Kolkata received a score of just three, the lowest score achieved by any city in the country.

GOAL	NUMBER OF CITIES SCORING BELOW 50
 DECENT WORK AND ECONOMIC GROWTH	43
 ZERO HUNGER	29
 INDUSTRY INNOVATION AND INFRASTRUCTURE	22
 NO POVERTY	13
 CLIMATE ACTION	13
 REDUCED INEQUALITIES	12
 SUSTAINABLE CITIES AND COMMUNITIES	8
 AFFORDABLE AND CLEAN ENERGY	6
 GOOD HEALTH AND WELL-BEING	4
 GENDER EQUALITY	2
 ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS	2
 PEACE, JUSTICE AND STRONG INSTITUTIONS	2
 QUALITY EDUCATION	0
 CLEAN WATER AND SANITATION	0

Beyond Jobs

- The goal-wise assessment of the cities reveals the real problems cities face in terms of achieving the SDGs.
- While the average score of all cities with decent jobs was 38, the second goal — **Zero Hunger**, is the second biggest challenge for the country's cities.
 - About 29 of the 56 cities in this category scored below 50 with Indore scoring the worst (22), followed by Raipur, Kolkata and Varanasi. Under this goal, Kochi (80), Imphal (73) and Kohima (70) topped the charts.
- The ninth goal of the SDGs — Industry, innovation and infrastructure — is the third biggest problem for India's cities.
- Nearly half the cities (22 cities) scored below 50. Under it, Kochi scored the worst with 19, while Surat had the best score of 78.

Pradhan Mantri Garib Kalyan Anna Yojana

- The Union Cabinet has approved the extension for the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY-Phase V) from December 2021 till March 2022.
- Last year during the nationwide lockdown due to Covid-19, the Centre had launched PMGKAY in April 2020.
- Under this, the Centre distributed 5 kg of wheat or rice per person per month to almost 800 million beneficiaries over and above the normal entitlement under National Food Security Act (NFSA) for free.
- So far, under PMGKAY (phase I to IV) the government had allocated a total of almost **600 Lakh Metric Tonne (LMT)** food grains to States/UTs. The total outgo in Phase V is likely to be about 163 LMT.
- Overall, the government will be incurring an expenditure of nearly **Rs. 2.60 lakh Crore** in Phase I- V.

National Food Security Act (NFSA)

- It was notified in 2013 with the objective to provide for **food and nutritional security**, by ensuring access to adequate quantity of quality food at affordable prices.
- It provides a **legal right** to persons belonging to “eligible households” to receive food grains at subsidized price— under the Targeted Public Distribution System (TPDS).
- It provides for **coverage** of up to 75% of the rural population and up to 50% of the urban population.
- Under the Act, the term “eligible households” comprises **two categories** — priority households, and families covered by the Antyodaya Anna Yojana (AAY).
- **Priority households** are entitled to receive 5 kg of food grains per person per month, whereas **AAY households** are entitled to 35 kg per month at the same price.

All-India Survey on Domestic Workers

- The Ministry of Labour and Employment recently launched the **All-India Survey on Domestic Workers (DW)**, covering 37 states and UTs.
- It is the first such survey in independent India and will cover 1.5 lakh households in 742 districts across the country. It will be conducted by the **Labour Bureau**.

Reasons For Conducting The Survey

- Domestic workers constitute a significant portion of total employment in the informal sector. Furthermore, rapid urbanization due to expansion would lead to migration of workers and a rise in the number of domestic workers.
- However, there is lack of data on the number of workers, employment conditions, average pay etc. of the domestic workers.
- The absence of such data leaves them out of any formal policy governing the country’s informal workers. The current survey is designed to fill this gap.
- The survey is among five national jobs surveys that will be conducted periodically to provide crucial data for an upcoming national employment policy planned by the government.

Details Of The Survey

- The survey will cover all types of domestic services like cook, driver, housekeeping, tutor (for children), watchman, etc.
- **Domestic worker:** As per the survey, if the frequency of visits by the worker to the household is at least four days during the last 30 days and the goods and/or services produced by the worker is consumed by the members of the household against payment.
- The survey is aimed at estimating:

- Number and proportion of DWs at the national and state level
- Proportion of domestic workers who live-in/live-out, engaged in formal/informal employment and migrant/non-migrant status
- Their wages and other socio-economic characteristics

- The result of the survey is expected in one year.

Benefits

- The survey will help the government understand significant issues on certain special and vulnerable segments of labour.

- It will also help the government to develop **evidence-based data-driven policies**.

LEADS 2021 Report

- The Ministry of Commerce and Industry recently released the 3rd edition of **Logistics Ease Across Different States (LEADS) Report 2021**.
- Launched in 2018, with the objective of ranking States and UTs on the efficiency of their logistics ecosystem.
- The first version of the report, LEADS 2018, focused on export-import trade. The second edition, covered both international and domestic trade.
- The LEADS 2021 exercise has gone one-step ahead in **analysing domestic and EXIM logistics ecosystem** of the state.
- LEADS 2021 examines the **three dimensions** which collectively influence logistics ease i.e.



- The rankings include parameters such as the competitiveness of pricing, timeliness and availability of infrastructure and services, among others.
- The perception-based survey was conducted through four different categories of **logistics stakeholders**.

Exhibit 5: Stakeholder categories for LEADS survey



Rankings

- Gujarat, Haryana and Punjab have emerged as the **top performers** in the index.
- Within the North Eastern States and Himalayan Region, **Jammu and Kashmir** is at the top followed by Sikkim and Meghalaya. **Delhi** stands at the top rank among Other UTs.
- Uttar Pradesh, Uttarakhand and Jharkhand have emerged as the **top improvers**

Way Ahead

- States should frame state level logistics policy & logistics master plan, use single-window clearance system for logistics, establish grievance redressal mechanism and enable skilling in logistics sector through State skilling infrastructure.
- Rather than just absolute improvement in one state, improvement of logistics across all states, will be a force multiplier for the entire logistics ecosystem.
- Thus, Department of Commerce through LEADS will continuously engage with all States and UTs to support, facilitate and promote improvements in the overall logistics ecosystem.
- Synergies from such a coordinated approach will reduce logistics costs by 5% over the next 5 years, which in turn, will act as a significant stimulus to PM Gati Shakti National Master plan.

POLITY AND GOVERNANCE

Vanniyar Reservation Law Unconstitutional

Madras high court has declared as unconstitutional a legislation granting **10.5%** reservation to the Vanniyar community within the **existing 20% quota for the most backward classes (MBC)** in Tamil Nadu.

Who Are Vanniyars

- They were one of the largest and most consolidated backward communities that had a consistency in retaining political representation from 1940s and 1950s.
- They were in the backward classes list for many years. The community, constituting a significant percentage in the State's northern districts, consists predominantly of **agricultural labourers**.
- They had raised massive protests in the mid-1980s demanding 20% reservation in the state, and 2% in central services.

Vanniyar Reservation Bill

- The bill envisages 10.5% quota for Vanniyars in **education and employment** within the reservation for MBC and De-Notified communities (DNC).
 - The 20% given under the **Tamil Nadu Act 45 of 1994**, which deals with **entire reservation of 69%** for Backward Classes, MBCs, DNCs, SCs and STs.
- Now as per the latest special bill, the Vanniyars, will be given 10.5% within the 20% category and the other two groups, MBC-DNC and MBC, will be provided with 7% and 2.5% reservation, respectively. There are around 107 communities in the MBC-DNC and MBC categories across the state.

Reasons For The Court's Judgment

- The exclusive quota for one community was criticised on the ground that it was done with an **eye on the Assembly election**.
- The separate reservation for one caste amounted to **discrimination against all the other castes** in the same MBC category.
- Further, the State had **produced no quantifiable data to back its claim** that the Vanniyars were so far behind the other communities. In the absence of such data, it amounted to **legislation solely on the ground of caste**.
- The Act was unconstitutional mainly on the ground that the Assembly had **no legislative competence to pass the law on the date of the enactment**. This was because the **102nd Amendment to the Constitution** (which created the National Backward Class Commission and empowered the President to notify the backward classes list for each State) was in force in February 2021.
 - The Supreme Court had ruled, again in the **Maratha reservation case**, that the Amendment took away the power of the States to notify or identify OBCs. Later, the 105th Amendment made it explicit that the States could make changes in their lists.

Whistle-Blower Portal

- Indian Renewable Energy Development Agency (IREDA), launched a 'whistle-blower Portal', as a part of 'Vigilance Awareness Week 2021'.
 - ✓ IREDA is a **Mini Ratna** (Category – I) Government of India Enterprise
- Through this portal, IREDA employees can raise concerns related to fraud, corruption, abuse of power etc.

What Is Whistle Blowing

- 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.
- In January 2020, **SEBI** came out with a new mechanism to reward whistle-blowers and other informants for sharing information about **insider trading cases**.
- **Under central law** concerning allegations against public servants, it is a mechanism to receive complaints relating to alleged corruption or willful misuse of power or discretion.
- 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.
- RTI Act, 2005 is a 'twin sister' of whistleblowing

Key Features Of Whistleblower Protection Act, 2014

- It enables **any person** (i.e. a whistleblower) to report an act of corruption, willful misuse of power or discretion, or criminal offence by a **public servant**. This includes all public servants, including Ministers, Members of Parliament, the lower judiciary etc.
 - ✓ It provides a broad definition of a whistle blower that goes beyond government officials and includes any other person or NGO
 - ✓ Disclosures can be made in **writing or by email message** and contain full particulars and be accompanied by supporting documents, or other material.
- The Act specifies the Competent Authority for each category of public servant. For example, it would be the Prime Minister for a Union Minister; Speaker/ Chairman for Members of Parliament; the Chief Justice of the High Court for district court judges etc.
- **The law does not allow anonymous complaints** to be made and clearly states that no action will be taken by a competent authority if the complainant does not establish his/her identity. The **maximum time period for making a complaint is seven years**.
- The act is **not applicable to the Special Protection Group (SPG)** personnel and officers, constituted under the Special Protection Group Act, 1988.
- Any person aggrieved by any order of the Competent Authority can make an appeal to the concerned High Court within a period of **sixty days** from the date of the order.
- Any person who negligently or mala-fidely reveals the **identity of a complainant** will be punishable with imprisonment for a term extending up to 3 years and a fine which may extend up to Rs 50,000.
- If the disclosure is done mala-fidely and knowingly that it was incorrect or false or misleading, the person will be punishable with imprisonment for a term extending up to 2 years and a fine extending up to Rs. 30,000.
- Disclosures can be made under the Act **even if they are prohibited under the Official Secrets Act, 1923**. In 2015, an amendment bill was moved that proposes, whistleblowers must not be allowed to reveal any documents classified under the Official Secrets Act of 1923.
- Once a whistleblowing complaint is admitted, and is being inquired into, no person is required to provide any information if it falls under **five categories**. These categories include:



Issues With Whistle Blowers Protection Act, 2014

- There is no penalty against any public servant who may be victimizing the complainant.
- It also does not protect witnesses during investigation and any trial
- Lack of trust in investigation system: There are concerns about impartiality and unfair investigation of results, which may give wrong decision against whistle blowers.
- Whistle Blowers Protection (Amendment) Bill, 2015 was brought in Lok Sabha to amend 2014 Act but it lapsed with dissolution of Lok Sabha in 2019.

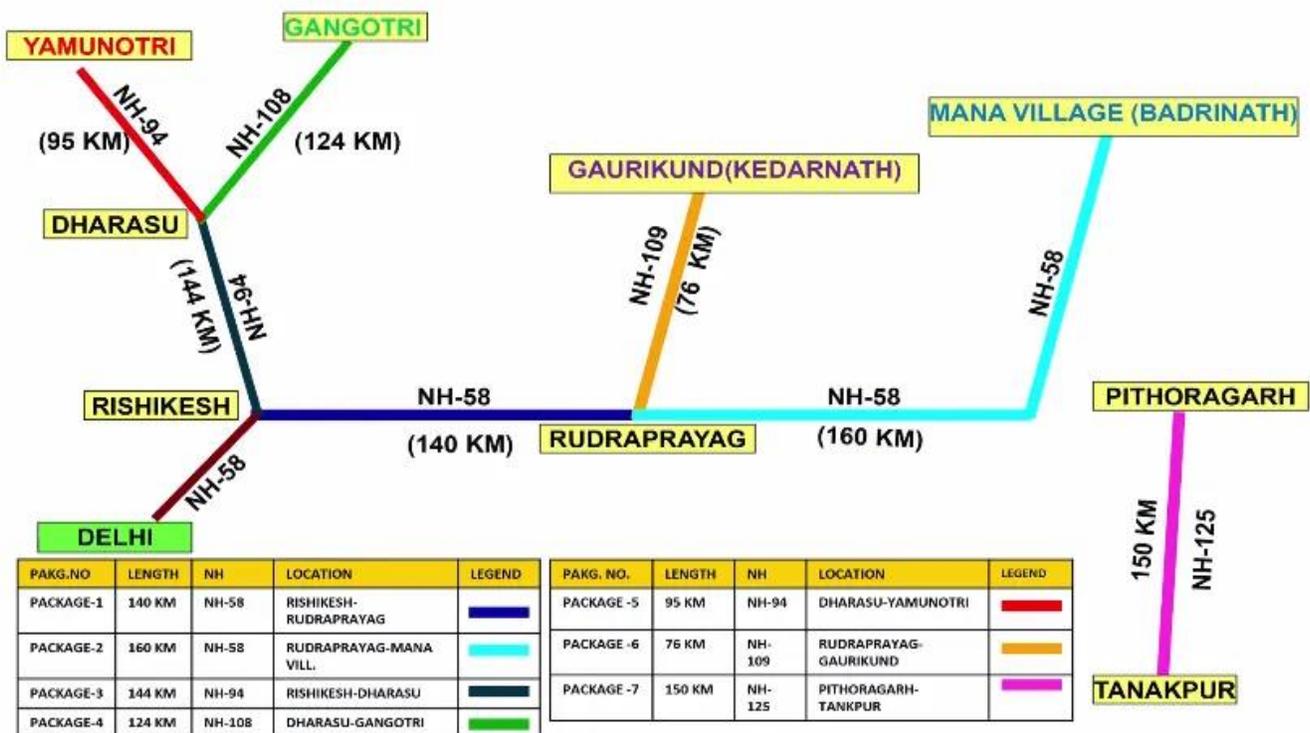
Char Dham Road Debate

The Supreme Court has reserved its decision on widening of roads that are part of Char Dham project in Uttarakhand.

What is Char Dham Highway Development Project of Uttarakhand

It is a 12,000-crore **highway expansion project** that was envisaged in 2016 to widen 889 km of hill roads to provide **all-weather connectivity in the Char Dham circuit**, covering Uttarakhand's four major shrines — **Badrinath, Kedarnath, Gangotri and Yamunotri** — in the upper Himalayas.

Seven Project Roads: Line Diagram



The Controversy

- It was challenged by an NGO in 2018 for its **potential impact on Himalayan ecology** due to felling trees, cutting hills and dumping muck after which the supremecourt formed a high-powered committee to examine the issue.
- The Centre, citing the **Chinese build-up** on the other side, has appealed for widening the road, which, it said, are feeder roads for the border areas and are of great strategic importance.
- It has also sought amendment to the top court's order of September 2020, in which the judges kept the **Char Dham roads limited to 5.5 meters**. The Centre has argued that the roads **should be widened up to 7 meters**.

Significance of The Project

- **Chardham and Hemkund Sahib Yatra** is the backbone for Uttarakhand tourism and its economy. Every year lakhs of pilgrims and other travellers visit Chota Char Dham, Hemkunt Sahib, Auli, Valley of flowers etc, Due of damaged roads, landslides and accidents, many **people lost their life every year** in Uttarakhand.
- This project will play the vital role in **travel safety and the development of the state**.

Benefits of The Project

- It would **boost tourism, economy and industries** related to travel in **Uttarakhand** and get the state global recognition, making it a much sought-after tourist destination.
- It will facilitate **rapid deployment/movement of Armed Forces** along India-China border which has witnessed face-offs at several points in recent times.
- Two lane road, bridges and tunnels will **decrease the overall time** (30% to 40%) of travel and fuel cost.
- Decrements in the numbers of **road accidents**.
- **New jobs** help local folks to make them financially strong which will decrease the migration.

Possible Cons

- **Hills of Uttarakhand are not as stable** as in Jammu & Kashmir or Himachal. Widening of roads can **increase the rate of landslides**, especially in monsoon season.
- A significant portion of the project area falls under the **dry deciduous biome** along the dry slopes of the rivers.
- **Forest loss** is among the major impacts of project — about 508.66 hectares of forest area would be diverted into the non-forestry purpose and 33,000-43,000 trees would be cut down to build roads.
- **The road edge effect** is a common ecological phenomenon that wraps wide areas and creates ecological pressures on nearby plant and animal communities.
- **Muck disposal** is a big issue; there are insufficient muck-disposal sites and a huge portion of muck is being dumped directly into rivers. High concentrations of suspended sediment directly kill river organisms and impair aquatic productivity.
- **Fugitive dust emission** during construction activities may influence the **stomatal activities** in plants. It can affect the yield of high-value cash crops such as Chili and tomato.
- **Endangered Golden Mahseer** fish present in the Ganga in Uttarakhand that migrates upstream towards small tributaries in the search of suitable spawning ground. A small increase in pollution load may create trouble for fish in catching their migratory path and finding food.
- **Indiscriminate blasting** during road construction makes cracks in soil and rocks that may enhance the **possibility of flash-flood**.
- Good road and infrastructure will boost the tourism but it will also **increase the waste and garbage in the region** which directly pollute the rivers.
- More number of vehicles and tourists in the area will increase the temperature of the region, which simultaneously **increase the rate of melting of glaciers**.

National Legal Services Day 2021

- National Legal Services Day is marked across the country annually on 9 November.
- The day is observed to commemorate the enactment of the **Legal Services Authorities Act** and to create awareness about the various provisions related to the act.

What Does The Legal Services Authorities Act Entail

- It was enacted in 1987 to provide competent and **free legal aid** to people who belonged to **marginalised socio-economic communities** in the country. The Act also mentions the **setting up of Lok Adalats** for the settlement of disputes amicably.
- Act provides free legal aid to a person if any of the **following criteria** are met:
 - a member of a **Scheduled Caste/ Scheduled Tribe**.
 - a woman, child, **specially-abled or mentally challenged**.
 - a **victim of human trafficking or beggar**.
 - an **industrial workman**.
 - Have an **annual income of less than Rs 9,000** or any such amount laid down by the government.
 - A **victim of “a mass disaster, ethnic violence, caste atrocity”**, natural or industrial disaster.
 - In custody, juvenile home or protective custody or in a psychiatric nursing home or hospital.
- The **National Legal Services Authority (NALSA)** will bear the costs of filing or defending the case, as well as provide the person with counsel at the expense of the state.

About NALSA

- It has been constituted under the Legal Services Authorities Act, 1987 to provide free Legal Services to the weaker sections of the society.
- The **Chief Justice of India is the Patron-in-Chief** and the Senior most Hon'ble Judge, Supreme Court of India is the Executive Chairman of the Authority.

MPLAD Scheme

- Citing economic recovery, the Union Cabinet restored the **Members of Parliament Local Area Development Scheme (MPLADS)** that was suspended for two years (2020-21 & 2021-22) for managing adverse impacts of covid 19.
- The Government announced a partial rollback. The MPs will get ₹2 crore instead of the annual approved ₹5 crore.

What Is MPLADS

- It is an ongoing **Central Sector Scheme** which was launched in 1993-94.
- **Objective of the scheme:** 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, sanitation and roads, etc. primarily in their Constituencies.
- **Fund entitlement:** The annual MPLADS fund entitlement per MP constituency is Rs.5 crore, released in two instalments of Rs.2.5 crore each.
- **The Ministry of Statistics and Programme Implementation** has been responsible for the policy formulation, release of funds and prescribing monitoring mechanism etc.

Features of The Scheme

- MPs are to recommend every year, works costing **at least 15% of the MPLADS entitlement** for the year for areas inhabited by **SC population and 7.5% for areas inhabited by S.T. population**.
- In order to encourage trusts and societies for the betterment of tribal people, a **ceiling of Rs. 75 lakh is stipulated for building assets** by trusts and societies subject to conditions prescribed in the scheme guidelines.

- **Recommendation of Work**

- Lok Sabha Members can recommend works within their Constituencies.
- Elected Members of Rajya Sabha can recommend works within the State of Election (with select exceptions).
- Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.

How Does The Scheme Work

- **MPs and MLAs do not receive any money** under these schemes. The government transfers it directly to the respective local authorities.
- The **legislators can only recommend works** in their constituencies based on a set of guidelines. Recommendations for non-durable assets can be made only under limited circumstances.
 - For example, recently the government allowed use of MPLAD funds for the purchase of personal protection equipment, coronavirus testing kits etc.

Criticisms

- **Violates the principle of separation of powers:** This scheme gives an executive function to legislators. The argument that MPs only recommend projects, but the final choice and implementation rests with the district authorities is strange; there are hardly any authorities who have the courage to defy the wishes of an MP.
- **CAG's Observations:**
 - Though the scheme envisages that works under the scheme should be limited to asset creation, **549 of the 707 works recommended were for improvement of existing assets.**
 - **Wide variations in quantities executed** against the quantities specified in the BOQ (Bills of Quantity) in 137 of the 707 works.
 - **Use of lesser quantities of material** than specified by contractors resulting in excess payments and sub-standard works.
 - **Delays in issuing work orders** ranging from 5 to 387 days in 57% of the works against the requirement of issuing the work order within 45 days of the receipt of recommendation by the MP.
 - **Register of assets** created, as required under the scheme, not maintained, therefore location and existence of assets could not be verified.
- **Gaps in utilisation:** 298 of 542 members of the 16th Lok Sabha have not spent a rupee from the ₹5 crore that is set aside annually for them to develop their constituencies.
 - 508 MPs (93.55%) did not, or could not, utilise the entire MPLADS amount from May 4, 2014 till December 10, 2018, in 4 years and 7 months.
- **Cases of misuse:** Reports of underutilisation and misutilisation of MPLADS funds continue to surface at regular intervals but there seems to have been no serious attempt to do anything about it till now.
- MPs tended to select the same district and these districts were not necessarily the least developed one. So, lopsided development takes place. Rajya Sabha MPs have recommended works in the same district in addition to recommendation of works by Lok Sabha MPs

The scheme can be made more inclusive by involving **PRIs** to provide a list of works to be recommended to the MP annually and also in execution as well as in monitoring. The State nodal departments need to be strengthened in terms of staff and other infrastructure. The government must allow social audits and mandatory inspection of the projects cleared under the scheme. Integration of MPLADS with the district planning along with proper appraisal of MPLADS spending and their outcomes should be incorporated.

Bribery Risk Matrix 2021

- **India has slipped to 82nd position** in 2021, five places down from 77th rank last year, in a global list that measures business bribery risks.
- The list by **TRACE**, an anti-bribery standard setting organisation, measures business bribery risk in 194 countries, territories, and autonomous and semi-autonomous regions.
- This score is based on **four factors**:



Highlights

- North Korea, Turkmenistan, Venezuela and Eritrea pose the highest commercial bribery risk, while Denmark, Norway, Finland, Sweden etc. present the lowest.
- Over the past 10 years, the business bribery risk environment worsened significantly in countries that also experienced **democratic backsliding**: Egypt, Venezuela, Turkey, Poland and Hungary.
- Over the past five years, the business bribery risk environment in the **United States worsened significantly** when compared with global trends.
- From 2020 to 2021, all of the Gulf Cooperation Council (GCC) countries saw an increase in commercial bribery risk.
- **India fared better than its neighbours** – Pakistan, China, Nepal and Bangladesh. Bhutan, meanwhile, secured 62nd rank.

Bhumi Samvaad

Union Minister for Rural Development and Panchayati Raj inaugurated '**Bhumi Samvaad**' - National Workshop on Digital India Land Record Modernisation Programme (DILRMP).

About DILRMP

- DILRMP, previously known as the National Land Record Modernization Programme (NLRMP), was launched in 2008 with the purpose to digitize and modernize land records and develop a centralised land record management system.
- **Components:** The DILRMP has 3 major components.



- **Programme Implementation:** The State Governments/UT Administrations will implement the programme with financial and technical supports from the Dept. of Land Resources. The district will be taken as the unit of implementation, where all activities under the programme will converge.

Benefits to Citizens

- Since the records will be placed on the websites with proper security IDs, property owners will have **free access to their records** without any compromise in regard to confidentiality of the information.
- Free accessibility to the records will **reduce interface between the citizen and the Government functionaries**, thereby reducing rent seeking and harassment.

- **Public-private partnership (PPP) mode** of service delivery will further reduce citizen interface with Govt. machinery, while adding to the convenience.
- **Abolition of stamp papers** and payment of stamp duty and registration fees through banks, etc. will also reduce interface with the Registration machinery.
- **Automatic and automated mutations** will significantly reduce the scope of fraudulent property deals.

PMAY – Gramin Completes 5 years

- In pursuance to the goal - Housing for all by 2022, the rural housing scheme Indira Awas Yojana has been revamped to PMAY – Gramin and approved during March 2016.
- **Objective:** To provide **pucca house** to all who are houseless and living in dilapidated houses in rural areas by 2022.
- **Funding Pattern:** The cost of unit assistance is to be shared between Central and State Governments in the ratio 60:40 in plain areas and 90:10 for North Eastern and hilly states.
- **Beneficiaries:** People belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, disabled persons and minorities.
- **Selection of Beneficiaries:** Through a **three stage validation** - Socio Economic Caste Census 2011, Gram Sabha, and geo-tagging.
- **Other Features**
 - Minimum size of house has been increased to 25 sq.mt (from 20sq.mt) with a hygienic cooking space
 - The scheme would be implemented in rural areas throughout India **except Delhi and Chandigarh**. The cost of houses would be shared between Centre and States.
 - The unit assistance given to beneficiaries under the programme is Rs 1,20,000 in plain areas and to Rs 1,30,000 in hilly states/difficult areas/Integrated Action Plan (IAP) for Selected Tribal and Backward Districts.
 - The beneficiary is entitled to **90 days of unskilled labour from MGNREGA**.
 - The beneficiary would be facilitated to avail **loan of up to Rs.70,000/-** for construction of the house which is optional.

Performance of the Scheme

- Only 55% of the construction target has been completed.
- Of the 2.28 crore houses to be built for the rural poor, less than 1.27 crore had been built by January 2021.
- Money has been sanctioned to almost 85% of beneficiaries.
- This scheme has helped in employment generation. Many states provided employment to their migrant labourers during lock down
- The assistance for construction of toilets shall be leveraged through convergence with Swachh Bharat Mission-Gramin (SBM-G), MGNREGS or any other dedicated source of funding.
- Convergence for piped drinking water, electricity connection, LPG gas connection etc. different Government programmers are also to be attempted

Global State of Democracy (GSoD) Report

International Institute for Democracy and Electoral Assistance (**International IDEA**) released **GSoD**.

Findings Of The Report

Global	India Specific
<ul style="list-style-type: none"> The number of countries that have slid towards authoritarianism is three times as high as those that are moving in a democratic direction. The COVID-19 pandemic has exacerbated this trend. 70% of the global population now live either in non-democratic regimes or in democratically backsliding countries. The report counts Brazil, India and the United States as the biggest backsliders. It also identifies illiberal and populist parties, social and political polarisation, economic crises and disinformation as factors that have influenced the decline of democracy. Along with the rise in authoritarian tendencies, there has also been an explosion of civic activism. 135 countries (82%) saw protests during the pandemic. The procedural aspect of democracy, elections, has shown “remarkable resilience” even though some countries saw a decline in clean elections. 	<ul style="list-style-type: none"> India is described as the “backsliding democracy” with the most democratic violations during the pandemic. The report does find India to be in trouble as a democracy, viewing it now as a “mid-range performing democracy”. India is also listed alongside Sri Lanka and Indonesia for the <u>lowest score on the religious freedom indicator since 1975</u>. Executive aggrandizement” has taken place in India through “multiple and small scale systemic assaults” which has led to a dilution of checks on the executive. Across almost all attributes, India does well between 1996 and 2014. Starting in 2015 the scores give a clear indication of democratic gains being lost.

About the Report

- International IDEA is a Stockholm based intergovernmental think-tank that works to boost democracy globally.
- India is one of the founding members** of this organisation.
- The GSoD 2021 report assesses 165 countries on 116 indicators spread across five identified core attributes of democracy:



Integrated Command and Control Centres (ICCCs)

- With the Centre preparing a 60-point action plan, the Ministry of Housing and Urban Affairs (MoHUA) has begun work to finalise its recommendation for providing **ICCCs as a service to states and smaller cities**.
- The Smart Cities project**, which aims at developing **100 citizen-friendly and self-sustainable urban settlements**, includes setting up ICCCs for each city as a vital step.

What is ICCC?

- ICCCs equip cities to do more with less by **graduating to real time data driven decision making** with better situational awareness in an integrated manner.
- ICCCs, designed to enable authorities to **monitor the status of various amenities** in real time, were initially aimed at controlling and monitoring water and power supply, sanitation, traffic movement, integrated building management, city connectivity etc.
- However, these centres will now also monitor various other parameters and is also **linked to the CCTNS** (Crime and Criminal Tracking Networks and Systems) network under the Ministry of Home Affairs (MHA).
- MoHUA aims to finalise the ICCC model and implement a pilot project across **six major states** — Uttar Pradesh, Maharashtra, Karnataka, Madhya Pradesh, Rajasthan and Tamil Nadu.

- So far, these ICCCs have been operationalised in 69 cities, with Agartala, Indore and Vadodara ranked the best for a sustainable business model of these centres.

Time Frame For Governors To Decide On Bills

Tamil Nadu Assembly speaker **commented** on the need for Governors and Presidents to act on the bills passed in the legislature.

Issues Raised

- Bill is passed by the majority and sent for the assent of the governor. The governors sometimes sit on the bill without giving assent or returning it for an indefinite period, even though the Constitution requires it to be done as soon as possible.
- There should be a **binding time frame** within which the President or Governors must decide on a bill sent to them by the Legislature for assent.
- If a Bill is rejected, the **reasons for the same must be stated by the Constitutional heads**. If the House knows the reasons, maybe they can enact another bill, correcting the shortfalls.
- The current scenario **erodes the authority of the legislatures**. Since the House reflects the will of the people, withholding assent to a Bill amounts to rejection of the will of the people.

Difference Between President and Governor Veto Power in India

Every ordinary bill, after being passed by Lok Sabha and Rajya Sabha is presented to the President for his assent and he can take three steps -

1. He may give his assent to the bill, the bill then becomes an act.
2. He may withhold his assent to the bill. The bill then ends and does not become an act (**Absolute Veto**).
3. He may return the bill for reconsideration of the Houses. If the bill is passed by both the Houses again with or without amendments and presented to the President for his assent, the president must give his assent to the bill. Thus the president enjoys only a '**suspensive veto**'.

Every ordinary bill, after it is passed by the legislative assembly in case of a unicameral legislature or by both the Legislative Assembly and Legislative Council in case of a bicameral legislature, is presented to the governor for his assent. In this case Governor has **four alternatives** -

1. He may give his assent to the bill, the bill then becomes an act.
2. He may withhold his assent to the bill, the bill then ends and does not become an act (**Absolute Veto**).
3. He may return the bill for reconsideration of the House or Houses. If the bill is passed by the House or Houses again with or without amendments and presented to the governor for his assent, the governor must give his assent to the bill. Thus, the governor enjoys only a '**suspensive veto**'.
4. He may **reserve the bill for the consideration of the President**.

When a **state bill is reserved by the governor for the consideration of the President**, the President has **three options** -

1. He may give his assent to the bill, the bill then becomes an act.
2. He may withhold his assent to the bill, the bill then ends and does not become an Act.
3. He may return the bill for reconsideration of the House or Houses of the state legislature. When a bill is so returned, the House or Houses have to reconsider it within six months. If the bill is passed by LA or LA&LC again with or without amendments and presented to the president for his assent, the president is not bound to give his assent to the bill. **He may give his assent to such a bill or withhold his assent.**

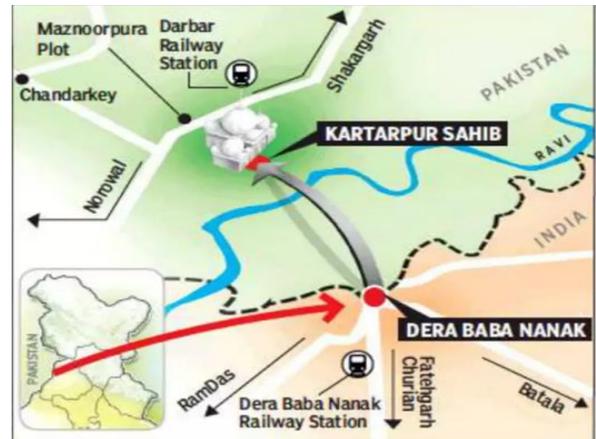
When the governor reserves a bill for the consideration of the President, he will not have any further role in the enactment of the bill and now the power of consideration of the Bill rests solely with the President.

Kartarpur Corridor Reopens

The Kartarpur Sahib Corridor has been reopened one and a half years after it closed in March 2020 due to Covid-19 to allow pilgrims from India to visit the Sikh shrine in Pakistan

About Kartarpur Corridor

- The corridor links **India's Dera Baba Nanak shrine in Gurdaspur district with Kartarpur Sahib gurdwara in Pakistan's Punjab province.**
- It is a 4.7-kilometre-long stretch that allows devotees from India to pay a visit to the Gurudwara without a visa.
- The Kartarpur Sahib gurdwara is situated across the Ravi River established by Guru Nanak in 1522.
- It is built on the historic site where Guru Nanak Dev spent his final days.
- It was at this place that Guru Nanak Dev assembled a Sikh community and lived for 18 years until his death in 1539.
- During the partition, the region was divided between India and Pakistan. The Radcliffe Line awarded the right bank of the Ravi River, including Kartarpur, to Pakistan, and the Gurdaspur tehsil on the left bank of Ravi to India.



Background

- In 1999, the Indian and the Pakistani governments proposed the idea of the Kartarpur corridor as a part of the New Delhi-Lahore bus diplomacy. However, pilgrims from India had to take a bus to Lahore to get to Kartarpur, which is a 125 km journey.
- In 2018, the foundation stone of the corridor was laid on the Indian side on November 26. And on November 28, the stone was laid on the Pakistani side.
- Pakistan PM Imran Khan inaugurated the corridor in November 2019 as part of the commemoration of the 550th birth anniversary of Guru Nanak.
- India signed the Kartarpur corridor agreement with Pakistan in 2019. Under the pact, Indian pilgrims of all faiths are allowed to undertake round the year visa-free travel through this passage.

Significance

- **Emotive Issue For Sikhs In General And Punjab In Particular**
 - It is at Kartarpur, Guru Nanak practised the three pillars of Sikhism as the path to liberation:

Kirat Karo

• Working hard at whatever task one undertakes and an honest living

Vand Chhako

• Share wealth, possessions and talents with others

Naam Japo

• Meditation through reciting, chanting and singing

- A gurudwara was constructed in his memory where Sikhs across the world aspire to pay obeisance.
- Indian Sikhs have been demanding that they be allowed to visit the place (Kartarpur Sahib) without passport and visa formalities.

- **People-to-people contact:** The corridor acts as a link to increase the people-to-people contact between the two countries. This in turn will encourage peace and tranquillity in long term.
- **Corridor is seen as a link to open India-Pakistan dialogue:** Many analysts believe that the opening of corridor would bring the two nations closer to each other by ultimately bring them back on the dialogue table.

Concerns

- **Can be used by ISI to radicalize Indian youths**
 - With the Corridor in place, there is a stream of devotees throughout the year.
 - Individuals and smaller groups are more likely to be susceptible to radicalisation by ISI's machinations.
- **As a route for drug & human trafficking in India**
Pakistan is a part of Golden Crescent (Iran – Afghanistan – Pakistan) which is famous for narcotics smuggling.
- **Terrorism and terrorist infiltration**
 - The religious congregations are often a soft target for terrorists as the attack on devotees can have the maximum impact.
It is often feared that, like Amarnath yatra in J&K, these devotees might be targeted.
 - Also, the corridor may be used by terrorist organisations of Pakistan to infiltrate in India.
- **Pakistan can use this corridor to revive separatist movement in Punjab**
Sikh Referendum 2020' campaign posters have been displayed at Pakistani guurdwaras during pilgrimage of Sikh jathas in the past.

India-US Digital Tax Pact

India and US have decided on a **transitional approach to digital service tax** imposed by the respective governments.

What Has Been Agreed Upon?

- The term of the deal will be the same that were thrashed out between the US and Austria, France, Italy, Spain and UK on October 21, 2021.
- However, **the interim period** that is applicable will be from 1st April 2022 till implementation of **Pillar One** of the **OECD/G20 Inclusive Framework** or **31st March 2024**, whichever is earlier.
- It should be noted that on October 8, 2021, India and US joined 134 other members of the OECD/G20 Inclusive Framework to reform the global tax norms. They agreed to enforce a minimum corporate tax rate (Global tax Deal) of **15%**, as well as an equitable system of taxing profits of big companies in markets where they are earned.
- The final terms of the Agreement shall be finalized by 1st February 2022.



What Was The Issue

- India introduced a 6% equalisation levy in 2016, however, it was restricted to online advertisement services
- The Finance Bill 2020-21 imposed a 2% digital service tax on **trade and services** by non-resident e-commerce operators with a turnover of over Rs 2 crore. This step effectively expanded the scope of equalisation levy.
- As a result, US-based companies such as Google, Amazon, LinkedIn and Facebook were supposed to pay the digital service tax in India.

- In January 2021, US had announced that India's equalisation levy was **discriminatory** and actionable.
- In March 2021, in March, it proposed **25% retaliatory tariffs** on about 40 Indian products.

Benefits Of The Current Deal

- It will provide Indian companies relief from the proposed American retaliatory action, while comforting tech giants such as Amazon, Google and Facebook that face the levy in India.
- This agreement represents a pragmatic solution that helps ensure that countries can focus their collective effort of successful implementation of OECD/G20 Inclusive Framework.
- It will also help ensure that the liability does not exceed the computed liability under pillar one with credit available in the home country of the company.

[For detailed analysis about OECD/G20 Inclusive Framework and existing digital service tax in India, please refer the topic **"Deal on Global Minimum Corporate Tax"** from October 2021 edition of CA magazine]

12th Ministerial-level Meeting of the India-US Trade Policy Forum (TPF)

- 12th Ministerial-level meeting of the India-United States Trade Policy Forum (TPF) was held in New Delhi. It was held after a gap of 4 years.
- The goal of this meeting was to develop an ambitious, shared vision for the future of the trade relationship and resolve trade and investment issues between the two countries.

Significance of The Forum

- Established in 2005, TPF is a premier forum to resolve trade and investment issues between India and the US.
- It has **five focus groups**:



India, Sri Lanka Revive Parliament Friendship Association

- India and Sri Lanka have **revived** their "Parliamentary Friendship Association". For this forum, Minister Chamal Rajapaksa has been selected as its President.
- The association would "reinvigorate" Parliamentary exchanges between the two democracies and strengthen bilateral ties.
- The association existed in the past and is being revived for the current Parliament, elected in August 2020.

India Confers Honorary Rank Of General On Nepal Army Chief

- Nepal Army Chief General **Prabhu Ram Sharma** was conferred the honorary rank of General of the Indian Army by the Indian President.
- General Sharma was on a four-day visit to India to explore ways to expand bilateral defence cooperation.
- It is a customary practice by India and Nepal to confer the honorary rank of General on each other's Army Chiefs.
- Nepal conferred the honorary rank of 'General of Nepal Army' to Indian Army Chief Gen MM Naravane during his visit to Kathmandu in November 2020.

India, Bhutan To Have More Entry And Exit Points For Trade

- India and Bhutan will have **7 additional entry and exit points for trade** as part of measures to increase trade connectivity. These include:

- Nagarkata Land Customs Station without commodity restriction
- Agartala Land Customs Station
- Pandu port (Guwahati Steamerghat), subject to cross border control at Dhubri
- Jogighopa port subject to cross border control at Dhubri
- Asian Highway 48 connecting Torsha Tea Garden in India and Ahllay in Bhutan as an additional route corresponding to the Land Customs Station at Jaigaon; Kamardwisa, and Birpara

- Trade between India and Bhutan has more than doubled from USD 484 million in 2014-15 to USD 1,083 million in 2020-21.

U.S. Invites Taiwan To Its Democracy Summit

- The Biden administration has invited Taiwan to its "**Summit for Democracy**" to be held in December 2021.
- The aim of this summit is to **help stop democratic backsliding and the erosion of rights and freedoms worldwide**. The list does not include China or Russia.
- The invitation to Taiwan has angered China which views the democratically governed island as its territory. China urged the US to stop providing a platform to "Taiwan independence" forces.
- Tensions around Taiwan have been escalating in recent months which is evident from following events:

- Chinese forces have held drills in the region**
- In November 2021, Taipei had detected 9 Chinese planes, including two nuclear-capable H-6 bombers crossing Taiwan's air defence identification zone.**
- European Union and USA have sent delegations to Taipei, causing concerns in Beijing**

[For detailed discussion on China-Taiwan relation, please refer the topic "**China-Taiwan Tussle**" form October 2021 edition of CA magazine]

Africa's Sahel Crisis

While speaking at a UN Security Council meeting on the **G5 Sahel force**, the UN peacekeeping chief has warned that **the crisis in Africa's Sahel region remains volatile**.

- The G5 Sahel force set up by **five African nations** — Chad, Mali, Burkina Faso, Niger and Mauritania — in 2017 to fight the **growing terrorist threat in the vast Sahel region**.

What is Sahel Region?

- It is semiarid region of western and north-central Africa extending from Senegal eastward to Sudan.
- It forms a transitional zone between the arid



Sahara (desert) to the north and the belt of humid savannas to the south.

- The region is witnessing insurgency by armed militants.
- Thousands of civilians from Burkina Faso, Chad, Mali, Mauritania, Niger and Nigeria are killed every year in bloody inter-communal violence.
- Many more are caught up in deadly overlapping conflicts that are spinning out of control.

Barbados - The World's Newest Republic

- Barbados has become the **world's newest republic**. The Caribbean Island nation removed Queen Elizabeth II as the head of the state in a ceremony attended by Prince Charles.
- Dame Sandra Prunella Mason was selected to become the first president of Barbados.

History of Barbados as a British colony

- For the past 400 years, Barbados was the British colony. Barbados first became an English colony when a ship arrived at the Caribbean in 1625.
- It was said to have been made a 'slave society' by the British.
- On November 30, 1966, Barbados gained its independence. However, the country then **did not adopt the republican status** and continued the monarchy with Queen Elizabeth II as the head of the state.



SUMMITS AND ORGANISATIONS

Delhi Regional Security Dialogue on Afghanistan

Recently, India hosted the 'Delhi Regional Security Dialogue on Afghanistan'.

About The Dialogue

- It was held at the *level of National Security Advisors (NSAs)*. NSA Ajit Doval chaired the summit.
- **Participants** - The NSAs from seven other regional countries attended the meeting. These were: Iran, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
 - Pakistan didn't attend this year's meeting.
- **Aim:** Evolving regional security architecture to deal with the challenges, arising out of the Taliban takeover of Afghanistan.

Background

- The idea of such as dialogue was first mooted in 2018, when US decided to withdraw troops from Afghanistan.
- First two meetings (in 2018 and 2019) were hosted by Iran. Pakistan did not attend any of these meetings.
- China attended both previous meetings, but this time it has cited "scheduling issues" to convey that it will not participate. This sends out a signal that China doesn't want to associate with any process led by India.
- 2020 meeting was cancelled due to pandemic.

Key Outcomes of The Dialogue

- NSA of the eight countries, including India, adopted the **Delhi Declaration** after the summit.
- The declaration emphasized:
 - Strong support for a peaceful, secure and stable Afghanistan while emphasizing on non-interference in its internal affairs.
 - Over the suffering of the people of Afghanistan arising from the security situation.
 - Afghanistan's territory should not be used for sheltering, training, planning or financing any terrorist acts.
 - To combat terrorism in all its forms so as to ensure that Afghanistan would never become a safe haven for global terrorism.
 - Collective cooperation against the menace of radicalisation, extremism, separatism and drug trafficking.
 - Forming an open and truly inclusive government that represents the will of all the people.
 - United Nations has a central role to play in Afghanistan and that its continued presence must be preserved.
 - Fundamental rights of women, children and minority communities are not violated.
 - Need to provide urgent humanitarian assistance in an unimpeded, direct, non-discriminatory and assured manner to the people of Afghanistan.
 - Providing assistance to Afghanistan to prevent the spread of Covid-19.

Significance Of This Dialogue

- This was the first time that all Central Asian countries, not just Afghanistan's immediate neighbours, participated in this format.
- This event was also a manifestation of the importance attached to India's role in regional efforts to promote peace and security in Afghanistan.

- o This could be seen as India's attempt to secure for itself a seat at the table to decide the future course of action on Afghanistan.
- Common understanding of the threats that emanate from the Taliban takeover.
 - o It reflects the shared interest of the participants in not letting Afghanistan relapse into the terrorist hub that it had become when the Taliban ruled from 1996 to 2001.
- Indicates several subtle changes in India's orientation with respect to Afghanistan.
 - o India's primary interest in Afghanistan has shifted drastically from development-oriented to counter-terrorism for securing India's domestic security concerns in immediacy.
- **Taliban welcomed the 'Delhi Declaration' on Afghanistan.** Through this, the Taliban have shown more openness to India's efforts towards establishing normalcy in Afghanistan.
- The significance can be gauged from the fact that Pakistan held a separate meeting on Afghanistan.
 - o This was known as **Troika Plus group** (Pakistan, China, Russia and the United States).

India Launches 41st Scientific Expedition to Antarctica

Two Major Programs Under 41st Expedition

- **1st program** encompasses geological exploration of the Amery ice shelf (3rd largest ice shelf in Antarctica), at Bharati station. This will help explore the **link between India and Antarctica in the past.**
- **2nd program** involves reconnaissance surveys and preparatory work for drilling of 500 meters of ice core near Maitri. It will help in improving the **understanding of Antarctic climate, westerly winds, sea-ice and greenhouse gases** from a single climate archive for past 10,000 years.

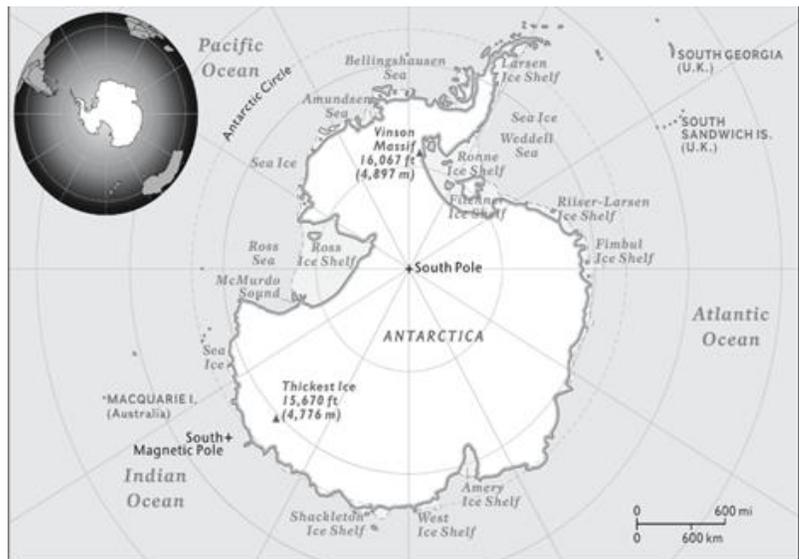
The expedition will also replenish the annual supplies of food, fuel, provisions, and spares for operations and maintenance of life support systems at **Maitri and Bharati.**

Antarctica

- Antarctica is the fifth-largest continent in terms of total area.
- Antarctica is a unique continent in that it **does not have a native population.** Scientists take turns going there to study the ice.
- There are no countries in Antarctica, although **seven nations** claim different parts of it:
 - o New Zealand, Australia, France, Norway, the United Kingdom, Chile, and Argentina.
- Use of Antarctica for scientific studies and for other activities is governed by the Antarctic Treaty.

Indian Antarctica Program

- The Indian Antarctic program began in 1981. So far, it has completed 40 scientific expeditions. Under it, atmospheric, biological, earth, chemical, and medical sciences are studied.
- It has built 3 permanent research base stations in Antarctica. These are:



- As of today, Maitri and Bharati are fully operational.
- Dakshin Gangotri, the first Indian scientific research base station in Antarctica, acts **only as a supply base**.
- These are being operated under the **National Centre for Polar and Ocean Research (NCPOR)**, Union Ministry of Earth Sciences.

India re-elected to UNESCO Executive Board

- India has been **re-elected** to the executive board of the UN's cultural and education organisation for the **2021-25 term**.
- India was re-elected to **Group IV of Asian and Pacific States** which also include Japan, Philippines, Vietnam, Cook Islands and China.

About UNESCO

- UNESCO stands for United Nations Educational, Scientific and Cultural Organization.
- It is specialized agency of the United Nations (UN). The constitution, which entered into force in 1946, called for the promotion of international collaboration in education, science, and culture.
- UNESCO's mission is to contribute to the building of a culture of peace, the eradication of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information.
- The agency's permanent headquarters are in Paris, France.
- Parent Organisation - United Nations Economic and Social Council

Executive board of UNESCO

- The executive board of the UNESCO is one of three constitutional organs of the UN agency. The other two are the General Conference and the Secretariat.
 - The General Conference elects members of the executive board.
- The executive board consists of 58 member-states, each with a 4-year term. It examines the programme of work for the organisation and corresponding budget estimates submitted to it by the director-general. The board exercises the power delegated to it by the General Conference and deals with the questions with which it is entrusted.

18th Meeting of Russia-India-China (RIC) Foreign Ministers

- The 18th meeting of the Foreign Ministers of the Russia, India and China was held in virtual format.
- India took over the **chairmanship** of the RIC after the last meeting of RIC Foreign Ministers in Moscow in September 2020.
- The Ministers exchanged views on further strengthening the RIC trilateral cooperation and also discussed various regional and international issues of importance.

About RIC Grouping

- Conceived by the then Russian foreign minister Yevgeny Primakov **in 1998**, the **Russia-China-India trilateral engagement** started as an attempt to **balance the US unipolarity**.
- Despite occasional meetings, the idea of the RIC never really took off unlike the BRICS. Nonetheless, in the current period of geopolitical transition, this grouping has assumed significance.

Importance of RIC

Weight it carries

- RIC countries occupy over **19% of the global landmass** and contribute to over **33% of global GDP**.
- All three are **nuclear powers**. Russia and China are permanent members of the UN Security Council, while India aspires to be one.
- RIC forms the core of both the SCO and the BRICS

Geostrategic Space in Eurasia

- If India wants to be a global power, it cannot cede geostrategic space in the Eurasian supercontinent to China.
- There are areas where interest of member countries converge, like , on Afghanistan and Asia-Pacific Economic Cooperation (which India wishes to join).
- It is an ideal platform for India as it brings together the **three largest Eurasian countries** which are also incidentally geographically contiguous.

New Economic Structure for the World

- With the rise of **protectionism and trade wars**, the three powerful economies could also contribute to creating a new economic structure for the world.
- Together they might offer some suggestions which could be acceptable to the US. Also they can **be instrumental in reforming WTO**

New Opportunities

- The **Northern Sea Route** is opening up due to climate change. Hence, the RIC has a common interest in ensuring that it is not left to the West and Russia alone.
- With this platform, India can make the transition from rule followers to rule makers by helping formulate some of the rules governing the **Arctic route**.

20th Meeting of SCO Council of Heads of Government

- The 20th Meeting of SCO **Council of Heads of Government** (CHG) was held recently in Nur-Sultan through video-conference under the Chairmanship of Kazakhstan.
 - It should be noted that the 21st Summit of the SCO **Council of Heads of State** was held in September 2021 under the **Chairmanship of Tajikistan**.
- India was represented by its EAM.
- **China** will now take over the **Chairmanship of the SCO Council of Heads of Government** in 2022.

[For detailed analysis about SCO, please refer the topic **"SCO Summit 2021"** from September 2021 edition of the CA magazine]

13th ASEM Summit

- The 13th **ASEM Summit** was held virtually under the chairmanship of **Cambodia**. This Summit marked the 25th anniversary of the ASEM process. India was represented by its Vice President, Venkaiah Naidu.
- **Theme** - "Strengthening Multilateralism for Shared Growth"

About Asia Europe Meeting(ASEM)

- ASEM is a platform for the **countries in Asia and Europe** to exchange views on regional and global issues and strengthen cooperation on a wide range of areas.
- It focuses on **3 pillars** – **political and security, economic and financial and socio-cultural**.
- ASEM grouping comprises of **51 member countries** and **2 regional organizations** – European Union and ASEAN.
- Countries in the grouping represent **65% of global GDP, 60% of the global population, 75% of global**

tourism and 55% of global trade.

ASEM Summit

- The ASEM Summit is a **biennial event** alternating between country in Asia and Europe.
- It is the foremost event of ASEM process to set its priorities for dialogue and cooperation between Asia and Europe in the areas of political, economic, financial, social, cultural, and educational issues of common interest in a spirit of mutual respect and equal partnership.
- **India joined ASEM process in 2006.** The 7th ASEM Summit held in 2008 saw the first Summit level participation from India.

Issues With ASEM

- While high hopes and optimism prevailed during the first two years of ASEM, the subsequent development of the relationship has not been significant.
- The dialogue process has stayed at the information-sharing level and has not moved into substantive cooperation lack of concrete achievements.
- Lack of visibility and public profile is a major problem for ASEM as its awareness in the media and among the wider public remains low.
- Over the time ASEM summits have become increasingly scripted and mundane, and several ASEM summits showed poor attendance.

30th Anniversary of ASEAN-China Dialogue Relations

- Chinese President Xi Jinping attended and chaired the **ASEAN-China Special Summit to Commemorate the 30th Anniversary of ASEAN-China Dialogue Relations.**
 - It was co-chaired by Haji Hassanal Bolkiah, the Sultan of Brunei, who is also the ASEAN chairman for 2021.
- During the summit, both sides agreed to elevate their ties to a comprehensive strategic partnership.
- ASEAN-China Dialogue Relations was established in 1991.

China-ASEAN Economic Cooperation

- Economic and trade cooperation has been a highlight in China-ASEAN cooperation.
- Trade volume between the two sides jumped from less than \$8 billion in 1991 to **\$684.6 billion in 2020**, an increase of more than 80 times.
- The two sides became each other's largest trading partner for the first time in 2020.
- China and ASEAN are also members of the RCEP, which will enter into force on Jan 1, 2022.

21st IORA Annual Council of Ministers' Meeting

India virtually participated in the **21st Annual Council of Ministers meeting of the Indian Ocean Rim Association (IORA).**

- Bangladesh has assumed the Chair of the IORA.
- Russia has joined the organisation as a dialogue partner during this summit.

Key Highlights

- The meeting was held in a **hybrid format in Dhaka** and **Dhaka Communique** was adopted at the end of the meeting.
- **Theme - Harnessing the opportunities of the Indian Ocean sustainably for inclusive development**

- Some of the notable achievements during the summit included:
 - Adoption of the Second IORA Action Plan (2022-27)
 - Agreement to include the Russian Federation as the **10th Dialogue Partner** of the IORA.
 - Adoption of the MoU between the Coalition for Disaster Resilient Infrastructure (CDRI) and the **IORA** for promoting resilience of new and the existing infrastructures to reduce and eliminate climate and disaster risks within the Indian Ocean Region.

Initiatives Undertaken By India During The Current Year To Strengthen IORA

- Assisted the IORA Secretariat
- Conducted capacity building workshops in the areas ranging from Yoga and traditional medicines to Remote sensing, UNCLOS and Ocean Data Management
- Led the discussions on various issues under IORA

About IORA

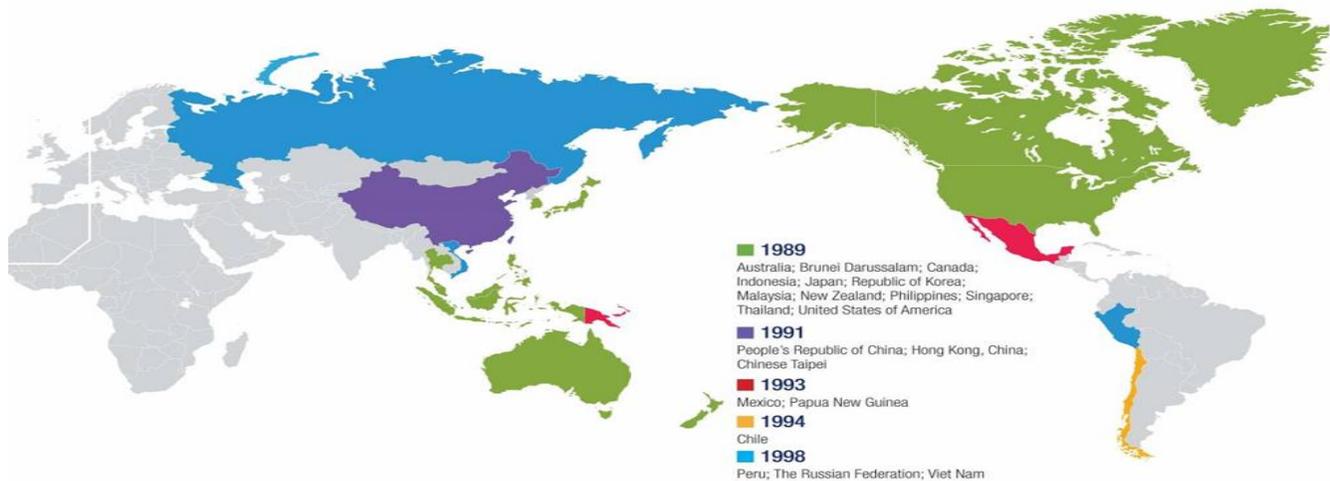
- IORA is an inter-governmental organisation which was established in 1997. It was formerly known as the **Indian Ocean Rim Initiative** and the **Indian Ocean Rim Association for Regional Cooperation (IOR-ARC)**.
- The IORA **Secretariat is based in Mauritius**. It became an **observer to the UN General Assembly and the African Union in 2015**.
- **Members** – It has 23 Member States and 9 Dialogue Partners
- **Objectives**
 - To promote sustainable growth and balanced development of the region
 - To focus on those areas of economic cooperation which provide maximum opportunities for development, shared interest and mutual benefits
 - To promote liberalisation, remove impediments and lower barriers towards a freer and enhanced flow of goods, services, investment, and technology within the Indian Ocean rim



APEC Leaders' Summit

- New Zealand, being the current chair, hosted the first meeting of this year's Asia-Pacific Economic Cooperation (APEC) forum. It was conducted in a virtual mode.
- The focus of this summit was on the **region's economic recovery** from the coronavirus pandemic, emphasising supply chain support and **decarbonising economies**.

About APEC



- APEC is a regional economic forum established in 1989 to leverage the growing interdependence of the Asia-Pacific.
- It aims to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.
- The focus of APEC's work is **connecting and integrating economies within the region** so it is easier to do business within and between them.
- APEC has 21 members and its **Secretariat is based in Singapore**.

India and APEC

- India is **not a member** of APEC. It had requested membership in APEC, and received initial support from the United States, Japan, Australia and Papua New Guinea.
- India was invited to be an observer for the first time in November 2011.

DEFENSE AND SECURITY

Subverting Civil Society Is New Frontier Of War

- Recently, while addressing the IPS trainees, the national security advisor (NSA) Ajit Doval pointed out that the new frontiers of war is about the **subverting civil society**.
- He termed civil society as a fourth generation of warfare.

Warfare Of Different Generation

- **First-generation warfare** refers to Ancient and Post-classical battles fought with massed manpower.
- **Second-generation warfare** is the Early **modern tactics** used after the invention of the rifled musket and breech-loading weapons.
- **Third-generation warfare** focuses on using **modern technology-derived tactics** of leveraging speed, stealth and surprise to bypass the enemy's lines and collapse their forces from the rear.
- **Fourth-generation warfare** is characterized by a blurring of the lines between war and politics, combatants and civilians.

About Civil Society Subversion

- Civil society subversion is the **hijacking or co-option** of social movements, diaspora communities, advocacy groups, or other civil society entities.
- This is done using **non-transparent or seditious** means to amplify political and social cleavages, promote extremism, or otherwise divide target societies.

How It Is Done

- Civil society subversion occurs when the **organisation is penetrated** by individuals or entities linked to the foreign governments, their ruling parties, or their proxies.
 - Often the foreign entities use funds for the subversion of the civil society organisations in a country.
 - E.g., the then Prime Minister Manmohan Singh had blamed NGOs, often funded from the United States and Scandinavian countries, for spearheading the **protests against the Koodankulam nuclear power project** in Tamil Nadu.
- This subverted organisation is then used as a tool to promote foreign agenda thereby hurting the interest of a nation.

Subversion: A Threat To Internal Security Of A Nation

- **Wars ceased to become effective instruments** to achieve political and military objectives. They are too expensive, unaffordable and there is uncertainty about the outcome.
- However, it is the civil society that can be subverted, divided and manipulated to hurt the interest of the nation.
 - Pakistan has been waging a systematic proxy war against India with subversion and terrorism as the main weapons.
 - Many NGOs supported by Pakistan are active in different parts of India. They use the existing societal differences as a tool to further alienate the minority population.
- **Social Base:** Subverted NGOs often provide social base to the divisive forces. **Role of Elgar Parishad** in supporting Maoism is well documented.

- **Negative Sentiment:** These organisations often work towards the development of a negative sentiment in the minds of the youths in an insurgency/terrorism affected region. E.g., ISI uses these organisations to recruit its fighters.
- **Mobilizing funds:** In India, these organisations help militants/insurgents/separatists in mobilizing funds for their activities. They collect funds from sympathizers, carry out disguised trade and indulge in money laundering activities so support terrorist organizations financially.
- **Issues like human rights, environment protection** etc. are often raised by these organisations to stall the growth and development of India.

Tools/Mechanisms To Deal With Subverted Civil Society Organisations

- Foreign Contribution (Regulation) Act (FCRA) regulates the acceptance and utilisation of foreign contribution or foreign hospitality by civil society organisations in India.
 - The law is enforced by the Ministry of Home Affairs.
- Furthermore, MHA has launched an Online Analytical Tool to keep a close eye on foreign-funded NGOs.
- MHA has suspended or de-registered some organizations also put some on a watch list,
 - It also authorizes Enforcement Department-led raids on offices of these organisations and frozen the bank accounts of some organisations.
- Also, India is promoting self-regulation as a tool to deal with civil society organisation in an effective manner. These self-regulation initiatives include:
 - Development of codes of conduct,
 - Monitoring, rating or validation mechanisms to strengthen the sector’s understanding of how to improve accountability and the public’s understanding of the non-profit sector.

Goa Maritime Conclave 2021

- Recently, the 3rd edition of Goa Maritime Conclave (GMC) – 2021 was held.
- **Theme** - *“Maritime Security and Emerging Non-Traditional Threats: A Case for Proactive Role for IOR Navies”*
- GMC is **Indian Navy’s Outreach Initiative**.
- It provides a multinational platform to harness the collective wisdom of practitioners of maritime security and the academia towards garnering outcome oriented maritime thought.

cOcOn 2021

- Recently, Chief of Defence Staff, Bipin Rawat, inaugurated cOcOn 2021.
- **Theme** - *“Improvise, Adapt and Overcome”*
- cOcOn is the **annual cyber security and hacking conference** organised by Kerala Police.
- It is an annual event conducted as part of the International Information Security Day.

CBI Official In Top Interpol Panel

CBI Special Director Praveen Sinha has been elected as a delegate for Asia on the executive committee of the Interpol.

Key Highlights

- The elections for various positions for top panel were held at **89th Interpol General Assembly in Istanbul**.

- Among the delegates, newly elected Indian candidate will sit with representatives from Sudan, Argentina, China, USA, UK, Kenya, Spain and Turkey.
- This was a tough election with India running against four other contestants from China, Singapore, Republic of Korea and Jordan for **two posts**.
- However, an "intense" and "well-coordinated" campaign across the world by India ensured the victory of Indian candidate.

About Interpol

- **Full Name** - International Criminal Police Organisation.
 - Interpol is the **radio-telegraph code** for the organisation.
- Interpol is an **international police organisation** made up of 194 member countries.
- It **does not work under UN**. It has enjoyed a special role – that of Permanent Observer at the United Nations since 1996.
- It was founded in 1923 and is **headquartered at Lyon, France**.

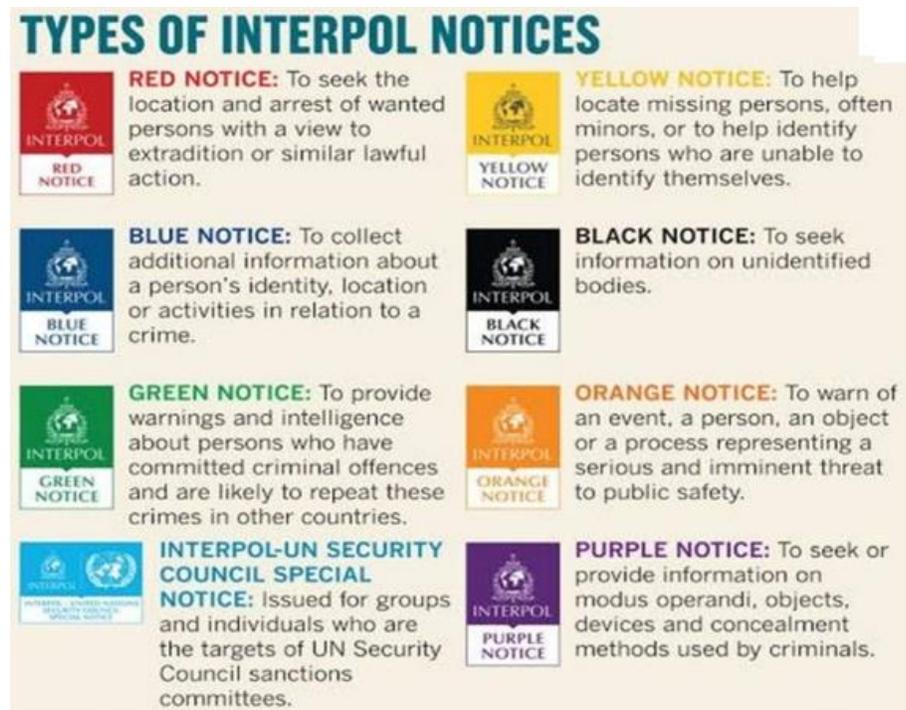


Functions

- It is **not a police force** in the traditional sense—its agents are not able to arrest criminals.
- It is more of an information-sharing network, providing a way for national police forces to co-operate effectively and tackle international crime ranging from human trafficking and terrorism to money laundering and illegal art dealing.
- The organization operates centralised criminal databases that contain fingerprint records, DNA samples and stolen documents.

Types of Interpol Notices

- Interpol issues different types of notices which have different objectives.
 - Types of notices issued – Red, Blue, Yellow, Black, Orange, Purple, Green etc.
- **States are not obliged to follow these notices**, but will often treat them as a warrant for someone's arrest and extradition.



Interpol General Assembly

- The General Assembly is Interpol's **supreme governing body**, and comprises representatives from **all its**

member countries.

- It meets **annually** for a session lasting approximately **four** days, to vote on activities and policy. It takes decisions in the form of resolutions.
- **India will host the Interpol General Assembly in 2022** as part of celebrations of the **75th anniversary of Indian Independence**.

New Navy Chief Appointed

- Western Naval Command Chief Vice Admiral **R Hari Kumar** has been appointed as the next Chief of Naval Staff.
- He will take over the post from the current chief Admiral Karambir Singh on November 30.
- Karambir Singh had taken charge as the **24th Chief of the Naval Staff** in May 2021. He is the **first helicopter pilot to become the Navy chief**.

Rashtra Raksha Samarpan Parv

- Recently, a 3-day Rashtra Raksha Samarpan Parv was organised in Jhansi.
- The Rashtra Raksha Samarpan Parv is part of the ongoing **Azadi Ka Amrit Mahotsav** celebrations.
- Ministry of Defence organised the Parv jointly with the Uttar Pradesh government.

Defence industrial corridor project in Jhansi

- Recently, the foundation stone of the Uttar Pradesh Defence Industrial Corridor project was laid in Jhansi.
- The Centre has decided to set up two Defence Industrial Corridors in the country-- one in **Tamil Nadu** and the other in **Uttar Pradesh**.
 - The Uttar Pradesh Defence Industrial Corridor has nodes at Agra, Aligarh, Jhansi, Chitrakoot, Lucknow and Kanpur.
- Bharat Dynamics Ltd, a Defence Public Sector Undertaking (DPSU), is setting up a plant for the **propulsion system for Anti-Tank Guided Missiles** in the Jhansi Node.

Recent Steps Taken To Promote 'Aatmanirbhar Bharat' in Defence

- The issue of positive indigenisation lists,
- Earmarking of 64% of capital procurement budget for the domestic industry, promotion of startups under **Innovations For Defence Excellence (iDEX) initiative**,
- Speeding up of capital acquisition process
- Setting up of Defence Industrial Corridors

Military Exercises

- SITMEX 21**
- A trilateral naval exercise involving *Singapore, India and Thailand* was held recently in the Indian Ocean. The 2021 edition was hosted by the Thai Navy.
 - SITMEX has been held each year since 2019 to help improve maritime relationships and interoperability between the three countries

Shakti 2021

- The 6th Edition of **Indo - France joint military exercise** “Ex SHAKTI 2021” was held in France.
- India and France carry out three biennial training exercises:
 - **Garuda** with the Indian Air Force,
 - **Varuna** with the Indian Navy and
 - **Shakti** with Indian Army.
- Exercise Desert Knight-21, between the Air Forces of these two nations, was held in January 2021.

Dosti

- Recently, the 15th edition of the **biennial trilateral coast guard exercise** ‘Dosti’ involving **India, the Maldives and Sri Lanka** took place in Maldives.
- 2021 marks **30 years** since this exercise was first launched. It was first launched in 1991 in bilateral format involving India and Maldives. In 2012, Sri Lanka joined the exercise for the first time.

Dakshin Shakti

- It was held with the Indian **Army and the Air Force taking part** in it.
- The drill aims to establish the best coordination among the wings of the armed forces, space technology and artificial intelligence.
- It was held in Jaisalmer district of Rajasthan.

Sagar Shakti

- Recently, Sagar Shakti military exercise conducted in the Creek sector of the Kutch peninsula.
- It witnessed participation of the Indian Army, Indian Navy, Indian Air Force, Indian Coast Guard, Border Security Force, Gujarat Police and the Marine Police.
- The aim of this high intensity exercise was to test the combat readiness of the agencies in a real-time scenario.

GEOGRAPHY AND ENVIRONMENT

Cheetahs To Be Reintroduce In Kuno National Park

Recently, Union environment ministry officials have confirmed that Cheetahs from **Namibia and South Africa** are likely to be reintroduced in **Kuno National Park** by the end of 2021.

What Is Reintroduction?

- Reintroduction **of a species** means releasing it in an area where it is capable of surviving.
- Reintroductions **of large carnivores** have increasingly been recognised as a strategy to conserve threatened species and restore ecosystem functions.
- Reintroduction **of the cheetah** involves the re-establishment of a population of cheetahs into areas where they had previously existed.

Why Reintroduce Cheetah Now

- Just as the tiger is the **flagship species** of the **forest**, the cheetah is the flagship species of the grassland, scrubland and open forest. Therefore, with the reintroduce of the cheetah, these dryland ecosystems of India will have a chance to return to their natural state.
- Being a top carnivore, the cheetah is a major evolutionary force that shape **ecosystem function and enhance species diversity**.
- The cheetah is a part of our heritage and the cheetah is the only large carnivore that has been extirpated, mainly by over-hunting in India in historical times.
- India now has the **economic ability** to consider restoring its lost natural heritage for **ethical as well as ecological reasons**.
- Supreme Court of India had also given its approval in January 2020 to introduce African cheetahs in a suitable habitat in India as an experiment to see if they can adapt to the environment.

Reasons for Extinction

- During the Mughal emperor Akbar's reign, there were an estimated 10,000 cheetahs in India. However, ruthless bounty-hunting by the British and the despicable pomp of the royal shikar by the kings led to its extinction.
- Also, other problems like human-wildlife conflict, loss of habitat and loss of prey, and illegal trafficking, have decimated their numbers.
- The advent of climate change has made these problems worse.
- With less available land for wildlife, species that require vast home range like the cheetah are placed in competition with other animals and humans, all fighting over less space.

Why Kuno National Park Was Selected

- Located in the Chambal region, it is spread over an area of over 750 sq km and has a conducive environment for the cheetahs.
- The protected area, comprising a considerable population of four-horned antelopes, chinkara, nilgai, wild boar, spotted deer and sambar, has a good prey base for the cheetahs.

Cheetah Reintroduction Programme In India

- This isn't the first time that India has attempted relocation of the cheetah. In the early 1970s, negotiations were carried out with **Iran**. India had approached Iran for Asiatic cheetahs, but had been refused.
- In September 2009, the cheetah reintroduction plan made significant progress when the Ministry of Environment & Forests, through the Wildlife Institute of India (WII), organized a meeting in Rajasthan.

- The National Tiger Conservation Authority (NTCA) is going to release the money for the project.

Challenges Of The Project

- This is a long-drawn process which needs to first conduct an **assessment of potential sites** in India and simultaneously, review sites in Africa from where the cheetahs can be brought.
- Kuno national park could soon be the only location in the world to host wild populations of four major big cat species – tiger, lion, leopard and cheetah but there is no science available currently to suggest that cheetahs, lions, tigers and leopards can coexist comfortably in the same habitat.
- Cheetah reintroduction plans present a question as to whether conservation can equally serve both animals & those living in close proximity to animals. Around 169 villages would need to be displaced for this plan.
- For this plan, ten years ago, some sites in India were assessed. Now, these sites will have to be re-assessed because situations might have changed.

About Cheetah

- The cheetah, is one of the oldest of the big cat species and also the world's fastest land mammal.
- It is native to Africa and central Iran.
- **Asiatic cheetah** which is now found only Iran, is classified as a **critically endangered** species in the IUCN Red List.
- While the **African cheetah** is classified as a **vulnerable species** in the IUCN red list.
- African cheetah is bigger in size as compared to Asiatic cheetah.
- In India last spotted cheetah died in Chhattisgarh in 1947 and it was declared extinct in the country in 1952.

Kuno National Park

- Kuno National Park located in the Sheopur district of Madhya Pradesh is spread over an area of 748.76 sq. km.
- Kuno River, one of the major tributaries of Chambal River flows through the entire length bisecting the National Park division.

Indus River dolphin

Recently, the state of Punjab is set to start the **Census** of Indus River dolphin.

About Indus Water Dolphins

- They are freshwater Dolphin & act as an indicator of the health of freshwater ecosystem.
- The species does not have a crystalline eye lens, rendering it effectively blind. Navigation and hunting are carried out using **echolocation**.
- They are found in Pakistan and River Beas, a tributary of the Indus River in Punjab, India.
- IUCN Red List Status: Endangered
- In 2019, Indus River dolphin was declared as the State aquatic animal of Punjab.

Threats

- Declining water in the river, putting more pressure on the dolphins to manage their life cycle.
- The increasing pollution due to large scale discharge of industrial and municipal waste, siltation.
- Mechanised boats pose one of the biggest threats.
- They frequently fall prey to poachers.

Gangetic River Dolphin

- It is primarily found in the Ganges and Brahmaputra Rivers and their tributaries in India, Bangladesh, and Nepal. It was recognized as National Aquatic Animal in 2009
- They also act as an indicator of the health of freshwater ecosystem as they can only live-in freshwater. They are also called 'susu'.
- IUCN Red List Status: Endangered
- Wildlife (Protection), Act 1972: Schedule I

Climate Equity Monitor (CEM)

Recently, the Climate Equity Monitor dashboard has been launched by the Ministry of Environment, Forest and Climate Change.

About CEM

- It is an **online dashboard** for assessing, at the **international level**, equity in climate action, inequalities in emissions, energy and resource consumption.
 - CEM is aimed at **monitoring the performance** of Annex-I Parties under the UNFCCC (**developed** countries) based on the foundational principles of the Climate Convention.
 - It also gives an insight about **disparity** between the **emissions** of **developed and developing** countries.
- The website has been developed by independent researchers from India.

Significance

- **Equitable sharing of the global carbon budget** will progressively appear on the Climate Equity Monitor website that is the fundamental equity principle for assessments.
- It strives to build awareness, especially among the public of the global South, that climate action is a global collective action problem.
- It intends to debunk the narrative provided by many developed countries and global NGOs.
- It is expected to be a valuable tool for Policymakers, public institutions, researchers, academics, students, and the general public from developing countries.

Milu Deer

- Recently, in China, Milu deer which was considered extinct in wild (IUCN Red List), made a came back from the in nature.
- Milu deer is a rare and endangered species, native and endemic to the river valleys of China.
- Also known as Pere David's deer, these animals were on the verge of disappearing towards the end of the 19th century.
- They live in natural, open-range habitats, especially in the wetlands.
- They particularly love rolling about in the mud, especially during the mating season, which makes the land easier for farmers to cultivate.
- Threats - Hunting for their meat and Loss of wetland habitat.

Movement Against Biological Invasion (MABI)

- Recently, the biologist from Agarkar Research Institute (Pune) has started an initiative called, Movement against Biological Invasion (MABI).

- MABI is a green movement aimed at systematically **charting and rooting out Invasive Alien Species**.

Threats

- Invasive species are major threat to global food security and livelihoods.
- The biological invasion could lead to changes to **fire** regimes, **disease transmission** to native species, forest loss, reduction in water flows, and habitat transformation, among others.
- Reduces the resilience of natural habitats, making them more vulnerable to the impacts of climate change.
- The widespread prevalence of invasive species like Lantana Camara has reduced the proportion of natural grasses for herbivorous animals.

Way Ahead

- Risk assessments: Those alien species that are likely to become invasive is need to be identified and eradicated or controlled before they spread and become invasive.
- Policymakers and other stakeholders need to sensitise people to the magnitude of the problem.

Invasive Alien Species

- Convention on Biological Diversity (CBD) defines invasive species as “an alien species whose introduction and spread threaten ecosystems, habitats, or species with socio-cultural, economic and environmental harm and harm to human health”.
- These species occur in all groups of plants and animals as competitors, predators, pathogens and parasites and have invaded in every type of native ecosystem.

India Targets Net-Zero Carbon Emissions By 2070

Recently, after a long rejection of net-zero target, at the COP26 summit in Glasgow, India pledged to achieve net-zero emissions as part of a **five-point** action plan.

Why Was This Step Required?

- India’s developing economy is still heavily reliant on oil and coal, the most polluting fossil fuel, which makes up 70% of its energy production.
- Coal consumption in the country has increased by 39% over the last decade.
- India is the world’s **third-biggest emitter** of greenhouse gases after China and the US.

India’s 5-point Action Plan

- India will reach carbon neutrality by 2070
- India also raised India’s Nationally Determined Contributions (NDCs) of achieving 450 giga watt non-fossil energy capacity to **500 giga watt by 2030**.
- India will fulfil 50% of its energy requirements from renewable energy sources by 2030.
- It will reduce total projected carbon emissions by a **billion tonnes** between now and 2030.
- India will reduce carbon intensity of its economy by 45%
 - Under Paris Agreement, India promised to reduce its emissions intensity (emissions per unit of GDP), by 33 to **35%** by 2030 compared to 2005 levels.

Analysis of Reducing India’s Carbon Emissions

- According to the World Resources Institute, India’s total GHG 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 35- 40 billion tonnes
- Cutting 1 billion tonnes would represent a reduction of 2.5 to 3% in its absolute emissions in next 9 years.

Challenges

- India's economic priorities are mostly focused on domestic issues.
- The country's energy demand is expected to rise sharply over the next decade as the economy continues on its growth trajectory.
- China aims to become net zero by 2060, while US, Britain and European Union have set 2050.

Recommendations for Net Zero Targets

- India will likely target the power sector first. India needs to accelerate the **phase out of coal**, encourage **investment in renewables**, curtail deforestation & speed up the switch to electric vehicles.
- Citizens must be active participants in the entire process, making them feel part of the transition and not simply subject to it.
- The net zero targets must prioritize ambitious emissions reductions to align with the goal of limiting warming to below 1.5°C.
- The land-based climate action must be anchored in food first, rights-based approaches that help to achieve zero hunger and zero emissions.
- The net zero commitments must be backed by meaningful transparency and disclosure.

Global Methane Pledge

Recently, Global Methane Pledge was launched at UN COP26 climate conference in Glasgow.

About Global Methane Pledge

- This pledge was announced with the aim of **reducing methane emissions** by 30% by the year 2030, as compared to 2020 levels.
- Besides EU and US, more than 103 countries have signed up so far, including major methane emitters like Nigeria and Pakistan. China, Russia and **India have not** signed up. Australia said it will not back the pledge.

Methane

- It is the simplest hydrocarbon, consisting of one carbon atom and four hydrogen atoms.
- It is a powerful greenhouse gas. It is flammable, and is used as a fuel worldwide.
- Approximately 40% of methane emitted is from natural sources & about 60% comes from **human-influenced sources**, including livestock farming, rice agriculture, biomass burning & so forth.

Reasons for Rising of Methane

- Doesn't come under any protocol like Paris protocol so no concrete efforts taken
- Increase in anthropogenic activities.
- Lockdown reduced the CO₂ level but the **emission of methane is significant from the agricultural field and household consumption** etc.

How Methane Contributes To Global Temperature

- Methane is the **third-most abundant** greenhouse gas in the atmosphere, after water vapour & carbon dioxide.
- As per Intergovernmental Panel on Climate Change report, methane accounts for around half of the 1.0 degrees Celsius net increase in global average temperature as compared to pre-industrial era.
- UN notes that methane has a global warming potential that is 80 times greater than carbon dioxide, about 20 years after it has been released into the atmosphere. As per UN, 25% of the warming is because of methane.

Global Methane Initiative

GMI is an international public-private partnership focused on reducing barriers to the recovery and use of methane as a clean energy source.

Glasgow Glacier

- Recently, a glacier in far-off Antarctica has been formally named Glasgow Glacier in honour of Glasgow, Scotland, which is hosting the high-level UN climate conference.
- It is 100-kilometre-long body of ice which has been rapidly melting.
- Scientists have studied a chain of glaciers in the **Getz basin** of West Antarctica. 14 glaciers in the Getz Basin (part of Antarctica's largest ice shelf) are thinning by an average of 25% between 1994 -2018.
- Aside from Glasgow, the **eight** newly named glaciers are Geneva, Rio de Janeiro, Berlin, Kyoto, Bali, Stockholm, Paris, and Incheon, all named after towns that hold key UN climate conferences.

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
- Naming 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.

Infrastructure for Resilient Island States

Recently India, along with UK launched 'Infrastructure for Resilient Island States' (IRIS) on the side-lines of the COP 26 climate summit in Glasgow.

About IRIS

- The IRIS is a part of the Coalition for Disaster Resilient Infrastructure (CDRI).
- Under this, **ISRO** will build a special data window for **Small Island Developing States (SIDS)**. With this, SIDS will continue to get timely information about cyclones, coral-reef monitoring, coast-line monitoring etc through satellite.

Need for IRIS

- The biggest threat from climate change disasters is to the SIDS. It is a challenge to their existence.
- In such countries, climate change is a major challenge not only for the security of their lives, but also for their economies, such countries depend a lot on tourism, but due to natural calamities, even tourists are afraid to come there.
- The United Nations Office for Project Services report says that around 20% of global biodiversity are in small island countries and they are facing severe climate change impacts. On the other hand, they are responsible for less than 1% of global greenhouse gas emissions.

Significance of IRIS

- The launch of IRIS, gives a new hope, a new confidence. It gives the satisfaction of doing something for the most vulnerable countries.
- Sustainable and resilient infrastructure is the only solution to the problem to the sinking island countries. Therefore, there is need to focus on their overall infrastructure across all sectors such as transport, energy, digital communication, water, waste water, solid waste and buildings.

Coalition for Disaster Resilient Infrastructure (CDRI)

- CDRI is an international coalition of countries, United Nations agencies, multilateral development banks, private sector that aims to promote disaster-resilient infrastructure.
- It was launched by the India at the 2019 UN Climate Action Summit.
- Headquarters: New Delhi, India.
- The coalition will **not create** any new infrastructure rather, it will serve as a 'knowledge centre' for member countries to share and learn best practices with respect to disaster-proofing of infra.

Sustainable Cooling Handbook for Cities

Recently, the Sustainable Urban Cooling Handbook is a report published by the United Nations Environment Programme (UNEP).

Key Findings of the report

- The world cities are heating up at twice the global average. This is mainly due to urban heat island effect.
- Urban population exposed to hot temperatures (more than 35 degrees Celsius) are to increase by 800% by 2050 as compared to 2016. Around 1.6 billion urban population is to face this heat.
- With increase in temperature in cities, the low-income countries, especially in western Africa and southern Asia will be worst hit. Such regions are to lose 5% of working hours.
- The electric grid failures during **extreme weather** are increasing. This along with increasing heat waves will expose large population to severe heat stress.
- The energy requirement for space cooling is predicted to triple from 2016 to 2050 as millions of households in developing countries acquire air conditioners in the coming decades.

Significance

- The benefits of sustainable urban cooling are far reaching, including improved health and productivity, reduced power energy requirements, lower emissions, and economic benefits.
- The report calls for a **whole-system approach** that is, reduce heat at urban scale, reduce cooling needs in buildings and serve cooling needs in buildings efficiently, to benefit from integrative effects.

Great Pacific Garbage Patch

- The garbage patch is two vortexes filled with trash in the Pacific Ocean.
- They're also known as **gyres**, which is when two ocean currents come together and create a hurricane-like current and materials get caught in the gyres.
- These patches are not in solid masses of tangled plastic every time, these patches actually dispersed across hundreds of miles of the Pacific.
- We could sail through these patches without even noticing that we are in them. This is because as much as 70% of the trash eventually sinks to the bottom of the ocean.

Where Did The Trash Come From?	How Is The Garbage Affecting Marine Life?
Most of the trash comes from land in North America and Asia , while 20% comes from boats or ships that discard debris into the ocean, including lost fishing gear.	<ul style="list-style-type: none">• Marine life get tangle in these garbage's.• Animals in the ocean can also ingest the plastic debris, which can harm them and make them feel as though they're full. The plastic could also lacerate their organs.• Plastic can choke and smother marine animals and their

Way forward

We have to work to prevent more trash from ending up in the garbage patches by reducing the number of single-use products.

Cause Of First Mass Extinction

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

Extinction

- Extinction is a part of life, and species disappear all the time. About 98% of all the species that have ever existed on our planet are now extinct.
- Earth's normal extinction rate is often thought to be somewhere between **0.1 and 1 species per 10,000 species per 100 years**. This is known as the **background rate of extinction**.

Mass Extinction

- A mass extinction is around three-quarters of all species dying out over a short geological time, which is anything less than 2.8 million years

About Late Ordovician- 1st Mass Extinction

- The Late Ordovician mass extinction that occurred about 445 million years ago killed about 85% of all species.
- It also destroyed several corals, conodonts, echinoderms, trilobites, bivalves and graptolites.
- It did not affect the ecosystem of the structures as that of the other mass extinctions.

What Caused Late Ordovician Mass Extinction?

- It was caused by climate cooling.
- 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.
- Scientists think it was caused by temperatures plummeting and huge glaciers forming, which caused sea levels to drop dramatically followed by a period of rapid warming.

The Other Big Extinction Events Were

- **The Devonian-2nd mass extinction** - It occurred about 375 million years ago, wiped out about 75% of the world's species. This was a period of many environmental changes, including global warming and cooling, a rise and fall of sea levels and a reduction in oxygen and carbon dioxide in the atmosphere. We don't know exactly what triggered the extinction event.
- **The Permian-3rd mass extinction** - It occurred about 250 million years ago, also known as the **Great Dying** caused the extinction of over 95% of all species. Some scientists think Earth was hit by a large asteroid which filled the air with dust particles that blocked out the Sun and caused acid rain.
- **The Triassic – 4th mass extinction** - It occurred 200 million years ago, eliminated about 80% of Earth's species, including some dinosaurs. This was probably caused by colossal geological activity that increased CO₂ levels and global temperatures, as well as ocean acidification.
- **The Cretaceous- 5th mass extinction** - It occurred 65 million years ago, killing 78% of all species, including the remaining **non-avian dinosaurs**. This was most likely caused by an asteroid hitting the Earth in what is now Mexico, potentially compounded by ongoing flood volcanism in what is now India.

The Sixth Mass Extinction

- The **Holocene extinction** also referred as the 6th mass extinction or Anthropocene extinction is an ongoing extinction event of species during the present Holocene epoch as a result of human activity.
- The rates of extinction are faster and are estimated to be 100-1000 times faster than in the previous ones.

Leopards At A Risk Of Extinction Due To Roadkill

Recently published study said that the leopard (IUCN status - Vulnerable) faces of risk of extinction in North India due to roadkill.

Key Findings

- 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 and sloth bear in South India.

About Leopard

- The leopard is one of the five extant species in the genus Panthera, a member of the cat family.
- It occurs in a wide range in sub-Saharan Africa, Western and Central Asia, Southern Russia, and on the Indian subcontinent to Southeast and East Asia.
- The highest concentration of the leopard in India is estimated to be in Madhya Pradesh followed by Karnataka and Maharashtra.
- 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 of 8,000 to 12,852.
- In Indian subcontinent, poaching, habitat loss, depletion of natural prey and conflict are major threats to leopard populations.

Snow Leopards

- International Snow Leopard Day came into being on 23rd October, 2013, with the adoption of the Bishkek Declaration by 12 countries on the conservation of snow leopards.
- The 12 countries are India, Nepal, Bhutan, China, Mongolia, Russia, Pakistan, Afghanistan, Kyrgyzstan, Kazakhstan, Tajikistan, and Uzbekistan.

About Snow Leopard

- Also called ounce (also known as Ghost of the mountains), large long-haired Asian cat.
- It inhabits the mountains of central Asia and the Indian subcontinent, ranging from an elevation of about 1,800 metres in the winter to about 5,500 metres in the summer.
- It acts as an indicator of the health of the mountain ecosystem in which they live.
- Hemis National Park in Ladakh, is famous as the Capital of Snow Leopard in India.

Threat

- Main threat to the species is habitat loss due to human population infiltration, reduction in prey populations, Illegal poaching and the adverse impact of climate change.

Conservation status

- IUCN Red List: Vulnerable
- CITES: Appendix I
- Indian Wildlife (Protection) Act 1972: Schedule I

Conservation Efforts by India

- Project Snow Leopard (PSL) was launched in 2009 to conserve snow leopard and their habitat.
- In the year 2020 a community volunteer programme Himal Sanrakshak was launched
- The Padmaja Naidu Himalayan Zoological Park, Darjeeling (WB), started work on captive breeding of the snow leopard in the year of 1983.

Other Conservation Effort at International Level

Global Snow Leopard and Ecosystem Protection Programme (GSLEP) was launched to address high-mountain development issues using conservation of the snow leopard as a flagship.

Issi Saaneq

Recently a new dinosaur species has identified.

- Paleontologists at Harvard University discovered two well-preserved dinosaur skulls during excavations in East Greenland.
- An international team of researchers have performed micro-computed tomography of the bones, which allowed them to create digital 3D models. They determined that the finds belonged to a new species, which they named Issi saaneq.
- The Issi Saaneq lived about 214 million years ago. It was a medium-sized herbivore with a long neck and the forerunner to sauropods (having very long necks, long tails, small heads), the largest land animals ever to exist.

Climate Change Performance Index 2022

Recently the 17th edition of Climate Change Performance Index was released.

About Index

- It is compiled by German Watch along with New Climate Institute and Climate Action Network.
- It monitors climate mitigation progress of 60 countries and the European Union.
- It is released on the basis of 14 indicators under **4 parameters**:

Green House Gas
Emissions (40%)

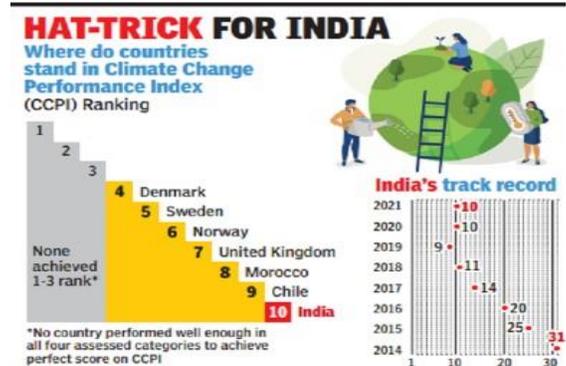
Renewable Energy
(20%)

Energy Use (20%)

Climate Policy (20%)

Key Points

1. The first three ranks of the overall rankings were kept empty because no country had performed well enough in all index categories.
2. **Sweden** tops the index with rank 4th.
3. In the overall rankings, India is ranked at number 10 with a score of 69.22.
4. India has been categorized as a '**high performer**' overall, but in the 'medium' category with respect to renewable



energy.

- China is ranked 37 overall and has an overall rating of “low”.
- India continued to be among top-performing countries within Performance of G20 countries, responsible for about 75% of the world’s GHG emissions.

Froth In Yamuna

Recently, a layer of froth was seen floating over parts of the Yamuna which is a sign of a polluted river.

What Causes Frothing In The Yamuna

- The release of untreated or poorly treated effluents could lead to the frothing.
- Sewage network and industrial waste also leads to toxic frothing.
- Specifically, **phosphates** in the river form the froth. Surfactants and phosphates found in detergent in households and industrial laundry gets dumped into rivers.
- Foam is created when the surface tension of water (attraction of surface molecules toward the center, which gives a drop of water its round shape) is reduced and air is mixed in, causing bubble formulation
- The surfactant concentration at the liquid surface decreases as the bubble size increases. When this happens, the higher surface tension in the expansion area draws liquid from the lower surface tension region at the base of the bubble. This 'heals' the thinning bubble wall and stabilises the foam.

What Are The Health Hazards

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

How Can Froth Formation Be Stopped?

Short Term	Long Term
<ul style="list-style-type: none">➤ Rid Okhla pondage of water hyacinth➤ Detergents must be biodegradable so that they lose their ability to cause foam	<ul style="list-style-type: none">➤ UP, Haryana, Delhi needs to upgrade sewage treatment plants➤ Increasing the flow of river➤ Industrial pollution to be stopped

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 5th report of the 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.

Yamuna River

- Yamuna river originates from the Yamunotri Glacier on the southwestern slopes or Banderpoonch peak in the Mussoorie range of the lower Himalayas.
- It meets the Ganges at the Sangam in Prayagraj, Uttar Pradesh after flowing through Uttarakhand, Himachal Pradesh, Haryana and Delhi.
- Important Tributaries of Yamuna are Chambal, Sindh, Giri, Ken and Betwa.

Flash Drought

Recent study identifies India among global flash drought hotspots from 1980-2015.

About Flash Drought

- Flash droughts are those that occur very quickly, with soil moisture depleting rapidly.
- Unlike conventional drought, which can happen anywhere and at any time, flash drought typically occurs during warm seasons.

Causes Of Flash Drought

- Unlike slow-evolving drought, which is caused by a decline in precipitation, flash drought occurs when low precipitation is accompanied by abnormally high temperatures, high winds, and/or changes in radiation.
- These sometime-rapid changes can quickly **raise evapotranspiration** rates and remove available water from the landscape.
 - Higher temperature increases evapotranspiration the process by which water is transferred from the land to the atmosphere by evaporation from soil and by transpiration from plants
- Geographic differences and climate patterns also impact the development of flash drought.

Effect Of Flash Draught

- Further lowers soil moisture, which decreases rapidly as drought conditions continue.
- If not predicted and discovered early enough, changes in soil moisture that accompany flash drought can cause extensive damage to agriculture, economies, and ecosystem goods and services.
- Flash drought can also be tied to rhythmic climatic patterns, such as La Nina events.

Predicting Flash Drought

- It is critical to successful mitigation and damage prevention.
- Changes in the rate of evapotranspiration and soil moisture have been identified as key early warning indicators.
- Flash drought can occur even when no preceding signs are detected.

Indian Flapshell Turtle

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

- The Indian flapshell turtle is a freshwater species of turtle.
- The flap-shelled name stems from the presence of femoral flaps located on the plastron.
- It is a relatively small soft-shell turtle with a carapace length of up to 350 millimetres.
- Found in Pakistan, India, Sri Lanka, Nepal, Bangladesh (Indus and Ganges drainages), and Myanmar (Irrawaddy and Salween Rivers).
- It is listed as **vulnerable in IUCN red list** and **schedule I** in wild life protection act, 1972.
- Poaching for meat and cartilage has been identified as a major direct threat to these turtles.

Clydebank Declaration

Recently, the Clydebank Declaration was signed at the COP26 Climate summit held in Glasgow.

About Clydebank Declaration

- Under the declaration, the signatories agreed to work together to establish **zero emission maritime routes**. These routes are called **green shipping corridors**.

- 22 countries including the US, Japan, Australia and Canada have signed the Clydebank Declaration to develop at least **six** green shipping corridors between two or more ports by 2025 and “many more” by 2030.
- This declaration has not been yet adopted by India.

Signatories Pledge To

- Facilitate the establishment of partnerships, with participation from ports, operators and others along the value chain.
- To accelerate the **decarbonisation** of the shipping sector and its fuel supply through green shipping corridor projects.
- Identify and explore actions to address barriers to the formation of green corridors. This could cover, for example, regulatory frameworks, incentives, information sharing or infrastructure
- Consider the inclusion of provisions for green corridors in the development or review of **National Action Plans**
- Work to ensure that wider consideration is taken for environmental impacts and sustainability when pursuing green shipping corridors.

Need of Clydebank Declaration

- The global maritime shipping accounts for 2.5% to 3% of global carbon dioxide emissions.
- The deep-sea vessels contribute to 85% of total maritime emissions.

Global Resilience Index Initiative (GRII)

Recently, a global coalition of ten organisations launched the Global Resilience Index Initiative (GRII) during the COP 26.

About GRII

- It aims to build a universal model for assessing resilience to climate risks.
- GRII will be a open-source resource offering high-level metrics across the built environment, infrastructure, agriculture and societal exposures.
- It will be using cross-sector risk modelling experience, including public-private partnerships between governments, academia, insurance and engineering.

GRII Goals

- To provide reference risk data developed using insurance risk modelling principles.
- To provide shared standards and facilities applicable to a wide range of uses: Corporate climate risk disclosure, national adaptation planning and reporting, and the planning of pre-arranged humanitarian finance.

Kaiser-i-Hind

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

About Kaiser-i-Hind

- Kaiser-i-Hind literally means Emperor of India.
- It is one of the very rare and elusive swallowtail butterflies listed as **Near Threatened** in IUCN red list and **schedule II** in wild life protection act, 1972.
- This butterfly with a 90-120 mm wingspan is found along the Eastern Himalayas in India at elevations from 6,000-10,000 feet in well-wooded terrain.

- The butterfly is also found in Nepal, Bhutan, Myanmar, Laos, Vietnam and southern China.

Significance of Butterfly

- A very large quantity of butterflies in any area represents the rich biodiversity.
- The butterfly acts as an indicator species, which provides information on the overall condition of the ecosystem and of other species in that ecosystem.
- Butterflies also acts as a pollinator by helping in pollination.

Earth's First Landmass

- Recently, a new study has been published which suggests that the continents rose from the oceans about 3.2 billion years ago. Before it was considered 2.5 billion years ago.
- The earliest continental landmass to emerge may have been Jharkhand's Singhbhum region (famous for its mica mining).

Studying The Sandstones

- Scientists have found sandstone in Singhbhum with geological signatures of ancient river channels, tidal plains and beaches over 3.2 billion years old, representing the earliest crust exposed to air.
- Due to the thickness and less density, the continental crust emerged above surrounding oceanic crust owing to buoyancy.
- The researchers studied the granites that form the continental crust of Singhbhum region.
- They tried to found the age by analysing the uranium and lead contents of tiny minerals.

Significance Of The Study

- It helps to understanding the origins, it's critical to understand how our atmosphere, oceans came to be, and how they interacted with deep-seated Earth to make our planet habitable.
- It helps us to connect the Earth's interior to its exterior in deep time.

Niracara Svayamsasita Vedh Shala (NSVS)

- Recently, IIT Kanpur has developed an **Aquatic Autonomous Observatory** named Niracara Svayamsasita Vedh Shala (NSVS) for **in situ** monitoring, real time data transmission and web-based visualisation of the Ganga.
- The project has been jointly sponsored by the Department of Science and Technology, Government of India, and Indo-US Science and Technology Forum (IUSSTF).

About Niracara Svayamsasita Vedh Shala (NSVS)

- It is a low-cost, multi-parameter, water quality monitoring system which consists an array of sensors and auto sampler on a stationary platform, which is semi-submersible, all-weather, robust and perfectly stable.
- It can sense three parameters namely, pH, conductivity and dissolved oxygen capacity of water.
- This can be further utilised to estimate total dissolved solid, specific gravity and presence of metallic ions in water.
- It autonomously collects data every 15 minutes and reports it through a wireless network to the institute.
- The new system has now been installed at the Laxman Ghat on the banks of the Ganga in Bithoor, a town in Kanpur.

White-tail Deer

Recent studies have shown white-tail deer can carry the virus that causes Covid-19.

About White-tail deer

- They are the smallest members of the North American deer family found from southern Canada through Central America.
- Deer prefer open woodland, but are often found on the fringes of urban areas and in farming country.
- It is listed as **least concern** in the IUCN red list.
- They have long been hunted for sport and for their commodities.

Cryptocarya Muthuvariana

Recently, Cryptocarya Muthuvariana, a new plant species has been discovered from the Southern Western Ghats, Kerala.

About The Species

- It grows to a height of about 10 to 15 metres. It can be identified by its 'not-too-broad leaves'.
- Cryptocarya genus belongs to the Lauraceae family. It comprises over 300 species, widely distributed over South America, South Africa, Madagascar, Asia, Australia, and Oceania.
- It has been named in honor of a local tribe, Muthuvar. It is also the first time, a species has been named after a tribe.
- The Mathuvar tribe is known to play a significant role in the conservation of forests.
- According to the researchers, the Western Ghats is home to around nine species of the genus Cryptocarya.

Muthuvar Tribal Community

- The Muthuvan tribal community belonged to the Madurai dynasty.
- They live on the border hill forests of Kerala and Tamil Nadu.
- The highest concentration of the tribe is on the Anamudi hills (highest peak of Western Ghats).

Radio Collar For Elephant

Recently, a wild elephant was radio-collared for the first time in **Assam's** Sonitpur district by the state's Forest Department, in collaboration with NGO World Wildlife Fund (WWF)-India.

What Is Radio-Collars?

These are GPS-enabled collars that can relay information about an elephants' whereabouts. They weigh roughly 8 kg and are fitted around the elephant's neck.

Objectives With Usage Of Radio-Collars

- Information from the GPS would help us track and study the movement patterns of the herd, across regions and habitats. This would help in understanding what is driving the conflict.
- The collars would serve as an early warning system. If people know in which direction an elephant is moving, they can be prepared.

Challenges Associative With Radio-Collars Tagging

- Researchers first have to identify the **matriarch of the herd** which will they tag, identification alone takes time.
- Researchers don't have helicopters and other sophisticated equipment to approach elephants to tranquillise them, they go by foot. There is life risk

- All components for radio collaring are not available in India, including collars and tranquilising drugs. These have to be imported and are quite expensive.
- They also have to take into account that elephants grow in size. Collars may become tight, so they usually take a senior elephant so there is less chance of growth.
- Many times, elephants are not able to keep the collar on. They will have it on for maximum 6 months, before it falls off. Also, there may be technical glitches with the device too.

Way forward

- Researchers should first pay attention to the problem related to the collar so that the elephants do not have to face any kind of trouble.
- At the national level, cross-sectoral collaboration between forestry, wildlife, agriculture, livestock and other relevant sectors is key to tackle this problem.

Deforestation in Amazon

Recently, a report by Brazil's space research agency (Inpe) found that the area deforested in Brazil's Amazon reached a 15-year high after a 22% jump from the prior year (2020).

Reasons for Deforestation in the Amazon

- **Ranching** is the leading cause which involves clearing an area of rainforest & then rearing cattle on the land.
- **Small-Scale Agriculture** is also a major driver of deforestation. There are nearly 3 million landless people in Brazil alone. The government has cleared large areas of the Amazon Rainforest and encouraged people to move there.
- Mining operations, for sought-after minerals such as gold, account for further damage.
- Increased government incentives in the form of loans and infrastructure spending, including roads and dams.

Importance of the Amazon Rainforest

- It plays an important part in regulating the world's oxygen and carbon cycle. It produces roughly 6% of the world's oxygen and act as a carbon sink.
- The Amazon is referred to as the "lungs of the planet" and plays a major role in regulating the climate.

Consequences of Deforestation

- Deforestation and degradation directly emit greenhouse gases, threatening to turn the Amazon region from a carbon sink into a net emitter of carbon dioxide.
- Due to the thinning of the forest canopy, sunlight falls on the forest floor. Dried leaves and branches heat up and increase the likelihood of forest fires during the summer season.
- Increase in human activities, construction of roads, pipelines and industries exploit available forest resources. Improper use of resources like water, soil etc. and emission of untreated waste products pollute the forest area.
- Absence of trees in Amazon to hold soil results in soil erosion. This erosion removes the fertile top soil and minerals far away, leaving behind infertile land.
- The people who depend on the Amazon rainforest for their survival and existence also face threats due to the destruction of rainforests.

Initiatives To Tackle Deforestation

- Brazil was among a number of nations who promised to end and reverse deforestation by 2030 during the COP26.

- WWF is also committed to working with partners, including Indigenous people and local community to protect the amazon and its wildlife.
- REDD+ initiatives was also launched, which is the climate change mitigation options in developing countries for conservation of forest carbon stock, sustainable management of forests and reducing emissions from deforestation and forest degradation.

River Cities Alliance (RCA)

The union minister for Jal Shakti has launched the River Cities Alliance.

About River Cities Alliance

- It is a dedicated platform for river cities in India to ideate, discuss and exchange information for sustainable management of urban rivers.
- It will focus on three broad themes- **Networking, Capacity Building and Technical Support.**
- This Alliance is the successful partnership of the two Ministries- Ministry of Jal Shakti and Ministry of Housing and Urban Affairs.
- The National Mission for Clean Ganga (NMCG) and National Institute for Urban Affairs (NIUA) have collaborated together to launch the RCA

Objectives

- To provide the member cities with a platform to discuss and exchange information on aspects that are vital for sustainable management of urban rivers.
- It includes components like minimizing city water footprint, reducing impacts on river and water bodies, capitalizing on natural, intangible, architectural heritage and associated services and develop self-sufficient, self-sustainable water resources through recycle, reuse strategy

Significance

- It will enable cities to learn from each other's successes and failures as well as connect people with the rivers.
- It can play a crucial role in connecting cities with their rivers, and that it can be a model for all cities in the Basin and beyond to emulate.
- It will help in bottom up governance of river management and streamline national policies in proper directions.
- It will lead to preparation of **Urban River Management Plans** and develop **city-specific sectoral strategies** that are required for sustainable urban river management.

Mosquitoes To Combat Dengue

- Recently, Researchers in Indonesia have found a way to fight **disease-bearing** mosquitoes by breeding a species of the insect which carries **Wolbachia bacteria**.
- Wolbachia is a common bacterium that occurs naturally in 60% of insect species, including some mosquitoes, fruit flies, moths, dragonflies and butterflies.
- It is **not** found in dengue-carrying Aedes aegypti mosquitoes, the primary species responsible for transmitting human viruses such as Zika, dengue, chikungunya and yellow fever.
- The lab-bred mosquitoes with Wolbachia will mate with mosquitoes with dengue, which will produce Wolbachia mosquitoes ('good' mosquitoes).
- Wolbachia bacteria in the mosquitoes prevent viruses like dengue from growing inside them.
- Wolbachia method helps to protect communities from mosquito-borne diseases like Zika, dengue, chikungunya and yellow fever, and does so without posing a risk to natural ecosystems or human health.

Human Papillomavirus (HPV) Vaccine

A new research has founded that the human papillomavirus (HPV) vaccine, which protects against cervical cancer in women, reduced the risk of developing the cancer by 62% in women between the ages of 14 and 16.

What is HPV

- It is a group of cancer-causing viruses that are extremely common worldwide.
- National Cancer Institute (NCI) notes that more than **40 types** of HPV are spread through direct sexual contact.

Symptoms

- Once infected, most people do not develop any symptoms, thereby are not aware that they have the virus.
- In most cases, the body's immune system will be able to clear the virus out, which means it won't do any harm to the individual.

Type of HPV Vaccines

Quadrivalent vaccine (Gardasil)	•Protects against four types of HPV (HPV 16, 18, 6 and 11).
Bivalent vaccine (Cervarix)	•Protects against HPV 16 and 18 only
Non valent vaccine (Gardasil 9)	•Protects against nine strains of HPV.

In India, bivalent and quadrivalent HPV vaccines were licensed in 2008 and a non valent vaccine was licensed in 2018.

Molnupiravir

Recently, the UK drug regulator approved the first oral antiviral for treatment of Covid-19.

About Molnupiravir

- It is a prodrug of the synthetic nucleoside derivative **N4-hydroxycytidine**.

- Pro drug is a biologically inactive compound which can be metabolized in the body to produce a drug.
- It works by causing viruses to **make errors** when copying their own RNA, introducing mutations that inhibit replication.
- Molnupiravir was originally developed to treat influenza.

Smart Anti-Airfield Weapon (SAAW)

Recently, DRDO and Indian Air Force (IAF) have carried out successful flight tests of Smart Anti-Airfield Weapon (SAAW).

About SAAW

- SAAW project was approved by the Government of India in 2013. The first successful test of the weapon was conducted in May 2016.
- It is an indigenously developed by DRDO.
- It is long-range **lightweight** high precision-**guided anti-airfield weapon**.
- It is designed to destroy especially enemy runways, bunkers, aircraft hangers, radars and other reinforced structures at a maximum range of 100 kilometres.
- Two different configurations have been successfully tested which are based on:

Satellite
navigation

Electro-optical
sensors

- The electro-optic sensor: has been developed indigenously. Electro optical configuration of the system is equipped with Imaging Infra-Red (IIR) Seeker technology enhancing the precision strike capability of the weapon.

Leonids Meteor Shower

Recently, annual Leonids Meteor Shower has begun. This year's shower was active between November 6 and 30.

About Leonids Meteor Shower

- It contains debris left behind by the 55P/Tempel-Tuttle comet that enter Earth's atmosphere.
 - 55P/Tempel-Tuttle comet is a periodic comet with an orbital period of 33 years. It is the parent body of the Leonid meteor shower.
 - When comets come around the sun, the dust they emit gradually spreads into a dusty trail around their orbits. Every year the Earth passes through these debris trails, which allows the bits to collide with our atmosphere where they disintegrate to create fiery and colorful streaks in the sky.
- It has been named the Leonids Meteor Shower as it seems to emanate from the sector of the sky where the head of the **Leo constellation** lies.
- The Leonids are also called fireballs and earthgrazer meteors.
- It turns into a meteor storm every 33 years and when it happens hundreds to thousands of meteors can be seen every hour.

Meteor Shower

- Meteors are bits of rock and ice that are ejected from comets as they manoeuvre around their orbits around the sun.
- When a meteor reaches the Earth, it is called a meteorite and a series of meteorites when encountered

at once, is termed as a meteor shower.

INS Vela

Recently, INS Vela, the country's fourth **Scorpene-class submarine**, was delivered to the Indian Navy.

About INS Vela

- The **first** INS Vela was first commissioned on August 31, 1973, in the Indian Naval Service and continued to serve for 37 years.
- It was the country's oldest submarine when it was decommissioned on June 25, 2010
- The **diesel-electric** submarine was built under **Project 75** by Mazagoan Dock Shipbuilders Limited (MDL) in Mumbai.
- It can attack using torpedoes and tube launch anti-ship missiles, whilst on surface or underwater.

Project-75

Under Project 75, six Scorpene-class submarines are to be constructed for the Indian Navy.

INS Kalvar

- **launched in October 2015 and was commissioned in December 2017.**

INS Khanderi

- **launched in January 2017 for trials & commissioned in September 2019.**

INS Karanj

- **launched in January 2018 and commissioned in 2021**

INS VELA

- **LAUNCHED IN MAY 2019 AND INDUCTED RECENTLY.**

INS Vagir

- **launched in November 2020**

INS Vagsheer

- **It is in the advanced stage of outfitting**

DART Mission

NASA will launch the agency's first **planetary defence test mission** named the **Double Asteroid Redirection Test (DART)**.

About DART Mission

- It is a planetary defence-driven test of technologies for preventing an impact on Earth by a hazardous asteroid.
- It will be the first demonstration of the **kinetic impactor technique** to change the motion of an asteroid in space.
- The spacecraft will be launched on a SpaceX Falcon 9 rocket.
- A moonlet called **Dimorphos** which is 160 metre in diameter will be made to collide with the spacecraft when it is hovering at a distance of about 11 million kilometres from the Earth.

Rationale Behind the DART Mission

- The threat of asteroid impacts on Earth is statistically low, but the potential threat may be large.
- DART is needed because there are key unanswered questions about the kinetic impactor technique and like the other primary strategies for asteroid deflection, it requires some level of validation and demonstration before it.

Study Of Exoplanets Using Polarisation Of Light

About New Method

- Scientists have shown that **exoplanets** (planets going around stars other than the Sun) can be studied by observing the polarisation of light and studying polarisation signatures.
- These polarisation signatures or variations in **scattering intensity** of light can be observed with existing instruments, thus expanding the study of planets beyond the solar system using existing instruments.

Polarised Light

- Light waves are transverse. It exhibits the phenomenon of reflection, refraction, interference, diffraction, double refraction and polarisation.
- The electric and magnetic field vectors of the light wave travel in all directions. If the movement of these vectors is restricted to a single plane, then the effect is called Polarization of light.

Applications of Polarization of Light

- In the entertainment industry, to telecast or to show a 3D film.
- To differentiate between a longitudinal and a transverse wave.
- To cut the refractions in special sunglasses polarization of light is used.
- Polarization microscopes are used in geological studies to identify the minerals.
- In infrared spectroscopy.
- To study the physics of the early universe.

Noravirus

Recently, an acute diarrhoeal disease outbreak reported, was confirmed as Norovirus (NoV).

What is Norovirus

- Norovirus is an animal-borne disease. NoV is an important cause of gastroenteritis in children as well as adults worldwide.
- According to study, NoV was found to be the second most predominant virus after rotavirus.
- There is no specific treatment, rest and rehydration with warm fluids should be enough.

Spread

- Transmission occurs predominantly by the faecaloral route, directly or indirectly, through the ingestion of contaminated water or food or surfaces.

What Makes Nov Infections A Public Health Concern

- NoV is a highly contagious virus and transmission occurs at a rapid pace because of heavy **viral shedding** by the infected person.
- Even the lowest infectious dose is enough to set off extensive outbreaks.
- Experts also point out that NoV could increasingly become a public health concern because of rapid expansion of the food industry.

Solar Flare

Recently a solar flare that occurred on the Sun triggered a magnetic storm that scientists had perfectly predicted.

About Solar Flare

- Solar flares are giant explosions on the sun that send energy, light and high-speed particles into space.

- These flares are often associated with solar magnetic storms known as **coronal mass ejections** (CMEs).
- Radiation is emitted across virtually the entire electromagnetic spectrum, from radio waves at the long wavelength end, through optical emission to x-ray and gamma rays at the short wavelength end.
- The amount of energy released is the equivalent of millions of 100-megaton hydrogen bombs exploding at the same time.

Effects of Solar Flare

- Solar flares strongly influence the local space weather in the vicinity of the Earth.
- They can produce streams of highly energetic particles in the solar wind known as solar particle events. These particles can impact the Earth's magnetosphere.
- Coronal Mass Ejections (CMEs) can trigger geomagnetic storms that have been known to disable satellites and knock out terrestrial electric power grids for extended periods of time.
- The radiation risks posed by solar flares are a major concern in discussions of a human mission to Mars, the Moon, or other planets.

Critical Noise Treatment Algorithm

The critical noise treatment algorithm developed by astronomers from the Indian Institute of Astrophysics increases the accuracy of exoplanet data.

- This algorithm can increase the accuracy of data from exoplanets by reducing the contamination by the Earth's atmosphere and the disturbances due to instrumental effects and other factors.
- The critical noise handling algorithm is able to handle the transit signals captured by ground-based and space-based telescopes with much greater precision.

Kamo'oalewa

Recently, a study in the journal Communications Earth and Environment is published about Kamo'oalewa.

About Kamo'oalewa

- In 2006, the PanSTARRS telescope in Hawaii spotted a near-Earth object that orbits the Sun and yet remains close to the Earth and scientists named it Kamo'oalewa.
- The asteroid is roughly the size of a Ferris wheel – between 150 and 190 feet in diameter.
- A mission to collect Kamo'oalewa's samples has been scheduled for a launch in 2025.

Findings in the study- Three Possibilities

- **1st possibility:** The study suggests, Kamo'oalewa was a part of the **Earth's 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.
 - When scientists compared its spectrum with a lunar sample, they found striking similarities between the two.
- **2nd possibility:** Kamo'oalewa was captured in its Earth-like orbit from the general population of Near-Earth Objects.
- **3rd possibility:** 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).

Octacopter

Recently, an octacopter successfully delivered Covid-19 vaccine doses in a remote village in Karnataka.

About Octacopter

- Octacopter is an indigenous, **medium-class drone** developed by the state-run National Aerospace Laboratories (NAL) a constituent of CSIR.
- The drone is made out of light weight carbon fibre foldable structure.
- It has unique features like autonomous guidance through dual redundant microelectromechanical systems based digital autopilot with advanced flight instrumentation systems.
- It can fly at maximum flying speed of 36 kmph, and can carry a payload of 15 kg with hovering endurance of 40 minutes.
- It can be used for a variety of applications for last mile delivery like medicines, vaccines, food, postal packets, human organs etc.
- It can also be used for agricultural pesticide spraying, crop monitoring, mining survey, magnetic geo survey mapping among others.

Concerns Related To Drones

- Widespread use of drone is relatively new, legislation is still catching up.
- One of the most common concerns from the public about drone is privacy. Drones can collect data and images without drawing attention.
- The proliferation of drones in our skies might also threaten aviation safety.

Global Antibiotic Consumption Up By 46%

- A study published in the Lancet Planetary Health said that global antibiotic consumption rates have increased.
- The study provides a comparative analysis of total antibiotic consumption rates in humans globally, expressed in the WHO metric of defined daily doses (DDD) per 1,000 population per day.

Key Findings Of This Study

- Variation in-total antibiotic consumption rates, **across the country**, ranges from as low as 5 DDD to 45.9 DDD per 1000 population per day.
- **Between 2000-2018, global** antibiotic consumption rates increased by 46% from 9.8 to 14.3 DDD per 1000 population per day.
- In high-income countries, consumption rates remained stable.
- Highest Increase in antibiotic consumption rates is in South Asia which is 116% and the second-largest increase was in North Africa and the Middle East region 111%.
- Excess and inappropriate use of antibiotics is an important driver of drug-resistant infections.

Antimicrobial Resistance (AMR)

- It occurs when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines.
- AMR occurs naturally over time, usually through genetic changes.
- Antibiotic resistance is accelerated by the misuse and overuse of antibiotics, as well as poor infection prevention and control.

Challenges Posed by AMR

- Antibiotic resistance is emerging as the threat to successful treatment of infectious diseases, organ transplantation, cancer chemotherapy and major surgeries.
- The use of high order drugs or second-line expensive antibiotics pushes treatment costs high.

INS Visakhapatnam

Recently, the Indian Navy commissioned, Indian Naval Ship (INS) Visakhapatnam, built by Mazagon Dock Shipbuilders Limited in Mumbai.

About INS Visakhapatnam

- INS Visakhapatnam is one of the four **stealth guided-missile destroyer ships** under **Project 15B**.
- It is propelled by four powerful Gas Turbines, in a Combined Gas and Gas (COGAG) configuration.
- It is a 7,500-tonne warship whose main offensive armament is the **BrahMos surface-to-surface missile**. It is packed with medium and short-range guns, anti-submarine rockets and advanced electronic warfare and communication suits.
- The ship is also equipped to fight under nuclear, biological and chemical (NBC) warfare conditions.

Significance of INS Visakhapatnam

- With the commissioning in service, it will further augment the Indian Navy's reach and flexibility, and mobility. This will help deal with emerging challenges in the Indian Ocean Region.
- It will further strengthen maritime security and India's primary objective to keep the Indo-Pacific open, safe & secure.

Project 15B

- India will develop four stealth guided-missile destroyer ships under Project 15B. The contract for the construction of these four ships was signed in 2011.
- These ships are the world's most technologically advanced guided missile destroyers with state-of-the-art weapons/sensor packages, advanced stealth features and a high degree of automation.
- The next ship INS Mormugao, launched in 2016, is set to be commissioned in 2023 while the other two INS Imphal and INS Surat are planned to be inducted by 2025.

India's First Virtual Science Lab For Children

India's first virtual science lab for children was launched under the CSIR Jigyasa programme.

About virtual lab

- This virtual lab will open doors for the **students to connect with scientists** across the country.
- It is in line with the **New Education Policy (NEP)** where the concept of streams has been disbanded and students have been given the freedom to choose any subject.
- Also, the virtual lab will enable all the students across the country even those in remote areas to access education.
- The target audience for the Virtual Lab platform is students of the standard **VI to XII** (11-18 years) who would like to explore science using different activities, experienced researchers and faculties on the subjects of Science, Mathematics, Biology and IT.
- The main aim of the Virtual Lab is to provide quality research exposure and innovative pedagogy for school students to drive their scientific curiosity based on an online interactive medium.

CSIR Jigyasa Programme

- The Council of Scientific and Industrial Research (CSIR) and Kendriya Vidyalaya Sangathan signed an

MoU on Scientist–Student Connect programme ‘Jigyasa’ on July, 2017.

- It envisages opening up the national scientific facilities to school children, enabling CSIR scientific knowledge base and facility to be utilised by schoolchildren.
- The students will be engaged in **practical activities** to get a flavor of research in premier national laboratory by **extending classroom learning to research and laboratory-based learning**.

White Dwarf With Fastest Spin

According to a team of astronomers, the fastest spinning white dwarf completes a full rotation once every 25 seconds.

About Fastest Spinning White Dwarf Star

- This particular star, named J0240+1952 is the size of the Earth but is thought to be at least 200,000 times more massive.
- It is an extremely rare example of a magnetic propeller system, under which the white dwarf attracts plasma from the binary star system.
- The white dwarf is pulling gaseous plasma from a nearby companion star and flinging it into space at around 3,000 kilometres per second.
- The new dwarf star is the 20% faster than another confirmed white dwarf that completed a full rotation in just over 29 seconds. For the sake of comparison, one rotation of the planet Earth takes 24 hours.

About white dwarf

- A white dwarf is a dim, dense, planet-sized star that marks the evolutionary endpoint for all but the most massive stars.
- The first white dwarf to be discovered, in 1862, and the closest to the Sun, is **Sirius B** located at **8.6 light years**.
- White dwarfs form from the collapse of stellar cores in which nuclear fusion has stopped, and are exposed to space following the loss of the old star's bloated outer envelope, typically as a planetary nebula.
- They consist of electron degenerate matter, which provides the pressure needed to prevent further collapse, providing that the mass of the dwarf doesn't exceed the Chandrasekhar limit of about 1.4 solar masses.
- Eventually over hundreds of billions of years a white dwarf cools until it becomes a black dwarf, which emits no energy.
- Because the universe's oldest stars are only 10 billion to 20 billion years old there are no known black dwarfs.

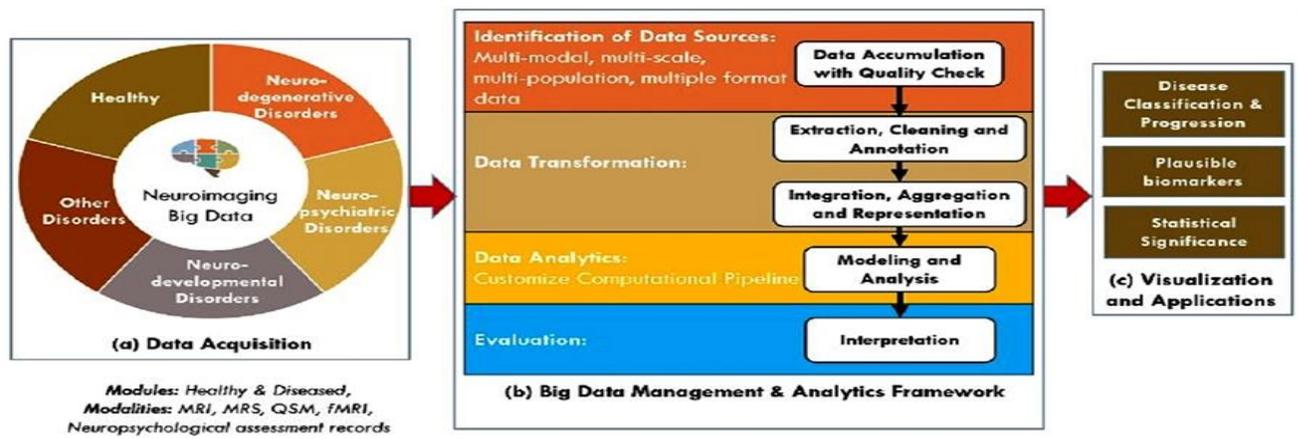
SWADESH

DBT-National Brain Research Centre (DBT-NBRC) has recently developed the project SWADESH.

About SWADESH

- It is a unique brain initiative focusing on certified neuroimaging, neurochemical, neuropsychological data and analytics that are made accessible to researchers for managing brain disorders.
- SWADESH is the **first large-scale multimodal neuroimaging database** designed specifically for the Indian population under one platform.

Features



Framework for SWADESH: a comprehensive platform for multimodal neuroimaging data, quality control, and data analytics. The major components are: (a) data acquisition, (b) big data management and analytics framework, and (c) visualization and applications

- SWADESH proposes a big-data architecture that manages and analyzes **six modules** mentioned under **Data acquisition Head** in the Diagram mentioned above.
- SWADESH is supported by **JAVA**-based workflow environment and **Python**. Backed by a dedicated storage system, it provides quality control, data analysis reports, and data backups.
- Its development will facilitate the integration of multi-site data and collaborative research worldwide.
- Presently, SWADESH has data of 500 Alzheimer’s disease (AD) and mild cognitive impairment (MCI) patients and 70 Parkinson’s disease (PD) patients. It also includes data of 600 healthy old individuals and 800 healthy young individuals in the control group.

Omicron: New Variant Of Concern

WHO declared the recently-discovered B.1.1.529 strain of COVID-19 to be a variant of concern (VOC) and renamed it Omicron.

About B.1.1.529 strain

- The variant was first reported to the WHO from South Africa.
- This variant has a large number of mutations, some of which are concerning. Preliminary evidence suggests an increased risk of reinfection with this variant, as compared to other VOCs.
- B.1.1.529 has **multiple spike protein mutations**, and preliminary analysis suggests it is **highly infectious**.

WHO classification

- Depending on the threat they pose, WHO classifies new variants either as ‘variants under monitoring (VUMs)’, ‘variants of interest (VoIs)’ or ‘variants of concern (VoCs)’.
- Variant under monitoring (VUMs) is a variant under monitoring when the mutations happen and if there is any previous association with any other similar variant which is felt to have an impact on public health.
- Variant of Interest (VOI) is a variant with **specific genetic markers**. It looks like to have been associated with changes to receptor binding, decreased neutralisation by antibodies generated against vaccination/previous infection, lessened efficacy of treatments, potential diagnostic impact, or **predicted** increase in transmissibility or disease severity.
- Variant of Concern (VOC): There is **evidence** for increased transmissions through field and clinical investigations, VOC have one or more of the following characteristics like higher transmissibility, evidence of increased disease severity, evading diagnostics, drugs and vaccines
- There are currently five VoCs — Alpha, Beta, Gamma, Delta, and Omicron. Two VoIs are called Lambda and Mu.

CULTURE

Pochampally Village

- **Pochampally** village in Telangana was recently selected as one of the Best Tourism Villages by United Nations World Tourism Organisation (UNWTO).
- The Best Tourism Villages initiative is a global initiative to showcase villages where tourism preserves cultures and traditions, celebrates diversity, provides opportunities and safeguards biodiversity.
- It also aims to support villages to enhance their rural tourism potential through **training and access to opportunities** for improvement.
- Pochampally is often referred to as the **Silk City of India** for the sarees that are woven through a unique style called **ikat**. This style, Pochampally Ikat, received a Geographical Indication status in 2004.
- Ikat is a Malaysian, Indonesian word which means “**Tie and Dye**”. Ikat involves the process of wrapping (or tying) and dyeing sections of bundled yarn to a predetermined colour pattern before they are woven.
- The dye penetrates into exposed sections while the wrapped section remains undyed. This pattern formed by the yarn in this process is woven into fabric.
- Pochampally is also known as **Bhoodan Pochampally** to commemorate the Bhoodan Movement that was launched by Acharya Vinobha Bhave from this village in 1951.

United Nations World Tourism Organisation (UNWTO)

- The UNWTO is a world body for promoting sustainable tourism and its meetings are considered the biggest tourism events in the world.
- It also promotes tourism as an instrument in achieving the United Nations Sustainable Development Goals (SDGs).

Rani Kamlapati

- The name of **Bhopal's Habibganj railway station** was recently changed to Rani Kamlapati station. The renaming is to honour the memory and sacrifices made by a queen of the Gond community.
- Rani Kamlapati was daughter of Raja Kirpal Singh Sarautia of the princely state of Salkanpur, **Sehore**. She is known for her intelligence and courage.
- She was married to Nizam Shah, whose Gond dynasty ruled the then Ginnorgarh, near Bhopal.
- Nizam Shah built a seven-storeyed palace in Bhopal as a token of love for Rani Kamalapati in 1700 AD.
- The Gonds are one of the largest tribal communities in India, spread across Madhya Pradesh, Maharashtra, Chhattisgarh, Andhra Pradesh, Telangana, Bihar and Odisha

Authority To Change Railway Station Names

- While Indian Railways may own the stations, it does not get involved in the business of naming it. **This is left to the choice of the state government concerned.**
- Change of station names is entirely a **state subject** even though Railways belong to the **Union government**.
- The state governments send the request to the Ministry of Home Affairs, the nodal ministry for these matters, which then gives its approval, keeping the Ministry of Railways in the loop.

UNESCO Creative Cities Network

- UNESCO recently picked up **Srinagar** among 49 cities as part of UNESCO Creative Cities Network (UCCN).
- UNESCO designates the creative cities in **seven fields**



- **Srinagar** city got the UCCN tag in the field of **Crafts and Folk Arts** — the second city in India in this category after Jaipur.
- After Mumbai (film), Chennai (music), Varanasi (music), Hyderabad (gastronomy) and Jaipur, Srinagar is the sixth Indian city to achieve this distinction.
- The UCCN tag would not only give global recognition to Srinagar but also help it in international funding, tie-ups with craft universities and pitching craft as a product.

UNESCO Creative Cities Network (UCCN)

- UCCN is a project launched by UNESCO in 2004 to “promote cooperation among cities which recognized creativity as a strategic factor in their urban development”.
- Such cities work together towards a common objective of placing creativity and cultural industries at the core of their development plans at the local level and cooperating actively at the international level.

Rani Gaidinliu

- The foundation stone for the ‘**Rani Gaidinliu Tribal Freedom Fighters Museum**’ was recently laid in Manipur’s Tamenglong district.
- Rani Gaidinliu, was a **Naga spiritual and political leader**. Born in 1915, in Tamenglong district of present-day Manipur, Gaidinliu belonged to the **Rongmei Naga tribe**.
- At the age of 13, she became associated with freedom fighter and religious leader, **Haipou Jadonang**, and became his lieutenant in his social, religious and political movement.

Heraka Movement

- Jadonang, who was also a Rongmei, started the **Heraka movement**, and envisioned an **independent Naga kingdom** (or Naga-Raja).
- Heraka, which literally means pure, is a monotheistic religion where the followers worshipped Tingkao Ragwang.
- The movement aimed to resist the infiltration of Christian missionaries as well as the reforms imposed by the British government - who forced tribals into harsh labour and imposed high yearly revenue tax on every household.
- In 1931, Jadonang was arrested by the British and was hanged for opposing the colonial rule.

Gaidinliu’s Efforts Against The British

- Gaidinliu took up the movement and linked her spiritual role as a leader of the socio-religious movement to her role as a nationalist.
- Rani started a serious revolt against the British in which she started her own version of the Non-cooperation Movement among Naga tribes.
- She made it difficult for the British administration to function in the region after she instructed all households to abstain from paying taxes.
- For this, she was sentenced to life imprisonment, at the age of 16, and spent the next 14 years in jail.

Post-independence

- She was finally released in 1947, after India's independence, on Jawaharlal Nehru's orders.
- Nehru described Gaidinliu as the "**daughter of the hills**" and gave her the title of 'Rani' for her courage.
- In independent India, Gaidinliu was against the Naga National Council's (NNC) demand for **sovereignty and independence** of Naga territory. She, in fact, demanded a separate Zeliangrong area within Union of India.

Devasahayam

- Neelakanda, a Hindu man who converted to Christianity in the 18th Century is set to become the **first Indian layman to be declared a saint by the Vatican**. Before this, all other Indians elevated as saints have been **members of the clergy**.
- Born as Neelakanda Pillai in 1712 in Tamil Nadu's Kanyakumari District, he went on to serve in the court of Travancore's Maharaja Marthanda Varma. There he met a Dutch naval commander, who taught him about the Catholic faith.
- In 1745, after his conversion, he took the Christian name **Lazarus**, and was called Devasahayam in the local language. Devasahayam literally means "**God's help**" or servant of God.
- After this, he was subjected to harsh persecution by the Travancore state, which was against his conversion.
- In 1752, just seven years after he became a Catholic, Devasahayam was shot dead in the Aralvaimozhy forest. Since then, he has widely been considered a martyr by the Catholic community in South India.

Adi Shankaracharya

- The Prime Minister recently unveiled a 12-foot statue of Adi Shankaracharya at **Kedarnath**, where the acharya is believed to have attained samadhi at the age of 32.
- Adi Shankaracharya (788–820 CE) was born in **Kaladi** in Kerala. He is credited with establishing the **Advaita Vedanta School** of Hindu philosophy.
- By the time of Shankara's birth, Hinduism was stuck in inflexible practice of orthodoxy, ritualism and formality. Through his teachings, Shankara rejuvenated a divided religion.
- In his short life, Adi Shankara is not only credited with reviving Hinduism, but also with establishing the organisational structure for its survival and regeneration, through the **mathas** he established in Sringeri, Dwaraka, Puri and Joshimatha.

Advaita Vedanta

- Adi Shankara's Advaita Vedanta was a response to that era of confusion, integrating diverse thoughts and Hindu practices into a philosophy based on the Vedic belief of '**One Truth, Many Expositions**'.
- His statement "**brahma satyam jagan-mithya, jivo brahmaiva naaparah**" (brahman alone is real, this world is an illusion/ and the jiva is not different from brahman), captures the essence of Advaita Vedanta. It basically means, **God and humans were not two different entities**.
- **He pronounced that 'Brahman or pure consciousness is the absolute reality and all human souls ultimately merge into the same Brahman, which implies the equality of all souls and argues against caste discrimination**.

Literary works

- Adi Shankaracharya wrote 18 commentaries on the scriptures including the **Brahma Sutras**, the **Bhagavad Gita** and **12 major Upanishads**.
- He wrote various books highlighting the fundamentals of the Advaita Vedanta philosophy. Some of these books are Viveka Chudamani, Atma Bodha, Vaakya Vritti and Upadesa Sahasri.
- He is also credited to have composed 72 devotional and meditative hymns such as Soundarya Lahari, Sivananda Lahari, Nirvana Shalkam, Maneesha Panchakam.