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# CURRENT AFFAIRS

# AUGUST 2021

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**an Institute for Civil Services**

# INDEX

# POLITY AND GOVERNANCE

**Paper II: This section is relevant to Polity and Governance Section of GS Paper II**

## 1.1 TRIBUNAL REFORMS BILL 2021

**Why in News:** The Tribunal Reforms Bill, 2021 was recently passed in the Lok Sabha

**The Tribunals Reforms Bill, 2021 has replaced the Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance, 2021.** The Bill has not only abolished five appellate tribunals which are the Film Certification Appellate Tribunal, Airports Appellate Tribunal, Authority for Advanced Rulings, Intellectual Property Appellate Board and the Plant Varieties Protection Appellate Tribunal.

**It has also introduced changes in the terms of service of the tribunal officials.**

**Tribunals**

- A tribunal is an institution that has the authority to judge, adjudicate on, or determine claims or disputes.
- The traditional judicial system has proved to be inadequate to decide and settle disputes as it is slow, costly and complex.
- Thus tribunals are established in order to provide quick and inexpensive resolution of disputes and to reduce the workload of courts.
- Tribunals are also needed for specialised hearing of technical matters that may not be addressed effectively in conventional courts.
- Tribunals function differently from courts, from the manner of appointment to the procedure followed.
- Tribunals do not have to follow any uniform procedure as laid down under the Civil Procedure Code but they have to follow the principles of Natural Justice.

**Constitutional provisions for tribunals**

- **Constitutional Status to tribunals were given by the 42nd (Amendment) Act, 1976 which inserted Articles 323A and 323B in the Constitution.**
- Article 323A empowers the Parliament to establish administrative tribunals for disputes related to recruitment and conditions of service of persons appointed to public services.
- Accordingly, the Parliament passed the Administrative Tribunals Act in 1985. The Act authorises the Central government to establish one Central Administrative Tribunal and State Administrative Tribunals.

- Article 323B empowers the Parliament and state legislatures to establish tribunals for adjudication of disputes related to the following matters:
  - Taxation
  - Foreign exchange, import and export
  - Industrial and labour disputes
  - Land reforms
  - Election to Parliament and State legislatures
  - Food stuffs
  - Rent and tenancy rights.

## Background to Tribunal reform

- Data from the previous few years showed that presence of tribunals in certain sectors has not led to faster disposal of cases. Furthermore, such tribunals add to the spending of the government without reducing the delay in providing justice.
- In this context, Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance was promulgated by the government in April, 2021. In July, 2021, the ordinance was challenged in the Supreme Court over its lack of compliance with past Supreme Court judgements on Tribunals. In its judgement, the SC had struck down various provisions of the ordinance.

## Issues Raised by SC

**Unconstitutional Legislative Overriding:** There was lack of discussion over the bill, and the government has re-enacted the very same provisions struck down by the Court in the Madras Bar Association case (2021). It amounts to "unconstitutional legislative overriding" of the judgement passed by the SC.

**Repeated Violation of SC Orders:** The Centre is not following the repeated directions issued by the Court to ensure the proper functioning of the Tribunals. The provisions in the ordinance regarding conditions of service and tenure of Tribunal Members and Chairpersons were struck down by the Supreme Court.

**Security of Tenure:** The Tribunals Reforms Act, 2021 bars appointments to tribunals of persons below 50 years of age. It undermines the length/security of tenure.

**Undermines the Separation of Powers:** The bill allows the Central Government to take a decision on the recommendations made by the selection Committee, preferably within three months from the date of such recommendation.

Section 3(7) of the bill mandates the recommendation of a panel of two names by the search-cum selection committee to the Central Government, violating the principles of separation of powers and judicial independence.

**Vacant Positions in Tribunals:** India now has 16 tribunals including the National Green Tribunal, the Armed Forces Appellate Tribunal, the Debt Recovery Tribunal among others which also suffer from crippling vacancies.

Existence of large number of vacancies of Members and Chairpersons and the inordinate delay caused in filling them up has resulted in weakening of the tribunals.

**Detrimental to the Decision-making Process:** These cases will be transferred to High Courts or commercial civil courts immediately.

The lack of specialisation in regular courts could be detrimental to the decision-making process. For example, the Film Certification Appellate Tribunal (FCAT) exclusively heard decisions appealing against decisions of the censor board, which requires expertise in art and cinema.

Further, the dissolution of certain tribunals and appellate bodies, and the transfer of their functions to High Courts can be criticized on the grounds that Indian courts are already overburdened with their existing caseload.

## News Update

The Tribunal Reforms Bill, 2021 has been passed in the Lok Sabha. However, the Bill is the same as the April ordinance, and includes provisions that were struck down by the SC.

## Provisions of the Tribunal Reforms Bill, 2021

- The bill dissolves certain existing appellate bodies and the right to hear appeals has been transferred to other existing judicial bodies. For example, in the Cinematograph Act, the appellate body will now be the High Court instead of the tribunal. Similar changes have been made in nine other laws like the Patents Act, Customs Act, Trade Marks Act, etc.
- **Dissolution of Existing Bodies:** The Bill seeks to dissolve certain appellate bodies and transfer their functions to other existing judicial bodies. For example, the disputes heard by the Film Certification Appellate Tribunal will be addressed by the High Court.
- **Merging of Existing Bodies:** The Finance Act, 2017 merged tribunals based on domain. For example, the Competition Appellate Tribunal has been merged with the National Company Law Appellate Tribunal.

- **Search-cum-selection Committees:** The Chairperson and Members of the Tribunals will be appointed by the central government on the recommendation of a Search-cum-Selection Committee. The Committee will consist of:
  - The Chief Justice of India, or a Supreme Court Judge nominated by him, as the Chairperson (with casting vote).
  - Two Secretaries nominated by the central governments.
  - The sitting or outgoing Chairperson, or a retired Supreme Court Judge, or a retired Chief Justice of a High Court, and
  - The Secretary of the Ministry under which the Tribunal is constituted (with no voting right).
- **State Administrative Tribunals:** It will have separate search-cum-selection committees with the Chief Justice of the High Court of the concerned state, as the Chairman (with a casting vote).
- **Eligibility and Term of Office:** The Bill provides for a four-year term of office (subject to the upper age limit of 70 years for the Chairperson, and 67 years for members). Further, it specifies a minimum age requirement of 50 years for appointment of a chairperson or a member.
- **Removal of Tribunal Members:** It states that the central government shall, on the recommendation of the Search-cum-Selection Committee, remove from office any Chairperson or a Member.

**Issues with the Bill**

- Transferring functions of Tribunals to a High Court may lead to a further increase in the disposal time of cases as most High Courts already have high pendency. As of July, 2021, there are over 59 lakh cases pending in High Courts across India.
- This defeats the purpose with which these tribunals were set up, which was to help reduce the burden on High Courts.

**Minimum Age criteria**

- The bill has included the minimum entry age of 50 years for tribunal membership, which was struck down by the SC.
- The minimum age limit will have a negative effect on bright young advocates with subject expertise to join tribunals.
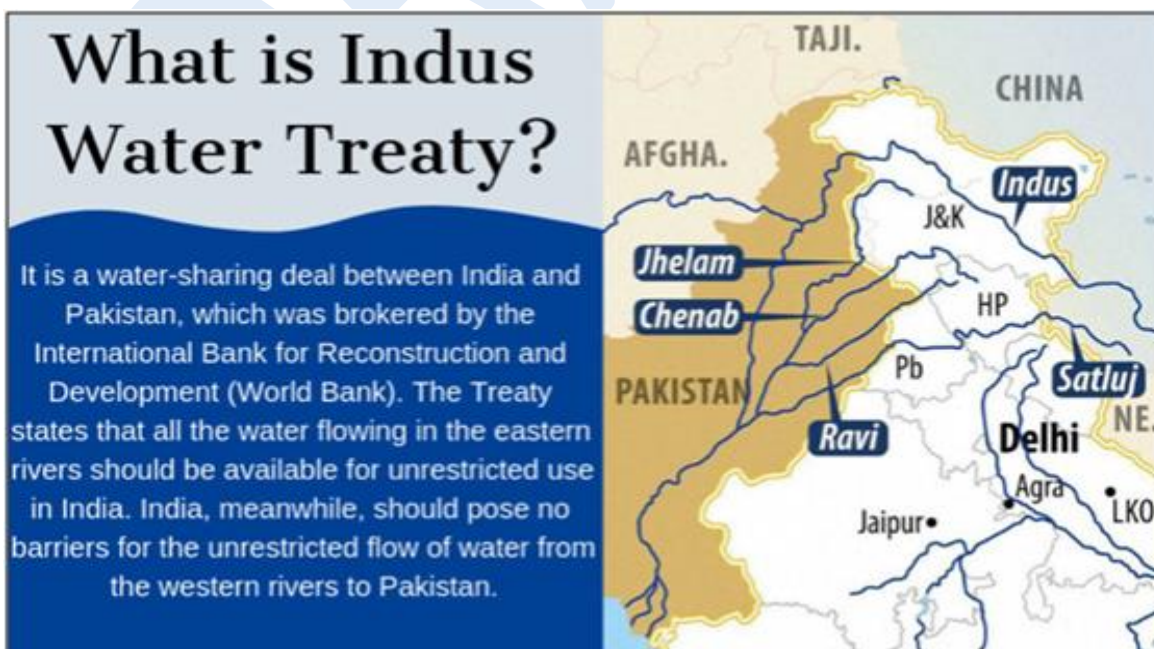
**Decrease in tenure**

- In its judgement, the SC had struck down the provision in the ordinance, that reduced the tenure of tribunal chairpersons/members to four years.
- Over the years, the SC had stated that short tenure of members of a tribunal along with provisions of re-appointment increases the influence and control of the Executive over the judiciary.
- It also discourages meritorious candidates from applying for such positions as they may not leave their well-established careers to serve as a member for a short period.

## 1.2  INDUS WATER TREATY

**Why in News:** In a recent report, the Parliamentary Standing Committee on Water Resources asked the Indian government to renegotiate the Indus Water Treaty (IWT) with Pakistan.

**Indus Waters Treaty**

- The Indus Waters Treaty is a water-distribution treaty between India and Pakistan, to use the water available in the Indus River and its tributaries.
- The waters of the Indus System of Rivers begin mainly in Tibet and the Himalayan Mountains in the states of Himachal Pradesh and Jammu and Kashmir.
- They flow through the states of Punjab and Sindh, before emptying into the Arabian Sea south of Karachi.
- The preamble of the treaty recognises the rights and obligations of both the countries in the optimum use of water from the Indus River system.



What is Indus Water Treaty?

It is a water-sharing deal between India and Pakistan, which was brokered by the International Bank for Reconstruction and Development (World Bank). The Treaty states that all the water flowing in the eastern rivers should be available for unrestricted use in India. India, meanwhile, should pose no barriers for the unrestricted flow of water from the western rivers to Pakistan.

### Provisions of IWT

- The Treaty gives control over all the waters of the three eastern rivers: the Beas, Ravi and Sutlej with a mean annual flow of 33 million acre-feet (MAF) to India.
- Further, the control over waters of the Western rivers - Indus, Jhelum, and Chenab, annually amounting to around 135 MAF, is largely given to Pakistan.
- India is, however, permitted to use the water of the western rivers for domestic use, irrigation and generation of hydro-electric power.

### Utilisation of western rivers by India

- Although India has the right to create water capacity storage up to 3.6 million acre-feet (MAF) on western rivers, no storage capacity has, so far, been created by the country.
- Moreover, out of an estimated power potential of about 20,000 MW, which could be utilised from western rivers power projects, only 3,482 MW capacity of hydro-power generation units has been constructed so far by India.

### Permanent Indus Commission

- The Permanent Indus Commission is a bilateral commission consisting of officials from India and Pakistan.
- It was set up under the Indus Waters Treaty of 1960, to maintain a channel for communication and to resolve questions about implementation of the treaty. As per the Indus Waters Treaty (IWT) the two commissioners should meet at least once a year, alternately in India and Pakistan.

### News Update

In a recent report, the Parliamentary Standing Committee on Water Resources asked the Indian government to renegotiate the Indus Water Treaty (IWT) with Pakistan. This recommendation was part of a report on flood management in the country through multiple measures including international water treaties and agreements.

### Recommendations of the Parliamentary Standing Committee

- The committee said the IWT was framed on the basis of knowledge and technology existing at the time of its agreement in 1960s.
- Back then, the perspectives of both nations were only restricted to river management and usage of water through construction of dams, barrages, canals and hydropower generation.

- Important present day issues such as climate change, global warming and environmental impact assessment etc. are missing from the IWT.
- Thus, there is a need to renegotiate the treaty to establish an institutional structure or legislative framework to address the impact of climate change on water availability and other challenges which are not covered under the Treaty.

## Recommendations on river Utilisation

- The panel recommended that the government should examine the possibility of full utilization of all accessible water of the eastern rivers.
- It also urged the government to quickly complete projects like Ujh in Jammu & Kashmir and Shahpur Kandi in Punjab, to exploit full potential of the western rivers for irrigation and other purposes.
- These multipurpose projects are meant for hydro-power, irrigation and drinking.

## Recommendations related to China

- Regarding China, the report said that India has MoUs with China on Brahmaputra and Sutlej rivers. However, there is no water treaty between India and China at present.
- Chinese authorities have approved three hydropower projects on the main stream of Brahmaputra River in Tibet Autonomous Region.
- The report said that the projects undertaken by China may not necessarily lead to diversion of waters. However, there is a possibility that water can be stored in pondages and released for running the turbines.
- This may lead to variation in downstream flow, impacting the water flows in Brahmaputra river and affect India's attempts to tap the region's water resources.
- Thus, India should constantly monitor Chinese actions to ensure that they do not pursue any major interventions on Brahmaputra river which would adversely affect India's national interests.
- Pondage refers to small water storage in hydroelectric projects.

## Flood management in the country

- The committee recommended to immediately set up a permanent institutional structure in the form of National Integrated Flood Management Group under the chairmanship of the Minister of Jal Shakti for control and management of floods in the country.
- Concerned Ministers of the State Governments should be the members of this group and the group should meet at least once a year.

- This group should take up the overall responsibility of coordination between all agencies responsible for management of floods and their consequences on life and property.

## 1.3 AIR QUALITY MANAGEMENT NATIONAL CAPITAL REGION and ADJOINING AREAS BILL, 2021

**Why in News:** Amid ongoing protests, the Commission for Air Quality Management in the National Capital Region (NCR) and Adjoining Areas Bill, 2021, introduced by the Union Minister for Environment, was recently passed in both the houses of Parliament.

**Background**

The monitoring and management of air quality in the Delhi-NCR region has been done in pieces by multiple bodies, including:

- The Central Pollution Control Board (CPCB)
- The state pollution control boards
- The state governments in the region (Delhi, Haryana, Uttar Pradesh, and Rajasthan)
- The Environment Pollution (Prevention and Control) Authority (EPCA) of the National Capital Region

- These bodies, in turn, are monitored by the Union Ministry of Environment and Forests and Climate Change (MoEF&CC) and the Supreme Court of India which monitors air pollution as per the judgment in **M C Mehta vs Union of India case in 1988.**
- Due to this, both the central as well as state governments, stand on the receiving end every winter as air pollution levels start rising in the NCR.
- An ordinance was introduced by the MoEF&CC and signed by the President last year, within days of the hearing of the Aditya Dubey vs Union of India case where the Central Government had indicated the setting up of a Commission for Air Quality Management.
- The Commission for Air Quality Management in the National Capital Region and Adjoining Areas Bill, 2021, will replace the ordinance.

**The Commission for Air Quality Management in the National Capital Region and Adjoining Areas Bill, 2021:**

**The Bill seeks to create an overarching body:** The Commission for Air Quality Management, to consolidate all monitoring bodies and to bring them on one platform.

- While the commission will concentrate on improving air quality during winter in particular, it has also been asked to suggest measures to mitigate pollution throughout the year.
- Apart from consolidating all agencies that monitored, investigated and planned mitigation of air pollution in the region, the commission has replaced the Supreme Court-appointed EPCA.
- The Bill also seeks to relieve the Supreme Court from having to constantly monitor pollution levels through various cases.

**Powers of the commission**

- The Commission will have the power to take measures, issue directions and entertain complaints for the purpose of protecting and improving the quality of air in the National Capital Region.
- It will also coordinate action taken by states on air pollution and will lay down parameters for air quality and emission or discharge of environmental pollutants.
- It will also have powers to restrict industries in any area, carry out random inspections of any premises including factories and be able to close down an industry or cut its power and water supply in case of non-compliance.
- It will also be monitoring the measures taken by the states to prevent stubble burning.
- As per the Bill, no civil court will have jurisdiction to entertain any suit, proceeding or dispute pertaining to the actions taken by the commission and that orders of the commission can only be contested before the National Green Tribunal.
- Thus, the Commission will be the most powerful air pollution monitoring body set up by the Centre to date, whose rulings will override anything contained in any other law and will also supersede that of any other body in matters of air pollution.

**Composition of the commission**

The Commission will be headed by a full-time chairperson with experience of not less than 15 years in the field of environmental protection and pollution control or having administrative experience of not less than 25 years.

The members of the commission will also comprise of:

- An official from the Environment Ministry
- Five ex-officio members who are either chief secretaries or secretaries from Delhi, Punjab, Haryana, Rajasthan and Uttar Pradesh
- One full-time member who is or has been a joint secretary

- Three full-time independent technical members who are experts in air pollution, one each from the CPCB and ISRO
- Three members from non-governmental organizations who deal in air pollution
- One representative of the National Institution for Transforming India, among others

The commission will have at least three sub-committees: monitoring and identification, safeguarding and enforcement and research and development. Now the air quality management can be carried out in a more comprehensive, efficient and time-bound manner.

## Concerns

### Raised by Parliamentarians

**Penalizing farmers:** The Bill proposes penalization for stubble burning. These offenses had a penal provision of imprisonment of up to 5 years and a fine of Rs 1 crore.

This was the stiffest penalty that the MoEF had issued on air pollution offenses so far. Later, the Centre had conceded to the demands of farmer's unions by decriminalizing stubble burning for farmers or any other means of polluting.

While the penalty still exists for other sectors and individuals, imprisonment is no longer imposed on the farming community.

**Environmental compensation from farmers:** As per the Bill, the commission may impose and collect environmental compensation from farmers causing air pollution by stubble burning, at such rate and in such manner, as may be prescribed.

The Parliamentarians have opposed this move and have demanded that the Ministry should reconsider this provision.

### Raised by environmentalists

Environmentalists have raised concerns over the concentration of power with the Central Government. They have also criticized the overwhelming number of bureaucrats in the commission, with only a token representation of environmental bodies and non-governmental groups.

Environmentalists believe that the Bill restricts legal action that can be taken on environmental matters as citizens so far could approach the Supreme Court and other courts directly with these issues.

## 1.4 NATIONAL COMMISSION FOR WOMEN (NCW)

**Why in News:** Recently, the Ministry of Women and Child Welfare said that Smt. Rekha Sharma has been nominated as Chairperson of the National Commission for Women (NCW) for another term of three years by the Central Government.

### National Commission for Women (NCW)

The National Commission for Women (NCW) was set up as statutory body in 1992 under the National Commission for Women Act, 1990.

**Objectives**

- To review the Constitutional and legal safeguards for women
- To recommend remedial legislative measures
- To facilitate redressal of grievances
- To advice the Government on all policy matters affecting women

- **The Indian Woman, secure in her home and outside, fully empowered to access all her rights and entitlements, with opportunity to contribute equally in all walks of life.**
- **Ministry of Women and Child Welfare**

**Composition of the Commission**

- The Commission consists of a chairperson, a member secretary and five other members.
- All the members, including the chairperson, are nominated by the Central Government for a term of three years.
- The five members nominated by the Government should have experience in law, legislation, management, women voluntary organisation, economic social development and so on.

**Functions of the Commission**

- Investigate and examine all matters relating to the safeguards provided for women under the Constitution and other laws.
- Present to the Central Government annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards.
- Review, from time to time, the existing provisions of the Constitution and other laws affecting women and recommend amendments thereto so as to suggest remedial

legislative measures to meet any lacunae, inadequacies or shortcomings in such legislation.

- Take up the cases of violation of the provisions of the Constitution and of other laws relating to women with the appropriate authorities.

**Look into complaints and take suo- moto notice of matters relating to:**

- Deprivation of women's rights
- Non-implementation of laws enacted to provide protection to women and also to achieve the objective of equality and development
- Non-compliance of policy decisions, guidelines or instructions aimed at mitigating hardships and ensuring welfare and providing relief to women, and take up the issues arising out of such matters with appropriate authorities.
- Evaluate the progress of the development of women under the Central and any State
- Inspect or cause to be inspected a jail, remand home, women's institution or other place of custody where women are kept as prisoners or otherwise, and take up with the concerned authorities for remedial action, if found necessary.

**Report of the Commission**

- It presents the annual report before the Central Government. Apart from this, it submits other reports which it deems to be fit.
- All such reports are placed before the House of the Parliament along with the memorandum. In case any recommendation made on the floor of the House is not accepted, the reason for the non-acceptance should be maintained in the memorandum.

**List of Women-specific laws in India**

- The Immoral Traffic (Prevention) Act, 1956
- The Dowry Prohibition Act, 1961 (Amended in 1986)
- The Indecent Representation of Women (Prohibition) Act, 1986
- The Commission of Sati (Prevention) Act, 1987
- Protection of Women from Domestic Violence Act, 2005
- The Sexual Harassment of Women at Workplace (PREVENTION, PROHIBITION and REDRESSAL) Act, 2013
- The Criminal Law (Amendment) Act, 2013

## 1.5 APPOINTMENT OF JUDGES IN SUPEREME COURT

**Why in News:** The Supreme Court Collegium, led by the Chief Justice of India (CJI), has recommended names of eight judges and a senior advocate for elevation to the top court. Nine new Supreme Court judges were administered their oaths of office by Chief Justice NV Ramana.

- It is for the first time in the history of the Supreme Court that nine judges took the oath of office at one go.
- With the swearing-in of the nine new judges, the strength of the Supreme Court has now increased to 33, including the CJI, out of the sanctioned strength of 34.
- It was the first time the Supreme Court allowed a live telecast of the ceremony.

**Collegium System**

- It is the system of appointment and transfer of judges that has evolved through judgments of the Supreme Court, and not by an Act of Parliament or by a provision of the Constitution.
- The Supreme Court collegium is headed by the Chief Justice of India and comprises four other senior-most judges of the court.
- A High Court collegium is led by its Chief Justice and four other senior-most judges of that court.
- Names recommended for appointment by a High Court collegium reaches the government only after approval by the CJI and the Supreme Court collegium.
- Judges of the higher judiciary are appointed only through the collegium system, and the government has a role only after names have been decided by the collegium.

**Evolution**

The collegium system has its genesis in a series of Supreme Court judgments called the 'Judges Cases'.

- **FIRST JUDGES CASE:** In S P Gupta Vs Union of India, 1981, the Supreme Court judgment held that consultation does not mean concurrence and it only implies an exchange of views.
- **SECOND JUDGES CASE:** In The Supreme Court Advocates-on-Record Association Vs Union of India, 1993, a nine-judge Constitution Bench overruled the decision and devised a specific procedure called 'Collegium System' for the appointment and transfer of judges in the higher judiciary.

- The majority verdict in the Second Judges Case accorded primacy to the CJI in matters of appointment and transfers while also ruling that the term "consultation" would not diminish the primary role of the CJI in judicial appointments.
- The role of the CJI is primal in nature because this being a topic within the judicial family, the executive cannot have an equal say in the matter.

**THIRD JUDGES CASE:** In the Third Judges case (1998), the Court opined that the consultation process to be adopted by the Chief Justice of India requires 'consultation of plurality judges'.

- The sole opinion of the CJI does not constitute the consultation process.
- He should consult a collegium of four senior-most judges of the Supreme Court and even if two judges give an adverse opinion, he should not send the recommendation to the government.
- The court held that the recommendation made by the chief justice of India without complying with the norms and requirements of the consultation process is not binding on the government.

## Constitutional Provisions

Judges of the Supreme Court and High Courts are appointed by the President under Articles 124(2) and 217 of the Constitution.

**Article 124(2):** Every Judge of the Supreme Court shall be appointed by the President by warrant under his hand and seal after consultation with such Judges of the Supreme Court and of the High Courts in the States as he may deem necessary.

**Article 217:** Every Judge of a High Court shall be appointed by the President by warrant under his hand and seal after consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court.

**Criticism against the Collegium System**

- Lack of Transparency and Accountability.
- Scope for nepotism.
- Embroilment in public controversies.
- Overlooks several talented junior judges and advocates.

## Way Forward

- This is a time to revisit the Collegium issue, either through a Presidential reference to the Supreme Court, or a constitutional amendment with appropriate changes in the original NJAC law.
- The "thought process" of both the government and Collegium should be modulated and the time frame needed to be fixed for both the Collegium and Ministry to complete the appointment process.
- There should be an institutional basis for considering names from the Supreme Court Bar, rather than considering them on an ad hoc basis.

# INTERNATIONAL RELATIONS

**Paper II (GS): All the Articles of this section are relevant to the following topics:**

- **India and its Neighbourhood – Relations**
- **Bilateral, Regional and Global Groupings and Agreements involving India and / or affecting India's Interests**
- **Prelims Oriented Questions and Places in News for Maps/ Matching**

## 2.1 UNITED NATIONS SECURITY COUNCIL (UNSC)

**Why in News:** India will take over the Presidency of the United Nations Security Council (UNSC) for the month of August, 2021.

- The presidency in the month of August will be India's first Presidency during its 2021-22 tenure as a non-permanent member of the UNSC.
- India's two-year tenure as a non-permanent member of the UNSC began on January 1, 2021.
- India will again preside over the Council in December 2022, the last month of its two-year tenure.

**United Nations Security Council**

- The United Nations Security Council (UNSC) is one of the six principal organs of the United Nations (UN), charged with ensuring international peace and security, accepting new members to the United Nations and approving any changes to its charter.
- Its powers include the establishment of peacekeeping operations and international sanctions as well as the authorization of military actions through resolutions.
- Like the UN as a whole, the Security Council was created following World War II to address the failings of a previous international organization, the League of Nations, in maintaining world peace.
- The UN Charter gives all three powers of the legislative, executive, and judiciary branches to the Security Council.
- **The Security Council consists of fifteen members, which includes five permanent members: Russia, the United Kingdom, France, People's Republic of China and the United States.**
- In addition, the council has 10 non-permanent members, elected on a regional basis to serve a term of two years.
- India is at the UNSC for the 2021-22 term as a non-permanent member.

**Presidency of UNSC**

- The presidency of the UNSC is responsible for leading the UNSC. It rotates among the 15 member-states of the council monthly, following the English alphabetical order of the names of member states.

- The president coordinates actions of the council, decides policy disputes, and sometimes functions as a diplomat or intermediary between conflicting groups.

## Agenda during India's Presidency

During its presidency, India will organise high-level events in three major areas - maritime security, peacekeeping and counterterrorism.

### Event on counterterrorism

- India will organise a minister-level meeting titled, "Threats to international peace and security caused by terrorist acts".
- India will seek to enhance coordination between the U.N. and the Financial Action Task Force (FATF), as well as address the linkages between terror and transnational crime.

### Event on Maritime Security

- India will organise a virtual Open Debate for heads of state and government titled, 'Maintenance of international peace and security: Enhancing maritime security: A case for international cooperation".
- In this event, countries will discuss ways to deal with maritime crime and security issues.

### Event to improve Peacekeeping Operations

- Another ministerial open debate will be held on "United Nations Peacekeeping Operations: Technology and Peacekeeping".
- India is one of the top troop contributors to the U.N. missions and is looking for ways to use technology to protect the forces in a better way. It is also looking at ways to address crimes against them.
- India expects to deploy a mobile app UNITE AWARE that will provide terrain (territorial) information and improve situational awareness for peacekeepers.

## Reforms needed at UNSC

- There have been calls for reforms of the UNSC over various issues like, categories of membership, the question of the veto held by the five permanent members, regional representation and the size of an enlarged Council and its working methods.
- A very frequently discussed change to the UN structure is to change the permanent membership of the Council, which reflects the power structure of the old era.
- It is widely believed that the Council does not reflect current power realities and should therefore be reformed to reflect the new realities of the 21st Century.

- There have also been proposals of an alternative model for Council reform that would give permanent seats to regional organizations or blocs rather than individual countries.
- This could make the Council more representative without enlarging the Council too much.

**ADD-ON**

- In a first, the Prime Minister of India (PM) recently chaired the first-ever independent discussion on maritime security in the United Nations Security Council (UNSC).
- In the debate titled, 'Enhancing Maritime Security - A Case for International Cooperation', the Indian PM put forward a five-principle framework for discussions on maritime security.
- The Russian President, the US Secretary of State and the Chinese representative also took part in the discussion.

**The five-principle framework of the Indian PM on maritime security:**

**Removing barriers to maritime trade:** For this, a 2015 Indian framework for regional maritime security - **SAGAR (Security and Growth for all in the Region), has been highlighted.**



Removing barriers to maritime trade. For ex, SAGAR

Resolution of maritime disputes peacefully and in accordance with international law. For ex, UNCLOS, PCA.

Jointly tackling maritime threats from non-state actors and natural disasters. For ex, IPOI

Five-principle framework

Conservation of maritime environment and marine resources

Responsible maritime connectivity

- The focus of SAGAR is on cooperative measures for sustainable use of the oceans, providing a framework for a safe, secure and stable maritime domain in the region.

**Resolution of maritime disputes peacefully and in accordance with international law**: For this, the primacy of the United Nations Convention on the Law of the Sea (UNCLOS) has been highlighted.

- UNCLOS sets out the legal framework applicable to activities in the oceans, including countering illicit activities at sea.
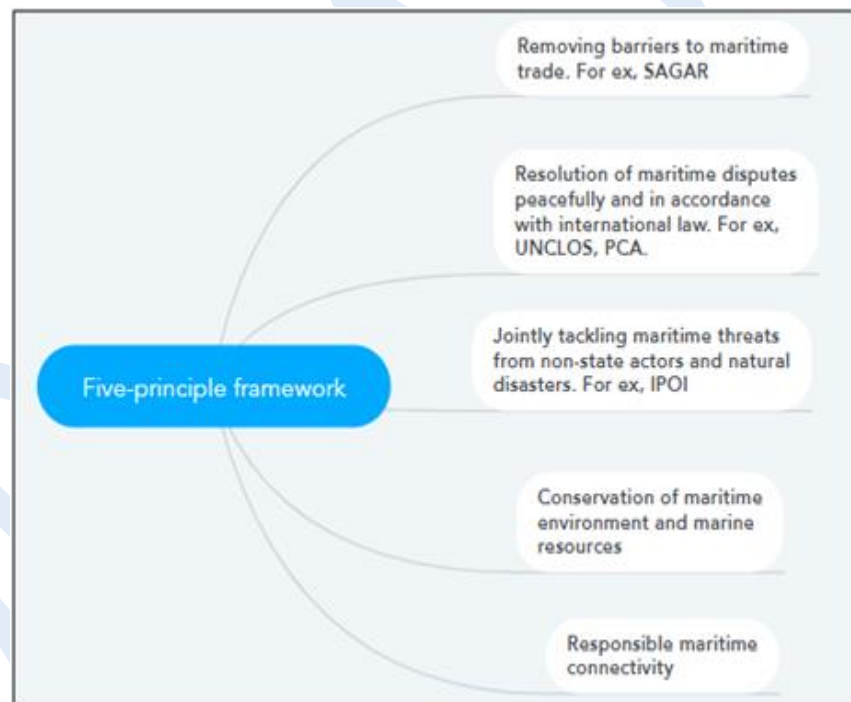
- Backing the UNCLOS, the Prime Minister highlighted India's own record of abiding by the decision of the Permanent Court of Arbitration (PCA) and settling its maritime boundary dispute with Bangladesh in conformity with international arbitration.
- In an indirect reference to China's actions in the South China Sea (militarization and unilateral claims over disputed waters), the PM highlighted India's resolve to support a common rules-based order for the region.

- **Jointly tackling maritime threats from non-state actors and natural disasters:** This to assert India's role in the Indian Ocean as a net security provider.
  - For this, Indo-Pacific Oceans Initiative (IPOI, launched by the Indian PM at the East Asia Summit in 2019), has been highlighted.
  - IPOI is an open, non-treaty-based initiative for countries to work together for cooperative and collaborative solutions to common challenges in the Indo-Pacific region.

- **Conservation of maritime environment and marine resources:** This to protect the maritime ecosystem from pollution of plastic waste and oil spills.
- **Responsible maritime connectivity:** This is to boost maritime trade, with the development of global norms and standards.

Kindly read up about UNSC, SAGAR, UNCLOS, PCA and IPOI.

## 2.2 UNITED NATION PEACE KEEPING OPERATIONS

**Why in News:** At a meeting hosted by India at the United Nations Security Council (UNSC), the Indian Minister of External Affairs said that the UN peacekeeping operations "must be anchored in a strong ecosystem of technology and innovation" to adapt to changing conflict dynamics.

**UN Peacekeeping**

- UN Peacekeeping helps countries navigate the difficult path from conflict to peace.
- It deploys troops and police from around the world, integrating them with civilian peacekeepers to address a range of mandates set by the UN Security Council (UNSC) and the General Assembly.

**UN Peacekeeping Operations**

The United Nations Charter authorises the United Nations Security Council (UNSC) to take collective action to maintain international peace and security. Hence, it is the responsibility of UNSC to deploy peacekeepers in order to ensure stability and security in conflict regions.

In 1948, the UNSC first authorized the deployment of UN military observers to West Asia to establish the UN Truce Supervision Organization (UNTSO) to "monitor the Armistice Agreement between Israel and its Arab neighbours." Since then, over 1 million have served in 71 peacekeeping operations all over the world.

UN Peacekeeping is guided by three basic principles:

- Consent of the parties
- Impartiality
- Non-use of force except in self-defence and defence of the mandate

The UN has no standing army or police force of its own, and Member States are asked to contribute military and police personnel required for each operation. Peacekeepers wear their countries' uniform, and are identified as UN peacekeepers only by a UN blue helmet and a badge.

As of July 2021, Bangladesh (6435), India (5506) and Ethiopia (5478) have the maximum number of personnel deployed with UN Peacekeeping forces.

**Source of Funding**

- Every Member State of the UN General Assembly is legally obligated to pay their respective share towards peacekeeping. This is in accordance with the provisions of Article 17 of the Charter of the United Nations.
- The approved budget for UN Peacekeeping operations for the fiscal year 1 July 2021 - 30 June 2022 is $6.38 billion.

**India's contribution to UN Peacekeeping**

- India is committed to assist the UN in the maintenance of international peace and security.
- India has contributed nearly 195,000 troops, the largest number from any country, participated in more than 49 missions and 168 Indian peacekeepers have made the supreme sacrifice while serving in UN missions.

- The first all women contingent in a peacekeeping mission, a Formed Police Unit from India, was deployed in 2007 to the UN Operation in Liberia (UNMIL).
- The majority of Police Officers serving in United Nations peacekeeping operations are deployed as part of a "Formed Police Unit (FPU)".
- India currently holds the rotational Presidency of the UN Security Council for the month of August. During its presidency, India announced that it will organise high-level events in three major areas - maritime security, peacekeeping and counterterrorism.
- At a meeting hosted by India, the UNSC adopted a first-ever technology statement in regard to peacekeeping –"Technology for Peacekeeping" that called for recognising that "technology has the potential to act as a force multiplier".
- The UNSC also adopted a resolution drafted by India - **"Accountability of Crimes against UN Peacekeepers": to protect peacekeepers from violence.**

**India's 4-point framework for securing UN peacekeepers**

India announced a four-point framework for securing UN peacekeepers to meet contemporary threats. The framework is as follows:

- Operationally proven, cost-effective, widely available, reliable and field-serviceable technologies
- A sound information and intelligence foundation
- Technological improvements must be continuous and available on the ground
- Consistent training and capacity building of peacekeepers in the realm of technology.

**UNITE AWARE**

In this context, India, in collaboration with the UN, launched the UNITE AWARE platform - a technology platform to ensure the safety and security of peacekeepers operating in an increasingly complex and risky environments across the world.

UNITE Aware is a situational awareness software that will utilise modern surveillance technology for real time threat assessments to peacekeepers.

**Functions**

- It will access live video and satellite imagery, and in volatile circumstances can also deliver early warnings to peacekeepers.
- It can also record data on critical incidents and events and follow daily operational activities.

## 2.3   MALABAR EXERCISE

**Why in News:** Recently, the 25th edition of the Malabar Exercise, began off the coast of Guam in the Pacific Ocean.

The navies of India, the United States, Japan and Australia:  the four member nations of the Quadrilateral Security Dialogue (Quad), are participating in it.

### Quadrilateral Security Dialogue (Quad)

- It is a Quadrilateral Security Dialogue between the United States, Japan, Australia and India, initiated in 2007.
- Parallel to the dialogue, the Malabar exercise, a massive combined military exercise, was held.

Following Australia's exit in 2007, the Quad came to an end, but was revived in 2017. All four navies participated in their first joint exercise in over a decade in November 2020.

In March 2021, U.S. President Joe Biden convened a virtual Quad meeting attended by the Prime Ministers of Australia, India and Japan. As of 2021, leaders in all four countries have become more aligned in their shared concerns about China's increasingly assertive behavior in the Indo-Pacific region.

### The Malabar Exercise

- Malabar is a multilateral naval exercise that began in 1992 as a bilateral exercise between the navy fleets of India and the United States.
- It includes simulated war games and combat manoeuvres.
- The exercise has been held every year since 2002 (there was a gap after the 1992, 1995, and 1996 editions due to India's nuclear testing).

### From bilateral to multilateral

For the first time, Japan and Australia took part in the exercise in 2007. In 2015, Japan became a permanent participant of the naval exercise and Malabar became a trilateral exercise.

Following India's request, Australia took part in the 24th edition of the Malabar exercise in 2020 (held in the Bay of Bengal and Arabian Sea in India), making it a drill including all four Quad member nations.

**Significance of a multilateral exercise**

- Previously, India was opposed to the expansion of Malabar due to the risk of angering China. Out of the same fear, Australia withdrew after the 2007 exercise.
- When China's relations with all four participating countries deteriorated (for example, a military standoff with India in eastern Ladakh), the exercise became a symbol of strength, sending a strong message to China, which is flexing its military muscle around the world.
- Self-deterrence, a key deterrent tool, had never proven to be effective. As a result, the Quad nation's Malabar exercise is seen as accomplishing the goal.

Reaffirming peace, stability and prosperity of all in the region: This is to ensure a free, open and inclusive Indo-Pacific region by:

- Upholding the rules-based international order, respecting the rule of law and freedom of navigation in the international seas.
- Upholding the territorial integrity and sovereignty of all countries in the region.
- Defense cooperation, increased interoperability among participating navies, and the development of shared understanding and SOPs for Maritime Security Operations are all ways to accomplish this.

**Malabar-2020:** It was conducted in two phases - first off the coast of Visakhapatnam in the Bay of Bengal and then in the Arabian Sea.

**Malabar-2021:** The 2021 Malabar exercise will witness complex exercises including anti-surface, anti-air and anti-submarine warfare drills and other tactical exercises. Such complex exercises will strengthen the coordination between the navies of the participating countries.

From the Indian side, INS Shivalik multirole frigate, the INS Kadmatt anti-submarine warfare corvette and P8I long-range maritime patrol aircraft will be part of the exercise.

**Other naval exercises conducted by India**

India conducts several kinds of bilateral and multilateral military exercises with these nations, to increase operability between the navies.

For example, the Indian Navy conducted a number of Passage Exercises (PASSEX) with the navies of Japan, Australia and the US in 2020.

# SECURITY AND DEFENCE

❖ **Paper III: This section is relevant to the following topics:**

- **Linkages between development and spread of extremism.**
- **Role of external state and non-state actors in creating challenges to internal security.**
- **Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention**
- **Security challenges and their management in border areas; linkages of organized crime with terrorism**
- **Various Security forces and agencies and their mandate**

❖ **Prelims Oriented Questions**

## 3.1 PREVENTIVE DETENTION

**Why in News:** In an important decision, the Supreme Court has ruled that the provision for preventive detention cannot be invoked over apprehension of "law-and-order" problems. It said detention can be invoked only for "public order" problems with affect larger public.

**Preventive detention**

- Under Section 151 of the Criminal Procedure Code, 1973 (CrPC), preventive detention is police action taken on grounds of suspicion that some wrong actions may be done by the person concerned.
- A police officer can arrest an individual without orders from a Magistrate and without any warrant if he gets any information that such an individual can commit any offense.
- It is a precautionary measure and based on suspicion.

**Difference between preventive detention and an Arrest**

- An 'arrest' is done when a person is charged with a crime. An arrested person is produced before a magistrate within the next 24 hours.
- In case of preventive detention, a person is detained as he/she is simply restricted from doing something that might deteriorate the law-and-order situation.

**History of preventive detention laws in India**

- The history of preventive detention laws dates back to the Bengal Regulation Act, 1818 under which people could be detained on mere suspicion which was applicable to the three Presidencies, that is, Calcutta, Bombay and Madras during the British era.
- Later the 'Black law' commonly called as the Rowlatt Act was introduced in the year 1919 which ensured indefinite detention on mere suspicion without formal trial and judicial review.
- Under Entry 9 of List I (better known as the 'Union List'), Constitution of independent India provides the Parliament with the exclusive power to enact a law for preventive detention for the reasons connected with defence, foreign affairs, or security of India.
- On the other hand, under Entry 3 of List III (better known as the 'Concurrent List'), both Parliament and State Legislature have powers to enact such laws for the reasons related to maintenance of public order or maintenance of supplies or services essential to the community.

**Subsequently, the Parliament has enacted several laws with provisions for detention in them**

- Preventive Detention Act, 1950 (expired in 1969)
- The National Security Act, Section 13, 1980 (provides for administrative detention for a period of up to one year)
- The Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA) (provides for administrative detention for a period of up to six months)
- The Prevention of Black-marketing and Maintenance of Supplies of Essential Commodities Act, Section 13, 1980 (six months)
- The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, Section 10, 1988

**Constitutional safeguards against misuse of preventive detention**

- Article 22 of the Constitution provides for protection against arrest and detention in certain cases. It safeguards against the misuse of police powers to make arrests and detentions.
- The clause (2) of Article 22 reads, "Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a period of twenty-four hours of such arrest excluding the time necessary for the journey from the place of arrest to the court of the magistrate and no such person shall be detained in custody beyond the said period without the authority of a magistrate."
- The clause (4) of the Article 22 on 'preventive detention' states that no individual can be detained under any law providing for preventive detention for more than 3 months unless an Advisory Board of current or retired High Court judges decides to extend the date.
- The clause(5) of the Article 22 states that an individual under 'preventive detention' should be made aware of the grounds he/she has been detained (in pursuance of the order) and should provide him/her with an opportunity of making a representation against the order.
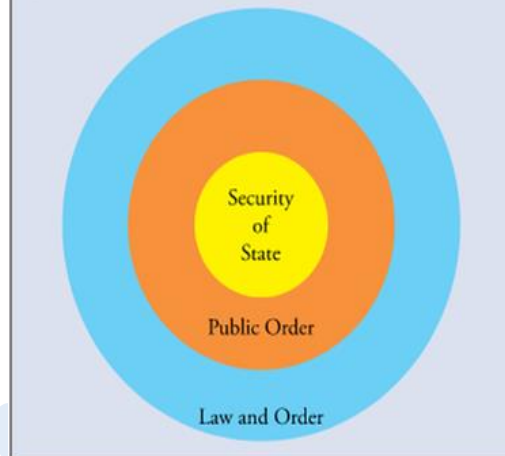
**News Update**

- A bench of Supreme Court was hearing a plea filed by the wife of an accused against an order passed by the Telangana government to detain the accused who is an alleged habitual fraudster, on the ground that he was likely to cheat more members of the public if allowed to move freely.
- The Telangana government pleaded the bench to give a liberal interpretation of "public order" to allow preventive detention but the Court turned down the plea.
- The Supreme Court ruled that the provision of preventive detention cannot be invoked over "apprehension of law-and-order" problems and said a person can be detained only in cases where "public order is directly affected".

**Differentiating between "law and order" and "public order"**



Fig 2.1: Public Order, Law and Order and Security of State

- Problems with "law-and-order" comprehends disorders of less gravity than those affecting "public order", which affects the larger public, leading to harm, danger or alarm or feeling of insecurity. For instance, small frauds or petty clashes between groups limited to a small area are minor in nature, and are seen as "law and order" problems, with no impact on "public order".

- On the other hand, terrorist activity or widespread violent clashes between two or more groups, such as communal riots, would pose grave threats to "public order", and seen as more serious problem than the generic "law and order" problem.

- It is to be noted that every "public order" problem is also a "law and order" problem with not every "law and order" problem is a "public order" problem.

- The SC ruled that a preventive detention order can only be passed if the activities of the accused adversely affect or are likely to adversely affect the maintenance of "public order".

## 3.2 INDEGENEOUS AIRCRAFT CARRIER (IAC)-1

**Why in News:** The Indigenous Aircraft Carrier (IAC) – 1, which will be called INS Vikrant once it enters service with the Indian Navy, has started sea trials (among the last phases of trials)

**Indigenous Aircraft Carrier (IAC) – 1**

- An aircraft carrier is a warship that serves as a seagoing airbase, equipped with a full-length flight deck and facilities for carrying, arming, deploying, and recovering aircraft.

- IAC-1 is the first indigenously designed and built aircraft carrier in India.

- It has been designed by the Indian Navy's Directorate of Naval Design (DND), and is being built at Cochin Shipyard Limited (CSL), a public sector shipyard under the Ministry of Shipping.

- Built under Project 71, it is the largest and the most complex warship which has ever been designed and built in India.

- The IAC-1 `Vikrant' weighs 40,000 tons and works on a Short Take-Off but Arrested Recovery (STOBAR) mechanism.

**Significance of the First Made-in-India Warship:**



- Only five or six nations currently have the capability of manufacturing an aircraft carrier: India joins this elite club now.

- The made in India IAC-1 has almost 75 percent indigenous content which includes the steel used in the construction as well as the sensors and key weapons on board.
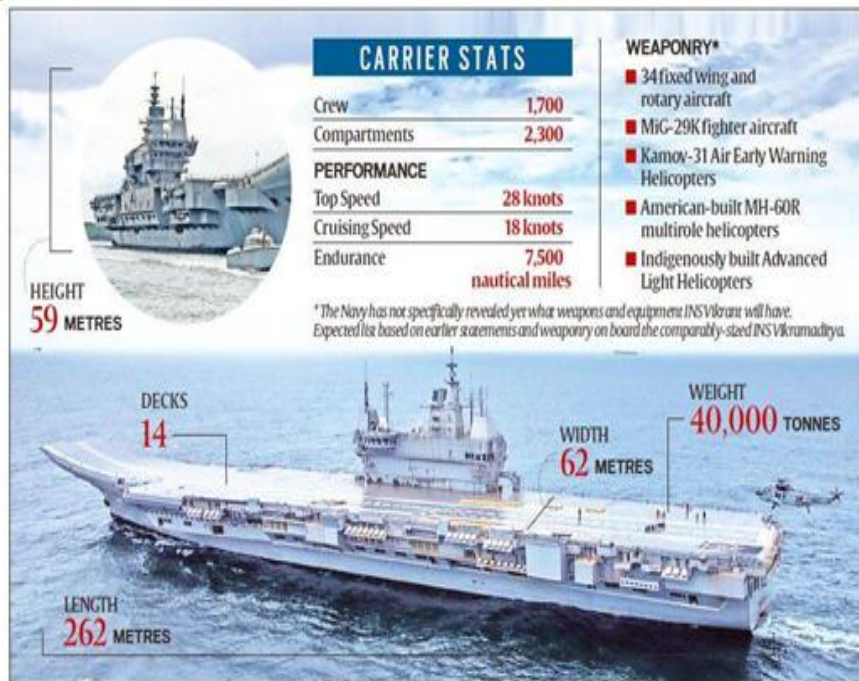
- According to the Indian Navy, the ship once commissioned will operate the Russian Kamov-31 Air Early Warning Helicopters, MiG-29K fighter aircraft, soon to be commissioned American MH-60R multi-role helicopter. Also on board will be Advanced Light Helicopters which have been made at the state-owned Hindustan Aeronautics Limited.

- On board the IAC-1, there will also be indigenous Combat Management System which caters for the enhancement of Threat Evaluation & Resource Allocation (TERA).

- This helps in the effective integration of the carrier borne Russian MiG 29K's mission planning in the offensive/defensive role.

- Besides the often-used term interoperability with other assets, especially during various exercises it will provide the Indian Navy with Airborne Anti-Submarine Warfare and Airborne Early Warning, more Air Power over long distances, also Anti-Surface Warfare, offensive and defensive Counter-Air, and Air Interdiction.

**Other Aircraft Carriers of Indian Navy**

- India's earlier aircraft carriers were either built by the British or the Russians.

- The INS Vikramaditya, currently the Indian Navy's only aircraft carrier that was commissioned in 2013, started out as the Soviet-Russian Admiral Gorshkov.

- India's two earlier carriers, INS Vikrant and INS Viraat, were originally the British-built HMS Hercules and HMS Hermes before being commissioned into the Navy in 1961 and 1987 respectively. Both were later decommissioned.
- INS Vikrant had played a significant role in the 1971 war with Pakistan when it was deployed in the Bay of Bengal to prevent Pakistani forces from escaping through maritime routes.

**Need for building more indigenous aircraft carriers**

- The Indian Navy has been trying to convince the government of the "operational necessity" of having a third carrier.
- Navy officials have argued that to project power, it is essential that India is able to venture far out on the oceans, which can be done best with an aircraft carrier.
- Also, to defend the vast Indian Ocean Region (IOR), persistent air power is required day and night. A third carrier will provide the Navy with surge capability, which will be essential in the future.
- Since 2015, the Navy has been seeking approval to build a third aircraft carrier for the country, which, if approved, will become India's second Indigenous Aircraft Carrier (IAC-2). This proposed carrier, to be named INS Vishal, is intended to be a giant 65,000-tonne vessel, much bigger than IAC-1 and the INS Vikramaditya.

# ECONOMY

❖ **Paper III: The articles in this section are relevant to the following topics:**

- **Indian Economy and issues relating to planning, mobilization of resources, growth, development and employment.**
- **Inclusive growth and issues arising from it.**
- **Government Budgeting.**
- **Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.**
- **Infrastructure: Energy, Ports, Roads, Airports, Railways etc.**
- **Investment models.**
- **Agriculture**

## 4.1 NATIONAL MONETISATION PLAN

**Why in News**: Recently, theUnion Minister for Finance, Government of India, unveiled a four-year asset monetisation pipeline: National Monetisation Pipeline - worth an estimated Rs 6 lakh crore.

### Asset Monetisation

- **Asset Monetisation:** It is the process of the government generating new revenue sources by unlocking the economic worth of under/ un utilised public assets.
- The government has made an effort to get the private sector to participate in this process by assisting in the exploration of actual asset value through entrepreneurial concepts and technology. For example, in India -
  - The major structures used to monetize assets in the roads and power sectors are real estate investment trusts (REITs) and infrastructure investment trusts (InvITs).
  - Other monetisation models on PPP (Public Private Partnership) basis include: For highways sector - Operate Maintain Transfer (OMT), Toll Operate Transfer (TOT); In case of airports - Operations, Maintenance & Development (OMD).
- **Significance:** Obtaining returns on under/un utilised public assets and exploiting hitherto untapped sources of income in order to generate revenue for the government.

### National Monetisation Pipeline (NMP)

The pipeline has been developed by NITI Aayog, in consultation with the Finance Ministry and ministries in charge of infrastructure, based on the mandate for 'Asset Monetisation' under Union Budget 2021-22.

Over a four-year period (FY 2022 - FY 2025), NMP anticipates a total monetisation potential of Rs 6.0 lakh crores through the Central Government's core assets.

### Objective

- It aims to unlock value in brown field projects by engaging the private sector, transferring to them revenue rights and not ownership in the projects and using the funds so generated for infrastructure creation across the country.
- The government has emphasised that these are brown field assets that have been "de-risked" from execution risks and should thus attract private investment.

### Government's Plan

The top 5 sectors (by estimated value): The top 5 sectors (road, railways, power, oil and gas pipelines and telecom) capture ~83% of the aggregate pipeline value.

- This indicates that assets in the roads, railways and power sector will account for more than 66% of the total projected value of the assets to be monetised.
- Telecom, mining, aviation, ports, natural gas and petroleum product pipelines, warehouses and stadiums are among the remaining upcoming sectors.

**NMP will run co-terminus with the NIP:** Because infrastructure building is intimately tied to monetization, the NMP period has been set to coincide with the National Infrastructure Pipeline's (NIP) balance period.
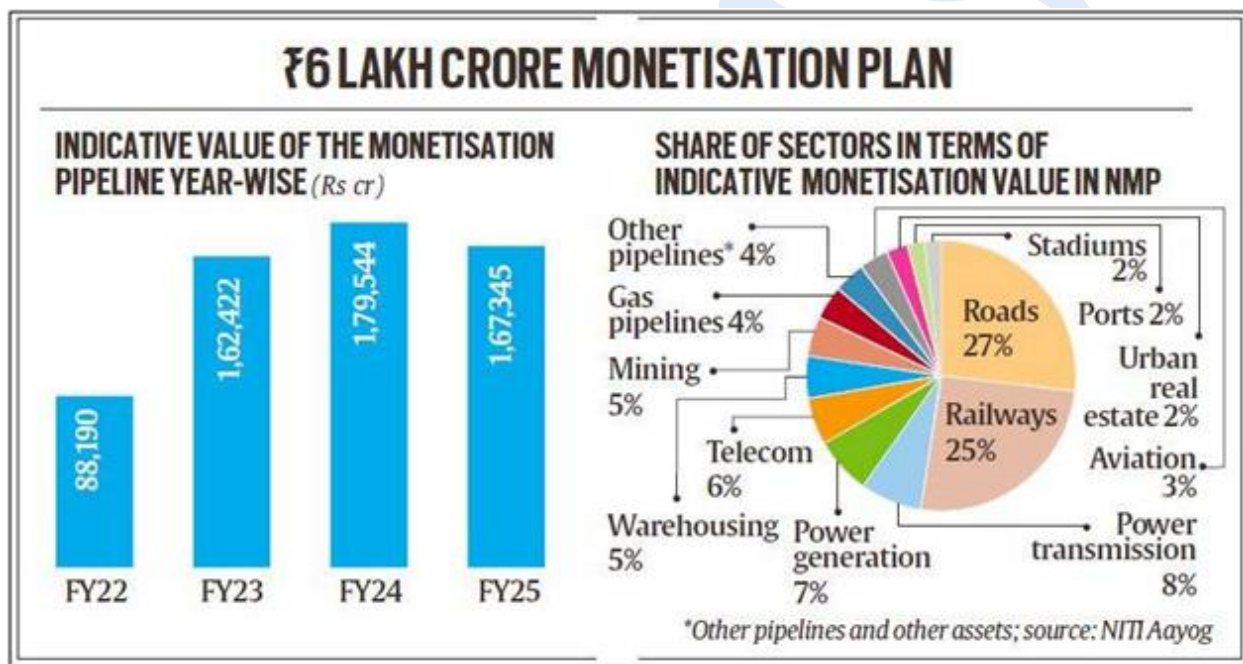


4 key methods used to calculate Rs 6 lakh Crore:

The four key methods used by the government to arrive at an indicative value of Rs 6 lakh crore worth of assets to be monetised under the NMP are:

- Market approach (used for roads, power transmission and telecom tower assets)
- Capital expenditure approach (deployed to value most assets in sectors including ports, airports, railway stations, passenger trains, etc.)
- Book-value approach (Power generation assets)
- Enterprise-value approach (natural gas and product pipelines, etc)

These methods are based on the valuation approach, fit for the asset's nature and associated income streams.

**Key challenges that may affect the NMP roadmap are**

- **Attracting the private sector is not easy:** The slow rate of privatisation in government enterprises (Air India, BPCL) and the unimpressive bids in the recently launched PPP effort for trains show that gaining private investors' interest is not easy.
- **Low interest in national highways (NHs) below four lanes:** Despite the fact that toll road assets are a market-tested asset, their monetisation potential is limited to the stretches having four lane and above configuration.
- **Asset-specific challenges:** For instance, lack of an identifiable revenue stream in the railway sector, as it has seen limited PPP success as a mode of project delivery.
- **Multiple stakeholders:** The Konkan Railway, for example, is owned by a number of parties, including state governments. As a result, creating an appropriate monetisation transaction structure in this scenario may be difficult.
- **Other challenges:** Low level of capacity utilisation in gas and petroleum pipeline networks, poor dispute resolution mechanism, regulated tariffs in power sector assets discouraging private sector participation, etc.

While the government has attempted to address these issues through the NMP framework, the plan's execution remains critical to its success. The structure of monetisation transactions is viewed as crucial.

## NITI AAYOG RECOMMENDATION

The NITI Aayog has made some recommendations to the government to make the recently announced National Monetisation Pipeline (NMP) a success.

### Key recommendations of NITI Aayog

- Bring such Trusts (InvITs and REITs) under the Insolvency and Bankruptcy Code (IBC) to give lenders a speedier and more effective debt restructuring and resolution option, along with instruments like SARFAESI Act and the Recovery of Debts and Bankruptcy Act, 1993.
- Make policy and regulatory adjustments to scale up monetisation instruments like InvITs and REITs and expand their investor base.
- Allowing tax benefits in InvITs (under the Income-Tax Act of 1961) and other more tax-efficient and user-friendly processes are significant beginning points for encouraging retail engagement in the instruments.

## 4.2    e-RUPI

**Why in News:** Prime Minister Narendra Modi launched an electronic voucher based digital payment system "e-RUPI" on 2nd August, 2021.

### e-RUPI

- e-RUPI has been developed  by the National Payments Corporation of India (NPCI), Department of Financial Services, Ministry of Health and Family Welfare and the National Health Authority.
- e-RUPI is a cashless and contactless digital payments medium. It will essentially be like a prepaid gift-voucher that can be redeemed at specific accepting centers.
- e-RUPI will connect the sponsors of the services with the beneficiaries and service providers in a digital manner without any physical interface.
- The code for the transaction will be delivered to mobile phones of beneficiaries in the form of an SMS-string or a QR code.
- It will be a person-specific and purpose-specific payments system. For example, if someone has an e-RUPI voucher for Covid-19 vaccine, then it can be redeemed for vaccines only.

### Mechanism of issuing a voucher

- Banks (both public and private banks) will be the issuing entities of vouchers. Eight banks are already live with e-RUPI, including State Bank of Inia, HDFC, Axis, Punjab National Bank, Bank of Baroda, Canara Bank, IndusInd Bank, ICICI Bank.
- Any corporate or government agency will have to approach the partner banks, with the details of specific persons and the purpose for which payments have to be made.
- The beneficiaries will be identified using their mobile number and a voucher allocated by the bank in the name of the intended beneficiary would only be delivered to the beneficiary.

**Applications of e-RUPI:** e-RUPI can also be used for delivering the following services:

- Providing drugs and nutritional support under Mother and Child welfare schemes;
- TB eradication programs
- Drugs & diagnostics under schemes like Ayushman Bharat Pradhan Mantri Jan ArogyaYojana
- Fertiliser subsidies etc

- The private sector can also use these digital vouchers as part of their employee welfare and corporate social responsibility programs.

**Benefits of e-RUPI**

- e-RUPI will ensure that the payment to the service provider is made only after the transaction is completed. Thus, it is expected to ensure leak-proof delivery of welfare services.
- Being pre-paid in nature, it will also assure timely payment to the service provider without the involvement of any intermediary.
- Vouchers can be redeemed without any credit or debit card, a mobile app or internet banking, as no physical interface is required for transactions.

## Central Bank Digital Currency (CBDC)

- Central Bank Digital Currencies (CBDCs) are digital currencies issued by a central bank (like RBI in India). They generally take on a digital form of the nation's existing fiat currency such as the rupee.
- In simple terms, a central bank digital currency (CBDC) would be a digital banknote. It could be used by individuals to pay businesses, shops or each other, or between financial institutions to settle trades in financial markets.
- A CBDC is different from a private virtual currency (VC) like Bitcoin and Ethereum, as they are not issued by a country.
- At the moment, several countries are trying to develop CBDCs in their respective countries.

**Difference between e-RUPI and CBDC:**

- e-RUPI cannot be classified as a CBDC, as its usage is restricted to the purpose for which it has been issued.
- This makes it different from a virtual or digital currency and puts it closer to a voucher based payment system.

**Case for CBDCs in India**

- The Reserve Bank of India had recently said that it is working towards a phased implementation strategy for central bank digital currency.
- The spread of private virtual currencies such as Bitcoin and Ethereum, makes it important for the RBI to explore CBDC in India, as central banks have a duty to safeguard people's trust in the money of the country.

- A CBDC will also offer protection to the general public in a volatile environment of private virtual currencies. This is because the value of private VCs is not stable and fluctuates significantly.
- RBI believes that the increasing penetration of digital payments in the country along with cash usage, especially for small value transactions, will help the growth of digital currencies in India. Moreover, the high currency to GDP ratio in India, will also support the adoption of CBDC in the country.

## National Payments Corporation of India (NPCI)

- National Payments Corporation of India (NPCI), set up in 2008, is an umbrella organisation for operating retail payments and settlement systems in India.
- It is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007, for creating a strong Payment & Settlement Infrastructure in India.
- It has been incorporated as a Not for Profit Company with an intention to provide infrastructure to the entire banking system in India for physical as well as electronic payment and settlement systems.
- The Company is focused on bringing innovations in the retail payment systems through the use of technology for achieving greater efficiency in operations and widening the reach of payment systems.

## 4.3 PATENTS

**Why in News:** Recently, in a review meeting, the Commerce and Industry Minister, Government of India, reiterated the Central government's commitment to bolster the ecosystem of patents, design, trademarks, GI systems in India.

With this vision the efforts are being made to make India as a Global Innovation hub.

### Intellectual Property (IP)

- IP refers to creations of the mind, such as inventions, literary and artistic works, designs and symbols, names and images used in commerce.
- IP is protected in law enabling people to earn recognition or financial benefit from what they invent or create.
- By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to foster an environment in which creativity and innovation can flourish.

**Types of intellectual property**

- **Copyright:** Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.
- **Patents:** A patent is an exclusive right granted for an invention. Generally speaking, a patent provides the patent owner with the right to decide how or whether the invention can be used by others. In exchange for this right, the patent owner makes technical information about the invention publicly available in the published patent document.
- **Trademarks:** A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks date back to ancient times when artisans used to put their signature or "mark" on their products.
- **Industrial designs:** An industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.
- **Geographical indications:** Geographical indications are signs used on goods that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place of origin.

Most commonly, a geographical indication includes the name of the place of origin of the goods.

**Trade secrets:** Trade secrets are IP rights on confidential information which may be sold or licensed.

The unauthorized acquisition, use or disclosure of such secret information in a manner contrary to honest commercial practices by others is regarded as an unfair practice and a violation of the trade secret protection.

**Governing regulations:**

**The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS):**

- It is an international legal agreement (effective - 1 January 1995) between all the member nations of the World Trade Organization (WTO).
- It was negotiated at the end of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) between 1989 and 1990 and is administered by the WTO.
- It establishes minimum standards for the regulation by national governments of different forms of intellectual property (IP) as applied to nationals of other WTO member nations.

**Intellectual properties rights in India is governed under the following Acts:**

- Trade Marks Act, 1999
- The Patents Act, 1970 (amended in 2005)
- The Copyright Act, 1957
- The Designs Act, 2000
- The Geographical Indication of Goods (Registration and Protection) Act, 1999
- The Protection of Plant Varieties and Farmers Rights Act, 2001
- The Information Technology Act, 2000

## News Update

The Union Minister was reviewing various initiatives undertaken by the Office of Controller General of Patents, Designs and Trademarks (CGPDT).

The Office of the CGPDTM (located in Mumbai) generally known as the Indian Patent Office, is an agency under the Department for Promotion of Industry and Internal Trade (DPIIT under Ministry of Commerce and Industry) which administers the Indian law of Patents, Designs and Trademarks.

**Steps taken by the CGPDT to facilitate creation of Intellectual Property (IP) assets**

- Speedy disposal of applications has drastically reduced pendency in the Intellectual Property Rights (IPR) department.
- Reduction in fee allowed by the department in order to help and support startups and women entrepreneurs in the country.
- Most of the processes are made online for their convenience.
- Special care is being given to expedite examination of patents filed especially for applications filed by Startups, Female individual, Small entity etc.
- Special provisions made for Start-ups& MSMEs.
- E-filing encouraged through 10% rebate in fees, etc.

These steps have resulted in encouraging innovation, research & development in the country and bringing newer inventions & knowledge from India's heritage systems to global platforms. For instance, India has been progressively going up in the Global Innovation Index (rank from 81 in 2015 to 48 in 2020).

E-filing has increased from 30% to more than 95% and the examination of the same has gone up by 223% in 2020-21 when compared to 2014-15. Domestic Filing accounts for 42% of the total patents and the percentage of domestic filing in comparison to the total filing has risen.

## 4.4 PERIODIC SURVEY

**Why in News:** The annual Periodic Labour Force Survey (PLFS) for July 2020-September 2020 quarter has been released by the National Statistical Office (NSO), Ministry of Statistics and Program Implementation (MoSPI).

**Periodic Labour Force Survey**

- In every economy, estimation of reliable employment and unemployment data is important.
- The National Sample Survey Office (NSSO) was historically conducting quinquennial (once in every five years) employment and unemployment surveys as part of its National Sample Surveys.
- From April 2017, the NSSO has adopted a new employment and unemployment survey called Periodic Labour Force Survey (PLFS).
  **Note: In 2019, the National Sample Survey Office (NSSO) was merged with the Central Statistical Office (CSO) to create National Statistical Office (NSO).**

- The first annual report of the PLFS was published in June 2019 for the period of July 2017-June 2018.
- The PLFS has now become the major employment and unemployment data of the National Statistical Office (NSO), replacing the previous five-year surveys. It aims to provide more employment data for more frequent intervals (annual and quarterly).

**The objective of PLFS is primarily two-fold:**

- **Quarterly reports:** To estimate the key employment and unemployment indicators (LFPR, WPR and UR) in the short time interval of three months for the urban areas only in the Current Weekly Status (CWS).
- **Annual reports:** To estimate employment and unemployment indicators in both Usual Status (ps+ss) and Current Weekly Status (CWS) in both rural and urban areas annually.

**Various indicators under PLFS:**

- **Labour Force Participation Rate (LFPR):** LFPR is defined as the percentage of persons in labour force in the population. Labour force is defined as people who are working, or seeking work or available for work.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- **Unemployment Rate (UR):** UR is defined as the percentage of persons unemployed among the persons in the labour force.

**UR = (LFPR-WPR)/LFPR**

**Activity Status**

The activity status of a person is determined on the basis of the activities pursued by the person during the specified reference period.

**Usual Status (ps + ss):** When the activity status is determined on the basis of the reference period of last 365 days preceding the date of survey, it is known as the usual activity status of the person.

**Principal activity status (ps):** The activity status on which a person spent relatively long time (major time criterion) during 365 days preceding the date of survey, was considered the usual principal activity status of the person.

**Subsidiary economic activity status (ss):** The activity status in which a person in addition to his/ her usual principal status, performs some economic activity for 30 days or more for the reference period of 365 days preceding the date of survey, was considered the subsidiary economic status of the person.

**Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of last 7 days preceding the date of survey is known as the current weekly status (CWS) of the person.

The annual Periodic Labour Force Survey (PLFS) for July 2020-September 2020 quarter has been released by the National Statistical Office (NSO). As per the data, amid Covid, unemployment rate in urban areas shot up to 13.3 per cent in July-September 2020.

This was higher than the 8.4 per cent in July-September 2019. Unemployment data for urban areas is released quarterly based on Current Weekly Status (CWS).

## 4.5 MEGA FOOD PARK SCHEME

**Why in News:** The Ministry of Food Processing Industries has documented some issues with the implementation of the Mega Food Park (MFP) Scheme, and is working to address them.

**Mega Food Park Scheme**

- Mega Food Park scheme was launched by the Ministry of Food Processing Industries during the 11th Five-year plan in 2008-09.
- The scheme is being implemented by the Ministry to develop Mega food parks in the country.
- The project is implemented by a Special Purpose Vehicle (SPV) which is a body corporate, registered under the Companies Act, 2013.
- SPV is a subsidiary company that is formed to undertake a specific business purpose or activity.

**Objectives:**

- The primary objective of the MFPS is to provide modern infrastructure facilities for food processing along the value chain from the farm to the market.
- It will include creation of processing infrastructure near the farm, transportation, logistics and centralized processing centers.
- Increased realization for farmers, creation of high-quality processing infrastructure, reduction in wastage, capacity building of producers and processors and creation of an efficient supply chain along with significant direct and indirect employment generation.

**Salient features of the scheme**

- The Mega Food Park Scheme is based on "Cluster" approach and envisages creation of state of art support infrastructure in a well-defined Agri/horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with well-established supply chain.
- The Scheme aims to facilitate the establishment of a strong food processingindustry backed by an efficient supply chain, which would include collection centres, primary processing centres and cold chain infrastructure.
- The food processing units, under the Scheme, would be located at a Central Processing Centre (CPC) with need based common infrastructure required for processing, packaging, environmental protection systems, quality control labs, trade facilitation centres, etc.

- It is expected that on an average, each project may have around 30-35 food processing units with a collective investment of around Rs. 250 crores that would eventually lead to an annual turnover of about Rs. 450-500 crores and creation of direct and indirect employment of about 30,000 persons.

**Pattern of assistance**

- The proposals are invited through Expression of Interest (EoI) which are approved on merit as per the criterion specified under the applicable guidelines of the scheme.
- The Scheme shall provide a capital grant at the rate of 50 percent of the eligible project cost in general areas and at the rate of 75 percent of eligible project cost in difficult and hilly areas.
- Per Mega Food Park project, maximum assistance to be provided by the central government is 50 crores (excluding land cost).
- For each district, only one Mega Food Park is sanctioned under the scheme.

Currently, 22 Mega Food Parks are operational across the country.

**News Update**

- The Ministry of Food Processing Industries has documented some issues with the implementation of the Mega Food Park (MFP) Scheme, and is working to address them.
- The Ministry is holding regular review meetings with the promoters to help remove bottlenecks in the implementation of the scheme.

**Issues with Mega Food Park scheme:**

- Despite its huge potential, MFPS has failed to gain momentum due to several reasons.
- The biggest issue in implementing the scheme has been the **availability** of land and the long-drawn process to change its use from agriculture to industrial land.
- Some states have also strict land ceiling and sub leasing laws, which makes the role of the state government critical for the project to get started.
- A food park promoter can either acquire industrial land from the state, or approach the state government to acquire land on its behalf, or buy land directly from land owners.
- Promoters have faced difficulties in selling the new concept to banks and, as a result, have failed to secure loans to build the parks.
- Acquiring a minimum of 50 acres of land, which is mandatory under MFPS, has been another challenge that most developers are unable to match.

**Measures taken by the Ministry of Food Processing Industries:**

- Holding regular review meetings with the promoters to help remove bottlenecks in implementation
- Facilitating the promoters in obtaining the required statutory clearances from concerned authority
- Modifying the provisions of the scheme guidelines to facilitate implementation of the project
- Implementing the scheme for Creation/Expansion of Food Processing and Preservation Capacities as a sub-scheme of Pradhan Mantri Kisan SAMPADA Yojana which provides financial assistance for setting up food processing units in Mega Food Parks
- Creating awareness of benefits available under the schemes for establishment of food processing units in the park

## Pradhan Mantri Kisan SAMPADA Yojana

- PM Kisan SAMPADA Yojana is a Central Sector Scheme, launched in 2016 by the Ministry of Food Processing Industries.
- Central Sector Schemes are the schemes that are entirely and directly funded and executed by the central government.
- It is an umbrella Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters or SAMPADA.
- It was proposed to be implemented with an allocation of Rs. 6,000 crores for the period of 2016-20.

**Objective:** To create modern infrastructure with efficient supply chain management from farm gate to retail outlet.

The following schemes will be implemented under PM Kisan SAMPADA Yojana:

- Mega Food Parks
- Integrated Cold Chain and Value Addition Infrastructure
- Creation/Expansion of Food Processing/ Preservation Capacities (Unit Scheme)
- Infrastructure for Agro-processing Clusters
- Creation of Backward and Forward Linkages
- Food Safety and Quality Assurance Infrastructure
- Human Resources and Institutions

## 4.6 PM-DAKSH

**Why in News:** The Ministry of Social Justice and Empowerment recently launched the 'PM-DAKSH' Portal and 'PM-DAKSH' Mobile App.

## PM-DAKSH Portal

- Through the Portal and the App the target groups of PM-DAKSHA, will now be able to access the benefits of skill development training programs more easily.
- The portal and the app are developed by the Ministry of Social Justice and Empowerment, in collaboration with National e-Governance Division (NeGD).

### Features

- Availability of all information related to skill development at one place.
- Facility to register for the training institute and program of their interest.
- Facility to upload desired documents related to personal information.
- Facility to register attendance of trainees through face and eye scanning during the training period.
- Monitoring facility through photo and video clip during training etc.

## PM-DAKSHA Yojana

- PM-DAKSH (Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi) Yojana was launched by the Ministry of Social Justice & Empowerment (MoSJ&E) in 2020-21.
- It is a National Action Plan for skilling marginalized persons covering SCs, OBCs, EBCs, DNTs, Sanitation workers including waste pickers.

### Objective

The main objective of the PM-DAKSH Yojana is to increase the skill levels of the target youth by providing them short term and long term skills, followed by assistance in wage/self-employment.

### Target Group

It aims to improve all-round competency of 2.7 lakh persons, over the next 5 years, beginning with nearly 0.5 lakh youth in the first year i.e. 2021-22, from the following sections of the target group:

- Artisans - who may be able to improve their revenue generation capacities within their practicing vocations;

- Women - who may be able to enter into self-employment and financially empower themselves without neglecting their domestic activities; and
- Youth - who may acquire long-term training and specialization in employable vocations and gain a better standing in the job market.

**Eligibility**

Candidates of age group 18-45 years belonging to any of the following categories can apply for the training program under PM-DAKSH:

- Persons belonging to Scheduled Castes.
- Other Backward Classes (OBCs) having annual family income below Rs. 3 lakh.
- Economically Backward Classes (EBCs) having annual family income below Rs. 1 lakh.
- De-Notified, Nomadic and Semi-Nomadic Tribe (DNT).
- Safai Karamcharis (including waste pickers) and their dependants.

**Benefits under PM-DAKSHA**

- Free of cost training for the trainees.
- Stipend of Rs 1,000 to Rs 1,500 per month per trainee.
- Wage compensation of Rs 3000 per trainee.
- Trained candidates are provided certification after successful completion of training and assessment.
- Trained candidates are provided placement after assessment and certification.

**Training Program under PM-DAKSHA**

Eligible target groups are provided skill development training through:

- Up-skilling/Re-skilling
- Short term training program
- Long term training program
- Entrepreneurship Development Program (EDP).

These training programs are implemented through Government Training Institutes, Sector Skill Councils constituted by the Ministry of Skill Development and Entrepreneurship and other credible institutions.

**National e-Governance Division (NeGD)**

NeGD was established in 2009, as an Independent Business Division (IBD) by the Ministry of Electronics & Information Technology (MeitY), under the Digital India Corporation.

NeGD plays an important role in supporting MeitY in program management and implementation of e-Governance projects and initiatives undertaken by various Ministries/ Departments, both at the Central and State level

## 4.7 OPEN ACREAGE LICENSING PROGRAM

**Why in News:** The Ministry of Petroleum and Natural Gas recently launched the sixth round of bids under the Open Acreage Licensing Program (OALP).

- The bidders would be able to submit their bids on an online e-bidding portal starting August 6, 2021 and the deadline for bid submission is October 6, 2021. Award of these blocks to winning bidders is expected by the end of November 2021.
- In earlier rounds, the Oil Ministry had awarded 105 blocks covering an area of around 156,580 sq km, which attracted total committed investment of about $2.4 billion.
- This Bid Round-VI is expected to add further 35,346 sq km (under 21 blocks), taking the total area for exploration to 191,926 sq. km under the Hydrocarbon Exploration and Licensing Policy (HELP) regime.

**Background**

- India imports more than 80% of its crude oil requirements, which makes the country heavily dependent on foreign sources of supply.
- This leads to a huge financial burden on the country, apart from subjecting the country to global swings in crude oil price.

**Hydrocarbon Exploration and Licensing Policy (HELP)**

- To address these concerns, the Hydrocarbon Exploration and Licensing Policy (HELP) was launched in 2016.
- HELP replaced the New Exploration Licensing Policy (NELP) of 1997-1998.
- The objective of HELP is to increase India's indigenous oil and gas production by maximising the potential of hydrocarbon resources in India.
- The policy aims to increase investment in the energy and petroleum sector and provide operational flexibility to the investors.

**Main features of HELP**:

- Single license that covers exploration and production of all types of hydrocarbon conventional oil and gas, coal-bed methane, shale oil, gas hydrates, etc.

- Open Acreage Policy.
- Easy to administer revenue sharing model.
- Marketing and pricing freedom for the crude oil and natural gas produced.

**Open Acreage Licensing Program (OALP)**

- To address this issue, the government introduced the Open Acreage Licensing Program (OALP) under HELP.
- OALP gives investors the freedom to carve out blocks of their choice after assessing Exploration & Production data available at National Data Repository and submit an Expression of Interest (EoI).
- Under the earlier policy (NELP before HELP), the bidders could choose only from the blocks offered by government and had to wait for the government to undertake bidding for blocks which were of interest to the bidders.
- EoI can be submitted throughout the year without waiting for a formal bid round from the government. These blocks are later offered through biannual (twice a yeaar) formal bidding process.

**Revenue Sharing Model**

- Under NELP, contracts were based on the concept of profit sharing where profits are shared between Government and the contractor after recovery of cost.
- Under the profit sharing methodology, it became necessary for the Government to examine cost details of private participants and this led to many delays and disputes.
- Under the revenue sharing model of HELP, the government is not concerned with the cost incurred in the process and directly receives a share of the gross revenue from the sale of oil, gas etc.
- This model is simpler and easy to monitor, as the government has to monitor only two parameters, revenue and production of the contractor.

**Financial incentives under HELP**

- To encourage exploration in deep water and ultra-deep water areas, royalty rates have been reduced and a graded system of royalty has been introduced, in which royalty rates decreases from shallow water to deepwater and ultra-deep water.
- The royalty is exempted for first seven years and subsequently royalty of 5% and 2% is applicable in deep water and ultra-deep water areas.
- Other fiscal incentives include exemption of cess on crude oil and custom duty applicable on equipment/ services for exploration and production activities.

- The policy also provides marketing freedom for crude oil and natural gas produced from these blocks. This is in aligned with the government's policy of Minimum Government – Maximum Governance.

## National Data Repository (NDR)

- NDR is the backbone of HELP. It provides data to contractors that they can analyse & bid for particular block in which they are interested.
- The data presented through NDR is obtained through advance technology simulations which makes it more reliable.

**Objectives of NDR**

- Validate, store, maintain and reproduce reliable E&P data with provisions for seamless access online and offline.
- Facilitate efficient data reporting, data exchange and trading among existing players.
- Support E&P activities in India under HELP for improved E&P environment in India.
- Strengthen overall geo-scientific activities in India.

# SCIENCE AND TECHNOLOGY

❖ **Paper III: The articles in this section are relevant to the following topics:**

- **Science and Technology- developments and their applications and effects in everyday life**
- **Achievements of Indians in science & technology; indigenization of technology and developing new technology.**
- **Awareness in the fields of IT, Space, Computers, robotics, Nano-technology, bio-technology and issues relating to intellectual property rights.**
- **Prelims**

## 5.1 EOS-O3 SATELLITE MISSION

**Why in News:** Recently, Indian Space Research Organisation (ISRO) suffered the loss of an important earth observation satellite (EOS-03) during launch when the GSLV rocket carrying it malfunctioned about five minutes from the lift-off.

**EOS-03**

- It was capable of imaging the entire country four to five times every day.
- It was riding on a GSLV rocket (GSLV-F10), which has a new payload carrier designed to significantly reduce aerodynamic drag and thus carry larger payloads.
- The rocket was supposed to deposit the satellite in the geostationary transfer orbit, from where the satellite's onboard propulsion system will guide it to a geostationary orbit, 36,000 km from earth's surface.

Geostationary transfer orbit is a circular orbit positioned approximately 35,900 km above Earth's equator and having a period of the same duration and direction as the rotation of the Earth. An object in this orbit will appear stationary relative to the rotating Earth.

**Significance**

- EOS-03, part of the new generation of earth-observation satellites, was meant to provide almost real-time images of large parts of the country.
- The images could be used for monitoring natural disasters like floods and cyclones, water bodies, crops, vegetation and forest cover.
- EOS-03 was being sent ahead of EOS-02 which has been delayed by the Covid-19 pandemic.

- **EOS-02** was supposed to be launched around March-April this year, but now has been rescheduled for September-October.
- EOS-02 was supposed to ride on ISRO's new SSLV (Small Satellite Launch Vehicle) rocket.
- SSLVs will broaden ISRO's current rocket range that comprises PSLVs and GSLVs, and cater to the increasing demand for launching of small commercial satellites.

- **In November 2020, ISRO had launched EOS-01**, the first in the series of new earth observation satellites that bear a new generic naming system.

- It was launched by Polar Satellite Launch Vehicle (PSLV), the third generation launch vehicle of India.
- It is intended for applications in agriculture, forestry and disaster management support.

## 5.2  DRONE

**Why in News:** The Ministry of Civil Aviation has notified the liberalised Drone Rules, 2021. The new rules will replace the Unmanned Aircraft System (UAS) Rules 2021.

The UAS Rules 2021 was notified in March, 2021 but were perceived by academia, startups, end-users and other stakeholders as being restrictive in nature, and involved lot of paperwork and permissions.

### Key Highlights of the Drone Rules, 2021

**Reduced Requirement for Approvals:**

- Many approvals in the UAS Rules 2021 are proposed to be abolished in the latest rules.
- The number of forms required to operate drones have been reduced from 25 to 5.
- Total number of fees that are to be paid before being able to operate drones has been reduced from 72 to just four.

**Quantum of fees Decreased:**

License fee has been delinked from drone size and made affordable for all.

**Digital Sky Platform:**

- 'Digital Sky' platform' will be developed as a user-friendly single-window system.
- There will be a single-window online system with minimal human interface and most permissions will be self-generated.

**Demarcation of Zones**

- An interactive airspace map will be displayed on the Digital Sky Platform.
- This map will show the three zones: yellow (permission is needed), green (drone can be flown) and red (like airport where use of drone will be barred unless specifically allowed).
- Even in these zones, the government has significantly liberalised the rules.

**Security Relaxations**

- Earlier, prior to issuance of a registration or licence, a security clearance was necessary. Under the new rule, it is not needed anymore.
- It allowed foreign ownership on the part of companies operating drones. However, the import of drones will continue to be regulated by the Directorate General of Foreign Trade.

**Paves the way for Drone Taxis:**

The coverage of these rules has been increased to cover drones up to 500 kg in weight from 300 kg earlier. Hence, the new rules bring drone taxis under the fray too.

**Establishment of Drone Corridor**

- The notified rules propose the development of drone corridors for cargo deliveries.
- It also talks about setting up of a Unmanned Aircraft Systems Promotion Council to facilitate a business-friendly regulatory regime.

**Licensing and Air worthiness:**

- No pilot licence will be required for micro drones used for non-commercial use, nano drones and for R&D organizations operating such drones.
- The system will work on a unique identification number (UIN) that can be obtained from the digital sky platform after submitting requisite details.
- Certificate of Airworthiness will be issued by Quality Council of India and certification entities authorised by it.

**Safety and Security**

- Carriage of arms, ammunition, explosives and military stores, etc, on drones has been prohibited under the new rules.
- Any accident involving drones should be reported within 48 hours.
- The maximum penalty for violations had been reduced to ₹1 lakh

**Classification of Drones**

Drones have been divided into five categories based on their weight (based on existing rules)

- Nano: Less than or equal to 250 grams.
- Micro: From 250 grams to 2kg.
- Small: From 2 kg to 25kg.
- Medium: From 25kg to 150kg.
- Large: Greater than 150kg.

**How Drone Rules, 2021 are different From UAS, Rules 2021**

- Many approvals abolished
- Reduced Licensing Fee
- Creation of Digital Sky Platform as a single window online system under the new rules.
- Coverage of drones has been increased to include drone taxis.
- Liberalised demarcated zones
- Abolished the need for security clearance prior to issuance of a registration or licence

**Significance of the Drone Rule 2021**

**Highlights Clear shift in policy**

- In July 2021, a drone attack took place at an Indian Air Force base in Jammu. Despite security threat, the notification of liberalised rules highlights the shift in policy.
- The new rules highlight the government's intent to allow the use of drones while at the same time ensuring security from rogue drones.

**Growth of Drone Sector:**

- The rules are based on the premise of trust and self-certification thereby reducing the entry barriers significantly.
- It will tremendously help start-ups and our youth working in this sector. It will open up new possibilities for innovation & business.

**Innovation and Economic Development:**

- The new rules will help leverage India's strengths in innovation, technology & engineering to make India a drone hub.
- Indian drone ecosystem which has a market potential of more than Rs 50,000 crore and can create 5,00,000 professional jobs in next 5 years.
- The new rules aim to leverage this potential in order to promote economic development of India.

# ECOLOGY and ENVIRONMENT

❖ **Paper III: The articles in this section are relevant to the following topics:**

- **Conservation, environmental pollution and degradation, environmental impact assessment**
- **Disaster and disaster management.**

❖ **Prelims Oriented Questions**

## 6.1 ECO SENSITIVE ZONES (ESZs)

**Why in News:** Recently, the Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the eco-sensitive zone (ESZ) of the Deepor Beel Wildlife Sanctuary located near Guwahati, Assam.

### Eco-Sensitive Zones (ESZs)

ESZs, also known as Ecologically Fragile Areas (EFAs), are areas in India notified by the MoEFCC, Government of India, around Protected Areas, National Parks and Wildlife Sanctuaries.

**Objective: The purpose of declaring ESZs:**

- To create some kind of shock absorbers to the protected areas by regulating and managing the activities around such areas.
- To act as a transition zone from areas of high protection to areas involving lesser protection.

**Regulating authority:** They are regulated by the Central Government through the MoEFCC. The Ministry came out with new guidelines for the regulation of such areas in 2011.

### Statutory backing

The Environment (Protection) Act (EPA), 1986 does not mention the word "Eco-Sensitive Zones". However, the following two clauses have been effectively used by the government to declare ESZs or EFAs -

According to the EPA, the Central Government has the authority to restrict areas in which any industries (or class of industries), operations or processes shall not be carried out or to be carried out with certain safeguards.

Furthermore, the Environment (Protection) Rules, 1986, declare that the Central Government can prohibit or restrict the location of industries on the basis of considerations like the biological diversity of an area, etc.

The MoEFCC approves a comprehensive set of guidelines laying forth standards and criteria for declaring ESZs on a regular basis. These include:

- Species Based (Endemism, Rarity etc)
- Ecosystem Based (sacred groves, frontier forests etc)

- Geo-morphologic feature based (uninhabited islands, origins of rivers etc)

## Extent of ESZ:

- According to the Wildlife Conservation Strategy of 2002, an ESZ could extend up to 10 kilo meters around a protected area.
- Furthermore, sensitive corridors, connectivity and biologically important patches that are critical for landscape linkage should be included in the Eco-Sensitive Zones if their width exceeds 10 kilo meters. However, even within a Protected Area, the distribution of an ESZ and the extent of control may not be consistent throughout the Protected Area, and it may be of varying breadth and extent.

## Deepor/Deepar/Dipor Beel

- Deepor Beel (Beel means wetland or large aquatic body in Assamese) is one of the largest freshwater lakes (in a former channel of the Brahmaputra river) near Guwahati, Assam.
- It has both biological and environmental importance besides being the only major storm-water storage basin for Guwahati city
- It is considered one of the staging sites for migratory birds in India and because of the richness of avian fauna, it has been selected as one of the Important Bird Area (IBA) sites by Birdlife International.
- It has also been designated as the State's only Ramsar site (listed in 2002).

### Threats

- The sanctuary is under great biotic strain from human settlements and ever-increasing development activities due to its proximity to fast-developing Guwahati.
- For example, the wetland has been threatened by a railway track, set to be doubled and electrified and encroachment from human habitation and commercial units.
- City wastes and industrial effluents are wreaking havoc on the rich wetland's biological and environmental qualities, posing a threat to all living forms and ecosystems.

### News Update

The Government of India has notified the eco-sensitive zone (ESZ) of the Deepor Beel Wildlife Sanctuary in Assam.

### According to the notification:

- The eco-sensitive zone covers an area ranging from 294 metres to 16.32 kilo metres, with a total area of 149 square kilo metres.

- Hydroelectric projects, brick kilns, commercial usage of firewood and discharge of untreated effluents into natural water bodies or land regions are all prohibited in the eco-sensitive zone.
- For example, no new commercial hotels and resorts shall be permitted within 1 km of the boundary of the protected area, disallowing new sawmills or the expansion of existing sawmills in the vicinity, etc.

**Significance of ESZ designation:**

This will aid in the unrestricted movement of elephants and birds in the wild. It will aid in the construction of a smart model for balancing development projects with the natural processes of a wetland that are critical to human well-being.

## 6.2   GREEN INDIA MISSION

**Why in News:** According to the data shared by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India, the Green India Mission (GIM) plan has underperformed in some states, resulting in a 30% shortfall in target from 2015-16 to 2020-21.

**Green India Mission (GIM)**

- Also known as the National Mission for a Green India, GIM was launched in 2014 for a 10 years period with an outlay of Rs 60,000 crore.
- It is one of the eight Missions outlined under the National Action Plan on Climate Change (NAPCC) and is implemented under the overall administrative control of the MoEF&CC.
- The NAPCC, which was formally launched in 2008, identifies strategies that advance development goals while simultaneously providing co-benefits for effectively tackling climate change.
- The National Action Plan is divided into eight National Missions, each focusing on encouraging climate change awareness, adaptation and

mitigation, energy efficiency and natural resource conservation.

## Objectives:

It aims to maintain, restore and enhance India's dwindling forest cover while also addressing climate change through a combination of adaptation and mitigation methods. The mission has the broad objectives of:

- Increasing the forest and tree cover by 5 million hectares (ha) in 10 years.
- Increasing the quality of the existing forest and tree cover in another 5 million ha of forest in non-forest lands in 10 years.
- Separate sub-targets exist for different forest types and ecosystems (e.g. Wetland, grassland, dense forest etc).

The Mission presents a holistic approach to greening that considers not only carbon sequestration goals, but also diverse ecosystem services (biodiversity, water, biomass, and so on) as well as provisioning services (fuel, fodder, timber and non-timber forest produces).

It also aims to increase forest-based livelihood income for about 3 million households in and around these forest areas.

**Features:** Because it will be implemented on both public and private properties, this Mission has taken an integrated cross-sectoral approach, with local communities playing a vital role in planning, decision-making, implementation and monitoring.
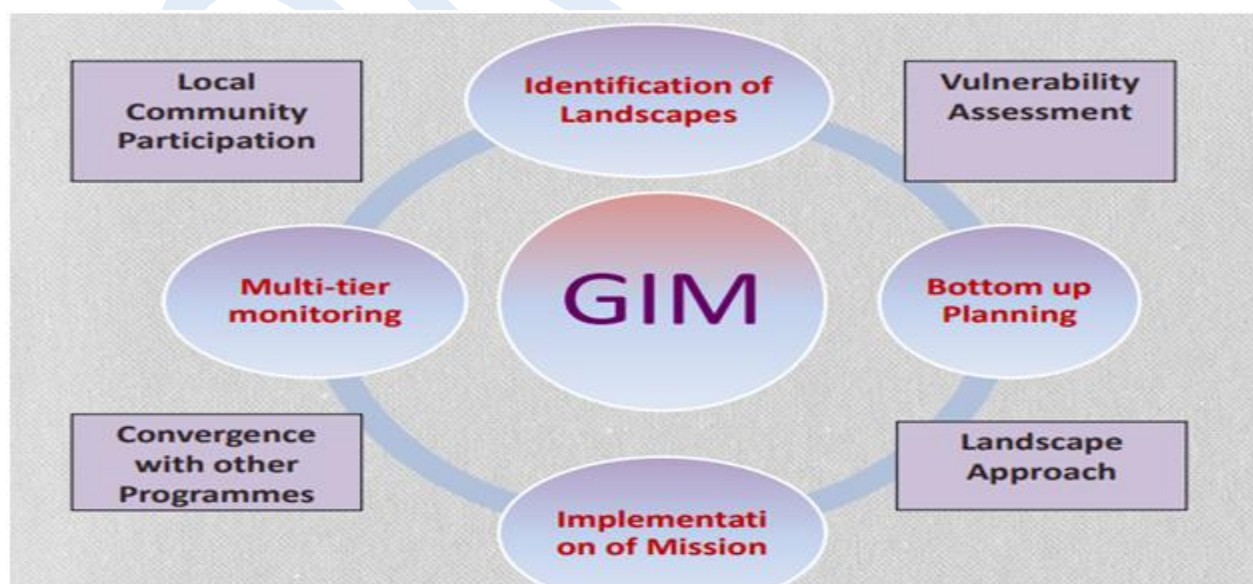
**Challenges**

- According to the Economic Survey 2020-21, the GIM was able to achieve only 2.8 percent of its plantation target (as of March 2020). As per a parliamentary committee report (2018), the GIM was grossly underfunded.
- The committee also pointed out that the mission's afforestation was solely for the purpose of boosting tree count, rather than taking into account soil and weather conditions. For example, planting eucalyptus trees will exacerbate rather than solve environmental concerns.

News Update

## PROGRESS REPORT

**Total Target*** 1,67,152

**Achievement*** 1,17,507

*In hectares (Target approved from 2015-16 to 2020-21)

**In hectares (Achievement from 2015-16 to 2020-21)

(Source: MoEFCC in response to questions of RTI activist K Govindan Nampoothiry)

| States/UT | Target* | Achievement** |
|---|---|---|
| MP | 23,358 | 19,470 |
| Chhattisgarh | 20,191 | 19,128 |
| Mizoram | 19,643 | 19,643 |
| West Bengal | 18,666 | 0 |
| Manipur | 16,920 | 11,740 |
| Odisha | 16,634 | 16,634 |
| Kerala | 12,298 | 9,020 |
| Uttarakhand | 11,045 | 7,483 |
| Maharashtra | 6,766 | 5,223 |
| J&K | 5,680 | 0 |
| Himachal | 5,480 | 0 |
| Punjab | 4,304 | 4,304 |
| Andhra | 2,737 | 1,433 |
| Karnataka | 1,920 | 1,920 |
| Sikkim | 1,509 | 1,509 |

- In 2015-16, the Centre began disbursing funds to 15 states or Union Territories (UTs) for various afforestation efforts under the GIM.
- Though five of the 15 states or UTs shortlisted for the Mission - Mizoram, Odisha, Punjab, Karnataka, and Sikkim - reached 100% of their target, others reported varied degrees of shortfall. West Bengal, Himachal Pradesh and J&K are the only three states that have yet to join the effort to improve the country's green cover.

## 6.3 NEW FROG SPECIES

**Why in News:** A new frog species (Amolops adicola) discovered in Arunachal Pradesh by researchers has been named after Adi hills in the state. Adi hills are home to Adi tribes, an indigenous group of people from the Himalayan regions of the state.

### Adi people

The Adi constitute major group and inhabit the lower part of Lower Dibang Valley district in Arunchal Pradesh.

The Padams, Milangs, Komkars, Minyongs and Pasis collectively call themselves as ADI meaning "hill people". They speak a same dialect, claim a common origin and also perform and celebrate same rituals and festivals.

### Culture

- Dances performed are in-group lead by a main singer (Miri). Popular dances are the Ponung, Delong, Yakjong and Tapu, which is in-fact, a war dance.
- Ponung is most common of all the dances.
- Handicrafts of the Adis are best seen in their cane and bamboo works, including baskets, trays and haversacks.
- Women are expert weavers. Their home productions, like coats, jackets, bags, skirts, shawls and blankets displaying their abilities in handloom.
- At the center of the village is the council hall called DERE or MOSUP where social and cultural affairs of the village are discussed.

### Economy

- The Adis are basically dependent on agriculture. Both wet rice cultivation and shifting cultivation are practiced.
- Granaries are constructed preferably at the village outskirts to avoid fire accidents.
- Besides, fishing and hunting are carried out to supplement food.

### News Update

- A team of Indian and American biologists have discovered the new species of cascade frog from the Adi hills in Arunachal Pradesh.

- Historically, this region was also known as Abor Hills. They named this frog species after the Adi Hills where it was found, as 'Amolops adicola'.
- Frogs of interest for studies, as they are considered among the most threatened animal groups in northeastern India.
- Many frogs in this region are reported to occur widely, but, in fact, have relatively small geographical ranges and require special attention for conservation before they go extinct forever.

**Cascade frogs**

Cascade frogs are named so because of their preference for small waterfalls or cascades in flowing hill streams. The frogs scientifically belong to the genus Amolops, of ranid frogs of family Ranidae.

**Amolops Adicola**

The new species 'Amolops adicola' was identified based on multiple criteria, such as external morphology, DNA and calling pattern. The discovery has important implications on the taxonomy and geographical distribution of several other members of this group found in India and the neighbouring regions of China.



## 6.4   NATIONAL MISSION ON EDIBLE OILS (NMEO-OP)

**Why in News:** The Union Cabinet, chaired by the Prime Minister, has given its approval to launch a new Mission on Oil palm to be known as the National Mission on Edible Oils – Oil Palm (NMEO-OP).

**Palm Oil crop**

- Palm oil is a type of vegetable oil that comes from the palm fruit, which grows on a specific type of tree called African oil palm.
- Palm oil crop is one the highest oil-yielding crops among all the perennial crops.
- It produces 10-46 times more oil per hectare compared to other oilseed crops such as mustard.

**Climate requirements**

- It is a humid tropical crop and thrives best in the areas where temperature ranges from 22 to 24 Celsius.
- This crop requires annual evenly distributed rainfall of 2500 to 4000 mm.

**Soil requirements**

- It thrives best in well-drained deep loamy moist and alluvial soils rich in organic matter.
- Oil palm crop requires sufficient irrigation as its growth rate is faster and produces high yield and biomass.

Palm oil is used in products such as shampoo, cosmetics, soap, detergents, toothpaste and edible products like biscuits, cooking oil, snacks, chocolate, instant noodles, packaged bread and more.

**Palm Oil production in India**

Andhra Pradesh, Karnataka, Assam, Kerala, Gujarat, etc. are major oil palm producing states.

Since 1991-92, many efforts have been made by the Government of India to increase the production of oilseeds and oil palm. With only 70 lakh hectares under oil palm cultivation currently, there is huge potential in oil palm plantation and subsequently production of Crude Palm Oil (CPO).

Currently, India's 98% of the requirement for CPO is met by imports, mainly from Indonesia and Malaysia.

**News Update**

The Union Government has launched the NMEO-OP as a Centrally Sponsored Scheme with a special focus on the North-East region and the Andaman and Nicobar Islands.

**National Mission on Edible Oils – Oil Palm (NMEO-OP)**

- The Union Government has launched the NMEO-OP as a Centrally Sponsored Scheme, with a special focus on the North-East region and the Andaman and Nicobar Islands.
- The scheme will benefit the oil palm farmers, and help increase capital investment, employment generation and the income of the farmers, as well as help reduce the import dependence.
- Under this mission, over Rs. 11,000 crore will be invested in the edible oil ecosystem.
- The proposed scheme will subsume the current National Food Security Mission on Oilseeds and Oil Palm (NFSM-Oilseeds and Oil Palm).

The newly introduced National Mission is different from NFSM-NMOOP in the following ways:

- Specific focus on North-East region and the Andaman and Nicobar Islands
- Viability Price
- Increased assistance

**Objectives**

- To promote the domestic cultivation of palm oil in the next five years, and reduce the country's dependence on edible oil imports.
- To raise the domestic production of palm oil by three times to 11 lakh MT by 2025-26
- This will involve raising the area under oil palm cultivation to 10 lakh hectares by 2025-26 and 16.7 lakh hectares by 2029-30.

**Introduction of Viability Price**

The oil palm farmers produce Fresh Fruit Bunches (FFBs) from which oil is extracted by the industry. For the first time, through the NMEO-OP scheme, the Government will give a price assurance to the oil palm farmers for the FFBs. This will be known as the Viability Price (VP).

This assurance will inculcate confidence in the Indian oil palm farmers to go for increased area and thereby more production of palm oil.

**Increased assistance of inputs/interventions**

A substantial increase has been made for planting material for oil palm and this has increased from Rs 12,000 per ha to Rs 29000 per ha. Seed gardens will be provided assistance up to Rs 80 lakhs for 15 ha. in Rest of India and Rs 100 lakhs for 15 ha in North-East and Andaman regions.

## 5.5 CLIMATE CHANGE 2021: THE PHYSICAL SCIENCE BASIS

**Why in News:** **The Intergovernmental Panel on Climate Change (IPCC) recently released its sixth assessment report titled 'Climate Change 2021: The Physical Science Basis'.** The IPCC is the United Nations body for assessing the science related to climate change.

**Climate Change 2021: The Physical Science Basis**

- The report highlights that human influence has warmed the climate at a rate that was never seen at least in the last 2,000 years.
- Emissions of greenhouse gases from human activities are responsible for approximately 1.1°C of warming between 1850-1900
- At this rate, over the next 20 years, global temperature is expected to reach or exceed 1.5°C of heating.
- In 2019, atmospheric $CO_2$ concentrations were highest in at least 2 million years, and concentrations of methane and nitrous oxide were highest in the last 800,000 years.
- Global surface temperature has increased faster since 1970 than in any other 50-year period over at least the last 2,000 years.

**Impact of increase in warming**

- The global mean sea level has risen faster since 1900 than over any other century in at least the last 3,000 years.
- Warming is already reducing ice cover and leading to more droughts, floods and storms. All these trends will get worse with increase in warming.
- For 1.5°C of global warming, there will be increasing heat waves, longer warm seasons and shorter cold seasons. It will also lead to changes in the monsoon rain patterns.
- As the planet warms, regions will be affected not just by extreme weather but by multiple climate disasters that occur simultaneously.
- Extreme sea level events that previously occurred once in 100 years could happen every year by the end of this century. By 2050, such events could occur once every six to nine years.

**Impact on India**

- India would face similar impacts in addition to frequent occurrence of glacial lake bursts in the Himalayan region and flooding of low lying coastal areas.
- Rainfall can increase by 20% in the southwest coast compared to 1850-1900 level. Increase in rainfall will be more severe over the southern parts of India.
- At the same time, incidents of forest fire may increase because of heat wave conditions.

**Way Ahead**

As per the report, there is still time to stop climate change.

Strong and continuous reductions in emissions of carbon dioxide (CO2) and other greenhouse gases, could quickly make air quality better, and in 20 to 30 years global temperatures could stabilize.

All nations need to strengthen their commitments through concrete nationally determined contributions (NDCs) and policies to achieve to reduce warming.

For additional information, read up about IPCC and its Assessment Reports.

**WHAT DOES THIS MEAN FOR INDIA?**

> The country is expected to see an **increase in frequency and severity of hot extremes**

> **Incidents of forest fire may go up** because of heat wave conditions

> Increase in rainfall will be more severe over the southern parts of India

> **Rain could also increase by 20%** in the southwest coast compared to 1850-1900 level

> Monsoon precipitation is projected to go up in the mid- to long-term over south Asia

> This can increase the occurrence of **glacial lake outbursts, floods and landslides** over moraine-dammed lakes

> Snowline elevations will rise and **glacier volumes will decline**

> Regional mean sea level in south Asia will continue to rise

# SOCIAL ISSUES

❖ **Paper I: The articles in this section are relevant to the following topics:**

- **Salient features of Indian Society, Diversity of India.**
- **Role of women and women's organization, population and associated issues, poverty and developmental issues, urbanization, their problems and their remedies.**
- **Effects of globalization on Indian society**
- **Social empowerment, communalism, regionalism & secularism.**

## 7.1 SAMAGRA SHIKSHA ABHIYAAN

**Why in News:** The Union Cabinet recently approved the extension of the Samagra Shiksha Scheme for another five years, from April 2021 to March 2026.

**Samagra Shiksha**

- Samagra Shiksha was launched in 2018, as an integrated scheme for school education extending from pre-school to class 12, with the broader goal of improving school effectiveness.
- **It was launched by subsuming (incorporating) three Schemes: Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).**
- Its vision is to ensure inclusive and equitable quality education from pre-school to senior secondary stage in accordance with the Sustainable Development Goal for Education (SDG-4).
- It covers 1.16 million schools, over 156 million students and 5.7 million teachers of Government and Aided schools (from pre-primary to senior secondary level).

**Objectives of Samagra Shiksha**

**Major objectives of the Scheme are to support States and UTs in**

- Implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009
- Implement the recommendations of the National Education Policy 2020 (NEP 2020)
- Early Childhood Care and Education
- Ensure equity and inclusion at all levels of school education
- Enhance learning outcomes of students
- Bridge social and gender gaps in school education

**Implementation framework**

- The Scheme is implemented as a Centrally Sponsored Scheme through a single State Implementation Society (SIS) at the State level.
- At the National level, there is a Governing Council/Body headed by the Minister of Education and a Project Approval Board (PAB) headed by Secretary, Department of School Education and Literacy.

- The Governing Council/body is empowered to modify financial and programmatic norms and approve the detailed guidelines for implementation within the overall Framework of the scheme.

**Major interventions under Samagra Shiksha:** The major interventions, across all levels of school education under the scheme are:

- Infrastructure development
- Financial support for teacher salary
- Strengthening of teacher education and training
- Right to Education entitlements including uniforms, textbooks etc
- Promotion of vocational education
- Promotion of sports and physical education

**Achievements under Samagra Shiksha: Following progress has been made under Samagra Shiksha during 2018-19 to 2020-21:**

- 1160 schools have been upgraded at Elementary, Secondary and Higher Secondary level and 54 new residential schools/ hostels have been opened.
- 78 lakh out of school children have been provided special training at elementary level.
- 12633 schools have been covered under ICT & Digital initiatives and 5579 schools have been covered under vocational education,
- 58 lakh teachers have been trained and 69173 schools provided self-defence training to girls.
- 96 crore children have been provided free uniforms, 8.72 crore children have been provided free textbooks at elementary level.

**News Update**

- The Union Cabinet recently approved the extension of the Samagra Shiksha Scheme for another five years, from April 2021 to March 2026.
- The financial outlay under the extended period is Rs 2.9 lakh crore, which includes central share of Rs 1.85 lakh crore.

**New interventions under the extended period (2021-2026)**

Following new interventions have been incorporated in the extended period of Samagra Shiksha based on the recommendations of the National Education Policy 2020.

**Institutional interventions:**

- The scheme will have an effective convergence architecture with various Ministries/ developmental agencies of the Centre and State Governments.
- The expansion of vocational education will be done in convergence with the Ministry of Skill Development and Entrepreneurship and other Ministries providing funding for Skills.
- Provision for establishment of new State Councils for Educational Research and Training (SCERTs) and new District Institutes for Education and Training (DIETs) in districts created up to March 2020
- Setting up of assessment cell preferably at SCERT to conduct various achievement surveys, develop test materials, data collection analysis and report generation, etc

**Infrastructure development:**

- Strengthening infrastructure of schools from pre-primary to senior secondary. The first phase of the scheme did not include the pre-primary level.
- Provision of Information and Communications Technology (ICT) labs, including support for digital boards, smart classrooms, virtual classrooms and DTH channels have been provided.
- Additional Sports grant of up to Rs. 25000 to schools in case at least 2 students of that school win a medal in Khelo India school games at the National level.

**Teacher Training:**

- Specific training modules under NISHTHA by National Council of Educational Research and Training (NCERT) to train Secondary and Primary teachers.
- Training of master trainers for training of Anganwadi workers and in-service teacher training for Early Childhood Care and Education (ECCE) teachers.

**Foundational Literacy and Numeracy:**

- NIPUN Bharat Mission launched under Samagra Shiksha aims to ensure that every child in the country necessarily attains foundational literacy and numeracy (FLN) by the end of Grade 3, by 2026-27.
- It has a provision of Teaching Learning Materials (TLM) upto Rs 500 per child per annum, Rs 150 per teacher for teacher manuals and resources, Rs 10-20 lakh per district for assessment.

**Vocational Education:**

- Support under vocational education has been extended to Government aided schools, in addition to Government schools.
- Provision of classroom cum workshop for vocational education in schools serving as hub for other schools in the neighbourhood.

**Provisions for Girls:**

- Enhanced financial support for existing stand-alone girls' hostels for classes IX to XII, of up to Rs 40 lakh per annum (earlier Rs 25 lakh per annum).
- Incinerator (burners) and sanitary pad vending machines in all girls' hostels.
- Training for 3 months for inculcating self-defence skills under 'Rani Laxmibai Atma Raksha Prashikshan'.

## 7.2 NATIONAL COMMISSION FOR WOMEN

**Why in News:** Recently, the Ministry of Women and Child Welfare said that Smt. Rekha Sharma has been nominated as Chairperson of the National Commission for Women (NCW) for another term of three years by the Central Government

**National Commission for Women (NCW)**

The National Commission for Women (NCW) was set up as statutory body in 1992 under the National Commission for Women Act, 1990.

**Objectives:**

- To review the Constitutional and legal safeguards for women,
- To recommend remedial legislative measures,
- To facilitate redressal of grievances,
- To advice the Government on all policy matters affecting women.

The Indian Woman, secure in her home and outside, fully empowered to access all her rights and entitlements, with opportunity to contribute equally in all walks of life.

**Concerned Ministry:** Ministry of Women and Child Welfare

Composition of the Commission: The Commission consists of a chairperson, a member secretary and five other members.

All the members, including the chairperson, are nominated by the Central Government for a term of three years.

The five members nominated by the Government should have experience in law, legislation, management, women voluntary organisation, economic social development and so on.

**Functions of the Commission**

- Investigate and examine all matters relating to the safeguards provided for women under the Constitution and other laws.
- Present to the Central Government annually and at such other times as the Commission may deem fit, reports upon the working of those safeguards.
- Review, from time to time, the existing provisions of the Constitution and other laws affecting women and recommend amendments thereto so as to suggest remedial legislative measures to meet any lacunae, inadequacies or shortcomings in such legislation.
- Take up the cases of violation of the provisions of the Constitution and of other laws relating to women with the appropriate authorities.
- Look into complaints and take suo-moto notice of matters relating to:-
    - Deprivation of women's rights
    - Non-implementation of laws enacted to provide protection to women and also to achieve the objective of equality and development
    - Non-compliance of policy decisions, guidelines or instructions aimed at mitigating hardships and ensuring welfare and providing relief to women, and take up the issues arising out of such matters with appropriate authorities.
    - Evaluate the progress of the development of women under the Central and any State;
    - Inspect or cause to be inspected a jail, remand home, women's institution or other place of custody where women are kept as prisoners or otherwise, and take up with the concerned authorities for remedial action, if found necessary.

**Report of the Commission:**

- It presents the annual report before the Central Government. Apart from this, it submits other reports which it deems to be fit.
- All such reports are placed before the House of the Parliament along with the memorandum.
- In case any recommendation made on the floor of the House is not accepted, the reason for the non-acceptance should be maintained in the memorandum.

**MISCELLANEOUS**

**Why in News:** The Prime Minister of India has announced the launch of the National Hydrogen Mission (NHM), while addressing the nation on India's 75th Independence Day.

**Hydrogen:**

- Hydrogen is a colourless, odourless gas, most abundant in the universe.
- It is found in complex molecules such as water or hydrocarbons on earth.
- It is an energy carrier, which means it has to be produced or extracted and stored before it can be used.

**Application:** It is utilised for industrial uses such as petroleum refining; aerospace applications; manufacturing of chemicals, steel and ammonia fertilisers; transportation; electricity generation (in fuel cells), etc.

It is a clean or green For example, unlike common combustion engines, the only byproduct of hydrogen fuel is water.

By electrolysis: This is the primary method of hydrogen production, that uses electricity to separate water into oxygen and hydrogen. If the source of electricity is renewable, then this hydrogen production can also be considered renewable.

By methods that are not carbon-friendly: For instance, through the gasification of coal or through a process called steam methane reformation which also produce carbon monoxide as a by-product. According to the World Energy Council (WEC), 96 percent of hydrogen is produced from fossil fuels via carbon intensive processes. Green, blue and brown hydrogen: Based on extraction methods, hydrogen can be classified as -

| Brown | Blue | Green |
|---|---|---|
| Hydrogen, which is produced from methods that are **not carbon-friendly** (like fossil fuels, SMR, coal gasification), emitting greenhouse gasses like carbon dioxide. | Hydrogen, which is extracted through a method that is more carbon-friendly. **For example**, SMR, but capturing the carbon dioxide released and storing it. | When hydrogen is extracted from methods without releasing any emissions at all. |

**National Hydrogen Mission (NHM)**

- Objective: To enable the generation of hydrogen from green power sources.
- This means that the Indian government is aiming to produce 'green' hydrogen, aiming to make India a global hub for the production and export of green hydrogen.
- Significance: The NHM can enable India's transition from fossil fuels like petroleum to renewable energy sources, helping to fight climate change and become a low-carbon economy.
- India currently imports 85 percent of its oil and 53 per cent of gas demand. The NHM is expected to reduce India's importing bill.
- Challenges: The production of 'green' hydrogen (via electrolysis) is expensive and not commercially viable

## ➤ The Montreal Protocol and Kigali Amendment

**Why in News:** The Government of India has approved India's ratification of the Kigali Amendment to the Montreal Protocol on phasing down climate-damaging refrigerant Hydro fluorocarbons (HFCs).

**The Montreal Protocol and Kigali Amendment**

**Vienna Convention for the Protection of the Ozone Layer**

- The depletion of the ozone layer by the 1980s prompted the international community to establish a mechanism for cooperation to take action to protect the ozone layer. Thus, to address this issue, the Vienna Convention for the Protection of the Ozone Layer, was adopted in 1985. It entered into force in 1988.
- The Vienna Convention provided the framework necessary to create regulatory measures in the form of the Montreal Protocol.

**The Montreal Protocol**

- The 'Montreal Protocol on Substances that Deplete the Ozone Layer' is the landmark multilateral environmental agreement, adopted in 1987 (entered into force in 1989).
- The Montreal Protocol is to date the only United Nations (UN) treaty ever that has been ratified by all 198 UN Member States.
- The Meeting of the Parties is the governance body for the treaty, assisted by the Ozone Secretariat, which is based at UN Environment Program (UNEP) headquarters in Nairobi, Kenya.

**Objective**

It regulates the production and consumption of nearly 100 man-made chemicals referred to as ozone depleting substances (ODS).

The substances controlled by the treaty are Chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, hydro chlorofluorocarbons (HCFCs), methyl bromide, hydro fluorocarbons (HFCs), etc.

**Ratification by India**

India became a Party to the Montreal Protocol in 1992 and since then has ratified the amendments to the Montreal Protocol (including the Kigali Amendment in August 2021). India has successfully met the phase out targets of all the ODS as per the Montreal Protocol Schedule.

## ➤ UNICEF REPORT ON CHILD RIGHTS

As per a recent report published by UNICEF, India is among 33 "extremely high risk" countries where children are most vulnerable to climate change.

**News Update**

- **The United Nations Children's Fund (UNICEF) has recently published a new report 'The Climate Crisis Is a Child Rights Crisis: Introducing the Children's Climate Risk Index'.**
- **It is the first comprehensive analysis of climate risk from a child's perspective.**
- **In the report, it introduced "The Children's Climate Risk Index (CCRI)".**
- As per the report, India is among 33 "extremely high risk" countries where children are most vulnerable to climate change.

**The Children's Climate Risk Index (CCRI)**

The Children's Climate Risk Index (CCRI) provides the first comprehensive view of children's exposure and vulnerability to the impacts of climate change.

It ranks countries based on children's exposure to climate and environmental shocks such as cyclones and heat waves. Thus, a composite index brings together geographical data by analyzing:

- Exposure to climate and environmental hazards, shocks and stresses.
- Child vulnerability.

**Significance**

- This report presents a conceptual framework, in order to help prioritize action for those most at risk.
- To build resilience and successfully address climate change, it's critical to understand where and how children are uniquely vulnerable to this disaster.

**Highlights of the report**

- **Overall data:** Globally, approximately 1 billion children (nearly half of the world's children) live in extremely high-risk countries.
- **Climate and environmental shocks:** Estimated 330 million children (1 in 7 children globally) are exposed to at least five major climate and environmental hazards, shocks and stresses.
- **Child vulnerability:** Nearly 920 million children (over one-third of children globally) are exposed to water scarcity. 600 million children (over 1 in 4 children globally) are exposed to vector-borne diseases, such as malaria and dengue.
- **Most vulnerable are not the biggest polluters:** The 33 "extremely high-risk" countries collectively emit just 9% of global $CO_2$ emissions, while 10 highest emitting countries together account for nearly 70% of global emissions.



Extremely High ● High ● Medium-High ● Low-Medium ● Low ● No data
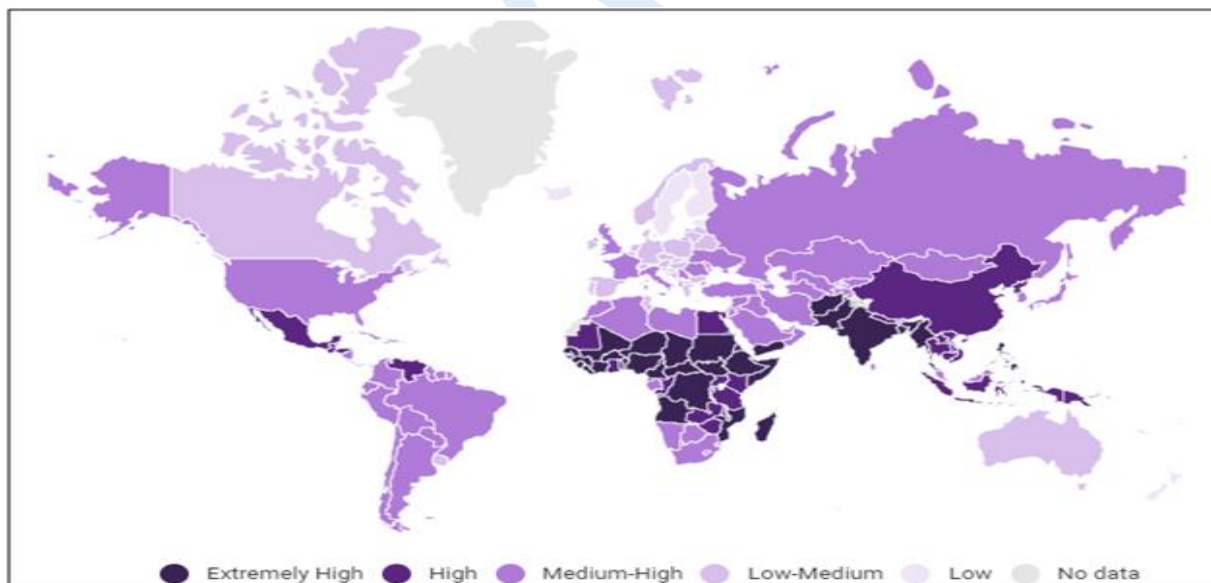
**UNICEF:** UNICEF, or the United Nations Children's Fund, is a United Nations agency that provides humanitarian and developmental aid to children around the world.

### (NOTE: KINDLY FOLLOW WEEKLY UPDATES TOO ALONG THIS MAGAZINE)