

IQRA IAS



CURRENT AFFAIRS JULY 2022

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POLITY AND GOVERNANCE

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

1.1 ANTI-DEFECTION LAW

Why in News: There has been a political turmoil in the State of Maharashtra over the last month. The incumbent Chief Minister of Maharashtra had resigned on June 29, and the new Chief Minister was sworn-in on June 30. The new Government has to pass the floor test very soon.

These political developments have brought the Anti-Defection Law into limelight once again. The law was enacted to eliminate political defections by the legislators.

Anti-Defection Law

- The **Tenth Schedule** of the Constitution, commonly known as the **Anti-Defection Law**, was introduced in **1985 by the 52nd Constitutional Amendment**.
- **'Defection'** has been defined as, "To abandon a position or association, often to join an opposing group". The anti-defection law was enacted to ensure that a party member does not violate the mandate of the party. In case he does so, he will lose his membership of the House. The law applies to both Parliament and State Assemblies.
- It provides for the Presiding Officer of the legislature to disqualify any defector on a petition by another member.
- **Grounds for Disqualification:**
 - A member voluntarily giving up membership of the party on whose symbol he got elected.
 - A member violating a direction (whip) issued by his party to vote in a particular way or to abstain from voting.
 - A member who is independently elected joins any party.
 - Any nominated member joins any political party after the end of 6 months.
- It also states that anyone disqualified under the Tenth Schedule would also be automatically disqualified from a ministerial post.
- **Exceptions:**
 1. Under Paragraph 4 of the Tenth Schedule, disqualification on account of defection will not apply in case of a merger of one party with another.
 2. A valid merger occurs when two-thirds of the party's total elected strength agrees to the merger.
 3. Paragraph 3 allowed the use of a split (1/3rd members) to avoid disqualification for defection. But it was deleted by the Constitution (91st Amendment) Act, 2003.

- The merger of the original political party of a member of a House shall be deemed to have taken place if, and only if, not less than two-thirds of the members of the legislature party concerned have agreed to such merger.

Conditions for disqualifications of a Legislator under the Constitution

- **Article 102/191** of the Constitution of India lays down the grounds for disqualification of MPs/MLAs.
- **The first part of Article 102** elaborates several instances when such a disqualification may be done: (a) If the person holds any undeclared office-for-profit under the Government; (b) If he is declared to be of unsound mind by a competent court; (c) If he is an undischarged insolvent etc.; (d) Voluntarily acquires the citizenship of a foreign State; (e) Disqualified by or under any law made by Parliament.
- **The Second part of Article 102** (and 191) gives authority to the Tenth Schedule of the Constitution to disqualify any member.

Issues with the Functioning of Anti Defection Law

- **Partisan Role of Presiding Officer:** The Speaker/Chairperson of the House is the key authority to take decisions on the disqualification issue. It is often seen that when the aggrieved party moves for disqualification, Speakers choose not to act, thus formalizing the defection.
- **No time limit to decide on disqualification:** The Speaker/Chairperson is expected to give a prompt decision on disqualification under the Tenth Schedule; however no strict time limit has been prescribed.
 - In Manipur, for instance, 7 MLAs of one party had joined another party shortly after the 2017 Assembly election. One of the defecting member became a Minister as well. However, the Speaker did not act on petitions to disqualify the Minister for over two years. In 2020, the Supreme Court used its extraordinary powers and removed the Minister concerned, from the Cabinet and barred him from entering the Assembly.
- **Defection through Resignation:** In 2019, some members submitted resignation letters to escape disqualification proceedings. The Supreme Court ultimately ruled that the Speaker has the authority to verify if a resignation is voluntary and genuine, but it is constitutionally impermissible for the Speaker to take into account extraneous factors while considering the resignation. In other words, once it is clear that a member is resigning out of free will, the Speaker is bound to accept it.
- **Freedom of Speech of Legislators:** One of the conditions for disqualification is violation of whip issued by the Political Party to vote in a particular manner. Critics argue that this

greatly limits the ability of a member to exercise her free opinion on the floor of the House on certain proposed legislations

Has Anti Defection Law been Effective?

- **First**, the law has failed to curb defections in recent years and lacks any deterrence effect on legislators. Further, re-election in by polls shows public's acceptance of defecting legislators.
- **Second**, the criticisms leveled against the exemption given to splits in political parties – that it facilitated defection by groups – applies equally to mergers. The present law forbids individual defections but facilitates group defections.
- **Third**, the MPs or MLAs are supposed to act as per party's command and not by their own judgement. This undermines representative democracy as they are unable to put forward the demands of people.
- **Fourth**, the scope of defection is very wide as it is also applicable to members of the Rajya Sabha and Legislative Councils which don't have a say in the stability of the government.

Way Forward/Suggestion:

- **First**, the Supreme Court needs to adjudicate whether an actual merger of Political Parties is a condition precedent for the merger of Legislature Parties (i.e the merger of Legislature Parties be deemed as merger of Political Parties).
- **Second**, the Speaker/Chairperson should give decisions within 3 months as advised by the Supreme Court. Further, an independent tribunal can be created in the long run to decide cases under the Tenth schedule to effectively reduce partisan role played by the Speaker.
- **Third**, the Law Commission in 1999 and the National Commission to Review the Working of the Constitution (NCRWC) in 2002 had recommended to delete the clause related to merger (Paragraph 4, Exception to Disqualification). Parliament should consider, debate and decide on the recommendations.
- **Fourth**, the Dinesh Goswami Committee Report recommended that disqualification of a member should only be attracted in the event a member violates a whip on matters related to Motion of Vote of Confidence, a No-confidence Motion, Money Bill or a Motion of Vote of Thanks to the President's address.

Conclusion

Redefining the merger clause, shifting the adjudicatory power from the Speaker to some other credible authority and even dispensing wholly with the law are measures that jurists have suggested. Additionally the Parliament must re-consider the clause related to the whip to ensure that the Right to Freedom of Speech of the Members of Legislature is not impacted.

1.2 REGULATION OF ADVERTISEMENTS IN INDIA

Why in News: The Central Consumer Protection Authority (CCPA) under the Department of Consumer Affairs has issued 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022'.

The Guidelines are a progressive step towards regulation of advertisements in India. They aim to curb misleading advertisements and protect the consumers. The guidelines seek to ensure that consumers are not fooled with unsubstantiated claims, exaggerated promises.

CCPA

The CCPA has been established under Section 10 of the Consumer Protection Act, 2019. Its functions include:

- Regulating matters relating to violation of the rights of the consumers, unfair trade practices and false or misleading advertisements which are prejudicial to the interests of consumers;
- To promote, protect and enforce the rights of consumers as a class.

The new guidelines related to advertisements have been notified in exercise of the powers conferred by Section 18 of the Consumer Protection Act, 2019 to CCPA. The guidelines will be applicable to advertisements published on all platforms like print, television and online.

Misleading advertisement has already been defined under Section 2(28) of the Consumer Protection Act, 2019. It includes any advertisement with: (a) False description of a product or service; (b) False guarantees misleading the consumers; (c) Express representation constituting unfair trade practice; (d) Deliberately not revealing the essential information about the product misinformation and false claims.

Emerging Trends in Advertisement

- **Digital Media Marketing:** The lockdowns and restricted movement increased the use of social media. The demand for content has also increased commensurately. As a result, social media users are paying more attention to posts regarding brand endorsements.
- **Surrogate Advertising:** The banned product (like alcohol or tobacco) rather than being projected directly to consumers is veiled behind another product (like Music CDs or pan masala), either by having the same brand name or similar practices. The aim is to ensure that whenever there is a mention of that brand, people start associating or recalling it with its main product.
- **Bait Advertising:** It is a deceptive and insincere offer whereby the advertiser does not intend to sell the advertised product or service at the unusually low advertised price. The

intention is to increase traffic, then switch the customer to a higher priced item when the customer is about to make the buying decision or visits the store. This is often accomplished by inducing customers to buy higher priced models by disparaging the less-expensive product.

- **Online Gaming Advertising:** There has been a substantial rise in online gaming and real money winning games in India, perhaps owing to the ease of accessibility to smart phones and the internet.
- **Ambush Marketing:** It is also called 'parasitic', 'guerrilla' or 'moment' marketing. It occurs when a brand exploits the goodwill of an event with the intent to unfairly piggyback or gain market benefits from that event, despite having no financial or official sponsorship or involvement. Recently, multiple brands were seen engaged in ambush marketing in relation to the Tokyo Olympics 2020 (2021) event.

Steps Taken for Accountability

- **Non-misleading and valid advertisement:** Guidelines define non-misleading and valid advertisement which contains true and honest representation of goods.
- **Surrogate advertisement:** The guidelines completely disallow any attempts to advertise products that are prohibited by law.
- **Advertisements Targeting Children:**
 1. The guidelines forbid advertisements from exaggerating the features of a product or service in such a manner as to lead children to have unrealistic expectations.
 2. It also forbids any health or nutritional claims or benefits without being adequately and scientifically substantiated by a recognized body.
 3. Advertisements targeting children shall not feature any personalities from the field of sports, music or cinema for products which require a health warning (for such advertisements) or cannot be purchased by children.
 4. The guidelines also require that advertisements including 'chips, carbonated beverages and such other snacks and drinks' shall not be cast on channels exclusively meant for children.
- **Disclaimer in Advertisements:**
 1. Disclaimers in advertisements, in a way, limit the responsibility of the company. The guidelines stipulate that disclaimer shall not attempt to hide material information with respect to any claim made in such advertisements.
 2. A disclaimer shall be in the same language as the claim made in the advertisement and the font used in a disclaimer shall be the same as that used in the claim.

- **Duty on Manufacturer:** The guidelines also impose duties on the manufacturers, service providers and advertising agencies. They shouldn't claim and make comparisons in an advertisement which relate to matters of objectively ascertainable facts.
- **Due Diligence by Endorsers:** The guidelines state that the endorsements should reflect the genuine, reasonably current opinion of the endorser regarding their representation based on adequate information or experience with the goods or services. Foreign professionals are barred from making endorsements in all circumstances where Indian professionals are barred.
- **Penalties:** CCPA can impose penalty of up to INR 10 lakh on manufacturers, advertisers and endorsers for any misleading advertisements. For subsequent contraventions, CCPA may impose a penalty of up to INR 50 lakhs. The Authority can prohibit the endorser of a misleading advertisement from making any endorsement for up to 1 year and for subsequent contravention, prohibition can extend up to 3 years.
- **Advertising Standards Council of India (ASCI):** It was established as a self-regulatory mechanism of ensuring ethical advertising practices. ASCI is a voluntary Self-regulation council. The members comprise Advertiser's, Media, Advertising Agencies and other Professional/Ancillary services connected with advertising practice. ASCI entertain and dispose of complaints based on its Code of Advertising Practice ("ASCI Code").

Significance of the New Guidelines

- The guidelines provide better clarity to the existing rules and provisions. It defines 'bait advertisement', 'surrogate advertisement' and clearly provides what constitutes as 'free claim advertisements'. Further, the enforcement issues in existing advertisement laws have been addressed by the guidelines in as much as it imposes severe penalties.
- It will help in upholding and protecting the rights of consumers like right to be informed, right to choose and right to be safeguarded against unsafe products and services. These rights are often violated by sellers through misleading advertisements.
- Several preemptive provisions have been laid down on advertisements targeting children. This has been done keeping in view the sensitivity and vulnerability of children and the severe impact advertisements make on the younger minds.
- The guidelines perform an essential function in bringing the Indian regulatory framework at par with international norms and standards. Further, the government is expected to come out with guidelines in consultation with industry representatives to curb fake reviews on ecommerce platforms.
- It gives a framework for the industry stakeholders to prevent misleading ads even by mistake.

Concerns Associated with the Guidelines

- A **brand extension** is when a company uses one of its established brand names on a new product or new product category. The Guidelines recognize advertisements of Brand extensions (provided they comply with other guidelines), there is no objective criteria prescribed to determine the validity/genuineness of such advertisements. This might have an impact on advertisement and thus sales of many branded products.
- Second, in case of any ambiguity or dispute in interpretation, the decision of CCPA shall be final. This might lead to increased litigation and put further pressure on the Judiciary.
- Third, there is a concern over the provisions related to celebrity endorsements vis-a-vis due diligence. Celebrities lack technical knowledge to undertake due diligence and the penalty (INR 10 Lakh) is too small for big celebrities who charge crores of rupees for endorsements.
- Fourth, a lot of claims made by advertisements are unverifiable (e.g., products may claim they make the child stronger, or taller). It is difficult to define what is misleading. The ambiguity might increase consumer complaints.

Way Forward

- Some provisions of the guidelines are bound to face litigation in courts. For instance, guidelines prohibit advertisements of chips, carbonated beverages and such other snacks on exclusive children channels. It remains to be seen whether it can survive a challenge under Article 14 and Article 19(1) (g) of the Indian Constitution. Many experts believe that it impinges upon the right of the channels such as Cartoon Network to earn revenue from such advertisements.
- Second, the advertisers, too, must take a cue from the guidelines and impose self-regulation to comply with the same.
- Third, while the guidelines must be hailed as a step in the right direction, there is a definite need to ensure their implementation in the spirit they have been drafted with. This will require strengthening of consumer courts at District, State and National level coupled with massive awareness campaigns on the lines of Jago Grahak Jago.

Conclusion

The latest guidelines aim to protect consumers' interest by bringing in more transparency and clarity in the way advertisements are being published. They will enable the consumers to make informed decisions based on facts rather than false narratives and exaggerations. The guidelines are path breaking because they fill significant consumer protection gaps while explicitly outlining advertiser duties.

1.3 WHISTLEBLOWER PROTECTION IN INDIA

Why in News: Two Whistleblowers, associated with 'Panama Papers' and 'Uber Files' revelations, have recently done interviews with media outlets.

Whistleblowing incorporates two words: 'Whistle' and 'Blowing' which means blowing a whistle or revealing some information in front of the public. The information can be about public or private organizations/institutions about activities which are deemed to be illegal, immoral or fraudulent. The people who disclose the wrong-doings are known as 'Whistleblowers.'

The Panama Papers leaks disclosed information about tax evasion by the Global Rich through offshore entities and shell corporations in tax havens. The Uber Files disclosed the unethical practices of Uber in order to achieve global dominance in the ride-hailing. Experts lament that revelations of this scale are not possible in India. They argue that the Whistleblower Protection law in India is inadequate to give a significant degree of protection to the whistleblowers. This calls for taking robust measures to improve whistleblower protection framework in India.

Internal Whistleblowers: These are whistleblowers who inform or report to the higher authority of the organizations where the wrongful act is being done. The discretion of checking that act is on the superior of the company or the organization only. Usually, the government is not involved with the inquiry and procedure to rectify the illicit work. It is taken care of by the organization itself without any interference from an outside party.

External Whistleblowers: They refer to the people who report illegitimate ongoing work in a specific organization to the external people including the media reporters, the concerned Government officers, etc. Public good and safety is the chief purpose of reporting it to the external authority. Another reason for accounting it to external authority could be the negligence in the redressal of such fraud or illicit activity within the organization.

Whistleblower Protection Framework in India

- In 2004, the Government introduced the Public Interest Disclosure and Protection of Informers (PIDPI) Resolution for the logging of complaints against alleged corruption or misuse of office by a Government officer or Department. The Central Vigilance Commission (CVC) was designated as the agency to administer complaints, which it continues to routinely route to its relevant section after masking the name of the whistleblower.

- **India became a signatory to the UN Convention against Corruption in 2005.** The Convention talks about the reporting of corruption done by the public or private entities and protecting the spectators and whistleblowers from the retaliation faced by them.
- **Companies Act, 2013:** Various Sections (Section 206-229) in the Companies Act, 2013 talk about the inspection and inquiry matters. Section 208 of Companies Act, 2013 authorizes an Inspector to look through the records and suggest for further investigation in the situation of doubt. Further, Section 210 empowers the Union Government to investigate any suspected illegal matter either by the intimation of the inspector or registrar of the company.
- **Securities and Exchange Board of India:** It mandated that every company listed under SEBI must have a whistleblower policy and have a responsibility to make every employee aware of such policy. From December 2019, SEBI has also introduced a reward mechanism as a kind of inducement to 'Informants' who report a violation of insider trading laws to SEBI.
- **Whistleblowers Protection Act, 2014:** The Act aims to protect people who bring to the notice of the authorities concerned allegations of corruption, misuse of power or commission of a criminal offense against a public servant. Under the Act, every complaint has to include the identity of the complainant. The Vigilance Commission shall not disclose the identity of the complainant except to the head of the department if he deems it necessary. The Act penalizes any person who has disclosed the identity of the complainant.

Need for the Strengthening of Whistleblower Protection Framework

- **Augmenting Transparency and Accountability:** A strong framework would ensure that the government and its organizations work as per the prescribed code of conduct. It will allow upright employees to come forward and reveal any corrupt activity in the organization. Further, Whistle-blower protection can go a long way to enable good corporate governance and provide an early warning system for potential crises, such as the one at IL&FS in India.
- **Protecting Citizen Rights:** Ensuring whistleblower protection will mean that the State is unable to undermine citizen rights. For instance, robust protection laws in the U.S gave Edward Snowden the confidence to expose numerous illegal global surveillance programs, many run by the National Security Agency. This prompted a cultural discussion about national security and individual privacy.
- **Preventing Hardships to whistle blowers:** Under the current regime, whistleblowers tend to face multiple hardships which restrain many honest individuals to blow the whistle. These include: (a) Livelihood Loss or forced to quit their job; (b) Death Threats to whistleblowers and their families. e.g., Satyendra Dubey was murdered in Gaya, Bihar, allegedly for his anti-corruption related actions in the Golden Quadrilateral highway construction project. **A study by Accountability Research Center (2015)** revealed that 50

RTI activists had been murdered between 2007-14 and numerous other faced assault and harassment.

- **Legislative Lacunas:** Both the Companies Act and the SEBI rules cover listed companies. Unlisted companies such as Unicorns and the small and medium enterprise sector remain outside the purview of any whistle-blower rules The internal mechanism mandated under the Company Act remains subordinate to the management of the company. A whistle-blower will remain completely prey to the management's whims.
- **Further, the Whistle Blowers Protection Act 2014** is limited to public servants and doesn't cover private companies. There are several other shortcomings: (a) Under the Act, the competent authority to whom any complaint on victimization can be made is usually the senior official in the hierarchy. This makes it difficult for the informant to complain against retaliation or receive any protection; (b) The Act does not allow anonymous complaints to be submitted and any anonymous complaints received are not investigated; (c) Transparency activists criticize the Government for its failure to operationalize the Whistleblowers Protection Act by framing the Rules. (d) The Act does not provide for any reward being granted to a whistleblower upon successful investigation of his claims.

Way Forward

- The Government should amend the Whistleblowers Protection Act to provide universal protection to the whistleblowers in India. Many States in the US (like Florida, Hawaii, Minnesota) have considered both public and private sector employers to be included under the whistleblower's protection acts.
- A robust reward mechanism must be created under the Whistleblowers Act for incentivization. At the same time, fines against false and frivolous complaints also need to be enhanced.
- The Government must formulate the Rules necessary to operationalize the Whistleblower Protection Act.
- The whistleblowers should be given freedom to report their complaint to independent authorities rather than senior officials like in USA.

Conclusion

The Government needs to ensure that whistleblowers are given an enabling ecosystem wherein they are incentivized and not threatened to disclose the illegal practices carried on in any organization. Strengthening the Whistleblower Protection mechanism is necessary to enhance transparency and accountability in public institutions.

1.4 NATIONAL STANDARDS FOR CIVIL SERVICES INSTITUTIONS (NSCTI)

Why in News: Recently, Ministry of Personnel, Public Grievances & Pensions has launched the National standards for civil service training institutions (NSCSTI).

NSCSTI

- NSCSTI is developed at Capacity Building Commission (CBC) headquarters.
- Web-portal and approach paper for the National standards also inaugurated.
- India became the first country in the world to come out with a unique model to create standards for civil service training institutions at national level.
- India already has standards and accreditation in higher education, healthcare and environment.
- Standards will equip Central Training Institutions (CTIs) to help civil servants tackle emerging challenges of 21st century.
- **Objectives of NSCSTI:**
 1. NSCSTI creates a baseline for Central Training Institutions (CTIs) on their current capacity for elevating their quality and capacity of training delivery and to harmonise standards for training.
 2. It will set aspirations for training institutions to strive towards excellence.

Current Issues associated with Central Training Institutions

- **Lack of training:** Too much emphasis is laid on entry-point and in-service training of the higher civil service like All India Services and Central and State Class I Services. The training needs of the middle and lower-level personnel are neglected. Thus, a majority of civil servants (80 to 90%) have no opportunity of training.
- **Lack of coordination:** Contents of the training programs are not always relevant and meaningful for the trainees. There is no relationship between the training contents and actual placement of the trainees. Many training agencies do not have co-ordination between the training programs and needs of systematic career development.
- **Curriculum:** In most cases the training institutes follow traditional lecture method of training. Up-to-date and modern methods of training are not easily adopted. Lecture method occupies almost 80% of the training in most institutions.
- **Poor evaluation:** Training system is not linked with the education and research and systematic evaluation of the training results and follow-up of the effects of training on the efficiency in administration is not attempted.

Capacity Building Commission

- It was constituted through Gazette of India in 2021. Core purpose of the Commission is to build credibility and shape a uniform approach to capacity building on a collaborative and co-sharing basis. It was established as an independent body with complete executive and financial autonomy.
- **Functions of CBC**
 1. Facilitate preparation of Annual Capacity Building Plans of departments, ministries, and agencies.
 2. Preparing an Annual State of Civil Services Report.
 3. Approving Knowledge Partners for the Mission.
 4. Evolving a harmonious, de-siloed approach to capacity building initiatives

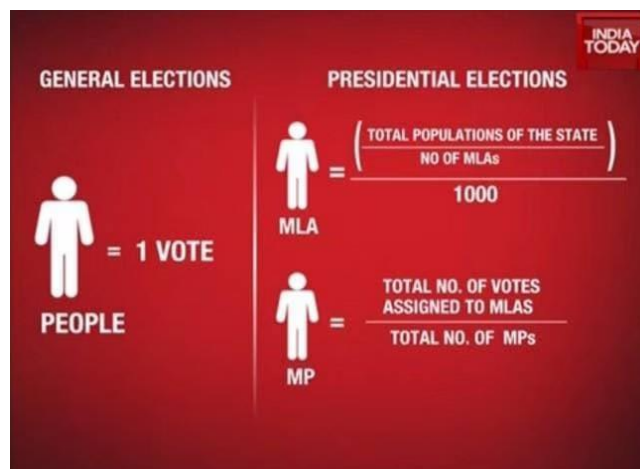
Initiatives taken to improve functioning of civil servants

- **Mission Karamyogi:** It is an Integrated Government Online Training (iGOT) Platform which allow all government servants irrespective of their rank to undergo continuous training, depending on their domain areas. It aims at building a future-ready civil service with the right attitude, skills and knowledge, aligned to the vision of New India.
- **Aarambh:** Launched by Government of India, it is first ever common foundation course for civil servants training.
- **National Training Policy:** It was adopted in 1996 and reviewed in 2012 to develop a professional, impartial and efficient civil servants that is responsible to needs of citizens and ensuring that they possess requisite knowledge, skills and attitude to make them able to perform the functions they are entrusted with.
- **Lateral entry:** Direct induction of domain experts at the middle or senior levels of administrative hierarchy, rather than only appointing regular civil servants through promotion.

PRELIMS GIST

❖ Election of the President

Under Article 62(1) of the Constitution, an election to fill a vacancy caused by the expiration of the term of office of the President shall be completed before the expiration of the term (5 years).



• Election Process

- The President is elected by an electoral college consisting of MPs of both Houses of Parliament and MLAs of the states and Delhi and Puducherry.
- Nominated members of Rajya Sabha, Lok Sabha and the Assemblies, and members of state Legislative Councils, are not part of the Electoral College.
- The election is held as per the system of proportional representation by means of a single transferable vote.
- The winning candidate has to secure the required quota of votes to be declared elected, i.e., 50% of valid votes polled +1.
- Anti-defection law is not applicable in the presidential election; thus, electors are not bound to vote along party lines.
- Under Article 324 of the constitution, the Election Commission of India has the authority to conduct the presidential elections.

❖ All India District Legal Services Authorities (DLSAs) Meet

PM recently addressed inaugural session of First All India District Legal Services Authorities (DLSAs) Meet.

• DLSAs are established under Legal Services Authorities Act (LSA), 1987 to:

1. Provide free legal aid, organize Lok Adalats, Legal literacy camps etc
 2. Secure that opportunities for securing justice and fundamental rights are not denied to any citizens by reasons of poor economic conditions.
- There is a total of 676 DLSAs in the country. They are headed by District Judge who acts as Chairman of DLSA.
 - DLSAs also contribute towards reducing burden on courts by regulating Lok Adalats conducted by National Legal Services Authority (NALSA).
 - Lok Adalat is an Alternative Disputes Resolution Mechanisms. It has been given statutory status under LSA.

LSA, 1987

- It was enacted to establish a nationwide uniform network for providing free and competent legal services to the weaker sections. Article 39A provides for free legal aid to the poor and weaker sections of the society and ensures justice for all.
- NALSA has been constituted under LSA to monitor and evaluate implementation of legal aid programs and to lay down policies and principles for making legal services available under Act.

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 I2U2

Why in News: Recently, first I2U2 (India, Israel, United States and the United Arab Emirates) leaders' Summit was held virtually.

I2U2

I2U2 was initially formed in October, 2021 following the Abraham Accords between Israel and the UAE, to deal with issues concerning maritime security, infrastructure and transport in the region. At that time, it was called the 'International Forum for Economic Cooperation'. That was referred as the 'West Asian Quad'.

- I2U2 initiative is a new grouping of I2 (India, Israel), and U2 (USA and UAE).
- This is a great achievement which tells the geopolitical changes that happen in the region.
- This will not only revitalize and re-energize the system of alliances and partnerships around the world, but also stitch together partnerships that did not exist previously or were not utilized to their full extent.

Objectives:

- Its stated aim is to discuss "common areas of mutual interest, to strengthen the economic partnership in trade and investment in our respective regions and beyond".
- Six areas of cooperation have been identified by the countries mutually, and the aim is to encourage joint investments in water, energy, transportation, space, health, and food security.

Abraham Accords

- Abraham Accords is a series of peace agreements between Israel and several Arab countries, UAE being the first.
- In 2020, it was mediated by USA between UAE, Bahrain and Israel.
- The name "Abraham" refers to the great father of the faith of the three Abrahamic religions: Judaism, Christianity, and Islam.
- It's a symbolic title that promotes unity between Arabic and Jewish people by recognizing the shared patriarch.

Key Highlights of Summit

- The United Arab Emirates (UAE) announced to invest USD 2 billion in India to develop **Food Parks** across the country.

- India will provide appropriate land for the project and will facilitate farmers' integration into the Food Parks.
- The Grouping declared to support a "**hybrid renewable energy project**" in Gujarat, consisting of 300 megawatts (MW) of wind and solar capacity.
- The project is expected to be another step in India's quest for "500 GW of non-fossil fuel capacity by 2030".
- The US and Israeli private sectors will be invited to lend their expertise and offer innovative solutions that contribute to the overall sustainability of the projects under the Grouping.
- Leaders welcomed India's interest in joining **US, UAE, and Israel in Agriculture Innovation Mission for Climate initiative (AIM for Climate).**

Significance for India

- **Indian Ocean:** It will facilitate greater engagement across western Indian ocean which lies between India, Suez Canal and South Africa. At least 12 percent of world trade passes through the Suez Canal that links the Indian Ocean to the Mediterranean via the Red Sea.
- **Access to market:** It will help to enhance bilateral trade, facilitate access to strategic markets in West Asia, starting with the UAE, and could lead to significant job creation in India
- **Ties with Middle East:** It will help India to deepen its ties with the Middle East, which serves India's energy and economic interests and has a large diaspora presence. Additionally, it will enhance opportunity to expand ties with the US beyond Asia. India would help Israel to bridge the difference between Israel and Arab countries.
- **Strengthen global position:** After QUAD, India's inclusion in I2U2 strengthens its global position. Such developments align India with other major powers like Russia, Europe, and China to address its national and regional concerns strategically.
- **Security:** It would help to minimize threats like maritime piracy, illegal smuggling of drugs and weapons, and terrorism.

Way Forward

- The investments proposed in the recent summit will help maximise crop yields and, in turn, help tackle food insecurity in South Asia and the Middle East.
- Such projects also have the potential to make India a global hub for alternate supply chains in the renewable energy sector.
- Each of these countries are technological hubs, including India, which is the massive consumer market.
- There are a number of areas where these countries can work together, whether its technology, trade, climate, COVID-19, and potentially even security as well.

2.2 INDIA-AFRICA

Why in News: India-Africa Relationship has a long and rich history.

India shares close and friendly relationship with many African countries that are built on mutual trust and confidence. Leveraging this, countries have managed to collaborate on various fields like trade, education, skill, health etc. The ongoing 17th Confederation of Indian Industry-Exim Bank Conclave on the India-Africa Growth Partnership offers an opportunity to take the relationship to next level.

History

- India has a long history of partnership with Africa. India's freedom movement became an inspiration for African nationalists in their desire for independence from colonialism.
- After India gained independence, it became a leading voice in support of African decolonisation at the United Nations. Independent India, though extremely poor, strived to share its limited resources with African countries under the banner of South-South cooperation.
- In 1964, India launched the Indian Technical and Economic Cooperation (ITEC) program to provide technical assistance through human resource development to other developing countries. African countries became the greatest beneficiaries of it.

India-Africa Relations:

Economic: According to the Confederation of Indian Industry, in 2020-21, India's exports to and imports from Africa stood at US\$ 27.7 billion and US\$ 28.2 billion respectively. Top 5 markets for Indian exports in Africa are South Africa, Nigeria, Egypt, Kenya and Togo. India's top importers are South Africa, Nigeria, Egypt, Angola and Guinea.

India's top three exports to Africa are mineral fuels and oils (processed petroleum products), pharmaceutical products and vehicles.

Mineral fuels and oils, (essentially crude oil) and pearls, precious or semi-precious stones are the top imports accounting for over 77% of India's imports from Africa.

Social: In 2017, under the Indian Council for Cultural Relations (ICCR), 50,000 scholarships had been granted to African students over 5 years. The Indian Technical and Economic Cooperation (ITEC) program is assisting Africa in giving people opportunities to learn new skills and acquire knowledge through training programs.

Security: Many African nations are members of the IORA (Indian Ocean Rim Association) that aims to strengthen maritime safety and security of the Indian Ocean. Similarly, the first-ever

India Africa Defence Ministers Conclave (IADMC) was held in Lucknow, Uttar Pradesh in conjunction with DefExpo in 2020.

Digital Cooperation: The Pan African e-Network, launched in 2009, was a groundbreaking initiative to extend Indian expertise in IT to provide better healthcare and education facilities in 53 African countries. The second phase of this program, e-VidyaBharti and e-ArogyaBharti (e-VBAB), was started in 2018. It aims to provide free tele-education to 4,000 African students each year for five years and medical education for 1000 African doctors, paramedical staff, and nurses.

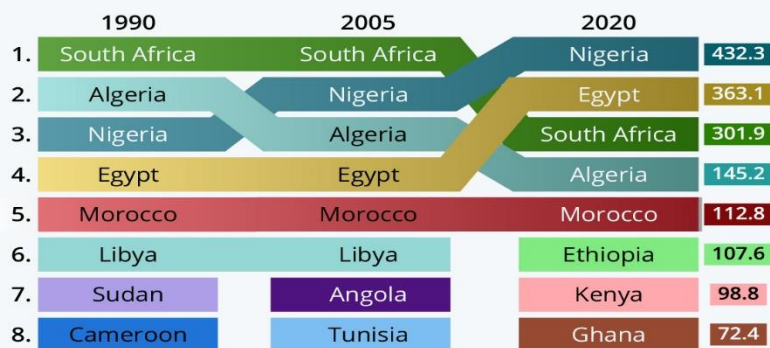
International Cooperation: India and Africa have often held common positions at various global platforms and worked together to guard the interests of other developing countries. They have moved joint proposals, such as the Agricultural Framework Proposal and Protection of Geographical Indications, at the World Trade Organization (WTO) and World Intellectual Property Organization (WIPO).

Huge Economic Potential: The African Continental Free Trade Area (AFCFTA) provides a wide scope to create the largest free trade area in the world by geography and an opportunity to lift 30 million people out of extreme poverty. It can help promote India-Africa bilateral trade and investment under AFCFTA.

There are opportunities in services trade with Africa in the fields of Information Technology (IT), Mobile payment solutions, banking, and financial services. India's success in manufacturing vaccines and pharmaceuticals, and advances in telemedicine, can open up new opportunities in the pharmaceuticals and the healthcare sector.

Africa's Biggest Economies

African countries with the highest GDP over time
(in billion U.S. dollars)



Source: World Bank



Infrastructure Development in the African Continent: India has the world's third-largest start-up ecosystem. Thus, it could count on its strengths to fortify the digital infrastructure in Africa, thereby contributing to the achievement of the continent's Agenda 2063. The AfCFTA seeks to facilitate international supply chains for food, pharmaceuticals, and various other essential products. India can help in building important infrastructure for cross-border supply chains. It will help Indian industries to operate efficiently in Africa.

Soft Power: India commands a significant degree of soft power across the continent. It is amplified by the presence of Indian Diaspora in countries like Mauritius. This helps in building trust between the nations and effective implementation of joint projects. Women consist of 90% of Africa's labor force in the informal sector, engaged mainly in education, healthcare, and tertiary services.

Common Agendas: Most African nations are developing in nature just like India which creates a common understanding on multiple issues. India and Africa share common grounds on reformation of the UNSC, Climate change agreements, Trade Issues and WTO negotiations etc.

Challenges Associated

- **Flaws in India's development strategy in Africa:** Firstly, India is not actively pursuing any specific development goals. An assessment of India's development cooperation instruments (LoCs, grants, and capacity building projects like ITEC) reflects the absence of a plan for Africa. Indian LoCs have not been designed to achieve a larger development goal such as food security, health security, clean energy or education for all.
- Secondly, there is no synchronization between different development instruments. LoCs, grants and capacity building initiatives operate as standalone instruments of development cooperation, with almost no links with each other. As a result, the overall development impact of India's development cooperation is small and difficult to measure. Moreover, implementation has been a key constraint for Indian LoCs, with poor disbursement rates and project completion record.
- **Increased presence of China:** China has successfully used the pandemic to expand its footprint by increasing the outflow of its vaccines. Unfortunately, India's 'vaccine diplomacy' faced challenges like COVID-19 second wave, shortage of vaccine raw materials from the U.S., etc. Lack of Focus: Geopolitical tensions in Asia and the imperative to consolidate its position in the Indo-Pacific region have compelled India to deviate from greater focus on the India-Africa relationship. Instead, India concentrated on its ties with the United Kingdom, the EU, and the Quad powers, particularly the US.
- **Competition from Peers:** A dozen nations from America, Europe and Asia have come forward to assist Africa in resolving the continent's political and social challenges. It has

created intense competition among nations, especially the United States, the European Union (EU), China, Japan and India. For instance, China is currently the second most popular destination for African students after France, which hosts about 95,000 African students. The poor quality of education in India restricts African students despite huge scholarships provided to them.

- **Racial Attacks:** Incidents of racial attacks on African nationals have severely dented India's image. If untreated, this could be a potential source of tension between India and Africa and damage the goodwill India currently enjoys in the continent.

Way Forward

- **Clear strategy for African development:** India should prepare a focused Africa strategy for the next decade and identify a few areas for closer cooperation. Targeting a few important areas like food and health security, climate change adaptation and gender equality will help improve development outcomes and make India's development cooperation program more effective.
- **Continue the current focus on capacity building:**
 1. A simple focus on building physical infrastructure and economic growth will not contribute to a stable and prosperous Africa. Investment in human capital is the key to development in Africa.
 2. Harness Indian civil society organizations, NGOs, and Indian diaspora: The Government should explore greater collaboration with them to implement development projects in Africa at low costs. Some Indian organizations like Pratham and Barefoot College are already playing an important role in Africa.
- **Timely completion of projects:** Efforts must be made to expedite the LoC projects. Address concerns about academic experience in India: India must make large-scale investments in domestic higher education sector to project itself as an education hub for neighbouring countries and Africa.
- **Improve the experiences of Africans in India:** Indian government should ensure that Africans studying or working in India are safe and enjoy their stay in the country. Efforts should also be made to educate Indians about Africa so that people-to-people connections between India and Africa flourish.

Conclusion

The future development partnership should be guided keeping in mind Africa's priorities. It should be on terms that are comfortable for Africa, liberate its potential and not constrain its future. India should cooperate with the African nations as per the Gujral Doctrine of Generosity rather than Reciprocity.

PRELIMS BITS

❖ ONE Country, Two Systems (OCTS)

China marked the 25th anniversary of Hong Kong's return and emphasized Beijing's control over Hong Kong under One country, two systems (OCTS).

Background of OCTS

- It was originally proposed to unify China and Taiwan but rejected by Taiwan.
- The idea resurfaced when China started talks with Britain and Portugal, who were governing Hong Kong and Macau, respectively, as colonies.

About OCTS

- Under this, China proposed that, Hong Kong, and Macau, can have different economic and political systems from that of mainland China, while being part of China.
- Both regions became Special Administrative Regions of China with their own currencies, economic and legal systems. However, defence and foreign affairs would be decided by China. Also, Hong Kong has freedom of assembly and speech, and some democratic rights, which are not available in mainland China.
- These freedoms are protected by the Basic Law, a mini constitution that guides relationship between Hong Kong and China.
- Basic law is valid for 50 years, till 2047 for Hong Kong and 2049 for Macau. But it is unclear what will happen after this term.
- British had taken control of Hong Kong in 1842 after the First Opium War. In 1898, Britain and China signed Convention, which allowed the British to take control of the islands surrounding Hong Kong on lease for 99 years.
- Macau, on the other side, had been ruled by the Portuguese from 1557.
- In the 1980s, China initiated talks with both Britain and Portugal for the transfer of two territories.
- Hong Kong returned to Chinese control in 1997, and Macau's sovereignty was transferred in 1999.

❖ CAATCSA

- The US House of Representatives passed a legislative amendment that exempts India from economic sanctions under the Countering America's Adversaries through Sanctions Act (CAATSA) for purchasing the S400 missile defence system from Russia in 2018 to help deter aggressors like China.

- The US sees India as an important ally in its fight against China. If sanctioned, the Quad collective, of which India is part, could be significantly impacted.
- CAATSA is a law that came into effect in the US in 2017, and was meant to punish countries having deep engagements with Russia, North Korea, and Iran using economic sanctions. However, the application of CAATSA is not limited to the S-400, and may include other joint ventures for manufacturing or developing weapons in the future, or any other kinds of major deals with Russia.
- The US has already imposed sanctions on Turkey under CAATSA for purchase of S-400 missile systems from Russia.
- S-400 is a mobile long-range surface-to-air missile (LRSAM) system.

❖ 2022 Supply Chain Ministerial Forum

- **India recently adopted US' joint statement of the on cooperation of global supply chains.**
- A partnership of 18 economies, including India, US and European Union has unveiled a four-point roadmap for building collective, long-term resilient supply chains (RSC) to counter risks arising from supply dependencies and vulnerabilities.
- Roadmap was formulated in the backdrop of supply chain summit that was held in US, in 2021. Statement recognizes shocks to global supply chains from pandemics, wars and conflicts, extreme climate impacts, and natural disasters.
 - Building RSC roadmap is based on global principles of transparency, diversification, security and sustainability.
 - Currently, the global supply chain is dominated by China.
 - Measures are aimed at reducing the dependence of 17 partners on Chinese supply chains against the backdrop of its assertive actions, including on economic and trade issues.
 - India, Japan and Australia have also launched Supply Chain Resilience Initiative (SCRI) to counter China's dominance of supply chain in the Indo-Pacific region.

Significance of RSC

- Risk reduction by allowing visibility into all operations across the network.
- More efficient operations leading to more investment in innovation and growth.
- Improved productivity.



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 Prevention of Money Laundering Act (PMLA)

Why in News: Recently, the Supreme Court upheld the core amendments made to the Prevention of Money Laundering Act (PMLA).

Dirty Money

- The money generated out of criminal activities like illegal arms sales, smuggling, drug trafficking and prostitution rings, insider trading, bribery and computer fraud schemes is called 'dirty money'.

Money laundering

- Money laundering is the process of conversion of 'dirty money', to make it appear as 'legitimate' money.

HOW DIRTY MONEY IS LAUNDERED

Typical Money Laundering Scenario



Steps of Money laundering

- Placement surreptitiously injects the "dirty money" into the legitimate financial system.
- Layering conceals the source of the money through a series of transactions and bookkeeping tricks.
- In the final step, integration, the now-laundered money is withdrawn from the legitimate account to be used for whatever purposes the criminals have in mind for it.

Prevention of Money Laundering Act (PMLA) 2002

- It was enacted in 2003 and the Act along with the Rules framed thereunder has come into force with effect from 1st July 2005.
- The Parliament enacted the PMLA as a result of international commitment to sternly deal with the menace of money laundering of proceeds of a crime having transnational consequences and on the financial systems of the countries.

Objectives

The PML Act seeks to combat money laundering in India and has three main objectives:

- To prevent and control money laundering
- To confiscate and seize the property obtained from the laundered money; and
- To deal with any other issue connected with money laundering in India.

Provisions:

- **Definition of money laundering:** PMLA defines offence of money laundering as whosoever directly or indirectly attempts to indulge or knowingly assists or knowingly is a party or is actually involved in any process or activity connected with the proceeds of crime and projecting it as untainted property shall be guilty of offence of money-laundering.
- **Prescribes obligation:** PMLA prescribes the obligation of banking companies, financial institutions and intermediaries for verification and maintenance of records of the identity of all its clients and also of all transactions and for furnishing information of such transactions in a prescribed form to the Financial Intelligence Unit-India (FIU-IND).
- **Empowerment of officers:** PMLA empowers certain officers of the Directorate of Enforcement to carry out investigations in cases involving offence of money laundering and also to attach the property involved in money laundering.
 - It empowers the Director of FIU-IND to impose fines on banking companies, financial institutions or intermediaries if they or any of its officers fails to comply with the provisions of the Act as indicated above.
- **Setting up of Authority:** PMLA envisages the setting up of an Adjudicating Authority to exercise jurisdiction, power and authority conferred by it essentially to confirm attachment or order confiscation of attached properties.
- It also envisages the setting up of an Appellate Tribunal to hear appeals against the order of the Adjudicating Authority and the authorities like Director FIU-IND.
- **Special Courts:** It envisages the designation of one or more courts of sessions as Special Court or Special Courts to try the offences punishable under PMLA and offences with which the accused may, under the Code of Criminal Procedure 1973, be charged at the same trial.

- **Agreement for Central Government:** It allows the Central Government to enter into an agreement with the Government of any country outside India for enforcing the provisions of the PMLA, exchange of information for the prevention of any offence under PMLA or under the corresponding law in force in that country or investigation of cases relating to any offence under PMLA.

Recent Amendments in the Money Laundering Act

- Introduced the concept of 'corresponding law' to link the provisions of Indian law with the laws of foreign countries.
- Adds the concept of 'reporting entity' which would include a banking company, financial institution, intermediary or a person carrying on a designated business or profession.
- Confers powers upon the Director to call for records of transactions or any additional information that may be required for the purposes of investigation.
- Term proceeds of crime includes not only the property derived from scheduled offence but would also include any other property derived or obtained indulging into any criminal activity relate-able or similar to the scheduled offence.

Enforcement Directorate (ED)

- It is a financial investigation agency under Department of Revenue, Ministry of Finance.
- It was established in 1956 with its Headquarters at New Delhi.
- It is responsible for enforcement of Foreign Exchange Management Act, 1999 (FEMA) and certain provisions under PMLA, 2002.
- FEMA is a civil law while PMLA is criminal law.
- In 2021, Parliament has passed a bill to extend the tenure of director of ED to a maximum of five years.

3.2 JOINT THEATRE COMMANDS

Why in News: Recently, the Indian Defence Minister announced the setting up of joint theatre commands of the tri-services to enhance coordination among the armed forces.

Joint Theatre Commands

- The idea behind 'Theatre Command System' is to bring synergistic coordination between the three branches of the armed forces.
- Besides the operational synergies, the theatre command system will also contribute to more streamlined costs and a leaner fighting force.

Aim:

- Bringing separate commands for the army, navy, air force under a unified command spearheaded by a single commander.
- The integration process would ultimately lead towards the unified military assets fused into one single command under one operational head who will be responsible for directing and controlling their activities in a given situation.
- Further, the theatre command system aims to bring greater focus in the allocation of resources and help reduce redundancies.

There are two joint services commands in India:

Andaman and Nicobar Command (ANC): Based on the principle of theatre command system, ANC is considered to be the only one of its kind in the country that amalgamates the army, navy and air force.

- Set up in 2001, ANC is based in Port Blair and is led by officers of the three services on a rotation basis.
- The command covers India's strategic interests in Southeast Asia and the Malacca Strait.

Strategic Forces Command (SFC): As SFC takes care of the nuclear assets of India and is not related to any specific theatre of war.

Countries that follow Theatre Command System:

- Various countries around the globe already have some form of theatre or joint command in place to bring better integration among their military forces.
- Notably, the USA was the first country to enforce a theatre command system with six geographical and four functional commands presently in place.
- Russia also started with the restructuring of its defence forces in 2008 and has four theatre commands.
- China's theatre command system is said to be based on the US model and has "five peacetime geographical commands". Chinese Western Theatre Command covers the region along the Indian border.

India as a Defence Exporter

- India is moving quickly from being the world's largest importer of defence equipment to an exporter.
- The country has started defence exports worth Rs 13,000 crore and it has fixed a target to increase it to Rs 35,000 to Rs 40,000 crore by 2025-26. Today, India is not the world's largest importer but is among the top 25 nations engaged in defence exports."

Challenges

- The integration of three forces under the Theatre Command System would require an intricate chain of command flow.
- It comprises hurdles related to operational command and control over assets.
- Besides, budgetary allocations, fund distribution and assets between the army, navy and air force need to be clearly worked out to enable the setting up of a seamless theatre command.
- The three basic components of Indian defence forces are the army, navy and air force, each with its unique fighting profile, separate heads and multiple commands that are vertically split in terms of their command structure.
- The Indian Army and Indian Air Force have 7 commands each while the Indian Navy has 3 commands. These commands are scattered across the nation and don't coincide geographically.

Way Ahead

- Under the proposed four theatre commands: air defence, maritime, integrated eastern and integrated western theatre commands, will promote better synchronization among the three branches of the armed forces.
- It will ensure increased coordination to boost the overall fighting capabilities of the Indian armed forces, create capacities to adapt to the requirements of hybrid warfare along with seamless command centers to meet future challenges.

PRELIMS UPDATE

IAC-1

- It is currently codenamed IAC-1 and will be called INS Vikrant once it enters service in the Indian Navy.
- An aircraft carrier generally leads as the capital ship of a carrier strike/battle group.
- Only five or six nations currently have the capability of manufacturing an aircraft carrier.
- It is currently codenamed IAC-1 and will be called INS Vikrant once it enters service in the Indian Navy. An aircraft carrier generally leads as the capital ship of a carrier strike/battle group.
- IAC-1 has been designed by the Indian Navy's Directorate of Naval Design, and built at Cochin Shipyard Limited (CSL), a public sector shipyard under the Ministry of Shipping.
- India's has had aircraft carriers earlier too — but those were built either by the British or the Russians.

- **Importance of an aircraft carrier:**

- Enhances Navy's capability to travel far from its home shores.
- Essential to be considered a 'blue water' navy — one that has the capacity to project a nation's strength and power across the high seas.
- Important amid India's bid to be a net security provider in the Indian Ocean region where it faces China.
- Support in a conventional war against Pakistan, which would involve strikes against Pakistan naval assets and land bases.

- ❖ **INDIGENOUS STEALTH DRONE**

- Indigenous stealth drone took maiden flight from test range in Karnataka.
- The stealth drone, also referred to as an Unmanned Combat Airborne Vehicle (UCAV).
 - The UCAV is a precursor to the Ghatak armed stealth drone program called AURA (Autonomous Unmanned Research Aircraft).
 - AURA is described as a self-defending, high-speed, reconnaissance UAV with a weapon firing capability.
- It has been designed and developed by the Aeronautical Development Establishment (ADE).
- It is powered by a small turbofan engine.

- ❖ **INDIA-JAPAN MARITIME EXERCISE**

- A Maritime Partnership Exercise (MPX) was conducted between Japan Maritime Self Defense Force and Indian Navy in Andaman Sea.
- It aimed at enhancing interoperability and streamlining seamanship and communication procedures

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 GST

Why in News: The Goods and Services Tax (GST) has completed its 5th year since its inception on 1 July 2017. The move towards 'one nation one tax' was one of the most historic indirect tax reforms in India.

GST replaced 17 Union and State taxes and 13 cesses. 5 years down the line, the GST regime has been successful in attaining many of the intended objectives.

Goods and Services Tax

- Goods and Services Tax (GST) is a comprehensive indirect tax on the manufacture, sale, and consumption of goods and services throughout India. It replaced the existing indirect taxes levied by the Union and State Governments.
- It is a **single indirect tax** for the whole nation, which aims to make India one unified common market.
- It is a **destination-based tax** applied on goods and services at the place where final/actual consumption happens.
- GST is applied to all goods other than crude petroleum, motor spirit, diesel, aviation turbine fuel, natural gas and alcohol for human consumption.
- There are four slabs for taxes for both goods and services: 5%, 12%, 18%, and 28%. Different tax slabs were introduced because daily necessities could not be subject to the same rate as luxury items. Besides, a cess is levied on the highest tax slab of 28% on luxury, sin and demerit goods.
- The collection from the cess goes to a separate corpus called Compensation fund. It is used to make up for revenue loss suffered by the state due to GST rollout. States were promised a compensation for five years if their GST collection falls short of the 14 percent compounded revenue growth.

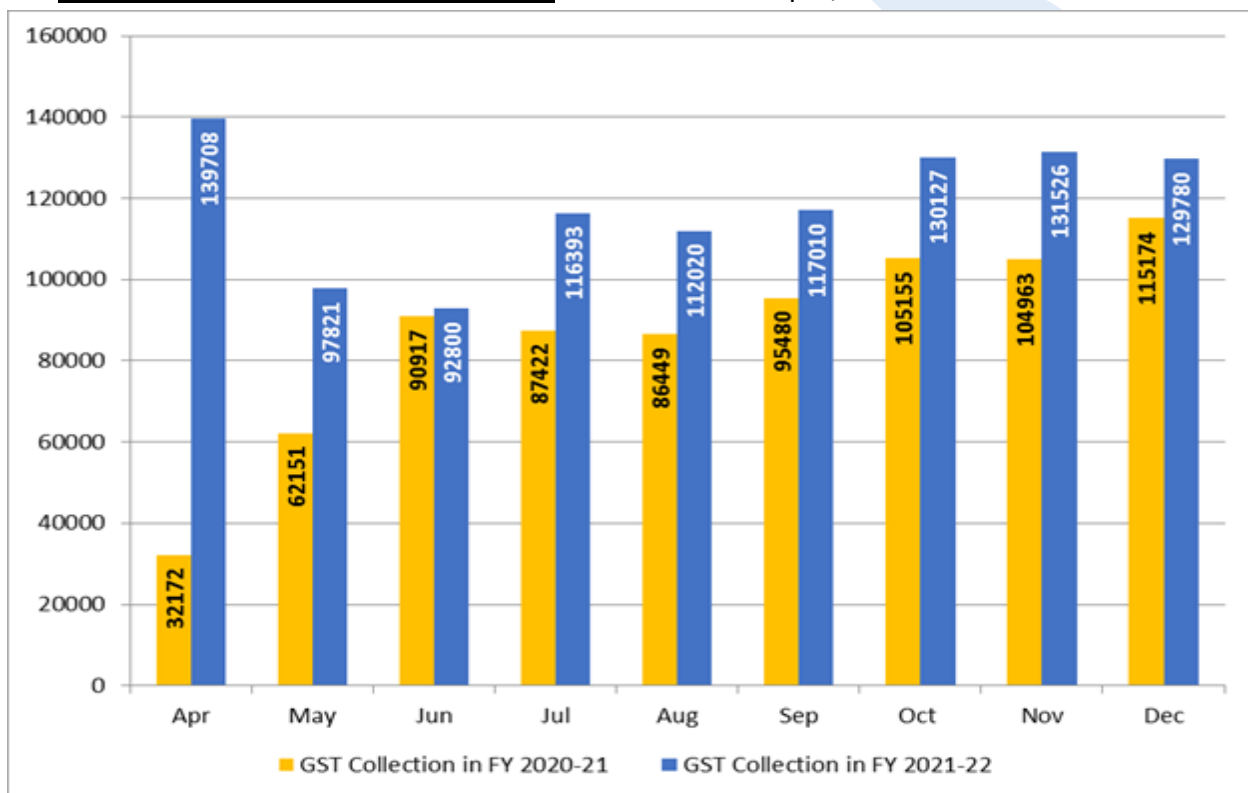
GST Council

- The GST Council is the most important part of India's GST regime. The council is responsible for recommending rates of tax, period of levy of additional tax, principles of supply, the threshold for exemption, floor level and bands of taxation rate, special provisions to certain states, etc.
- **Article 279A** of the constitution enables the formation of the GST Council by the President to administer & govern GST. **The Union Finance Minister of India is a Chairman** of the GST Council.

- The GST council is devised in such a way that the Union Government has 1/3rd voting power and the States have 2/3rd. The decisions are taken by the 3/4th majority. A mechanism for resolving disputes arising out of its recommendations is also decided by the Council itself.

Achievements of GST

Revenue Collection: The GST council has taken measures which made Rs 1 lakh crore GST collection per month 'a new normal'. It is on the course to take the figure to Rs 1.4 lakh crore every month. The collections had touched a record Rs 1.68 lakh crore in April 2022. It had for the first time crossed Rs 1 lakh crore mark in collections in April, 2018.



Faster Growth in State Revenues: In the five years (2017-18 to 2021-22) since the introduction of GST, the overall resource growth for States was 14.8% per annum, versus an annual average growth rate of 9% between 2012 and 2015. Thus, States appear to be better off. The Share of GST in States' revenue has marginally increased in 2018-21 compared to 2014-17.

- **Avoiding Cascading of Taxes:** It subsumed 17 local levies like excise duty, service tax and VAT and 13 cesses. In the pre-GST era, the total of VAT, excise, CST and their cascading effect led to 31% as tax payable, on an average, for a consumer. With regular adjustment of items in the various tax rate brackets, the effective GST rate had come down to 11.6% in 2019 from 14.4% at its inception.

- **Promoting Ease of Doing Business:** The GST Council has decided to ease compliance for small taxpayers who supply through the e-commerce platform. Such suppliers, who make only intrastate supplies, need not seek GST registration provided their annual turnover is less than Rs 40 lakh in case of goods and Rs 20 lakh in case of supplies.
- **Improving Compliance:** GST Network (GSTN) provides the technological backbone for the indirect tax regime. It has been using artificial intelligence and machine learning to dish out newer data and plug revenue leakages.

Challenges Associated with GST

- **Multiple Tax Rates:** Unlike many other economies which have implemented this tax regime, India has multiple tax rates. This hampers the progress of a single indirect tax rate for all the goods and services in the country. Most of the items fall in the high tax category of 18%. This acts as regressive, as it impacts the poorer section of the society.
- Further, current inflationary concerns have derailed the plans to tweak rates and GST slabs. The consumer price index-based inflation rate remained over 6% for the fifth month in a row and stood at 7.04% in May.
- **Inflation and Revenue Collections:** Some economists argue that the current rise in GST collections is due to high inflation. The growth rate of GST collections in real terms (adjusted for inflation) is much lower e.g., the Year-on-Year growth rate in GST Collections in March 2022 was 14.7% in nominal terms, but only 3.7% in real terms (adjusted for inflation).
- **Hardships for Taxpayers:** There is unwarranted and excessive issuance of show cause notices for reconciliations of financial numbers, grant of registration, etc. that creates severe hardships for the taxpayers.
- **Lack of Coverage:**
 1. With petrol, diesel, ATF outside GST, a large part of the economy is still not covered by the indirect tax regime.
 2. Compensation to States: A lot of States have been dependent upon the compensation. Since the clause is coming to an end, many States are demanding an extension. However, the Union Government appears to be reluctant. Moreover, the Union Government had delayed GST compensation to the States from 2019-20 when the economy started slowing down. It was paid in May 2022 after much delay.
- **National Anti-profiteering Authority (NAA):** The NAA was set up in 2017 to ensure that GST rate reductions were passed on by firms to consumers and there was no profiteering. But right from the outset, the process of imposing penalties on companies was criticised for the alleged lack of a proper methodology to ascertain profiteering. As of May, there are close to 400 cases pending with it.

Way Forward

- First, the Governments can consider bringing petroleum and electricity under GST ambit that will help prevent cascading and ensure further uniformity.
- Second, Most states have sought an extension to the compensation mechanism and a final decision is likely to be taken at the next GST Council meeting.
- Third, with emerging technology, there is emergence of newer asset classes like the virtual digital assets (VDA) or crypto currency. Hence, there is a need for clarity on whether they would be classified as supply of 'goods' or 'services' and what would be the tax rate on them.
- Fourth, the Government can consider setting up of Central authority to resolve conflicting AAR judgements across states. It can also consider doing away with anti-profiteering provisions freeing businesses to set prices. The Chief Economic Advisor has advised setting up a complaint redressal mechanism (a GST Tribunal).
- Fifth, some checks can also be incorporated on system generated GST notices, so as to avoid any unnecessary harassment of taxpayers.
- Sixth, the GST system has a rich database. The data can be analysed to provide useful insights about the health of the economy. It can provide information about trends in economic activity like (consumption patterns) or the level of the formalization of the economy. It can also help understand which areas or districts are thriving or lagging behind. The data-driven insights can help prescribe appropriate policy interventions.

The temporary waiver will contribute to ongoing efforts to concentrate and diversify vaccine manufacturing capacity so that a crisis in one region does not leave others cut off.

4.2 UPI AND DIGITAL PAYMENTS

Introduction

The Unified Payments Interface (UPI) has gained huge popularity since its launch in 2016. The popularity is testified by its adoption from tiny roadside shops to large consumer brands.

In May 2022, the UPI processed payments crossed INR 10 Lakh Crore threshold in monthly transactions for the first time since its launch. More than 40% of all retail digital payments (non-cash and non-paper payments) in India happen through UPI now.

About the evolution of Digital Transactions in India

In 1996, Industrial Credit and Investment Corporation of India (ICICI) introduced online banking services in India, by using electronic banking at its branches. Later in 1999, banks such as HDFC, and ICICI launched online banking facilities.

Types of digital payment systems of India

- **Banking Cards:** The most popular form of payment, cards consist of a variety of features and benefits, such as convenience, security, and offers.
- **AEPS:** AEPS, or Aadhar Enabled Payment System, allows banking transactions such as checking balances, withdrawing money, depositing money, sending money, and transferring money between Aadhar accounts. Aadhar verification is used to verify all transactions. No branch visits are required, debit cards cannot be used, and signatures are not required.
- **The National Payments Corporation of India (NPCI)** is also taking steps to promote digital payments in the country by making Aadhaar available to banks where you hold an account.
- **Mobile Wallets:** Wallets enable users to store bank information securely in an encrypted format and to make payments securely. A mobile wallet app can store bank details, such as debit cards, credit cards, and Net Banking info. It also eliminates the need to use credit and debit cards, or remember CVVs or ATM pins if one uses a mobile wallet.
- **Internet Banking:** Online banking includes transferring funds, opening recurring deposits, and closing accounts. In Internet Banking, you can transfer money via NEFT, IMPS, RTGS, or similar online transfer methods.
- Internet Banking has no time restrictions and can be used anytime and anywhere in the world, all year round. It offers a wide range of services that a physical bank cannot offer.

UPI

The UPI was launched in 2016 and is operated by the National Payments Corporation of India (NPCI). It is a system that powers multiple bank accounts into a single mobile application. The NPCI was formed in 2009 as an initiative of the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) with the goal to create a robust payment and settlement infrastructure. UPI operates on top of the Immediate Payment Service (IMPS) which was created by the NPCI for immediate fund transfers.

What is IMPS?

- Immediate Payment Service (IMPS) is a service provided by banks to ensure real-time interbank funds transfer. In NEFT, transactions are cleared in batches, but in IMPS transactions are cleared instantaneously. In IMPS, the funds transfer is thus, instantaneous.
- There is a limit of INR 2 Lakh per transaction on IMPS. NEFT has no such limit.
- The IMPS facility can be accessed through multiple channels, such as mobile phone, ATM, the internet, and SMS.

Current status of UPI and Digital Transactions:

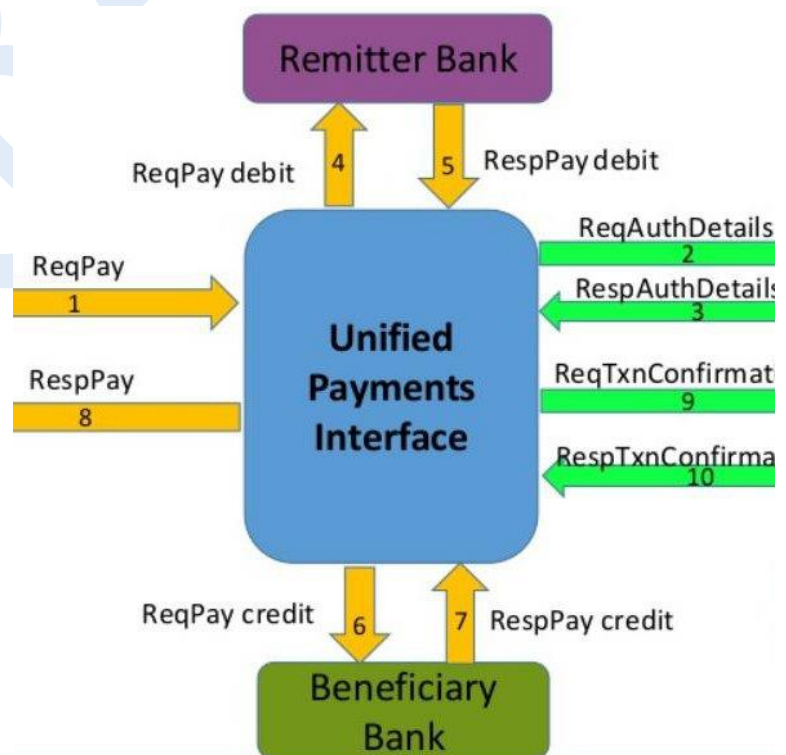
‘Prime Time for Real Time 2022’ report states that India’s real-time payments include the Immediate Payment Service (IMPS) and Unified Payments Interface (UPI).

Both of them have seen increased usage in the last few years. India accounted for the largest number of real-time transactions in 2021 (48.6 billion). The next highest transactions were in China (18 billion transactions).

Thus, transactions in India were 2.7 times that of China. The magnitude is even more contrasting when compared with other countries e.g., the number of transactions in India were almost seven times greater than the combined real-time payments volume of the world’s leading economies: the US, Canada, the UK, France and Germany (7.5 billion). The report also forecasted that the share of all transactions occurring via real time instrument was expected to increase to 70.7% in 2026 from the present 31.3%.

Why are the reasons for wide adoption of UPI?

- First, there is no Merchant Discount Rate (MDR) charges for merchants that are levied on card-based transactions. This incentivizes merchants to accept UPI transactions.
- Second, the UPI is convenient to use. The users only require a smartphone connected to the internet. Users prefer UPI instead of using devices like the Point-of-Sale card-swiping machines.
- Third, the UPI is supported by a robust ecosystem which makes funds transfer seamless and efficient. This includes the presence of high-speed internet in many parts of the country, technologies that power a smartphone, cloud computing and modern software engineering technologies that fulfill a transaction in a few seconds.
- Fourth, it offers a significant degree of security to avoid misuse. The security of a UPI transaction is tied to the user’s authentication with the mobile



phone. There is a mobile personal identification number (MPIN) for the UPI application and there is one more layer of security when the bank's online transaction PIN is to be keyed in as part of every UPI transaction. In case a mobile number is blocked due to theft, then the UPI transactions on that mobile number will also be halted.

- Fifth, the COVID-19 pandemic significantly boosted digital transactions in wake of SMS (Sanitize, Mask and Social Distance) protocols and lockdowns. This also made UPI more popular with the masses.

What recent innovations have been done in UPI?

The NPCI has come up with multiple new innovations over the past few years: recurring payments for monthly bills, international payments, linking UPI to credit cards etc. Further it has introduced 123PAY that allows people without smartphones to use UPI using missed calls.

Introduction of Dynamic QR codes:

1. It allows one-time payment by letting a merchant generate a QR (Quick Response) code that is valid for just that specific transaction and many more features.
2. The dynamic QR code is a great boost to security and trust because there is no risk of someone tampering with a static QR code.

What are the benefits associated with UPI?

- First, widespread adoption of real-time payments helped Indian businesses and consumers save approximately US\$ 12.6 billion in payment transaction cost. Digital payments improve the cash flow situation of the businesses as the payments are instantaneous. It helps increase the number of transactions and thus economic activity. It also unlocked US\$ 16.4 billion or 0.56% of the Indian Gross Domestic Product (GDP) output.
- Second, with digitalization, the amount of black money in the market can be reduced leading to greater compliance and more tax revenue.
- Third, it enhanced consumer faith in digital transactions and encouraged them to shun the usage of cash.
- Fourth, The UPI has had a huge impact on the banks and the fintech industry. It provides banks with a low-cost alternative to cash and helps them save on merchant onboarding costs. The data acquired through digital transactions also enables banks to market other services, have a better understanding of the spending pattern, and serve consumers better.

What are the challenges in further scaling-up UPI?

- First, some experts fear it would be difficult to sustain UPI in the long run without levy of MDR to fund its infrastructure. Currently, neither customer nor merchant pays any extra price.

- Second, although the use of cash has decreased since the advent of UPI, cash transactions are still significant. People still prefer to use cash due fear of tax terrorism and its greater acceptance as a mode of payment.
- Third, still there is not 100% penetration of internet and smartphones amongst the population which makes it nearly impossible to do UPI transactions.
- Fourth, there is a lack of digital literacy in masses due to which they are unable to use the UPI system. Further, use of mainly English language in UPI apps reduces their adoption.

What steps can be taken going ahead?

- First, it is time to accelerate efforts and expand UPI's impact beyond the top-tier metropolitan areas, and replicate its success for the benefit of the entire country, especially rural areas.
- Second, cost savings from the reduction in hassles and overheads for banks (by supporting UPI) can be used to bear the cost of operating UPI in the long run.
- Third, initiatives like Bharat Net project (for internet connection) and PMGDisha (for digital literacy) should be implemented with full vigor and support.
- Fourth, India must share this technology with fellow countries in order to earn additional forex and also to enhance its soft power across the globe. UPI has already been rolled out in UAE, Singapore and Nepal.
- In 2019, Google requested the U.S. Federal Reserve to develop a solution similar to India's UPI citing the thoughtful planning, design and implementation behind it. India can support the U.S in this regard.

Conclusion

India is the poster child for real-time payments and a shining example of how a coordinated, collective, nationwide effort can unlock huge economic and social potential. Keeping this in mind, the reach and acceptability of UPI need to be enhanced further to further unlock economic value.

4.3 PRIVATISATION OF BANK

Why in News: A report by National Council of Applied Economic Research (NCAER) has recommended that the Union Government should privatize all Public Sector Banks (PSBs), except the State Bank of India (SBI).

The Report further states that the Government ownership hinders the ability of the RBI to regulate the sector. The recommendation of complete privatization of banks has led to sharp

reactions from the critics. According to them complete exit of the Government will give rise to systemic risks in the financial sector. For the ongoing fiscal year FY22, the Government has set a disinvestment target of Rs 1.75 lakh crore. The plan includes privatization of two public sector banks, public listing of the Life Insurance Corporation of India, Shipping Corporation of India, and many other PSUs.

Background

After the formation of Reserve Bank of India in 1935, to the period till Independence (1947), there were 900 bank failures in India. From 1947 to 1969, 665 banks failed. The Government nationalized 14 major banks in 1969. After this, 36 banks failed but these were rescued by merging them with other government banks. 6 more banks were nationalized in 1980. However, since the liberalization of the economy in 1991, the discourse on bank ownership has changed significantly. Guidelines for setting up private banks were established in 1993 and the ICICI Bank was set up in 1994. Since then the Private Banks have expanded their footprint. Simultaneously, the approach of the Government has been to reduce its presence in the Banking Sector and reduce the number of Public Sector Banks. In 2019, after a massive consolidation exercise, the number of PSBs reduced from 28 to 12. During the Union Budget 2020-21 presentation, the Government announced a new policy for strategic disinvestment of public sector enterprises. This policy provides a clear roadmap for disinvestment in all non-strategic and strategic sectors. The Banking Sector falls under the strategic sector.

Arguments in favour of Privatization of Banks

- First, private banks have emerged as a credible alternative to PSBs with substantial market share. PSBs have lost ground to private banks, both in terms of deposits and advances of loans. Since 2014-15, almost the entire growth of the banking sector is attributable to the private banks and the SBI.
- Second, Government ownership hinders the ability of the Reserve Bank of India (RBI) to regulate the sector. At present PSBs are under the dual control. The RBI handles the governance side of the PSBs under the RBI Act, 1934. The Department of Financial Services maintains the regulation of PSBs under the Banking Regulation Act, 1949. Thus, RBI does not have the powers to revoke a banking license, shut down a bank, or penalize the board of directors for their faults. Privatization will provide the powers to RBI to control them effectively.
- Third, barring SBI, most other PSBs have lagged behind private banks in all the major indicators of performance during the last decade. These PSBs have attained lower returns on assets and equity than their private sector counterparts. The non-performing assets (NPA) of PSBs remain elevated as compared to private banks even as the government

infused US\$ 65.67 billion into PSBs between 2010-11 and 2020-21 to help them tide over the bad loan crisis. The market valuation of PSBs, excluding SBI, remains 'hugely' below the funds infused in such banks as of May 31, 2022.

- Fourth, the under-performance of PSBs has persisted despite a number of policy initiatives aimed at bolstering their performance during this period. These initiatives include: (a) Recapitalization of PSUs; (b) Constitution of the Bank Board Bureau to streamline and professionalize hiring and governance practices; (c) Prompt corrective action plans; (d) Consolidation through mergers.
- Fifth, the steady erosion in the relative market value of PSBs is indicative of a lack of trust among private investors in the ability of PSBs to meaningfully improve their performance.
- Sixth, the current fiscal position of the Union Government is not strong enough to provide huge sums for recapitalization and keep on sustaining sick PSBs.
- Seventh, the privatization of banks will have a positive impact on the economy by bringing stability at the macroeconomic level. Privatization of a few loss-making PSBs will ensure that market discipline forces them to rectify their strategy, and this will have a ripple effect on other PSBs.

Challenges

- First, as per the stated policy of the Reserve Bank of India, banks cannot be run by industrial houses. However, excluding the industrial houses, there are no entities that have the required financial capability to take over any of the government banks.
- Second, private banks have a long history of failures, as noted above (>1500 banks failed between 1935-1969). Recently, the RBI had to come to the rescue of Lakshmi Vilas Bank and YES Bank by pumping of capital by other entities to save these banks. Bank failures and lack of Government intervention will increase the risk in the banking system.
- Third, Banks owned by the sovereign government provide more comfort level to depositors. Expansion of private sector in banking will reduce consumer confidence in the sector.
- Fourth, Private banks operate with the sole aim of adding shareholder value. In contrast, the government banks also try to serve society and ensure implementation of all government programs for the social sector. Privatization might have a negative impact on financial inclusion, agriculture credit etc.
- Fifth, bank workers are opposed to privatization. as they fear loss of jobs.

Privatizing all the PSBs and complete exit of the Government might have significant negative consequences. The Government must find ways to strengthen the governance of banking system and ensure safety of depositors' money. Complete exit may not be an option, for now.

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 ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Background

Industry 4.0 is set to usher an era of technologies that will completely alter the way of human interactions with the surroundings. Artificial Intelligence, Machine Learning, IoT, 5G, Augmented Reality, Big Data, Nanotechnology, Robotics, and 3D printing are transforming the operational, functional, and strategic landscape across various industries. AI would be a critical catalyst for achieving robust economic growth in future.

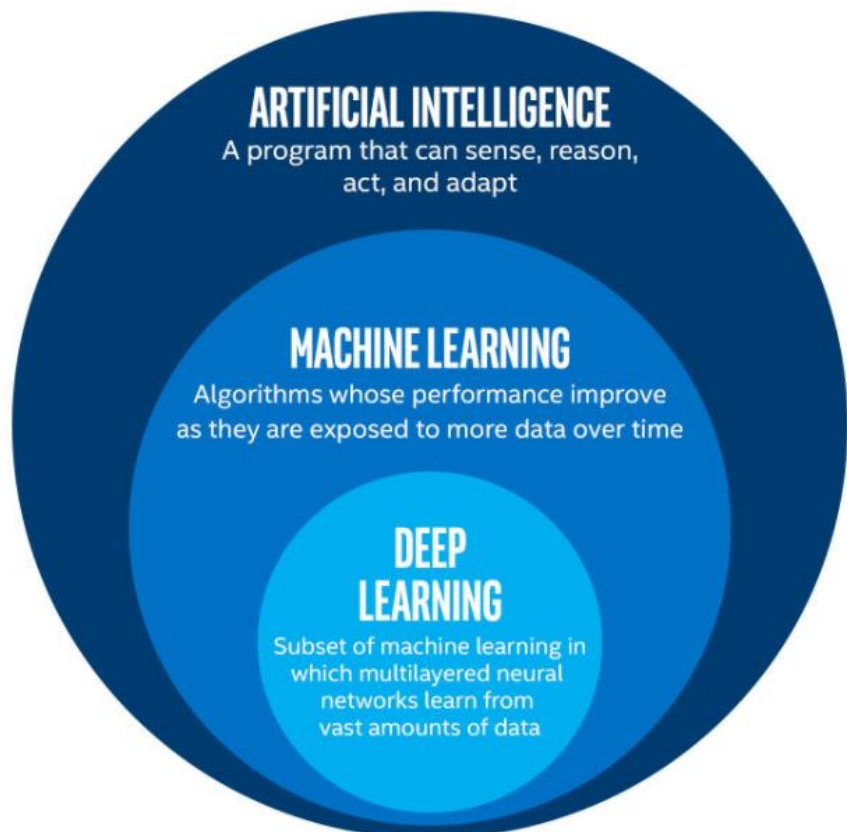
Artificial Intelligence

The term **Artificial Intelligence** was coined in 1956 by John McCarthy. It refers to the ability of machines to perform cognitive tasks like thinking, perceiving, learning, problem solving and decision making.

There are two subsets under the umbrella term AI: **Machine learning and Deep learning** Machine Learning involves the use of algorithms to parse data and learn from it. This enables making a determination or prediction. Deep learning is a technique for implementing Machine Learning.

Application of Artificial Intelligence

- **Agriculture:** Application of AI in agriculture can help in increasing crop yield by providing real time advisory, early detection of pest attacks, prediction of crop prices, precision farming etc. e.g., Berlin-based agricultural tech start-up PEAT has developed a deep learning application called Plantix. It identifies potential defects and nutrient deficiencies in soil.



- **Healthcare:** It can be used in diagnosis, treatment design, imaging diagnosis, early detections of disease outbreaks, robot assisted surgeries, virtual nurse assistants etc. e.g., Researchers at an Oxford hospital developed AI that can diagnose scans for heart disease and lung cancer.
- **Education:** It can be used for developing tools for customized learning, interactive and intelligent tutoring systems, and predicting tools- for example predicting dropouts.
- **Urban planning:** It can be used for optimizing infrastructure in cities, service delivery, crowd management, cyber security, public safety and water and waste management e.g., in Kerala, engineers have developed sewer-cleaning robots to put an end to manual scavenging.
- **Transportation:** It can be used in developing AI-based traffic management systems including sensors, CCTV cameras, automatic number plate recognition cameras, speed detection cameras, and signalized pedestrian crossings.
- **Energy:** AI can be used in energy system modelling, predictive analysis, demand and infrastructure management, renewable management, building energy efficient buildings, etc. e.g. a program EWeLiNE developed in Germany can work as an early-warning system for grid-operators to assist them in calculating renewable-energy output over the next 48 hours using AI.

India was ranked 8th in the top 10 countries by AI patent families ahead of Russia and France. AI-related patent applications grew tenfold from 2012 to 2018. India has over 1,300 Global Capability Centers (GCCs) and one in every five GCCs use AI across key business functions such as cyber security, customer services, supply chain, and operations management.

The Government expenditure on AI and Machine Learning has also steadily increased and is expected to reach USD 11,781.9 million in 2025. As per the State of Artificial Intelligence Report, 2021, the Indian Artificial Intelligence market is valued at US\$ 7.8 billion as of July – August 2021.

This represents a 22% increase in market size over 2020. There are close to 109,000 Artificial Intelligence personnel working in India across enterprises and sectors. This represents a 20% jump in personnel from last year.

India and Artificial Intelligence

- **Economic Boost:** According to NITI Aayog, AI has the potential to add US\$ 1 trillion to the Indian economy by 2035.
- **Employment Generation:** A report titled 'AI Enabled SaaS: The Next Frontier for Global SaaS Start-ups from India' highlighted that AI could generate over 9,00,000 white-collar jobs and 3.6 million indirect jobs by 2030.

- **Huge Generator of Data:** India is the world's largest generator of democratic data. It is the data which is being generated and analysed under the democratic rule of governance. This wealth of data gives India an advantage in many fields but the real value of this vast mine of data can only be extracted using effective AI and machine learning.
- **Boosting Technology:**
 1. India is one of the largest smartphone manufacturers in the world, it has a new semiconductor program, and its drone and robotics industries are some of the most exciting parts of its economy.
 2. India is also building quantum computing capability and chip-making prowess. India is also a world-leading destination for Software as a Service (SaaS) companies.
- **Confidence shown by Investors:** Most venture capital funding in India is now going to AI projects in Banking, Financial Services, and Insurance Sector (BFSI), e-commerce, healthcare, electronics and renewable energy startups. Nearly 200 Artificial Intelligence Start-ups in India are today innovating and creating AI-based solutions for various industries.
- **Success of Flagship Programs:** It can complement Digital India Mission by helping in the big data analysis which is not possible without using AI

Challenges

- First, a proper AI-based system requires a massive computational capacity, which means more data centers have to be created that requires huge investment.
- Second, AI will increase digital exclusion in all spheres including the exclusion of societies and nations. Further, global Investment also likely to shift to countries where AI-related work is already established. Also, a report published in The Guardian highlighted how AI driven algorithms can be affected racial and gender stereotypes and thus lead to exclusionary decisions.
- Third, there are fears that AI will result in less demand for human resources. It is not a good sign for India that has a huge proportion of young population. It will reduce desk jobs, such as accountants, financial traders, and middle managers.
- Fourth, the most important concern with AI is the concern of data privacy. The AI algorithm will improve only with access to more data. It will lead to the constant utilization of our digital footprints with or without our knowledge. Scandals like Cambridge Analytica are an example of such a violation of privacy.

Steps Taken Towards Artificial Intelligence

- **National Strategy for Artificial Intelligence:** It was released by NITI Aayog in 2018. It lays out the roadmap for India to leverage the coming-of-age technologies to ensure inclusive growth and social development. It identifies 5 sectors for AI application to serve societal needs: Healthcare, Agriculture, Education, Smart cities and infrastructure and Smart mobility and transportation.
- **Approach Documents:** It was published by NITI Aayog in collaboration with the World Economic Forum Centre for the next AI Industrial Revolution. The Documents seek to establish broad ethics and principles for the design, development, and deployment of AI in India.
- **Intelligence Stack:** It has been released by the Department of Telecommunications and is focused on eliminating the barriers to AI deployment. It aims to enable an environment to exploit AI productively across all sectors and bring interoperability, among other things.
- **Incorporation of AI into governance:** In Telangana, AI is helping authenticate pensioners and ensuring that payments go to pensioners who are alive thereby removing chances of graft. The Ministry of Corporate Affairs is using AI to simplify corporate filings, while the Centre for Artificial Intelligence and Robotics (CAIR) has been built as a special hub for AI-related work of the DRDO.

The Artificial Intelligence market in India will continue to be the primary growth driver of the Data Science domain and the broader IT industry over the next few years. Keeping this in mind, India should take proactive steps to unleash the potential of Artificial Intelligence.

5.2 ANTIMICROBIAL RESISTANCE (AMR)

Introduction

Experts believe that Antimicrobial Resistance (AMR) poses even a greater threat in the coming years. It is a looming public health crisis impacting every country globally with a disproportionate impact on lives and livelihood in low and middle-income countries. Moreover, just like COVID-19 pandemic, the impact of IMR will not be limited to a particular country and a region, global health system will be vulnerable. Combating AMR would thus require a concerted effort at the global level.

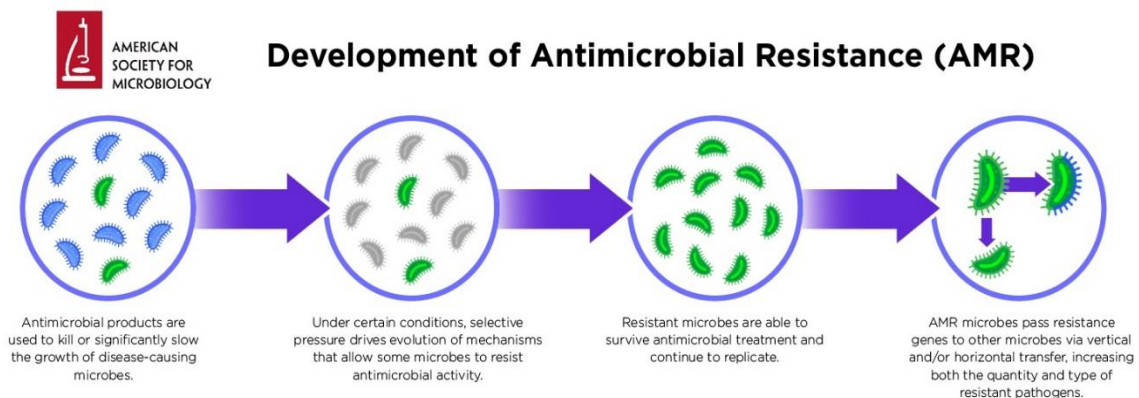
AMR

- Antimicrobials are agents intended to kill or inhibit the growth of microbes. They include antibiotics, fungicides, antiviral agents and parasiticides. Disinfectants, antiseptics, other pharmaceuticals and natural products may also have antimicrobial properties.

- AMR occurs when microbes such as bacteria, viruses, parasites and fungi become resistant to antimicrobial treatments to which they were previously susceptible. Superbugs are strains of micro-organisms that are resistant to most of the medications.

Kinds of Antimicrobial Resistance

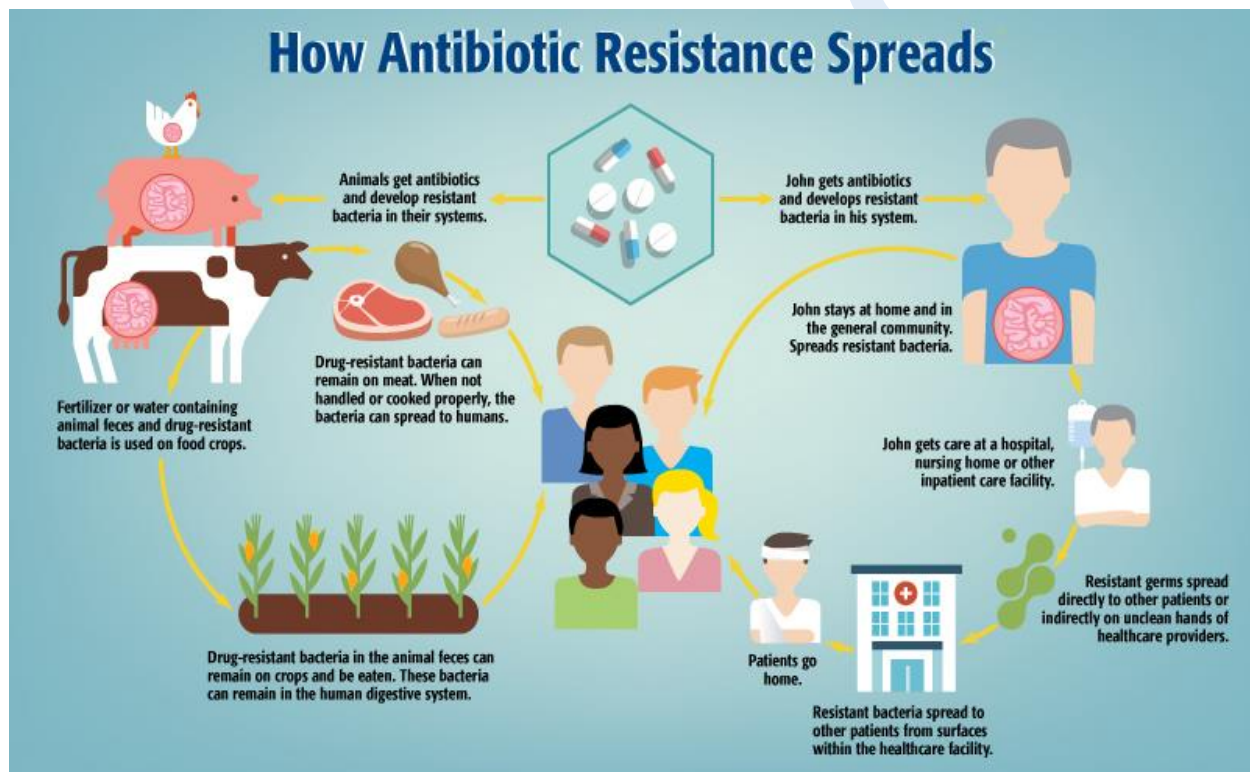
- **Natural (intrinsic, structural) resistance:** This kind of resistance is caused by the structural characteristics of microbes and is not associated with the use of antimicrobials. It has no hereditary property.
- **Acquired resistance:** Due to changes in the genetic characteristics of microbes, acquired resistance occurs as it is now unaffected by the previous antimicrobial. This kind of resistance occurs mainly due to structures of chromosomes or extra chromosomal such as plasmid, transposon, and others.
- **Cross resistance:** Some microorganisms are resistant to a certain drug that acts with a similar mechanism as some other drugs. However, sometimes it can also be seen in completely unrelated drug groups. This resistance is usually observed against antibiotics whose structures are similar. This may be the chromosomal or extra chromosomal origin.



Key causes of AMR:

- Over-prescription of antimicrobials.
 - Shortened courses or incomplete compliance with antimicrobial treatment.
 - Antimicrobial overuse in livestock and fish farming.
 - Poor infection control in health care settings.
 - Poor hygiene and sanitation.
 - Limited discovery of new antimicrobials.
- **Multi-drug resistance and pan-resistance:** These are often bacteria resistant to the antibiotics used to treat them. This means that a particular drug is no longer able to kill or control the bacteria.

- A recent report from the **Global Research on Anti-Microbial resistance (GRAM) project** found that in 2019, an estimated 4.95 million people suffered from at least one drug-resistant infection and AMR directly caused 1.27 million deaths.
- **AMR is one of India's major public health problems, directly contributing to about 30% of deaths due to neonatal sepsis across India.** These are due to multidrug-resistant (MDR) hospital-acquired infections in many cases. Over 30% of the COVID-19 deaths in India could be attributed to our failure to treat the secondary bacterial infections caused by MDR pathogens with the appropriate antibiotics.



Steps Taken by Government for AMR

- **Domestic Banning usage in Agriculture:** The Government of India passed an order banning the use of streptomycin and tetracycline in agriculture and the growth promotional use of colistin in poultry farming.
- **National program on AMR containment:** It was launched during 12th FYP in 2012-17. Under this program, AMR Surveillance Network has been strengthened by establishing labs in State Medical Colleges. 30 sites in 24 states have been included in this network till 30th March 2021.

- **Delhi Declaration on AMR:** An inter-ministerial consensus was signed by the ministers of the concerned ministries pledging their support in AMR containment.
- **Red Line campaign:** To prevent irrational use of prescription-only antibiotics and create awareness on the dangers of taking antibiotics without being prescribed.
- **The WHO launched the Global Action Plan (GAP) on AMR in 2015.** It outlines five objectives: (a) Improve awareness and understanding of antimicrobial resistance through effective communication, education and training; (b) Strengthen the knowledge and evidence base through surveillance and research; (c) Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures; (d) Optimize the use of antimicrobial medicines in human and animal health; (e) Develop the economic case for sustainable investment in new medicines, diagnostic tools, vaccines and other interventions.

The development of resistance to antimicrobials is a major public health problem all over the world. It makes even minor infections tough to treat, causing severe illnesses and deaths. Hence a call to end this menace must be taken at local, national and global levels that would eventually help in attainment of SDG 3 i.e. ensuring good health and wellbeing for all.

5.3 QUANTUM COMPUTING

The 21st century will be an era of cutting edge technology that will enable humans to achieve the hitherto impossible tasks. Amongst these game changing technologies, a critical role would be played by quantum computing and technology. Quantum computing is an emerging field of physics and engineering, which relies on the principles of quantum physics (the physics of subatomic particles). It promises improvements to a vast range of everyday technology.

It will enable the nations to strengthen their economic, social and military might owing to the multifarious applications of quantum computing in areas like health, education, defense, manufacturing etc. India is on the right path to leverage this technology.

Quantum Computing

- It is a type of computation that harnesses the collective properties of quantum states, such as superposition, interference, and entanglement, to perform calculations. It harnesses the phenomena of quantum mechanics to deliver a huge leap forward in computation to solve complex problems.
- Quantum mechanics is a science that describes the unique behavior of matter and energy at the atomic and subatomic level.

Quantum Computing works on:

- **'Superposition'** meaning they can exist in multiple states (both 0,1 at the same time) at the same time. It is unlike classical computers where information is processed in 'bits' or 1s and 0s, following classical physics.
- **'Entanglement'** where two or more particles are inextricably linked and mirror each other exactly, even when separated by great physical distance.

Quantum vs. Conventional Supercomputers

- Conventional computers (in common use like homes/offices) and Supercomputers process information with bits (ones and zeroes). Quantum computers, on the other hand, use quantum bits or qubits that can process the ones and zeroes simultaneously due to a property known as superposition. This allows them to process a lot more information than conventional computers.
- Conventional Supercomputers combine processing power of thousands of computers. However, supercomputers aren't very good at solving certain types of problems e.g., Supercomputers don't have the working memory to hold the myriad combinations of real world problems. Supercomputers have to analyze each combination one after another, which can take a long time.
- On the other hand, the computing power of quantum computers increases exponentially (by a factor of 2) with increase in qubits e.g., In October 2019, Google said it had performed a calculation on a quantum processor in 300 seconds that would have been practically impossible to achieve with the algorithms available at the time.

Application of Quantum Computing

Artificial Intelligence (AI) and Machine Learning (ML): Quantum computers' abilities to parse through massive data sets, simulate complex models, and quickly solve optimization problems have drawn attention for applications within artificial intelligence. Quantum computing has the potential to enhance the pace of AI/ML.

Computational Chemistry: Potential applications include: (a) Finding new materials that can achieve a room temperature superconductor; (b) Finding a catalyst that can improve the efficiency of carbon sequestration; (c) Developing a new battery chemistry that can significantly improve the performance over today's lithium-ion batteries. These applications can have uses in agriculture, manufacturing and industrial design sectors.

Financial Portfolio Optimisation: Finding the optimum mix for a basketful of investments based upon projected returns, risk assessments, and other factors is a daily task within the finance

industry. By utilizing quantum technology to perform these calculations, improvements can be achieved in both the quality of the solutions as well as the time to develop them.

Logistics and Scheduling: Quantum computing can make logistics more efficient. For example: (a) Airlines can figure out how to stage their airplanes for the best service at the lowest cost; (b) Factory managers can minimize cost, time and maximize output.

Cyber Security: Threats around the world are increasing their capabilities and we become more vulnerable as we increase our dependence upon the digital system. Various techniques to combat cyber security threats can be developed using some of the quantum machine learning approaches to recognize the threats earlier and mitigate the damage that they may do.

Quantum Computing Initiative in India

- **The National Mission on Quantum Technologies and Applications (NM-QTA):** It is a government of India program that aims to create a workforce of over 25,000 in India over the next 5-7 years. It has a total budget outlay of ₹8,000 crore for a period of five years. The next generation transformative technologies that will receive a push under this mission include quantum computers and computing, quantum communication, quantum key distribution, encryption, quantum devices, quantum sensing and so on. The areas of focus for the Mission will be in fundamental science, translation, technology development, human and infrastructural resource generation, innovation and start-ups to address issues concerning national priorities.
- **QuEST:** The Department of Science and Technology launched the Quantum-Enabled Science and Technology (QuEST) initiative to invest INR 80 crores to lay out infrastructure and to facilitate research in the field.
- **'Quantum Computer Simulator (QSim) Toolkit':** It provides the first quantum development environment to academicians, industry professionals, students, and the scientific community in India.
- **Other Efforts:** Scientists from two Ahmedabad-based laboratories of the Department of Space jointly demonstrated quantum entanglement with real-time Quantum Key Distribution (QKD) between two buildings separated by a distance of 300 metres.

PRELIMS UPDATE

❖ Monkeypox

- Monkeypox satisfied the requirement of a public health emergency of international concern (PHEIC) under the WHO's International Health Regulations (IHR), 2005.
- It is a viral disease that spreads via close contact and tends to cause flu-like symptoms and pus filled skin lesion.

- The current outbreak is unlike any previous one outside of Africa in that there is sustained person to-person transmission of the infection.
- It has been spreading chiefly in men who have sex with men in the recent outbreak outside Africa, where it is endemic.



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 IPBES REPORT

Why in News:

The recently released Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Report offers insights, analysis and tools for sustainable use of wild species. The Report reminds the global community how much human beings are interdependent with all living beings and why it's important to conserve them. The report comes against the backdrop of the stark findings of the IPBES in May, 2019 that shows around 1 million animal and plant species are threatened with extinction.

IPBES

- **The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) is an independent intergovernmental body.** It aims to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.
- It was established in Panama City, on 21 April 2012 by 94 countries.
- **It is not a United Nations body.** However, at the request of the IPBES Plenary and with the authorization of the UNEP Governing Council in 2013, the United Nations Environment Program (UNEP) provides secretariat services to IPBES.
- It currently has close to 140 member States. A large number of NGOs, organizations, conventions and civil society groupings also participate in the formal IPBES process as observers.



The work of IPBES can be broadly grouped into four complementary areas:

- **Assessments:** On specific themes (e.g. “Pollinators, Pollination and Food Production”); methodological issues (e.g. “Scenarios and Modelling); and at both the regional and global levels (e.g. “Global Assessment of Biodiversity and Ecosystem Services”).
- **Policy Support:** Identifying policy-relevant tools and methodologies, facilitating their use, and catalyzing their further development.
- **Building Capacity & Knowledge:** Identifying and meeting the priority capacity, knowledge and data needs of our member States, experts and stakeholders.
- **Communications & Outreach:** Ensuring the widest reach and impact of IPBES’s work.

IPBES REPORT

- The report identifies five broad categories of ‘practices’ in the use of wild species: Fishing; Gathering; Logging; Terrestrial Animal Harvesting (including hunting); and Non-extractive practices, such as observing.
- For each practice, it examines specific ‘uses’ such as for food and feed; materials; medicine, energy; recreation; ceremony; learning and decoration.
- It provides a detailed analysis of the trends in each, over the past 20 years. It indicated the increasing use of wild species but added that its sustained use has been varied.

Report Highlights

- **Dependence on Biodiversity:** Around 70% of the world’s poor are directly dependent on wild species. 50,000 wild species of plants, animals, fungi and algae meet the needs of billions of people globally. One in five people rely on wild species for income and food. Around 2.4 billion people worldwide rely on wood for cooking and 880 million, particularly in developing countries, log firewood or produce charcoal. Logging for energy accounts for 50% of all wood consumed globally, and 90% of timber harvested in Africa. Even though the use of wood for fuel is declining in most regions, it is increasing in sub-Saharan Africa.
- Certain species have cultural importance as they offer multiple benefits that define tangible and intangible features of people’s cultural heritage.
- The use of wild species is also a source of culturally meaningful employment for such communities and they have engaged in the trade of wild species and materials since millennia.
- **Threat to Biodiversity:** The global rate of species extinction is already at least tens to hundreds of times higher than the average rate over the past 10 million years and is accelerating. Around 12% of tree species in the wild and 1,341 wild mammal species globally are threatened by unsustainable logging and hunting. More than 25% of the world’s forests are subject to industrial logging.

- Unsustainable gathering is one of the main threats for several plant groups, notably cacti, cycads, and orchids as well as other plants.
- Around 34% of marine wild fish stocks in the world are overfished. Further, Bycatch has led to a steep decline in the number of sharks and ray species since the 1970s. The report noted that indigenous people and local communities used local knowledge, practices and spirituality for the sustainable use of wild species.

Addressing the causes of unsustainable use and, wherever possible, reversing these trends should be the priority of Governments at Local, National and International level. This will result in better outcomes for wild species and the people who depend on them thereby moving towards attainment of sustainable development.

6.2 FOREST CONSERVATION RULES

Why in News: The Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the Forest Conservation Rules, 2022 under the Forest Conservation Act.

The Union Government has updated the rules in order to improve the efficiency of forest diversion and streamline the process. However many experts criticized that the new rules will let private developers cut down forests without ensuring the consent of the forest dwellers, a change that violates a provision of the Forest Rights Act, 2006.

Forest Conservation Rules

- The Forest Conservation Rules deal with the implementation of the Forest Conservation Act (FCA), 1980. They prescribe the procedure to be followed for diversion of forest land for non-forestry uses such as road construction, highway development, railway lines, and mining.
- The broad aims of the Forest Conservation Act are to protect forest and wildlife, act as a check on the State Governments' attempts to divert forest land for commercial projects and strive to increase the area under forests.
- For forest land beyond 5 hectares, approval for diverting land must be given by the Union Government. This is through a specially constituted committee, called the Forest Advisory Committee (FAC). The Committee examines whether the user agency has made a convincing case for the upheaval of that specific parcel of land. It also examines whether users have a plan in place to ensure that the damage from felling of trees in that area and denuding the local landscape will be minimal.
- The Committee also ensures that diversion of land doesn't cause damage to wildlife habitat. Once the FAC is convinced and approves (or rejects a proposal), it is forwarded to the

concerned State Government where the land is located. The State Government then has to ensure that provisions of the Forest Right Act, 2006 are duly complied.

- The FAC approval also means that the future users of the land must provide compensatory land for afforestation as well as pay the net present value (ranging between ₹10-15 lakh per hectare.)

What are the provisions of the Forest Rights Act, 2006 with respect to diversion of forest land?

The Forest Rights Act, 2006 requires the Governments to seek free, prior, and informed consent of forest dwellers before allowing a project on their traditional lands. In 2009, the Environment Ministry passed an order mandating that proposals would not be entertained by the FAC unless there was a letter from the Union Government specifying that the forest rights in the place had been 'settled'.

Further, the order made it mandatory to obtain written consent of the Gram Sabha for the diversion of forest.

Provisions of the New Forest Conservation Rules

- The rules shift the responsibility of the Union government to take the consent of Adivasis (before the approval of a project) onto the State Governments. It means that the burden to ensure the rights of Scheduled Tribes to their traditional forestlands is now with the State Governments.
- A project, once approved by the FAC, will then be passed on to the State authorities who will collect the compensatory fund and process it for final approval. The new rules allow the Union Government to permit the clearing of a forest before consulting its inhabitants.
- The handover of the forest can be approved and the Union Government can collect payment for compensatory afforestation from the private developer even before the State Government ensures consent of the forest dwellers.
- The rules make a provision for private parties to cultivate plantations and sell them as land to companies who need to meet compensatory afforestation targets.

Significance

- First, the latest version of the rules consolidates changes to the Act over the years from various Amendments and Judicial rulings. This will give better clarity to the implementing agencies and general public, thereby preventing unnecessary diversion.
- Second, according to the Union Government, the new rules 'streamline' the process of approvals. It will allow parallel processing of the proposals and eliminate the redundant

processes. This will ensure speedier execution and prevent delays in implementation of projects thereby preventing cost overruns and withdrawal of proposals.

- Third, the new rules expand the scope of compensatory afforestation lands by allowing private parties to cultivate plantations and sell them as land to companies who need to meet compensatory afforestation targets. This will solve the problems of the States who are unable to find land within their jurisdiction for compensatory purposes.

Concerns

- First, there is a lack of clarity regarding what happens to tribals and forest-dwelling communities whose land would be taken away for developmental work. Further, the wording of new rules implies that it is not mandatory to take the consent of Gram Sabha before diversion of forest.
- Second, the new rules allow the Union Government to permit the clearing of a forest before consulting its inhabitants. This is akin to forced consent, the inhabitants will have no choice but to accept. Once forest clearance has been granted, no claims will be recognised and settled.
- Third, the rules are being criticized as a tool to promote ease of doing business for a chosen few but will end the 'ease of living' for the many forest dwellers.
- Fourth, the new rules were promulgated without any consultation and discussion with the stakeholders such as Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change, the environmental conservation groups or the representatives of tribal communities.

The new Forest Conservation Rules should be reviewed after constructive debates and discussions with the concerned stakeholders. They must be tuned to reflect upon the indispensable significance of tribal and forest rights and the Government's duty to protect the same.

6.3 UN OCEAN CONFERENCE

Why in News: The second UNOC ended with the Lisbon Declaration, a political declaration entitled 'Our Ocean, Our Future: call for action'.

- It is co-hosted by Kenya and Portugal at Lisbon.
- In 2017, first UNOC was held at UN Headquarters in New York, co-hosted by the Governments of Fiji and Sweden.

As part of it, over 150 countries collectively agreed to scale up science-based and innovative actions to address ocean emergency, supporting the implementation of SDG 14 (Life below

Water). This is in line with the United Nations Decade of Ocean Science for Sustainable Development (2021- 2030).

Key Highlights

- Emphasized the particular importance of implementing the Paris Agreement (2015) and Glasgow Climate Pact to help ensure the health, productivity, sustainable use, and resilience of the ocean.
- States made voluntary commitments to conserve or protect at least 30% of the global ocean within Marine Protected Areas, and other effective area based conservation measures, by 2030.
- India committed to a Coastal Clean Seas Campaign and will work toward a ban on single use plastics. UNESCO launched its key State of the Ocean Report (pilot edition) during the event.

Key recommendations include:

- Strengthen the ocean science-policy interface.
- Act to create a theoretical basis for sustainable ocean planning and management, within and beyond areas of national jurisdiction.
- India committed to a Coastal Clean Seas Campaign and will work toward a ban on single use plastics.

UNESCO launched its key State of the Ocean Report (pilot edition) during the event. Key recommendations include:

- Strengthen the ocean science-policy interface.
- Act to create a theoretical basis for sustainable ocean planning and management, within and beyond areas of national jurisdiction.

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.**

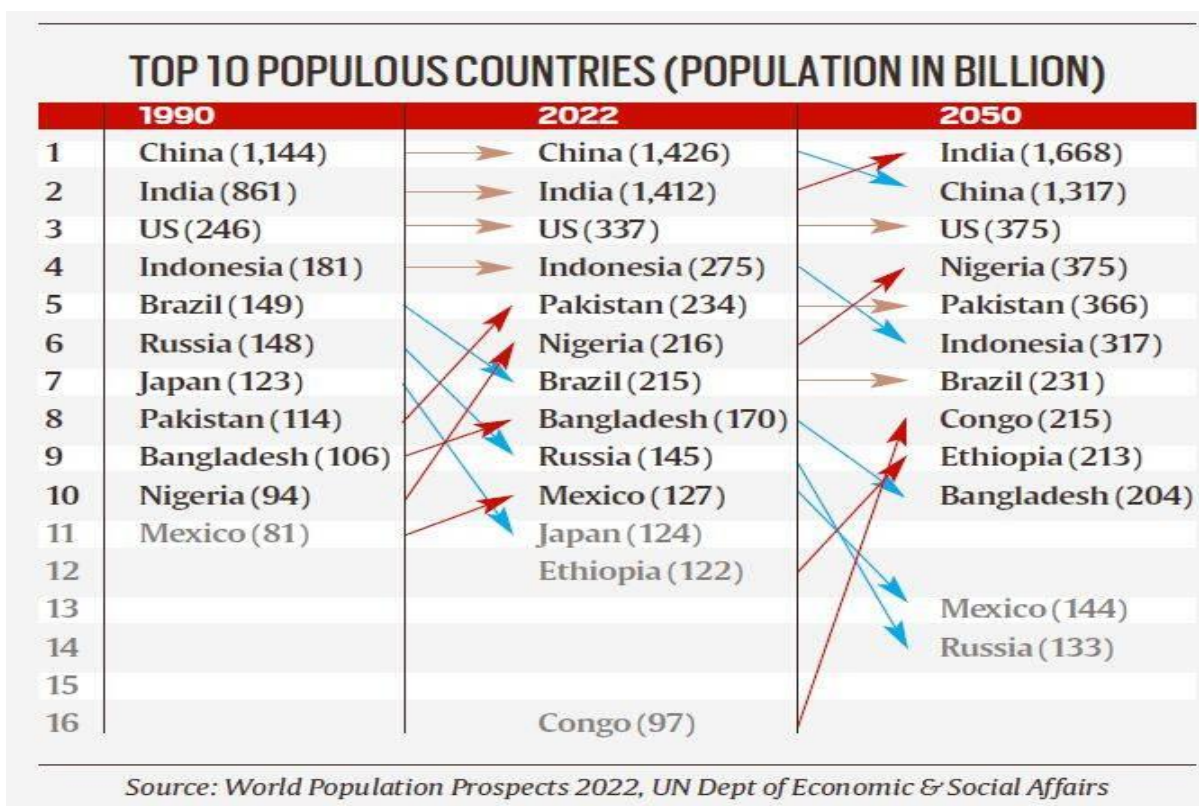
7.1 UN WORLD POPULATION PROSPECTS REPORT 2022

Why in News: The UN World Population Prospects Report 2022 is the 27th edition of the official United Nations population estimates and projections.

The Report estimates that India is set to replace China as the country with highest population. This has brought issues related to population back into focus

Key Findings

World Population: The world’s population continues to grow, but the pace of growth is slowing down. The global population is expected to grow to around 8.5 billion in 2030, 9.7 billion in 2050 and 10.4 billion in 2100. In 2020, the global growth rate fell under 1% per year for the first time since 1950.



Regional Variation in Rates of population growth: More than half of the projected increase in global population up to 2050 will be concentrated in just eight countries. This includes the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania. The 46 least developed countries (LDCs) are among the world’s fastest-growing.

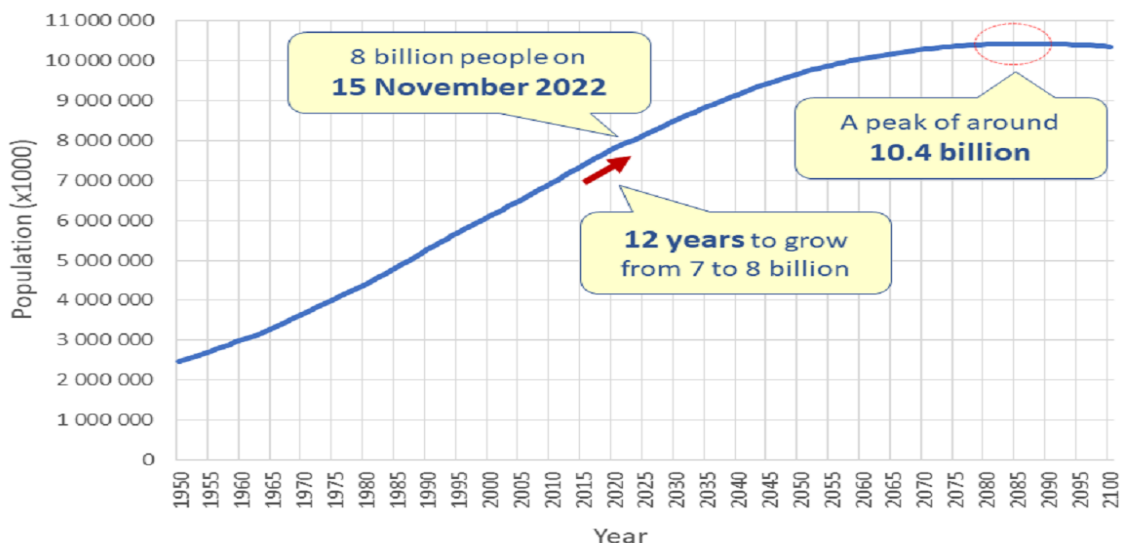
Ageing Population: The population of older persons is increasing both in numbers and as a share of the total. The share of the global population aged 65 years or above is projected to rise from 10% in 2022 to 16% in 2050.

Working Age Population: A sustained drop in fertility has led to an increased concentration of the population at working ages (between 25 and 64 years).

International migration: For high-income countries between 2000 and 2020, the contribution of international migration to population growth (net inflow of 80.5 million) exceeded the balance of births over deaths (66.2 million). Over the next few decades, migration will be the sole driver of population growth in high-income countries.

Global life expectancy: It reached 72.8 years in 2019, an improvement of almost nine years since 1990. Further reductions in mortality are projected to result in an average global longevity of around 77.2 years in 2050. Yet in 2021, life expectancy for the least developed countries lagged seven years behind the global average.

World Population & Prospects



Data: UN World Population Prospects 2022

Projected Trends of India's Population

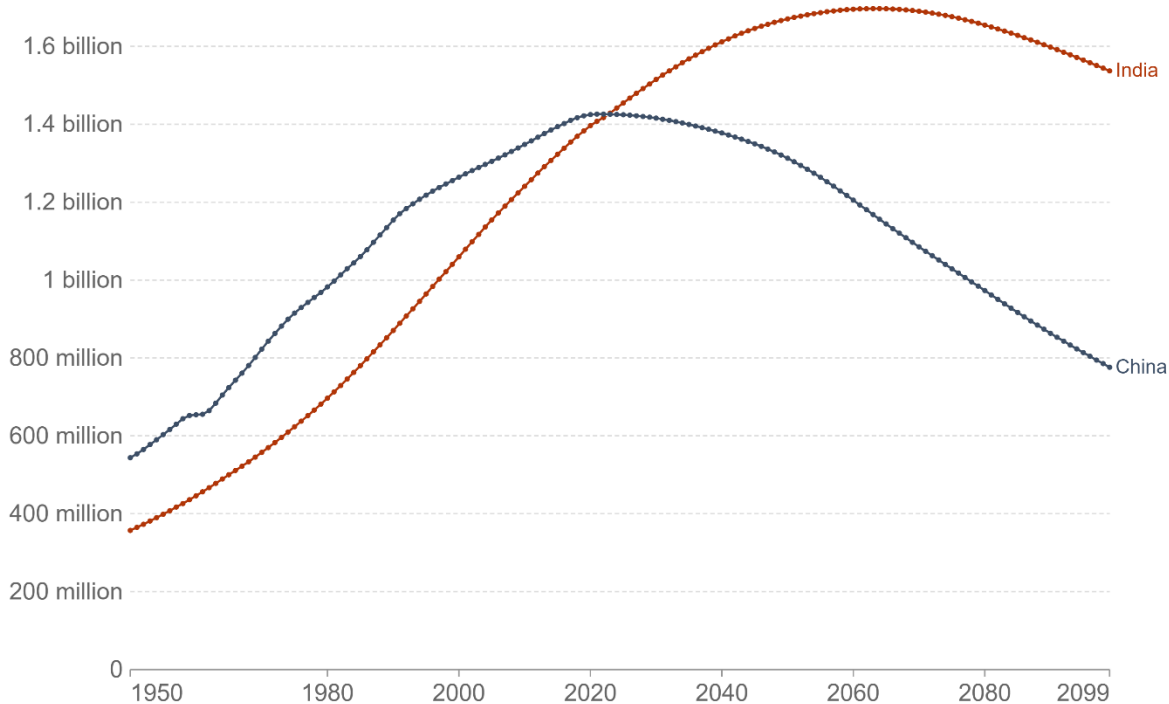
The fertility rate in India has fallen substantially – from 5.7 births per woman in 1950 to just 2 births per woman today. As per National Family Health Survey (NFHS) 5, all states (except Mizoram) have seen an increase in the use of family planning methods. Goa (42%) and Bihar (32%) have seen the highest increase in the use of family planning methods.

Consequently, most states have seen a decrease in the total fertility rate (TFR). However, some large States like Bihar (3.2) and UP (2.4) still have TFR much above the Replacement Rate. This is concerning as both States already have large population base. They'll be the driving force behind India's population rise in the coming decades. All other medium and large states in the survey (i.e., population above 1 crore) have a TFR below the replacement level rate of 2.1.

Population, 1950 to 2099

Projections from 2022 onwards are based on the UN's medium-fertility scenario.

Our World
in Data



Source: United Nations World Population Prospects (2022)

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7.2 NEED FOR BAIL LAW

Introduction: The Supreme Court (SC) has underlined the 'pressing need' for a reform in the bail law in India on the lines of the law in the United Kingdom (The Bail Act, 1976).

The SC Bench made the remarks on the consideration of 'abysmally low' conviction rate. It said such detentions reflect a colonial mindset and a 'police state'. The remarks of the SC has come at a time when the number of under-trials in the prisons, and the pendency of cases in the judiciary have increased consistently over the last few years.

Current Provisions related to Bail

- Bail is a fundamental aspect of any criminal justice system and the practice of bail grew out of the need to safeguard the fundamental right to liberty. In India's legal system, the term offence has been categorised as bailable offences and non-bailable under the Code of Criminal Procedure (CrPC).
- According to Section 436, bail is a right in bailable offences. The police or court, whoever has custody, is bound to release the accused following furnishing of a bail bond, with or without surety. For a non-bailable offence, an accused cannot claim bail as a right.
- The discretion lies with the courts. In such cases, Section 437 empowers the Magistrate to deal with pleas, except for offences 'punishable with death or imprisonment for life'.
- A provision mandates the court to consider granting bail to an accused below 16 years, someone who is sick, or is a woman. The CrPC also lists provisions for the cancellation of bail.

Need for Bail Law in India

Multiple and Dispersed Provisions: At present, provisions related to arrest and interrogation, issue of warrants and summons, execution of bonds and sureties, powers of police and courts, are dispersed across CrPC and various binding SC guidelines. A law collating these in one place can check arbitrariness in the discretion of the Courts.

Huge Quantum of Under-trials: Under-trials constitute more than 70% of the prison inmates and the proportion has risen consistently over the last few years. This indicates a very liberal use of arrest provisions. In many cases, persons are wrongfully arrested. Further, most of them are poor and therefore unable to secure monetary bail.

Colonial Mindset: The magistrates often ignore the rule of 'bail, not jail' due to persistence of a colonial mindset emboldened by old colonial laws. The Code of Criminal Procedure (CrPC) was first drafted in 1882 and continues to be in use with amendments from time to time.

Delays in Bail application: Sometimes, bail applications are kept pending for months. Unnecessary arrest coupled with no bail is a double whammy. Appeals by the convicted are pending for decades in some HCs.

Lack of Uniformity: The SC observed that magistrates do not necessarily exercise their discretionary powers uniformly which violates Article 14 and 15 of the Indian Constitution. Uniformity and certainty in the decisions of the court is required as these are the foundations of judicial dispensation. In most cases, the courts do not record reasons for rejecting the bail. A new bail law would take care of not only the unwarranted arrests, but also the clogging of bail applications before various Courts. It will help in bringing more clarity to magistrates thereby minimizing the scope of arbitrariness and improving administration of justice. It can also help in reducing the proportion of under-trial prisoners, and help preserve their fundamental rights

PRELIMS UPDATE

Recently, the Ministry of Women and Child Development has issued detailed guidelines for the 'Mission Shakti' scheme.

- 'Mission Shakti' was launched during the 15th Finance Commission period 2021-22 to 2025-26.
- Mission Shakti is an integrated women empowerment program is launched as an umbrella scheme for the safety, security and empowerment of women.

Components:

Sambal:

- It is for Safety and Security of Women.
- It consists of schemes of One Stop Centre (OSC), Women Helpline (WHL), Beti Bachao Beti Padhao (BBBP), with a new component of Nari Adalats - women's collectives to promote and facilitate alternative dispute resolution and gender justice in society and within families.

Samarthya:

- It is for Empowerment of Women.
- It consists of erstwhile schemes of Ujjwala, Swadhar Greh and Working Women Hostel have been included with modifications.
- In addition, the existing schemes of National Creche Scheme for children of working mothers and Pradhan Mantri Matru Vandana Yojana (PMMVY) under umbrella Integrated Child Development Services ICDS have now been included in Samarthya.
- A new component of Gap Funding for Economic Empowerment has also been added in the Samarthya Scheme.

Objectives of Mission Shakti

- Provide immediate and comprehensive continuum of care, support and assistance to women affected by violence and for those in distress.
- To put in place quality mechanisms for rescue, protection and rehabilitation of women in need of assistance and victims of crime and violence.
- To improve accessibility to various government services available for women at various levels.
- Making people aware about Government schemes and programs as well as legal provisions to fight social evils.

MISSION VATSALYA

Recently, the Women and Child Development Ministry released guidelines in order to access Central funds and benefits under Mission Vatsalya.

- It is an umbrella scheme for child protection services in the country.
- The objective of Mission Vatsalya is to secure a healthy and happy childhood for each and every child in the country.
- It promotes family-based non-institutional care of children in difficult circumstances based on the principle of institutionalization of children as a measure of last resort.
- It will be implemented as a Centrally Sponsored Scheme in partnership with state governments and UT administrations, with a fund-sharing pattern in a 60:40 ratio.
- For the eight states in the Northeast as well as Himachal Pradesh, Uttarakhand and the UT of Jammu and Kashmir the Centre and state/UT's share will be 90:10.
- Mission Vatsalya, in partnership with states and districts, will execute a 24×7 helpline service for children, as defined under JJ Act, 2015.
- Components under Mission Vatsalya include:
 - Improve functioning of statutory bodies
 - Strengthen service delivery structures
 - Upscale institutional care and services
 - Encourage non-institutional community-based care
 - Emergency outreach services

❖ **MISCELLANEOUS**

❖ **Global Findex Database 2021**

- World Bank recently released Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19.
- Global Findex database surveyed how people in 123 economies use formal and informal financial services including use of cards, mobile phones, and internet to make and receive digital payment throughout 2021.

India's Specific Findings:

- India is among seven countries home to half the world's 1.4 billion adults without access to formal banking.
- Aadhar system contributed to significant increase in financial inclusion, driving account ownership up to 80% of adults in 2017 from 35% in 2011.
- Internal fraud and leakage from pension payments dropped by 47% when the country transitioned from cash to sending payments to biometric smart cards.

- Distance to financial institutions, lack of trust, and lack of need, are the factors for bank account inactivity.

Recommendations

- Gender gap in mobile access must be addressed to ensure equitable progress on financial inclusion.
- Financial regulators and supervisory agencies should develop better supervisory monitoring systems to identify types of financial risks in the market.
- Establish clear guidelines for financial institutions about disclosures and transparency, as well as sound enforcement practices to ensure compliance.

❖ INDIA INNOVATION INDEX 2021

Prepared by NITI Aayog and the Institute for Competitiveness, it is a comprehensive tool that ranks states and the union territories on their innovation performance to build healthy competition amongst them.

Key highlights from the index:

- Karnataka (Major States); Manipur (North-Eastern and Hilly states); and Chandigarh (UTs and City States) topped in their respective categories.
- R&D investment in the country has declined from 0.8% of the GDP in 2008–09 to 0.7% in 2017-18.
- Low private participation in R&D.
- Current edition adopts the framework of Global Innovation Index (GII) across 7 pillars:
 1. Pillars in the index—five ‘Enabler’ pillars measure the inputs (features that are crucial for promoting innovation)
 2. Two ‘Performance’ pillars measure the output (represent a nation’s benefits in knowledge creation and competitiveness.).
- India ranked 46th in GI 2021, released by World Intellectual Property Organisation (WIPO).

❖ 11th Agriculture Census

- Union Minister of Agriculture and Farmers Welfare recently launched 11th Agriculture Census (2021- 2022).
- India’s agricultural Census has been conducted since 1970-71 in collaboration with the States and Union Territories as part of a program of World Census of Agriculture of FAO.
- It is conducted every 5 years.

- It is the main source of information on a variety of indicators, including the nature of operational land holdings, their size, distribution by class, land-use statistics, tenancy and cropping patterns
- Census provides the basis for development of a comprehensive integrated national system of agricultural statistics and has links with various components of the national statistical system.
- During the 11th census, for the first time, data collection will be conducted on smartphones and tablets.
- This will help in faster and accurate enumeration.
- Most states have digitized land records and surveys, which will further accelerate the collection of agricultural census data.
- According to the 10th agricultural census (2015-16): Small and marginal farmers (less than two hectares of land) accounted for 86.2% of all farmers but owned just 47.3% of the crop area. Land holdings continued to be inequitably distributed.
- **World Census of Agriculture (WCA):** The first WCA was carried out in 1930 by the International Institute of Agriculture. Beginning with 1950, the Food and Agriculture Organization (FAO) of the United Nations has been preparing and advocating the decennial WCA.
- The concept of agricultural operational holdings adopted in India differs to some extent with that of FAO, as it does not include those holdings which are not operating any agricultural land and are engaged exclusively in livestock, poultry and fishing etc.

❖ **Snow Leopard**

According to a study by the Zoological Survey of India, snow leopard regulates the populations of its herbivores prey species Siberian ibex and blue sheep. Hence, a long-term absence of snow leopards could cause depletion of vegetation cover.

Snow leopard

- Schedule-I species of the Indian Wildlife (Protection) Act, 1972.
- IUCN Red list status: Vulnerable
- Habitat: mountainous landscape of central Asia covering Ladakh, Himachal Pradesh, Uttarakhand, and Sikkim.
- Threats: loss of natural prey species, human animal conflict and illegal trade of its fur and bones.

UN Office for Disaster Risk Reduction (UNDRR)

- Recently, the seventh session of the GP2022 was organized by the UN Office for Disaster Risk Reduction (UNDRR) in Bali, Indonesia.
- GP2022 is the main global forum to assess and discuss progress on the implementation of the Sendai Framework for Disaster Risk Reduction.
- Key takeaways of GP2022 outcomes as summarized in the Bali Agenda for Resilience:
 - There is a need for a whole-of-society approach to disaster risk reduction (DRR), ensuring no one is left behind.
 - DRR must be at the core of development and finance policies, legislation and plans to achieve the 2030 Agenda for Sustainable Development.
 - A participatory and human rights-based approach in DRR planning and implementation is crucial as people are affected differently by disasters.
 - DRR and climate change adaptation have the common objective of reducing vulnerability and enhancing capacity as well as resilience.

SOFI Report 2022

It is a joint publication by Food and Agriculture Organization, International Fund for Agricultural Development, UNICEF, UN World Food Program and WHO.

Key findings

- In 2021, 828 million people are affected by hunger globally, an increase of about 46 million since 2020. World is moving in reverse, away from the Sustainable Development Goal of ending hunger, food insecurity, and malnutrition in all its forms, by 2030.
- Major drivers of food insecurity and malnutrition: conflict, climate extremes and economic shocks, combined with growing inequalities

India related findings:

- Undernourishment in total population: 16.3%.
- Wasting (low weight-for-height) in children (under 5 years of age): 17.3%
- Stunting (low height-for-age) in children (under 5 years of age): 30.9%
- Exclusively breastfeeding among infants: 58%

Global Gender Gap Report 2022

- The report was released by World Economic Forum.
- The GGG index benchmarks the current state and evolution of gender parity across four key dimensions On each of the four sub-indices as well as on the overall index the GGG index provides scores between 0 and 1, where 1 shows full gender parity and 0 is complete imparity.

- GGG index was instituted in 2006 and it aims to support the identification of the most effective policies to close gender gaps.

Key findings

- In 2022, the global gender gap has been closed by 68.1% (slight improvement from 2021).
- At the current rate of progress, it will take 132 years to reach full parity.
- Although no country has yet achieved full gender parity, the top 10 economies have closed at least 80% of their gender gaps.

India related findings

- India was the worst performer in the world in the “health and survival” sub-index where it is ranked 146.
- India recorded a declining score on political empowerment due to diminishing share of years women served as head of the state.
- India also ranks poorly among its neighbours and is behind Bangladesh (71), Nepal (96), Sri Lanka (110), Maldives (117) and Bhutan (126).

Great Indian Bustard (GIB)

Great Indian Bustard (GIB) count fell below 100. The population of GIB is dwindling due to the lack of action to convert the overhead cable to underground power transmission in Gujarat and Rajasthan.

In April 2021, Supreme Court had ordered the power companies in the two states to make the high-tension power lines underground so that GIB do not get caught in the web.

- Habitat:
 1. Arid and semi-arid grasslands, open country with thorn scrub, tall grass interspersed with cultivation.
 2. It avoids irrigated areas. Rajasthan has the highest population and it is endemic to Indian Sub-continent.
- IUCN Status: Critically Endangered
- Important Sites: Desert National Park Sanctuary (Rajasthan), Naliya (Gujarat), Warora (Maharashtra) and Bellary (Karnataka)

