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Current Affairs, June 2022

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1. Polity and Governance

1.1 Political Parties reforms in India

- At last count, there were 2,858 parties registered with the Election Commission of India. Of these, eight are national parties, 54 are state parties and 2,797 are unrecognised parties.
- The internal functioning and structures of an overwhelming number of these political parties are opaque and ossified
- The roots of the most pertinent challenges faced by Indian politics today can be traced to the lack of intra-party democracy

Need for Democracy in Political Parties

- The absence of intra-party democracy has contributed to political parties becoming closed autocratic structures.
- To avoid factionalism and division of parties
- A democratic party will be accountable to its party members
- A transparent party structure with transparent processes will allow proper ticket distribution and candidate selection.
- Lack of democracy has led to problem of candidates with criminal backgrounds contesting elections.

Factors responsible for lack of democracy

- Dynasty politics: The lack of intra-party democracy has also contributed to the growing nepotism in political parties.
- Personality cult: There is a tendency of hero worship in people and many times a leader takes over the party
- Centralized structure of Political Parties
- ECI's power to require parties to hold regular internal elections for office bearers, and candidate selection is compromised in the absence of any penal provisions – Under Section 16-A of the Election Symbols (Reservation and Allotment) Order, 1968 to either suspend or withdraw recognition to a political party as a national or state party.

Way Forward

- Law to Compulsify Elections: The political party shall hold elections of national and State levels in the presence of the observers to be nominated by the ECI.
- Empowering ECI: appointment of external election monitors and other innovative mechanisms that the internal democratic processes of all political parties play out in a just, fair and credible manner.
- Seats in Party can be reserved for women and members of the backward community including minorities.

1.2 Judicial Accountability

- In a rare exhibition of transparency the Orissa High Court has published an annual report taking stock of its performance in a difficult year that was punctuated by the resurgence of the pandemic.
- By subjecting itself to the scrutiny of the common citizen, the court has shown exceptional humility.
- The report provides a district-wise breakup of cases and availability of judges.

- It contains a section explaining the reasons for delays and backlog at the level of the district judiciary.
- The report also sheds light on the administrative functioning of the court.

Importance of Judicial Accountability

- Annual reports have traditionally been an important way of ensuring accountability of public bodies to Parliament and citizens.
- Unlike the executive, the judiciary is not under any legal obligation to prepare annual reports or table them before Parliament or the state legislature.
- Making annual reports mandatory will lead to judicial accountability to the citizens of India
- Helps Higher judiciary to take measures to avoid delays in resolving cases, appointments of judges and administration of sub ordinate courts
- The report helps to introspect on the challenges facing the institution.

1.3 Gun Control Legislation in India

In the wake of the Texas school massacre, let's have a look at Gun Control Legislation in India

Arms Act, 1959

- The Arms Act, 1959 governs matters related to acquisition, possession, manufacture, sale, transportation, import and export of arms and ammunition.
- It defines a specific class of 'prohibited' arms and ammunitions, restricts their use and prescribes penalties for contravention of its provisions.

Key Provisions

- Gun license applicants in India must be at least 21 years and not convicted of any offence involving violence, of 'unsound mind' or a threat to public safety and peace.
- Upon receiving an application, the licensing authority (i.e., the Home Ministry), asks the officer in-charge of the nearest police station to submit a report about the applicant after thorough vetting.
- It also enlists specific provisions on curtailing the use of licensed weapons to ensure social harmony.
- No entity is permitted to sell or transfer any firearm which does not bear the name of the maker, manufacturer's number or any other visible or stamped identification mark.
- Any act of conversion (such as shortening the barrel of a firearm or converting an imitation firearm into a firearm) or unlawful import-export is punishable with an imprisonment term of seven years, which may extend to life imprisonment and be liable to monetary fines.

The Arms (Amendment) Act, 2019

- The Arms Act amended in 2019 reduces the number of firearms that an individual can procure from three to two.
- The Amended Act also increases the duration of the validity of a firearm license from three years to five years.

1.4 Draft amendments to IT Rules, 2021

The Ministry of Electronics and Information Technology (MeitY) has published a fresh draft of amendments to the Information Technology Rules, 2021

What are the proposed amendments to the IT Rules, 2021?

- The draft proposes to create government-appointed appeal committees that will be empowered to review and possibly reverse content moderation decisions taken by social media companies.
- It means in case a user is not satisfied with the content moderation decision taken by a company's grievance officer, they can appeal that decision before the proposed government-appointed appeals committee.
- Every order passed by the Grievance Appellate Committee shall be complied with by the concerned intermediary
- Currently, the only recourse a user has against companies' content decisions is to approach the courts
- Responsibility on grievance officers appointed by social media companies – if a user complains about content which is “patently false”, infringes copyright, and threatens the integrity of India, among other things, a grievance officer will have to expeditiously address it within 72 hours.
- Under current rules, grievance officers have 15 days to act on and dispose of users' complaints.

What prompted the amendments?

- The IT Rules, 2021 provide for a robust grievance redressal mechanism.
- However, there have been many instances that grievance officers of intermediaries either do not address the grievances satisfactorily and/or fairly.
- In such a scenario, the need for an appellate forum has been proposed to protect the rights and interests of users

Concerns

- The proposal, without any legislative basis, seeks to subject content on social media to the direct scrutiny of the government by permitting users to appeal decisions of social media platforms to a Grievance Appellate Committee constituted by MeitY

IT Rules, 2021

- These new rules deal with social media and over-the-top (OTT) platforms.
- These rules have been framed in exercise of powers under section 87 (2) of the Information Technology (IT) Act, 2000

New Guidelines for Social Media/Intermediaries:

Categories of Social Media Intermediaries:

- Based on the number of users, on the social media platform intermediaries have been divided in two groups:
- Social media intermediaries.

Significant social media intermediaries.

Features

- In case, due diligence is not followed by the intermediary, safe harbor provisions will not apply to them.
- The safe harbor provisions have been defined under Section 79 of the IT Act, and protect social media intermediaries by giving them immunity from legal prosecution for any content posted on their platforms.

Grievance Redressal Mechanism is Mandatory:

- Intermediaries shall appoint a Grievance Officer to deal with complaints and share the name and contact

details of such officers.

- The grievance Officer shall acknowledge the complaint within twenty-four hours and resolve it within fifteen days from its receipt.

Ensuring Online Safety and Dignity of Users:

- Intermediaries shall remove or disable access within 24 hours of receipt of complaints of contents that exposes the private areas of individuals, show such individuals in full or partial nudity or in sexual act or is in the nature of impersonation including morphed images etc.

Additional Due Diligence for the Significant Social Media Intermediaries:

Appointments: Need to appoint Chief Compliance Officer, a Nodal Contact Person and a Resident Grievance Officer, all of whom should be resident in India.

Rules for News Publishers and OTT Platforms and Digital Media:

For OTT:

Self-Classification of Content: The OTT platforms, called as the publishers of online curated content in the rules, would self-classify the content into five age based categories- U (Universal), U/A 7+, U/A 13+, U/A 16+, and A (Adult).

Parental Lock: Platforms would be required to implement parental locks for content classified as U/A 13+ or higher, and reliable age verification mechanisms for content classified as "A".

Display Rating: Shall prominently display the classification rating specific to each content or program together with a content descriptor informing the user about the nature of the content

For Publishers of News on Digital Media: They would be required to observe Norms of Journalistic Conduct of the Press Council of India and the Programme Code under the Cable Television Networks Regulation Act 1995 thereby providing a level playing field between the offline (Print, TV) and digital media.

Grievance Redressal Mechanism: A three-level grievance redressal mechanism has been established under the rules with different levels of self-regulation.

Self-regulation by the Publisher: Publisher shall appoint a Grievance Redressal Officer based in India who shall be responsible for the redressal of grievances received by it.

The officer shall take decision on every grievance received by it within 15 days.

Self-Regulatory Body:

- There may be one or more self-regulatory bodies of publishers.
- Such a body shall be headed by a retired judge of the SC, a High Court or independent eminent person and have not more than six members.
- Such a body will have to register with the Ministry of Information and Broadcasting.
- This body will oversee the adherence by the publisher to the Code of Ethics and address grievances that have not been resolved by the publisher within 15 days.

Oversight Mechanism:

- Ministry of Information and Broadcasting shall formulate an oversight mechanism.
- It shall publish a charter for self-regulating bodies, including Codes of Practices. It shall establish an Inter-Departmental Committee for hearing grievances.

1.5 Governor's Role in Universities

The West Bengal government's decision to make the Chief Minister the Chancellor of State-run universities, instead of the Governor has refocused the attention on the Governor's Role in Universities

The area of conflict here are the appointment of Vice-Chancellors and the functioning of universities
VCs were appointed by the Chancellor of the universities

Similar Instances:

Tamil Nadu

- Tamil Nadu recently passed Bills to empower the State government, instead of the Chancellor, to appoint VCs.
- It also passed a separate bill to establish a new university for alternative systems of medicine with the Chief Minister as its Chancellor.

Kerala

- In Kerala, the situation is different, with Governor asking the Chief Minister to take over the Chancellor's role in the light of alleged political interference in the functioning of universities.
- These developments underscore that the conferment of statutory roles to Governors may be a source of friction between elected regimes and Governors who are seen as agents of the Centre

Governor's role in:

State Universities:

- In most cases, the Governor of the state is the ex-officio chancellor of the universities in that state.
- While the Governor's powers and functions as the Chancellor are laid out in the statutes that govern the universities under a particular state government.
- Their role in appointing the Vice-Chancellors has often triggered disputes with the political executive.

Central Universities:

- Under the Central Universities Act, 2009, and other statutes, the President of India shall be the Visitor of a central university.
- Chancellors are appointed by the President in his capacity as Visitors.
- They are titular heads with their role limited to presiding over convocations in central universities.
- The VCs too are appointed by the Visitor from panels of names picked by search and selection committees formed by the Union government.
- The President, as Visitor, shall have the right to authorize inspections of academic and non-academic aspects of the universities and also to institute inquiries
- The original intent of making Governors hold the office of Chancellor and vesting some statutory powers on them was to insulate universities from political influence

Sarkaria Commission

- Justice R.S. Sarkaria Commission noted the use of discretion by some Governors in some university appointments had come in for criticism.
- It acknowledged the distinction between the Governor's constitutional role and the statutory role performed as a Chancellor, and also underlined that the Chancellor is not obliged to seek the government's advice.

M.M. Punchhi Commission

- Noted that Governor should not be "burdened with positions and powers, which may expose the office to controversies or public criticism, it advised against conferring statutory powers on the Governor, it advised against conferring statutory powers on the Governor.

1.6 Rajya Sabha Election

- The Assemblies of 4 states will elect 16 MPs to Rajya Sabha
- Rajya Sabha, or the Council of States, has 245 seats
- No ruling party has ever touched the 100 mark in the last three-and-a-half decades
- Every Rajya Sabha seat counts as any Bill, barring Money Bills, needs the assent of the second chamber to become law.

How often are Rajya Sabha elections held?

- Rajya Sabha is a permanent House and cannot be dissolved.
- To ensure continuity, one-third of its members retire after every second year, under Article 83(1) of the Constitution, and "biennial elections" are held to fill these vacancies.
- The term of a member is six years.
- Out of the 245 members, 12 are nominated by the President and 233 are representatives of the States and Union territories of Delhi and Puducherry.

Rajya Sabha polls: Who votes, and how?

- Rajya Sabha MPs are elected by MLAs through an indirect election.
- Article 80(4) provides that members shall be elected by the elected members of state Assemblies through a system of proportional representation by means of a single transferable vote.
- The Fourth Schedule to the Constitution provides for allocation of Rajya Sabha seats to the states and Union Territories, on the basis of the population of each state.

How are the votes counted?

- The number of votes a candidate requires depends on the number of vacancies and the strength of the House.
- If there is only one vacancy, the required quota is calculated by taking the number of votes polled, divided it by 2, and adding 1.
- If there is more than one vacancy, the equation is based on an assigned value of 100 for every first-preference vote. The values of the votes credited to all candidates are totalled. The total is divided by 1 more than the number of vacancies, and 1 is added to this quotient.
- If for any seat, candidates fail to get the specified number, the second-preference votes will be taken into account, but with a lower value.

Beyond passing Bills, why do Rajya Sabha numbers matter?

- Rajya Sabha enjoys some special powers
- It can pass resolution to enact laws on state subject

- Recommend creation of one or more All India Services common to the Union and the states
- Rajya Sabha has a role to play if the President proclamations national emergency, in the event of failure of constitutional machinery in a State, or in the case of financial emergency. Every such proclamation has to be approved by both Houses of Parliament within a stipulated period
- If a proclamation is issued at a time when Lok Sabha has been dissolved or the dissolution of Lok Sabha takes place within the period allowed for its approval, then the proclamation remains effective, if the resolution approving it is passed by Rajya Sabha within the period specified under Articles 352, 356 and 360 of the Constitution.

1.7 Surrogacy Regulation Act, 2021

Petitioners in the Delhi High Court questioned why marital status, age, or gender were the criteria for being allowed to commission or not commission surrogacy in India.

What is the Surrogacy Act, 2021?

- The Act sought to regulate the surrogacy in India
- The Act defines 'surrogacy' as a practice where a woman undertakes to give birth to a child for another couple and agrees to hand over the child to them after birth

Why is there a need for a Surrogacy Act in India?

- India has emerged as a hub for infertility treatment, attracting people from the world – due to prevailing socio-economic inequities, underprivileged women found an option to 'rent their wombs' and thereby make money to take care of their expenses
- By 2012, India had become the 'surrogacy capital' of the world with surrogacy tourism valued at approximately \$500 million annually.
- Thus, it has become more than imperative to regulate surrogacy in the country.
- To curb unethical practices: Lack of specific legislation had led to unregulated growth of Commercial Surrogacy services. Hence, to curb unethical practices related to issues of sex selection and exploitation of the surrogate, specific legislation was required.
- To curb the exploitation of women: Due to the absence of legal regulations and lack of implementation, surrogate mothers faced multiple challenges – there had been many cases of death related to surrogacy which neither commissioning parents nor the doctors were ready to take responsibility of.
- Legal Issues: Sometimes, Indian adoption laws or citizenship laws of some other countries also create problems. For example, Germany gives citizenship by mother; this creates issues in determining the nationality of child.
- In 2008, a Japanese couple began the process with a surrogate mother in Gujarat, but before the child was born they split and there were no takers for the child.
- In 2012, an Australian couple commissioned a surrogate mother, and arbitrarily chose one of the twins that were born.
- Ethical Issues: Surrogacy leads to commoditization of the child. Renting of the womb breaks the bond between a mother and the child, interferes with nature

Key Provisions of the Act

- The Act prohibits commercial surrogacy, but allows altruistic surrogacy.
- Eligibility criteria for intending couple: Any couple that has 'proven infertility' are candidates. The 'intending couple' as the Act calls them, will be eligible if they have a 'certificate of essentiality' and a

‘certificate of eligibility’ issued by the appropriate authority.

- Eligibility criteria for surrogate mother: Only a close relative of the couple can be a surrogate mother, one who is able to provide a medical fitness certificate. She should have been married, with a child of her own, and must be between 25 and 35 years, but can be a surrogate mother only once.
- Appropriate authority: The central and state governments shall appoint one or more appropriate authorities. The functions of the appropriate authority include;
- granting, suspending or cancelling registration of surrogacy clinics;
- enforcing standards for surrogacy clinics;
- National and State Surrogacy Boards: The central and the state governments shall constitute the National Surrogacy Board (NSB) and the State Surrogacy Boards (SSB), respectively.
- Parentage and abortion of surrogate child: An abortion of the surrogate child requires the written consent of the surrogate mother and the authorisation of the appropriate authority. This authorisation must be compliant with the Medical Termination of Pregnancy Act, 1971.
- The surrogate mother will have an option to withdraw from surrogacy before the embryo is implanted in her womb.

What are the controversies behind the Act?

- Exclusion: The eligibility criteria for legally availing surrogacy excludes a chunk of society like unmarried females, LGBTQ+ persons, live-in couples, and single parents who wish to have surrogate child.
- Paternalistic: The altruistic model expects a woman to go through the physical and emotional tolls of surrogacy free of cost and only out of compassion.
- Autonomy of Woman: The banning of commercial surrogacy moves from the rights-based approach to a needs-based approach, thus removing the women’s autonomy to make their own reproductive decisions and right to parenthood.
- Limitations of Altruistic Surrogacy: Having a relative as a surrogate mother may lead to emotional complications. Altruistic surrogacy also limits the option of the intending couple in choosing a surrogate mother as very limited relatives
- Children with Disability: The Act considers having children with physical and special needs as childless. It further encourages considering surrogacy if the couple has a child with a life-threatening disorder. This clause directly violates the right of the children with the disability, thus denying them treatment with dignity.
- As India is one of the major hubs of these practices, the Act is certainly a step in the right direction. More reforms are still needed recognize the rights of all stakeholders involved. The law needs to keep up with rapidly evolving demands of morality and societal changes.

1.8 Election Commission

The EC sent six key proposals to the Law Ministry

- Linking of Aadhaar with voter IDs
- Allowing four qualifying dates for eligible people to register as voters
- Ban on exit polls and opinion polls and said there should be some restriction on conducting and disseminating the results of opinion polls right from the day of the first notification of an election till the completion of the election in all its phases
- Also recommended limiting the seats from which a candidate can contest to just one
- The EC has also sought powers to deregister political parties

- EC has sought the modification of Form 24A to mandate the disclosure of all donations above Rs 2,000 instead of Rs 20,000

Linking Aadhaar with voter IDs

- In December 2021, Parliament passed the Election Laws (Amendment) Bill, 2021 enabling “the linking of electoral roll data with the Aadhaar ecosystem”

Enrollment

- As of now, for an election to be held in a particular year, only an individual who has attained the age of 18 years as on January 1 of that year or before is eligible to be enrolled in the voters’ list.
- The ECI had told the government that the January 1 cut-off date set for the purpose deprives several youngsters from participating in the electoral exercise held in a particular year.

What are exit & opinion polls?

- An opinion poll is a pre-election survey to gather voters’ views on a range of election-related issues.
- An exit poll is conducted immediately after people have voted, and assesses the support for political parties and their candidates.

Why is the Election Commission (EC) against these polls?

- Both kinds of polls can be controversial if the agency conducting them is perceived to be biased.
- The projections of these surveys can be influenced by the choice, wording and timing of the questions, and by the nature of the sample drawn.
- Political parties often allege that many opinion and exit polls are motivated and sponsored by their rivals, and could have a distorting effect on the choices voters make in a protracted election, rather than simply reflecting public sentiment or views.

Number of Seats

- The EC has sought an amendment of Section 33(7) of the Representation of People Act, 1951 to restrict the number of seats a candidate can contest from.
- The Act currently allows a person to contest a general election or a group of by-elections or biennial elections from up to two constituencies.

Registration and De registration

- Section 29A of the Representation of the People Act, 1951 empowers the commission to register associations and bodies as political parties.
- However, there is no constitutional or statutory provision that gives power to the EC to deregister parties.
- Many political parties get registered, but never contest election. Such parties exist only on paper.
- The possibility of forming political parties with an eye on availing the benefit of income tax exemption also cannot be ruled out.
- It would only be logical that the commission which has the power to register political parties is also empowered to deregister in appropriate cases

1.9 Section 295A of IPC

- The debate surrounding the comments by ruling party spokespersons have put the spotlight on the law that deals with criticism of or insult to religion.

- Section 295A of IPC defines the contours of free speech and its limitations with respect to offences relating to religion.
- India does not have a formal legal framework for dealing with hate speech.
- However, a cluster of provisions, loosely termed hate speech laws, are invoked.

Section 295A & others

- Section 295A defines and prescribes a punishment for deliberate and malicious acts, intended to outrage religious feelings of any class by insulting its religion or religious beliefs.
- It includes offences to penalise damage or defilement of a place of worship with intent to insult the religion (Section 295); trespassing in a place of sepulture (Section 297); uttering, words, etc, with deliberate intent to wound the religious feelings of any person (Section 298); and disturbing a religious assembly (Section 296).
- The state often invokes Section 295A along with Section 153A of the Indian Penal Code, which penalises promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc, and doing acts prejudicial to maintenance of harmony and Section 505 of the IPC that punishes statements conducing to public mischief.

Supreme Court Judgment

- In 1957, the constitutionality of Section 295A was challenged in *Ramji Lal Modi v State of Uttar Pradesh*.
- The Supreme Court upheld the law on the grounds that it was brought in to preserve “public order”.
- Public order is an exemption to the fundamental right to freedom of speech and expression and the right to religion recognised by the Constitution.
- In 1973, in *Ramlal Puri v State of Madhya Pradesh*, the Supreme Court said the test to be applied is whether the speech in question offends the “ordinary man of common sense” and not the “hypersensitive man”
- In *BaragurRamachandrappa v State of Karnataka*, a 2007 decision of the Supreme Court, “a pragmatic approach” was invoked in interpreting Section 295A.

1.10 Inter State Council

Tamil Nadu Chief Minister wrote to Prime Minister of India asking that at least three meetings of the Inter-State Council should be held every year to strengthen the spirit of cooperative federalism

Inter-State Council

Constitutional Provisions

- According to Article 263 of the Indian Constitution, an Inter-State Council (ISC) may be constituted “if it seems to the President at any time that the public interests would be served by the creation of a Council”.
- It was set up in 1990 through a presidential ordinance for the first time as per the recommendations of the Sarkaria Commission under the Ministry of Home affairs.

Inter-State Council Composition

- Prime Minister acts as the chairman of the council.
- Union Ministers of Cabinet rank in the Union
- Council of Ministers nominated by the Prime Minister.
- Chief Ministers of all states

- Chief Ministers of Union Territories having a Legislative Assembly
- Administrators of UTs not having a Legislative Assembly
- Governors of the states being administered under President's rule

Functions of Inter-State Council

- Inter-State Council is a recommendatory body with duties to investigate and discuss the subjects of common interest between the Union and State(s) or among the States, making recommendations particularly for better coordination of policy and action on these subjects and deliberating upon such other matters of general interest to the States which may be referred to it by its Chairman
- Making suggestions on any such subject, for the better coordination of policy and action with respect to that subject

Issues

- The Council has met only once in the last six years and there has been no meeting since July 2016.
- Since its constitution in 1990, the body has met only 11 times, although its procedure states it should meet at least three times every year.
- In 2016, the meeting included consideration of the Punchhi Commission's recommendations on Centre-State Relations that were published in 2010

Current Stats:

- The Council was reconstituted recently by the Government of India
- Headed by the PM, the Council will comprise six Union ministers, besides the Chief Ministers of the 28 states and UTs with a legislature, and administrators of UTs without a legislature.
- It will also have 10 Union ministers as permanent invitees.
- The government has also reconstituted the standing committee of the Council, with Union Home Minister as its chairman.

1.11 Minority status in India

Supreme Court expressed displeasure over the Centre changing its stand on a plea that sought minority status for Hindus where their numbers have gone below other communities

What Happened?

- In the earlier (March) affidavit, the Centre had sought to shift the onus of granting minority status on states, stating centre and state have concurrent powers to do so
- However, in a fresh affidavit it said "the power is vested with the Centre to notify minorities"

Background

What is the case?

- The plea contended that Hindus are in a 'minority' in six states and three Union Territories of India but was allegedly not able to avail themselves of the benefits of schemes meant for minorities.
- Plea Showed as per 2011 census Hindus have become a minority in Lakshadweep (2.5%), Mizoram (2.75%), Nagaland (8.75%), Meghalaya (11.53%), J&K (28.44%), Arunachal Pradesh (29%), Manipur (31.39%), and Punjab (38.40%).
- They should be given minority status in these states in accordance with the principle laid down by the SC

in its 2002 TMA Pai Foundation and 2005 Bal Patil Case ruling.

- The petition also argued that NCMEI (National Commission for Minority Education Institution) Act 2004 gives unbridled power to the Centre and is “manifestly arbitrary, irrational, and offending”.
- Section 2(f) of NCMEI Act 2004 confers power to the Centre to identify and notify minority communities in India

TMA Pai Case:

The SC had said that for the purposes of Article 30 that deals with the rights of minorities to establish and administer educational institutions, religious and linguistic minorities have to be considered state-wise.

Bal Patil Case:

In 2005, the SC in its judgement in ‘Bal Patil’ referred to the TMA Pai ruling.

The legal position clarifies that henceforth the unit for determining status of both linguistic and religious minorities would be ‘state’.

What was the Centre’s stand (earlier)?

- Earlier centre stated that Parliament and State legislatures have concurrent powers to enact law to provide for the protection of minorities and their interests.
- States can also “certify institutions as being minority institutions” as per the rules of the said state.
- The Centre pointed out that Maharashtra had notified Jews as a minority community in 2016 and Karnataka had notified Urdu, Telugu, Tamil, Malayalam, Marathi, Tulu, Lamani, Hindi, Konkani and Gujarati as minority languages.
- But now in a fresh it contended that “the power is vested with the Centre to notify minorities”

How is a community notified as a minority?

Under Section 2(c) of the National Commission for Minorities Act of 1992 central government has the power to notify a community as a minority

Notified Minorities in India

- Currently, only those communities notified under section 2(c) of the NCM Act, 1992, by the central government are regarded as minority.
- In 1993, the first Statutory National Commission was set up and five religious communities viz. The Muslims, Christians, Sikhs, Buddhists and Zoroastrians (Parsis) were notified as minority communities.
- In 2014, Jains were also notified as a minority community.

National Commission for Minorities (NCM)

In 1992, with the enactment of the NCM Act, 1992, the Minority Commission became a statutory body and was renamed as the NCM

Composition:

- NCM consists of a Chairperson, a Vice-Chairperson and five members and all of them shall be from amongst the minority communities.
- Total of 7 persons to be nominated by the Central Government should be from amongst persons of eminence, ability and integrity.
- Tenure: Each Member holds office for a period of three years from the date of assumption of office.

Functions:

- Evaluation of the progress of the development of minorities under the Union and States
- Monitoring of the working of the safeguards for minorities provided in the Constitution and in laws enacted by Parliament and the state legislatures
- Making recommendations for the effective implementation of safeguards for the protection of the interests of minorities by the central or state governments
- Investigates matters of communal conflict and riots
- Looking into specific complaints regarding deprivation of rights and safeguards of minorities

Constitutional Provisions for Minorities

Article 29

It provides that any section of the citizens residing in any part of India having a distinct language, script or culture of its own, shall have the right to conserve the same.

It grants protection to both religious minorities as well as linguistic minorities

Article 30: All minorities shall have the right to establish and administer educational institutions of their choice. The protection under Article 30 is confined only to minorities (religious or linguistic) and does not extend to any section of citizens (as under Article 29).

Article 350-B: The 7th Constitutional (Amendment) Act 1956 inserted this article which provides for a Special Officer for Linguistic Minorities appointed by the President of India.

It would be the duty of the Special Officer to investigate all matters relating to the safeguards provided for linguistic minorities under the Constitution.

1.12 Governor's Power to call for a floor test

As the Maharashtra political crisis continues to play out, the Governor's powers under the Constitution to call for a floor test takes centre stage.

Constitutional provisions related to floor test

Article 174(2)(b)

- Article 174(2) (b) of the Constitution gives powers to the Governor to dissolve the Assembly on the aid and advice of the cabinet.
- However, the Governor can apply his mind when the advice comes from a Chief Minister whose majority could be in doubt.

Article 175(2)

- Under Article 175(2), the Governor can summon the House and call for a floor test to prove whether the government has the numbers.

Power of the Speaker

- In 2020, the Supreme Court, in Shivraj Singh Chouhan & Ors versus Speaker, upheld the powers of the Speaker to call for a floor test if there is a prima facie view that the government has lost its majority.
- When the House is in session, it is the Speaker who can call for a floor test.
- But when the Assembly is not in session, the Governor's residuary powers under Article 163 allow him to

call for a floor test.

Article 163

- Council of Ministers to aid and advice Governor
- There shall be a council of Ministers with the chief Minister at the head to aid and advise the Governor in the exercise of his functions, except in so far as he is by or under this constitution required to exercise his functions or any of them in his discretion.
- If any question arises whether any matter is or is not a matter as respects which the Governor is by or under this Constitution required to act in his discretion, the decision of the Governor in his discretion shall be final, and the validity of anything done by the Governor shall not be called in question on the ground that he ought or ought not to have acted in his discretion.
- The question whether any, and if so what, advice was tendered by Ministers to the Governor shall not be inquired into in any court.

1.13 Power Anti-defection law

- The crisis in Maharashtra shows the anti-defection law to be ineffective, even counterproductive.
- The political crisis in Maharashtra has brought focus back on the anti-defection law.
- The law has failed to shore up the stability of elected governments.
- Not only have many governments fallen due to defections in recent times, but the defectors have not suffered any cautionary consequences.

Issues

- The Speaker has delayed deciding on the disqualification.
- Due to Anti-Defection law, the chain of accountability has been broken by making legislators accountable primarily to the political party.
- Through 91st CAA, the anti-defection law created an exception for anti-defection rulings. The amendment does not recognise a 'split' in a legislature party and instead recognises a 'merger'
- The defection leads to instability in the government and affects the administration.
- Defection also promotes horse-trading of legislators which clearly go against the mandate of a democratic setup
- The voters don't seem to care about punishing the defectors either – 11 out of the 14 defectors who stood for re-election in the 2019 Karnataka bypolls won.

What needs to be done?

- Reforms at Party level
- Political parties must address organizational and ideological infirmities which have made them susceptible to mass defections in the first place.
- Political parties need ideological clarity and the ability to attract individuals with a sense of purpose and not love for power alone
- Internal party processes must be geared to identify and promote members into leadership positions
- Create intra-party forums: provide some institutional leverage to express intra-party dissidence.
- The Election Commission has suggested it should be the deciding authority in defection cases
- The Supreme Court has suggested that Parliament should set up an independent tribunal headed by a retired judge of the higher judiciary to decide defection cases swiftly and impartially.

- Some commentators have said the law has failed and recommended its removal – as the law has undermined not just the very principle of representation but has also contributed to polarization in our country by making it impossible to construct a majority on any issue outside of party affiliation.

Anti-Defection Law

- The Tenth Schedule – popularly known as the Anti-Defection Act – was included in the Constitution via the 52nd Amendment Act, 1985 and sets the provisions for disqualification of elected members on the grounds of defection to another political party.
- It was a response to the toppling of multiple state governments by party-hopping MLAs after the general elections of 1967.
- However, it allows a group of MP/MLAs to join another political party without inviting the penalty for defection. And it does not penalise political parties for encouraging or accepting defecting legislators.
- As per the 1985 Act, a ‘defection’ by one-third of the elected members of a political party was considered a ‘merger’.
- But the 91st Constitutional Amendment Act, 2003, changed this and now at least two-thirds of the members of a party have to be in favour of a “merger” for it to have validity in the eyes of the law.
- The decision on questions as to disqualification on ground of defection are referred to the Chairman or the Speaker of such House, which is subject to ‘Judicial review’.
- However, the law does not provide a time-frame within which the presiding officer has to decide a defection case.

Grounds of Disqualification:

- If an elected member voluntarily gives up his membership of a political party.
- If he votes or abstains from voting in such House contrary to any direction issued by his political party or anyone authorised to do so, without obtaining prior permission.
- As a pre-condition for his disqualification, his abstention from voting should not be condoned by his party or the authorised person within 15 days of such incident.
- If any independently elected member joins any political party.
- If any nominated member joins any political party after the expiry of six months.

1.14 State Food Safety Index (SFSI) 2021-22

Food Safety and Standards Authority of India (FSSAI) released the State Food Safety Index (SFSI) 2021-22

What is the SFSI?

- The index aims to measure the performance of states and Union Territories on selected “parameters” of food safety.
- The index is aimed at encouraging states and UTs to “improve their performance and work towards establishing a proper food safety ecosystem in their jurisdiction
- The SFSI is released annually for a financial year.
- This is the fourth edition of the SFSI since its inception in 2018-19.

Parameters

- The SFSI takes into account the performance of the states on five key parameters, each of which is assigned a different weightage in the assessment.

- Human Resources and Institutional Data
- Weightage: 20%
- Measures the availability of human resources like number of Food Safety Officers, Designated Officers facility of adjudications and appellate tribunals, functioning of State/ District level Steering Committees etc

Compliance

- Weightage: 30%.
- Measures overall coverage of food businesses in licensing & registration commensurate with size and population of the State/UTs, special drives and camps organized, yearly increase, promptness and effectiveness in issue of state licenses/ registrations
- Food Testing – Infrastructure and Surveillance
- Weightage: 20%
- Measures the availability of adequate testing infrastructure with trained manpower in the States/ UTs for testing food samples
- Training and Capacity Building
- Weightage: 10%.
- It measures states' performance on training and capacity building of regulatory staff.
- Consumer Empowerment
- Weightage: 20%.
- It evaluates the states and UTs on their performance on various consumer empowering initiatives of FSSAI, such as participation in Food Fortification, Eat Right Campus plus state initiatives

Assessment

- The states and Union Territories are segregated into three categories — large states, small states and UTs— and assessed separately within their respective categories, based on their performance on the selected food safety parameters.

Performance

- In the category of the 20 large states, Tamil Nadu with an overall score of 82 out of 100 has performed the best and been ranked 1st on SFSI 2021-22, while Andhra Pradesh with an overall score of 26 has been ranked at the bottom —17th place
- Following Tamil Nadu in the rankings of the larger states are Gujarat (rank 2nd with a score 77.5), Maharashtra (3rd with 70), Himachal Pradesh (4th with 65.5) and West Bengal and Madhya Pradesh (sharing 5th with a score of 58.5).
- Among the eight small states, Goa with a score of 56 has been ranked at the top, while Arunachal Pradesh (rank 8th and score 21) is at the bottom.
- Among the eight Union Territories, Jammu and Kashmir with a score of 68.5 has been ranked 1st and Lakshadweep (score 16) as the bottom. Delhi with a score of 66 has been ranked at 2nd place.

1.15 Hub airport

It is time India plans a hub airport flight path

- Transforming one of India's metro gateway airports into a hub airport deserves consideration as the aviation market puts the novel coronavirus pandemic behind it and passenger demand surges.
- India is the third largest domestic aviation market in the world, next only to the United States and China
- In view of the surge in passenger demand, India's airport operators have planned investments upwards of ₹90,000 crore to enhance capacity over the next four years or so.
- To boot, the conditions are just right for building a hub airport.

What is a hub airport?

- A hub airport is one served by a multitude of airlines, connecting several airports through non-stop flights.
- There are three basic requirements for becoming a major airport hub, whether domestic or international, i.e.
 - sufficient local consumer demand;
 - good geographic location, and
 - necessary infrastructure to support high-volume traffic.
- A typical hub airport operates on the concept of waves.
- A wave of incoming flights arrives and connects with another wave of outgoing flights that departs an hour or two later.
- Hubbing allows for the maximum combination of flight pairs and a wider choice of destinations and frequencies for connecting passengers.
- Some global examples are (Hub airport/Home airline): London/British Airways; Frankfurt/Lufthansa

Significance

- It is a win-win for all.
- A hub creates economies of scale for the airport and airlines alike.
- The airport benefits from increased direct connectivity with other airports and more revenue opportunities due to increased passenger footfalls.
- Improved passenger throughput has a knock-on effect on the wider airport ecosystem, such as aero and non-aero service providers at the airport, including cargo and ground handling, etc.
- Airlines, on their part, get to serve city pairs that are otherwise economically unviable for non-stop flights.
- Frequent fliers get greater choice and flexibility with flights, destinations, and service frequencies, as well as lower ancillary costs, such as avoiding the time and cost of an overnight stay.
- It is well established that the creation of one job in the aviation sector affects the creation of up to six jobs in allied sectors, such as tourism and hospitality.
- All this propels the economic and social development of the city and its inhabitants, too.

An India perspective

- In India the first two requirements are largely addressed and the focus is rightly on addressing the third requirement i.e. infrastructure

Factors in favour

- India has the largest diaspora, or transnational community, at 18 million people across all six continents and regions being third largest domestic aviation market in the world it can go for airport hub
- India is located on busy international air corridors that connect Europe, Africa, and the Middle East with Asia, making it ideal for a transit hub and alternative/diversion/fuel stop/technical stop; being the fifth-largest economy

- Given these favourable factors India can support development of more than one hub airport

Impediments

- There are capacity constraints at major airports because of a lack of landing slots, especially during peak hours
- The Airports Authority of India Act (AAI), 1994 constrains the AAI/airport operators from commercially exploiting available land for non-aeronautical activities
- A high cost-low fare operating environment and increased competition hurts airline balance sheets and financials, which hurts the growth of airports
- There is a need to develop inter-modal connectivity (rail/road – air) and logistics support infrastructure as a part of the future master plans to fully exploit potential with cargo and freight. With the carefully framed policy, India can bring down its logistic cost, increase people to people contact and raise the contribution of hospitality sector to the economy.

1.16 National Mobile Monitoring Software

The new National Mobile Monitoring Software application has problems that are eroding the right to work.

- In May 2021, the Ministry of Rural Development (MoRD) launched the National Mobile Monitoring Software (NMMS) app, a new application meant for “improving citizen oversight and increasing transparency” in National Rural Employment Guarantee Act (NREGA) works.
- It is to be deployed by NREGA Mates, local women at the panchayat level who are selected and trained to monitor NREGA worksites.
- The main feature of the app is the real-time, photographed, geo-tagged attendance of every worker to be taken once in each half of the day.

Why has it become a cause of concern?

- Strict timing: While such an app may be useful in monitoring the attendance of workers who have fixed work timings, in most States, NREGA wages are calculated based on the amount of work done each day, and workers do not need to commit to fixed hours. This flexibility has been key to NREGA’s widespread demand. However, marking attendance on the app mandates that workers are at the worksite the entire day. This causes significant difficulty for NREGA workers.
- Disproportionately affect women workers: NREGA has historically had a higher proportion of women workers (54.7% in FY 2021-22) and has been pivotal in changing working conditions for women in rural areas. Due to the traditional burden of household chores and care work on women, the app is likely to disproportionately affect women workers. The conditions for registering NREGA attendance on the app put them in a dilemma where they may end up foregoing NREGA work.
- Network woes: A stable network is a must for real-time monitoring; unfortunately, it remains patchy in much of rural India. This could lead to workers not being able to mark their attendance, and consequently lose a day of wages.
- Impacted NREGA Mates: The role of a Mate was conceptualised as an opportunity to empower local women to manage attendance and work measurement in their panchayat. But now, to be a Mate, one needs to have a smartphone. This new condition disqualifies thousands of women who do not own smartphones from becoming Mates. Now, smartphone-owning men are likely to be given preference as Mates. Alternatively, women could become proxy Mates — officially registered, but deferring to men who work and get paid.
- Errors in pilot process: Officials and activists have confirmed these implementation errors had been evident throughout the pilot process.
- No physical records: The app claims to increase citizen oversight by bringing more transparency and ensuring proper monitoring of the schemes, besides potentially enabling processing payments faster.

However, it appears to be doing exactly the opposite. With no physical attendance records signed by workers anymore, workers have no proof of their attendance and work done.

The Way Forward

- Strengthen social audits: Social audits are citizen-centric institutions, where the citizens of the panchayat have a direct role and say in how NREGA functions in their panchayat.
- Ensure Principles of Transparency: The MoRD's habit of passing reforms with no stakeholder consultation does not fall in line with the principles of transparency and citizen-participation enshrined in NREGA.

MGNREGA Scheme:

- The Mahatma Gandhi National Rural Employment Guarantee Act, earlier known as the National Rural Employment Guarantee Act was passed in 2005 to augment employment generation and social security in India.
- The scheme is a demand-driven wage employment scheme, which functions under the Ministry of Rural Development.
- Every adult member of a household in a rural area with a job card is eligible for a job under the scheme.
- The scheme envisages providing 100 days of guaranteed wage employment in a financial year to adult member volunteers for unskilled manual work.
- There is also a provision for additional 50 days of unskilled wage employment in drought/natural calamity notified rural areas.
- As per Section 3(4) of the MGNREGA, the States may make provisions for providing additional days beyond the period guaranteed under the Act from their own funds.
- At least one-third of beneficiaries have to be women.
- Wages must be paid according to the statutory minimum wages specified for agricultural labourers in the state under the Minimum Wages Act, 1948.

1.17 Bring the shine back on government jobs

- In 2019, an Indian citizen died of suicide every hour due to joblessness, poverty or bankruptcy, according to the National Crime Records Bureau.
- Several unemployed people in India resort to protests — thousands burnt railway coaches in January 2022 over alleged flaws in the railways recruitment process and more recently, India saw protests over the Agnipath scheme.
- A culture of hire and fire
- In May 2022, Haryana terminated the services of over 2,000 contractual health workers who had been hired during the pandemic.
- Over 8,300 panchayat and rural development contractual staff in Assam staged protests in February 2022. They had been in a contractual state for 12-14 years and had not been given bonuses, allowances and other benefits.
- The situation is same in the most of the states.

Problems

- First, vacancies in the government are not being filled at a sufficient pace.
- There were over 60 lakh vacancies in the government across all levels in July 2021. Of these, over 9.1 lakh were in the Central government.
- The government has sought to push for recruitment of 10 lakh people in a mission-mode over 1.5 years. However, this would fall short of the size of the problem.
- Second, where vacancies are being filled, they are notably skewed towards contractual jobs.

- In 2014, about 43% of government employees had non-permanent or contractual jobs as per the Indian Staffing Industry Research 2014 report.
- By 2018, the share of government employees in this category had risen to 59%. For Central Public Sector Enterprises, the share of contractual employees increased from 19% to 37%

What needs to be done?

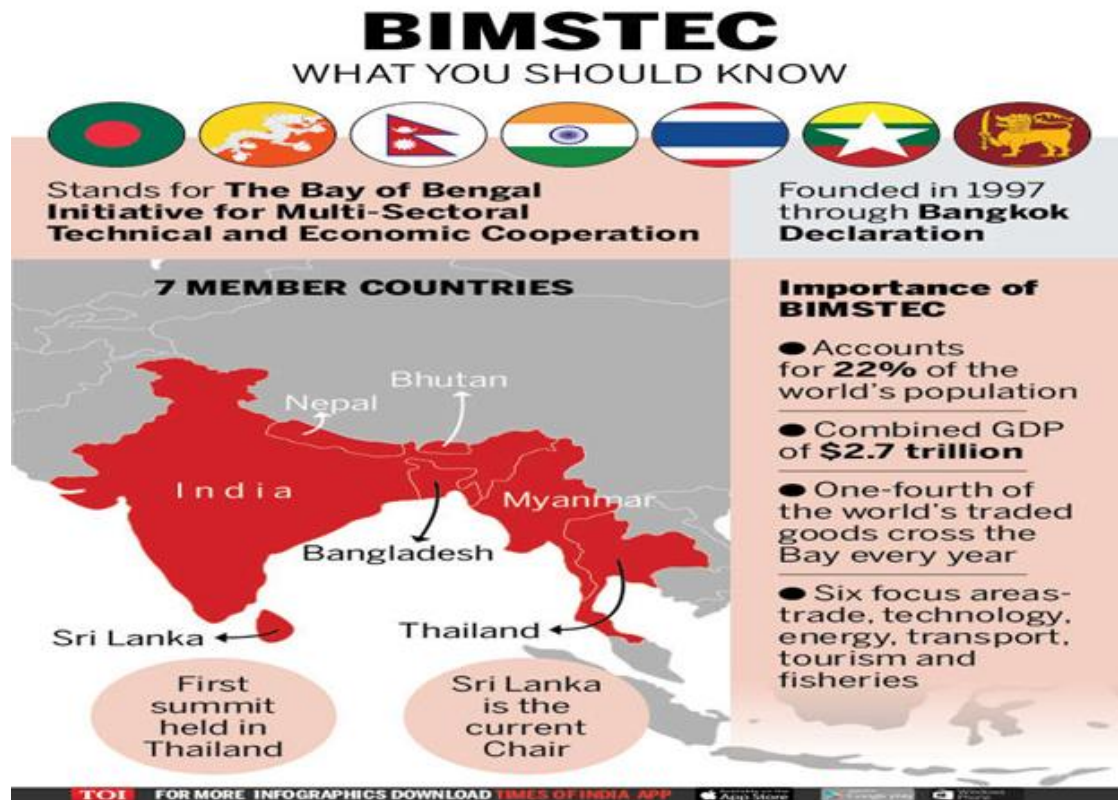
- Instead of expanding contractual employment, focus should be to bolster public services.
- Expanding public service provisioning will also lead to the creation of good quality jobs, along with skilled labour, offering us social stability.
- A push for enhancing public health would lead to the creation of societal assets – having more ICU beds in the first place would have ensured that the COVID-19 crisis could have been managed better
- Such spending, however, will eventually lead to an increase in consumer demand and have strong multiplier effects, while generally improving the productivity and quality of life in India's cities and villages.
- Focus should be on those sectors that create job opportunities
- Renewable power generation and waste management front – Encouraging solid waste treatment practices would create about 300 jobs per year in a city municipal corporation.
- A push for adopting electric vehicles and encouraging green mobility would require significant manpower, leading to the generation of 'green jobs'
- Selective PSU reform to create job opportunities
- Government jobs have lost their shine. It is time to attract talent to the government. This is the time to build capacity for an efficient civil service that can meet today's challenges – providing a corruption-free welfare system, running a modern economy and providing increasingly better public goods by bringing the shine back on government jobs.

2. International Relations

2.1 BIMSTEC

June 6 marked the completion of 25 years since the 1997 Bangkok Declaration launched a grouping BIMSTEC

What is BIMSTEC?



- The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organisation comprising seven Member States: five deriving from South Asia, including Bangladesh, Bhutan, India, Nepal, Sri Lanka and two from Southeast Asia, including Myanmar and Thailand.
- This sub-regional organisation came into being on 6 June 1997 through the Bangkok Declaration. Nepal, Bhutan and Myanmar joined the grouping later
- The BIMSTEC Secretariat is in Dhaka.

Institutional Mechanisms:

- BIMSTEC Summit
- Ministerial Meeting
- Senior Officials' Meeting
- BIMSTEC Working Group
- Business Forum & Economic Forum

Key achievements

- It has crafted a new Charter for itself, spelling out the grouping's vision, functions and has secured a legal personality.
- It has prioritized the sectors of cooperation with each member-state serving as the lead country for the

assigned sector

- Survival through the turns and twists of internal tensions: influx of over a million Rohingya refugees, Military coup in Myanmar and political and economic crisis afflicting Sri Lanka
- Unlike SAARC and IORA, BIMSTEC has continued to hold its summits and meetings of Foreign Ministers and it has now resolved to hold regular summits once in two years
- The grouping has also registered progress in combating terrorism, forging security cooperation, and creating mechanisms and practices for the better management of humanitarian assistance and disaster relief.
- Institutions such as an Energy Centre and the Centre on Weather and Climate are in place to push sectoral cooperation forward.

The faultlines

- A major failure relates to the continuing inability to produce a comprehensive Free Trade Agreement (FTA) 18 years after the signing of the Framework Agreement.
- Connectivity: Only limited progress has been achieved so far, despite the adoption of the Master Plan for Connectivity supported by the Asian Development Bank (ADB).
- Access to financial resources: For greater regional connectivity, more financial resources are needed. The movement towards establishing the BIMSTEC Development Fund is minimal.
- The grouping has talked about the Blue Economy but is yet to begin any work on it.

Way Ahead

- In this Indo-Pacific century, BIMSTEC has the potential to play a pivotal role, deepening linkages between South Asia and Southeast Asia. It should accelerate the region's economic development by collaborating with the newly minted Indo-Pacific Economic Framework for Prosperity (IPEF). New synergy should be created between BIMSTEC and the IPEF.

2.2 Ream naval base

- A Chinese base in Cambodia could become a chokepoint in the Gulf of Thailand close to the strategically important Malacca Strait that has prompted global concern that it will be used by Beijing as a naval outpost on the Gulf of Thailand.
- Cambodia's official described the expansion of the Ream Naval Base as "cooperation between China and Cambodia"

Background

China and Cambodia have reportedly signed a secret pact allowing China exclusive use of a naval base on the Gulf of Thailand, although officials from both countries have denied such a deal exists.

Ream Naval Base

Location: Ream Naval Base is a facility operated by the Royal Cambodian Navy on the coast of the Gulf of Thailand in the province of Sihanoukville, Cambodia.

Ream faces the Gulf of Thailand, adjacent to the South China Sea



Significance

- This would be china’s second overseas naval foothold, after a base in Djibouti opened in 2017.
- A Chinese base in Cambodia could become a chokepoint in the Gulf of Thailand close to the strategically important Malacca Strait.
- China’s strategic military footprint in Southeast Asia would help it bolster its territorial claims in the disputed South China Sea.

2.3 Gulf region

- Recently, the ruling party of India suspended its national spokesperson and expelled its Delhi spokesperson, following comments they had made about Islam and the Prophet
- The move came after three countries in the Gulf region had summoned the Indian ambassadors to their nations to register their protest
- The ruling party’s action underlines the significance of the Gulf region for India
- Barring the Jewish state of Israel, the 10 other countries of the Gulf region — Saudi Arabia, Qatar, Iran, Iraq, Bahrain, Kuwait, United Arab Emirates, Oman, Jordan and Yemen — together account for one-fifth of the world’s Muslim population, and are among the strongest voices of the Muslim world.

Why is the region important for India?

- The two most important reasons for the relationship are oil and gas, and trade.
- Two additional reasons are the huge number of Indians who work in the Gulf countries, and the remittance they send back home.



Trade

- UAE: The UAE was India's third-largest trading partner in 2021-2022, and second-largest for both exports (\$28 billion) and imports (\$45 billion)
- The UAE accounted for 6% of India's total exports and 7.3% of imports in the last financial year
- Saudi Arabia: At a total volume of \$42.9 billion in 2021-22, Saudi Arabia was India's fourth-largest trading partner.
- Iraq: It was India's fifth-largest trading partner in 2021-22 at \$34.3 billion.
- Qatar: The total trade was \$15 billion, accounting for just 1.4% of India's total trade, but the country is India's most important supplier of natural gas.
- Qatar accounts for 41% of India's total natural gas imports. The UAE accounts for another 11%.

Oil

- The share of Persian Gulf countries in India's crude imports has remained at around 60% over the last 15 years.
- In 2021-2022, the largest exporter of oil to India was Iraq, whose share has gone up from 9% in 2009-2010 to 22%.

Indian Diaspora in Gulf Countries

- The Gulf has the largest Indian Diaspora working there.
- The UAE, Saudi Arabia and Kuwait together account for over half of all NRIs.
- In terms of remittances from abroad, India was the largest recipient in 2020 at \$83.15 billion. The largest contributor is the huge Indian diaspora in the Gulf.
- India has underlined the importance of Gulf countries by frequent visit by Indian delegations to the region and the Gulf countries have reciprocated the same. It is highly important that India maintain a cordial relationship with these countries given their importance in India growth and development.

2.4 India and Vietnam

- India and Vietnam signed a Memorandum of Understanding (MoU) on mutual logistics support
- Also signed the 'Joint Vision Statement on India-Vietnam Defence Partnership towards 2030', which will significantly enhance the scope and scale of existing defence cooperation
- And agreed for early finalization of \$US 500 million Defence Line of Credit extended to Vietnam



What are Logistics agreements?

- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement simplifying logistical support and increasing operational

turnaround of the military when operating away from India.

India- Vietnam Relations

Relations between India and Vietnam have been governed by several areas of shared political interests.

Areas of Cooperation:

Economic ties:

- India is now the 8th largest trading partner of Vietnam.
- Vietnam is the 4th largest trading partner of India among ASEAN countries
- Vietnam is also the second largest export destination for India after Singapore in the ASEAN region.
- India is investing in development and capacity assistance for Vietnam through quick impact projects (QIP), proposals in the area of water resource management in Vietnam's Mekong Delta region, Sustainable Development Goals (SDGs), and digital connectivity.

Defence Cooperation:

- The relations between the two countries especially defence ties, benefited extensively from India's Look East policy.
- Vietnam is interested in India's Akash surface-to-air systems and Dhruv advanced light helicopters and Brahmos missiles.
- Apart from this, the defence relations include capacity building, dealing with common security concerns, training of personnel, and cooperation in defence R&D.
- Both countries reaffirm the strong India-Vietnam Defence cooperation which is a key pillar of Comprehensive Strategic Partnership.

Strategic partnership:

- Bilateral relations were upgraded to a "Strategic Partnership" in 2017, and upgraded to a "Comprehensive Strategic Partnership" in 2016
- Cooperation in the UN Security Council has been exemplary. The shared respect for international law, including UNCLOS 1982, and a rules-based order is a strong commonality.

Cooperation at Multiple Fora:

- India and Vietnam closely cooperate in various regional forums such as East Asia Summit, Mekong Ganga Cooperation, Asia Europe Meeting (ASEM), and UNSC.

Tourism:

- Around 169,000 Indians visited Vietnam and over 31,000 Vietnamese visited India in 2019, recording a growth of 28% and 32% over 2018 respectively.
- India is a favored spiritual destination for many Vietnamese because it is home to many famous Buddhist temples

China factor:

- Both countries have border problems with China.
- China aggressively continues to encroach in the territories of the two countries.
- Hence, it is natural for both the countries to come closer with a view to restrain China from its aggressive actions.

Way Forward

- Mutual Co-ordination and Co-operation: Considering the unique challenges of Indo-Pacific region, both the countries should work in close coordination at multiple forums
- Promoting Common areas: India and Vietnam both can mutually benefit each other in the arena of Blue Economy and ocean security.
- Providing financial resources, improving connectivity and establishing good relations in the region, helps both the country to fight Chinese presence in the region

2.5 China the top buyer of Indian broken rice

China takes over as biggest importer of Indian broken rice

- China emerged as the top buyer of Indian rice during the pandemic, with the import of 7.7 per cent — of India's total rice export in financial year 2021-22
- The analysis shows that out of China's total rice import from India of 16.34 LMT, nearly 97 per cent was broken rice, which has seen a spike in demand from that country.
- Thus making China the top buyer of Indian broken rice, which was earlier, exported mostly to African countries.

Rice exports of India

- In 2021-22, India's total rice exports — both basmati and non-basmati — was 212.10 LMT, which is 19.30 per cent higher than 177.79 LMT exported in 2020-21
- Of India's total rice export in 2021-22, basmati rice accounted for 39.48 LMT, which was 14.73 per cent lower than 46.30 LMT exported in 2020-21.
- Non-basmati rice accounts for the lion's share in the basket of Indian rice exports.
- During 2021-22, export of rice other than basmati was 172.62 LMT, which was 31.27 per cent higher than 131.49 LMT in 2020-21.

Reasons for import by China

The reason for this increase in export of broken rice to China is the higher demand of rice for making noodles and wine in that country.

2.6 Organisation of Islamic Cooperation (OIC)

The General Secretariat of the Organisation of Islamic Cooperation (OIC) "condemned and denounced" the comments on Prophet Muhammed made by two erstwhile national spokespersons of the ruling party

What is the OIC?

- The OIC (57-nation grouping) was established at a 1969 summit in Rabat (Morocco).
- It endeavours to establish solidarity among member states, support restoration of complete sovereignty and territorial integrity of any member state under occupation; protect, defend and combat defamation of Islam, prevent growing dissension in Muslim societies and work to ensure that member states take a united stand on the international stage.
- The OIC has consultative and cooperative relations with the UN and other inter-governmental organisations to protect the interest of Muslims

How does the OIC function?

- The Islamic Summit, composed of Kings and heads of state, is the supreme authority of the organisation.
- Convening every two years, it deliberates, takes policy decisions, provides guidance on issues relevant to the organisation
- The Council of Foreign Ministers is the chief decision-making body and meets annually to decide on how to implement the OIC's general policies.
- The council also appoints, for a period of five years, the Secretary General, who is the chief administrative officer of the grouping.
- UN members with a Muslim majority can join the organisation.
- The membership is to be ratified with full consensus at the OIC's Council of Foreign Ministers. The same provisions apply for acquiring an observer status.
- The OIC is financed by the member states proportionate to their national incomes.

What has been the nature of India's relationship with the OIC?

- India's association with the 57-nation grouping has not been easy.
- Even though the country has good relations with the UAE and Saudi Arabia, its membership and engagement has been constantly challenged by Pakistan.
- In 1969, Islamabad's opposition to Indian participation at the first OIC Plenary resulted in the Indian delegation being turned back from the venue at the last minute.
- In 2018, Bangladesh had proposed India be given the observer status at the OIC considering its sizeable Muslim population – a move which received support from Turkey but was opposed by Pakistan.
- About 50 years later, External Affairs Minister Sushma Swaraj addressed the OIC Plenary of Foreign Ministers in Abu Dhabi as a guest of honour. The invitation was extended by the UAE's Foreign Minister
- Islamabad's apprehension stems from the fear that India's involvement in the grouping could influence the opinion of other Muslim states — not boding well for its influence.

2.7 India ASEAN

- India is hosting the two-day conclave to mark the 30th anniversary of its relations with the 10-nation Association of Southeast Asian Nations (ASEAN).
- The foreign ministers of India and ASEAN countries to uphold multilateralism in jointly responding to the regional and global challenges
- They reaffirmed the commitment to multilateralism founded on the principles of the international law, including the Charter of the United Nations, the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and other relevant UN treaties and conventions, maintain an open and inclusive regional cooperation framework, support ASEAN Centrality in the evolving rules-based regional architecture, uphold multilateralism in jointly responding to regional and global challenges
- Myanmar did not participate in the India-ASEAN foreign ministers' meeting

ASEAN

- The Association of Southeast Asian Nations was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration)
- The motto of ASEAN is "One Vision, One Identity, One Community".
- Founding Members Indonesia, Malaysia, Philippines, Singapore and Thailand.
- Brunei Darussalam (1984), Vietnam (1995), Lao PDR and Myanmar (1997), and Cambodia (1999), joined

the ASEAN later.

- ASEAN Secretariat – Indonesia, Jakarta.

Significance

- It is the 3rd largest market in the world
- It is the 6th largest economy in the world, 3rd in Asia.
- The Free-trade agreements (FTAs) with China, Japan, South Korea, India, Australia and New Zealand.

ASEAN-led Forums

- ASEAN Regional Forum (ARF): Launched in 1993, the twenty-seven-member multilateral grouping was developed to facilitate cooperation on political and security issues to contribute to regional confidence-building and preventive diplomacy.
- ASEAN Plus Three: The consultative group initiated in 1997 brings together ASEAN's ten members, China, Japan, and South Korea.
- East Asia Summit (EAS): The summit seeks to promote security and prosperity in the region and is usually attended by the heads of state from ASEAN, Australia, China, India, Japan, New Zealand, Russia, South Korea, and the United States.

India and ASEAN

- India's relationship with ASEAN has emerged as a key cornerstone of our foreign policy.
- The relationship has evolved from the 'Look East Policy' enunciated in early 1990s which led India to become a Sectoral Partner of ASEAN in 1992, a Dialogue Partner in 1996 and a Summit-level Partner in 2002.
- The India-ASEAN Strategic Partnership acquired a new momentum with the announcement of "Act-East Policy" in the 12th Summit in 2014.
- India and ASEAN already has 25 years of Dialogue Partnership, 15 years of Summit Level interaction and 5 years of Strategic Partnership with ASEAN.

Economic Cooperation:

- ASEAN is India's fourth largest trading partner.
- India's trade with ASEAN stands at approx. 10.6% of India's overall trade.
- India's export to ASEAN stands at 11.28% of our total exports. The ASEAN-India Free Trade Area has been completed.

Socio-Cultural Cooperation:

- Programmes to boost People-to-People Interaction with ASEAN, such as inviting ASEAN students to India, Special Training Course etc

Delhi Declaration:

- To identify Cooperation in the Maritime Domain as the key area of cooperation under the ASEAN-India strategic partnership.

Delhi Dialogue:

- Annual Track 1.5 event for discussing politico-security and economic issues between ASEAN and India.

ASEAN-India Centre (AIC):

- To undertake policy research, advocacy and networking activities with organizations and think-tanks in India and ASEAN.

Political Security Cooperation:

- India places ASEAN at the centre of its Indo-Pacific vision of Security and Growth for All in the Region.

Financial Assistance

- Financial assistance has been provided to ASEAN countries from the following Funds:
- ASEAN-India Cooperation Fund
- ASEAN-India S&T Development Fund
- ASEAN-India Green Fund

2.8 Pakistan on FATF “grey list”

- The global money laundering and terrorist financing watchdog FATF has retained Pakistan on its terrorism financing “grey list” and asked Islamabad to address at the earliest the remaining deficiencies in its financial system
- Pakistan has been on the grey list of the Financial Action Task Force (FATF) since June 2018 for failing to check money laundering, leading to terror financing, and was given a plan of action to complete it by October 2019.
- The plenary recently decided against existing Pakistan from the category despite the country meeting 32 out of 34 action points
- Pakistan’s robust progress on its global commitments to fight financial crimes was appreciated at the concluding session

Financial Action Task Force

- An inter-governmental body established in 1989 during the G7 Summit in Paris.
- Assesses the strength of a country’s anti-money laundering and anti-terror financing frameworks.

Objectives:

- To set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

Headquarters:

- Its Secretariat is located at the Organisation for Economic Cooperation and Development (OECD) headquarters in Paris.

Member Countries:

- The FATF currently has 39 members including two regional organisations – the European Commission and Gulf Cooperation Council. India is a member of the FATF.

Lists under FATF:**Grey List:**

- Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list.
- This inclusion serves as a warning to the country that it may enter the blacklist.

Black List:

- Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities.
- The FATF revises the blacklist regularly, adding or deleting entries.
- Currently, Iran and Democratic People's Republic of Korea (DPRK) are under High-risk Jurisdiction or black list.

Sessions:

- The FATF Plenary is the decision making body of the FATF. It meets three times per year.

2.9 G7

- G7 aiming for \$600 bn global infrastructure programme
- The G7 group announced an attempt to compete with China's formidable Belt and Road Initiative by raising \$600 billion for global infrastructure programmes in poor countries
- The Partnership for Global Infrastructure and Investment will deliver hundreds of billions of dollars and deliver quality, sustainable infrastructure that makes a difference in people's lives around the world, strengthens and diversifies our supply chains
- The proposed G7 funding would depend largely on private companies being willing to commit to massive investments

Group of Seven (G7)

- It is an intergovernmental organisation that was formed in 1975.
- The bloc meets annually to discuss issues of common interest like global economic governance, international security and energy policy.
- The G7 countries are the UK, Canada, France, Germany, Italy, Japan and the US.
- All the G7 countries and India are a part of G20.
- The G7 does not have a formal constitution or a fixed headquarters. The decisions taken by leaders during annual summits are non-binding.

3. Economics

3.1 Trade to boost India's growth

Exports can help Indian economy reach the \$5-trillion target sooner than expected.

Stats

- India's exports surpassed the pre-pandemic level of \$331 billion in FY 2018-19 and reaching \$418 billion in FY 2021-22
- Total exports, including the services exports of around \$240 billion, amount to more than \$650 billion.
- Total merchandise trade, including imports of \$610 billion, amounts to \$1.28 trillion for FY 2021-22.

What the above stats indicate?

- The revival of exports has provided relief at a time when major components of aggregate demand such as consumption and investment had been slowing down.
- These milestones on the trade front are a sign of a rising India, which would certainly accelerate the growth
- If India sustain the momentum and capitalize on exports' potential, this will help achieve the \$-5 trillion economy goal sooner
- The trade achievements are a sign of growing confidence in the Indian economy

Reasons for this achievement

- The proactive policy schemes by the government — such as merchandise exports scheme, duty exemption scheme, export promotion capital goods, transport and marketing assistance scheme — have helped the export sector.
- Schemes like the gold card scheme and interest equalization scheme by RBI and the market access initiative by the export promotion councils are helpful

Export Potential of India

- Though achievements in trade are laudable, India still has much potential. For example, the annual growth rate of India's exports between 2011 to 2020 is a little over 1 per cent compared to 3 per cent and 4.2 per cent, respectively, for China and Bangladesh.
- There is a huge difference in India's exports potential and actual exports in many sectors, especially pharmaceuticals, gems and jewellery and chemicals.

What needs to be done?

Policy reforms

- India has to aggressively increase its participation in global value chains (GVCs) with its best endowment of working-age population and its strength in labour-intensive manufacturing
- As the Economic Survey (2019-20) suggests, "assemble in India", particularly in network products, will increase India's share in world exports to 6 per cent and create 80 million jobs.
- It is time to find out and research why MNCs are (re)locating to countries like Vietnam, Bangladesh and Mexico when India offers a big market and cheap manpower.
- State-level reforms in reducing red tape and complex laws including taxation will go a long way.

Institutional Reforms

- India also needs to work on institutions facilitating trade, processes for exports and imports and logistics that not only reduce trade and transaction costs but also ensure reliability and timely delivery, which is important to becoming part of GVCs.
- India's rank in the logistics performance index is 44 while China's rank is 26 and South Korea's 25.

- The unit cost of a container of exports is significantly higher for India compared to China, South Korea and others, thereby reducing the price competitiveness of India's exports.

Signing FTAs

- One way to reduce the complexities of trade and business is by signing free trade agreements.
- These not only reduce tariffs and give market access but bring down non-tariff barriers such as administrative fees, labelling requirements, anti-dumping duties etc

Focus on Service Exports

- As per the Ministry of Commerce (MoC), services exports are expected to reach the target of \$1 trillion before the deadline of 2030.
- India has done well in IT and IES exports and it can accelerate services exports in other categories including travel and tourism and business, commercial and financial services
- Capitalize on opportunities arising out of geopolitical conflicts

India must utilize opportunities arising out of geo-political conflicts and the intention of the world to diversify its supply chain portfolio.

3.2 Repo rate

- In its bi-monthly review the Reserve Bank of India hiked the repo rate by another 50 basis points.
- Also RBI removed the word "accommodative" from the policy stance

Why has RBI hiked the repo rate?

- The 50-basis-point hike, which follows a 40-basis-point hike in May has been done with a view to taming inflation
- The RBI aims to bring inflation down to its targeted 4% ($\pm 2\%$).
- The two hikes in repo rates over the last five weeks, totalling 90 bps, takes the rate to 4.9%.

How will it impact borrowers and depositors?

- Banks and housing finance companies, which have already raised their lending rates between 40 bps and 50 bps points following the 40 bps hike in repo rate in May, are now expected to raise the rates again.
- Both borrowers and depositors are expected to see a hike in lending rates and offering on deposit rates, respectively

What will be the impact of withdrawing the accommodative policy?

- RBI removed the word "accommodative" from the policy stance.
- RBI has decided to remain focused on withdrawal of accommodation to ensure that inflation remains within the target.
- The RBI had pumped huge liquidity into the system in 2020 to counter the impact of the pandemic.
- While this did support economic recovery, it has also been the main reason for the rise in inflation.
- Recent RBI's market operations had led to a decline in liquidity in May.
- Still, overall system liquidity remains in large surplus, with the average daily absorption under the liquidity adjustment facility (LAF) moderating in consonance with the policy of gradual withdrawal of accommodation.
- The withdrawal will also put upward pressure on interest rates.

Will consumer spending be impacted?

- The policy withdrawal and the rate hike are expected to impact consumption and demand in the economy.
- The impact is likely to be more pronounced in non-discretionary spending by consumers.
- According to the RBI policy panel, the forecast of a normal monsoon should boost kharif sowing and agricultural output. This will support rural consumption.
- The rebound in contact-intensive services is expected to sustain urban consumption. RBI's surveys suggest further improvement in consumer confidence and households' optimism for the outlook a year ahead.

Monetary Policy Measures

- Monetary policy refers to the policy of the central Bank with regard to use of monetary instruments under its control to manage money supply and interest rates.
- In 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.
- Under amended RBI Act, 1934, the central government is empowered to constitute a six-member Monetary Policy Committee (MPC).
- Composition: the MPC shall consist of 6 members:
 - RBI Governor as its ex officio chairperson,
 - Deputy Governor in charge of monetary policy,
 - An officer of the Bank to be nominated by the Central Board,
 - Three persons to be appointed by the central government

3.3 Linking of credit cards with the Unified Payments Interface (UPI).

- The Reserve Bank of India has proposed to allow the linking of credit cards with the Unified Payments Interface (UPI).
- RBI also stated integration will first begin with the indigenous RuPay credit cards.

What is the significance of the move?

- Experts believe that the linkage of UPI and credit cards could possibly result in credit card usage zooming up in India given UPI's widespread adoption.
- The integration also opens up avenues to build credit on UPI through credit cards in India, where in the last few years, a number of startups have emerged
- The move could also be a push to increase adoption by banking on UPI's large user base.
- So far, UPI could only be linked to debit cards and bank accounts.

Unified Payments Interface (UPI):

- It is an advanced version of Immediate Payment Service (IMPS)- round-the-clock funds transfer service to make cashless payments faster, easier and smoother.
- UPI is a system that powers multiple bank accounts into a single mobile application merging several banking features, seamless fund routing & merchant payments into one hood.
- UPI is currently the biggest among the National Payments Corporation of India (NPCI) operated systems including National Automated Clearing House (NACH), Immediate Payment Service (IMPS), Aadhaar enabled Payment System (AePS), Bharat Bill Payment System (BBPS), RuPay etc.
- The top UPI apps today include PhonePe, Paytm, Google Pay, Amazon Pay and BHIM, the latter being the

Government offering.

- NPCI launched UPI with 21 member banks in 2016

3.4 Periodic Labour Force Survey

The annual report of the Periodic Labour Force Survey for July 2020 to June 2021 was released by NSO

Findings

- The unemployment rate of 4.2 per cent in 2020-21, the lowest since the first PLFS showed an unemployment rate of 6.1 per cent in 2017-18.
- According to the report, the labour force participation rate (LFPR), or those working or seeking or available for work in the labour force, was the highest in four years at 39.3 per cent in 2020-21, as was the worker population ratio (WPR) at 36.3 per cent.
- The unemployment rate was higher for males in rural areas than females.
- In rural areas, the unemployment rate was 3.9 per cent in 2020-21, while that for females was 2.1 per cent.
- In urban areas, the unemployment rate for females was 8.6 per cent, while that for males was 6.1 per cent.
- While the overall employment situation showed improvement, the rise was seen in low-quality, unpaid work.
- Employment in the unpaid self-employed category continued to show an increase in 2020-21 by rising to 17.3 per cent from 15.9 per cent in 2019-20.
- Rural unpaid employment also showed increase to 21.3 per cent in 2020-21 from 20.0 per cent in the previous year, while that for urban areas increased to 6.3 per cent from 5.7 per cent.
- The data shows that the share of the labour force engaged in agriculture continued to show a rise in 2020-21, increasing to 46.5 per cent from 45.6 per cent in 2019-20 and 42.5 per cent in 2018-19 — a reversal of the decades-long decline in the labour force participation in agriculture.
- The increase in share of agricultural employment was seen more for urban areas than rural areas.
- In urban areas, male employment in agriculture increased to 5.3 per cent in 2020-21 from 5.0 per cent in 2019-20, while that for females increased to 10.4 per cent in 2020-21 from 8.2 per cent.
- In rural areas, both males and females recorded a slight moderation in agricultural employment to 53.8 per cent and 75.4 per cent, respectively, from 55.4 per cent and 75.7 per cent in the previous year.

3.5 US Federal Reserve hiked interest rates

The US Federal Reserve hiked interest rates by three quarters of a percentage point, its most aggressive move since 1994, in a bid to tame runaway inflation.

What will be the impact on other markets, including India?

- A hike in rates in the US could have a three-pronged impact.
- When the Fed raises its policy rates, the difference between the interest rates of the two countries narrows, thus making countries such as India less attractive for the currency carry trade.
- A high rate signal by the Fed would also mean a lower impetus to growth in the US, which could be yet negative news for global growth
- Higher returns in the US debt markets could also trigger a churn in emerging market equities, tempering foreign investor enthusiasm
- There will be potential impact on currency markets, stemming from outflows of funds.

3.6 Black swan event

A study by the Reserve Bank of India (RBI) has spoken about the possibility of capital outflows to the tune of \$100 billion (around Rs 7,80,000 crore) from India in case of a major global risk scenario or a “black swan” event.

What is a ‘black swan’ event?

- A black swan is a rare, unpredictable event that comes as a surprise and has a significant impact on society or the world.
- These events are said to have three distinguishing characteristics – they are extremely rare and outside the realm of regular expectations; they have a severe impact after they hit; and they seem probable in hindsight when plausible explanations appear.

When did the term originate?

- The black swan theory was put forward by author and investor Nassim Nicholas Taleb in 2001, and later popularised in his 2007 book – The Black Swan: The Impact of the Highly Improbable.
- The term itself is linked to the discovery of black swans.
- Europeans believed all swans to be white until 1697, when a Dutch explorer spotted the first black swan in Australia.
- The metaphor ‘black swan event’ is derived from this unprecedented spotting from the 17th century, and how it upended the West’s understanding of swans.

When have such events occurred in the past?

- Taleb’s book predated the 2008 global financial crisis – a black swan event triggered by a sudden crash in the booming housing market in the US.
- The fall of the Soviet Union, the terrorist attack in the US on September 11, 2001, also fall in the same category

Is the Covid-19 pandemic a black swan event?

The author called it a “white swan”, arguing that it was predictable, and there was no excuse for companies and governments not to be prepared for something like this.

3.7 India’s Digital Economy

- Addressing the meeting of the BRICS Business Forum, Prime Minister said the digital transformation unfolding in India has never before been seen on the world stage
- India’s digital economy and the infrastructure sector has a total potential for \$2.5 trillion
- There are more than 100 unicorns in over 70,000 start-ups in India, and their number continues to grow.
- The value of the Indian digital economy will reach \$1 trillion by 2025

Advantages of a Digital Economy

- Removal of Black Economy: By restricting cash-based transactions and using only digital payments, the government can efficiently expel the black economy.
- Empowerment to People: Direct Benefit Transfer, fight against Corruption
- Creation of new jobs
- Increase in Revenues: Each transaction is recorded, customers will get a bill for their purchase, and the merchants are bound to pay sales tax to the government.

- e-governance: Digital economy will pave a way to e-governance, where delivery of all government services would be done electronically

Measures taken by Government

- Digilockers: it is a “digital locker” service operated by the Government of India that enables Indian citizens to store certain official documents on the cloud.
- Digital Payments: The introduction of Unified Payments Interface (UPI), which introduced the benefits of digital payments in every part of the country.
- BHIM app—It is an app to enable digital payments.
- Pradhan Mantri Gramin Digital Saksharta Abhiyan to make citizen digitally literate.
- BharatNet Project: world’s largest rural broadband connectivity programme using Optical fibre

Challenges

- Lack of connectivity/infrastructure: Slow roll-out of Wi-Fi hotspots and the slow speed
- Lack of incentives: Most small and medium scale industry is struggling to adapt to modern technology
- Digital illiteracy: Huge digital divide between gender, regions etc
- Lack of skilled manpower: Lack of user education and there are limited facilities to train personnel

Way forward

- India’s technical and management institutes should revamp their curriculum to integrate and promote digital technologies
- Skill development initiatives to train manpower
- Stricter data protection laws that govern such cross border digital flows is needed the digital economy is heavily based on intellectual property, strict protection to patents and copyrighted work, whether produced in India or elsewhere is also need to be implemented.

BRICS summit

- The BRICS summit is being hosted by China as a chair of BRICS this year

BRICS

- BRICS is an acronym for the grouping of the world’s leading emerging economies, namely Brazil, Russia, India, China and South Africa.
- The BRICS Leaders’ Summit is convened annually.
- The Chairmanship of the forum is rotated annually among the members, in accordance with the acronym B-R-I-C-S
- Together, BRICS accounts for about 40% of the world’s population and about 30% of the GDP
- The first BRIC Summit took place in 2009 in the Russian Federation
- South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
- South Africa subsequently attended the Third BRICS Summit in Sanya, China, in March 2011.

BRICS initiatives

New Development Bank

- During the Sixth BRICS Summit in Fortaleza (2014) the leaders signed the Agreement establishing the New Development Bank (NDB).

- Fortaleza Declaration stressed that the NDB will strengthen cooperation among BRICS and will supplement the efforts of multilateral and regional financial institutions for global development thus contributing to sustainable and balanced growth.
- NDB is headquartered in Shanghai.
- Contingent Reserve Arrangement
- Considering the increasing instances of global financial crisis, BRICS nations signed BRICS Contingent Reserve Arrangement (CRA) in 2014 as part of Fortaleza Declaration at Sixth BRICS summit.
- The BRICS CRA aims to provide short-term liquidity support to the members through currency swaps to help mitigating BOP crisis situation and further strengthen financial stability.

3.8 ONDC

The government of India announced the launch of the pilot phase of open network for digital commerce (ONDC) with an aim to “democratize” the country’s fast-growing digital e-commerce space that is currently dominated by the two U.S.-headquartered firms — Amazon and Walmart.

What is ONDC?

- A not-for-profit organisation that will offer a network to enable local digital commerce stores across industries to be discovered and engaged by any network-enabled applications.
- Neither an aggregator application nor a hosting platform
- All existing digital commerce applications and platforms can voluntarily choose to adopt and be a part of the ONDC network.
- Aim: To enable buying of products from all participating e-commerce platforms by consumers through a single platform.
- Currently, a buyer needs to go to Amazon, to buy a product from a seller on Amazon.
- Under ONDC, a buyer registered on one participating e-commerce site (for example, Amazon) may purchase goods from a seller on another participating e-commerce site (for example, Flipkart).
- The ONDC model is trying to replicate the success of the Unified Payments Interface (UPI) in the field of digital payments.
- UPI allows people to send or receive money irrespective of the payment platforms they are registered on.
- What led to formation of ONDC?: An outreach conducted by The Department for Promotion of Industry and Internal Trade (DPIIT), under Ministry of Commerce and Industries, found that there is a huge disconnect between the scale of online demand and the ability of the local retail ecosystem (small sellers and hyperlocal supply chain) to participate. ONDC will be required to get funding independently and have a self-sustaining financial model.
- Benefits of ONDC: Standardise operations like cataloguing, inventory management, order management and order fulfillment, hence making it simpler and easier for small businesses to be discoverable over network and conduct business.
- Challenges: Such as getting enough number of e-commerce platforms to sign up, along with issues related to customer service and payment integration.

What is the current status?

- Pilot Stage: Delhi NCR, Bengaluru, Bhopal, Shillong and Coimbatore — with a target of onboarding around 150 retailers.
- Advisory Council: To analyse the potential of ONDC as a concept and to advise the government on

measures needed to accelerate its adoption.

- Future Expectation: Over the next five years, the ONDC expects to bring on board 90 crore users and 12 lakh sellers on the network, enabling 730 crore additional purchases and an additional gross merchandising value (GMV) of 3.75 crore. The GMV for the digital commerce retail market in India was 2.85 lakh crore (\$38 billion) in 2020, which is only 4.3% of the total retail GMV in India.

3.9 MSMEs and global value chain

Bringing MSMEs into inclusive and sustainable global value chains

Stats

- MSMEs are the largest employer in India outside of agriculture, employing over 1 crore people, or 45% of all workers.
- It is no exaggeration to call MSMEs – privately owned enterprise with less than ₹50 crore in investments in plant and machinery and turnover below ₹250 crore – the backbone of the Indian economy.

Challenges

- The disruption of the pandemic severely impacted MSMEs
- Their small size and lack of access to resources meant that many were only beginning to mount a fragile recovery just when renewed war, supply shocks and soaring fuel, food and fertilizer prices presented a host of new threats.
- And all of this comes against the backdrop of the ongoing climate crisis, the greatest disruption multiplier of all.
- There is high degree of informality in the sector, with many enterprises unregistered, and both employers and workers are lacking awareness of and commitment to comply with labour and environmental laws.
- As a result, informal enterprises cannot access formal MSME support and financing nor participate in global value chains that require full compliance with all applicable regulations.
- The Government of India has rightly identified the development of the country's MSME ecosystem as a top priority for achieving Atma Nirbhar Bharat

India's ambitious "Make in India" campaign aims put the country up the manufacturing value chain to position itself as a global manufacturing hub

What's need to be done?

- Digitalisation concerns: With few exceptions, digitalisation into smart manufacturing operations is still in its infancy.
- Therefore, there is a need for replicable digital solutions adapted for MSMEs, including digital enhancements for machinery and equipment currently in use.
- Government initiatives such as the Digital Saksham and the interlinking of the Udyam, e-Shram, National Career Service (NCS), and Atmanirbhar Skilled Employee-Employer Mapping (ASEEM) portals show the promise of targeted digitalisation schemes.
- Environmental impact: greening reduces the environmental impact of MSME operations and fosters cleantech innovation and entrepreneurship to accelerate the transition to a circular and low carbon economy.
- As a result MSMEs invested themselves during the cash-strapped COVID period ₹157 crore to save 13,105

tonnes of oil equivalent and ₹81 crore in annual operating costs and preventing 83,000 tonnes of greenhouse gas emissions

- Provide credit access for R&D in green technologies
- To increase the resilience of supply in response to recent shocks, production locations for global value chains are increasingly shifting and diversifying across countries and regions.
- This presents a strategic opportunity for India to tap into.
- Supply chain relocation is often accompanied by greater involvement of suppliers in innovation and product development.
- India should utilize this opportunities with carefully framed investment policies like incentives in tax, credit support etc
- The compelling vision of India as a world-class manufacturing and services hub for the world, moving towards upper middle-income status and achieving the SDGs, can best be achieved with the widespread and transformational uplifting of the MSME segment.

Government initiatives, supported by international institutions and partners, have helped demonstrate this is doable if further scaled up, with lessons for enhancement being drawn together.

3.10 Performance Grading Index for Districts (PGI-D)

- The Department of School Education and Literacy, Ministry of Education (MoE) has released the Performance Grading Index for Districts (PGI-D)
- PGI-D assesses the performance of school education system at the district level by creating an index for comprehensive analysis

It is based on 83 indicators grouped in six categories.

- These categories are outcomes, effective classroom transaction, infrastructure facilities and student's entitlements, school safety and child protection, digital learning and governance process.
- PGI-D grades the districts into ten grades — highest achievable grade is Daksh, which is for districts scoring more than 90% of the total points in that category or overall.
- Utkarsh category is for districts with scores between 81-90% followed by Ati-Uttam (71-80%), Uttam (61-70%), Prachesta-I (51-60%), Prachesta-II (41-50%) and Prachesta III(31-40%)
- The lowest grade in PGI-D is called Akanshi-3 which is for scores upto 10% of the total points.
- Rajasthan's Sikar is the top performer followed by Jhunjhunu and Jaipur
- The three districts have figured in the Utkarsh category with Junjhunu scoring the maximum in learning outcomes.
- The other States whose districts have performed best in the latest index are Punjab with 14 districts in Ati-uttam grade followed by Gujarat and Kerala with each having 13 districts in this category.
- There are 12 States and Union Territories which don't have even a single district in the Ati-uttam and Uttam categories and these include seven of the eight States from the northeast region.
- The report states that since none of the States have districts in the top category there was a need for further improvement in the years to come.

Digital learning

- The PGI-D for 2019-20 shows that schools across India performed poorly under the category of digital learning, which threw up the lowest scores compared to the other parameters which were considered

while creating the index.

- In the index, as many as 180 districts scored less than 10 per cent on digital learning, 146 districts scored 11 to 20 per cent, while 125 districts had scores between 21 and 30 per cent.
- There is a clear rural-urban divide in the area of digital learning.
- For instance, while districts in cities like Chandigarh and Delhi scored between 25 and 35 out of 50, places like Bihar's Araria and Kishanganj scored as low as 2
- The district-wise performance on digital learning was drawn up based on the number of schools with computers/laptops, Internet facility, student-to-computer ratio and percentage of teachers trained to use and teach through computers.

3.11 India's gig workforce

- A report on India's gig workforce was released by NITI Aayog
- According to the study released by Niti Aayog the number of workers engaged in the gig economy is estimated to be 77 lakh in 2020-21 and is expected to grow to 2.35 crore by 2029-30.

What is the Gig economy?

- A gig economy is a free market system in which temporary positions are common and organizations contract with independent workers for short-term engagements.
- A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career.
- Gig workers include self-employed, freelancers, independent contributors and part-time workers.
- The report broadly classifies gig workers into platform and non-platform-based workers.
- Platform workers are those whose work is based on online software apps or digital platforms.
- Non-platform gig workers are generally casual wage workers and own-account workers in the conventional sectors, working part-time or full time.
- The report notes that at present, about 47% of gig work is in medium skilled jobs, about 22% in high skilled, and about 31% in low skilled jobs, and the trend shows the concentration of workers in medium skills is gradually declining and that of the low skilled and high skilled is increasing.
- While in 2020-21, the gig workforce constituted 2.6% of the non-agricultural workforce or 1.5% of the total workforce in India, by 2029-30, gig workers are expected to form 6.7% of the non-agricultural workforce or 4.1% of the total livelihood workforce in India
- Thus India requires a framework that balances the flexibility offered by platforms while also ensuring social security of workers.

Recommendations of NITI Aayog

Through Initiatives

- It has recommended introducing a 'Platform India initiative', on the lines of the 'Startup India initiative', built on the pillars of accelerating platformisation by simplification, funding support and incentives, skill development, and social financial inclusion.

Access to credit

- Access to institutional credit may be enhanced through financial products specifically designed for platform workers and those interested to set-up their own platforms.

Wider Market Access

- It has suggested linking self-employed individuals to platforms so that they can sell their produce to wider markets.
- Other recommendations include gender sensitisation and accessibility awareness programmes for workers and their families, extending social security for gig and platform workers in India, and conducting a

comprehensive study on key aspects of the platform economy.

3.12 GST hikes

- GST Council hikes tax on over two dozen goods and services from July 18.
- Tax hikes will kick in for over two dozen goods and services, ranging from unbranded food items, curd and butter milk to low-cost hotels, cheques and maps.
- At the same time, tax rates will be lowered for about half a dozen goods and services, including ropeways and truck rentals where fuel costs are included, and scrapped for products imported by private vendors for use by defence forces.
- In its 47th meeting, the GST Council discussed recommendations of four ministerial panels — on rate rationalisation, on movement of gold and precious stones, system reforms, and casinos, horse racing and online gaming.
- The GoM headed by Karnataka Chief Minister Basavaraj Bommai has been given a three-month extension for rate rationalisation measures including tweaking the tax slabs.
- On the valuation mechanism for taxing casinos, a Group of Ministers headed by Meghalaya Chief Minister Conrad Sangma has been asked to consider submissions of stakeholders again and submit its report by July 15.
- Modifications in GST's IT systems to bolster compliance and crack down on tax evasion have been agreed, based on recommendations of a GoM led by Maharashtra Deputy Chief Minister Ajit Pawar.
- Suggestions by another GoM led by Kerala Finance Minister K.N. Balagopal on the movement of gold and precious stones were also accepted by the Council, enabling States to decide on the best way to implement an e-way bill system for intra-State movement of gold worth over ₹2 lakh.
- To resolve the long-pending issue of constituting a GST Appellate Tribunal, the Council has decided to form a fresh Group of Ministers whose report will be taken up at its next meeting

On GST Compensation extension

- At the meeting, over a dozen States wanted the GST compensation to continue for some more time.
- About 16-17 State representatives in the Council spoke on the GST compensation issues, of which about 12-13 sought an extension of the assured compensation period, while three-four spoke about the need to wean themselves away from the dependence on assured revenues.
- Union Finance Minister assured that issue to be discussed.

GST Council

- The 101st Amendment Act of 2016 paved the way for the introduction of a new tax regime (GST) in the country
- The amendment provided for the establishment of a GST Council.
- The amendment inserted a new Article 279-A in the Constitution of India.
- This article empowered the President to constitute a GST Council by an order.

Composition of GST Council

- The Union Finance Minister of India will serve as the chairperson of this council.
- The respective states will nominate the State Finance Ministers/ or any other Minister as a member of the council.
- The Union Minister of State in charge of revenue or finance will also be a member of this council.

- The representatives of the states shall choose amongst themselves one “Vice-president”.

Working of the council

- The decisions of the Council are taken at its meetings.
- One-half of the total numbers of members of the Council is the quorum for conducting a meeting.
- Every decision of the Council is to be taken by a majority of not less than three-fourths of the weighted votes of the members present and voting at the meeting.
- The vote of the central government shall have a weightage of one-third of the total votes cast in the meeting.
- The votes of all the state governments combined shall have a weightage of two-thirds of the total votes cast in that meeting.

Functions of the Goods and Services Tax Council

- The Council is required to make recommendations to the center and the states on the following matters:
- The taxes, cesses, and surcharges levied by the center, the states, and the local bodies would be merged in GST.
- The goods and services that may be subjected to GST or exempted from GST.
- Model GST Laws, principles of levy, apportionment of GST levied on supplies in the course of inter-state trade or commerce, and the principles that govern the place of supply.
- The threshold limit of turnover below which goods and services may be exempted from GST.
- The rates include floor rates with bands of GST.
- Any special rate or rates for a specified period to raise additional resources during any natural calamity or disaster.
- Special provision with respect to the states of Arunachal Pradesh, Assam, Jammu and Kashmir, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura, Himachal Pradesh, and Uttarakhand.
- Any other matter relating to GST, as the Council may decide.
- In addition, the council shall also recommend the date on which the GST may be levied on petroleum crude, high-speed diesel, petrol, natural gas, and aviation turbine fuel.

3.13 Startup ecosystem

- The startup ecosystem which has been in overdrive for the past few years — propelled by a combination of factors, but largely, by the era of cheap money — is now showing signs of weakness.
- Built on a narrative — the combination of accelerated financial inclusion (bank accounts), ease of identification (Aadhaar) and connectivity (mobile phones) — it is ultimately a bet on the Indian consumer, and the economy

Current Status

- Among the startups that have gone public in recent times, Paytm’s losses stood at Rs 2,396 crore in 2021-22, while for Zomato and PB Fintech (PolicyBazaar) losses were Rs 1,222 crore and Rs 832 crore respectively.
- The seemingly inexhaustible source of cash that funds such losses is now being squeezed.

Reasons

- During the heady days, many numbers, indicators of the size of the market or TAM (the total addressable

market), were discussed about.

- But in reality, for most of these startups, the market or even the potential market is just a fraction of this.
- The reality is, there aren't that many consumers with significant discretionary spending capacity, and those with the capacity aren't increasing their spending as these companies would hope.
- This seems to be the case across startups for a range of products/services.

Digital payment platforms

- When it comes to consumers with considerable discretionary spending, the size of the market shrivels considerably
- While these companies have seen an increase in the number of transacting customers, to what extent the overall customer base for these startups can expand further is constrained by the number of households in the cohort that has significant spending power.
- Tighter financial conditions, a re-rating of the market, will impact both fundraising efforts and valuations. Some startups will survive this period. Many may not. And changes in the dynamics of private markets will also have a bearing on public markets.

3.14 Net NPA

- The asset quality of the banking system has improved with gross non-performing assets (GNPA) ratio declining from 7.4 per cent in March 2021 to a six-year low of 5.9 per cent in March 2022.
- The provisioning coverage ratio (PCR) improved to 70.9 per cent in March 2022 from 67.6 per cent a year ago.
- The slippage ratio, measuring new accretions to NPAs as a share of standard advances at the beginning of the period, declined across bank groups during FY22.
- Write-off ratio fell for the second year running to 20.0 per cent in 2021-22.
- India has the highest fintech adoption rate globally (87 per cent), receiving funding of \$8.53 billion (in 278 deals) during 2021-22.
- Notwithstanding the challenges from global spillovers, the Indian economy remains on the path of recovery, though inflationary pressures, external spillovers and geopolitical risks warrant careful handling and close monitoring.

What Is a Non-Performing Asset (NPA)?

- A nonperforming asset (NPA) refers to a classification for loans or advances that are in default or in arrears.
- A loan is in arrears when principal or interest payments are late or missed.
- A loan is in default when the lender considers the loan agreement to be broken and the debtor is unable to meet his obligations.
- In India, a non-performing asset (NPA) is defined as a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.

4. Science & Technology

4.1 Astra Mark-1



In News: The Ministry of Defence signed a contract with the Hyderabad-based public-sector Bharat Dynamics Ltd (BDL) for supply of the Astra Mark-1, at a cost of Rs 2,971 crore, for deployment on fighter jets of the Indian Air Force and Indian Navy.

Astra Mk-1

- The Astra Mk-1 is a beyond visual range (BVR), air-to-air missile (AAM).
- Beyond Visual Range Air-to-Air Missile (BVRAAM) technology enables the fighter-pilots to shoot precisely at the enemy targets which are beyond their visual range
- AAMs are fired from an airborne asset to destroy an airborne target
- The missile has been designed and developed by the Defence Research and Development Organisation (DRDO) for deployment on fighter jets like Sukhoi-30 MKI and Tejas of the IAF and the Mig-29K of the Navy
- Range: While the range for Astra Mk-1 is around 110 km, the Mk-2 with a range over 150 km is under development
- Speed: The missile can travel at speeds more than four times that of sound and can reach a maximum altitude of 20 km, making it extremely flexible for air combat.

Strategic significance

- The missile has been designed based on requirements specified by the IAF for BVR as well as close-combat engagement, reducing the dependency on foreign sources.
- AAMs with BVR capability provides large stand-off ranges to own fighter aircraft.
- Stand-off range means the missile is launched at a distance sufficient to allow the attacking side to evade defensive fire from the target.
- It can neutralise adversary airborne assets without exposing adversary air defence measures.
- Astra is technologically and economically superior to many such imported missile

4.2 GM cotton seed

- Illegal variety occupies about a fifth of GM cotton seed market
- A flourishing illegal trade in a new unapproved herbicide-tolerant variety has come to occupy nearly a fifth of the genetically modified (GM) cotton seeds market in India.

- Farmers' organizations say since the unapproved seeds help them in weed management and cut costs, they would continue to use it.
- The illegal seed manufacturers claim the presence of herbicide trait (HTBt) in the seeds they sell are capable of controlling pink bollworm.
- Bayer-Mahyco has submitted the application for the approval for HTBt cotton last year, the regulator (GEAC) is yet to take a call.

Why HTBt?

- Since its introduction two decades ago, Bt cotton has led to a dramatic rise in India's cotton yield and thereby, production but over the last two-three years, the yield has come down marginally.
- Since the introduction of Bollgard-I, which was the country's first GM crop approved for commercialisation in 2002, followed by Bollgard II, a pest-resistant variety which protects the crop from bollworm, in 2006, the GEAC has not approved any new varieties.

HTBt plants allow farmers to spray herbicides to get rid of weeds without harming the plants

Cotton production in the 2021-22 crop years (July-June) declined 5% to 34 million bales (MB) from its peak of 35.9 MB in 2013-14.

What should be done?

- Since the illegal seeds contain unknown and unapproved traits, these could contaminate regular seeds, thereby putting legitimate seed growers at risk
- The government should facilitate faster approval of newly-developed seeds so that farmers get access to quality seeds and thereby, reduce the labour cost

Genetic Engineering Appraisal Committee

- GEAC is India's top biotech regulatory agency and a statutory organization under the Environment Protection Act, 1986
- It functions under Ministry of Environment, Forest and Climate Change
- It is responsible for appraisal of activities involving large scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- The committee is also responsible for appraisal of proposals relating to release of genetically engineered (GE) organisms and products into the environment including experimental field trials.
- GEAC is chaired by the Special Secretary/Additional Secretary of MoEF & CC and co-chaired by a representative from the Department of Biotechnology (DBT).

4.3 Artillery rockets

The US is sending four HIMAR systems to Ukraine

What are 'artillery rockets'?

- An artillery rocket is a weapon that is typically propelled by a solid-fuel motor and can carry a variety of warheads.
- In the 1970s, USA developed a new weapon called MLRS, for Multiple Launch Rocket System, designed for use in the event that Russian armored vehicles massed for World War III on the border of Western Europe.
- Pentagon developed the more advanced version of MLRS, a more easily transportable version called

HIMARS, for High Mobility Artillery Rocket System, which is based on a wheeled truck that is much lighter.

- Unlike its predecessor, the M142 HIMARS truck carries only one pod of munitions, but it can move much faster on and off-road, and can be shipped on a C-130 cargo plane.
- US is sending four HIMARS systems to Ukraine.

What's the difference between a rocket and a missile in this context?

- Generally the word “rocket” is used in a military context to refer to relatively inexpensive unguided weapons powered by solid-fuel motors, while “missile” is generally shorthand for “guided missiles,” more expensive and complicated weapons that use movable fins to steer themselves to their targets and can fly much farther.
- The Pentagon has already sent short-range, inexpensive and unguided anti-tank weapons that are classified as rockets to Ukraine, like the AT-4, and the longer-range Javelin, which is a guided missile.
- But in more recent years the military has built weapons it calls “guided rockets” — like GMLRS — which are often older rocket designs upgraded to have guidance systems and movable fins on their nose to steer them.

How powerful are these rockets?

- Using the HIMARS and GMLRS together can offer an amount of firepower that is similar to an airstrike — all from a mobile platform.
- The upgrade in explosive power for the Ukrainian military will be profound.

Does Russia have anything similar?

- The Russian military has primarily used three types of unguided artillery rockets during the war in Ukraine.
- The largest, the 300 mm Smerch, can fire a guided rocket, which makes it more accurate, and has a range similar to the GMLRS

Do the U.S. rockets have other advantages?

- There's one major advantage to the MLRS and HIMARS launchers: They can be fully reloaded within minutes.
- Both vehicles have a winch that allows them to lower an empty pod to the ground, pick up a new, loaded pod, and pull it into place. The Russian launchers must be manually loaded, tube by tube.

4.4 Direct-to-mobile' (D2M) broadcasting

- The Department of Telecommunications (DoT) and India's public service broadcaster Prasar Bharati are exploring the feasibility of a technology that allows to broadcast video and other forms of multimedia content directly to mobile phones, without needing an active internet connection.
- The technology, called 'direct-to-mobile' (D2M) broadcasting, promises to improve consumption of broadband and utilisation of spectrum.

What is direct-to-mobile broadcasting?

- The technology is based on the convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV.
- It would be similar to how people listen to FM radio on their phones, where a receiver within the phone can tap into radio frequencies.

- Using D2M, multimedia content can also be beamed to phones directly.
- The idea behind the technology is that it can possibly be used to directly broadcast content related to citizen-centric information and can be further used to counter fake news, issue emergency alerts and offer assistance in disaster management, among other things.
- It can be used to broadcast live news, sports etc. on mobile phones.
- More so, the content should stream without any buffering whatsoever while not consuming any internet data.

What could be the consumer and business impact of this?

For consumers

- A technology like this would mean that they would be able to access multimedia content from Video on Demand (VoD) or Over The Top (OTT) content platforms without having to exhaust their mobile data, at a nominal rate.
- The technology will also allow people from rural areas, with limited or no internet access, to watch video content.

For businesses

- One of the key benefits of the technology is that it can enable telecom service providers to offload video traffic from their mobile network onto the broadcast network, thus helping them to decongest valuable mobile spectrum.
- This will also improve usage of mobile spectrum and free up bandwidth which will help reduce call drops, increase data speeds etc

What is the government doing to facilitate D2M technology?

- The DoT has set up a committee to study the feasibility of a spectrum band for offering broadcast services directly to users' smartphones
- Band 526-582 MHz is envisaged to work in coordination with both mobile and broadcast services. DoT has set up a committee to study this band
- Public service broadcaster Prasar Bharati had last year announced collaboration with IIT Kanpur to test the feasibility of the technology.

Possible challenges to the technology's rollout?

- Technology is still at a nascent stage
- Bringing key stakeholders like mobile operators onboard will be the "biggest challenge" in launching D2M technology on a wide scale
- A mass roll out of the technology will entail changes in infrastructure and some regulatory changes

4.5 Urban Agriculture

- Urban agriculture can help make cities sustainable and liveable
- Urban agriculture is the practice of farming in urban and peri-urban areas.
- Farming connotes a wide range of food and non-food products that can be cultivated or grown, including rearing livestock, aquaculture and bee-keeping.

Need for Urban Agriculture

- Urban areas across the world house at least 55 per cent of the world's population and consume 80 per cent of the food produced globally
- India is rapidly urbanising and is estimated to host 50 per cent of its population in cities by
- In order to sustain these huge population and face climate change it is important that urban areas becomes sustainable and liveable
- Urban agriculture provides food security and financial security to urban dwellers

Benefits of Urban Agriculture

- **Business Growth:** Urban farming helps stimulate the local economy through job creation, income generation, and the growth of small businesses.
- **Job Creation:** Urban farms can offer valuable skills and education in addition to a steady source of income to many unemployed, even if it is seasonal work.
- **Urban Redevelopment:** Unused lands and wastelands can be used for cultivation purposes. It creates more green space and reduces pollution.
- **Health and Wellness:** Urban farming creates fresh produce closer to where it's ultimately consumed. Food from urban farms is far more likely to be perfectly ripe, more nutritious, and produced in season.
- **Less Food Waste:** People produce only what they need. This reduces food wastage to a large extent.
- **Environmental Management:** urban agriculture has a significant role in urban environmental management as it can combat urban heat island effects and function as an urban lung in addition to providing visual appeal
- **Waste Management:** since cities are struggling with waste management and disposal, urban agriculture can provide some help to deal with it.
- The use of suitably treated waste water for urban agriculture can reduce demand for fresh water and help in waste water disposal.
- Moreover, organic waste from the city can be composted and used in food and flower production

Way Forward

- Urban farming can be a favorable way for ensuring food security in India and around the world in the future.
- Proper Urban land-use planning (ULP), Institutional support, awareness of the benefits associated with urban agriculture, and financial and technological support from the government will attract the city dwellers and help them to move forward with the concept of urban agriculture in India.
- Progressive growth of urban agriculture can act as an urban regeneration tool for the cities by providing social interaction and increasing job opportunities and environmental benefits to the urban areas across the globe.

4.6 OPEC



- The Organization of the Petroleum Exporting Countries is a cartel consisting of 13 of the world's major oil-exporting nations.
- It is a permanent, intergovernmental organization, created in Baghdad in September 1960 by founding members Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela.
- Other members are Algeria, Angola, Congo, Equatorial Guinea, Gabon, Libya, Nigeria, the United Arab Emirates
- OPEC aims to regulate the supply of oil in order to set the price on the world market.
- The headquarters of the organization are in Vienna, Austria, where the OPEC Secretariat, the executive organ, carries out OPEC's day-to-day business
- Ecuador withdrew from the organization on Jan 2020. Qatar terminated its membership on Jan 2019, and Indonesia suspended its membership in 2016, so as of 2020 the organization consists of 13 states.
- It is notable that some of the world's largest oil producers, including Russia, China, and the United States, are not members of OPEC, which leaves them free to pursue their own objectives.
- OPEC membership is open to any country that is a substantial exporter of oil and which shares the ideals of the organization.

Organization of the Petroleum Exporting Countries Plus

- It is a loosely affiliated entity consisting of the OPEC members and 10 of the world's major non-OPEC oil-exporting nations which are:
- Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

4.7 Electric Vertical Takeoff and Landing (eVTOL) aircraft

The Government of India is exploring the possibility of inviting manufacturers of Electric Vertical Takeoff and Landing (eVTOL) aircraft to set up base in India.

What is eVTOL?

- As the acronym suggests, an electric vertical take-off and landing (eVTOL) aircraft is one that uses electric power to hover, take off, and land vertically.

- Most eVTOLs also use what is called as distributed electric propulsion technology which means integrating a complex propulsion system with the airframe.
- It has grown on account of successes in electric propulsion based on progress in motor, battery, fuel cell and electronic controller technologies
- Thus, eVTOL is one of the newer technologies and developments in the aerospace industry.
- eVTOL is being described as “a runway independent technological solution” for the globe’s transportation needs – it opens up new possibilities which aircraft with engines cannot carry out in areas such as manoeuvrability, efficiency and even from the environmental point of view.
- The global market for eVTOLs was put at \$8.5 million in 2021 and is to grow to \$30.8 million by 2030. The demand will be on account of green energy and noise-free aircraft, cargo carrying concepts and the need for new modes of transport.

Origin

- It all began in 2009-10 by NASA researcher Mark D. Moore who came up with the concept of a personal (one man) air vehicle “Puffin”
- In his paper, “NASA Puffin Electric Tailsitter VTOL Concept”, Moore described “electric propulsion as offering dramatic new vehicle mission capabilities, but the only penalising characteristic” being “the current energy storage technology level”.

What are the challenges?

- As the technology so far is a mix of unpiloted and piloted aircraft, the areas in focus include “crash prevention systems”.
- There are also issues such as ensuring safety in case of powerplant or rotor failure.
- Aircraft protection from cyberattacks is another area of focus.
- Operating in difficult terrain, unsafe operating environments and also bad weather are cause of concern.
- Indian Scenario
- The government of India has asked the market players to look into the Indian market.
- Confederation of Indian Industry (CII) Taskforce for Urban Air Mobility has suggested regulatory authorities in India to look at:
- formulating regulations for pilotless vehicles, airworthiness certifications, and the need for a pilot’s licence;
- implementing efficient energy management systems, onboard sensors, collision detection systems and advanced technologies such as artificial intelligence;
- having in place infrastructural support such as take-off and landing zones, parking lots, charging stations and what are called vertiports;
- creating a robust air traffic management system that is integrated with other modes of transportation, and putting in place a database to ensure operational and mechanical safety.

4.8 Ceramic implants

Ceramic implants can regenerate broken bones

- A bone replacement following a fracture, it is often based on a metal part.
- But metal parts are sometimes toxic over time, and will not help the original bone regrow.
- The Tokyo Medical and Dental University (TMDU) research found that, Calcium phosphate ceramics are in principle an ideal alternative to conventional metals because bone can eventually replace the ceramic and

regrow.

- Calcium phosphate ceramics are substitutes for the bone mineral hydroxyapatite.
- TMDU and collaborators have studied the transformation of a ceramic into the bone mineral.
- However, applications of such ceramics in medical settings have been limited, because there is insufficient control over the rate of absorption and replacement by bone after implantation.
- The researchers have reported that most of the studied ceramics underwent chemical transformations into particulate or fibrous hydroxyapatite within a few days
- Now with specific chemical knowledge on how to tailor the rate of hydroxyapatite growth from calcium phosphate ceramics – the knowledge will be useful for bench researchers and medical practitioners to more effectively collaborate on tailoring bone reformation rates under medically relevant conditions.

4.9 Agni-IV

- India successfully tested the Intermediate-Range Ballistic Missile (IRBM) Agni-4, which met all parameters
- The successful test was part of routine user training launches carried out under the aegis of the Strategic Forces Command
- The successful test reaffirms India's policy of having a 'Credible Minimum Deterrence'

Agni-IV

- Agni-IV is the fourth in the Agni series of missiles which was earlier known as Agni II prime. Agni-IV bridges the gap between Agni II and Agni III.
- CLASS: Intermediate-range ballistic missile (IRBM)
- It is surface to surface missile
- WARHEAD: Nuclear or conventional
- RANGE: 3,000 – 4,000 km
- PROPULSION: Two-stage solid propellant
- PAYLOAD: 1,000 kg

4.10 India's first Covid-19 vaccine for animals

- The Agriculture Ministry unveiled India's first Covid-19 vaccine for animals.
- Developed by the Hisar-based National Research Centre on Equines, the vaccine, called Ancovax, can protect animals against the Delta and Omicron variants of SARS-CoV-2.
- This is the first Covid-19 vaccine for animals developed in India.
- There were reports from Russia last year that that country, too, had developed a vaccine against animals such as dogs, cats, minks, and foxes.

HOW IT WORKS

- Ancovax can be used in dogs, lions, leopards, mice, and rabbits.
- It is an inactivated vaccine developed using an infectious part of the Delta variant.
- In addition, it uses Alhydrogel as an adjuvant to boost the immune response.

THE NEED:

- There have been reports of Covid-19 infection in several animals, including dogs and cats.
- The vaccine can protect animals in the zoo.

- The animals develop similar symptoms to humans – cough, cold, fever, and lung lesions
- It can also prevent transmission from companion animals to the humans
- The aim of the vaccine is to protect endangered animals

4.11 Web 5.0

- Former Twitter CEO Jack Dorsey recently announced his vision for a new decentralized web platform that is being called Web 5.0

What do the terms Web 1.0, Web 2.0 and Web 3.0 mean?

- Web 1.0 was the first generation of the global digital communications network.
- It is often referred to as the “read-only” Internet made of static web-pages that only allowed for passive engagement.
- The next stage in the evolution of the web was the “read and write” Internet.
- Users were now able to communicate with servers and other users leading to the creation of the social web. This is the World Wide Web that we use today.
- Web 3.0 is an evolving term that is used to refer to the next generation of Internet – a “read-write-execute” web – with decentralization as its bedrock.
- It speaks about a digital world, built leveraging the blockchain technology, where people are able to interact with each other without the need of an intermediary.
- Web 3.0 will be driven by Artificial Intelligence and machine learning where machines will be able to interpret information like humans.

What is Web 5.0?

- Web 5.0 is aimed at “building an extra decentralized web that puts you in control of your data and identity”.
- Simply put, Web 5.0 is Web 2.0 plus Web 3.0 that will allow users to ‘own their identity’ on the Internet and ‘control their data’.
- Both Web 3.0 and Web 5.0 envision an Internet without threat of censorship – from governments or big tech, and without fear of significant outages.

What are the use cases for Web 5.0?

- The control of identity
- Giving users control over their own data

4.12 BrahMos

- On June 12, 2001, the BrahMos supersonic cruise missile was first tested from a land-based launcher in Chandipur.
- In the 21 years since, BrahMos has been upgraded several times, with versions tested on land, air and sea platforms.
- A look at the 21-year journey of the versatile asset
- In the early 1990s, India’s strategic leadership felt the need for cruise missiles — guided missiles that traverse the majority of their flight path at almost constant speed and deliver large warheads over long distances with high precision. The need was felt primarily following the use of cruise missiles in the Gulf

War.

- An Inter-Governmental Agreement was signed with Russia in Moscow in 1998 by Dr Kalam, who headed the DRDO and N V Mikhailov, Russia's then Deputy Defence Minister.
- This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyeniya (NPOM), the Indian side holding 50.5% and the Russians 49.5%.
- In 1999, work on development of missiles began in labs of DRDO and NPOM after BrahMos Aerospace received funds from the two governments.
- The first successful test in 2001 was conducted from a specially designed land-based launcher.
- The missile system has since reached some key milestones, with the first major export order of \$375 million received from the Philippines Navy this year.

About BrahMos

- Name: BrahMos is named on the rivers Brahmaputra and Moskva.
- Multiplatform Missile: it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions
- BrahMos is a two-stage missile with a solid propellant booster engine.
- Its first stage brings the missile to supersonic speed and then gets separated.
- The liquid ramjet or the second stage then takes the missile closer to three times the speed of sound in cruise phase.
- The missile has a very low radar signature, making it stealthy, and can achieve a variety of trajectories.
- Fire and Forgets Principle: It operates on the "Fire and Forgets" principle i.e. it does not require further guidance after launch.
- Cruise missiles such as BrahMos, called "standoff range weapons", are fired from a range far enough to allow the attacker to evade defensive counter-fire.
- The BrahMos has three times the speed, 2.5 times flight range and higher range compared to subsonic cruise missiles.
- With missiles made available for export, the platform is also seen as a key asset in defence diplomacy.
- An extended range version of the BrahMos air-launched missile was tested from a Sukhoi-30 MKI recently.
- In January 2022, an advanced sea-to-sea variant of BrahMos was tested from the newly commissioned INS Visakhapatnam.

Current Status

- With requirements evolving in multi-dimensional warfare, the BrahMos is undergoing a number of upgrades and work is on to develop versions with higher ranges, manoeuvrability and accuracy.
- Versions currently being tested include ranges up to 350 km, as compared to the original's 290 km.

4.13 5G

- Recently, Prime Minister of India inaugurated the country's first indigenous test bed to help support the ecosystem around 5G.
- Earlier this year, the Government reiterated its plans to conduct auctions for 5G spectrum in June and expected services to be rolled out by the third quarter of the year.
- With increased capacity, lower latency, and energy efficiency, 5G is expected to significantly improve the state of art and enable new applications

5G

- Radio electronics refers to a broad range of technologies that can transmit, receive and process wireless signals.
- While these technologies can utilize electromagnetic spectrum that goes all the way up to 300GHz, the lower frequencies of this spectrum are particularly attractive.

- Lower frequency signals can travel longer distances and penetrate obstacles with lesser attenuation.
- Electronic components (amplifiers, transmitters, receivers) operating at lower frequencies are also easier to design and manufacture.
- Consequently, much of the bandwidth in the lower frequencies of this spectrum has already been allocated for several applications (mobile communications currently use the spectrum from 800MHz to 2.5 GHz).

New spectrum for 3GHz

- With the increasing demand for mobile services, the currently allocated spectrum is proving inadequate.
- At the simplest level, 5G represents the allocation of new spectrum to increase capacity.
- Since most of the spectrum at lower frequencies is already being utilised — much of this new spectrum is being allocated at higher frequencies.
- The first deployments in India will be around 3GHz, but will expand to 25 GHz and beyond.
- While operating at higher frequencies has some fundamental challenges, it offers some unique opportunities as well
- As 5G services evolve to occupy higher frequencies, it will significantly increase the bandwidth available for mobile services.
- However, at these frequencies the design of the transmitting and receiving equipment becomes more complex.
- Signal attenuation also increases. So, the coverage area of each cell tower will decrease which will require the towers to be more closely spaced.
- At higher frequencies it becomes easier to direct a signal in specific direction.
- So, signals transmitted from a cell tower can be more precisely directed at a specific user
- Intuitively, this enhanced directivity results in less interference between signals meant for different users which directly translate to increased capacity.
- Since much of the 5G infrastructure is being built from ground up, there is a chance to redesign the technology to make it more suitable for the evolving communication needs of the future.
- 5G places special emphasis on low latency, energy efficiency and standardization – Low delays between transmission and reception of messages are extremely critical to avoid accidents. For instance, Self-driving cars is an illustrative example
- As 5G rolls out, over the next several years the volume of data is expected to exponentially increase. To ensure that there isn't a corresponding increase in the energy usage, 5G places a lot of importance on energy efficiency
- Greater attention to standardisation is another important aspect of 5G enable the rapid deployment of 5G infrastructure there is an industry-wide effort to standardise interaction between components.
- Thus, while operating at higher frequencies has some fundamental challenges, it offers some unique opportunities as well.

Way forward

- There should be lot of research in both industry and academia centred around 5G.
- Convergence of positioning, sensing and communication – traditionally, positioning, sensing and communication have been seen as separate technologies (for e.g., GPS is used for positioning, and radar for sensing). However, all three technologies involve transmission and reception of radio signals — hence it is possible for positioning and sensing to piggy back on 5G infrastructure that is primarily meant for communication.

- There should be research around cost and energy efficient electronic devices that can transmit and receive high frequency signals. This involves delving into the fundamental physics of semiconductor technologies and is expected to lay the foundation for the growth of wireless technology into higher frequency bands.

4.14 VPN

New directions from Computer Emergency Response Team (CERT-In) for regulating VPN providers will be effective from June 28.

Directives

- The rule mandates VPN providers to record and keep their customers' logs for 180 days.
- It requires the firms to collect and store customer data for up to five years.
- It further mandated that any cybercrime recorded must be reported to the CERT within 6 hours of the crime.
- The directions applicable to data centres, virtual private server (VPS) providers, cloud service providers, virtual asset service providers, virtual asset exchange providers, custodian wallet providers and Government organisations.
- Firms that provide Internet proxy-like services through VPN technologies also come under the ambit of the new rule.
- Corporate entities are not under the scanner.
- In response to CERT-In rules many VPN providers are planning to shift servers out of the country or cater to users in India through virtual servers located in Singapore and UK.

What is a virtual server, and what are its uses?

- A virtual server is a simulated server environment built on an actual physical server.
- It recreates the functionality of a dedicated physical server.
- The virtual twin functions like a physical server that runs software.
- It uses resources of the physical server.
- Multiple virtual servers can run on a single physical server.

Uses

- Virtualising servers helps reallocate resources for changing workloads.
- Converting one physical server into multiple virtual servers allows organisations to use processing power and resources more efficiently
- Running multiple operating systems and applications on a single physical machine reduces the cost as it consumes less space, hardware.
- Virtualisation also reduces cost as maintaining a virtual server infrastructure is low compared to physical server infrastructure.
- Virtual servers are also said to offers higher security than a physical server infrastructure as the operating system and applications are enclosed in a virtual machine.
- This helps contain security attacks and malicious behaviors inside the virtual machine.
- Virtual servers are also useful in testing and debugging applications in different operating systems and versions without having to manually install and run them in several physical machines.

Can server relocation and virtualisation help VPN providers circumvent the new rules?

- The rules are applicable to any entity whatsoever in the matter of cyber incidents and cyber security incidents, regardless of whether they have a physical presence in India or not, as long as they deliver services to Indian users.

Virtual Private Network

- Virtual Private Network (VPN) is a service that helps internet users to stay private online by hiding their (Internet Protocol) IP addresses.
- VPN establishes an encrypted connection between the user's computer and the internet, providing a private tunnel for their data, making them anonymous and blocking anyone from tracking their movements like where they are going or what they are doing.
- It is the IP address – a special number unique to the user's internet network– that helps websites, law enforcement agencies, cybercriminals or anyone else looking into an individual's internet activities and track down their accurate location.
- Without a VPN, the user's IP address is visible to the web. VPNs obscure the user's internet usage by jumping the signal off multiple servers.
- VPN extends through encrypted connections over the Internet.
- Since the line is encrypted between the network and the device connected to it, the traffic remains private.
- Computer Emergency Response Team (CERT-In):
- CERT-In is the national nodal agency for responding to computer security related incidents.
- CERT-In has been operational since 2004.
- It works under Ministry of Electronics and Information Technology

CERT-In has been designated to serve as the national agency to perform the following functions in the area of cyber security:

- Collection, analysis and dissemination of information on cyber incidents.
- Forecast and alerts of cyber security incidents.

5. Environment & Ecology

5.1 Concretization

- A day after a 'severe' category thunderstorm hit the Delhi pavements and roads were strewn with tree branches and trunks that had snapped, and full-grown trees that were uprooted entirely.
- Poor root growth due to concretization could be a factor that caused trees to keel over
- Most trees have 'feeder roots' that are in the upper layers of the soil. These roots take nutrients and moisture, and have symbiotic fungi in and around them. But these roots cannot survive under concrete, since they need oxygen.
- If the space around trees is covered with concrete, there will be no life beneath the concrete
- An NGT order from 2013 states that concrete within a 1 metre radius of trees is to be removed. A notice was issued in 2019 by the forest department; informing all departments and civic agencies that concretisation of trees damages them and is an offence under the Delhi Preservation of Trees Act, 1994.
- Leaving 1 metre around the trees is not enough to have sustainable growth of avenue trees. They need to have good feeder roots that can spread to take in nutrients.

Deepor Beel

- In News: Assam's Deepor Beel is perishing from concretisation and waste dumping
- Deepor Beel has shrunk around 35 per cent in size since 1991

What's happening?

- Threatened habitats, littered lake
- A 24-hectare garbage dumping yard lies to the east of the lake in Boragaon. Birds and animals feed on rotten flesh and waste from the site, littering the waterbody and threatening their lives
- Huge mountains of solid waste are turning the picturesque lake into a stinking drain
- Concrete factories, houses and warehouses built illegally on the wetland damage the ecology.

Rail track impacts wildlife

- A railway line passing through the bird sanctuary has also been posing a danger to the wildlife in and around the lake.
- At least 14 jumbos were killed crossing the railway track till 2014 between Rani Reserve Forest and Deepor Beel.

Lost livelihoods

- The deterioration of the lake harmed the livelihoods of several hundred fishers who have depended on it for generations. The government has banned fishing in the core area of the lake.
- Discharge from a local oil refinery has been further polluting the water and inducing kerosene-like smell in the fish

Deepor Beel

- It is one of the largest freshwater lakes in Assam and the State's only Ramsar site besides being an Important Bird Area by Birdlife International.
- It is located towards the southwest of Guwahati city, Assam and is the erstwhile water channel of River

Brahmaputra.

Importance:

- It constitutes a unique habitat for aquatic flora and avian fauna.
- It has both biological and environmental importance besides being the only major storm-water storage basin for Guwahati city.
- It provides a means of livelihood for a number of local families.

5.2 Fishing Cat Project

- World's first fishing cat census was conducted by Chilika Development Authority (CDA) in collaboration with The Fishing Cat Project (TFCP)
- This is the world's first population estimation of the fishing cat, which has been conducted outside the protected area network.
- The Chilika Lake, Asia's largest brackish water lagoon, has 176 fishing cats
- A total of 150 camera traps were deployed in two phases with each fixed in the field for 30 days. Spatially Explicit Capture Recapture (SECR) method was used to analyse the data

Fishing Cat

- It is about twice the size of a typical house cat
- Scientific Name: *Prionailurus viverrinus*
- The fishing cat is an adept swimmer and enters water frequently to prey
- Habitat: Wetlands are the favorite habitats of the fishing cat. In India, fishing cats are mainly found in the mangrove forests of the Sundarbans, on the foothills of the Himalayas along the Ganga and Brahmaputra river valleys and in the Western Ghats.
- The fishing cat is nocturnal and apart from fish also preys on frogs, crustaceans, snakes, birds, and scavenges on carcasses of larger animals.
- It is capable of breeding all year round
- It is a state animal of West Bengal
- Protection Status
- IUCN Red List: Endangered
- CITES: Appendix II
- Wildlife (Protection) Act, 1972: Schedule I

Chilika Lake

- Chilika is Asia's largest and world's second largest lagoon.
- It is located in Odisha, India.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satapada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.
- Chilika lake hosts birds migrating from thousands of miles away from the Caspian Sea, Lake Baikal, Aral Sea, remote parts of Russia, Kirghiz steppes of Mongolia etc.

Spatially explicit capture-recapture method

- SECR or SCR is used to estimate the density of an animal population from capture-recapture data collected using an array of 'detectors'.
- Detectors may be live-capture traps, with animals uniquely marked; they also may be sticky traps or snags that passively sample hair, from which individuals are distinguished by their DNA microsatellites, microphones, or cameras that take photographs from which individuals are recognized by their natural marks

The Fishing Cat Project (TFCP)

- The Fishing Cat Project (TFCP) is the world's longest-running research and conservation project on fishing cats and has been functional since 2010.
- It is currently functioning in two states of India – West Bengal and Odisha.

5.3 World's largest plant

- The world's largest plant has recently been discovered off the West Coast of Australia: a seagrass 180 km in length.
- The ribbon weed, or *Posidonia australis*, has been discovered in Shark Bay by a group of researchers
- These researchers have also found that the plant is 4,500 years old, is sterile, has double the number of chromosomes than other similar plants, and has managed to survive the volatile atmosphere of the shallow Shark Bay.

Plant's Size

- The ribbon weed covers an area of 20,000 hectares. The next on the podium, the second largest plant, is the clonal colony of a quaking Aspen tree in Utah, which covers 43.6 hectares. The largest tree in India, the Great Banyan in Howrah's Botanical Garden, covers 1.41 hectares.
- The existence of the seagrass was known, that it is one single plant was not.
- Researchers sampled seagrass shoots from across Shark Bay's variable environments and generated a 'fingerprint' using 18,000 genetic markers – the result was sampled seagrass shoots from across Shark Bay's variable environments and generated a 'fingerprint' using 18,000 genetic markers – just one plant has expanded over 180km in Shark Bay, making it the largest known plant on earth.

How did it grow, and survive for, so long?

- Sometime in the Harappan era, a plant took root in the Shark Bay. Then it kept spreading through its rhizomes
- Ribbon weed rhizomes can usually grow to around 35cm per year, which is how the scientists arrived at its lifespan of 4,5000 years.
- The researchers found that the ribbon weed cannot spread its seeds, something that helps plants overcome environmental threats.
- The ribbon weed has managed to survive environmental threats – a part of the reason may be that it is a polyploid – instead of taking half-half genome from both parents, it took 100 per cent
- This ribbon weed has twice the number of chromosomes other plants of the same variety have.
- Polyploid plants often reside in places with extreme environmental conditions, are often sterile, but can continue to grow if left undisturbed, and this giant seagrass has done just that

Seagrass

- These are flowering plants that grow submerged in shallow marine waters like bays and lagoons.
- These have tiny flowers and strap-like or oval leaves.
- Sea grasses evolved from terrestrial plants that colonised the ocean 70-100 million years ago

- Like terrestrial plants, seagrasses also require sunlight for photosynthesis from which these manufacture their own food and release oxygen

Reproduction:

- Sexual Reproduction Method: The pollen from the flower of the male plant is transferred to the ovary of the female flower through this method.
- Asexual Reproduction Method: Seagrasses can also reproduce asexually by branching off at their rhizomes

Significance:

- Seagrasses are considered 'Ecosystem Engineers' as they are known for providing many ecosystem services and are also called 'the lungs of the sea' as they release oxygen into the water through photosynthesis.
- Sequesters up to 11% of the organic carbon buried in the ocean even though they occupy only 0.1% of the ocean floor and absorb 83 million tonnes of carbon from the atmosphere annually.
- Seagrasses can capture carbon from the atmosphere up to 35 times faster than tropical rainforests.
- Help maintain water quality by trapping fine sediments and suspended particles in the water column and increase water clarity.
- Filter nutrients released from land-based industries before they reach sensitive habitats like coral reefs.
- Prevent soil erosion as the extensive vertical and horizontal root systems of seagrasses stabilise the sea bottom.
- Provide food as well as habitat for fishes, octopuses, shrimp, blue crabs, oysters, etc.
- Endangered marine organisms like dugong (Sea Cow), green turtle, etc, graze directly on seagrass leaves.
- Protect juvenile and small adult fish from large predators and also protect worms, crabs, starfishes, sea cucumbers, sea urchins, etc, from strong currents.
- Provide ideal nursery sites for important commercial marine life like squids and cuttlefish.

5.4 State of Environment Report 2022

Heavy Toxic Metal Pollution

- Three out of every four river monitoring stations in India posted alarming levels of heavy toxic metals such as lead, iron, nickel, cadmium, arsenic, chromium and copper.
- Of the 33 monitoring stations in Ganga, 10 had high levels of contaminants.
- India has 764 river quality monitoring stations across 28 states.
- Of the 588 water quality stations monitored for pollution, total coliform and biochemical oxygen demand were high in 239 and 88 stations across 21 States – an indicator of poor wastewater treatment from industry, agriculture and domestic households.
- India dumps 72% of its sewage waste without treatment.
- Ten States do not treat their sewage at all, as per the Central Pollution Control Board.

Coastline erosion

- Over a third of India's coastline that is spread across 6,907 km saw some degree of erosion between 1990 and 2018.
- West Bengal is the worst hit with over 60% of its shoreline under erosion.
- The reasons for coastal erosion include increase in frequency of cyclones and sea level rise and anthropogenic activities such as construction of harbours, beach mining and building of dams.
- While the global average of the Ocean Health Index, a measure that looks at how sustainably humans are exploiting ocean resources, has improved between 2012 and 2021, India's score in the index has declined over the same period.

Forest Cover

- India's total forest cover has registered a little over a 0.5% increase between 2017 and 2021 though most of the increase has taken place in the open forest category, which includes commercial plantations.
- This has happened at the cost of moderately dense forest, which is normally the area closest to human habitations.
- At the same time, very dense forests, which absorb maximum carbon dioxide from the atmosphere, occupy just 3% of total forest cover.
- India has a forest cover of 77.53 million hectares. But recorded forests—the area under the forest department— with forest cover are only 51.66 million. This gap of 25.87 million hectares —a size bigger than Uttar Pradesh— remains unaccounted

State of Environment Report 2022

- State of Environment Report 2022 is published by Centre for Science and Environment (CSE), an NGO
- The report is the annual publication of the CSE and Down To Earth (magazine).
- The report focuses on climate change, migration, health and food systems.
- CSE is a public interest research and advocacy organisation based in New Delhi.

5.5 Carbon bombs

- A group of environmentalists, lawyers, and activists have come together to identify and 'defuse carbon bombs'— coal, oil and gas projects that have the potential to contribute significantly to global warming.
- The usage of the term 'carbon bombs' picked up after an investigative project of The Guardian
- The project reported the plans of countries and private companies all over the world to engage in 195 'carbon bomb' projects.
- Each such project, will release huge amounts of CO₂ emissions into the atmosphere.

What are carbon bombs?

- It is an oil or gas project that will result in at least a billion tonnes of CO₂ emissions over its lifetime.
- Whenever coal, oil, or gas is extracted it results in pollution and environmental degradation.
- In total, around 195 such projects have been identified world over, including in the US, Russia, West Asia, Australia and India.
- These projects will collectively overshoot the limit of emissions that had been agreed to in the Paris Agreement of 2015.

What does the investigation say?

- More than 60% of these carbon bomb projects are already underway
- Apart from coal, oil, and gas operations, the report highlighted the threat of methane, which routinely leaks from gas operations and is a powerful greenhouse gas, trapping 86 times more heat than CO₂ over 20 years
- The report criticized reliance on fuel from conventional sources and not making use of emerging, green sources of energy.

What is the plan for 'defusing' carbon bombs?

- The network working towards this goal is called Leave It In the Ground Initiative (LINGO).
- Its mission is to leave fossil fuels in the ground and learn to live without them.
- It believes the root of climate change is the burning of fossil fuels, and the 100% use of renewable energy sources is the solution.
- LINGO aims to organise ground support for protesting such projects, challenge them through litigation, and conduct analysis and studies for the same.

5.6 Manas National Park

- The current rhino population in the park was estimated at 40
- The park's rhinos have a male-female sex ratio of 1:1, arrived at without considering 10 calves and five sub-adults
- The one-horned rhinos in Manas National Park, have an age structure pyramid, indicating higher life expectancy and significant growth in the population.
- There is no wider representation of calves and sub-adults to sustain the population structure
- Population pyramid for calves is clearly an indicative of a low birth rate, but is also suggestive of a lower death rate, which means that there is higher life expectancy
- But such a population may suffer losses if not supplemented through translocations, the report warned.
- A suitable strategy to bring in more rhinos from other rhino-bearing areas is required so as to have a wider representation of calves and sub-adults over time, the report stated

Counting limitations

- "Total count" or direct count method adopted for the population estimation in Manas has a few limitations.
- A total count is generally used when a single species is targeted to be counted in a well-defined, specific area.
- This method assumes the detection probability to be one, which means that each and every animal has a 100% chance of being seen during the counting.
- The limitations of this method include undercounting, as the assumption of a detection probability of 1 is unrealistic, especially if the population closure cannot be established satisfactorily within a small area of 10-20 sq. km.

Manas National Park:

- Manas national park is a UNESCO World Heritage Site, a Project Tiger reserve, an elephant reserve and a biosphere reserve.
- It is located in the Himalayan foothills in Assam. It is contiguous with the Royal Manas National Park in Bhutan.
- The name of the park is originated from the Manas River.
- Significance: The Park is known for its rare and endangered endemic wildlife such as the Assam roofed turtle, hispid hare, golden langur and pygmy hog. It is also famous for its population of wild water buffalo.
- River: The Manas River flows through the west of the park. Manas is a major tributary of Brahmaputra river.

5.7 Environment Performance Index-2022

Environment Performance Index-2022, an international ranking system that measures environmental health and sustainability of countries

India's Performance

- India was ranked last among 180 countries that have been ranked
- With a score of 18.9, India's 180th ranking comes after Pakistan, Bangladesh, Vietnam and Myanmar — the bottom five together make up the poorest performing countries for environmental health.
- India has also scored low on rule of law, control of corruption and government effectiveness
- India was ranked 168th in EPI-2020, with a score of 27.6

About EPI

- The EPI, a biennial index, was started in 2002 as Environmental Sustainability Index.
- EPI is published by the World Economic Forum in collaboration with the Yale Center for Environmental Law and Policy and the Columbia University Center for International Earth Science Information Network
- Using 40 performance indicators across 11 issue categories, EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality.
- Top five rank holders this year are – Denmark, UK, Finland, Malta and Sweden

Findings of the report

- It has found that good policy results are associated with wealth, meaning economic prosperity makes it possible for nations to invest in policies and programmes that lead to desirable outcomes
- This is especially true under environmental health, as building the necessary infrastructure to provide clean drinking water and sanitation, reduce air pollution, control hazardous waste etc yields large returns for human well-being
- The report says that top-performing countries have paid attention to all areas of sustainability, while their lagging peers tend to have uneven performance.
- It highlights that countries making concerted efforts to decarbonize their electricity sectors have made the greatest gains in combating climate change, with associated benefits for ecosystems and human health.

5.8 Compensatory afforestation

- The Delhi Development Authority (DDA) is currently facing a shortage in land for compensatory afforestation.
- This issue of shortage of land for compensatory afforestation was raised by the agency in a letter to the Union Environment Ministry in March
- The DDA, in its letter to the Union Environment Ministry, cited paragraph 2.3 (v) of chapter 2 of the Handbook of Forest Conservation Act, which states: "In exceptional cases where non-forest land for CA is not available in the same State/UT in which the diversion of forest land is proposed, land for CA can be identified in any other State/UTs, preferably in neighboring State/UTs."

Forest Conservation Act 1980

- Alarmed at India's rapid deforestation and resulting environmental degradation, the Centre Government enacted the Forest (Conservation) Act in 1980.

- The Forest Conservation Act, 1980 stipulated that central permission is necessary to practice sustainable agro-forestry in forest areas. Violation or lack of permit was treated as a criminal offense.
- An Advisory Committee constituted under the Act advises the Centre on these approvals.
- The Act deals with the four categories of forests, namely reserved forests, village forests, protected forests, and private forests.

Features

- Section 2 of the act lists four criteria where permission of the Central Government is required for any action of State regarding –
- Declaring that any reserved forest ceases to be reserved.
- Use of forestland for non-forest purposes.
- Leasing forest to any private person.
- Declaring that any forest land may be cleared of trees that have grown naturally in that land, for the purpose of using it for reforestation.
- Removing self-regenerating forest for the creation of plantation is also the non-forest purpose.
- Under the act compensatory afforestation has to be carried out for the diversion of forest land, or deemed forest land, for non-forest purposes.
- Agencies carrying out development works are required to compensate for the loss of “land by land” and loss of “trees by trees”.
- The land for CA has to be free of encroachments and legal tussles

5.9 Lake Sawa

- This year, for the first time in its centuries-long history, Iraq Lake Sawa dried up
- A combination of mismanagement by local investors, government neglect and climate change has ground down its azure shores to chunks of salt.

Sawa Lake

- Sawa Lake is an endorheic basin located in the Iraqi governorate of Muthanna near to the Euphrates River
- This lake has no inlet or outlet, but it draws water from the Euphrates through a system of joint cracks and fissures which transport water to aquifers beneath it.
- The water’s level fluctuates during dry and wet seasons
- Sawa Lake is characterized by arid climate
- Because of its saline water, no plants grow in the lake or on its shores. Fish and algae are the most important aquatic organisms.

5.10 Atapaka Bird Sanctuary

- Thousands of migratory birds reach the sanctuary every year for nesting.
- The Atapaka Bird Sanctuary at Kolleru Lake has become a safe breeding ground for many migratory species namely Grey Pelicans and Painted Storks
- Grey Pelican and Painted Stork both are near threatened species under IUCN Red List of Threatened Species.

Kolleru Lake

- Kolleru Lake is located between the deltas of the Krishna and Godavari rivers in Andhra Pradesh.

- It is an important habitat for an estimated 20 million residents and migratory birds like Grey or Spot-billed pelicans.
- It was notified as a Wildlife Sanctuary in 1999 under India's Wild Life Protection Act, 1972.
- It was declared a wetland of international importance in 2002 under Ramsar convention.

5.11 Single-use plastic

The Centre has defined a list of single-use plastic items that will be banned from July 1.

What is single-use plastic?

- It refers to plastic items that are used once and discarded.
- Single-use plastic has among the highest shares of plastic manufactured and used — from packaging of items, to bottles, polythene bags, face masks, coffee cups, cling film, trash bags, food packaging etc.

Stats

- Single-use plastics account for a third of all plastic produced globally, with 98% manufactured from fossil fuels.
- Single-use plastic also accounts for the majority of plastic discarded – 130 million metric tonnes globally in 2019
- On the current trajectory of production, it has been projected that single-use plastic could account for 5-10% of greenhouse gas emissions by 2050.
- India features in the top 100 countries of single-use plastic waste generation – at rank 94

What are the items being banned?

- The items on which the Central Pollution Control Board (CPCB) have announced a ban are earbuds; balloon sticks; candy and ice-cream sticks; cutlery items including plates, cups, glasses, forks, spoons, knives, trays; sweet boxes; invitation cards; cigarette packs; PVC banners measuring under 100 microns; and polystyrene for decoration.
- Polythene bags under 75 microns is already under ban

Why these items?

- The chosen items are difficult to collect for recycling, unlike the much larger items

How will the ban be enforced?

- The ban will be monitored by the CPCB from the Centre, and by the State Pollution Control Boards (SPCBs) that will report to the Centre regularly.
- Those found violating the ban can be penalised under the Environment Protection Act 1986 – which allows for imprisonment up to 5 years, or a penalty up to Rs 1 lakh, or both.

How are other countries dealing with single-use plastic?

- Earlier this year, 124 countries, parties to the United Nations Environment Assembly, including India, signed a resolution to draw up an agreement which will in the future make it legally binding for the signatories to address the full life of plastics from production to disposal, to end plastic pollution.
- Bangladesh became the first country to ban thin plastic bags in 2002.
- As of July 2019, 68 countries have plastic bag bans with varying degrees of enforcement.

5.12 Four species of azooxanthellate corals

- Scientists have recorded four species of azooxanthellate corals for the first time from Indian waters
- These new corals were found from the waters of Andaman and Nicobar Islands.
- Azooxanthellate corals are a group of corals that do not contain zooxanthellae and derive nourishment not from the sun but from capturing different forms of plankton.
- These groups of corals are deep-sea representatives, with the majority of species reporting from between 200 m to 1000 m.
- Their occurrences are also reported from shallow coastal waters. Zooxanthellate corals, meanwhile, are restricted to shallow waters
- All the four groups of corals are from the same family Flabellidae.
- *Truncatoflabellum crassum*, *T. incrustatum*, *T. aculeatum* and *T. irregulare*
- Under the family Flabellidae were previously found from Japan to the Philippines and Australian waters while only *crassum* was reported within the range of Indo-West Pacific distribution including the Gulf of Aden and the Persian Gulf.
- Azooxanthellate corals are a group of hard corals and the four new records are not only solitary but have a highly compressed skeletal structure.

Hard corals

- Hard corals grow in colonies and are often referred to as “reef-building corals.”
- Hard corals create skeletons out of calcium carbonate, a hard substance that eventually becomes rock.
- Overtime, this rock builds up to form the foundation of a coral reef and provides a structure upon which baby corals can settle.
- Hard corals can be further separated into two sub-groups.

Zooxanthellate

- The zooxanthellate (reef-building or hermatypic) corals are ones that depend on zooxanthellae algae for nutrients.
- These shallow water corals have a major reef-building function.
- They are generally found in clear water less than 50 metres deep as the algae need light for photosynthesis.

Azooxanthellate

- The azooxanthellate (deep water or ahermatypic) corals do not contain zooxanthellae and therefore gain their nutrition solely from filtering plankton from seawater.
- These isolated, solitary or colonial forms rarely build big constructions

5.13 Tree Pruning

A drive has been launched by the New Delhi Municipal Council (NDMC) for pruning old trees in the city's Connaught Place area.

Tree Pruning

- A common maintenance procedure to maintain structural integrity and aesthetics
- Goal: To remove unwanted branches, improve the tree's structure, and direct new, healthy growth.

- Benefits:
- When you remove old branches, you let trees put out healthy, new growth.
- A clean, polished look that elevates the whole landscape.
- Set the tree up with a good foundation for long-term health.

5.14 Invasive species

- The Wildlife Institute of India has sought permission for a pilot project to check the expansion of the invasive plants threatening the rhino habitat.
- Kaziranga has had to deal with encroachment, poaching, and annual floods for decades. But none of these has been as damaging to the health of the 1,300 sq. km tiger reserve as the green invaders that have gone under the radar until now.
- This is the first time that such species have been identified with threat estimation.

Invasive Plants

- Regenerate at an alarming speed and threaten to edge out the indigenous flora
- Some of the invasive plants have a toxic impact on the landscape after remaining underwater, which is often for two months every monsoon.
- Some weeds have herbal properties, but their toxicity outweighs their utility. For instance, wild boars love to gorge on the succulent rootlets of the *Leea macrophylla* or 'kukura thengia' that is fast clogging the patrolling paths and grasslands.

Invasive Species discovered

- *Ipomoea* (*Ipomoea carnea*)
- *Mimosa* (*Mimosa himalaica*)
- *Parthenium* (*Parthenium hysterophorus*) is believed to have come to India as contaminants in a consignment of wheat imported from the U.S. in the 1950s
- *Lantana* (*Lantana camara*) was brought by the British as ornamental plants from South America two centuries ago.
- *Bombax ceiba* (locally called Semul)
- *Largestroemia speciosa* (locally called ejhar)
- *Cestrum diurnum* or day-blooming jasmine of West Indies origin; otherwise a source of vitamin D3. Once the modalities are finalised, this weed can be turned into a commercial crop for the people in the vicinity of Kaziranga. Pharmaceutical companies need tonnes of dry leaves of this plant periodically
- Cane is a commercial plant that is threatening to be an invasive plant in Kaziranga.

Kaziranga National Park and Tiger Reserve

- It is a national park in the Golaghat and Nagaon districts of Assam.
- The sanctuary, which hosts two-thirds of the world's great one-horned rhinoceroses, is a World Heritage Site.
- Kaziranga is recognized as an Important Bird Area by BirdLife International for conservation of avifaunal species.
- Kaziranga has the largest population of the Wild water buffalo anywhere accounting for about 57% of the world population.

Greater One-Horned Rhinoceros

- Also known as Indian rhino, it is the largest of the rhino species.
- India is home to the largest number of Greater One-Horned Rhinoceros in the world.
- At present, there are about 2,600 Indian rhinos in India, with more than 90% of the population concentrated in Assam's Kaziranga National Park.
- Habitat: The species is restricted to small habitats in Indo-Nepal terai and northern West Bengal and Assam.
- In India, rhinos are mainly found in
 - Kaziranga NP, Pobitora WLS, Orang NP, Manas NP in Assam,
 - Jaldapara NP and Gorumara NP in West Bengal
 - Dudhwa TR in Uttar Pradesh.

Threats:

- Poaching for the horns
- Habitat loss
- Population density
- Decreasing Genetic diversity
- Protection Status:
 - IUCN Red List: Vulnerable.
 - CITES: Appendix-I
 - Wildlife Protection Act, 1972: Schedule I.

6. Security & Defence

6.1 Threat to internal security

The war in Europe, political turmoils in South Asia dominates newspaper headlines today. This has pushed the debate on India's many internal security problems on the backburner.

Threats

Upheaval in Kashmir

- While Jammu and Kashmir has been a troubled region ever since 1947, the situation has metamorphosed over the years — at times tending to become extremely violent followed by spells of near normalcy.
- Political angst over the revocation of Article 370 of the Constitution is possibly one of the reasons for local support being available for the current crop of Jammu and Kashmir militants. A majority of them are believed to be home-grown militants, though backed by elements from across the border in Pakistan.
- Irrespective of the reasons for the latest upsurge in violence, what is evident is that Jammu and Kashmir has again become the vortex of violence, specialising currently on targeted killings of outsiders, mainly Kashmiri Pandits.
- Evidently, the doctrine of containment pursued by the Jammu and Kashmir police and security agencies is not having the desired effect.

The Maoist shadow

- The combination of ideological ideation and brutal killings has often confused and confounded the police, intelligence and security establishments of the States and the Centre.
- In that sense, the Maoists represent the biggest challenge to the idea of India.
- While railing against the use of State violence, and from time to time displaying a willingness to hold peace talks with both the State and Central governments, the Maoists have seldom displayed a commitment to peaceful ways.
- More than any other militant or violent movement in the country, curbing the Maoist menace will require considerable doses of statecraft, as many of the purported demands of the Maoists find an echo among intellectuals in the cities and the 'poorest of the poor' in the rural areas.

In Punjab and the North-east

- The recent discovery of 'sleeper cells' in the Punjab clearly indicates the potential for the revival of a pro-Khalistan movement — which once ravaged large parts of the Punjab
- In Assam, the United Liberation Front of Assam—Independent (ULFA-I) is trying to revive its activities after a long spell of hibernation.
- Likewise in Nagaland, where the National Socialist Council of Nagalim (I-M) has recently initiated a fresh push for a solution of the 'Naga political issue

A threat in the South

- In the South, intelligence and police officials appear concerned about a likely revival of Liberation Tigers of Tamil Eelam (LTTE)-sponsored activities in Tamil Nadu.
- This stems from a possible revival of LTTE-sponsored militancy in Sri Lanka following the recent economic crises and uncertainty there.
- Security agencies in India believe that an attempt could be made to reach out to elements in Tamil Nadu to revive the spirit of the 1980s.

Limitations of a security vigil

- While the country's security agencies do maintain a tight vigil, what is seldom realized is that security agencies can only deal with the immediate threat.

- Additional doses of security whenever a situation arises are at best a temporary solution. This does not amount to problem solving.
- To change the mindsets of both the authorities and those challenging the existing order, it may be first necessary to admit that more and more security has its limitations.
- The next step is even harder, viz., to admit that the forces threatening the state have lately become nimbler in adopting new technologies and modes of warfare.

Way forward

- Long-term solutions require the use of statecraft.
- In many countries, both the authorities and security agencies are beginning to acknowledge the importance of resorting to statecraft as a vital adjunct to the role played by the security agencies.
- Statecraft involves fine-grained comprehension of inherent problems; also an ability to quickly respond to political challenges.
- It further involves strengthening the ability to exploit opportunities as they arise, and display a degree of political nimbleness rather than leaving everything to the security agencies.
- In short, it entails a shift from reposing all faith in the security establishment to putting equal emphasis on implementation of policies and programmes.
- In effect, it shifts the emphasis to formulating strategies that favour political deftness, strength and agility, after the initial phase.

6.2 Agnipath scheme

- The GoI unveiled its new Agnipath scheme for recruiting soldiers across the three services
- The soldiers recruited under the scheme will be called Agniveers.

What is the Agnipath scheme?

- Under the new scheme, around 45,000 to 50,000 soldiers will be recruited annually, and most will leave the service in just four years.
- Of the total annual recruits, only 25 percent will be allowed to continue for another 15 years under permanent commission.

What is the eligibility criterion?

- The new system is only for personnel below officer ranks
- Under the Agnipath scheme, aspirants between the ages of 17.5 years and 21 years will be eligible to apply.
- The recruitment standards will remain the same, and recruitment will be done twice a year through rallies.

What happens after selection?

- Once selected, the aspirants will go through training for six months and then will be deployed for three and a half years.
- During this period, they will get a starting salary of Rs 30,000, along with additional benefits which will go up to Rs 40,000 by the end of the four-year service.
- 30 per cent of their salary will be set aside under a Seva Nidhi programme, and the government will contribute an equal amount every month, and it will also accrue interest.
- At the end of the four-year period, each soldier will get Rs 11.71 lakh as a lump sum amount, which will be tax-free.
- They will also get an Rs 48 lakh life insurance cover for the four years.

- In case of death, the payout will be over Rs 1 crore, including pay for the unserved tenure.
- For those who are re-selected, the initial four-year period will not be considered for retirement benefits.
- Recruitment will begin within 90 days under the scheme which will bring “all India, all class” recruitment to the services.

Benefits

- The average age in the forces is 32 years today, which will go down to 26 in six to seven years, the scheme envisions.
- It will create “future-ready” soldiers
- This is especially significant for the Army, where the regiment system has region and caste bases, and with time that will be eliminated to allow anybody from any caste, region, class or religious background to become part of existing regiments.
- The move will make the permanent force levels much leaner for the over 13-lakh strong armed forces in the country.
- This will, in turn, considerably reduce the defence pension bill, which has been a major concern for governments for many years.
- It will increase employment opportunities and because of the skills and experience acquired during the four-year service such soldiers will get employment in various fields.

6.3 National Investigation Agency

What is the NIA?

- The National Investigation Agency (NIA) was constituted under the National Investigation Agency (NIA) Act, 2008.
- It is a central agency mandated to investigate all the offences affecting the sovereignty, security and integrity of India, friendly relations with foreign states, and the offences under the statutory laws enacted to implement international treaties, agreements, conventions and resolutions of the United Nations, its agencies and other international organisations.
- These include terror acts and their possible links with crimes like smuggling of arms, drugs and fake Indian currency and infiltration from across the borders.
- The agency has the power to search, seize, arrest and prosecute those involved in such offences.
- Headquartered in Delhi, the NIA has its branches in many cities of India.

When did the NIA come into being?

- In the wake of the 26/11 Mumbai terror attack in November 2008, GoI decided to establish the NIA.
- The agency came into existence on December 31, 2008, and started its functioning in 2009.
- Government stated that the agency would deal with only eight laws mentioned in the schedule and that a balance had been struck between the right of the State and duties of the Central government to investigate the more important cases.

What are the scheduled offences?

- The list includes the
- Explosive Substances Act,
- Atomic Energy Act,
- Unlawful Activities (Prevention) Act,

- Anti-Hijacking Act, Suppression of Unlawful Acts against Safety of Civil Aviation Act,
- SAARC Convention (Suppression of Terrorism) Act,
- Suppression of Unlawful Acts Against Safety of Maritime Navigation and Fixed Platforms on Continental Shelf Act,
- Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act and relevant offences under the Indian Penal Code,
- Arms Act and the Information Technology Act.
- In September 2020, the Centre empowered the NIA to also probe offences under the Narcotic Drugs and Psychotropic Substances Act that are connected to terror cases.

How wide is NIA's jurisdiction?

- The law under which the agency operates
- extends to the whole of India and also applies to Indian citizens outside the country;
- persons in the service of the government wherever they are posted;
- persons on ships and aircraft registered in India wherever they may be;
- persons who commit a scheduled offence beyond India against the Indian citizen or affecting the interest of India.

How does the NIA take up a probe?

- As provided under Section 6 of the Act, State governments can refer the cases pertaining to the scheduled offences to the Central government for NIA investigation.
- Even when the Central government is of the opinion that a scheduled offence has been committed which is required to be investigated under the Act, it may, suo motu, direct the agency to take up/over the probe
- Where the Central government finds that a scheduled offence has been committed at any place outside India to which this Act extends, it can also direct the NIA to register the case and take up investigation.

7. Social issues

7.1 Tobacco Cultivation and Consumptions

Large corporate enterprises themselves are making efforts to reduce the harm of tobacco consumption

Consequences of Tobacco Cultivation and Consumptions

Stats:

Environment

- According to the WHO, 600 million trees are chopped down annually to make cigarettes, 84 million tonnes of CO₂ emissions are released into the atmosphere, and 22 billion litres of water are used to make cigarettes.
- India, the world's second largest producer of tobacco, produces about 800 million kg annually.
- Addiction and Health
- The second Global Adult Tobacco Survey estimated that 28.6% of all adults in India used tobacco in 2016-2017, second only to China.
- The survey said 4% of men and 14.2% of women used tobacco — both the smokeless form, i.e. chewing tobacco, and smoked form, i.e. cigarettes and 'bidis'.
- In 2021, smoking killed about 8 million people.
- Tobacco use is known to be a major risk factor for several non-communicable diseases such as cancer, cardiovascular disease, diabetes, and chronic lung diseases.
- Nearly 27% of all cancers in India are due to tobacco usage

What has India done to Control Tobacco Consumption?

- India adopted the tobacco control provisions under WHO Framework Convention on Tobacco Control (WHO FCTC).
- The Promulgation of the Prohibition of Electronic Cigarettes Ordinance, 2019 prohibits Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement of e-Cigarettes.
- The Government of India launched the National Tobacco Quitline Services (NTQLS) which have the sole objective to provide telephone-based information, advice, support, and referrals for tobacco cessation.
- mCessation Programme is a similar initiative which uses mobile technology for tobacco cessation. It was launched in 2016 as part of the government's Digital India initiative.
- Large corporate enterprises themselves are making efforts to reduce the harm of tobacco consumption
- Cigarette companies themselves appear to be changing. In 2016, one of the largest cigarette companies pledged to begin transitioning its customers away from tobacco to smoke-free products.
- By transitioning to safer nicotine delivery systems, and moving away from tobacco, cigarette companies are potentially lowering the risk of their customers dying from cancer.

Improvement

Decline in Tobacco Consumption:

- The prevalence of tobacco use has decreased by six percentage points from 34.6% in 2009-10 to 28.6% in 2016-17.
- Under the National Health Policy 2017, India has set an ambitious target of reducing tobacco use by 30% by 2025.

- While there are problems in the business of tobacco and cigarettes, there are options, solutions and global movements being undertaken. Educating potential consumers to not consume tobacco, supporting consumers in their journey to quit, and incentivising industry to help consumers and the planet will protect not just our lungs, but also the air we breathe.

7.2 Sologamy

- A 24-year-old Vadodara woman announced that she would marry herself in what she described as an “act of self-love”.
- The wedding, being seen as one of the first instances of self-marriage or “sologamy” in the country

What is sologamy or ‘self-marriage’?

- Sologamy is the act of marrying oneself in a public ceremony, also referred to as self-marriage or autogamy.
- While such a marriage has no legal sanction or status, the symbolic ceremony is used by many as an act to emphasize their self-love and independence.

When did the trend begin?

- It can be traced back to Linda Baker, a dental hygienist from the US, who married herself in 1993
- It is widely considered the first publicized act of self-marriage
- A sologamy divorce was also reported last year when a Brazilian model, announced she was ending her solo-marriage after just 90 days as she had fallen in love with someone else.

7.3 Surrogacy Act, 2021

Petitioners in the Delhi High Court questioned why marital status, age, or gender were the criteria for being allowed to commission or not commission surrogacy in India.

What is the Surrogacy Act, 2021?

- The Act sought to regulate the surrogacy in India
- The Act defines ‘surrogacy’ as a practice where a woman undertakes to give birth to a child for another couple and agrees to hand over the child to them after birth

Why is there a need for a Surrogacy Act in India?

- India has emerged as a hub for infertility treatment, attracting people from the world – due to prevailing socio-economic inequities, underprivileged women found an option to ‘rent their wombs’ and thereby make money to take care of their expenses
- By 2012, India had become the ‘surrogacy capital’ of the world with surrogacy tourism valued at approximately \$500 million annually.
- Thus, it has become more than imperative to regulate surrogacy in the country.
- To curb unethical practices: Lack of specific legislation had led to unregulated growth of Commercial Surrogacy services. Hence, to curb unethical practices related to issues of sex selection and exploitation of the surrogate, specific legislation was required.
- To curb the exploitation of women: Due to the absence of legal regulations and lack of implementation, surrogate mothers faced multiple challenges – there had been many cases of death related to surrogacy which neither commissioning parents nor the doctors were ready to take responsibility of.
- Legal Issues: Sometimes, Indian adoption laws or citizenship laws of some other countries also create

problems. For example, Germany gives citizenship by mother; this creates issues in determining the nationality of child.

- In 2008, a Japanese couple began the process with a surrogate mother in Gujarat, but before the child was born they split and there were no takers for the child.
- In 2012, an Australian couple commissioned a surrogate mother, and arbitrarily chose one of the twins that were born.
- Ethical Issues: Surrogacy leads to commoditization of the child. Renting of the womb breaks the bond between a mother and the child, interferes with nature

Key Provisions of the Act

- The Act prohibits commercial surrogacy, but allows altruistic surrogacy.
- Eligibility criteria for intending couple: Any couple that has 'proven infertility' are candidates. The 'intending couple' as the Act calls them, will be eligible if they have a 'certificate of essentiality' and a 'certificate of eligibility' issued by the appropriate authority.
- Eligibility criteria for surrogate mother: Only a close relative of the couple can be a surrogate mother, one who is able to provide a medical fitness certificate. She should have been married, with a child of her own, and must be between 25 and 35 years, but can be a surrogate mother only once.
- Appropriate authority: The central and state governments shall appoint one or more appropriate authorities. The functions of the appropriate authority include;
- granting, suspending or cancelling registration of surrogacy clinics;
- enforcing standards for surrogacy clinics;
- National and State Surrogacy Boards: The central and the state governments shall constitute the National Surrogacy Board (NSB) and the State Surrogacy Boards (SSB), respectively.
- Parentage and abortion of surrogate child: An abortion of the surrogate child requires the written consent of the surrogate mother and the authorisation of the appropriate authority. This authorisation must be compliant with the Medical Termination of Pregnancy Act, 1971.
- The surrogate mother will have an option to withdraw from surrogacy before the embryo is implanted in her womb.

What are the controversies behind the Act?

- Exclusion: The eligibility criteria for legally availing surrogacy excludes a chunk of society like unmarried females, LGBTQ+ persons, live-in couples, and single parents who wish to have surrogate child.
- Paternalistic: The altruistic model expects a woman to go through the physical and emotional tolls of surrogacy free of cost and only out of compassion.
- Autonomy of Woman: The banning of commercial surrogacy moves from the rights-based approach to a needs-based approach, thus removing the women's autonomy to make their own reproductive decisions and right to parenthood.
- Limitations of Altruistic Surrogacy: Having a relative as a surrogate mother may lead to emotional complications. Altruistic surrogacy also limits the option of the intending couple in choosing a surrogate mother as very limited relatives
- Children with Disability: The Act considers having children with physical and special needs as childless. It further encourages considering surrogacy if the couple has a child with a life-threatening disorder. This clause directly violates the right of the children with the disability, thus denying them treatment with dignity.
- As India is one of the major hubs of these practices, the Act is certainly a step in the right direction. More reforms are still needed recognize the rights of all stakeholders involved. The law needs to keep up with rapidly evolving demands of morality and societal changes.

7.4 Religious tolerance

- The atmosphere of religious intolerance which has seen a sharp rise in the last several years has been a

serious cause for concern in the country.

- India is the beloved home for practitioners of all major religions in the world. Indian culture accepts diversity of faiths and beliefs.
- Religious harmony and social cohesion are two core elements for progress and development.
- As per Pew Research Survey 2021, Indians of diverse religious backgrounds overwhelmingly say they are very free to practice their faiths
- But there is growing intolerance towards diverse religions leading to communal violence and ripples in social harmony.

Instances of intolerance

- Recent incident of ruling party spokesperson commenting on Islam and the Prophet
- Haridwar Hate speech incident
- Frequent use of National Security Act (NSA) for 'cow slaughter' by some state governments
- As per pew research on the question of inter-religious marriage, most Hindus (67%), Muslims (80%), Sikhs (59%), and Jains (66%) felt it was 'very important' to stop the women in their community from marrying outside their religion

Why is there raise in intolerance?

- Political parties polarize naive voters in the name of religion
- Various cultural organisations are misinterpreting and propagating truths to affirm revivalist predispositions
- Irresponsible Reporting by Media: Many a times media broadcasts unconfirmed, sensitive and often biased reports on national television
- For instance: Tablighi Jamaat case during first Covid lockdown
- State's support: India has many hostile neighbors, who wish to make it weak through a communal divide.
- Struggle for identity

Consequences

- Threat to minority: Rise in intolerance and communal disharmony lead to majoritarianism
- Mob-violence: Rise in disharmony has led to targeting of religious minorities and led to a rise in mob-violence
- Threat to Rule of law: With rise in incidence of mob lynchings, there is a threat to rule of law – Lynching on cow smuggling, lynching of youth in golden temple
- Freedom of speech: It has also impacted freedom of speech-shows of comedians being banned by vigilante groups
- Regionalism: The anti-national elements get adequate opportunity to fan regional feelings and work on creating an atmosphere to break the cohesiveness of our society.
- Damage social fabric: The social fabric of the society gets irreparably damaged and the conditions of mistrust serve as a catalyst for future conflicts
- Degrading International image where countries are losing faith in India's diverse credentials

Way forward

- Political and moral support to the minorities
- Effective administration – fair probe, media guidelines
- Implementation of constitutional and legal safeguards

- We, the people of India, must strive hard to generate compassion, strength, sincerity and commitment to ensure the safety and security of the people of India. And uphold the values which are synonym with the word “INDIA” – tolerance, compassion and peace.

7.5 Ramsay Hunt Syndrome

What is Ramsay Hunt Syndrome?

- Ramsay Hunt syndrome (herpes zoster oticus) occurs when a shingles outbreak affects the facial nerve near one of your ears.
- In addition to the painful shingles rash, Ramsay Hunt syndrome can cause facial paralysis and hearing loss in the affected ear.
- Ramsay Hunt syndrome is caused by the same virus that causes chickenpox – the varicella-zoster virus (VZV)
- After chickenpox clears up, the virus still lives in your nerves.
- Years later, it may reactivate. When it does, it can affect your facial nerves

Symptoms

- The two main signs and symptoms of Ramsay Hunt syndrome are:
- A painful red rash with fluid-filled blisters on, in and around one ear
- Facial weakness or paralysis on the same side as the affected ear

Risk factors

- Ramsay Hunt syndrome can occur in anyone who has had chickenpox.
- It's more common in older adults, typically affecting people older than 60.
- Ramsay Hunt syndrome is rare in children.
- Ramsay Hunt syndrome isn't contagious.
- However, reactivation of the varicella-zoster virus can cause chickenpox in people who haven't previously had chickenpox or been vaccinated for it.
- The infection can be serious for people who have immune system problems.

7.6 Child Malnutrition

Malnutrition

- Malnutrition, in all its forms, includes undernutrition (wasting, stunting, underweight), obesity, and resulting diet-related noncommunicable diseases.

The term malnutrition addresses 3 broad groups of conditions:

- Undernutrition, which includes wasting (low weight-for-height), stunting (low height-for-age) and underweight (low weight-for-age)
- Micronutrient-related malnutrition, which includes micronutrient deficiencies or micronutrient excess; and
- Overweight, obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes and some cancers).
- Malnutrition is a chronic problem and a longstanding challenge for the public administration of India.

Stats

- The National Family Health Survey (NFHS-5) has shown marginal improvement in different nutrition indicators, indicating that the pace of progress is slow.
- While there was some reduction in stunting rates (35.5% from 38.4% in NFHS-4) 13 States or Union Territories have seen an increase in stunted children since NFHS-4
- The NFHS-5 survey indicates that more than 57% of women (15-49 years) and over 67% children (six-59 months) suffer from anaemia.
- Developing countries lose up to 4.05% in GDP per annum due to iron deficiency anaemia; India loses up to 1.18% of GDP annually.

Reasons

- Monoculture agricultural practices: Though India has achieved food security, it has not sufficiently addressed the issue of malnutrition.
- These intensive monoculture agricultural practices can perpetuate the food and nutrition security problem by degrading the quality of land, water and the food derived through them.
- Changing food patterns: Food consumption patterns have changed substantially in India over the past few decades, which has resulted in the disappearance of many nutritious local foods, for example, millets.
- Poverty: It affects the availability of adequate amounts of nutritious food for the most vulnerable populations.
- Lack of sanitation and clean drinking water: poor sanitation, and dangerous hygiene practices increase vulnerability to infectious and water-borne diseases
- Gender injustice: There is a correlation between gender discrimination and poor nutrition.
- Malnourished girls become malnourished adolescents who marry early and have children who become malnourished, and so the cycle continues.
- Inappropriate policies and lax implementation – policies are designed based on real-time data

Measures Taken to Tackle Malnutrition

- **Integrated Child Development Services (ICDS) Scheme**
- It provides a package of six services namely supplementary nutrition, pre-school non-formal education, nutrition & health education, immunization, health check-up and referral services.
- National Health Mission (NHM)
- The main programmatic components include health system strengthening in rural and urban areas for – Reproductive-Maternal- Neonatal-Child and Adolescent Health (RMNCH+A), and Communicable and Non-Communicable Diseases.

Mid Day Meal Scheme

- It provides that every child within the age group of six to fourteen years studying in classes I to VIII who enrolls and attends the school shall be provided with a hot cooked meal, free of charge every day except on school holidays.

Poshan Abhiyan

- It was approved in 2017.
- It is a multi-ministerial convergence mission with the vision to ensure the attainment of malnutrition free India by 2022.

- Indira Gandhi Matritva Sahyog Yojna (IGMSY)
- The scheme aims to contribute to a better enabling environment by providing cash incentives for improved health and nutrition to pregnant and lactating mothers.

Way forward

Financial commitment

- Increase investment in women and children's health and nutrition to ensure their sustainable development and improved quality of life.
- Saksham Anganwadi and the Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) 2.0 programme have seen only a marginal increase in budgetary allocation

Outcome-oriented approach

- Strict monitoring and interventions by parliamentarians in their constituencies
- Direct engagement with nutritionally vulnerable groups and contribute toward ensuring last-mile delivery of key nutrition services and interventions.

Diversification:

- Public Distribution System should be diversified, to include millets

7.7 Fortified rice

- Centre begins supply of fortified rice in 90 districts from April 1
- The Centre has started distribution of fortified rice through ration shops from April 1 in some 90-odd districts out of 291 targeted for the entire year under phase II of PM-POSHAN Abhiyan
- The first phase was launched in October 2021 under which fortified rice was supplied through Integrated Child Development Services (ICDS) and Pradhan Mantri Poshan Shakti Nirman-PM POSHAN
- Fortified rice is made as per the standards fixed by the food safety regulator FSSAI, which has prescribed blending rice with three micronutrients – Iron, Folic Acid and Vitamin B12.

Need for rice fortification

- India has very high levels of malnutrition among women and children. According to the Food Ministry, every second woman in the country is anemic and every third child is stunted.
- Malnutrition costs India at least ₹77,000 crore annually in terms of lost productivity, illness and death.
- The country loses about 1 per cent of GDP (₹2.03 lakh crore) due to iron deficiency
- One rupee spent on nutritional interventions in India could generate ₹34.1-Rs 38.6 in public economic returns
- Rice is one of India's staple foods, consumed by about two-thirds of the population. Per capita rice consumption in India is 6.8 kg per month. Therefore, fortifying rice with micronutrients is an option to supplement the diet of the poor.

POSHAN Abhiyaan

- POSHAN Abhiyaan is the flagship program to improve nutritional outcomes for children, pregnant women, and lactating mothers in India.
- It is also called the National Nutrition Mission.

Salient Features of the POSHAN Abhiyan

- The POSHAN (Prime Minister's Overarching Scheme for Holistic Nutrition) Abhiyaan spreads awareness towards the problems pertaining to malnutrition and brings viable solutions with it.
- Implementation status reports of the Abhiyaan are submitted by NITI Aayog every six months.
- The implementation of POSHAN Abhiyaan is carried out through the Technical Support Unit (TSU) established at NITI Aayog, which will also provide research, policy, and technical support for the program.
- As the mission is expected to eradicate malnutrition by 2022, it has been taken up by multiple ministries. This helps in expanding the outreach of the mission and thereby facilitating its implementation.
- Some specific targets of the program are reducing stunting, anemia, under-nutrition, and low birth weight.

Specific Targets of the POSHAN Abhiyan

The POSHAN Abhiyan aims to target the following specifically:

- Reduce stunting by 2% annually.
- Reduce under-nutrition by 2% annually.
- Reduce anemia by 3% annually.
- Reduce low birth weight by 2% annually.

7.8 Role of caste in economic transformation

- Caste, a structural factor that impedes economic transformation in India.
- Caste through its rigid social control and networks facilitates economic mobility for some and erects barriers for others by mounting disadvantages on them.
- Caste shapes the ownership pattern of land and capital and simultaneously regulates access to political, social, and economic capital too.

Ways it impedes

- There are three ways in which caste impedes the economic transformation in India:
- ownership and land inequality related to productivity failure within the farm sector;
- elite bias in higher education and historical neglect of mass education, and
- caste-based entry barriers and exclusive networks in the modern sector.
- The divergent outcomes in structural transformation between countries in the global South, particularly India, China and South East Asia, is due to these three factors.
- All the nations which succeeded in achieving inclusive growth in the Global South had land reforms combined with human capital, invested in infrastructure by promoting capitalism from below and began industrialisation in the rural sector.

India lost on all three counts.

- Land ownership, productivity
- India has one of the highest land inequalities in the world today.
- Unequal distribution of land was perpetuated by British colonial intervention that legalised a traditional disparity.
- Some castes were assigned land ownership at the expense of others by the British for its administrative practices.
- The British inscribed caste in land governance categories and procedures that still underpin post-colonial land ownership pattern in India

- The prescribed categories and practices have entrenched caste inequality in land ownership.
- Even the subsequent land reform that took place after India's independence largely excluded Dalits and lower castes.
- It emboldened and empowered mainly intermediate castes at the expense of others in rural India.
- Further green revolution tightened landlords social control over others in rural India.
- Land still defines social status and pride in many parts of rural India.

Modern day real estate

- Real estate and construction still works as a source of inheritance, family lineage and speculative capital
- Those castes that had a stake in agriculture did not benefit from the economic reforms (1991) for two reasons — historical neglect of education and the entry barriers erected by the upper castes in modern sectors.

Neglect of education

- If strong growth in productivity within the farm sector is crucial for sustained economic growth, an educated workforce is equally necessary to move to the modern sectors.
- India failed on both accounts.
- The Indian education system has been suffering from an elite bias since colonial times.
- It primarily focussed on higher education for the elites neglecting basic education of mass
- Inequality in access to education got translated into inequality in other economic domains including wage differentials in India.
- In contrast, Chinese and other East Asian countries invested in basic education and gradually shifted towards higher education.
- Their success in manufacturing is a direct outcome of the investment in human capital.
- As South East Asia and China captured low-end manufacturing jobs, India largely concentrated in high-end technology jobs.

Barrier to entrepreneurship

- India did not witness such capitalism from below except in a few cases.
- Caste shaped policy outcomes, including India's highly unequal land reform and lack of public provision of education and health, which in turn erected barriers to economic diversification.
- Castes that were already in control of trading and industrial spaces resisted the entry of others.
- Social inequalities have mounted barriers for economic transition
- For caste is not a residual variable, but is an active agent which stifles economic transformation.

7.9 Access to Abortion is Human right

- The United States Supreme Court on June 24 overturned by a 6-3 majority 'Roe v. Wade', the court's landmark 1973 judgment that made abortion a constitutional right.
- The decision will transform life for women in America. Near-total bans on abortion will come into effect in about half of the country's states.
- Availability of clinics, insurance payouts, are crucial issues that form part of the struggle of many women even with the backing of 'Roe'. With this legal backing gone, access could become even harder.
- Laws against abortion put many women in US at risk of back-alley abortions outside institutional care. For women in the relatively liberal Democratic states, and for women elsewhere who have the means to

travel to a clinic, abortion may still be accessible. However, poor women, especially in many Republican states, may find traveling to other states for in-clinic abortions to be an impossible challenge.

- Foetal viability was around 28 weeks (7 months) at the time of the ‘Roe’ judgment nearly 50 years ago; experts now agree that advances in medicine have brought the threshold down to 23 or 24 weeks (6 months or a little less), and newer studies show this could be further pegged at 22 weeks. An average pregnancy lasts about 40 weeks.
- Foetal viability is often seen as the point at which the rights of the woman can be separated from the rights of the unborn foetus. The length of a pregnancy is commonly calculated from the start of a person’s most recent menstrual period. Since many people identify pregnancy only after the sixth week, pre-viability timelines leave women with very little time and opportunity to make a decision to abort.

Abortion – Human Rights

- Access to safe and legal abortion is a matter of human rights, and its availability is the best way to protect autonomy and reduce maternal mortality and morbidity.
- Authoritative interpretations of international human rights law establish that denying women, girls, and other pregnant people access to abortion is a form of discrimination and jeopardizes a range of human rights.
- Where safe and legal abortion services are unreasonably restricted or not fully available, many other internationally protected human rights may be at risk, including rights to non-discrimination and equality; to life, health, and information; to freedom from torture and cruel, inhuman and degrading treatment; to privacy and bodily autonomy and integrity; to decide the number and spacing of children; to liberty; to enjoy the benefits of scientific progress; and to freedom of conscience and religion.
- According to the World Health Organization (WHO), complications from pregnancy and childbirth are the leading cause of death for girls and young women ages 15 to 19, and children ages 10 to 14 have a higher risk of health complications and death from pregnancy than adults. WHO has also found that the removal of restrictions on abortion results in the reduction of maternal mortality.

Key Insight: Do restrictive abortion policies reduce the rate of abortions?

- Abortion restrictions do not prevent abortions. Research has shown that when abortion is banned or restricted, the number of abortions does not decrease. Abortions just move underground.
- Restrictive abortion policies push pregnant people seeking abortions, especially those living in poverty or rural areas, out of the healthcare system and into unsafe, unregulated settings.
- WHO has also stated that lack of access to safe, affordable, timely, and respectful abortion care, as well as the promotion of stigma associated with abortion, poses risks to abortion seekers’ physical and mental well-being throughout their lives.

Abortion Laws in India

- Abortion is legal in India via Medical Termination of Pregnancy (Amendment) Bill, 2020.
- India’s Medical Termination of Pregnancy Act, 1971 allows abortion until 20 weeks of pregnancy. Through an amendment in 2021, the ceiling for abortions was raised to 24 weeks, but only for special categories of pregnant women such as rape or incest survivors, that too, with the approval of two registered doctors.

Eligibility

- An unmarried woman can avail (In case the woman is under 18, the guardian’s signature would be needed + a case should be registered under the POCSO (Protection of Children from Sexual Offences) Act)

- If the pregnancy is the result of incest or rape.
- Major deformations in the fetus
- If it is a result of failed contraception.
- If the continuation of the pregnancy can cause grave injury to the physical or mental health of the mother.
- In case of a miscarriage i.e. if the baby is dead inside

Procedural Details

- The procedure can be carried out only by a registered medical practitioner.
- The abortion should take place at a hospital or at a clinic that is fully equipped to do so.
- PCPNDT (Pre-Conception and Pre-Natal Diagnostic Techniques) Act
- Enacted to prevent misuse of the MTP Act and so that abortions aren't carried out at the whims and fancies of a woman or a couple.
- While consent of the spouse isn't required for a woman to undergo an abortion, a spouse cannot force a woman to undergo an abortion. In such a case, a case for domestic violence can be registered and under IPC 312/313, a case for causing miscarriage can be booked against the husband.
- A woman, whether a minor or not, cannot walk into a pharmacy to avail a pill for termination of pregnancy unless she has a prescription from a trained medical practitioner.

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