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Current Affairs, July 2022

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1. Polity and Governance

1.1 Appointment of Attorney-General (A-G)

- Attorney-General (A-G) K.K. Venugopal has been reappointed the country's top law officer for a period of three months.
- Venugopal was appointed the 15th AG of India in 2017. He succeeded Mukul Rohatgi who was AG from 2014-2017.

Attorney General of India

- Article 76 of the Constitution provides for the office of AG of India
- AG is the top legal officer in the country & part of Union Executive
- AG is assisted by 2 Solicitor Generals & 4 Additional Solicitor Generals.
- AG is not considered as a government servant

Eligibility

- S/He must be a person who is qualified to be appointed a judge of the Supreme Court .i.e.
- he must be a citizen of India and
- he must have been a judge of some high court for five years or an advocate of some high court for ten years or an eminent jurist
- Tenure: not fixed by the Constitution
- The remuneration of the AG is not fixed by the Constitution. He receives such remuneration as the president may determine

Removal:

- The Constitution does not contain the procedure and grounds for his removal. He holds office during the pleasure of the president.
- He may also quit his office by submitting his resignation to the president.

Functions

- Advise Government on legal matters.
- Perform legal duties assigned by President.
- Appear on behalf of Government in all cases in SC or HC.
- Represent Government under Article 143.
- Discharge functions conferred by Constitution or law.

Rights

- Right to speak & take part in proceedings of both Houses of Parliament/joint sitting/any committee of Parliament of which he/she may be named a member.
- Enjoys privileges & immunities of a Member of Parliament.
- She is not debarred from private legal practice.

Limitations

- No Right to Vote in House proceedings/committees.

- Should not advise against or hold a brief against Government.
- Should not defend accused persons in criminal prosecutions without the permission of the Government of India.
- Should not accept appointment as a director in any company or corporation without the permission of the Government of India.

1.2 Handcuffing

Recently, the Karnataka High Court passed a verdict on handcuffing, which is significant.

In *Suprit Ishwar Divate vs. The State of Karnataka*, while awarding two lakh rupees as compensation for handcuffing an accused, without recording the reasons in the police case diary, it gave liberty to the state to recover the amount from the delinquent police officer.

Principles of handcuffing

- The High Court held that an accused, in normal circumstances, need not be handcuffed on arrest.
- It is only under exceptional circumstances that handcuffing an accused can be resorted to.
- Further, when there is such handcuffing, the arresting officer must record the reasons, which then would have to stand judicial/court scrutiny.
- There can be three occasions when a person can be (legally) handcuffed, i.e.,
 - an accused on his arrest and before he is produced before the magistrate;
 - an under-trial prisoner during transit from jail to the court and back;
 - and a convict being transported from jail to the court and back.
- The law with regard to handcuffing was settled in 1980 when the Supreme Court of India, in *Prem Shankar Shukla vs Delhi Administration*, held that the only circumstance which validates incapacitation by irons is that otherwise there is no other reasonable way of preventing his escape.
- It said that where an arrestee or a convict can be prevented from escape by increasing security, such an increase is to be a norm rather than handcuffing.

On compensation

- The Court mandated that in case of handcuffing, the reasons for this have to be recorded in writing and it is the duty of the court to make inquiries with the person arrested as to whether he had been handcuffed or not and then approve or reject the reasons.
- Thus, irrespective of whether the person to be handcuffed is an accused or an under-trial prisoner or a convict, the principles governing handcuffing remain the same.
- However, if such a person is under the judicial custody of the court, the court's permission is required for handcuffing except under emergent circumstances.

Who should pay compensation?

- In *State of Maharashtra vs Ravikant S. Patil (1991)*, Bombay High Court held the Inspector of Police responsible for violation of Article 21, ordering him to pay ₹10,000 as compensation.
- However, the Supreme Court held that the police officer was not personally liable as he had acted in his official capacity.
- The top court modified the order and directed the state to pay the compensation.
- Therefore, the judgment of the Karnataka High Court as far as payment of compensation by the police

officer is concerned, does not appear to be in sync with the Supreme Court judgment.

Solutions

- If any malice is found behind the use of handcuffs, it needs to be dealt with strongly by the department.
- There cannot be a justifiable excuse for not mentioning the reasons for handcuffing in the case diary.
- The Supreme Court, in the Ravikant S. Patil (supra) case, had rightly said that the authorities concerned may, if they think it necessary, hold an inquiry and then decide on action against the police inspector.
- Therefore, the right approach would be to initiate disciplinary action against the errant officer under service conduct rules, rather than to order the payment of compensation.
- It would also be appropriate for State governments to review the mobility of the police, the requirement of additional manpower and technical gadgets periodically.

1.3 Appointment of Judges

Pointing out that the problem of pendency of cases is “intensifying” due to lack of sufficient number of judges, Chief Justice of India again points out the delay in appointment of judges

Pendency of cases in India

- Reasons for this include growth of the Indian economy, population, rising awareness about rights etc.
- In the absence of infrastructure and sufficient number of judges commensurate with the increasing workload, the problem is intensifying.
- Thus there is a need for transforming and upgrading the judicial infrastructure in India, as well as filling up judicial vacancies and augmenting the strength.

Appointment of HC Judges:

- Article 217 of the Constitution: It states that the Judge of a High Court shall be appointed by the President in consultation with the Chief Justice of India (CJI), the Governor of the State.
- In the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court is consulted.
- Consultation Process: High Court judges are recommended by a Collegium
- The proposal, however, is initiated by the Chief Justice of the High Court concerned in consultation with two senior-most colleagues.
- The recommendation is sent to the Chief Minister, who advises the Governor to send the proposal to the Union Law Minister.
- The Chief Justice of the High Court is appointed as per the policy of having Chief Justices from outside the respective States.
- The Collegium takes the call on the elevation.

1.4 Section 69A of IT Act, 2000

As Twitter initiated legal action against some of the government ordering it to take down certain content posted on the microblogging site, the focus is back on Section 69A of IT Act, 2000

Alleging disproportionate use of power by officials, the social media company moved the Karnataka High Court

against the Ministry of Electronics & Information Technology's order content-blocking orders issued under Section 69 (A) of the Information Technology Act, 2000.

IT Ministry had written to Twitter, asking it to comply with its orders by July 4 or lose its safe harbour protection under the intermediary rules.

Information Technology Act, 2000

- The Information Technology (IT) Act, 2000, governs all activities related to the use of computer resources.
- It covers all 'intermediaries' who play a role in the use of computer resources and electronic records.

Section 69 of the IT Act:

- It confers on the Central and State governments the power to issue directions to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource.

The grounds on which these powers may be exercised are:

- In the interest of the sovereignty or integrity of India, defence of India, the security of the state.
- Friendly relations with foreign states.
- Public order, or for preventing incitement to the commission of any cognizable offence relating to these.
- For investigating any offence.

Process of Blocking Internet Websites:

- Section 69A, for similar reasons and grounds (as stated above), enables the Centre to ask any agency of the government, or any intermediary, to block access to the public of any information generated, transmitted, received or stored or hosted on any computer resource.
- Any such request for blocking access must be based on reasons given in writing.

Intermediaries as per the IT Act 2000:

- Intermediary is defined in Section 2(1) (w) of the IT Act 2000.
- The term 'intermediaries' includes providers of telecom service, network service, Internet service and web hosting, besides search engines, online payment and auction sites, online marketplaces and cyber cafes.
- It includes any person who, on behalf of another, "receives, stores or transmits" any electronic record. Social media platforms would fall under this definition.

Obligations of Intermediaries under the Law:

- Intermediaries are required to preserve and retain specified information in a manner and format prescribed by the Centre for a specified duration.
- Contravention of this provision may attract a prison term that may go up to three years, besides a fine.
- When a direction is given for monitoring, the intermediary and any person in charge of a computer resource should extend technical assistance in the form of giving access or securing access to the resource involved.
- Failure to extend such assistance may entail a prison term of up to seven years, besides a fine.
- Failure to comply with a direction to block access to the public on a government's written request also attracts a prison term of up to seven years, besides a fine.

Liability of Intermediaries:

- Section 79 of the IT Act 2000 makes it clear that "an intermediary shall not be liable for any third-party information, data, or communication link made available or hosted by him".

- Third party information means any information dealt with by a network service provider in his capacity as an intermediary.
- This protects intermediaries such as Internet and data service providers and those hosting websites from being made liable for content that users may post or generate.
- Sections 79 also introduced the concept of “notice and take down” provision.
- It provides that an intermediary would lose its immunity if upon receiving actual knowledge or on being notified that any information, data or communication link residing in or connected to a computer resource controlled by it is being used to commit an unlawful act and it fails to expeditiously remove or disable access to that material.

Why has Twitter filed the lawsuit?

- It is learnt that in its filing, Twitter has claimed that many of the blocking orders are procedurally and substantively deficient under Section 69 (A) of the Act.
- This includes aspects such as not giving prior notice to users before taking down content posted by them.
- The company alleged that MeitY has failed to demonstrate how some of the content it wants taken down falls under the purview of Section 69 (A).
- The company has claimed that the basis on which multiple accounts and posts have been flagged by the Ministry are either “overbroad and arbitrary” or “disproportionate”

1.5 Foreign Exchange Management Act (FEMA)

Times Group’s Top Management Questioned by ED in FEMA Case

Foreign Exchange Management Act, 1999

- The legal framework for the administration of foreign exchange transactions in India is provided by the Foreign Exchange Management Act, 1999.
- Under the FEMA, which came into force with effect from 1st June 2000, all transactions involving foreign exchange have been classified either as capital or current account transactions.
- Current Account Transactions: All transactions undertaken by a resident that do not alter his / her assets or liabilities, including contingent liabilities, outside India are current account transactions.
- Example: payment in connection with foreign trade, expenses in connection with foreign travel, education etc.
- Capital Account Transactions: It includes those transactions which are undertaken by a resident of India such that his/her assets or liabilities outside India are altered (either increased or decreased).
- Example: investment in foreign securities, acquisition of immovable property outside India etc.

1.6 Zonal Council

Northern Zonal Council was held recently.

Three states and as many Union Territories discussed issues of river water sharing, safety of women, setting up fast-track courts, cyber security and the issue of strengthening rural banking with union Home Minister during a

meeting of the Northern Zonal Council in Jaipur.

Issues discussed

- Ministry of Home Affairs (MHA) asked the states to resolve the issues amicably and through discussion.
- Ministry stressed to take a cordial approach to the issue and find a time-bound solution.
- Discussion stressed that all stakeholders should come together to establish a strong cooperative mechanism for development, for which purpose the regional councils were created
- Meeting also stressed upon the States and Union Territories to conduct awareness campaigns on cyber-vigilance through various mediums
- It was also decided in the meeting that a committee chaired by the Union Home Secretary, along with all departments concerned and state governments, will prepare a strategy to deal with growing menace of cybercrime.

Zonal Council

- Zonal Councils are the statutory bodies.
- They are established by an Act of the Parliament – States Reorganisation Act of 1956.
- The act divided the country into five zones– Northern, Central, Eastern, Western and Southern and provided a zonal council for each zone.

While forming these zones, several factors have been taken into account which includes:

- The natural divisions of the country
- The river systems and means of communication
- The cultural and linguistic affinity
- The requirements of economic development, security and law and order
- In addition to the above mentioned Zonal Councils, a North-Eastern Council was created by a separate Act of Parliament, the North-Eastern Council Act of 1971.
- Its members include Assam, Manipur, Mizoram, Arunachal Pradesh, Nagaland, Meghalaya, Tripura and Sikkim.
- These are advisory bodies that make recommendations with regard to any matter of common interest in the field of economic and social planning between the Centre and States border disputes, linguistic minorities, inter-State transport or matters connected with the reorganisation of States.

Organizational Structure:

- Chairman: The Union Home Minister is the Chairman of each of these Councils.
- Vice Chairman: The Chief Ministers of the States included in each zone act as Vice-Chairman of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time.
- Members: Chief Minister and two other Ministers as nominated by the Governor from each of the States and two members from Union Territories included in the zone.
- Advisers: One person nominated by the NITI Aayog for each of the Zonal Councils, Chief Secretaries and another officer/Development Commissioner nominated by each of the States included in the Zone.

Functions of the Councils:

- Any matter of common interest in the field of economic and social planning,
- Any matter concerning border disputes, linguistic minorities or inter-State transport,
- Any matter connected with or arising out of, the reorganization of the States under the States Reorganisation Act.

1.7 PM CARES Fund

The Delhi High Court stayed a Central Information Commission (CIC) order directing the Income Tax Department to provide copies of all documents submitted by PM CARES Fund while applying for exemption under the Income Tax Act, and file notings granting the approval.

Hearing a petition by the department against the CIC order, the court took note of a submission that the question whether PM CARES Fund is a public authority is currently pending before a division bench of the court.

Background

- The RTI applicant, had sought the information from I-T Department in May 2020.
- While applicant's RTI application was rejected by the authorities on the ground that PM CARES Fund is not covered under the RTI Act, the CIC said the issue regarding definition of public authority has been unnecessarily dragged into the matter, as the applicant has not filed the RTI application with PM Cares Fund but with the public authority itself.
- It directed the I-T Department to disclose copies of documents submitted in the exemption application by PM CARES Fund, and of file notings granting the approval.
- The I-T Department argued that the CIC has failed to consider the statutory bar contained in Section 138(1)(b) of IT Act, which provides the authorities the discretion whether information relating to any assessee should be disclosed in public interest or not.
- I-T dept also stated additionally, there is a further bar, which states that his decision will be final and shall not be called into question in any court of law.
- Wherever a statute provides for such a restriction, the courts have consistently held that the issue which is in the exclusive domain of the authority specified in the statute, the same issue cannot therefore be open to examination by another statutory authority under another legislation being the RTI Act 2005 herein.

Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund)

- Established in March 2020
- It has been registered as a Public Charitable Trust.
- The trust deed of PM CARES Fund has been registered under the Registration Act, 1908.
- Prime Minister is the ex-officio Chairman of the PM CARES Fund and Minister of Defence, Minister of Home Affairs and Minister of Finance, Government of India are ex-officio Trustees of the Fund.
- The Chairperson of the Board of Trustees shall have the power to nominate three trustees to the Board of Trustees who shall be eminent persons in the field of research, health, science, social work, law, public administration and philanthropy.

Funding:

- The fund consists entirely of voluntary contributions from individuals/organisations and does not get any budgetary support.

Exemptions:

- Donations to PM CARES Fund would qualify for 100% exemption under the Income Tax Act, 1961.
- Donations to PM CARES Fund will also qualify to be counted as Corporate Social Responsibility (CSR) expenditure under the Companies Act, 2013
- PM CARES Fund has also got exemption under the FCRA and a separate account for receiving foreign donations has been opened.

1.8 Retirement age of Judges of Higher Judiciary

Union Minister for Law and Justice told the Parliament that there is no proposal to increase the retirement age of Supreme Court and High Court judges.

The Constitution (114th Amendment) Bill was introduced in 2010 to increase the retirement age of high court judges to 65. However, it was not taken up for consideration in Parliament and lapsed with the dissolution of the 15 Lok Sabha

According to Article 124(2) of the Constitution, the age of retirement for Supreme Court judges is 65.

As per Article 217(1) of the Constitution, High Court judges retire at 62.

Why should it be increased?

- Pendency of cases
- As of September 15, 2021, over 5 crore cases were pending across all courts in India. Of these, 87.6% cases were pending in subordinate courts and 12.3% in High Courts.
- The Supreme Court's statistics show that 70,362 cases are pending with it as of April 1, 2022.

Judge-population ratio

- The judge-population ratio in India is among the lowest with 21.03 as on December 31 2021, while In 2016, the K. had 51 judges per million people, the U.S. had 107, Australia had 41, and Canada had 75.

Other appointments

- Moreover, legislations provide for retired High Court and Supreme Court judges to man tribunals till the age of 70 as chairman and 65 as members. There is no reason why these judges should be retired so early.

Recommendations

- In 1974, the 58th report of the Law Commission recommended bringing parity between age of retirement of judges of High Court and Supreme Court.
- In 2002, Justice Venkatchaliah Report – the report of National Commission to review the working of the Constitution – also recommended that the age of retirement should be increased for judges of High Courts and Supreme Court to 65 and 68, respectively.

Other countries

- A retirement age of around 70 for judges is commonplace in most Western liberal democracies. Some of them even opt for tenures for life.
- In the Supreme Court of the United States, and in constitutional courts in Austria and Greece, judges are appointed for life.
- In Belgium, Denmark, Ireland and Australia, the retirement age for judges is 70 years.

Impacts

- It will address the problem of mounting arrears.
- It will ensure the continued presence of a strong talent pool of experienced judges.
- Faster delivery of justice
- It will render post-retirement assignments unattractive and, as a consequence, strengthen the rule of law and the independence of the judiciary.

Increasing the age of Judges will certainly help in addressing many issues. The retirement age of judges of the Supreme Court and High Courts could be increased, but with the option of quitting before reaching the age of

superannuation – a practice prevailing in Zimbabwe, where a top court judge is appointed to retire at 65 years but can opt to continue till 70.

1.9 Citizenship

In 2021, over 1.6 lakh Indians renounced citizenship

Over 1.6 lakh Indians renounced their citizenship in 2021, highest in the past five years, according to information provided by the Ministry of Home Affairs (MHA) in the Lok Sabha.

Over 78,000 Indians acquired U.S. citizenship, the highest among all other countries, by giving up Indian citizenship.

India does not allow dual citizenship. As many as 362 Indians living in China also acquired Chinese citizenship.

Citizenship

Citizenship signifies the relationship between individual and state.

Like any other modern state, India has two kinds of people—citizens and aliens. Citizens are full members of the Indian State and owe allegiance to it. They enjoy all civil and political rights.

Constitutional Provisions

- Citizenship is listed in the Union List under the Constitution and thus is under the exclusive jurisdiction of Parliament.
- The Constitution does not define the term ‘citizen’ but details of various categories of persons who are entitled to citizenship are given in Part 2 (Articles 5 to 11).
- Unlike other provisions of the Constitution, which came into being on January 26, 1950, these articles were enforced on November 26, 1949 itself, when the Constitution was adopted.
- Article 5: It provided for citizenship on commencement of the Constitution.
- All those domiciled and born in India were given citizenship.
- Even those who were domiciled but not born in India, but either of whose parents was born in India, were considered citizens.
- Anyone who had been an ordinary resident for more than five years, too, was entitled to apply for citizenship.
- Article 6: It provided rights of citizenship of certain persons who have migrated to India from Pakistan.
- Article 6 laid down that anyone who migrated to India before July 19, 1949, would automatically become an Indian citizen if either of his parents or grandparents was born in India.
- But those who entered India after this date needed to register themselves.
- Article 7: Provided Rights of citizenship of certain migrants to Pakistan.
- Those who had migrated to Pakistan after March 1, 1947 but subsequently returned on resettlement permits were included within the citizenship net.
- Article 8: Provided Rights of citizenship of certain persons of Indian origin residing outside India.
- Article 9: Provided that if any person voluntarily acquired the citizenship of a foreign State will no longer be a citizen of India.
- Article 10: It says that every person who is or is deemed to be a citizen of India under any of the foregoing provisions of this Part shall, subject to the provisions of any law that may be made by Parliament, continue to be such citizen.
- Article 11: It empowers Parliament to make any provision with respect to the acquisition and termination

of citizenship and all matters relating to it.

Citizenship Act and Amendments

- The Citizenship Act, 1955 provides for the acquisition and termination of Indian citizenship.
- Acquisition and Determination of Indian Citizenship
- There are four ways in which Indian citizenship can be acquired: birth, descent, registration and naturalisation. The provisions are listed under the Citizenship Act, 1955.

Termination

According to the Act, citizenship can be revoked in three ways:

- Renunciation: Any Indian citizen who is also a national of another country who renounces his Indian citizenship in the prescribed manner through a declaration ceases to be an Indian citizen.
- When a male person loses his Indian citizenship, all of his minor children lose their Indian citizenship as well.
- However, such a child may become an Indian citizen within one year of reaching full age by making a declaration of his intention to reclaim Indian citizenship.
- Termination: An Indian citizen's citizenship can be revoked if he or she knowingly or voluntarily adopts the citizenship of another country.
- Deprivation: In some cases, the Indian government may deprive a person of his citizenship. However, this does not apply to all citizens.
- The act has been amended four times — in 1986, 2003, 2005, and 2015.

Citizenship (Amendment) Act, 2019

- The CAA was passed by Parliament on December 11, 2019 and the Act was notified on December 12.
- In January 2020, the Ministry notified that the Act will come into force from January 10, 2020.
- It amended the Citizenship Act, 1955 by providing a pathway to Indian citizenship for persecuted religious minorities from Afghanistan, Bangladesh and Pakistan who are Hindus, Sikhs, Buddhists, Jains, Parsis or Christians, and arrived in India before the end of December 2014.
- The law does not grant such eligibility to Muslims from these Muslim-majority countries.
- The act was the first time that religion had been overtly used as a criterion for citizenship under Indian law and attracted global criticism
- It exempts the members of the six communities from any criminal case under the Foreigners Act, 1946 and the Passport Act, 1920.
- The two Acts specify punishment for entering the country illegally and staying here on expired visas and permits.

1.10 Inner-party democracy

Unlike their counterparts in the U.K., MPs in India have no autonomy to question and challenge their party leadership

The ousting of Boris Johnson as leader of the British Conservative Party is the latest in a series of coups periodically mounted by the party's MPs to get rid of a leader who has become an electoral or political liability.

If there is a sense that the leader is no longer acceptable to the country, then a well-oiled machine springs into action to protect the party's electoral gains by providing fresh leadership.

In India

- In India, where the PM exercises absolute authority over party MPs, whose ability to even diverge slightly from the official government line on routine policy matters is almost non-existent.
- The PM's power is strengthened by India's unique anti-defection set-up, where uncooperative MPs who do not manage to carry two-thirds of their colleagues with them can always be disqualified.
- Also that PM or CM at the State level are chosen by legislators — the choice is invariably made by a party high command, and then submitted to MPs/MLAs to be rubber stamped.
- Our system allows voters to be heard once every five years.
- The underlying assumption is that, in the interim, their voice is articulated through their representatives.
- It is time for India to seriously consider empowering its elected representatives, to ensure accountability for party leadership.
- MPs in the U.K. are able to act boldly because they do not owe their nomination to the party leader, but are selected by the local constituency party.
- In India, however, it is the party leadership that decides candidates, with an informal consultation with the local party.
- Neither do MPs in the U.K. stand a risk of disqualification if they speak out against the leader, a threat perpetuated in India through the anti-defection law.
- These factors are the biggest stumbling blocks towards ensuring inner-party democracy in India.

Way Forward

- Short Term
- Adopt Best Practice
- A workable model can be borrowed from the U.K. where individual Conservative MPs write to the committee expressing that they have “no confidence” in their leader.
- If a numerical or percentage threshold is breached, an automatic leadership vote is triggered, with the party leader forced to seek a fresh mandate from the parliamentary party.
- The only way such a model would work is if an exception is made to the anti-defection law, which is at present misused by party leaders hoping to cling on to power.

Long Term

- The control over candidates must shift from central party leaders to local party members.

1.11 Minority status

Supreme Court says that Minority status of religious, linguistic communities is State-dependent.

It held that every person in India can be a minority in one State or the other.

Minority status of religious and linguistic communities is “State-dependent”.

It says a religious or linguistic community which is a minority in a particular State can claim protection and right to run own educational institutions under Articles 29 and 30.

Background

- The court was hearing a petition filed by a Mathura resident, complaining that followers of Judaism, Bahaism and Hinduism, who are the real minorities in some states cannot establish and administer educational institutions of their choice because of non-identification of ‘minority’ at State level, thus

jeopardising their basic rights guaranteed under Articles 29 and 30.

- The petition has argued that the recognition of Muslims, Christians, Sikhs, Buddhists and Parsis nationally by the Centre as 'minorities' ignored the fact that religious communities like Hindus were "socially, economically, politically non-dominant and numerically inferior" in several States.
- It pointed out that Hindus were a mere 1% in Ladakh, 2.75% in Mizoram, 2.77% in Lakshadweep, 4% in Kashmir, 8.74% in Nagaland, 11.52% in Meghalaya, 29% in Arunachal Pradesh, 38.49% in Punjab and 41.29% in Manipur.
- The petition also challenged Section 2(c) of the National Commission for Minorities (NCM) Act 1992, which gave "unbridled power" to the Centre to notify minorities in defiance of the Supreme Court's 11-judge Bench judgment in T.M.A Pai case
- Judgements related to determination on minority status

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'.

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.

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 Preserving democracy in India

The presence of a vigilant Opposition is necessary not just for a vibrant democracy but for its very survival

Parliamentary democracy

- The Indian Constitution adopted the parliamentary system
- The rationale quoted by R. Ambedkar for this is – A democratic executive must satisfy two conditions –
- It must be a stable executive and
- It must be a responsible executive.
- Unfortunately it has not been possible so far to devise a system which can ensure both in equal degree.

Role of Opposition

- Parliamentary democracy does not envisage a condition where a one party-government becomes permanent.
- The presence of a vigilant Opposition is necessary not just for a vibrant democracy but for its very survival.
- When the Opposition criticises the government or carries on an agitation to arouse public opinion against a party's misdeeds, it is performing a duty that is assigned by the Constitution.
- Without an effective Opposition, democracy will become dull and legislature will become submissive.
- The public will then think that the legislature is a sham and is unable to perform its functions and will lose interest in the functioning of Parliament.

Failed Anti-defection law

- Encouraging defections from the parties in power in States will sound the death knell for democracy.
- The whip system is part of the established machinery of political organisation in the House and does not infringe on a member's rights or privilege in any way.
- That is why some political thinkers have recognised as an additional device the 'theory of recall,' so that a member whose personal behaviour falls below standards expected of his constituents goes back and seek their approval.
- This power is particularly apt when a member shows disloyalty to his party but declines to resign from his seat and to fight an immediate by-election. The anti-defection law was supposed to be the justification underlying the power of recall And the law failed.

Reasons

- The law does not provide a time-frame within which the presiding officer has to decide a defection case.
- There have been many instances where a Speaker has misused this in not determining the case of a defecting MLA until the end of the legislature term.
- Parties often sequester MLAs in resorts to prevent them from changing their allegiance or getting poached by a rival party.
- Recent examples are Maharashtra (2019) & (2022), Karnataka (2019 and 2018), and Tamil Nadu (2017).

Misuse of Powers

- Recent trend of the use of draconian powers, especially the Prevention of Money Laundering Act, Investing agencies against Opposition members

Way Forward

- Political parties, the judiciary and civil society must take steps to ensure that democracy does not fail.
- The Opposition must be tolerated because if it is left for the party in power to decide what is healthy and unhealthy criticism, then every criticism of the latter will be treated as unhealthy.
- At the same time, while the Opposition must be credible and strong, it is for the Opposition to make itself credible and strong.

Learn from best practices

- In England, where the parliamentary system prevails, the assessment of responsibility of the executive is both daily and periodic.
- The daily assessment is done by members of Parliament, through questions, resolutions, no-confidence motions, adjournment motions and debates on addresses.
- Periodic assessment is done by the electorate at the time of the election.

1.13 Namsai Declaration

Assam, Arunachal CMs sign pact to resolve border dispute

The two states signed an agreement (Namsai Declaration) to end border issues between the two states and decided to “restrict” the number of disputed villages to 86 instead of 123.

Chief Ministers of the two North-eastern neighbours met at Namsai in Arunachal Pradesh and signed the agreement.



Background

- The two states share an 804.1 km-long border.
- The grievance of Arunachal Pradesh which was made a union territory in 1972 is that several forested tracts in the plains that had traditionally belonged to hill tribal chiefs and communities were unilaterally transferred to Assam.

- After Arunachal Pradesh achieved statehood in 1987, a tripartite committee was appointed which recommended that certain territories be transferred from Assam to Arunachal.
- Assam contested this and the matter is in the Supreme Court.

1.14 Election of Vice President

Both the ruling party and opposition party have selected their Vice Presidential election candidate.

The election is scheduled for August 6, 2022.

Vice President

- The Vice President is the second highest constitutional office in India.
- The Vice President is the ex-officio Chairperson of the Council of States/Rajya Sabha.

Electoral College:

- As per Article 66 of the Constitution of India, the Vice-President is elected by the members of the Electoral College.
- He is elected in accordance with the system of proportional representation by means of the single transferable vote and the voting at such election shall be by secret ballot

Electoral College consists of:

- Elected and nominated members from Lok Sabha and Rajya Sabha only

Qualification for the Election of The Vice-president

- He should be a citizen of India.
- He should be minimum 35 years of age.
- He should have qualified for the election as a member of the Rajya Sabha.
- He should not hold any office of profit under the Union government or any state government or any local authority or any other public authority.
- For the nomination for election to the office of Vice-President, a candidate must be subscribed by at least 20 electors from Members of Parliament as proposers and 20 electors as seconders.

Conditions of Office

- He should not be a member of either House of Parliament or a House of the state legislature.
- In the event that any such individual is chosen Vice-President, he is considered to have emptied his seat in that House on the date on which he enters upon his office as Vice-President.
- He shouldn't hold any other office of profit.

Terms of Office

- The Vice President holds office for five years from the date of his inauguration.
- The Vice President can resign at any time by sending a letter of resignation to the President.
- He can hold office beyond his terms of five years until his successor takes office.
- He also has the right to be re-elected to this position for any number of terms.

Vacancy

A vacancy in the Vice-President's office can occur in any of the following ways:

- When he completed the tenure of five years.
- When he resigned.
- When he was removed by parliament resolution.
- When he died while serving the office.
- When his election is declared void and become disqualified to hold office.

Power and Functions

- The vice-President acts as the ex-officio chairman of the Rajya Sabha and his powers and functions are similar to those of the speaker of the Lok Sabha.
- In the event of the president's inability to work due to any reason or a vacancy in the office of the president due to any reason, he can act as the president. The office was created to maintain continuity in the Indian state; however, this is only for 6 months till the next president is elected.
- The Vice President while discharging duty as President should not preside over Rajya Sabha.

Removal of Vice-president

- A formal impeachment like in the case of the President of India is not required for the removal of Vice-President
- VP can be removed from his office by a resolution raised only in Rajya sabha, passed by effective majority & agreed upon by simple majority in Lok sabha.
- Prior to passing the resolution in Rajya sabha, a 14 days notice should be served to the Vice-President.

1.15 Municipal finances

The health of municipal finances is a critical element of municipal governance which will determine whether India realises her economic and developmental promise.

Three decades since 74th CAA, 1992 for evolution of powers to urban local bodies (ULBs), growing fiscal deficits, constraints in tax base expansion, and weakening of institutional mechanisms that enable resource mobilisation remain challenges to ULBs.

Revenue losses after implementation of the Goods and Services Tax (GST) and the pandemic have exacerbated the situation.

Problems

Share of own revenue

- The ULBs' own sources of revenue were less than half of their total revenue, with large untapped potential.
- The ULBs' key revenue sources are taxes, fees, fines and charges, and transfers from Central and State governments, which are known as inter-governmental transfers (IGTs).
- The share of own revenue to total revenue is an important indicator of ULBs' fiscal health and autonomy.
- This ratio reflects the ULBs' ability to use the sources they are entitled to tap, and their dependency on IGTs.
- Cities with a higher share of own revenue are more financially self-sustaining.

Dependent on IGTs

- Many ULBs were highly dependent on IGTs.
- Most ULBs were highly dependent on external grants — between 2012-13 and 2016-17, IGTs accounted for about 40% of the ULBs' total revenue.
- Stable and predictable IGTs are particularly important since ULBs' own revenue collection is inadequate.

Tax revenue depends on the size

- Tax revenue is the largest revenue source for larger cities, while smaller cities are more dependent on grants.
- There are considerable differences in the composition of revenue sources across cities of different sizes.

Operations and maintenance (O&M)

- O&M expenses are on the increase but still inadequate.
- O&M expenses are crucial for the upkeep of infrastructure and for maintaining quality of service delivery.
- The share of O&M expenses in ULBs' total revenue expenditure increased from about 30% in 2012-13 to about 35% in 2016-17.
- While the expenses were on the rise studies indicate that they remained inadequate.
- Thus the scale of municipal finances in India is undoubtedly inadequate.

Way Forward

- Tapping into property taxes, other land-based resources and user charges are all ways to improve the revenue of a ULB.
- IGTs assume significance in the fiscal composition of ULBs, and a stable support from Central and State governments are crucial till ULBs improve their own revenues.
- Measures need to be made to also cover O&M expenses of a ULB for better infrastructure and service.

1.16 The Bail Law

Recently, the Supreme Court underlined that “there is a pressing need” for reform in the law related to bail and called on the government to consider framing a special legislation on the lines of the law in the United Kingdom.

What is the ruling about?

- A two-judge Bench of Supreme Court issued certain clarifications to an older judgment delivered in July 2021 on bail reform (Satender Kumar Antil vs CBI).
- Referring to the state of jails in the country, where over two-thirds lodged are undertrials, the Supreme Court underlined that arrest is a draconian measure that needs to be used sparingly.
- Of this category of prisoners, majority of them are poor and illiterate and also would include women.
- The court also linked the idea of indiscriminate arrests to magistrates ignoring the rule of “bail, not jail” to a colonial mindset.

What is the law on bail?

- The CrPC does not define the word bail but only categories offences under the Indian Penal Code as ‘bailable’ and ‘non-bailable’.
- The CrPC empowers magistrates to grant bail for bailable offences as a matter of right.
- Non-bailable offences are cognisable, which enables the police officer to arrest without a warrant.

- In such cases, a magistrate would determine if the accused is fit to be released on bail.

And what is the UK law?

- The Bail Act of the United Kingdom, 1976, prescribes the procedure for granting bail.
- A key feature is that one of the aims of the legislation is reducing the size of the inmate population.
- The law also has provisions for ensuring legal aid for defendants.
- The Act recognises a “general right” to be granted bail.
- For rejecting bail, the prosecution must show that grounds exist for believing the defendant on bail would not surrender to custody, would commit an offence while on bail, or would interfere with witnesses or otherwise obstruct the course of justice; unless the defendant must be detained for his own welfare or protection; or in other circumstances.

What has the Supreme Court held on reforms?

- The court’s ruling is in the form of guidelines, and it also draws the line on certain procedural issues for the police and judiciary.

SEPARATE LAW FOR BAIL:

- The court underlined that the CrPC, despite amendments since Independence, largely retains its original structure as drafted by a colonial power over its subjects.
- The court made this point to signal that despite its rulings, structurally, the Code does not account for arrest as a fundamental liberty issue in itself.
- It also highlighted that magistrates do not necessarily exercise their discretionary powers uniformly.
- The court’s solution on this is the framing of a separate law that deals with the grant of bail.

INDISCRIMINATE ARRESTS:

- The court noted that the culture of too many arrests, especially for non-cognisable offences, is unwarranted.
- It emphasised that even for cognisable offences, arrest is not mandatory and must be “necessitated”.
- Such necessity is drawn to prevent the committing of any further offense, for a proper investigation, and to prevent him/her from either disappearing or tampering with the evidence.
- It held that lower courts must satisfy that these conditions are met and any non-compliance would entitle the accused for grant of bail.

BAIL APPLICATION:

- There need not be any insistence of a bail application while considering the application under certain Section of the Code.
- These sections relate to various stages of a trial where a magistrate can decide on release of an accused.
- The Supreme Court held that in these circumstances, magistrates must routinely consider granting bail, without insisting on a separate bail application.

DIRECTION TO STATES:

- The SC also directed all state governments and Union Territories to facilitate standing orders to comply with the orders and avoid indiscriminate arrests.

1.17 World Press Freedom Index

India is ranked at 150 among 180 nations in the World Press Freedom Index 2022 report.

- The 20th World Press Freedom Index was published by Reporters Without Borders (RSF).
- Norway (1st) Denmark (2nd), Sweden (3rd) Estonia (4th) and Finland (5th) grabbed the top positions, while North Korea remained at the bottom of the list of the 180 countries and territories ranked by the Reporters Without Borders

Scoring Criteria:

- The Index's rankings are based on a score ranging from 0 to 100 that is assigned to each country or territory, with 100 being the best possible score (the highest possible level of press freedom) and 0 the worst.

Evaluation Criteria:

- RSF developed a new methodology to compile the 20th World Press Freedom Index.
- The new methodology defines press freedom as "the effective possibility for journalists, as individuals and as groups, to select, produce and disseminate news and information in the public interest, independently from political, economic, legal and social interference, and without threats to their physical and mental safety."
- In order to reflect press freedom's complexity, five new indicators are now used to compile the Index: the political context, legal framework, economic context, sociocultural context, and security.

The Indian Government's Response

- The report described India as "one of the world's most dangerous countries for the media" and noted that "journalists are exposed to all kinds of physical violence, including police violence, ambushes by political activists and deadly reprisals by criminal groups or corrupt local officials."
- Indian government does not agree with the conclusions drawn by the organisation for various reasons, including "very low sample size, little or no weightage to fundamentals of democracy, adoption of a methodology which is questionable and non-transparent".
- Government is committed to ensure the right to freedom of speech and expression enshrined under Article 19 of the Constitution.
- The Press Council of India (PCI) has been set up under the Press Council Act, 1978 mainly to preserve the freedom of the press and improve the standards of newspapers and news agencies in the country PCI looks into the complaints filed 'by the Press' regarding curtailment of press freedom.
- Index Monitoring Cell (IMC)
- Set up by: Information and Broadcasting Ministry
- Objective: To improve India's ranking in the World Press Freedom Index and to evolve an objective yardstick to gauge media freedom.
- It is a 15-member committee.
- It has four journalists and government functionaries.
- Chaired by: Kuldeep Singh Dhatwalia, Principal Director General of the Press Information Bureau

1.18 Guidelines on arrests and bail orders

A division bench of the Supreme Court of India in Satender Kumar Antil vs CBI laid down fresh guidelines on arrests

in order to have strict compliance with the provisions of Section 41 and 41A of the Code of Criminal Procedure, 1973.

- These guidelines are in addition to the earlier ones which the apex court had already laid down in the case of Arnesh Kumar vs State of Bihar (2014).
- The Court in the present case has also emphasised upon separate legislation on the law relating to bail and has also issued specific directions in this regard.

How is a person arrested?

- Arrest in its simplest form is defined as, “when one is taken and restrained from his liberty”.
- The police has wide powers to arrest under the Code of Criminal Procedure, 1973.
- With regard to the Satender Kumar Antil case, the Court has issued specific directions and has also called for a compliance report.
- The Court said that the investigating agencies and their officers are duty-bound to comply with the mandate of Section 41 and 41A and the directions issued in the Arnesh Kumar case.

What are Sections 41 and 41A of the Code of Criminal Procedure?

- Section 41 of the Code provides for the circumstances in which arrest can be made by the police without a warrant and mandates for reasons to be recorded in writing for every arrest and non-arrest.
- Section 41A of the Code provides for the requirement of a notice to be sent by the investigating agencies before making an arrest in certain conditions prescribed by the Code. The Court stated that any dereliction on the part of the agencies has to be brought to the notice of the higher authorities by the court followed by appropriate action.
- The Bench further said that the courts will have to satisfy themselves on the compliance of Section 41 and 41A.
- Any non-compliance would entitle the accused for grant of bail.

What are the guidelines with respect to bail?

- The Court has made a specific observation in the form of an obiter that the Government of India may consider the introduction of a separate enactment, in the nature of a Bail Act, so as to streamline the grant of bails.
- As part of the new guidelines, it is clearly stated that there need not be any insistence on a bail application while considering the application under Sections 88, 170, 204 and 209 of the Code.
- The Court said that “there needs to be a strict compliance of the mandate laid down in the judgment of this court in Siddharth” (Siddharth vs State of U.P., 2021).
- It is a clear direction of the Court that bail applications ought to be disposed of within a period of two weeks except if the provisions mandate otherwise
- The Court also said that “applications for anticipatory bail are expected to be disposed of within a period of six weeks with the exception of any intervening application”.

What steps need to be taken for compliance of these orders?

- The State and Central governments will have to comply with the directions issued by the Court from time to time with respect to the constitution of special courts.
- The High Court in consultation with the State governments will have to undertake an exercise on the need for special courts.
- The vacancies in the position of Presiding Officers of the special courts will have to be filled up

expeditiously.

What about undertrial prisoners?

- The High Courts have been directed by the apex court to identify undertrial prisoners who cannot comply with bail conditions.
- After doing so, appropriate action will have to be taken in the light of Section 440 of the Code, facilitating their release.
- Under Section 440, the amount of bond shall not be excessive, and high courts and sessions courts may reduce the amount prescribed by the magistrate or a police officer.
- An exercise will have to be done similarly to comply with the mandate of Section 436A of the Code, under which a person imprisoned during investigation or trial shall be released on bail on completion of half of the jail term prescribed for that offence.

2. International Relations

2.1 India-UAE relations

Prime Minister visit to the UAE on June 28 was his fourth visit, given the fact that no Indian PM had visited the UAE for 34 years since the visit of Indira Gandhi in 1981, the transformation in India's engagement with this Gulf state has been quite extraordinary.

India-UAE relations

- India and the UAE established diplomatic relations in 1972.
- India and United Arab Emirates (UAE) enjoy strong bonds of friendship based on age-old cultural, religious and economic ties between the two nations.

Economic Co-operation

- 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
- The UAE's investment in India is estimated to be around U.S. \$11.67 billion, which makes it the ninth biggest investor in India.
- Under India's revamped FTA strategy, the Government has prioritised at least six countries/regions to deal with, in which the UAE figures at the top of the list for an early harvest deal (or Interim Trade Agreement)
- Recently, the Comprehensive Economic Partnership Agreement (CEPA) between India and the United Arab Emirates (UAE) was signed.
- CEPA provides for an institutional mechanism to encourage and improve trade between the two countries.
- Energy Partner
- The UAE accounts for 8 percent of India's oil imports and was fifth largest supplier of crude oil to India.
- Indian Diaspora
- Around 3 million Indians are living harmoniously in the UAE.
- The remittances from the UAE in the first half of 2020 accounted for US \$21 billion.

India's West Asia policy:

- The UAE occupies a key place in India's West Asia policy.
- The high-level visit from both sides has given a new impetus to this partnership.

Strategic Importance

- The UAE, due to its strategic location, has emerged as an important economic centre in the world.
- In 2017 the two sides signed the agreement on Comprehensive Strategic Partnership (CSP).
- The region is home to important strait like Strait of Hormuz – which plays important role in ensuring energy security of east Asia

Space Cooperation

- Space cooperation between India and the UAE gained quick momentum during Prime Minister visit to the Emirates in 2015.
- Together, the two space agencies have developed the nano-satellite, Nayif-1, which was launched from

the Satish Dhawan Space Centre, Sriharikota in India.

- The two countries are likely to work together on Emirates' 'Red planet Mission'.
- Co Operation at Multilateral Forums like United Nations, West Asia Quad that includes India, Israel, UAE and USA

Challenges

Non Tariff Barriers (NTBs):

- Non-Tariff Measures (NTMs) have mostly been covered by Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT).
- The UAE has 451 SPS notifications and 534 TBT notifications.
- The SPS notifications are mainly related to live poultry, meat, and processed food. In addition, the TBT notifications are mainly related to fish, food additives, meat, rubber, electrical machinery, etc.
- These measures hamper India's exports to UAE.

Arab – Iran Conflict:

- The differences between Iran and the Arab world hinder India's engagement in the Middle-east region. Balancing the relationship sometimes results in reluctance of some strategic agreements.

Kafala System:

- The inhuman conditions imposed by the Kafala system on immigrants sometimes create differences between the two countries.

Growing Intolerance in India:

- The recent crack caused due comments on Prophet Mohammed by members of ruling party spoils the positive atmosphere between two countries.

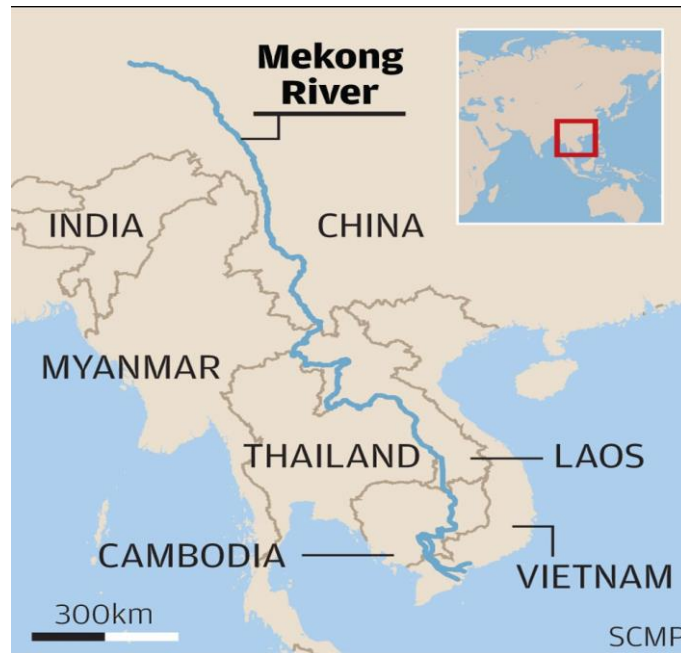
Way forward

- India should take steps to fight growing intolerance in the country and make sure that such incidents do not affect its relationship with other countries
- The countries should focus on completing their MOUs in order to take their relationship to the next level.
- They should establish more strategic dialogues between them like the 2+2 dialogue.
- India-UAE must try to bring more transparency and predictability in the use of NTBs so that their compliance becomes less cumbersome.
- In recent years, the UAE, through its 'Vision 2021', has sought to diversify its economy and reduce its dependency on oil. This provides an opportunity for India to engage with it in new areas of renewable energy, start-ups, fintech, etc.
- Shared economic visions and geopolitical outlooks have spurred the two sides to seek to expand cooperation across multiple domains. Both nations should come together to further engage with each other, bilaterally as well as on multi-lateral fora, based on mutual trust and confidence. The recent visits by high delegation have created a fresh opportunity for even greater India-UAE coordination and cooperation.

2.2 Lancang-Mekong Cooperation

Myanmar's military government hosted the first high-level regional meeting since the Army took power last year with China's Foreign Minister and counterparts from Mekong Delta nations.

- The delegations met at the Lancang-Mekong Cooperation group meeting held under the theme "Solidarity for Peace and Prosperity" in the central city of Bagan, a UNESCO World Heritage site.
- China is Myanmar's biggest trading partner and an old ally.
- Beijing has invested billions of dollars in Myanmar's mines, oil and gas pipelines and other infrastructure and is its major arms supplier, together like Russia.



Lancang-Mekong Cooperation

- Lancang-Mekong Cooperation is a multilateral format established in 2016 for cooperation between the riparian states of the Lancang River and Mekong River.
- The Lancang is the part of the Mekong that flows through China.
- Cambodia, Laos, Myanmar, Vietnam and Thailand are five downstream countries of the Mekong River.
- The central purpose of the format is for China to manage water flow from its hydropower dams with the other riparian states.
- LMC Special Fund was created in 2016 to aid in small and medium-sized projects by the Lancang-Mekong countries.

2.3 India-Australia Critical Minerals Investment Partnership

India and Australia decided to strengthen their partnership in the field of projects and supply chains for critical minerals.

Australia confirmed that it would commit a \$5.8 million to the three-year India-Australia Critical Minerals Investment Partnership.

What are critical minerals?

- Critical minerals are elements that are the building blocks of essential modern-day technologies, and are at risk of supply chain disruptions.
- These minerals are used everywhere from making mobile phones, computers to batteries, electric vehicles and green technologies like solar panels and wind turbines.
- It mostly include graphite, lithium and cobalt, which are used for making EV batteries; rare earths that are used for making magnets and silicon which is a key mineral for making computer chips and solar panels.

Why is this resource critical?

- As countries around the world scale up their transition towards clean energy and digital economy, these critical resources are key to the ecosystem that fuels this change.
- Any supply shock can severely imperil the economy and strategic autonomy of a country over-dependent on others to procure critical minerals.
- But these supply risks exist due to rare availability, growing demand and complex processing value chain.
- Many times the complex supply chain can be disrupted by hostile regimes, or due to politically unstable regions.

What is the China ‘threat’?

- According to the 2019 USGS Mineral Commodity Summaries report, China is the world’s largest producer of 16 critical minerals.
- China, according to a report by the International Energy Agency, is responsible for some 70% and 60% of global production of cobalt and rare earth elements, respectively, in 2019.
- The level of concentration is even higher for processing operations, China’s share of refining is around 35% for nickel, 50-70% for lithium and cobalt, and nearly 90% for rare earth elements.
- It also controls cobalt mines in the Democratic Republic of Congo, from where 70% of this mineral is sourced.
- In 2010, China suspended rare earth exports to Japan for two months over a territorial dispute.
- The decision made the market prices of RREs jump anywhere between 60% to 350%.

What are countries around the world doing about it?

USA

- After reviewing the vulnerabilities in its critical minerals supply chains and found that an over-reliance on foreign sources US has shifted its focus on expanding domestic mining, production, processing, and recycling of critical minerals and materials.

India

- India has set up KABIL or the Khanij Bidesh India Limited, a joint venture of three public sector companies, to ensure a consistent supply of critical and strategic minerals to the Indian domestic market.
- Australia’s Critical Minerals Facilitation Office (CMFO) and KABIL had recently signed an MoU aimed at ensuring reliable supply of critical minerals to India.

United Kingdom

- The UK recently unveiled its new Critical Minerals Intelligence Centre to study the future demand for and supply of these minerals.

Other Countries

- In June last year, the US, Canada and Australia had launched an interactive map of critical mineral deposits with an aim to help governments to identify options to diversify their critical minerals sources.

2.4 Multilateralism

In today's world with the multilateral arrangements like BRICS, Quad, G7 etc the exchange of ideas with world leaders, seeking common ground on burning issues and recalibrating our policy accordingly are at the heart of diplomacy

But at a time when the world is trying to grapple with the impact of unprecedented problems, the various intergovernmental organisations and groupings, which are undergoing fundamental changes, may not be fertile places for building peace.

Perils of Multilateralism

BRICS

- The composition of the group had its own contradictions right from the beginning.
- It had two permanent members of the Security Council together with three aspirants to permanent membership.
- The fundamental question of support for the three countries to secure permanent membership was fossilised on China's position that the role of the developing countries should be enhanced, implying that there shall be no expansion of the permanent membership of the Security Council.
- Russia's support for India also got diluted as a result.
- Even at the best of times, the BRICS partnership did not result in support for its three partners.

Russia-China link

- The joint statement of BRICS summit 2022 did not indicate the stance that indicated in the beginning of a new relationship within BRICS.
- In 2022 Russia is legally obliged to take the Chinese side in any future showdown between India and China.
- With Russia continuing its war in Ukraine and China continuing to occupy Indian territory in Ladakh, there was little credibility in many of the words they used in the Joint Communiqué.
- China pushed for expansion of membership at the summit itself even at a time when BRICS had no credible global agenda.
- China showed no enthusiasm to bring India into the Asia-Pacific Economic Cooperation (APEC) even after India met the criteria of a liberalised economy.
- China seems to think that BRICS would be an extension of the Belt and Road Initiative (BRI).
- The Sri Lankan experience has exposed the Chinese strategy; it has been India, not China, which has come to the rescue of Sri Lanka.

India's participation in G7 summit

- The G7 made its own statement on the Ukraine war on expected lines and India was only involved in other issues such as environment, energy, climate, food security, health, gender equality and democracy.
- The Prime Minister's presence at the G7 summit enabled India to pursue several vital projects with G7 countries, but they will have to be pursued away from the theatre of war — an issue that has fully occupied the G7 countries .

- India's gain has been the opportunity it got to interact with world leaders

At the UAE (Bilateral engagement)

- The limited gains of India at the BRICS and G7 summits have been in contrast with the enthusiastic welcome Prime Minister received in the United Arab Emirates.
- India with this visit tried to smoothen the cracked relations with UAE and other West Asian countries, which were hurt by the totally objectionable remarks made by two former spokespersons of the ruling party.
- The bilateral meeting was very effective.
- Multilateral negotiations will be increasingly difficult in the present chaotic global situation. It is only by working bilaterally with potential allies that India can attain the status of a pole in the new world with steadfast friends and followers.

2.5 India – South Korea Relations

South Korea's new willingness to become a global pivotal state and play an active role in regional affairs is bound to create multiple opportunities for a multi-dimensional India- Korea partnership

- During the past five years, India and South Korea have experienced considerable divergence in their respective national objectives
- India and South Korea have faced serious blockades to their economic ties.
- Trade between the two countries was sluggish and there was no major inflow of South Korean investment into India.
- Thus South Korea's new willingness to become a global pivotal state and play an active role in regional affairs is bound to create multiple opportunities for a multi-dimensional India- Korea partnership.

Converging Ideas

Correcting a China tilt

- South Korea's strategic policy shift to correct its heavy tilt towards China is bound to bring new economic opportunities for both countries.
- Both nations will now be in a better position to understand and accommodate the other's trade investments and supply chain needs.

Economic Co operation

- The emerging strategic alignment is creating a new convergence of capabilities and closer synergy in new areas of economic cooperation such as public health, green growth, digital connectivity, and trade, among others.
- In 2020, India and South Korea signed a Roadmap for Defence Industries Cooperation.
- With the strategic shift in South Korea's defence orientation, new doors of cooperation for defence and security have emerged.

Indo-Pacific outlook

- India has evolved excellent strategic partnerships with Japan, Vietnam and Australia. Unfortunately, South Korea has not received the same level of attention from the Indian establishment.
- South Korea could be the fourth pillar in India's Indo-Pacific strategy along with Japan, Australia, and

Vietnam.

- This can bring about a paradigm shift in India's position and influence in the region.

Way Forward

- The time has come for the Indian and South Korean bilateral partnership to be strategically scaled up at the political, diplomatic and security domain levels.
- With South Korea's emergence as a leader in critical technologies, cybersecurity and cyber-capacity building, outer space and space situational awareness capabilities, South Korea can contribute immensely to enhance India's foundational strengths in the Indo-Pacific.
- India can help South Korea withstand Chinese pressure and North Korean threats. An independent, strong, and democratic South Korea can be a long-term partner with India that will add significant value to India's Indo-Pacific strategy. This new partnership can have a long-term positive impact for both countries and the Indo-Pacific region. It is an opportunity that neither country can afford to miss.

2.6 I2U2

Prime Minister of India participated in first-ever I2U2 Virtual Summit along with the heads of the other members of the grouping.

What does I2U2 stand for?

- I2U2 stands for India, Israel, the UAE, and the US, and was also referred to as the 'West Asian Quad'.
- Besides Prime Minister of India the virtual summit was attended by US President Joe Biden, Israel Prime Minister Yair Lapid and UAE President Mohammed bin Zayed Al Nahyan.

What is the aim of I2U2 grouping?

- Its stated aim is to discuss common areas of mutual interest, to strengthen the economic partnership in trade and investment in our respective regions and beyond.
- Six areas of cooperation have been identified by the countries mutually, and the aim is to encourage joint investments in water, energy, transportation, space, health, and food security.
- With the help of private sector capital and expertise, the countries will look to modernise infrastructure, explore low carbon development avenues for industries, improve public health, and promote the development of critical emerging and green technologies.

Takeaways

- UAE will invest \$2 billion USD to develop a series of integrated food parks across India that will incorporate state-of-the-art climate-smart technologies to reduce food waste and spoilage, conserve fresh water, and employ renewable energy sources.
- The I2U2 group will also advance a hybrid renewable energy project in Gujarat consisting of 300 megawatts (MW) of wind and solar capacity, complemented by a battery energy storage system.
- The leaders also welcomed India's interest in joining the United States, the UAE, and Israel in the Agriculture Innovation Mission for Climate initiative (AIM for Climate).
- The I2U2 leaders reaffirmed their support for the Abraham Accords and other peace and normalization arrangements with Israel

About AIM for Climate

- The Agriculture Innovation Mission for Climate (AIM for Climate / AIM4C) is a joint initiative by the United States and the United Arab Emirates.
- AIM for Climate seeks to address climate change and global hunger by uniting participants to significantly increase investment in, and other support for, climate-smart agriculture and food systems innovation over five years (2021 – 2025).

2.7 Shanghai Cooperation Organisation (SCO)

Iran and Belarus are likely to be the two newest additions to the China and Russia-backed Shanghai Cooperation Organisation (SCO) grouping.

The current SCO Secretary-General Zhang Ming, a Chinese diplomat, told the grouping hopes for an in-person summit in Samarkand, Uzbekistan.

Expanding the group is among the issues that leaders of the grouping are likely to discuss at the SCO summit in Samarkand, Uzbekistan, in September.

Shanghai Cooperation Organisation

- The SCO is a permanent intergovernmental international organization.
- It's a Eurasian political, economic and military organization aiming to maintain peace, security and stability in the region.
- It was created in 2001.
- The SCO Charter was signed in 2002, and entered into force in 2003.
- The SCO's official languages are Russian and Chinese.
- Prior to the creation of SCO in 2001, Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five.
- Shanghai Five (1996) emerged from a series of border demarcation and demilitarization talks which the four former Soviet republics held with China to ensure stability along the borders.
- Following the accession of Uzbekistan to the organization in 2001, the Shanghai Five was renamed the SCO.
- India and Pakistan became members in 2017.
- On 17th September, 2021, it was announced that Iran would become a full member of the SCO.

Objectives:

- Strengthening mutual trust and neighborliness among the member states
- Promoting effective cooperation in -politics, trade & economy, research & technology and culture.
- Enhancing ties in education, energy, transport, tourism, environmental protection, etc.
- Maintain and ensure peace, security and stability in the region.
- Establishment of a democratic, fair and rational new international political & economic order

Structure:

- Heads of State Council – The supreme SCO body which decides its internal functioning and its interaction with other States & international organisations, and considers international issues.
- Heads of Government Council – Approves the budget, considers and decides upon issues related to economic spheres of interaction within SCO.

- Council of Ministers of Foreign Affairs – Considers issues related to day-to-day activities.
- Regional Anti-Terrorist Structure (RATS) – Established to combat terrorism, separatism and extremism.

2.8 Foreign Direct Investment equity flows into India

FDI inflows into India

- Singapore (27.01%) and USA (17.94%) have emerged as top 2 sourcing nations in FDI equity flows into India in FY2021-22 followed by Mauritius (15.98%), Netherland (7.86%) and Switzerland (7.31%).
- The Government has implemented several transformative reforms under the FDI policy regime across sectors such as insurance, defence, telecom, financial services, pharmaceuticals, retail trading, e-commerce, construction & development, civil aviation, manufacturing etc.
- Despite the ongoing pandemic and global developments, India received the highest annual FDI inflows of USD 84,835 million in FY 21-22 overtaking last year's FDI by USD 2.87 billion.
- India is rapidly emerging as a preferred country for foreign investments in the manufacturing sector. FDI Equity inflow in Manufacturing Sectors have increased by 76% in FY 2021-22 (USD 21.34 billion) compared to previous FY 2020-21 (USD 12.09 billion).
- Top 5 sectors receiving highest FDI Equity Inflow during FY 2021-22 are Computer Software & Hardware (24.60%), Services Sector (Fin., Banking, Insurance, Non Fin/Business, Outsourcing, R&D and others) (12.13%), Automobile Industry (11.89%), Trading 7.72% and Construction (Infrastructure) Activities (5.52%).
- Top 5 States receiving highest FDI Equity Inflow during FY 2021-22 are Karnataka (37.55%), Maharashtra (26.26%), Delhi (13.93%), Tamil Nadu (5.10%) and Haryana (4.76%)
- During FY 2021-22 FDI has been reported from 101 countries, whereas, it was reported from 97 countries during previous FY 2020-21.
- In India FDI up to 100% is allowed in non-critical sectors through the automatic route, not requiring security clearance from the Ministry of Home Affairs (MHA).
- Prior government approval or security clearance from MHA is required for investments in sensitive sectors such as defence, media, telecommunication, satellites, private security agencies, civil aviation and mining, besides any investment from Pakistan and Bangladesh.
- All foreign investments are required to be in compliance with the applicable entry route, sectoral cap, attendant conditions, sectoral laws, Companies Act, 2013 and rules thereunder, pricing guidelines, documentation and reporting requirements.

2.9 Chess Olympiad

Prime Minister of India inaugurated the Fédération Internationale des Échecs French (FIDE) or International Federation of Chess's 44th Chess Olympiad in Chennai.

- Noting that the most prestigious tournament in chess had for the first time come to India – the home of chess – during the 75th year of freedom from colonial rule, PM said there had never been a better time for sport in India than the present.
- It was only for the first time in three decades the tournament was being organised in Asia with the participation of the highest number of players and teams.

Chess Olympiad

- The Chess Olympiad is a biennial chess tournament in which teams representing nations of the world compete.
- FIDE organises the tournament and selects the host nation.
- Amidst the COVID-19 pandemic, FIDE held an Online Chess Olympiad in 2020 and 2021, with a rapid time control that affected players' online ratings.
- The use of the name "Chess Olympiad" for FIDE's team championship is of historical origin and implies no connection with the Olympic Games

3. Economy

3.1 Primary agricultural credit societies (PACS)

The Cabinet Committee on Economic Affairs approved computerisation of Primary Agricultural Credit Societies (PACS) with the aim of increasing efficiency of PACS, bringing transparency and accountability in their operations.

This project proposes computerization of about 63,000 functional PACS over a period of five years with a total budget outlay of Rs 2,516 crore with the central government's share of Rs 1,528 crore.

Primary Agricultural Cooperative credit societies (PACS)

- The PACS constitute the lowest tier of the three-tier short-term cooperative credit (STCC) in India comprising of nearly 13 crore farmers as its members.
- Through computerization PACS will become nodal service delivery point for interest subvention scheme (ISS), PM Fasal Beema Yojana, Direct Benefit Transfer and provision of inputs like fertilisers, seeds etc.
- It will ensure speedy disposal of loans, lower transition cost, faster audit and reduction in imbalances in payments and accounting with State Cooperative Banks (SCBs) and District Central Cooperative Banks (DCBs)
- PACS account for 41% of the Kisan Credit Card (KCC) loans given by all entities in the country and 95 % of these KCC loans through PACS are to the small and marginal farmers.
- The other two tiers viz. SCBs and DCCBs have already been automated by the NABARD and brought on Common Banking Software (CBS).

3.2 Services Sector

India's aspiration to become a \$5-trillion economy is predicated on the growth of its international trade to \$2 trillion by 2030, equally contributed to by merchandise and services. This translates into a three-fold growth or almost 20 per cent CAGR over this period.

- Expectation of services exports to overtake merchandise and manufacturing, or at least be on par.
- But possible only if services are viewed from the same prism as manufacturing in terms of fiscal encouragement and incentives.
- While around 50 per cent and more of services exports are contributed by IT-ITES, which continues to innovate its offerings and grow, the rest is the input from management, legal, accounting, logistics, travel and tourism, education, healthcare, etc.
- Services sectors beyond IT require careful nurturing, especially capex-intensive sectors like hospitality, healthcare and education.

Concerns in the Services Industry

- Even though it comprises over 50 percent of the GDP, the services sector does not receive the recognition — and more importantly, the encouragement in the form of incentives — it deserves.
- The perception at one level of the sector as comprising only IT: And the IT sector has flourished because of minimum government intervention. Ergo, the sector as a whole does not require any hand holding. This is a fallacious perspective.
- Not Recognising and celebrating: In the year 2021-22, services exports had exceeded \$254 billion, an

increase of over 20 per cent year-on-year, even though contribution from three sectors — education, healthcare and especially travel and tourism — was overall reduced by over \$20 billion because of travel restrictions during the pandemic.

- Further, consider that merchandise and manufacturing exports are \$200 billion-negative in that we imported \$600 billion versus our exports of over \$400 billion. Services exports, by contrast, were over \$100 billion-positive, underlining the importance of ensuring that the growth trajectory in services exports is maintained.

Lack of Incentives:

- During the reign of MEIS (Merchandise Exports Incentive Scheme), merchandise exporters benefited to the extent of over Rs 40,000 crore in 2018-19, whereas under the corresponding SEIS (Services Exports Incentive Scheme) exporters could avail of only a tenth of that amount.
- Even though SEIS is committed under the Foreign Trade Policy, it was only through intense advocacy that a sum of Rs 2,000 crore was finally earmarked for services exports for 2019-20, largely on compassionate grounds as sectors like travel and tourism had suffered immensely due to Covid restrictions.
- These incentives cannot be viewed as charitable handouts — they serve to make businesses internationally competitive as well as recognise contributions made by service providers. These incentives are clearly temporary impetus providers and there must be a slew of economic measures with both long-term effects and benefits for services.

The Way Forward

- To quadruple services exports over the next 7-8 years is surely a herculean task and certainly not achievable unless there is a strategic road map with the right sort of government intervention.
- Focus to move beyond IT: The burden cannot be only on the IT sector, which at present contributes around 55 per cent of total services exports. Clearly, other sectors will have to bring exponential growth to the table.
- Triple International arrivals & make India ready to attend to them: Government needs to embark on a crash programme to enhance infrastructure.
- While the government can work on physical connectivity through public-private partnerships by building more airports and highways, it will require individual entrepreneurship to increase the hospitality quotient by adding more hotel rooms.
- The government provides attractive incentives, including direct taxation for green field projects in the manufacturing sector. The same blueprint must be initiated for the services sectors, especially in the building of hotels, hospitals and universities, with an emphasis on those that attract forex.
- Incentives Services Sector: With a similar scheme like Production Linked Incentives (PLI) scheme with a well-laid-out process that ensures capex investment, resulting in increased productivity and avenues for employment. It can be introduced for services with substantial scope for capex in areas like hospitality, education and health care.

Conclusion

In these adverse times, if economic momentum has to be sustained and every initiative and effort has to be made to yield the desired result, then the perception of services, especially their exports, must radically transform. This is also to ensure that as a major economy, India's reliance should be on multiple horses in the race — manufacturing and services.

About the Service Exports from India Scheme (SEIS)

- Service Exports from India Scheme (SEIS) aims to promote export of services from India by providing duty scrip credit for eligible exports.
- A Duty Credit Scrip is like a credit certificate issued by the Director General of Foreign Trade (DGFT) and can be used to pay various duties/taxes to the Central Govt.
- Service providers of eligible services shall be entitled to duty credit scrip at notified rates on the net foreign exchange earned.
- Duty credit scrips can be used for the payment of custom duties, excise duties, GST on procurement of services etc.
- Further, the SEIS scheme has given relaxation to the actual user condition and duty credit scrips and goods imported using duty credit scrips are freely transferable. Duty credit scrip would be valid for a period of 18 months from the date of issue.
- The scheme is implemented and administrated by the Government's Ministry of Commerce and Industry, in association with the Directorate General of Foreign Trade (DGFT).

3.3 Net non-performing assets (NNPA) ratio

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.

3.4 The new energy disorder

The Ukrainian crisis has altered the contours of the global energy landscape and created a tangle of relationships and issues for India.

- Few months before there was a deepening sense that fossil fuels and the industry built around them were in terminal decline and that the era of oil, gas and coal was, if not at its end, certainly at the beginning of its end
- But today, The petroleum market is tight and prices are ratcheting up.
- Oil prices are close to \$120/bbl and gas prices have jumped 500 per cent year on year in Europe.
- The share prices of the oil majors are trading at multi-year highs.
- India is caught in the vortex of this turmoil.

Three issues are of particular significance.

- First, India is now a major purchaser of Russian crude.
- Russia is now our largest provider of crude oil surpassing Saudi Arabia and Iraq.
- The reason for this ramp-up is the price discount offered by Russia.
- The decision is driven by good economics and energy security.
- This has created some apprehensions with western countries
- Second, recently, Russia and China has signed a “no limits” partnership.
- Russia is also now the largest supplier of petroleum to China.
- This tightened economic and energy embrace has implications for India like will Russia be a reliable providers of crude oil, military equipment, minerals, and metals essential for India?
- Third the changed stance of Western relations with Gulf recently, will have implications on India’s energy security.
- Thus Our long-standing “friend” (Russia) is now in the bad books of our other friends (the US and Europe) and in a deepening relationship with our adversary (China).

How do we navigate this consequential cross currents?

- The need is to create a mechanism for the development and execution of an integrated energy policy.
- And also there is a need for energy authority this is because currently there is no executive authority responsible for energy.
- There are ministries responsible for components of energy policy but no formal mechanism for aligning their separate approaches.
- The new energy (dis) order has created fissures that impact our national security, economic growth, trade, clean energy supply lines, transfer of technology and international relations. Thus carefully planned approach is the need of the hour.

3.5 RBI relaxed norms to stem rupee slide and to forex inflows

To prevent the slide in the rupee and shore up foreign exchange reserves, the RBI announced a series of measures. This includes relaxation in foreign investment in debt, external commercial borrowings, and Non-Resident Indian (NRI) deposits.

Stats

- The rupee depreciated 4.1 per cent to 79.30 against the US dollar in the current financial year.
- Foreign portfolio investors pulled out 2.32 lakh crore in six months, and \$50 billion being shaved off forex reserves over the last nine months.

Measures taken

- RBI has allowed banks temporarily to raise fresh Foreign Currency Non-Resident Bank i.e. FCNR(B) and Non-Resident External (NRE) deposits without reference to the current regulations on interest rates.
- Currently, interest rates on FCNR(B) deposits are subject to ceilings of overnight Alternative Reference Rate (ARR) for the respective currency/ swap plus 250 basis points for deposits of 1-3 years maturity and overnight ARR plus 350 basis points for deposits of 3-5 years maturity.
- In the case of NRE deposits, interest rates should not be higher than those offered by the banks on comparable domestic rupee term deposits.
- Investments by FPIs in government securities and corporate debt made till October 31, 2022, will be exempted from this short-term limit.
- These will not be reckoned for the short-term limit of one year till maturity or sale of such investments.
- Currently, not more than 30 per cent of investments each in government securities and corporate bonds can have a residual maturity of less than one year.
- FPIs will be provided with a limited window till October 31, 2022, during which they can invest in corporate money market instruments like commercial paper and non-convertible debentures with an original maturity of up to one year.
- FPIs can continue to stay invested in these instruments till their maturity or sale.
- Also the central bank decided to increase the limit under the automatic route for external commercial borrowing (ECB) from \$750 million or its equivalent per financial year to \$ 1.5 billion.
- The all-in cost ceiling under the ECB framework is also being raised by 100 basis points, subject to the borrower being of investment grade rating.
- Further incremental FCNR (B) and NRE deposits will be exempt from the maintenance of cash reserve ratio and statutory liquidity ratio (SLR).
- This relaxation, which will add to the returns of NRIs
- External Commercial Borrowings
- ECBs is a loan availed by an Indian entity from a nonresident lender with a minimum average maturity.
- Most of these loans are provided by foreign commercial banks buyers' credit, suppliers' credit, securitized instruments such as Floating Rate Notes and Fixed Rate Bonds etc.

Advantages of ECBs:

- ECBs provide opportunity to borrow large volume of funds.
- The funds are available for relatively long term.
- Interest rate are also lower compared to domestic funds.
- ECBs are in the form of foreign currencies. Hence, they enable the corporate to have foreign currency to meet the import of machineries etc.
- Foreign Currency Non-Resident (Bank) account
- FCNR (B) accounts can be opened by NRIs and Overseas Corporate Bodies (OCBs) with an authorized dealer.
- Rate of interest applicable to these accounts are in accordance with the directives issued by RBI from time to time.

NRE accounts

- NRE accounts can be opened by NRIs and OCBs with authorized dealers and with banks authorized by RBI.
- These can be in the form of savings, current, recurring or fixed deposit accounts. Deposits are allowed in any permitted currency.

- Rate of interest applicable to these accounts are in accordance with the directives issued by RBI from time to time.

3.6 Foreign Portfolio Investors

Foreign Portfolio Investors (FPIs) have been on a selling spree in India.

- June 2022 witnessed the worst sell-off at ₹50,000 crore.
- Their selling actions have triggered a significant decline in benchmark indices, resulting in a drop in market capitalisation of companies.

What are FPIs?

- Foreign portfolio investors are those that invest funds in markets outside of their home
- Their investments typically include equities, bonds and mutual funds.
- They are generally not active shareholders and do not exert any control over the companies whose shares they hold.
- The passive nature of their investment also allows them to enter or exit a stock at will and with ease.
- Promise of attractive returns on the back of economic growth draws investors including FPIs into a country's markets.
- As per data from the National Securities Depositories Ltd. (NDSL), FPIs brought in about ₹3,682 crore in 2002.
- The year 2017 saw FPI inflows exceed ₹2 lakh crore.
- Likewise, FPIs withdrew ₹1.18 lakh crore in March 2020 alone — the month when India announced a nationwide lockdown.
- FPIs also show keenness to invest in bonds when there is a favourable differential between the real interest rates on offer in the country they aim to invest in, and other markets, but more specifically, compared with the largest economy in the world, the U.S.

Why have FPIs been selling India holdings?

- FPIs sold assets worth about ₹50,000 crore in June 2022.
- This is the second highest sell-off in a month since 1993, after March 2020.
- Post-pandemic, recovery in the Indian economy has been uneven.
- The second wave of the COVID-19 pandemic in 2021 devastated lives and livelihoods.
- As the industry was grappling with this challenge, came Russia's invasion of Ukraine.
- Sunflower and wheat supplies from these two nations were impacted, leading to a rise in global prices for these crops.
- As supplies in general tightened across the globe, commodity prices too rose and overall inflation accelerated.
- Industrial production has seen a bumpy without giving confidence of a full and final recovery from the pandemic.
- Purchasing Managers' Index (PMI) slid to 53.9 in June — the lowest level in nine months — from 54.6 in the previous month.
- With each of these factors contributing to a decline in confidence of robust economic performance, FPIs have been exiting market investments over these past months.
- Adding to this is the S. Federal Reserve raising the benchmark interest rate.

- When the differential between the interest rates in the U.S. and other markets narrow, and if such an occurrence is accompanied by the strengthening of the dollar, then the ability of investors to realise healthy returns is impacted.
- For returns are measured not only by the value appreciation of assets but also by exchange rate changes.
- If the dollar strengthens against the rupee, then an investor is able to realise fewer dollars for a given quantum of rupee assets liquidated.
- They then tend to exit assets seen as 'risky' such as in emerging markets like India, Brazil or South Africa.
- The rupee has been depreciating against the dollar, which has seen a general strengthening against several other currencies.

What impact does an FPI sell-off have?

- When FPIs sell their holdings and repatriate funds back to their home markets, the local currency takes a beating.
- After all, they sell rupees in exchange for their home market currency.
- As supply of the rupee in the market rises, its value declines.
- In this instance, the rupee has been seeing all-time lows recently.
- With a weaker rupee, the country has to shell out more funds to import the same unit of goods.

3.7 Defence exports

India's defence exports for 2021-22 were estimated at ₹13,000 crore, the highest ever.

- The U.S. was a major buyer, as also nations in Southeast Asia, West Asia and Africa.
- The private sector accounted for 70% of the exports, while public sector firms accounted for the rest.
- Earlier, the private sector used to account for 90% but now the share of defence public sector units had gone up.
- While India's defence imports from the U.S. have gone up significantly in recent years, Indian companies have been increasingly becoming part of the supply chains of U.S. defence companies.
- In January, India signed a \$374.96-million deal with the Philippines, its single biggest defence export order, for the supply of three batteries of shore-based anti-ship variant of the BrahMos supersonic cruise missile.

Issues retarding defence exports

- Excess reliance on Public Sector: India has four companies (Indian ordnance factories, Hindustan Aeronautics Limited (HAL), Bharat Electronics Limited (BEL) and Bharat Dynamics Limited (BDL)) among the top 100 biggest arms producers of the world.
- Policy delays: In the past few years, the government has approved over 200 defence acquisition worth Rs 4 trillion, but most are still in relatively early stages of processing.
- Lack of Critical Technologies: Poor design capability in critical technologies, inadequate investment in R&D and the inability to manufacture major subsystems and components hamper the indigenous manufacturing.
- Long gestation: The creation of a manufacturing base is capital and technology-intensive and has a long gestation period. By that time newer technologies make products outdated.
- Unease in doing business: An issue related to stringent labour laws, compliance burden and lack of skills, affects the development of indigenous manufacturing in defence.
- Multiple jurisdictions: Overlapping jurisdiction of the Ministry of Defence and Ministry of Industrial

Promotion impair India's capability of defence manufacturing.

- Lack of quality: The higher indigenization in few cases is largely attributed to the low-end technology.
- Lack of R&D: A lip service to technology funding by making token allocations is an adequate commentary on our lack of seriousness in the area of Research and Development.
- Lack of skills: There is a lack of engineering and research capability in our institutions.

Steps taken by the Centre to boost defence production

- Licensing relaxation: Measures announced to boost exports since 2014 include simplified defence industrial licensing, relaxation of export controls and grant of no-objection certificates.
- Lines of Credit: Specific incentives introduced under the foreign trade policy has facilitated Lines of Credit for countries to import defence product.
- Indigenization lists: On the domestic front, to boost indigenous manufacturing, the Government had issued two positive indigenization lists consisting of 209 items that cannot be imported.
- Budgetary allocation: In addition, a percentage of the capital outlay of the defence budget has been reserved for procurement from domestic industry.
- There is a need to create an environment for greater participation of private industry, a stable macro-economic and political environment, and a transparent business environment which encourages fair competition.

3.8 Leadership development programme

The FSIB has asked the Indian Banks' Association (IBA) to appoint an institution or firm to design and deliver a leadership development programme for PSU banks (PSBs).

- Recently, Financial Services Institutions Bureau (FSIB) stated it will select top officials of banks via a grooming process under a leadership development programme.
- The programme aims to groom business leaders of the PSBs who should be ready to assume top management and board level positions in PSBs and to drive long-term sustainable business in a competitive market place
- The firm which will design and execute the programme will be selected by the IBA through a bidding process.
- The objective is to develop future generation of leaders who are digitally savvy, strategic thinkers with capability to build highly collaborative teams and create a customer centric organisation that thrives in a very dynamic competitive environment.
- The programme will up-skill around 75 participants in the senior management.
- The proposed firm should have capability to design and deliver a training programme for senior officers of PSU banks that can be delivered through three modes — online as e-learning modules, online through live webinars, meetings and through in-person mode.

Financial Services Institutions Bureau

- Recently, Cabinet Appointments Committee (ACC) has passed a government resolution to establish the Financial Services Institutions Bureau (FSIB) in place of the Banks Board Bureau (BBB).
- The Financial Services Institutions Bureau will select the chiefs of public sector banks and insurance companies.
- The FSIB will have the clear mandate to issue guidelines and select general managers and directors of

state-run non-life insurers, general insurers and Financial Institutions.

- FSIB will be the single entity for making recommendations for appointments of WTD (Whole-time Director) and NEC (Non-executive Chairman) in Public Sector Banks, India Private Limited company and Financial Institutions.
- The ACC has approved the appointment of Bhanu Pratap Sharma as Initial chairperson of FSIB for two years. He was the former Chairman of BBB.

Banks Board Bureau (BBB)

- The government, in 2016, approved the constitution of the BBB to make recommendations for appointment of whole-time directors as well as non-executive chairpersons of Public Sector Banks (PSBs) and state-owned financial institutions.
- It was an autonomous recommendation body.

Issues

- Delhi High Court had struck down the BBB's power to select directors of Public Sector Undertaking, general insurance companies
- Delhi High Court in 2020 ruled that the BBB couldn't select the general managers and directors of state-run general insurers, as it was not a competent body.

3.9 World Population Prospects

World Population Prospects 2022 was released UN Dept of Economic & Social Affairs

World Population Prospects

- The Population Division of the UN has been publishing the WPP in a biennial cycle since 1951.
- Each revision of the WPP provides a historical time series of population indicators starting in 1950.
- It does so by taking into account newly released national data to revise estimates of past trends in fertility, mortality or international migration.

Takeaways for the global population

- Currently, with 7 billion Asia is the most populous continent and has 61 per cent of the global population, 17 per cent reside in Africa (1.3 billion), 10 per cent in Europe (750 million), 8 per cent in Latin America and the Caribbean (650 million), and the remaining 5 per cent in Northern America (370 million) and Oceania (43 million).
- The world's population continues to grow, but the pace of growth is slowing down: The global population is expected to grow to around 8.5 billion in 2030, 7 billion in 2050 and 10.4 billion in 2100.
- In 2020, the global growth rate fell under 1% per year for the first time since 1950.
- Rates of population growth vary significantly across countries and regions: More than half of the projected increase in global population up to 2050 will be concentrated in just eight countries: the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania.
- The 46 least developed countries (LDCs) are among the world's fastest-growing.
- Many are projected to double in population between 2022 and 2050, putting additional pressure on resources and posing challenges to the achievement of the UN's Sustainable Development Goals (SDGs).
- A sustained drop in fertility has led to an increased concentration of the population at working ages

(between 25 and 64 years), creating an opportunity for accelerated economic growth per capita.

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

India specific findings

- India is expected to surpass China as the world's most populous country in 2023.
- Presently 417 billion, India's population is expected to rise to 1.429 billion to surpass China.
- The concern now is not about the absolute numbers — India's population is already 1.4 billion and may go up to 1.6 billion before declining — but the quality of life for the people alive.
- The focus now has shifted to whether we can reduce poverty, provide healthcare facilities, education.
- From data it is clear that cohorts of 0-14 years and 15-24 years will continue to decline while those of 25-64 and 65+ will continue to rise for the coming decades.

Policy implications arising out of these two trends

- For those already in the 25-64 age bracket
- Skilling is the only way to ensure they are more productive and have better incomes.
- The 65+ category
- Provisioning of social security is obviously a big challenge. This will stretch the resources of the future governments.
- In this context, aged stay within the family set-up, reduces the burden on the government.

3.10 Clean energy targets

India has achieved clean energy targets nine years ahead of schedule – stated the Union Power Ministry.

- India has installed 162 GW (1 GW is 1,000 MW) of renewable energy capacity, which is 41% of the 402 GW of electricity installed.
- India reached this target on November 2021.
- In 2015, India committed to ensuring that 40% of its energy would be from renewable sources by 2030 as part of its Nationally Determined Contributions (NDC).

New Target

- At the COP26 India is committed to achieving 500 GW of installed electricity capacity from non-fossil fuel sources by the year 2030.

Challenges in Achieving the Target:

Mobilization of the Necessary Finance:

- Gearing up the banking sector for arranging finances for larger deployment goals, exploring low-interest rate, long-term international funding, and developing a suitable mechanism for risk mitigation or sharing by addressing both technical and financial bottlenecks are major challenges.

Land Acquisition:

- Identification of land with Renewable Energy potential, its conversion, clearance from land ceiling Act,

decision on land lease rent, clearance from revenue department, and other such clearances take time.

- State governments have to play a major role in acquisition of land for RE projects.

Creating Ecosystem:

Creating an innovation and manufacturing eco-system in the country.

Others:

- Integrating a larger share of renewables with the grid.
- Enabling supply of firm and dispatchable power from renewables.
- Enabling penetration of renewables in the so called hard to decarbonize sectors.

3.11 Revamping employment policy

The Government of India has recently announced its plan to create 10 lakh government jobs in the next 18 months. Though the announcement has been called a historic step the government should consider number of factors.

Problems and Solutions

- Vacancies are much higher
- The number of vacant posts touches 30 lakh if we consider vacant positions in public sector banks, the defence forces and police, the health sector, central schools and central universities, judiciary etc
- Thus just filling out 10 lakh out 30 lakh vacant post will not solve the problem of unemployment and serious shortage of staff, which is then causing long delays in work, corruption and maybe other inefficiencies.

Quality as issue

- Another major concern is about the quality of employment that will be generated through this plan.
- The share of contract workers in total government employment has been increasing rapidly in recent years — from 11.11 lakh in 2017 to 13.25 lakh in 2020 and to 31 lakh in 2021.
- In addition, there are “honorary workers” such as Anganvadi workers, their helpers, ASHA workers, etc.
- These employees of the government earn a lower salary and are not entitled to decent work conditions including a minimum package of social security.
- The Government must ensure that the employment generated under its plan will be of a standard quality.

More jobs are needed

- Given the backlog of about 30 million unemployed people and an annual addition of 50 lakh-70 lakh workers every year (World Bank), the dimensions of India’s unemployment problem today are formidable.
- The generation of a mere 10 lakh jobs in the next 18 months is too little.
- This scheme of the Government will hardly provide any relief to the youth of the country; and will not have much of an impact on the present unemployment problem.
- It is important to note here that the performance of the private sector in creating employment opportunities has remained dismal.
- In this situation it is all the more important for the Government to ensure as many jobs as possible.

Focus on basic needs

- Government will have to take responsibility for meeting these basic needs without depending on privatisation — at least for the bottom 40% of the population.
- The important task for the Government would be to take much better direct care of basic well-being, human development and human resource development, and the basic infrastructure of the bottom population without privatisation in these areas.
- Another major task would also be to reorient the industrialisation policy to focus on labour-intensive sectors of the economy, and promote Micro, Small and Medium Enterprises (MSMEs).

Urban employment

- The fact that the urban economy has been badly hurt by the pandemic, a carefully designed urban employment guarantee programme would be most desirable to create ample urban employment avenues for urban youth.
- The urban programme should include: basic urban services, where the youth would get special training so that they can be absorbed in the mainstream economy.
- Thus the Government gesture of filling vacant posts, will have to be followed by radical changes in the Government's employment policy.

3.12 National Institutional Ranking Framework (NIRF)

Ministry of Education released National Institutional Ranking Framework (NIRF) 2022.

About National Institutional Ranking Framework (NIRF)

The NIRF was launched by the Ministry of Education in 2015.

It is the first-ever effort by the government to rank Higher Education Institutions (HEIs) in the country.

Assessment on Five Parameters:

- Teaching, Learning and Resources (TLR)
- Research and Professional Practice (RP)
- Graduation Outcomes (GO)
- Outreach and Inclusivity (OI)
- Perception
- A total of 4,786 institutions were evaluated on five parameters.
- While participation in the NIRF was voluntary in the initial years, it was made compulsory for all government-run educational institutions in 2018.

Key Highlights

- Indian Institute of Technology Madras retains its 1st position in Overall Category for fourth consecutive year and in Engineering for seventh consecutive year.
- IIT Madras is followed by Indian Institute of Science (IISc), Bengaluru, and IIT Bombay.
- Among Indian universities, IISc, Jawahar Lal Nehru University, Jamia Milia Islamia, Jadavpur University and Amrita Vishwa Vidyapeetham were among the top five.
- And among the top five colleges in the country are Miranda House, Hindu College, Presidency College, Loyola College and Lady Shri Ram College for Women.

- The top five medical institutes are All India Institute of Medical Sciences, Post Graduate Institute of Medical Education and Research, Chandigarh, Christian Medical College, Vellore, National Institute of Mental Health & Neuro Sciences, Bangalore and Banaras Hindu University.
- The top five management institutes are Indian Institute of Management (IIM), Ahmedabad, IIM Bengaluru, IIM Kolkata, IIT Delhi and IIM Kozhikode.

3.13 Build-Operate-Transfer (BOT) model

After funding highway projects through public money for a better part of the last decade the National Highways Authority of India (NHAI) is set to return to funding through private investments using the build-operate-transfer (BOT) model during the current quarter.

- Over the last few years, the NHAI resorted to offering projects under the Hybrid Annuity Model (HAM) that ensures funds to the company building the road, thereby insulating it from financial risk to a certain extent.
- The BOT (toll) model was the preferred model for road projects, accounting for 96% of all projects awarded in 2011-12. But this progressively reduced to nil. HAM was designed and adopted.

Investment Models

- In simpler terms investment means exchange of money for a profit yielding asset.
- The same profit earned is used to invest in other assets as well.
- As far as the economic well being of the country is concerned, investment is important as it contributes to growth and development.

Types of Investment Models

Public Investment Model:

- In this model Government requires revenue for investment that mainly comes through taxes.
- Properly targeted public investment can do much to boost economic performance, generating aggregate demand quickly, fueling productivity growth by improving human capital, and spurring private-sector investment by increasing returns.

Private Investment Model:

- Private investment can be source from domestic or international market.
- From abroad private investment comes in the form of FDI or FPI.

Public-Private Partnership Model:

- PPP is an arrangement between government and Private sector for the provision of public assets and/or public services.
- PPP allow large-scale government projects, such as roads, bridges, or hospitals, to be completed with private funding.
- Commonly adopted model of PPPs include engineering, procurement and construction (EPC) model, Build-Operate-Transfer (BOT), Build-Operate-Lease-Transfer (BOLT), Hybrid Annuity Model

PPP Models

- Engineering, Procurement and Construction Model (EPC)

- The EPC Model partnership requires the government to undertake the total funding of the project while the Private sector partner will provide the engineering and construction requirements.
- The cost is completely borne by the government.
- Government invites bids for engineering expertise from the contractors. Procurement of raw material and construction costs are met by the government.
- From design to commissioning, the EPC Contractor is responsible for all activities and handover of the project to the Government.

Build-Operate-Transfer (BOT)

- It is conventional PPP model in which private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector.
- Private sector partner has to bring the finance for the project and take the responsibility to construct and maintain it.
- Public sector will allow private sector partner to collect revenue from the users.
- The national highway projects contracted out by NHAI under PPP mode is a major example for the BOT model.

Build-Operate-Lease-Transfer (BOLT)

- In this approach, the government gives a concession to a private entity to build a facility, own the facility, lease the facility to the public sector and then at the end of the lease period transfer the ownership of the facility to the government.

Hybrid Annuity Model (HAM)

- Hybrid annuity stands for a combination in which the government makes payment in a fixed amount in the beginning and then in a variable amount at a later stage.
- The HAM is a combination of BOT and EPC Models.
- The government will give 40% of the Project Cost as Construction Support during the construction period, and the remaining 60% as annuity payments to the concessionaire throughout the operations period, plus interest.
- The payment made in the later stage will be based on the assets created and the performance of the developer.
- In HAM, the company has no right to collect tolls.
- Revenue is collected by the National Highways Authority of India (NHAI) and refunded to the private players in installments for 15-20 years.

National Highways Authority of India (NHAI)

- It is a nodal agency of the Union Ministry of Road Transport and Highways.
- NHAI is an autonomous agency of the Union Government, responsible for management of a network of over 70,000 km of national highways in India.
- It was established through National Highways Authority of India Act, 1988.
- In 1995, it was formally made an autonomous body.
- It is responsible for the development, management, operation and maintenance of National Highways.
- It is a statutory body.

3.14 Rupee Depreciation

Indian rupee recorded a historic low of 79.72 against the US dollar and it has declined nearly 6 per cent since January this year.

Foreign exchange reserves fell by \$8.06 billion to \$580.02 billion during the week ended July 8 in the wake of the appreciation of the dollar and capital outflows from India, triggered by the rise in inflation and rate hikes by the US.

Why rupee is falling?

Demand and supply:

If a country imports more than it exports, then the demand for the dollar will be higher than the supply and due to this, domestic currency will depreciate against the dollar.

Russia-Ukraine war:

Global disruptions caused by the Russia-Ukraine war is making our imports costly, thus widening the current account deficit.

Rising inflation:

Rising inflation depreciates domestic currency since inflation can be equated with a decrease in money's buying power.

As a result, countries experiencing high inflation tend to also see their currencies weaken relative to other currencies.

High crude oil prices:

Increasing crude oil prices are further widening our trade deficit thus leading to decrease in the value of rupee.

Capital outflows from India:

The US Federal Reserve recently increased the interest rates, and the return on dollar assets increased compared with those of emerging markets such as India.

It has led to outflow of dollars from India to the US.

Impact

- Increase cost of raw materials and imports
- Since, India imports many raw materials, the price of finished goods could go up thus impacting the consumers.
- India's high import dependence for fuel means oil price trajectories affect most macro parameters, including inflation, growth, current account balances, fiscal management and the rupee.
- This leads to widening of the current account deficit (CAD).

Boosts exports:

- In an ideal scenario, devalued rupee could have led to increase in exports.
- However, in the current scenario of weak global demand and persistent volatility, exporters are not supportive of the currency fall.

Inflation:

- The falling rupee's biggest impact is on inflation, given India imports over 80 per cent of its crude oil,

which is the country's biggest import.

- Travellers and students studying abroad will have to shell out more rupees to buy dollars from banks.

Stock market:

- Rupee depreciation may see foreign investors pulling out of Indian markets, resulting in a decline in stocks and equity mutual fund investments.
- Floating exchange rate system
- Under the floating exchange rate regime, the market forces determine the value of domestic currency on the basis of the forces of demand and supply of the domestic currency.

Appreciation Vs Depreciation

Appreciation

- Currency Appreciation: It is an increase in the value of one currency in relation to another currency.
- Currencies appreciate against each other for a variety of reasons, including government policy, interest rates, trade balances and business cycles.
- Currency appreciation discourages a country's export activity as its products and services become costlier to buy.

Depreciation Vs Devaluation:

- Currency depreciation is a fall in the value of a currency in a floating exchange rate system.
- Currency depreciation can occur due to factors such as economic fundamentals, interest rate differentials, political instability or risk aversion among investors.
- If the value of the Indian Rupee is weakened through administrative action, it is devaluation.

3.15 MSP Panel

The Centre has constituted a committee to look into the issues of minimum support price (MSP).

Ministry of Agriculture and Farmers Welfare issued a notification stating:

- A committee will be constituted to promote Zero budget based farming, to change crop pattern keeping in mind the changing needs of the country, and to make MSP more effective and transparent
- The committee will consist of representatives of the Central Government and State Governments, Farmers, Agricultural Scientists and Agricultural Economists."
- The committee, headed by former Agriculture Secretary Sanjay Agrawal, has 26 members including farmer representatives.

The committee will provide suggestions/measures

- To make available MSP to farmers of the country by making the system more effective and transparent and will also give suggestions to give more autonomy to Commission for Agricultural Costs and Prices (CACP) and measures to make it more scientific.
- To strengthen the Agricultural Marketing System as per the changing requirements of the country to ensure higher value to the farmers through remunerative prices of their produce by taking advantage of the domestic and export opportunities.
- On 5 points regarding natural farming including suggestions for programmes and schemes for value chain development, protocol validation & research for future needs and support for area expansion under the

Indian Natural Farming System by publicity and through involvement and contribution of farmer organizations.

- On 4 points related to crop diversification including
- mapping of existing cropping patterns of agro-ecological zones of producer and consumer states;
- strategy for diversification policy to change the cropping pattern according to the changing needs of the country;
- arrangement for agricultural diversification & system to ensure remunerative prices for the sale of new crops; review and suggestion on micro irrigation scheme.

Minimum Support Price (MSP)

- The MSP is the rate at which the government purchases crops from farmers, and is based on a calculation of at least one-and-a-half times the cost of production incurred by the farmers.
- The Commission for Agricultural Costs & Prices (CACP) recommends MSPs for 22 mandated crops and fair and remunerative price (FRP) for sugarcane.
- CACP is an attached office of the Ministry of Agriculture and Farmers Welfare.
- The mandated crops include 14 crops of the kharif season, 6 rabi crops and 2 other commercial crops.
- In addition, the MSPs of toria and de-husked coconut are fixed on the basis of the MSPs of rapeseed/mustard and copra, respectively.

Factors for Recommending the MSP:

The CACP considers various factors while recommending the MSP for a commodity, it considers following factors

- Cost of production
- Changes in input prices
- Input-output price parity
- Trends in market prices
- Demand and supply
- Inter-crop price parity
- Effect on industrial cost structure
- Effect on cost of living
- Effect on general price level
- International price situation
- Parity between prices paid and prices received by the farmers
- Effect on issue prices and implications for subsidy

Crops covered

The list of crops is as follows.

- Cereals (7) – paddy, wheat, barley, jowar, bajra, maize and ragi
- Pulses (5) – gram, arhar/tur, moong, urad and lentil
- Oilseeds (8) – groundnut, rapeseed/mustard, toria, soyabean, sunflower seed, sesamum, safflower seed and nigerseed
- Raw cotton
- Raw jute
- Copra
- De-husked coconut
- Sugarcane (Fair and remunerative price)

- Virginia flu cured (VFC) tobacco

3.16 Central Bank Digital Currency (CBDC)

The Reserve Bank of India (RBI) is in the process of implementing the Central Bank Digital Currency (CBDC) in a phased manner for wholesale and retail segments

- The introduction of CBDC was announced in the Union Budget 2022-23, by Finance Minister and necessary amendments to the relevant section of the RBI Act, 1934 have been made with the passage of the Finance Bill 2022
- India's official digital currency is likely to debut by early 2023, which will mirror any of the currently available private company-operated electronic wallets.
- The CBDC will be a sovereign-backed digital currency.

Central Bank Digital Currency (CBDC)

- CBDCs are a digital form of a paper currency and unlike cryptocurrencies that operate in a regulatory vacuum, these are legal tender issued and backed by a central bank.
- Budget 2022-23, the Government of India announced that its central bank will issue a digital currency as early as 2022-23.
- The main objective is to mitigate the risks and trim costs in handling physical currency, costs of phasing out soiled notes, transportation, insurance and logistics.
- It will also wean people away from cryptocurrencies as a means for money transfer.

Merits

- A Combination of Traditional and Innovative:
- CBDC can gradually bring a cultural shift towards virtual currency by reducing currency handling costs.
- Easier Cross-Border Payments:
- CBDC can provide an easy means to speed up a reliable sovereign backed domestic payment and settlement system partly replacing paper currency.
- It could also be used for cross-border payments; it could eliminate the need for an expensive network of correspondent banks to settle cross-border payments.

Financial Inclusion:

- The increased use of CBDC could be explored for many other financial activities to push the informal economy into the formal zone to ensure better tax and regulatory compliance.
- It can also pave the way for furthering financial inclusion.

Risks

Privacy Concerns:

- The first issue to tackle is the heightened risk to the privacy of users—given that the central bank could potentially end up handling an enormous amount of data regarding user transactions.
- This has serious implications given that digital currencies will not offer users the level of privacy and anonymity offered by transacting in cash.

Disintermediation of Banks:

The shift to CBDC can impinge upon the bank's ability to plough back funds into credit intermediation.

Other risks are:

- Faster obsolescence of technology could pose a threat to the CBDC ecosystem calling for higher costs of upgradation.
- Operational risks of intermediaries as the staff will have to be retrained and groomed to work in the CBDC environment.
- Elevated cyber security risks, vulnerability testing and costs of protecting the firewalls
- Operational burden and costs for the central bank in managing CBDC.

Way forward

- Robust data security systems will have to be set up to prevent data breaches. Thus, it is important to employ the right technology that will back the issue of CBDCs.
- The financial data collected on digital currency transactions will be sensitive in nature, and the government will have to carefully think through the regulatory design. This would require close interaction between the banking and data protection regulators.
- Also, the institutional mechanisms would need to ensure that there is no overlap between different regulators and chart out a clear course of action in case there is a data breach of digital currencies.

3.17 Digital Banks

Recently, NITI Aayog has released a Report titled- 'Digital Banks: A Proposal for Licensing & Regulatory Regime for India'.

It suggested setting up Digital Banks and a licensing and regulatory framework for such Banks.

Digital Bank:

- It will be defined in the Banking Regulation Act, 1949, and shall have its own balance sheet and legal existence.
- It will be different from the 75 Digital Banking Units (DBUs) — announced by Finance Minister in Union Budget 2022-23 – which are being set up to push digital payments, banking and fintech innovations in underserved areas
- Digital banks will be subject to prudential and liquidity norms on a par with existing commercial banks.

Findings

- In recent years, India has made rapid strides in furthering Financial Inclusion (FI), catalysed by the Pradhan Mantri Jan Dhan Yojana (PMJDY) and India Stack.
- The FI has been furthered by the Unified Payments Interface (UPI), which has witnessed extraordinary adoption.
- The FI also resulted in Direct Benefit Transfer (DBT) through apps such as PM-KISAN and extending microcredit facilities to street vendors through PM-SVANIDHI.
- India is at the cusp of operationalizing its own open banking framework.
- Creating a blueprint for digital banking regulatory framework and policy offers India the opportunity to cement her position as the global leader in Fintech at the same time as solving the several public policy

challenges she faces.

Recommendations

- Issue of a restricted digital bank licence, the license would be restricted in terms of volume/value of customers serviced and the like.
- Enlistment of the licensee in a regulatory sandbox framework enacted by the Reserve Bank of India

3.18 Swadesh Darshan 2.0 (SD2.0)

The Ministry of Tourism has revamped its Swadesh Darshan scheme as Swadesh Darshan 2.0 (SD2.0)

- It aims to develop sustainable and responsible destinations with tourist & destination centric approach and has shared the guidelines for SD2.0 scheme.
- The Ministry of Tourism under its schemes of 'Swadesh Darshan' and 'PRASHAD' provides financial assistance to State Governments/Union Territory (UT) Administrations/Central Agencies etc. for development of tourism infrastructure in the country.
- The projects under this scheme are sanctioned subject to availability of funds, submission of suitable Detailed Project Reports (DPR), adherence to scheme guidelines and utilization of funds released earlier etc.

Swadesh Darshan

- Swadesh Darshan, a Central Sector Scheme, was launched in 2014 -15 for integrated development of theme based tourist circuits in the country.
- This scheme is envisioned to synergise with other schemes like Swachh Bharat Abhiyan, Skill India, and Make in India
- Under the scheme, the Ministry of Tourism provides Central Financial Assistance (CFA) to State Governments/Union Territory Administrations for infrastructure development of circuits.
- One of the objectives of the scheme is to develop theme-based tourist circuits on the principles of high tourist value, competitiveness and sustainability in an integrated manner.

Tourism Circuits:

- Under the scheme, fifteen thematic circuits have been identified– Buddhist Circuit, Coastal Circuit, Desert Circuit, Eco Circuit, Heritage Circuit, Himalayan Circuit, Krishna Circuit, North East Circuit, Ramayana Circuit, Rural Circuit, Spiritual Circuit, Sufi Circuit, Tirthankar Circuit, Tribal Circuit, Wildlife Circuit.

PRASHAD Scheme

- The 'National Mission on Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD)' was launched by the Ministry of Tourism in the year 2014-15 with the objective of holistic development of identified pilgrimage destinations.
- The projects identified under this scheme shall be implemented through the identified agencies by the respective State/ Union Territory Government.

Objective:

- Rejuvenation and spiritual augmentation of important national/ global pilgrimage and heritage sites
- Follow community-based development and create awareness among the local communities.
- Integrated tourism development of heritage city, local arts, culture, handicrafts, cuisine, etc., to generate

livelihood

- Strengthen the mechanism for bridging the infrastructural gaps.

Funding:

- Under it, the Ministry of Tourism provides Central Financial Assistance (CFA) to State Governments for promoting tourism at identified destinations.
- For components within public funding under this scheme, the Central Government will provide a 100% fund.
- For improved sustainability of the project, it also seeks to involve Public Private Partnership (PPP) and Corporate Social Responsibility (CSR) as well.

4. Science & Technology

4.1 ISRO's 'POEM' platform

ISRO places 3 Singapore satellites, 6 experiments in orbit in second launch this year. The first one having placed an Indian Earth Observation Satellite in orbit.

POEM

- The PSLV Orbital Experimental Module is a platform that will help perform in-orbit experiments using the final, and otherwise discarded, stage of ISRO's workhorse rocket, the Polar Satellite Launch Vehicle (PSLV).
- The PSLV is a four-stage rocket where the first three spent stages fall back into the ocean, and the final stage (PS4) — after launching the satellite into orbit — ends up as space junk.
- But, with the addition of a little power to keep the stage in orbit, they can be utilised for experiments.
- POEM has a dedicated Navigation Guidance and Control (NGC) system for attitude stabilisation, which stands for controlling the orientation of any aerospace vehicle within permitted limits. The NGC will act as the platform's brain to stabilize it with specified accuracy.
- POEM will derive its power from solar panels mounted around the PS4 tank, and a Li-Ion battery. It will navigate using "four sun sensors, a magnetometer, gyros & NavIC".

4.2 India's largest floating solar plant

India's largest floating solar plant is now fully operational at Ramagundam in Telangana's Peddapalli district.

The 100-megawatt (MW) floating solar power photovoltaic project was commissioned by the National Thermal Power Corporation.

As of July 1, following the commissioning of the plant, the total commercial operation of floating solar capacity in the southern region has risen to 217 MW.

What are floating solar plants?

- Solar plants or solar farms can be either ground-mounted or set up on the surface of waterbodies.
- Floating farms are a bit more expensive than the traditional ones mounted on land surfaces, there are many advantages of floating farms
- Floating farms do not require land to be acquired for the installation of photovoltaic panels.
- They are more efficient as the presence of water underneath helps them keep cool.
- They also reduce water evaporation, thereby saving more water for hydropower generation.

How are these panels kept floating?

- The solar modules are placed on floaters manufactured with high-density polyethylene material that keeps floating irrespective of water-level fluctuations.
- The entire spread is divided into blocks, each of these blocks consists of a floating platform and an array of solar modules.
- The floating platform consists of an inverter, transformer, and a high-tension circuit breaker.

4.3 Ranking of States on Support to Startup Ecosystems

The results of the third edition of Ranking of States on Support to Startup Ecosystems were released

- The Department for Promotion of Industry and Internal Trade (DPIIT) has been conducting the States' Start-up Ranking Exercise since 2018 to facilitate the ease of building a start-up and doing business across the country.
- For the purposes of the Ranking, States and Union Territories are classified into 5 Categories, viz. Best Performers, Top Performers, Leaders, Aspiring Leaders and Emerging Start-up Ecosystems.
- Gujarat and Karnataka emerged as the Best Performers in a category of States.
- Delhi and Meghalaya won the top honour among UTs and North-eastern (NE) States.
- While Kerala, Maharashtra, Orissa and Telangana got the Top Performers award among states, Jammu & Kashmir emerged as the Top Performer among UTs.
- The participants were evaluated across 7 broad Reform Areas consisting of 26 Action Points ranging from Institutional Support, Fostering Innovation and Entrepreneurship, Access to Market, Incubation support, Funding Support, Mentorship Support to Capacity Building of Enablers.
- The State Start-up Ranking Exercise aims to support states and union territories in developing their start-up ecosystem and learn from the best practices in each state and union territory.

4.4 Digital India Week 2022

The Prime Minister inaugurated the Digital India Week 2022.

- The theme for Digital India Week 2022: Catalyzing New India's Techade.
- The programme will celebrate the anniversary of Digital India and demonstrate how public digital platforms like Aadhaar, UPI, Cowin, Digilocker etc. have enabled ease of living for citizens.
- Multiple digital initiatives were launched.
- PM launched 'Digital India Bhashini', 'Digital India GENESIS' and 'Indiastack.global'; also dedicates 'MyScheme' and 'Meri Pehchaan'.

The first cohort of 30 Institutions to be supported under Chips to Startup Programme were also announced

Initiatives launched:

Digital India Bhashini

- 'Digital India Bhashini' will enable easy access to the internet and digital services in Indian languages, including voice-based access, and help the creation of content in Indian languages.
- The key intervention in building AI-based language technology solutions for Indian languages will be the creation of multilingual datasets.
- Digital India Bhashini will enable massive citizen engagement to build datasets through a crowdsourcing initiative called BhashaDaan.

Digital India GENESIS

- 'Digital India GENESIS' (Gen-next Support for Innovative Startups) – a National Deep-tech Startup Platform, to discover, support, grow and make successful startups in Tier-II and Tier-III cities of India.
- Indiastack.global
- 'Indiastack.global' – a global repository of key projects implemented under India Stack like Aadhaar, UPI, Digilocker, Cowin Vaccination Platform, Government e-Marketplace (GeM), DIKSHA Platform and

MyScheme –

- A service discovery platform facilitating access to Government Schemes.
- It aims to offer a one-stop search and discovery portal where users can find schemes that they are eligible for.

Meri Pehchaan

- National Single Sign On for One Citizen Login.
- National Single Sign-On (NSSO) is a user authentication service in which a single set of credentials provide access to multiple online applications or services.

Chips to Startup Programme

- The C2S Programme aims to train specialized manpower in the area of design of semiconductor chips at Bachelors, Masters and Research levels, and act as a catalyst for the growth of Startups involved in semiconductor design in the country.
- It offers to mentor at the organisational level and makes available State-of-the-art facilities for design to the institutions.
- This is part of the India Semiconductor Mission to build a strong design ecosystem in semiconductors.

4.5 Artificial diet and feeding device for mosquitoes

The ICMR-Vector Control Research Centre (VCRC), Puducherry, has filed patent applications for two of its unique products — an artificial diet and feeding device for mosquitoes reared in laboratory — with the Indian Patent Office recently.

- The team has also planned to approach to patent it at global level.
- The two products allow efficient and cost-effective mass-rearing of mosquitoes in laboratory as it is important to keep these mosquitoes healthy to investigate basic facets of their biology and to study vector-borne disease and measures to control it.
- It is quite challenging to keep regular supply of blood from blood banks and to obtain animal ethical clearance to ensure regular supply of blood for rearing mosquitoes for research purposes
- Hence the Institute have zeroed in on four artificial diets for feeding.
- These four diets prepared for female mosquitoes are like a baby formula food and has all the essential nutrients, which are present in the blood.
- These diets would attract hungry female mosquitoes to accept the meal, taste it like blood, produce healthy and viable eggs which should hatch like normal eggs, form healthy useful for laboratory research and mass production whenever necessary.
- It was very difficult to maintain the feed temperature to the optimum level of 37 C, which is human body temperature, by usual water circulation or by using the melted wax.
- Hence a device with controlled temperature was invented, a prototype made and also evaluated for mosquito feeding capability. This could easily replace the conventional hot water circulator-based feeding device

Significance

- These products are commercially viable and technically sound and has great potential in rearing

mosquitoes for research purposes and also for the mass production of mosquitoes for their control based on sterile insect technology, population replacement, or population reduction study and Wolbachia endosymbiont bacteria-based control operations.

4.6 HPV vaccine

The Serum Institute of India (SII)'s vaccine Cervavac recently received the Drugs Controller General of India's (DGCI) approval for market authorisation.

Cervavac is India's first quadrivalent human papillomavirus vaccine (qHPV) vaccine, and intended to protect women against cervical cancer.

Cervical cancer

- Cervical cancer is a common sexually transmitted infection.
- Long-lasting infection with certain types of HPV is the main cause of cervical cancer.
- Worldwide, cervical cancer is the second most common cancer type and the second most common cause of cancer death in women of reproductive age (15–44).
- India accounts for about a fifth of the global burden, with 23 lakh cases and around 67,000 deaths per year according to the World Health Organization's International Agency for Research on Cancer
- It kills one woman every eight minutes in the country.
- Screening and vaccination are two powerful tools that are available for preventive cervical cancer.
- Still there is little awareness among women for prevention of this cancer and less than 10% of Indian women get screened.

Existing vaccines

- Two vaccines licensed globally are available in India — a quadrivalent vaccine (Gardasil, from Merck) and a bivalent vaccine (Cervarix, from GlaxoSmithKline).
- Although HPV vaccination was introduced in 2008, it has yet to be included in the national immunisation programme.

The new vaccine

- The vaccine is based on VLP (virus like particles), similar to the hepatitis B vaccine, and provides protection by generating antibodies against the HPV virus's L1 protein.
- This will be a huge step to accelerate cervical cancer elimination in India and globally.

4.7 Dunagiri, a Project 17A Frigate

Defence Minister launched Y- 3023 Dunagiri, Project 17A frigate built by Garden Reach Shipbuilders Limited (GRSE) in Kolkata

- Christened after a mountain range in the state of Uttarakhand, 'Dunagiri' is the fourth ship of P17A Frigates.
- These are follow-on of the P17 Frigates (Shivalik Class) with improved stealth features, advanced weapons and sensors and platform management systems.
- The first two ships of P17A Project, were launched in 2019 and 2020 at MDL and GRSE respectively.

- The third ship (Udaygiri) was launched at MDL on 17 May 2022 earlier this year.
- Seven P17A Frigates are under various stages of construction at Mazagaon Dock Limited (MDL) and GRSE.

P17A Frigates

- The Nilgiri-class frigate or Project 17A is follow-on of the Project 17 Shivalik-class frigate for the Indian Navy.
- The frigates are built with extensive use of low-observability technologies, including new radar-absorbing coatings, composite materials and “faceted” shape superstructures.
- P17A ships have been designed in-house by Indian Navy’s Directorate of Naval Design (DND), which has successfully spear-headed design of numerous class of indigenous warships in the past.

4.8 Wormhole

The wormhole theory postulates that a theoretical passage through space-time could create shortcuts for long journeys across the universe.

- Wormholes were first theorized in 1916.
- Just like black holes were predicted by Einstein’s theory of gravity long before they were experimentally observed, the existence of wormholes, too, has been predicted. Ludwig Flamm, in 1916, first discovered that they could exist.
- He described a “white hole,” a theoretical time reversal of a black hole.
- Entrances to both black and white holes could be connected by a space-time conduit.
- In 1935, Einstein and physicist Nathan Rosen used the theory of general relativity to elaborate on the idea, proposing the existence of “bridges” through space-time.
- These bridges connect two different points in space-time, theoretically creating a shortcut that could reduce travel time and distance.
- The shortcuts came to be called Einstein-Rosen bridges, or wormholes.
- However, the presence of wormholes has not yet been established through observation or inference by astronomers.

4.9 China’s space station

China successfully launched first lab module for its space station.

- China successfully launched the first lab module for its under-construction space station, the latest step in the country’s ambitious programme to complete it by year’s end.
- The giant Long March-5B Y3 carrier rocket, carrying Wentian, blasted off from the Wenchang Spacecraft Launch Site on the coast of the southern island province of Hainan.
- The new module will function both as a backup of the core module, Tianhe, and as a powerful scientific experiment platform in the space station currently being built by the country.
- China is on the track to completing the construction of its space station as it successfully launched the first lab module.
- The construction of China’s space station called Tiangong is expected to be completed this year.
- It will then evolve from a single-module structure into a national space laboratory with three modules — the core module, Tianhe, and two lab modules, Wentian and Mengtian.

- Once ready, China's low-flying space station will be the only country to own a space station. The International Space Station (ISS) of Russia is a collaborative project of several countries.
- China Space Station (CSS) is also expected to be a competitor to the ISS built by Russia.
- Once ready, China's low-flying space station will be the only country to own a space station.
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4.10 Private sector in space

Principal Scientific Adviser stated that the government would soon come up with a new space policy that could initiate the rise of India's private sector participation in space sector.

Why is development in the space sector important?

- Enhancing space technology would be beneficial to bolster connectivity and combat climate-related implications through a more secure and effective means.
- Satellites provide more accurate information on weather forecasts and assess (and record) long-term trends in the climate and habitability of a region.
- By monitoring the long-term impact of climate change at regional, territorial, and national scales, governments would be able to devise more pragmatic and combative plans of action for farmers and dependent industries.
- They can also serve as real-time monitoring and early-warning solutions against natural disasters such as earthquakes, tsunamis, floods, wildfires, mining etc. Real-time tracking can also serve multiple purposes in defence.
- As for connectivity, satellite communication can reach more remote areas where conventional networks would require a heavy complimenting infrastructure.
- As to reliability, the WEF had stated that satellite communication can help connect 49% of the world's unconnected population.
- In this light, it must be noted that satellite communications, which are used to facilitate telecommunication services, are among the major categories for investment in the space technology sector.
- The space avenue is an integration of the aerospace, IT hardware and telecom sectors. It is thus argued that investment in this arena would foster positive carryover effects to other sectors as well.

Where does India stand in the global space market?

Market

- As per SpaceTech Analytics, India is the sixth-largest player in the industry internationally having 3.6% of the world's space-tech companies.
- S. holds the leader's spot housing 56.4% of all companies in the space-tech ecosystem. Other major players include U.K. (6.5%), Canada (5.3%), China (4.7%) and Germany (4.1%).
- The Indian Space Industry was valued at \$7 billion in 2019 and aspires to grow to \$50 billion by 2024.
- The country's standout feature is its cost-effectiveness.
- India holds the distinction of being the first country to have reached the Mars' orbit in its first attempt and at \$75 million — way cheaper than Western standards.

Start-ups

- Most companies in the sector, globally, are involved in manufacture of spacecraft equipment and satellite communications.
- The Union Minister of State for Science and Technology had stated earlier this month that of the 60-odd start-ups that had registered with the ISRO, a majority of them were dealing in projects related to space debris management.
- As space becomes more congested with satellites, the technology would thus help in managing 'space junk'.

Investment

- S. and Canada were the highest receivers of space-related investment in 2021.
- U.S. space budget was \$41 billion in 2021, \$23.3 billion of which was focused on NASA.
- India's total budgetary allocation for FY2022-23 towards the Department of Space was ₹13,700 crore.
- Funding into the sector's start-ups (in India) nearly tripled to \$67.2 million on a year-over-year basis in 2021.

How is the private sector's involvement regulated in India?

In June 2020, the Union government announced reforms in the space sector enabling more private players to provide end-to-end services.

(IN-SPACE)

- An announcement for the establishment of the Indian National Space Promotion and Authorisation Centre (IN-SPACE) was made.
- It was mandated the task of promoting, authorising and licensing private players to carry out space activities.
- As an oversight and regulatory body, it is responsible for devising mechanisms to offer sharing of technology, expertise, and facilities free of cost to promote non-government private entities (NGPEs).
- IN-SPACE's Monitoring and Promotion Directorate oversees NGPE's activities as per prescribed regulations and reports back in case any corrective actions or resolutions are required.
- ISRO shares its expertise in matters pertaining to quality and reliability protocols, documentations and testing procedure through IN-SPACE's 'interface mechanism'.

New Space India Ltd (NSIL)

- Additionally, constituted in March 2019, NewSpace India Ltd (NSIL) is mandated to transfer the matured technologies developed by the ISRO to Indian industries.
- With India having one of the best space programs in the world, the move to increase private sector participation in space will make India a bigger player in the global space economy.
- Space sector can play a major catalytic role in the technological advancement and expansion of our Industrial base.
- India is among a handful of countries with advanced capabilities in the space sector. With these reforms, the sector will receive new energy and dynamism, to help the country leapfrog to the next stages of space activities.

4.11 Fiberisation

What is Fiberisation?

- The process of connecting radio towers with each other via optical fibre cables is called fiberisation.
- It helps provide full utilisation of network capacity, and carry large amounts of data once 5G services are rolled out.
- Aid in providing additional bandwidth and stronger backhaul support
- Fibre-based media, commonly called optical media, provides almost infinite bandwidth and coverage, low latency and high insulation from interference.
- With 5G, it will also be necessary to increase the density of mobile towers to provide better coverage to consumers and businesses. This calls for increased requirements for fibre deployment.

The Challenges

- Indian Prime Minister Narendra of India, in his 2020 Independence Day speech, laid out the vision to connect every village in the country with optical fiber cable (OFC) in 1,000 days.
- To reach the targeted level of fiberisation, India requires about ₹2.2 lakh crore of investment to help fiberise 70% towers.
- There is also a need to increase data capacity in the fiberised towers.
- These tower sites which are connected via fibre are called fibre point of presence (POP). Currently these fibre POPs at a tower site can handle data at one to five Gbps speed.
- One of the biggest issues in the way of fiberisation remains the Right of Way (RoW) rules. While all States/UTs are required to implement these rules, they are not in complete alignment and still require certain amendments to align.

Way Forward

- DoT's GatiShakti Sanchar online portal can simplify RoW approvals and help deploy cables for 5G.
- Satellite communication also can facilitate 5G broadband connectivity to areas where it is not feasible to deploy terrestrial infrastructure like remote villages, islands or mountainous regions

4.12 N-Treat technology

The Brihan Mumbai Municipal Corporation (BMC) has tied up with Indian Institute of Technology (IIT-B) for in-situ treatment of sewage in nullahs in the city.

This pilot project will prevent coastal pollution due to sewage from 25 nullahs from flowing untreated into the sea or creeks.

What is N-Treat technology?

- N-Treat is a seven-stage process for waste treatment that uses screens, gates, silt traps, curtains of coconut fibres for filtration, and disinfection using sodium hypochlorite.
- According to the detailed project report for N-Treat, it is a natural and environment friendly way for sewage treatment.
- It's set up takes place within the nullah channels that is through the in-situ or on-site method of treatment, and does not require additional space.

What does the process involve?

- The first stage involves screening to prevent the entry of floating objects such as plastic cups, paper dishes, polythene bags, sanitary napkins, or wood.
- The second stage has proposed construction of a silt trap, which creates an inclination and 'parking spot' on the bed of the nullah for sedimentation.
- The next three stages are installation of 'bio zones' in the form of coconut fibre curtains that will act as filters and promote growth of biofilm to help in decomposition of organic matter.
- Next Stage (as proposed by IIT-B) is use of florafts. It involves suspending floating rafts vertically, called florafts.
- According to its proposal, Their hanging roots would provide a large surface area for passive filtration as well as development of microbial consortium.
- The final stage for sewage treatment will include disinfection using sodium hypochlorite, to kill the bacteria in the water.

Significance

- The N-Treat method suggested to the civic body is cost effective, as it does not require manual pumping, and saves electricity, and does not require extensive man-power for maintenance.

4.13 Cryptojacking

In News: Cryptojacking attacks on computer systems have gone up by 30% to 66.7 million in the first half of 2022 compared to the first half of last year, according to a report by SonicWall, a US-based cybersecurity firm.

While volume increases were widespread, some business sectors were hit harder than others, such as the finance industry, which saw a rise of 269%

What is cryptojacking?

- Cryptojacking is a cyber attack wherein a computing device is hijacked and controlled by the attacker, and its resources are used to illicitly mine cryptocurrency.
- In most cases, the malicious programme is installed when the user clicks on an unsafe link, or visits an infected website — and unknowingly provides access to their Internet-connected device.

Why is cryptojacking done?

- Coin mining is a legitimate, competitive process used to release new crypto coins into circulation or to verify new transactions.
- It involves solving complex computational problems to generate blocks of verified transactions that get added to the blockchain.
- The reward for the first miner who successfully manages to update the crypto ledger through this route is crypto coins.
- But the race to crack this 64-digit hexadecimal number code needs considerable computing power involving state-of-the-art hardware, and electrical power to keep the systems involved up and running.
- Cryptojackers co-opt devices, servers, and cloud infrastructure, and use their resources for mining. The use of stolen or cryptojacked resources slashes the cost involved in mining.

Why have cryptojacking incidents gone up?

- According to the SonicWall's Cyber Threat Report, the crackdown on ransomware attacks is forcing cybercriminals to look for alternative methods.
- Cryptojacking involves lower risk, and promises potentially higher payday.
- Cryptojacking is an appealing alternative for cybercriminal gangs as it has a lower potential of being detected by the victim; unsuspecting users across the world see their devices get unaccountably slower, but it's hard to tie it to criminal activity, much less point to the source.
- Unlike ransomware, which announces its presence and relies heavily on communication with victims, cryptojacking can succeed without the victim ever being aware of it.

Why should this be a concern?

- Cryptojacking is hard to detect and the victims of these attacks mostly remain unaware that their systems have been compromised.
- Some telltale signs are the device slowing down, heating up, or the battery getting drained faster than usual.
- Apart from individuals, businesses too are on the target list of cryptojackers.
- The primary impact of cryptojacking is performance-related, though it can also increase costs for the individuals and businesses affected because coin mining uses high levels of electricity and computing power.

5. Environment & Ecology

5.1 ESZ Case: Gadgil's WGEEP report back in the spotlight

As Kerala debates the Supreme Court order for maintaining at least a kilometre of Eco-Sensitive Zone for protected areas, the WGEEP report, popularly known as the Gadgil report, once again springs back to public discourse.

Gadgil Committee Recommendations:

- The Western Ghats Ecology Expert Panel (WGEEP) designated the entire hill range as an Ecologically Sensitive Area (ESA).
- The panel, in its report, has classified the 142 taluks in the Western Ghats boundary into Ecologically Sensitive Zones (ESZ) 1, 2 and 3.
- ESZ-1 being of high priority, almost all developmental activities (mining, thermal power plants etc) were restricted in it.
- Gadgil report recommended that “no new dams based on large-scale storage be permitted in Ecologically Sensitive Zone 1
- It specifies that the present system of governance of the environment should be changed. It asked for bottom to top approach (right from Gram sabhas) rather than a top to bottom approach. It also asked for decentralization and more powers to local authorities.
- The commission recommended constitution of a Western Ghats Ecology Authority (WGEA), as a statutory authority under the Ministry of Environment and Forests, with the powers under Section 3 of the Environment (Protection) Act, 1986.

Examination of Madhav Gadgil Report

- The major criticism faced by Gadgil Committee report was that it was more environment-friendly and not in tune with the ground realities.
- Recommendations were cited as impractical to implement.
- Gadgil report has asked for complete eco-sensitive cover for Western Ghats which hamper different states on energy and development fronts.
- There was criticism against the constitution of a new body called WGEA. States insist that protection can be given under existing laws.
- Gadgil report doesn't give solution for revenue losses due to implementation of its recommendations.
- Gadgil report is against dams in Western Ghats, which is a crucial blow on the ailing power sector. Considering the growing energy needs of India, critics argue that this recommendation cannot be taken.
- Major Anthropogenic Threats to The Western Ghats

The Western Ghats of India is facing severe threats to its ecosystem. In the period between 1920 to 1990, 40 percent of its natural vegetation was depleted. This is coupled with dangers arising from encroachments.

The major anthropogenic threats include:

- Large dam projects in Western Ghats have resulted in environmental and social disruption despite cost-benefit analyses and environmental impact assessments being done by the government and companies.
- The rise in human settlements has led to the over-exploitation of forest products through activities such as livestock grazing.

- Livestock grazing within and bordering protected areas by high densities of livestock (cattle and goats) is a serious problem causing habitat degradation across the Western Ghats.
- The mining establishments, especially iron-ore mining, have greatly contributed to damaging the ecological balance, by destroying farms, polluting rivers and damaging the top soil.
- Diversion of forests for agriculture, mining and industrial projects, road construction etc over the past few decades have resulted in the state of Kerala losing 9064 sq kms between 1973 and 2016 and Karnataka losing 200 sq km of forest land in the Western Ghats between 2001 and 2017.
- Given that the Western Ghats exists within an intensely human-dominated landscape, human-wildlife conflicts are a common phenomenon.
- Pollution is also playing its part, with high mercury levels in the water, and agrochemicals from tea and coffee plantations going unchecked.
- Plantations owned by private individuals and corporate sector continue to grow in the Western Ghats and constitute an important source of fragmentation of natural habitat.
- The other culprit for loss of native flora in the Western Ghats is the plantation of alien species such as Eucalyptus, Pinus by the British which can be seen across the upper slopes of the Nilgiris interspersed with Lantana Camara. They create a mat-like structure leading to degradation of the land and destruction of the native biodiversity.

5.2 Eco-sensitive zones (ESZ)

Kerala farmers living along the Western Ghats have been protesting a June 3 directive of the Supreme Court for setting up buffer or eco-sensitive zones (ESZ) for all protected forests in the country.

Background

The Supreme Court order

- A three-judge bench of the Supreme Court, in its order on June 3, said national parks, wildlife sanctuaries and such protected forests must have an ESZ of minimum 1-km from their boundaries.
- The court said the guidelines issued by the Ministry of Environment, Forest and Climate Change (MEF & CC) in 2011, which have either banned or regulated a bunch of activities within the ESZ, should be strictly adhered to.
- The proceedings that led to the June 3 SC order originated from a 1995 PIL moved by T N Godavarman Thirumulpad, a native of Nilambur in Kerala's Malappuram, seeking protection of forest lands in the Nilgiris district of Tamil Nadu.
- Later, the court widened the scope of the petition in such a manner to protect natural resources throughout the country.
- Kerala forests, protected areas and the verdict implications for Kerala
- Kerala has 23 protected forest areas, of which 12 are wildlife sanctuaries, 3 bird sanctuaries, five national parks and two tiger reserves.
- Kerala's forest cover, as per data available from 2019-20, is 11,521 square km, which forms 65 per cent of the state's total geographical area.
- This ratio of forest to total geographical areas is much higher than the national average of 6.09 per cent.
- The state's forest cover has also been going up with an increase of 823 square km from 2017.
- Thus the verdict would affect one lakh families, 2.50 lakh acres of agricultural land and two dozen townships.
- Farmers are concerned as inclusion of human settlements with ESZ would hit their life and economic

activities.

What are Eco-Sensitive Zones (ESZs)?

- Eco-Sensitive Zones or Ecologically Fragile Areas are areas within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries.
- ESZs are notified by MoEFCC, Government of India under Environment Protection Act, 1986
- Ecologically important patches, crucial for landscape linkage, even area beyond 10 km width can also be included in the eco-sensitive zone.
- The basic aim is to regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.

Activities Allowed in ESZs

- Prohibited activities: Commercial mining, saw mills, industries causing pollution, establishment of major hydroelectric projects (HEP), commercial use of wood, Tourism activities like hot-air balloons over the National Park, discharge of effluents or any solid waste or production of hazardous substances.
- Regulated activities: Felling of trees, establishment of hotels and resorts, commercial use of natural water, erection of electrical cables, drastic change of agriculture system, e.g. adoption of heavy technology, pesticides etc, widening of roads.
- Permitted activities: Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy sources, adoption of green technology for all activities.

5.3 Environment Protection Act (EPA)

The Environment Ministry proposes to soften the provisions of punishment for the violations of Environment Protection Act (EPA)

- It proposes to replace a clause that provides for imprisoning violators with one that only requires them to pay a fine.
- This does not apply to violations that cause grave injury or loss of life.
- The proposed fines, in lieu of imprisonment, are also 5-500 times greater than those currently levied.

Existing Provisions

- The Act currently says that violators will be punishable with imprisonment up to five years or with a fine up to ₹1 lakh, or with both.
- Were violations to continue, an additional fine of up to ₹5,000 for every day during which such failure or contravention continues after the conviction would be levied.
- There's also a provision for jail terms to extend to seven years.

The two major changes proposed are

- Appointing an "adjudication officer" who would decide on a penalty in cases of environmental violations
- In case of serious violations which lead to grievous injury or loss of life, they shall be covered under the provision of Indian Penal Code, 1860.
- The amendments also propose the creation of an "Environmental Protection Fund" in which the amount of penalty will be remitted

Reasons for proposed amendments

- An analysis by the Centre for Science and Environment found that Indian courts took between 9-33 years to clear a backlog of cases for environmental violations.
- Beginning 2018, close to 45,000 cases were pending trial and another 35,000 cases were added in that year.
- Ministry stated that the rationale governing the amendments is that it had received suggestions to decriminalise existing provisions of the EPA to weed out fear of imprisonment for simple violations.

The Environment (Protection) Act (EPA)

- EPA was enacted in 1986 with the objective of providing the protection and improvement of the environment.
- The Central government is also empowered to:
- Plan and execute a nation-wide programme for the prevention, control and abatement of environmental pollution.
- Lay down standards for the quality of environment in its various aspects.
- Lay down standards for emission or discharge of environmental pollutants from various sources.
- The restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall/ shall not be carried out subject to certain safeguards.
- The Central Government may appoint officers under this Act for various purposes and entrust them with the corresponding powers and functions.
- The central government as per the Act has the power to direct:
- The closure, prohibition or regulation of any industry, operation or process
- The stoppage or regulation of the supply of electricity or water or any other service
- Restriction on Pollutant Discharge: No individual or organisation shall discharge/emit or permit to discharge/emit any environmental pollutant in excess of the prescribed standards.
- Compliance with Procedural Safeguards: No individual shall handle or shall be caused to handle any hazardous substance except in accordance with the procedure and without complying with the safeguards, as prescribed.
- Powers of Entry and Inspection: Any person empowered by the Central Government shall have a right to enter (with the assistance deemed necessary) at any place:
- Establishment of Environmental Laboratories: The Central Government, as per the Act, is entitled to recognize any laboratory or institute as environmental laboratories to carry out the functions entrusted to such a laboratory.
- Penalties for Offences: Non-compliance or Contravention to any of the provisions of the Act is considered as an offence.
- Any offences under the EPA are punishable with the imprisonment of upto five years or a fine upto one lakh rupees or both.

Cognizance of offences: No Court shall take cognizance of any offence under this Act except on a complaint made by:

- The Central Government or any authority on behalf of the former

5.4 Draft E-waste Management Rules

Recently Environment Ministry has released Draft E-waste Management Rules, 2022, for public comments.

Draft Notification for Electronic Waste Management

- **Electronic Goods Covered:** A wide range of electronic goods, including laptops, landline and mobile phones, cameras, recorders, music systems, microwaves, refrigerators and medical equipment have been specified in the notification.
- **E-Waste Collection Target:** Consumer goods companies and makers of electronics goods have to ensure at least 60% of their electronic waste is collected and recycled by 2023 with targets to increase them to 70% and 80% in 2024 and 2025, respectively.
- Companies will have to register on an online portal and specify their annual production and e-waste collection targets.
- **EPR Certificates:** The rules bring into effect a system of trading in certificates, akin to carbon credits, that will allow companies to temporarily bridge shortfalls.
- The rules lay out a system of companies securing Extended Producer Responsibility (EPR) certificates.
- These certificates certify the quantity of e-waste collected and recycled in a particular year by a company and an organisation may sell surplus quantities to another company to help it meet its obligations.
- **Penalty:** Companies that don't meet their annual targets will have to pay a fine or an 'environmental compensation' but the draft doesn't specify the quantum of these fines.

Implementing Authority:

- The Central Pollution Control Board (CPCB) is the main organisation in charge of coordinating EPR certificate transactions and ensuring that enterprises are fulfilling their targets.
- The overall execution of these laws will be overseen by a steering committee led by the Chairman of the CPCB.
- **Responsibility of the State Governments:**
- Establishing steps to protect the health and safety of workers working in e-waste dismantling and recycling facilities, and
- Earmarking industrial space for e-waste dismantling and recycling facilities.

Concerns

- The proposed market for e-waste recycling appears unrealistic.
- First, large-scale recycling of e-waste is still in its infancy in India.
- Most of the recycling of valuable material is carried out within the informal sector using inefficient and unsafe technologies.
- Given this a target to recycle 60% of the e-waste generated in 2022-23 appears too optimistic
- Second, if the regulatory targets were to create a vibrant market for recycling, silence of draft on regulating registered collectors, dismantlers, and producer responsibility organisations is an issue.

Implementation

- Experience from European countries suggests that recycling targets would likely be much more difficult for the regulators to monitor and enforce compared to collection targets.
- Deciding whether the recycling target applies to every component of an e-product or it applies to its aggregate weight is important because the technological complexity and cost could vary by component.
- The Steering Committee which oversee the overall implementation, monitoring, and supervision of the regulations lacks representation from science/academia and civil society organizations.
- The draft e-waste Rules propose a few positive changes in India's fight against waste management, however, it require careful deliberation with all the relevant stakeholders before the Rules are finalized.

5.5 Banni grasslands

Gujarat plans on restoring at least 76,000 hectares of this 2,497 sq km grassland which is a high-biodiversity area.

Banni grasslands of Gujarat

- The grasslands of Gujarat constitute about 4.33 per cent (8,490 sq km) of the total geographical area, distributed in eight districts and three different climatic regions — Kutch, Saurashtra and central Gujarat.
- A majority of grasslands in Gujarat (41 per cent) are found in the Kutch district.
- Banni grassland was declared a Protected Forest in 1955, under the Indian Forest Act, 1927.
- Besides having 40 species of grass and 99 species of flowering plants, Banni is also home to the Indian wolf, jackal, Indian fox, desert fox, desert cat, caracal, hyena, chinkara, Nilgai, wild boar, Indian hare and common monitor lizard
- Banni also has 273 bird species and in years of good rainfall, is home to thousands of migratory birds.

Threats

- The landscape of Banni has shown drastic changes with the deterioration of the grassland taking place due to heavy uncontrolled grazing, widespread ingress of *Prosopis Juliflora* (a harmful exotic tree species), dams constructed on rivers flowing towards Banni, periodic occurrence of droughts and continuous increase in soil salinity.

Invasion of alien species

- It was found that in the year 1989, the area was dominated with grasslands covering 54.57% of the area followed by saline areas devoid of vegetation covering 27.30 per cent and *Prosopis Juliflora*, an alien invasive species, covering only 15.72 per cent of the area.
- Today *Prosopis Juliflora* dominant area has increased encroached to more than 30 per cent.

Restoration project

- The mainstay of the restoration project is the removal of this alien species, which incidentally was introduced to the area by the forest department in the 1960s to stop the ingress of the salt flats.
- With a huge 20-lakh livestock population that depends on the grassland, the second part of the project envisions the production and storing of fodder for local farming and pastoral communities that live here.

5.6 Forest landscape restoration

In fight against climate change and its impact, Forest landscape restoration has gained focus.

- According to the IUCN, deforestation and forest degradation contribute around 12% of global greenhouse gas emissions.
- Typically, governments have relied on afforestation and reforestation as a means of establishing trees on non-treed land.
- These strategies have now evolved. The focus is now on forest landscape restoration — the process of regaining ecological functionality and improving human welfare across deforested or degraded forest landscapes.

Forest landscape restoration

- Forest landscape restoration seeks to involve communities in the process of designing and executing

mutually advantageous interventions for the upgradation of landscapes.

- Nearly two billion hectares of degraded land in the world (and 140 million hectares in India) have scope for potential restoration as forest land.

Crucial Aspect

- A crucial aspect of this process is to ensure the diversity of the species while planting trees.
- Natural forests with diverse native tree species are more efficient in sequestering carbon than monoculture tree plantations.
- Planting diverse species is also healthier for local communities and their livelihoods

Importance of forest

- Forests are integral in regulating ecosystems, influencing the carbon cycle and mitigating the effects of climate change.
- Annually, forests absorb roughly 2.6 billion tonnes of carbon dioxide. This absorption includes nearly 33% of the carbon dioxide released from burning fossil fuels.
- Millions of lives and livelihoods are intertwined with our forests.
- Forests are a boon for local communities and their livelihoods by functioning as a resource base for goods and services.
- Forest ecosystems enrich soil fertility and water availability, enhancing agricultural productivity, and in turn the rural economy.
- Tree planting prevents erosion and stems flooding.
- Sustainable forest crops reduce food insecurity and empower women, allowing them to gain access to more nutritional diets and new income streams.
- Agroforestry lessens rural-to-urban migration and contributes to an increase in resources and household income.

India and programmes

- India joined the Bonn Challenge in 2015, pledging to restore 26 million hectares of degraded and deforested land by 2030.
- An additional carbon sink of 5 billion-3 billion tonnes of carbon dioxide equivalent through forest and tree cover is to be created by 2030 as announced recently.
- Government programmes includes Compensatory Afforestation, the National Afforestation Programme, the National Mission for a Green India (Green India Mission), the Nagar Van scheme and the Forest Fire Prevention and Management Scheme to name a few.
- There is a spotlight on youth via the Green Skill Development Programme for youth who aspire to attain employment in the environment and forest sectors.
- However, forest restoration in India faces hurdles in terms of the identification of areas for restoration, a lack of importance accorded to research and scientific strategies in tree planting, stakeholders' conflicts of interest, and financing.

What is the right way to undertake tree plantation drives?

- Forest landscape restoration must be implemented proactively, bolstering landscapes and forest ecosystems to be durable and adjustable in the face of future challenges and societal needs.
- It also needs the involvement and the alignment of a host of stakeholders including the community, champions, government and landowners.

- Vulnerable forest-dependent communities should be factored in, and any effort should be tailored to the local socio-economic context and landscape history of a region.

5.7 IPBES Assessment Report on the Sustainable Use of Wild Species

A report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) was released.

The IPBES Assessment Report on the Sustainable Use of Wild Species has been carried out over four years.

Key findings

- A report has found that with the accelerating global biodiversity crisis, a million species of plants and animals are facing extinction.
- Humans depend on 50,000 wild species for various things, including food, energy, medicine, material and other purposes, directly depend on 10,000 species for food and that over-exploitation is one of the main reasons for biodiversity degradation.
- People all over the world directly use about 7,500 species of wild fish and aquatic invertebrates, 31,100 wild plants, of which 7,400 species are trees, 1,500 species of fungi, 1,700 species of wild terrestrial invertebrates and 7,500 species of wild amphibians, reptiles, birds and mammals.
- Wild plants, algae and fungi provide food, nutritional diversity and income for an estimated one in five people around the world, in particular women, children, landless farmers and others in vulnerable situations.
- Approximately 4 billion people, or one-third of the global population, rely on fuel wood for cooking and an estimated 880 million people globally log firewood or produce charcoal, particularly in developing countries.
- Globally, wild tree species provide two thirds of industrial roundwood and half of all wood consumed for energy.
- Small-scale fisheries support over 90% of the 120 million people and about half of the people involved in small-scale fisheries are women.
- The report finds that 34% of marine wildlife is overfished.
- Over-exploitation has been identified as the main threat to wild species in marine ecosystems and the second greatest threat to those in terrestrial and freshwater ecosystems.
- Unsustainable fishing is the main cause for the increased extinction risk of sharks and rays over the past half century.
- Unsustainable hunting has been identified as a threat for 1,341 wild mammal species, including 669 species that were assessed as threatened.
- An estimated 12% of wild tree species are threatened by unsustainable logging and unsustainable gathering is one of the main threats for several plant groups, notably cacti, cycads, and orchids as well as other plants and fungi harvested for medicinal purposes.
- Unsustainable harvest contributes towards elevated extinction risk for 28-29% of near-threatened and threatened species from 10 taxonomic groups assessed on the IUCN Red List of Threatened Species.

5.8 Beating the heat

India must include financial incentives for adoption of effective cooling plans.

India has been registering instances of anomalous weather with alarming frequency with an erratic monsoon, landslides, coastal erosion etc.

Rising temperature

- An analysis of public weather data over the last half a century by the Centre for Science and Environment (CSE), suggests that the all-India average temperature during the monsoon months (June-September) is higher than the summer months (March-May).
- Monsoon temperatures are 0.4°C higher than average summer temperatures in 2012-2021.
- From 2015-2020, 2,137 people had reportedly died due to heat stroke in northwest India and southern India had reported 2,444 deaths due to excess environmental heat, with Andhra Pradesh accounting for over half the reported casualties.
- The urban heat island effect — whereby cities because of concrete surfaces and dense populations tend to on average be hotter than rural habitations — also contributed to heat stress.

Steps taken

- Indian authorities are cognisant of these trends with some States, led by Gujarat, having Heat Action Plans (HAP).
- The National Disaster Management Authority is working with 23 out of 28 heat-prone States to develop HAPs that stress changes in the built environment
- using material that keeps the indoors cooler, having an early warning system about heatwaves and improving health infrastructure to treat heat stroke patients.

Way Ahead

- It is time that India includes financial incentives, preferably via Budget outlays, for effective cooling plans. Adapting to and mitigating this most visceral challenge is the need of the hour.

5.9 Re-wilding programme of red pandas

Singalila National Park launches programme that aims to release about 20 red pandas in a period of five years

The number of red pandas has been declining in the wild, even in the Singalila and Neora Valley National Parks, the two protected areas where the endangered mammal is found in the wild in West Bengal.

Recent studies estimate that there are 38 of them in Singalila and 32 in Neora.

Red Panda

- Scientific Name: *Ailurus fulgens*
- Geographic habitat: Sikkim, West Bengal, Meghalaya and Arunachal Pradesh
- IUCN Status: Endangered
- The red panda is a small arboreal mammal found in the forests of India, Nepal, Bhutan and the northern mountains of Myanmar and southern China.
- It is a state animal of Sikkim.
- Red pandas are shy and solitary and considered an indicator species for ecological change.

- It thrives best at 2,200-4,800m, in mixed deciduous and conifer forests with dense under stories of bamboo.
- The recent studies have concluded that India is home to both the (sub) species — Himalayan red panda (*Ailurus fulgens*) and the Chinese red panda (*Ailurus styani*) and the Siang river in Arunachal Pradesh splits the two phylogenetic species.

Singalila National Park

- Singalila National Park is a National park of India located on the Singalila Ridge at an altitude of more than 7000 feet above sea level, in the Darjeeling district of West Bengal.
- The park was declared a wildlife sanctuary in 1986, and was made an Indian national park in 1992.
- The park is part of the Eastern Himalayas.
- The Singalila Ridge, which runs roughly North to South and separates Himalayan West Bengal from the other Eastern Himalayan ranges to the west of it.
- The two highest peaks of West Bengal, Sandakphu (3630 m) and Phalut (3600 m), are located on the ridge and inside the park.
- Rammam river and Srikhola River flow through the park.

5.10 Climate change missions

The Tamil Nadu government has established District Climate Change Missions in all 38 districts.

- The missions will be headed by the Collectors as Mission Directors.
- The District Forest Officers will function as Climate Officers.
- The missions will help to strengthen the government's climate response at the grassroots.
- The Collectors will have to prepare district-level climate change mitigation and adaptation plans, build capacity and provide inputs for low-carbon, climate-resilient development plans.
- The Collectors will also work towards strengthening Climate Smart Villages and create bio-shields in the coastal areas.

Significance

- The missions will create a strong policy support across all sectors of governance; devise strategies to reduce greenhouse gas emissions and bench-mark industries to move towards green manufacturing.
- They will also promote eco-friendly technologies, such as solar and wind energy technologies, biodegradable packaging and e-vehicles.
- Community Participation: Educating local communities in the management of climate change and creating technologies for evidence-based green models for adaptation and practical models for green mobility are the other objectives.

5.11 Forest (Conservation) Rules, 2022

New forest rules dilute tribal rights.

Recently, the Ministry of Environment, Forest and Climate Change (MoEFCC) has issued the Forest (Conservation) Rules, 2022.

Key Provisions

Formation of Committees:

- It constituted an Advisory Committee, a regional empowered committee at each of the integrated regional offices and a screening committee at State/Union Territory (UT) government-level.

Advisory Committee:

- The role of the Advisory Committee is restricted to advise or recommend with regards to grant of approval under relevant sections in respect of proposals referred to it and any matter connected with the conservation of forests referred to it by the Central government.

Project Screening Committee:

- The MoEFCC has directed the constitution of a project screening committee in each state/UT for an initial review of proposals involving diversion of forest land.
- The five-member committee will meet at least twice every month and will advise the state governments on projects in a time bound manner.

Regional Empowered Committees:

- All linear projects (roads, highways, etc), projects involving forest land up to 40 hectares and those that have projected a use of forest land having a canopy density up to 0.7 — irrespective of their extent for the purpose of survey — shall be examined in the Integrated Regional Office.

Responsibility to states:

- States are given the responsibility of settling forest rights of forest dwellers (Forest Rights Act, 2006) and allowing diversion of forest land.

Allows compensatory afforestation (CA) in other states:

- If the state already has over two-thirds area under green cover or over one-third area under forest cover, then CA could be taken in other states/UTs where the cover is less than 20%

Concerns

- The new Forest Conservation Rules do not mention the earlier requirement of attaining a gram sabha NOC before diverting forest land for a project.
- They also allow forest rights to be settled after the final approval for forest clearances has been granted by the Centre
- Since forest rights now needs to be carried out by the state government, state governments will be under even greater pressure from the Centre to accelerate the process of diversion of forest land

5.12 Wildfires

Europe is battling intense wildfires with countries like Spain, Greece and France struggling to stamp out fires and contain the damage.

Why are wildfires worsening?

- Wildfires require right climatic conditions, burnable fuel and a spark.
- Rising temperatures suck moisture out of plants, creating an abundance of dry fuel.

- Drought and high heat can kill plants and dry out dead grass, and other material on the forest floor that fuel the fire once it starts sweeping through a patch.
- While dry vegetation is the burnable fuel that serves as kindling for fires, the spark is sometimes caused by lightning, at other times by accident or recklessness of the local population.

Forest fires in India

Forest Fires

- Also called bush or vegetation fire or wildfire, it can be described as any uncontrolled and non-prescribed combustion or burning of plants in a natural setting such as a forest, grassland, brush land or tundra, which consumes the natural fuels and spreads based on environmental conditions.
- There are three conditions that need to be present in order for a wildfire to burn: fuel, oxygen, and a heat source.

Recent Data on forest Fires

- A total of 381 forest fires have been reported in India by 30th March, 2022, according to the Forest Survey of India. Madhya Pradesh has recorded the highest number of fires at 133.
- In March 2022, significant forest fires were reported in states such as Uttarakhand, Madhya Pradesh and Rajasthan.
- The recent fire at Rajasthan's Sariska Tiger Reserve was also considered to have been unseasonal, with high temperatures exacerbating the spread of the fire.
- January 2021 saw prolonged fires in Uttarakhand, Himachal Pradesh (Kullu Valley) and Nagaland-Manipur border (Dzukou Valley)
- Recent fires also include those in Bandhavgarh Forest Reserve in Madhya Pradesh.

Impact of Forest Fire:

- **Loss of Ecosystems and Biodiversity:** Forest fires destroy the habitats and the intricate relationships of diverse flora and fauna leading to loss of ecosystems and biodiversity.

Forest Degradation:

- Almost every year, forest fires are witnessed across different forest regions which persistently reduce the quality of certain forest features like soil fertility, biodiversity, and ecosystems.

Air Pollution:

- The huge clouds of smoke instigated by wildfires lead to massive air pollution.
- Wildfire smoke, and particularly the concentration of PM 2.5, or particles smaller than 2.5 microns, can also affect the respiratory and cardiovascular systems

Global Warming:

- When plant life is exterminated by fires greenhouse gasses increase in the atmosphere leading to climate change
- and global warming
- Trees and vegetation when are burned, it means more greenhouse gases increases in the atmosphere, resulting in global warming

Soil Degradation:

- Forest fires kill beneficial soil microorganisms that are responsible for breaking down the soil and promoting soil microbial activities.
- The burning of trees and vegetation cover also leaves the soil bare making it readily vulnerable to soil erosion.

Measures to be taken**Recognise as a Disaster:**

- The forest fires should be treated as “natural disasters” and be brought under the National Disaster Management Authority.
- Moreover, by designating forest fires as natural disasters, there will also be a financial allotment made to manage them.

Develop Alert system:

- A forest fire alert system needs to be developed that can provide real time impact-based alerts.

Enhance Adaptive Capacity:

- Capacity-building initiatives targeted at district administrations and forest-dependent communities can avert the extent of loss and damage due to forest fires.

Provide Clean Air Shelters:

- The state government/ state forest departments (SFDs) should repurpose public buildings like government schools and community halls by fitting them with clean air solutions – like air filters – to create clean air shelters for communities worst impacted by fires and smoke from forest fires.

5.13 Anamalai Tiger Reserve

Kozhikamuthi, a Malasar tribal settlement in the core area of the Anamalai Tiger Reserve in Tamil Nadu, is known for the occupation — capturing, taming and handling wild elephants for the Forest Department.

This is the second elephant camp of the Tamil Nadu Forest Department, after the one at Theppakkadu in the Mudumalai Tiger Reserve.

Anamalai Tiger Reserve

- It is one of the four Tiger Reserves in Tamil Nadu. It forms part of the Southern Western Ghats.
- It forms part of the Anamalai Parambikulam Elephant Reserve declared in 2003.
- It is surrounded by Parambikulam Tiger Reserve on the East, Chinnar Wildlife Sanctuary and Eravikulam National Park on the South Western side (all belong to Kerala).
- The reserve is also surrounded by Nenmara, Vazhachal, Malayattur and Marayur reserved forests of Kerala.
- The ranges found in this reserve include Amaravathi, Udumalpet, Pollachi, Ulandy, Valparai and Manamboli.

Anthropological Diversity:

- The area has significant anthropological diversity with more than 4600 Adivasi people from six tribes of

indigenous people living in 34 settlements.

- The tribes are the Kadars, Malasars, Malaimalasar, Pulaiyars, Muduvars and the Eravallan (Eravalar).

Flora:

It includes wet evergreen forest and semi-evergreen forest, montane shola-grassland, moist deciduous, dry deciduous, thorn forests and marshes.

Fauna:

The important mammals include: Asiatic elephant, Sambar, Spotted deer, Barking deer, Mouse deer, Gaur, Nilgiri tahr, Tiger, etc.

Mudumalai Tiger Reserve

- Mudumalai Tiger Reserve is located in the Nilgiris District of Tamil Nadu state at the tri-junction of three states, viz, Karnataka, Kerala and Tamil Nadu.
- It is a part of Nilgiri Biosphere Reserve along with Wayanad Wildlife Sanctuary (Kerala) in the West, Bandipur National Park (Karnataka) in the North, Mukurthi National Park and Silent Valley in the South.
- The name Mudumalai means the ancient hill range.

Flora:

- The Reserve has tall grasses, commonly referred to as 'Elephant Grass'.
- Bamboo of the giant variety, valuable timber species like Teak, Rosewood, etc.
- There are several species of endemic flora.

Fauna:

- Flagship Species: Tiger and Asian Elephant.
- Other species: Indian Gaur, Spotted Deer, Common Langur, Malabar Giant Squirrel, Wild Dog, Jungle Cat among others.

Birds:

- Reserve has got a wide variety of more than 260 species of birds.
- 8% of bird species found in India are recorded in Mudumalai.
- This includes rare birds like Malabar grey hornbill, Malabar pied hornbill, Malabar laughing thrush among others.

5.14 River Kali Bein

The 165-km rivulet starts from Hoshiarpur, runs across four districts and meets the confluence of the rivers Beas and Sutlej in Kapurthala.

Features

- Odhra rivulet, and Mukerian Hydrel Channel are the main source of water for Kali Bein.
- The ChhotiBein is a tributary of the Kali Bein.
- The Kanjli Wetland, a Ramsar site (a wetland site designated of international importance under the Ramsar Convention), is supported by the Kali Bein.

Pollution

- Wastewater from cities and towns as well as industrial waste used to flow into the rivulet via a drain, turning its waters black, hence the name Kali Bein (black rivulet).
- In the wake of the Green Revolution, the Kali Bein became progressively polluted until it was cleaned and rejuvenated in a mass action led by Sant Balbir Singh Seechewal in the 2000s.
- The 'Kali Bein Model' was cited as the blueprint for the National Mission for Clean Ganga.

Significance for Sikhs

- The first Guru, Nanak Dev, is said to have got enlightenment
- When Guru Nanak Dev was staying at Sultanpur Lodhi with his sister BebeNanki, he would bathe in the Kali Bein.
- He is said to have disappeared into the waters one day, before emerging on the third day. This marks the beginnings of Sikhism and the start of Nanak's teachings.
- The first thing he recited was the "Mool Mantra" of the Sikh religion (Ik Onkar).
- Gurudwara Ber Sahib, the principal shrine at Sultanpur, is situated on the bank of the rivulet Kali Bein.
- It is built by the side of an old ber tree which is believed to be the one under which Guru Nanak would sit in meditation.

5.15 Toll of human-animal conflict

Stats:

- Between 2018-19 and 2020-21, 222 elephants were killed by electrocution across the country, 45 by trains, 29 by poachers and 11 by poisoning.
- Among tigers, too, 29 were killed by poaching between 2019 and 2021, while 197 tiger deaths are under scrutiny.
- Among human casualties of conflict with animals, elephants killed 1,579 humans in three years.
- Odisha accounted for the highest number of these deaths at 322.
- Around 222 elephant deaths is caused by electrocution
- Tigers killed 125 humans in reserves between 2019 and 2021. Maharashtra accounted for nearly half these deaths, at 61

Assessments of human-wildlife conflicts indicate that the main causes of human wildlife conflict include habitat loss, growth of population of wild animals, changing cropping patterns that attract wild animals to farmlands, movement of wild animals from forests area to human dominated landscapes for food and fodder, movement of human beings to forests for illegal collection of forest produce, habitat degradation due to growth of invasive alien species, etc.

5.16 India Designates 5 New Ramsar Sites

India has added five more Ramsar sites, or wetlands that are of international importance, bringing the number of such sites to 54.

These are the Karikili Bird Sanctuary, Pallikaranai Marsh Reserve Forest and Pichavaram Mangrove in Tamil Nadu, the Sakhya Sagar in Madhya Pradesh and Pala Wetland in Mizoram.

Wetlands

- Wetlands are an area of marsh, fen, peatland or water; whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres, but does not include river channels, paddy fields, human-made water bodies/ tanks specifically constructed for drinking water purposes and structures specifically constructed for aquaculture, salt production, recreation and irrigation purposes.
- To be Ramsar site, however, it must meet at least one of nine criteria as defined by the Ramsar Convention of 1961.

Wetlands in India

- India's Ramsar wetlands are spread over 11,000 sq km — around 10% of the total wetland area in the country — across 18 States.
- No other South Asian country has as many sites though this has much to do with India's geographical breadth and tropical diversity.
- The United Kingdom (175) and Mexico (142) have the maximum Ramsar sites whereas Bolivia spans the largest area with 148,000 sq km under the Convention protection.
- Wetlands are also known to have among the highest soil-carbon densities and therefore play a major role in buffering carbon dioxide emissions.
- The National Wetland Inventory and Assessment compiled by the Indian Space Research Organisation, estimates India's wetlands to span around 1,52,600 square kilometres which is 4.63% of the total geographical area of the country.
- India has 19 types of wetlands whereas Gujarat has the maximum area followed by Andhra Pradesh, Uttar Pradesh and West Bengal.
- Wetlands in Uttar Pradesh and Gujarat serve as important spaces for migratory birds.

Significance

- Being designated a Ramsar site ensure States and the Centre take steps to keep these tracts of land are conserved and spared from man-made encroachment.
- Acquiring this label also helps with a locale's tourism potential and its international visibility.

5.17 High Ambition Coalition for Nature and People

High Ambition Coalition for Nature and People

It is an intergovernmental group championing a global deal for nature and people that can halt the accelerating loss of species, and protect vital ecosystems that are the source of our economic security.

It was launched in 2019 by Costa Rica, France and Britain.

Aim:

- To promote an international agreement to protect at least 30% of the world's land and ocean by 2030 (Global 30×30 target).
- To manage the planet sustainably with no net loss of natural habitats, supported by a circular economy, and strives for the sustainable and equitable sharing of benefits from nature.

**Members:**

- It has more than 70 countries which are a mix of countries in the global north and south, European, Latin American, Africa and Asia countries are among the members.
- India became a member in October 2021.

6. Security issues

6.1 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.

6.2 Cyber attack

Lok Sabha was told there have been 674,021 cyber attacks in the country this year until June (2022) — almost 3,700 cyber attacks a day, making India the third most impacted by network attacks in the world.

- From Covid vaccine research centres to banking and financial entities to PSU major Oil India Limited — a range of institutions came under cyber attack during the two years of the pandemic.
- The April 2022 attack on Oil India in Assam was one of the “most serious” incidents of ransomware attacks. “There were over 200 computers of Oil India that got encrypted during the attack and operations of Oil India came to a halt for almost a week.
- Health and banking were among the sectors hit hardest.
- While these attacks were successfully thwarted, these have underlined the need for constant vigil and global cooperation.

Present Government Initiatives for Cyber Security

Cyber Surakshit Bharat Initiative

- It was launched in 2018 with an aim to spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.

Cyber Swachhhta Kendra

- The Cyber Swachhhta Kendra (Botnet Cleaning and Malware Analysis Centre) is a part of the Government of India’s Digital India initiative under the Ministry of Electronics and Information Technology (MeitY).
- It intends to create a secure cyberspace by detecting botnet infections in India and to notify, enable cleaning and securing systems of end users so as to prevent further infections.

Online cybercrime reporting portal

- Launched in 2019, it is a citizen-centric initiative enabling citizens to report cybercrimes online.
- The portal specifically focuses on crimes against women, children, particularly child pornography, child sex abuse material, online content pertaining to rapes/gang rapes, etc.
- It also focuses on crimes like financial crime and social media related crimes like stalking, cyberbullying, etc.

Indian Cyber Crime Coordination Centre (I4C).

- The scheme to set up I4C was approved in October 2018, to deal with all types of cybercrimes in a comprehensive and coordinated manner.

National Critical Information Infrastructure Protection Centre (NCIIPC).

- National Critical Information Infrastructure Protection Centre (NCIIPC) is an organisation of the Government of India created under the Information Technology Act, 2000.
- The Information Technology Act, 2000 defines Critical Information Infrastructure (CII) as those computer resource, the incapacitation or destruction of which, shall have debilitating impact on national security, economy, public health or safety.

6.3 Unlawful Activities (Prevention) Act, 1967

Barshashree Buragohain, a 19-year-old college student was arrested in Assam and charged under the Unlawful Activities Prevention Act after the district police took suo motu cognizance of a post updated on her Facebook profile.

Police claim she had expressed support for ULFA-I, a banned organization.

Unlawful Activities (Prevention) Act (UAPA)

- It was enacted to provide for more effective prevention of certain unlawful activities of individuals and associations, and for dealing with terrorist activities.
- It was amended in the years 2004, 2008, 2013, and 2019 to add certain provisions relating to various facets of terrorism.

Key provisions:

- Both Indian and foreign nationals can be charged.
- It is applicable even if the offence is committed outside India.
- A charge sheet can be filed in maximum 180 days after the arrests.
- The investigation has to be completed within 90 days and if not, the accused is eligible for default bail.
- A Special Court under the UAPA conducts trials.

UAPA (Amendment), 2019

- Union government may designate an individual or an organisation as a terrorist organisation if it:
 - commits or participates in acts of terrorism,
 - prepares for terrorism,
 - promotes terrorism, or
 - is otherwise involved in terrorism.
- The investigation by the National Investigation Agency (NIA): Under the provisions of the Act, investigation of cases can be conducted by officers of the rank of DSP or ACP or above.
- It additionally empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases.
- Approval of Director- General for seizure of property if the investigation is conducted by an officer of the National Investigation Agency (NIA)
- Insertion to the schedule of treaties:
 - The Act defines terrorist acts to include acts committed within the scope of any of the treaties listed in a schedule to the Act.
 - The Schedule lists nine treaties, comprising of the Convention for the Suppression of Terrorist Bombings (1997), and the Convention against Taking of Hostages (1979).
 - Amendment adds another treaty to this list namely, the International Convention for Suppression of Acts of Nuclear Terrorism (2005).

7. Social issues

7.1 Anthrax

Anthrax, an infectious disease which affects domestic as well as wild animals, has been reported in wild boars.

- Anthrax is caused by a spore-forming bacterium/gram-positive, rod-shaped bacteria known as *Bacillus anthracis* which can be found naturally in soil. It mainly affects animals.
- Humans can be infected through contact with an animal or by inhaling spores.
- Symptoms depend on the route of infection. They can range from a skin ulcer to difficulty breathing.
- Antibiotics cure most infections. Inhaled anthrax is harder to treat and can be fatal.

7.2 Sub-categorisation of OBCs

The Union Cabinet gave the 13th extension to the Justice Rohini Commission, to submit its report.

- The commission was set up on October 2, 2017 under Article 340 of the Constitution.
- It was tasked with sub-categorisation of the Other Backward Classes (OBCs) and equitable distribution of benefits reserved for them.
- In 2015, the National Commission for Backward Classes (NCBC) had recommended that OBCs should be categorised into extremely backward classes, more backward classes and backward classes.

Article 340

- The President may by order appoint a Commission consisting of such persons as he thinks fit to investigate the conditions of socially and educationally backward classes within the territory of India.
- A Commission so appointed shall investigate the matters referred to them and present to the President a report.
- The President shall cause a copy of the report so presented together with a memorandum explaining the action taken thereon to be laid before each House of Parliament.

OBC Reservation

- The Kalelkar Commission, set up in 1953, was the first to identify backward classes other than the SCs and STs at the national level.
- The Mandal Commission Report, 1980 estimated the OBC population at 52% and classified 1,257 communities as backward.
- It recommended increasing the existing quotas, which were only for SC/ST, from 22.5% to 49.5% to include the OBCs.
- The central government reserved 27% of seats in union civil posts and services for OBCs under Article 16(4).
- The quotas were subsequently enforced in central government educational institutions under Article 15(4).
- In 2008, the Supreme Court directed the central government to exclude the creamy layer (advanced sections) among the OBCs.

7.3 Saharia tribe

Tribal woman in Madhya Pradesh's Guna district set ablaze over land dispute.

Rampyari Bai belongs to the Saharia tribe that comes under the particularly vulnerable tribal groups (PVTGs).

Saharia tribe

- The Sahar, Sehariya, or Sahariya is an ethnic group in the state of Madhya Pradesh and some districts of Rajasthan.
- They are classified as particularly vulnerable tribal groups.
- The Sahariya community considers every adult member part of a governing council which is headed by a patel.
- The Sahariyas are expert woodsmen and forest product gatherers.
- They are particularly skilled in making catechu from Khair trees.

Particularly Vulnerable Tribal Groups (PVTGs)

- PVTGs are more vulnerable among the tribal groups.
- In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category, who are less developed among the tribal groups.
- In 2006, the Government of India renamed the PTGs as PVTGs.
- PVTGs have some basic characteristics – they are mostly homogenous, with a small population, relatively physically isolated, absence of written language, relatively simple technology and a slower rate of change etc.
- Among the 75 listed PVTG's the highest number are found in Odisha.

7.4 Hate Speech

The recent incidents of communal violence has brought the focus on the Hate Speech

Recent occurrences

- The incident in Amravati, Maharashtra, where a chemist, Umesh Kolhe, was knifed to death allegedly by three men in retaliation for his sharing a post in support of former ruling party spokesperson on the Prophet was on the same lines as the dastardly murder of a tailor, Kanhaiya Lal, in Udaipur a week ago.
- In both cases, suspects who were incensed by the remarks took to violence as a counter to what they perceived as an insult to their religion.

Major Reasons of Hate Speech:

Feeling of Superiority:

- Individuals believe in stereotypes that are ingrained in their minds and these stereotypes lead them to believe that a class or group of persons are inferior to them and as such cannot have the same rights as them.

Stubbornness to Particular Ideology:

- The stubbornness to stick to a particular ideology without caring for the right to co-exist peacefully adds further fuel to the fire of hate speech.

Legal Position of Hate Speech:

Under Indian Penal Code:

- Sections 153A and 153B of the IPC: Punishes acts that cause enmity and hatred between two groups.
- Section 295A of the IPC: Deals with punishing acts which deliberately or with malicious intention outrage the religious feelings of a class of persons.
- Sections 505(1) and 505(2): Make the publication and circulation of content which may cause ill-will or hatred between different groups an offence.

Under Representation of People's Act:

- Section 8 of the Representation of People's Act, 1951 (RPA): Prevents a person convicted of the illegal use of the freedom of speech from contesting an election.
- Sections 123(3A) and 125 of the RPA: Bars the promotion of animosity on the grounds of race, religion, community, caste, or language in reference to elections and include it under corrupt electoral practices.

Recommendations for changes in IPC

Bezbaruah Committee 2014:

- It proposed amendment to Section 153 C of IPC punishable by five years and fine or both and Section 509A IPC punishable by three years or fine or both.

Viswanathan Committee 2019:

- It proposed inserting Sections 153 C (b) and Section 505 A in the IPC for incitement to commit an offence on grounds of religion, race, caste or community, sex, gender identity, sexual orientation, place of birth, residence, language, disability or tribe.
- It proposed punishment of up to two years along with Rs. 5,000 fine.

Way forward

- The most efficient way to dilute hatred is by means of Education.
- So our education system should play major role in promoting and understanding compassion with others.
- People should have a vision to unite all sections of society socially and culturally, and take the country forward.
- For India, the whole world is one family as encapsulated in its timeless ideal, 'Vasudhaiva Kutumbakam'. It is with this spirit that we should move forward together.
- The government should also bring comprehensive amendments to criminal laws to prevent hate speech and expression.

7.5 Mission Vatsalya Scheme

Ministry of Women and Child Development issues Guidelines for Mission Vatsalya Scheme

About the Scheme

- The MW&CD is implementing a Centrally Sponsored Scheme "Mission Vatsalya" erstwhile Child Protection Services (CPS) Scheme, since 2009-10 for the welfare and rehabilitation of children.
- The objective of Mission Vatsalya is to secure a healthy and happy childhood for each and every child in India.

Components under Mission Vatsalya include–

- Improve functioning of statutory bodies;
- Strengthen service delivery structures;
- Upscale institutional care/services;
- Encourage non-institutional community-based care;
- emergency outreach services;
- Training and capacity building.

Guidelines

- The guidelines detail the process by which funds will be disbursed to states under various heads by defining institutionalised arrangements.
- Funds to states will be approved through the Mission Vatsalya Project Approval Board (PAB), which will be chaired by the WCD Secretary, who will scrutinise and approve annual plans and financial proposals received from states and UTs for release of grants.
- Secretaries of the departments of Home Affairs, Social Justice and Empowerment, Panchayati Raj, Rural Development, Housing and Urban Affairs, Labour, Youth Affairs and Sports, Department of School Affairs and Literacy, and the Niti Aayog CEO, will be PAB members.
- It will be implemented as a Centrally Sponsored Scheme in partnership with state governments and UT administrations, with a fund-sharing pattern in a 60:40 ratio.
- For the eight states in the Northeast — as well as Himachal Pradesh, Uttarakhand and the UT of Jammu and Kashmir — the Centre and state/UT's share will be 90:10.
- The Centre will cover the whole cost in UTs without a legislature.
- At state level, there will be a committee headed by the Chief Secretary to monitor, review and promote convergence in the implementation of the scheme.
- There will also be a district-level committee.
- The guidelines state that Mission Vatsalya will support State Adoption Resource Agencies (SARA), which will support the Central Adoption Resource Authority (CARA) in promoting in-country adoption and regulating inter-country adoption.
- SARA shall coordinate, monitor and develop the work related to non-institutional care, including adoption in the state.
- The Mission envisages setting up cradle baby reception centres in at least one specialised adoption agency in a district.
- Mission Vatsalya will execute a 24x7 helpline service for children, as defined under JJ Act, 2015.
- Separate children's homes based on gender (including separate homes for transgender children) and age will be established for children in need of care, as well as for special needs children.
- States/UTs have also been directed to focus on special needs children in child care institutions, who are unable to attend school with physical or mental disabilities
- Financial support has also been prescribed for vulnerable children living with extended families or in foster care, supporting their education, nutrition and health needs.
- After-care has been provided for, for children leaving a child care institution on completion of 18 years, who will now be provided with financial support to facilitate the child's re-integration into the mainstream of society.
- This support could also include finances to set up businesses.
- Under the guidelines, state governments are required to take up the exercise to grade each child care institution (CCI) at fixed intervals.

- The grading will be done based on infrastructure, quality of services, wellbeing of children, especially in terms of health and education, restoration and rehabilitation of children, etc.

7.6 Nord Stream 1

The Nord Stream 1, Germany's main source of gas from Russia, was shut down on July 11 for 10 days of scheduled maintenance work.

There are growing concerns in European countries that Russia would extend the temporary suspension of gas supplies in retaliation against the current sanctions leveled against Moscow.

What is Nord Stream 1?

- Nord Stream 1 is a 1,224 km underwater gas pipeline that runs from Vyborg in northwest Russia to Lubmin in northeastern Germany via the Baltic Sea.
- The pipeline is the primary route through which its gas enters Germany.
- It transports 55 billion cubic metres of gas a year, of which most goes directly to Germany, while the rest travels west and southwards through onshore links to other countries and into storage caverns.
- There have been growing concerns that there could be further restrictions to European gas supplies, well beyond the scheduled maintenance that has been imposed.
- European countries rely on Russian energy for their cold winters, but now believe that Russia could weaponize their dependency as a response to their sanction due to the conflict in Ukraine.

What are Europe's alternative sources of energy?

- As an alternative source for energy, European countries have increasingly turned towards the US, from whom they purchase liquified natural gas (LNG) that comes via ships.
- Since ship delivered gas ends up being far more expensive, there are also attempts to get non-Russian pipeline gas from Norway and Azerbaijan.

7.7 Gender Equality

New Zealand Cricket striking a deal to remunerate its women cricketers the same as their male counterparts is a major landmark in the fight to close the gender pay gap in sports.

- From August, New Zealand's men and women players will be entitled to the same match fees, both at the international and domestic levels.
- This comes four months after the United States' women's national footballers won the six-year-long battle with their federation to secure equal compensation.
- The agreements are expected to be game changers, encouraging more girls to take up the sports.

Barriers

- Historically, men taking to sport and following sport have been organic exercises, largely because of social conditioning.
- Women, on the other hand, have been forced to internalise that sporting participation and fandom are not for them.
- Unequal opportunities, curtailed playing time and lack of investment are the factors that are holding women back.

- In cricket, any move to narrow the monetary gap between men and women, especially in India, is silenced by citing lower market ratings for the ladies' game.
- The need of the hour is to eliminate such barriers and improve access.
- Reducing the pay gap is a step in right direction. It is time the vicious cycle of fewer women accessing sports, fewer women becoming professionals and hence fewer women having commercial opportunities is broken and the glacial pace of the journey towards pay parity hastened.

7.8 Mission Shakti

Ministry of Women and Child Development issues Detailed Guidelines for 'Mission Shakti'.

- The Government of India has launched 'Mission Shakti' – an integrated women empowerment programme as umbrella scheme for the safety, security and empowerment of women.
- It seeks to realize the Government's commitment for "women-led development".
- The scheme seeks to make women economically empowered, exercising free choice over their minds and bodies in an atmosphere free from violence and threat.
- It also seeks to reduce the care burden on women and increase female labour force participation by promoting skill development, capacity building, financial literacy, access to micro-credit etc.

Mission Shakti

- Mission Shakti has two sub-schemes – 'Sambal' and 'Samarthya'.
- While the "Sambal" sub-scheme is for safety and security of women, the "Samarthya" sub-scheme is for empowerment of women.

Sambal

- The components of 'Sambal' sub-scheme consist of erstwhile schemes of One Stop Centre (OSC), Women Helpline (WHL), Beti Bachao Beti Padhao (BBBP) with a new component of Nari Adalats – women's collectives to promote and facilitate alternative dispute resolution and gender justice in society and within families.

Samarthya

- The components of 'Samarthya' sub-scheme consist of erstwhile schemes of Ujjwala, Swadhar Greh and Working Women Hostel, National Creche Scheme for children of working mothers and Pradhan Mantri Matru Vandana Yojana (PMMVY) under umbrella ICDS have now been included in Samarthya.
- A new component of Gap Funding for Economic Empowerment has also been added in the Samarthya Scheme.

Guidelines

- Beti Bachao Beti Padhao, the Centre's flagship programme for women's empowerment, which focuses on education of girl child and improving sex ratio, will now be extended across the country.
- The component will aim for zero-budget advertising and encouraging greater spend on activities that have on-ground impact.
- It aims for promoting sports among girls, self-defence camps, construction of girls' toilets, making available sanitary napkin vending machines and sanitary pads, especially in educational institutions, awareness about PC-PNDT Act, etc
- The ministry has now targeted improvement in the Sex Ratio at Birth (SRB) by 2 points every year,

improvement in the percentage of institutional deliveries at 95% or above, 1 per cent increase in enrolment at secondary education level and skilling of girls and women per year, to check dropout rate among girls at secondary and higher secondary levels and raising awareness about safe menstrual hygiene management.

- The ministry also plans to strengthen One-Stop Centres (OSCs), set up to help women facing violence, including domestic violence and trafficking.
- The ministry has further introduced a new component — Nari Adalat — for providing women with an alternate grievance redress mechanism to resolve cases of petty nature (harassment, subversion, curtailment of rights or entitlements) at gram panchayat-level, which will be implemented in a phased manner.

7.9 Family Planning Vision-2030

Recently Union Health Ministry released Family Planning Vision-2030.

Highlights

Fertility

- High teenage fertility in some areas remains a cause of concern in India even as the fertility rate has stabilised across the country.
- Participation of men will have to be encouraged in the family planning programme and that lack of access to contraceptives had been identified as a priority challenge area.
- While multiple factors have been identified that explain low contraceptive use among married adolescents and young women, two most important factors are child marriage and teenage pregnancy.
- Over 118 districts reported high percentage of teenage pregnancies and are mostly concentrated in Bihar (19), West Bengal (15), Assam (13), Maharashtra (13), Jharkhand (10), Andhra Pradesh (7), and Tripura (4)
- Additionally, over 44% of the districts in India reported high percentage of women marrying before they reach the age of 18.

Population

- India is the second largest country in the world.
- The country's population is expected to continue to grow until mid-century (due to population momentum), however, the population growth will decline substantially
- India's population has reached 136.3 crore (1.36 billion) and is expected to reach 147.9 crore (1.47 billion) by 2031 and further 152.2 crore (1.52 billion) by 2036.
- Also the adolescent population will reach 22.9 crore (229 million) by 2031 and further 22 crore (220 million) by 2036.
- The youth population in the age-group of 15-24 increased from 23.3 crore (233 million) in 2011 to 25.2 crore (252 million) in 2021 and will now decline to reach at 23.4 crore (234 million) in 2031 and further reach 22.9 crore (229 million) in 2036

A priority area

- The document notes that although there has been a steady decline in teenage childbearing, from 7.9% in the National Family Health Survey (NFHS-4) to 6.8% (in the NFHS-5) it remains a priority area that requires to be addressed, especially since India will continue to have one of the youngest populations in the world until 2030.

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