



CURRENT AFFAIRS

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KAVISH IAS
Converting Possibilities into Reality

POLITY AND GOVERNANCE

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



1.1 ANTI DEFECTION LAW

Why in News: Amidst the ongoing political games in Rajasthan, the Speaker of the state assembly issued notices to the 19 MLAs who were absent in legislature party meetings held recently.

Background

- Rajasthan was thrown into a political crisis recently, as 19 MLAs of the ruling party rebelled against the government, bringing the government to the brink of losing majority in the assembly.
- The state Chief Minister accused them of conspiring to topple the state government.
- They were also absent from legislature party meetings, despite a whip being issued.

News Summary

- The Rajasthan assembly Speaker issued notices to the 19 MLAs who were absent in legislature party meetings held recently.
- They were accused of violating the party whip, thereby inviting disqualification from the assembly

SPEAKER HAS POWERS TO DISQUALIFY, BUT REBELS CAN MOVE HC OR SC

➤ Speaker has ample powers to disqualify the rebel MLAs for anti-party activity under 10th Schedule and Members of Rajasthan Legislative Assembly (Disqualification on the Ground of Defection) Rules

➤ The 19 MLAs can argue they haven't joined hands with any party opposed to Cong govt, haven't indulged in anti-party activities & have merely voiced grievances. They can move HC or SC challenging the notice

BJP: DON'T FEEL THE NEED FOR A FLOOR TEST NOW

➤ State Cong decides to dissolve all district and block committees immediately

➤ BJP's Gulab Chand Kataria says party doesn't feel the need for a floor test "as of now"

Question is whether this amounts for defection?

Arguments of those calling it defection: The chief whip in the assembly of the ruling party sought action by the Speaker in accordance with the Tenth Schedule of the Constitution and the Rajasthan Legislative Assembly Members (Disqualification for Defection) Act, 1989.

He said that open challenges to the party leadership were an "undeniable expression of a revolt" against the party and could be deemed as the MLAs voluntarily giving up party membership.

Arguments of those saying it is not defection

- Some MLAs questioned the notices issued by the Speaker to rebel MLAs and claimed that party whip is binding on members only for their business in the House.
- The MLAs say they cannot be subject to disqualification as they never joined hands with any party opposed to the government and had not indulged in anti-party activities, except for protesting against certain events that they perceived not to be in the interest the party.

Speaker's Role and Power

- The Speaker enjoys wide powers under the anti-defection law and the rules, including the power to act swiftly or very slowly.
- The Speaker has wide powers to interpret anti-party activities to conclude certain actions amount to rebellion and a "voluntary" giving up of membership.

Anti Defection Law or Tenth Schedule

- **About Tenth Schedule**
- According to paragraph 2(1) (a) of the Tenth Schedule of the Constitution, an elected member of the house shall be disqualified from being a member if they win the election as a candidate of one party and then join another.
- The Tenth Schedule is also called as anti-defection law and was added to the Constitution through the Fifty-Second (Amendment) Act, 1985.

Objective of the Law

The purpose of the anti-defection law was to weed out corruption and money power from politics.

Decision Making Power under Anti-Defection Law

The decision on question of disqualification on ground of defection is referred to the Chairman or the Speaker of such House (i.e, the Presiding Officer), and his decision is final (but open to judicial review).

Applicability of the Law

The law applies to both Parliament and State Assemblies of the country.

Grounds of Disqualification under Anti-defection Law

- If a member of a house belonging to a political party shall be disqualified under the anti-defection law if-
 - He voluntarily gives up the membership of his political party;
 - He votes, or does not vote in the legislature, contrary to the directions of his political party. However, if the member has taken prior permission, or is condoned by the party within 15 days from such voting or abstention, the member shall not be disqualified;
 - If an independent candidate joins a political party after the election;
 - If a nominated member joins a party six months after he becomes a member of the legislature.

Exceptions under Anti-Defection Law

- Legislators may change their party without the risk of disqualification in certain circumstances.
- The law allows a party to merge with or into another party provided that at least two-thirds of its legislators are in favour of the merger. In such a scenario, neither the members who decide to merge, nor the ones who stay with the original party will face disqualification.

Issues with the Anti Defection Law

Power vests with the Speaker

- As per the Tenth Schedule, the power for disqualification is vested in the Presiding Officer/ Speaker, who is usually a nominee of the ruling party.
- As per the Supreme Court, the Speaker is the “sole and final arbiter” of the disqualification petitions. However, the Speaker also continues to belong to a particular political party either de jure or de facto. This raises question marks on whether Speaker should be entrusted as a quasi-judicial authority in defection cases of MPs or MLAs.

No Time- Limit for Decision

- Moreover, there is no time limit as per the law within which the Speaker should decide on a plea for disqualification.

- There have been several cases where the Courts have expressed concern about the unnecessary delay in deciding such petitions.

Decision of the Presiding Officer and Judicial Review

Initial Position: The law initially stated that the decision of the Presiding Officer is not subject to judicial review.

Court's Objection

- The court found this provision to be unconstitutional and held that while deciding a question under the 10th Schedule, the presiding officer should function as a tribunal.
- Thus, the decision of the Presiding Officer was subject to judicial review on the grounds of malafides, perversity, etc like that of any other tribunal.

1993 Supreme Court Ruling

- Therefore, in 1993, the Supreme Court allowed appeals against the Presiding Officer's decision in the High Court and Supreme Court.
- However, it held that there may not be any judicial intervention until the Presiding Officer gives his order.

(Note: Kindly Read about Powers of Speaker and WHIP)

1.2 ROLE OF GOVERNOR

Why in News: Rajasthan governor has directed the Chief Minister's cabinet to submit a fresh request based on his "three point advice".

News Update

On Chief Minister's insistence on a special assembly session this week itself, the governor suggested that explicitly stating its intention to seek a trust vote would be a valid ground to convene the House at short notice.

The 3 Point Advice by the Governor

- Session should be called by giving a clear notice of 21 days. But if government wants to seek a confidence vote, a shorter notice is okay.
- Video recording and live telecast of proceedings is to be done in case of trust vote, which must be carried out in yes or no format.
- Should clarify how social distancing norms will be followed in the assembly.

This entire episode of Rajasthan's political crisis has once again brought into focus controversial decisions by Governors in formation and dismissal of state governments over the years.

Governor's Role in Focus

- The on-going political crisis in Rajasthan has raised some important questions on Governor's powers and role in the state legislature's affairs-

Who has the power to summon the House in State?

- **Is Governor bound by the advice of the chief minister-led council of ministers when it comes to convening the assembly session?**
- **To what extent can the governor exercise his discretion?**

Power to Summon the House

The Constitution's Articles 163 and 174 are relevant in the context of the governor's powers to convene the state assembly.

Under Article 163

There shall be a CM-led council of ministers to aid and advice the governor except when he is required, under the Constitution, to exercise functions in his/her discretion.

Under Article 174

The governor "shall from time to time summon the House of the state...as he thinks fit but six months shall not intervene between its last sitting in one session and the date appointed for first sitting in the next session".

Article 163 (1)

Article 163(1) essentially limits any discretionary power of the Governor only to cases where the Constitution expressly specifies that the Governor must act on his own and apply an independent mind.

Origin of Article 174

- Article 174 originates from Article 153 of the draft Constitution.
- The third clause of Article 153 said the governor's power to summon the House should be exercised with discretion. However, certain members including B R Ambedkar opposed the clause as it was inconsistent with the scheme of a constitutional governor. Finally, Dr Ambedkar's resolution won and the clause was deleted.

- Draft Article 153 eventually became Article 174. Thus, the intention of the Constitution makers was not to vest the governor with the discretion when it comes to convening assembly.

Supreme Court's Judgement on Governor's Powers

- The issue of the constitutional powers of Governor in matters like these has been resolved by the Supreme Court's rulings many times.
- In the 2016 Uttarakhand case, the Supreme Court has clarified that when the majority of the ruling party is in question, a floor test must be conducted at the earliest available opportunity.
- In 2016, a Constitution Bench of the Supreme Court in **Nabam Rebia and Bamang Felix vs Deputy Speaker (the Arunachal Pradesh Assembly case)** expressly said that the power to summon the House is not solely vested in the Governor.

2016 Supreme Court Judgment in the Nabam Rebia v Deputy Speaker (case of Arunachal Pradesh)

On Article 174

The judgment reaffirmed the interpretation of Article 174 when a five-judge Constitution bench held that the governor's power to summon, prorogue and dissolve the House should be on the advice of the council of ministers.

On Omission of Draft Article 153

The court held the omission of sub-article (3) of draft Article 153 was a matter of significance for determining the intent underlying Article 174.

The inference that can be drawn is that Constitution's framers altered their original intent, and decided not to vest discretion with the governor in the matter of summoning and dissolving the House.

On Governor Acting on Aid & Advice of Council of Ministers

The Court ruled that it is satisfied in concluding that the Governor can summon, prorogue and dissolve the House, only on the aid and advice of the Council of Ministers with the Chief Minister as the head and not on his own.

Therefore, in ordinary circumstances, during the period when the council of ministers enjoys the confidence of the majority of the House, the power vested with the governor under Article 174 to summon or dissolve the House must be exercised in consonance with its aid and advice.

On Governor Exercising his Discretion

- When the chief minister has lost the support of the House and his strength is debatable, then the Governor need not wait for the advice of the council of ministers to hold a floor test.
- Under such cases, where the Government in power on the holding of such floor test is seen to have lost the confidence of the majority, it would be open to the Governor to exercise the powers vested with him under Article 174 at his own, and without any aid and advice.

Controversies Surrounding Governor's Role

There are umpteen times when the Governor's role has been questioned and also some landmark cases surrounding the role.

A few examples

1984- Andhra Pradesh (Indira Gandhi's Government at the Centre)

- Governor of Andhra Pradesh installed some minister of AP Government as Chief Minister when the actual Chief Minister N T Rama Rao was abroad for a heart surgery.

1988- Karnataka (Rajiv Gandhi's Government at the Centre)

- P Venkatasubbaiah's action to dismiss the S R Bommai government triggered a legal battle, which ended up in the landmark Bommai judgement of the Supreme Court of 1994.
- Bommai was in the Janata Party. In 1988 his party had merged with the Lok Dal, forming the Janata Dal, and new members were inducted into Bommai's Ministry.
- Bommai faced a rebellion from one of his MLAs when he defected and claimed the support of 18 MLAs.
- The Chief Minister told the Governor that his government enjoyed the majority but was not given the opportunity to prove it in the Assembly.
- Instead, the Governor recommended imposition of President's Rule which was accepted by the Central Government.

1996- Gujarat (United Front Government at the Centre)

- Gujarat's Governor recommended President's rule in the BJP-ruled state citing breakdown of the constitutional machinery on some flimsy grounds.
- At the Centre was the United Front government headed by H D Deve Gowda which accepted the Governor's recommendations.

2005- Bihar (UPA Government at the Centre)

- The Bihar Assembly elections in February 2005 threw up a fractured mandate. With no party in a position to form the government, President's rule was imposed initially.
- Two months later, the NDA claimed to form the government.
- Governor Buta Singh alerted the President that this could lead to horse-trading and recommended dissolution of the Assembly.
- President's rule was imposed subsequently and the Assembly was dissolved.
- The Supreme Court later came down heavily on the Governor who had to resign and held the dissolution unconstitutional.

2016- Goa (NDA Government at the Centre)

- In 2017, the Congress emerged the single largest party after the Assembly polls.
- But Governor invited the BJP which had cobbled up a post-poll alliance with some regional parties and independents and formed the Government.
- Similar examples of dubious role of Governor are also from states of **Uttarakhand (2016), Manipur (2017), Karnataka (2018) and Maharashtra (2019)**

Conclusion

All the major political parties have been accused of misusing the office of the Governor for political purposes when in power at the Centre. And when in Opposition, same political parties have alleged murder of democracy and the Constitution.

1.3 PLEA BARGAINING

Why in News: Many members of the Tablighi Jamaat belonging to different countries have obtained release from court cases in recent days by means of plea bargaining. They were accused of violating visa conditions by attending a religious congregation in Delhi.

Plea Bargaining

- Plea bargaining refers to a person charged with a criminal offence negotiating with the prosecution for a lesser punishment than what is provided in law by pleading guilty to a less serious offence.
- It primarily involves pre-trial negotiations between the accused and the prosecutor.
- It may also involve bargaining on the charge or in the quantum of sentence.

It is common in the United States, and has been a successful method of avoiding protracted and complicated trials. As a result, conviction rates are significantly high there.

Plea Bargaining in India

Before 2006 when a related amendments to law were made, there was no provision in India for plea bargaining. However, there was a provision in the Code of Criminal Procedure for an accused to plead 'guilty' instead of claiming the right to a full trial, but it is not the same as plea bargaining.

Law Commission's recommendation

The Law Commission of India, in its 142nd Report (1991), mooted the idea of "concessional treatment" of those who plead guilty on their own volition, but was careful to underscore that it would not involve any plea bargaining or "haggling" with the prosecution.

Malimath Committee on plea bargaining

- The Justice Malimath Committee on reforms of the criminal justice system endorsed the various recommendations of the Law Commission with regard to plea bargaining.
- Some of the advantages of plea bargaining were listed by the committee, based on earlier reports:
 - The practice would ensure speedy trial and end uncertainty over the outcome of criminal cases.
 - It will also save litigation costs and relieve the parties of anxiety.
 - It would also have a dramatic impact on conviction rates.
 - Prolonged incarceration of under trials without any progress in the case for years and overcrowding of prisons were also other factors that may be cited in support of reducing pendency of cases and decongesting prisons through plea bargaining.
 - Importantly enough, it may help offenders to make a fresh start in life.

Introduction of plea bargaining in India

- The Criminal Law (Amendment) Act, 2005, which amended the Code of Criminal Procedure introduced Plea bargaining in India.
- A new chapter XXI (A), containing Sections 265A to 265L, was enforced in the code July 5, 2006.
- Plea bargaining is allowed in case where the maximum punishment is imprisonment for 7 years.

Plea Bargaining Process in India

- The applicant should approach the court with a petition and affidavit stating that it is a voluntary preference and that he has understood the nature and extent of punishment provided in law for the offence.

- The court would then issue notice to the prosecutor and the complainant or victim, if any, for a hearing.
- The voluntary nature of the application must be ascertained by the judge in an in-camera hearing at which the other side should not be present.
- Thereafter, the court may permit the prosecutor, the investigating officer and the victim to hold a meeting for a “satisfactory disposition of the case”.
- The outcome may involve payment of compensation and other expenses to the victim by the accused.
- Once mutual satisfaction is reached, the court shall formalise the arrangement by way of a report signed by all the parties and the presiding officer.
- The accused may be sentenced to a prison term that is half the minimum period fixed for the offence.
- If there is no minimum term prescribed, the sentence should run up to one-fourth of the maximum sentence stipulated in law.

Reservations of Courts for Plea Bargaining in India

- One of the possible reasons for less popularity of plea bargaining in India is that the case law after the introduction of plea bargaining has not developed much as the provision is possibly not used adequately.
- Some earlier court verdicts disapproved of bargaining with offenders. Instead, the judges suggested that lenient sentences could be considered as part of the circumstances of the case after a regular trial.
- Courts are also very particular about the voluntary nature of the exercise, as poverty, ignorance and prosecution pressure should not lead to someone pleading guilty of offences that may not have been committed.

Differences between Plea Bargaining in India vs in Other Countries

Initiation of Plea Bargaining

- In the U.S. and other countries, the prosecutor plays a key role in bargaining with the suspected offender.
- On the other hand, Indian code makes plea bargaining a process that can be initiated only by the accused; further, the accused will have to apply to the court for invoking the benefit of bargaining.

Applicability to Cases

- The cases for which the practice is allowed are limited in India. Only someone who has been charge sheeted for an offence that does not attract the death sentence, life sentence or a prison term above seven years can make use of the provisions under Chapter XXI-A. It is also applicable to private complaints of which a criminal court has taken cognizance.
- Other categories of cases that cannot be disposed of through plea bargaining are those that involve offences affecting the “socio-economic conditions” of the country, or committed against a woman or a child below the age of 14.

Not yet mainstream in India

- Though plea bargaining has been available to those accused of criminal offences in India since 2006, it is not yet commonly used.

1.4 CRIMINALISATION OF POLITICS - ADR

Why in News: An analysis of self-sworn affidavits by sitting Rajya Sabha (RS) members was done by the Association for Democratic Reforms (ADR), an NGO working on electoral reforms. As per the analysis, about a quarter of the sitting Rajya Sabha members have declared criminal cases against themselves.

Criminalization of Politics

It means criminals contesting elections and getting elected to the Parliament or state legislatures of India.

The ADR's Analysis of Rajya Sabha

ADR report analysed 229 of the 233 Rajya Sabha seats that represent the States and Union Territories as three seats are vacant and Kerala MP K.K. Ragesh's affidavit is unavailable.

Criminal Cases

The analysis showed that 54 MPs out of 229 analysed or 24% had declared criminal cases against themselves.

Assets over ₹1 Crore

The ADR analysis found that 203 of the 229 MPs or 89% of those analysed had declared assets over ₹1crore, including 90% of the BJP MPs, 93% of the Congress MPs, 100% of the AIADMK MPs and 69% of the Trinamool Congress MPs.

Highest Declared Assets

- Janata Dal (United) MP from Bihar Mahendra Prasad had the highest declared assets at ₹4,078 crore.
- This was followed by YSRCP MP from Andhra Pradesh Alla Ayodhya Rami Reddy, who declared assets worth ₹2,577 crore.
- Actor-turned-politician, Samajwadi Party MP from Uttar Pradesh Jaya Bachchan was 3rd highest at declared assets over ₹1,001 crore.

Lowest Declared Assets

- The ADR report said BJP MP from Manipur Maharaja Sanajaoba Leishemba declared ₹5.48 lakh in assets, the lowest of the MPs analysed.
- This was followed by Aam Aadmi Party MP from Delhi Sanjay Singh, who declared ₹6.60 lakh in assets.
- This was followed by BJP MP from Jharkhand Samir Oraon, who declared ₹18.69 lakh.

ADR's Analysis of 17th Lok Sabha after 2019 General Elections

- The 17th Lok Sabha has 43% of its members facing criminal charges with 29% of the MPs have self-declared serious criminal charges against them.
- This is the highest number of members of parliament facing serious criminal charges like rape, murder and kidnapping, since 2004.
- 84% of MPs of 17th Lok Sabha have self-declared assets worth more than Rs. 1 crore.

Measures for Decriminalization of Politics

Provisions under Representation of People's Act, 1951

- Under the Section 8 of Representation of People Act 1951, a person convicted with a sentence of two years or more cannot stand in an election for six years from the date of release from prison.
- The law does not bar individuals who have criminal cases pending against them from contesting elections. But this is a problem as in India, the cases usually drag in courts for years and there is a low conviction rate.

Judicial Measures to Check Criminalization of Politics

(All these are the landmark judgments by the Supreme Court of India)

2002

Supreme Court ruled in that every candidate, contesting an election to the Parliament, State Legislatures or Municipal Corporation, has to declare his/her criminal records, financial records and educational qualifications.

2005

Supreme Court in held that a sitting Member of Parliament (MP) or Member of State Legislature (MLA) shall also be subject to disqualification from contesting elections if he is convicted and sentenced to not less than 2 years of imprisonment by a court of law.

2013- Lily Thomas vs. Union of India

- Supreme Court ruled that a sitting MP and MLA convicted of a jail term of two years or more would lose their seat in the legislature immediately.
- Further, Section 8(4) of the Representation of the People Act 1951, which allowed elected representatives three months to appeal their conviction, was declared unconstitutional. Section 8(4) of RPA 1951, allowed MPs and MLAs who are convicted to continue in office till an appeal against such conviction is disposed of.
- The Supreme Court held that, if a lower court has convicted an individual, he cannot contest an election unless a higher court has overturned his conviction. Simply filing an appeal against the judgment of the lower court is not enough.

2013- People's Union for Civil Liberties vs. Union of India, 2013

Supreme Court asked Election Commission to provide 'none of the above' choice to voters to exercise their right to express no confidence against all candidates in fray.

2014

- The SC accepted the urgent need for cleansing politics of criminalisation and directed all subordinate courts to decide on cases involving legislators within a year, or give reasons for not doing so to the chief justice of the high court.
- The Court recommended to PM/CMs not to include persons, against whom charges have been framed in serious offences, in their council of Ministers.

2018- Public Interest Foundation vs Union of India, 2018

- The SC had directed political parties to publish online the pending criminal cases of their candidates.

- It suggested that Parliament frame a law that makes it obligatory for political parties to remove leaders charged with “heinous and grievous” crimes like rape, murder and kidnapping and refuse ticket to offenders in both Parliamentary and Assembly polls.

2020

- The Supreme Court passed directions to compel political parties to explain and give reasons (on their websites and social media accounts) why candidates with criminal antecedents were given tickets.
- Listing out reasons for fielding such a candidate will be a big embarrassment for any political party.
- Any failure on part of political parties to comply with the orders will make them liable to contempt of court, thus making it a punishable offence. This means that political parties have been made directly accountable.
- The Court also made it mandatory for political parties to list out all details of the pending criminal cases against any of their candidates. (Though this data was already made public.)
- If a political party fails to submit these details then the Election Commission shall bring such non-compliance by the political party to the notice of the Supreme Court. It will make the political party as being liable in contempt of Supreme Court’s orders.

Election Commission’s Measures and Recommendations

- In 1997, Election Commission directed all the Returning Officers (ROs) to reject the nomination papers of any candidate who stands convicted on the day of filing the nomination papers even if his sentence is suspended.
- Election Commission made the following recommendations on electoral reforms to the Union Government for the decriminalization of politics

Disqualification from Contesting Elections

- If a person is accused of a serious crime (that is, where the law prescribes a punishment of not less than 5 years for the alleged crime) and if a court of law has framed criminal charges against the accused, then it shall be regarded as a reasonable ground for the disqualification of accused from contesting elections. Framing the criminal charges by a court means that the court prima facie believes that the accused might have been involved in the alleged crime.
- If a person is found guilty by a Commission of Inquiry then he shall be disqualified from contesting elections.

Two-Ballot System

The FPTP electoral system shall be replaced by the 2-ballot system under which a candidate is declared elected from a territorial constituency on the basis of majority principle. In a multi-cornered contest if no candidate attains more than 50% of valid votes polled, then the 2 candidates who obtained the largest number of valid votes polled alone shall be allowed to contest the next round of elections. This system would make it difficult for a criminal to get elected.

State funding of elections

- It means government extending financial assistance to the political parties to contest elections in part or in full, in kind or in cash.
- The objective could be to control or eliminate the outside pressure over government policies and functioning by vested interests by funding political parties and candidates during elections.
- It could help in controlling the flow of unaccounted money and muscle power of criminals during elections and corruption in public life.

1.5 DEPARTMENT RELATED STANDING COMMITTEE

Why in News: Rajya Sabha Chairman has finalised the selection on members to Department Related Standing Committees (DRSCs). Former Chief Justice of India Ranjan Gogoi who recently entered the Rajya Sabha, has been nominated as a member of the Parliamentary Committee on External Affairs. Former Prime Minister Deve Gowda finds a place in the committee on railways.

Parliamentary Committees

Parliamentary committees are essentially miniature Parliaments in themselves, usually comprising members across party lines from both the Houses.

Provisions in Constitution

Parliamentary committees draw their authority from Article 105 (on privileges of Parliament members) and Article 118 (on Parliament's authority to make rules for regulating its procedure and conduct of business).

Classification of Parliamentary Committees

Ad hoc Committees

Ad hoc committees are appointed for a specific purpose such as addressing administrative issues or the examination of a bill or inquiry into, and exist only until this purpose is fulfilled.

Standing Committees Standing committees are more permanent in nature, and are constituted from time to time in pursuance of the provisions of an Act of Parliament or Rules of Procedure and Conduct of Business in Lok Sabha.

The standing committees are further divided into two types

Financial Committees They facilitate in Parliament's scrutiny over government expenditure. Financial committees are of three kinds-

- Estimates committee
- Public accounts committee
- Committee on public undertakings

Department-related standing committees (DRSCs)

Department-related Standing Committees (DRSCs)

- There are Parliamentary Standing Committees of the Houses (called as Standing Committees) related to Ministries/Departments called as Department-related Standing Committees.
- There are 24 such Departmentally Related Standing Committees (DRSCs), each of which oversees a set of Ministries.

Examples of DRSCs

Some of the DRSCs are the committee on commerce, committee on home affairs, committee on human resource development, committee on industry, committee on social justice and empowerment and committee on finance.

Duration

They are appointed for a maximum period of one year and the committees are reconstituted every year cutting across party lines. DRSCs were set up first in 1993, to ensure Parliament could keep with the growing complexity of governance.

Constitution of DRSCs

Membership

- As per Article 269 (1) of the Constitution, each of the Standing Committees constituted under Rule 268 shall consist of not more than 31 members.
- They consist of 21 Members nominated by the Speaker from Lok Sabha, and 10 Members from Rajya Sabha nominated by the Chairman.
- A member of a Committee shall hold office for a term not exceeding one year.

- Any member appointed as a Minister shall not be nominated as, or continues as, a member of any Committee.

Chairmanship

- The DRSCs are headed by a Chairperson.
- The Chairman of each of the Committees specified in Part I of the Third Schedule shall be appointed by the Chairman of the Council from amongst members of the respective Committees, and the Chairman of each of the Committees specified in Part II of the said Schedule shall correspondingly be appointed by the Speaker.
- Chairmanship of the DRSCs is normally decided by the strength of various parties in the House but there have been deviations.

Functions of DRSCs

Each of the Standing Committees shall have the following functions:

- To consider the Demands for Grants of the related Ministries/Departments. The report shall not suggest anything of the nature of cut motions.
- To examine Bills, pertaining to the related Ministries/Departments, referred to the Committee by the Chairman or the Speaker.
- To consider the annual reports of the Ministries/Departments.
- To consider national basic long term policy documents presented to the Houses, if referred to the Committee by the Chairman or the Speaker.
- The Standing Committees is not supposed to consider matters of day-to-day administration of the related Ministries/Department. The DRSCs primarily look at three things
 - Bills
 - Budgets
 - Subject specific issues for examination

Matters not to be considered

A Standing Committee shall not ordinarily consider matters within the purview of any other Parliamentary Committee.

Reports of the DRSCs

- The report of the Standing Committee shall be based on broad consensus.
- Any member of the Committee may record a minute of dissent on the report of the Committee.

- The report of the Committee, together with the minutes of dissent, if any, shall be presented to the Houses.

Significance of DRSCs

Strengthen Deliberative Law- Making

- Discussing all Bills under the consideration of Parliament in detail on the floor of the House is nearly impossible given the volume of legislative business.
- Committees are platforms for threadbare discussion on a proposed law as a smaller cohort of lawmakers, assembled on the basis of the proportional strength of individual parties and interests and expertise of individual lawmakers, could have more open, intensive and better informed discussions.

Bring Expertise into Law-Making

Committee meetings are 'closed door' and members are not bound by party whips, which allows them the latitude for a more meaningful exchange of views as against discussions in full and open Houses where grandstanding and party positions invariably take precedence.

Ensure Executive Accountability

Executive accountability to the legislature is enforced through questions in Parliament also, which are answered by ministers. However, department standing committees go one step further and hear from senior officials of the government in a closed setting, allowing for more detailed discussions. This mechanism also enables parliamentarians to understand the executive processes closely.

INTERNATIONAL RELATIONS

- ❖ **Paper II (GS): All the Articles of this section are relevant to the following topics:**
 - **India and its Neighbourhood – Relations**
 - **Bilateral, Regional and Global Groupings and Agreements involving India and / or affecting India's Interests**
- ❖ **Prelims Oriented Questions and Places in News for Maps/ Matching**



KAVISH IAS
Converting Possibilities into Reality

2.1 CHINA-BHUTAN BOUNDARY ISSUE

- **Why in News:** Recently, China objected to Bhutan's application for a grant from the Global Environment Facility (GEF) Council for the **Sakteng Wildlife Sanctuary** situated in eastern Bhutan. As per China, it was "disputed" territory. Bhutan's response was a strongly worded demarche that "Sakteng Wildlife Sanctuary is an integral and sovereign territory of Bhutan."

News

- Bhutan got the funds from GEF but China's objection was seen as an attempt to intimidate because it was the first instance of the Chinese making border claims on eastern Bhutan.
- Sakteng sanctuary has in the past too received such grants, including in 2018-2019, without any objection from China.

Bhutan- China Boundary Dispute

- Bhutan and China don't have formal diplomatic relations.
- Between 1984 to 2016, there have been 24 rounds of boundary talks between the two countries.
- Talks have always focused on northern and western boundary regions.

Focus of Bhutan-China Border Talks

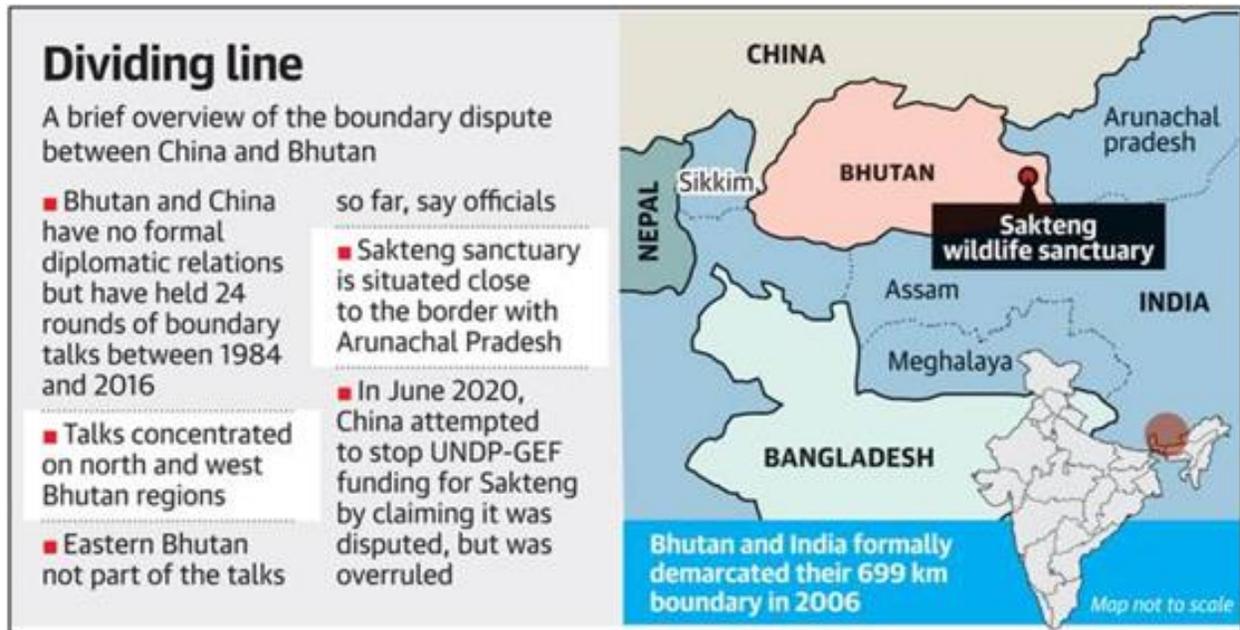
- Central section- over 495 sq km in Jakurlung and Pasamlung valleys.
- Western section- 269 sq km in western Bhutan, including the Doklam plateau.
- More importantly, as per the written records, there has been no mention of Eastern Bhutan, or Trashigang Dzongkhag (district), where Sakteng is based, in 24 previous rounds of boundary negotiations held between the two countries.
- The negotiations between China and Bhutan have not been held since the Doklam standoff between Indian and Chinese troops in 2017.

Package Deal offered by China to Bhutan

- The so-called "package deal" offered by China to Bhutan reportedly involved Beijing giving up its claim in the central section and part of the western section in exchange for access to around 100 sq km in Doklam.
- This would bring China closer to India's vulnerable "chicken's neck" or the Siliguri corridor.

Bhutan's Trashigang Region

- It is at a tri-junction with India and China and opposite West Kameng district in Arunachal Pradesh.
- This area has never been raised in Bhutan-China border talks.
- The present claims are aimed at pressuring India and Bhutan and also challenging India's relationship with Bhutan.



Significance of China's Statement

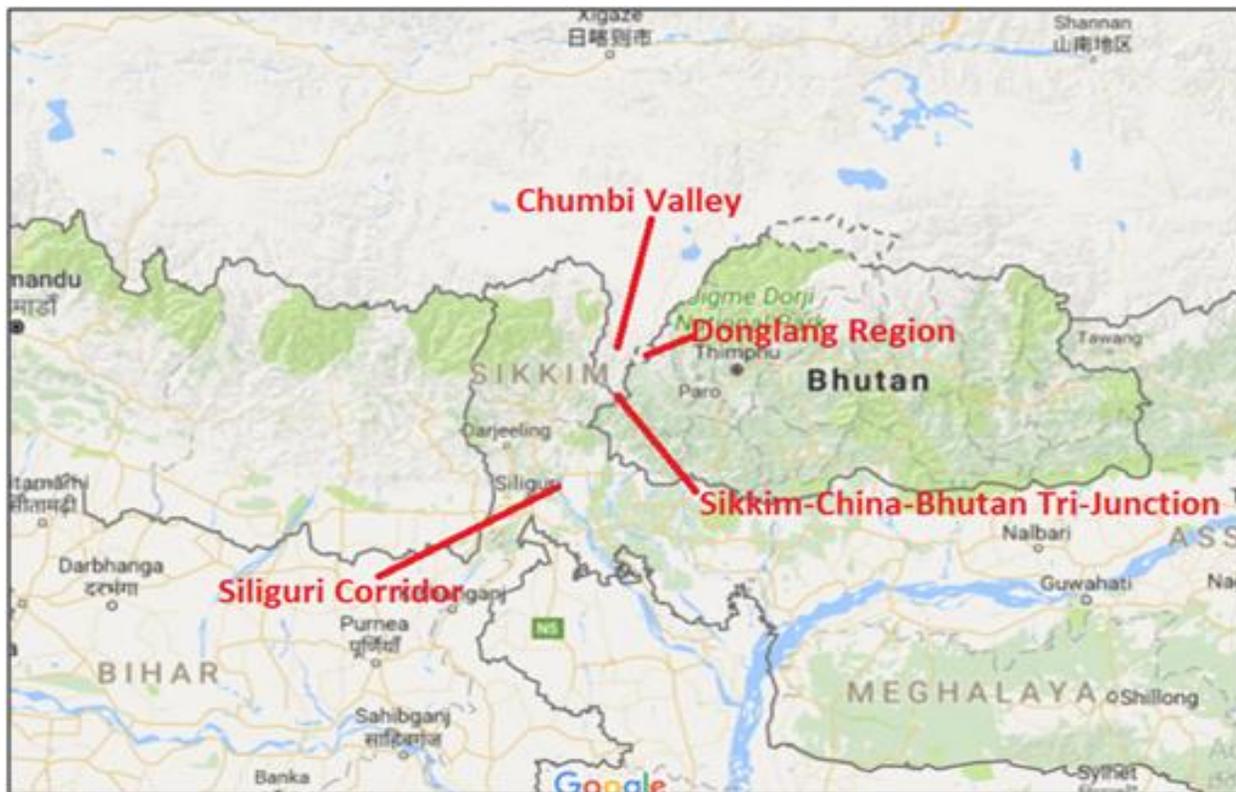
- China now asserts that China-Bhutan boundary has never been delimited and there have been disputes over the eastern, central and western sections for a long time.
- It also cautioned "third party" (read India) to refrain from stepping into the breach.
- This move is to be seen as part of the larger Chinese tactics of putting pressure on India's smaller neighbours, to punish them for any closeness to India.

Doklam Stand-off

In 2017, the PLA had intruded into Doklam plateau which is Bhutanese territory. This led Indian forces to show up in strength to prevent China from building a road up to the Jhampheri ridge. The stand-off went on for 72 days before status quo ante was restored. But China built up massive defences on its side of the border. **This year, too, there have been reports that China had started building yet another road along Torsa/Amo Chu, apparently aiming for the Siliguri corridor in India.**

Significance of Doklam Plateau for India

The disputed region is very close to India's Siliguri Corridor which connects the seven north eastern states to the Indian mainland



2.2 HAGIA SOPHIA MOSQUE

Why in News: The world-famous Hagia Sophia museum in Istanbul (Turkey), has been turned back into a mosque.

Hagia Sophia

- Built as a Cathedral by Byzantine Empire
- Hagia Sophia has a complex history dating back to 530s AD.
- 532 AD- The construction of this iconic structure began during the reign of Justinian I, the ruler of the Byzantine Empire, in Constantinople (modern day Istanbul).
- The construction got completed by 537 AD.
- With its huge dome, it was believed to be the world's largest church and building.
- It remained in Byzantine hands for centuries apart from a brief moment in 1204 when Crusaders raided the city.

Converted to mosque under the Reign of Ottoman Empire

- 1453- In a devastating blow to the Byzantines, Ottoman Sultan Mehmed II captured Istanbul (formerly known as Constantinople).
- The victorious conqueror performed Friday prayers inside Hagia Sophia.
- The Ottomans soon converted the building into a mosque, adding four minarets to the exterior and covering ornate Christian icons and gold mosaics with panels of Arabic religious calligraphy.
- For a long time, the Hagia Sophia was Istanbul's most important mosque.

Made into a museum in Modern Day Turkey

- In 1934, Mustafa Kemal Ataturk, the founder of modern Turkey, shut down the mosque and turned it into a museum.
- This was an attempt by Ataturk to make the country more secular.

Present Status

- Till now, it was a museum and is Turkey's most popular tourist site, attracting more than 3.7 million visitors a year.
- It is also a UNESCO World Heritage site.
- It is considered as a symbol of religious and political significance in Turkey.

The Controversy

Domestic Politics of Turkey

- Islamists in Turkey long called for it to be converted to a mosque but secular opposition members opposed the move.
- The recent move happened after the highest court of Turkey annulled its museum status.
- Turkey's Council of State had declared in its ruling that the conversion of the Hagia Sophia from a mosque into the museum by the country's founder was illegal.
- An hour after the court's verdict was announced, Turkey's President Recep Tayyip Erdogan issued an order stating the Hagia Sophia was open to Muslim worship.
- Egypt's President Erdogan has defended the decision by stressing that the country had exercised its sovereign right in converting it back to a mosque.
- This move is being considered as one more step to dismantle Ataturk's secular legacy and Erdogan's attempt to appease the Islamist and conservative voters in Turkey.

International Criticism

- The proposal prompted criticism from religious and political leaders worldwide.
- Making changes at Hagia Sophia is profoundly symbolic as it represents the secular credentials of modern day Turkey.
- UNESCO has said it "deeply regrets" the decision to turn the museum into a mosque and called on the Turkish authorities to "open a dialogue without delay."

Greece's Objection

- There have been diplomatic tensions between Turkey and Greece over other issues.
- Last month, Greece had appealed to UNESCO, objecting to Turkey's moves on grounds that the conversion would violate international conventions.
- For its own part, UNESCO too has denounced Turkey's move to convert Hagia Sophia into a mosque.

Russia's Reaction

Russia also expressed its displeasure at the decision of Turkey to re-convert Hagia Sophia into a mosque and stated that concern of millions of Christians has not been heard.

The USA's Statement

US State Department said it was "disappointed" by the move and indicated that it would observe Turkey's plans for the Hagia Sophia "to ensure it remains accessible without impediment for all."

Implications for Hagia Sophia

- Presently, there is no clarity on whether the conversion of the Hagia Sophia will impact the Byzantine artwork and mosaics inside the monument.
- Also, there is also no clarity on whether the monument will continue to hold its UNESCO heritage status following its conversion into a mosque or whether the international organisation will withdraw its designation.
- It is also not clear whether the ruling in the case of the Hagia Sophia will be used to convert other public places that Ataturk converted into museums. For instance, the Topkapı Palace in Istanbul, the former seat of the Ottoman Empire.

2.3 INDIA-IRAN (CHABAHR PORT)

Why in News: Iran has dropped India from a project to build a rail line from the Chabahar port to Zahedan, along the border with Afghanistan. The reason cited by Iran is "absence of active Indian engagement."

Iran's Statement

- The major reason cited by Tehran for dropping India from the project is delay in the proposed \$400 million funding from India.
- Iran's official stand is that it remains open to all including India for collaboration and investment but Tehran expects future projects should be safeguarded from third party unilateral sanctions.

India's Refutation

- India has said that it is "committed" to financing and building the Chabahar-Zahedan railway line, which is an intrinsic part of the Chabahar port project.
- As per Indian officials, the Zahedan railway project has following two components-
- The 'sub-structure' which is earth-moving and preparing the ground for the tracks.
- The 'super-structure' which includes the tracks and rakes.
- The Iranian government is responsible for the first and India has committed to do the rest.
- As per India, the construction that Iranian agencies needed to undertake was also awaited.
- Meanwhile, the Indian part needs steel which is currently under US sanctions, and this has caused a delay.

Chabahar Rail Project

- The project was signed in 2016 when Prime Minister Narendra Modi visited Iran.
- In May 2016, state-owned Indian Railways Construction Ltd (IRCON) had signed an MoU with the Iranian Rail Ministry for the same.
- IRCON had promised to provide all services, superstructure work and financing for the project (around \$1.6 billion).
- When completed, it will be a 628 km Chabahar-Zahedan line, which will be extended to Zaranj across the border in Afghanistan.

Strategic Significance of the Rail Project

- It was meant to be part of India's commitment to the trilateral agreement between India, Iran and Afghanistan to build an alternate trade route to Afghanistan and Central Asia.
- It would give India access to Afghanistan bypassing Pakistan.
- The project has a crucial geopolitical value with its outreach to Afghanistan, Central Asia and right up to Moscow.
- The strategic plan was to make India a potential role player in the Eurasian scenario.

Background of the Rail Project

- The original Chabahar agreement between India and Iran was signed in 2003 between Iranian President Mohammad Khatami and Prime Minister A.B. Vajpayee.
- Within a year, India abandoned it as India was more actively engaging with the Americans.
- The project was again brought up when Prime Minister Modi went to Tehran.
- The project is considered as crucial for India's strategic interest.

Recent Dip in India-Iran Relations

- The bilateral relations between the two countries have been dipping majorly because of U.S. sanctions on India's projects with Iran.
- India-Iran energy trade was hit when India shut energy imports from Iran because of the threat of U.S. sanctions.
- India stopped buying Iranian oil last year after U.S. waivers ended.
- In 2019-20, India's crude oil imports from Iran were 1.7 million tonnes, down from 23.9 million tonnes in the previous fiscal.
- India secured exemption for the Chabahar port from U.S. sanctions but not for other projects.
- The bilateral ties with Iran took a hit in February after the riots in Delhi drew condemnation from Iranian Foreign Minister.

Warming up between Iran and China

- China and Iran are in an advanced stage of finalising a 25-year strategic partnership agreement.
- It is a long-term strategic partnership agreement with energy, economic, logistical and military aspects.
- The project would allow China to expand its presence in banking, telecommunications, ports, railways and several other sectors in the Islamic Republic in return for heavily discounted oil for 25 years.

Implications of the Agreement

Implications for Iran

- The oil sales of Iran have already plummeted after President Donald Trump unilaterally pulled the U.S. out of the Iran nuclear deal in May 2018 and re-imposed sanctions on the country.
- Iran's economy is hit by the triple whammy of U.S. sanctions, fall in oil prices and the corona virus outbreak.

- It could offer an immediate reprieve to Iran's economy that is reeling under the U.S.'s 'maximum pressure' policy.
- This agreement with China is being seen as an economic lifeline for Iran.

Implications for China

- Iran also has a very crucial place in China's Belt and Road Initiative.
- China always wanted to bring Iran on board.
- The agreement could also make way for Chinese military bases in Iran, fundamentally changing geopolitics of West Asia.
- For decades now, the US forces have dominated the West Asia's security paradigm, but this agreement could now provide China with a foothold in the region.

2.4 INDIA-EU VIRTUAL MEET

Why in News: The 15th Summit between India and the European Union (EU) was held in virtual format on 15th July 2020. India was represented by Prime Minister Shri Narendra Modi. The EU was represented by President of the European Council, and President of the European Commission. The leaders decided to strengthen the India-EU Strategic Partnership.

Highlights of the Talks

On Shared Values

India stressed that both sides share universal values such as "democracy, pluralism, inclusivity, respect for international institutions, multilateralism, freedom, transparency" and for this "democratic countries need to strengthen cooperation".

On Trade & Investment

- The two sides have started a new initiative to revive talks on a free trade agreement that have been suspended since 2013.
- The BTIA was proposed to encompass trade in goods, services and investments. However, talks got suspended in May 2013 as the two sides could not agree on some critical issues such as slashing of tariffs on automobiles, wines and spirits, and free movement of professionals.
- Now, with the talks on BTIA revived, India and EU have announced a high level dialogue between India's Commerce Minister Piyush Goyal and E.U. Trade Commissioner (Phil Hogan) to try and move towards the Bilateral Trade and Investment Agreement (BTIA).
- The high level dialogue will focus on trade and investment between India and EU.

- Once implemented, BTIA will significantly enhance the commercial relationship between two sides.
- The convergence on economic initiatives between the two sides was significant in the context of sluggish world growth in the wake of the Covid-19 pandemic.

On Data Protection

- India and the EU agreed to enhance convergences to ensure a high level of protection of personal data and privacy, including through possible data adequacy decisions, with a view to facilitating safe and secure cross-border data flows between them.
- The two sides also decided to engage on 5G and AI to foster “their safe and ethical deployment”.
- The reference is important in view of concerns over China’s state-sponsored data theft.

Documents Signed

The summit saw India and the EU sign five documents-

- A political joint statement
- EU- India strategic framework called Roadmap 2025
- **Euratom-India Agreement** on civil nuclear cooperation for research and development cooperation in peaceful uses of nuclear energy
- Renewal of science and technology agreement for five years
- A joint declaration on resource efficiency and circular economy

On LAC Incident

Indian PM briefed European Council president and European Commission president on the situation at the Line of Actual Control, including the June 15 incident in Galwan Valley in which 20 Indian Army personnel were killed in clashes with PLA troops.

India and European Union Bilateral Relations

History

- India-EU bilateral relations date back to the early 1960s with India being amongst the first countries to establish diplomatic relations with the European Economic Community in 1962.
- A multi-tiered institutional architecture of cooperation has been created between the two sides and presided over by the India-EU Summit since 2000.
- The first India-EU Summit took place in 2000 in Lisbon and marked a watershed in the evolution of the relationship.

- The relationship was upgraded to a 'Strategic Partnership' during the 5th India-EU Summit held in 2004 in The Hague.

Recent Developments

- Last year saw a further deepening of bilateral relationship between India and the European Union (EU).
- The India-EU Strategic Partnership Review Meeting was also held on 8 November 2019 in New Delhi in preparation for the 15th India-EU Summit.
- Both sides recognize the need to fully realize the untapped potential of the Strategic Partnership.

Trade & Investment

- The EU is India's largest regional trading partner while India is the EU's 9th largest trading partner.
- India's bilateral trade in goods with the EU in 2018 stood at €91.5 billion (\$107.97 billion) comprising India's exports to the EU at €45.8 billion (\$54.0 billion) and imports at €45.7 billion (\$53.9 billion).
- India's bilateral trade in services with the EU in 2018 was €36 billion (\$42.5 billion) comprising India's exports at €19.3 billion (\$22.7 billion) and imports at €16.7 billion (\$19.7 billion).
- EU is India's largest source of FDI. During the period April 2000 to June 2019, FDI equity inflows from the EU to India totaled \$100.35 billion, which is about 23% of the total FDI

2.5 HYDROELECTRIC PROJECTS IN POK (CPEC FRAMEWORK)

Why in News: Multiple hydropower projects are undergoing construction or being proposed on River Jhelum and Indus in the Pak Occupied Kashmir (PoK) territory of India. These projects are part of China Pakistan Economic Corridor framework.

Kohala Hydro Electric Project on Jhelum

- The agreement for Kohala HEP was signed on June 23 between Pakistan and China.
- It is a 1124 MW project which will come up on river Jhelum near Muzaffarabad.
- The dam will be 69 m high, and will have 8-km-long reservoir.
- Its construction and commissioning is expected to be complete by 2026.

Funding Arrangements

- The project is a part of CPEC framework and is one of the biggest investments by China in PoK.
- The HEP is a tripartite agreement between China Three Gorges (CTG) Corporation, the government of PoK and Private Power and Infrastructure Board.
- The project is worth \$ 2.3 billion.

Azad Pattan HEP on Jhelum

- Recently, Pakistan and China signed an agreement for the Azas Pattan Hydel power project.
- It is a 700 MW power project on the Jhelum river in Sudhoti district of Pakistan Occupied Kashmir (PoK).
- It is the second power project under the China Pakistan Economic Corridor (CPEC), for which an agreement has been signed in the last two months.
- As per the project agreement (which is still not available in the public domain), the project is a run-of-the-river scheme with its reservoir in Sudhnoti district of PoK.
- The project will comprise a 90-metre-high dam, with a 3.8 sq km reservoir.

Funding Arrangements

- Azad Pattan project is being developed under the CPEC framework.
- The project is worth \$ 1.5-billion and it will be funded a Chinese state-owned multinational corporation.

Other Hydro Power Projects on River Jhelum

Apart from the Kohala and Azad Pattan projects, other hydro power projects on river Jhelum are:

- **Mahl hydro power project**
- **Chakothe Hattian hydro power project**
- **The Karot Hydro Power Project:** This is also being executed by China on the Jhelum. It is on the boundaries of Kotli district in PoK and Rawalpindi district in Pakistan's Punjab province. According to the CPEC site, construction is under progress, and the project is expected to be commissioned by the end of 2021.

Diamer-Basha Dam on Indus

- Pakistan Prime Minister inaugurated the construction of the Diamer-Basha dam on 15th
- Diamer Basha dam on the Indus river in Chilas in Gilgit-Baltistan of Pakistan-occupied Kashmir.

- When constructed, Diamer-Bhasha will be Pakistan's third largest dam.
- It will generate 4500 MW of electricity and provide at least 16,000 jobs.
- The dam expected to be completed by 2028.

Funding Arrangements

In May 2020, the Pakistan government signed a Rs 442 billion contract on a joint venture of a Chinese state-run firm and a commercial arm of Pakistan's military for the construction of the dam.

Significance of Dam for Pakistan

- The project is estimated to help alleviate acute irrigation shortage in the Indus basin irrigation system caused by progressive siltation of the existing reservoirs.
- It is also expected to reduce intensity, quantum and duration of floods and reduce magnitude and frequency of floods in the River Indus downstream.

News Summary

India's Reaction

- India has condemned Pakistan's decision to construct the Diamer Basha dam as it will submerge large parts of Jammu and Kashmir and Ladakh.
- In principle, India has protested the construction of dams and other infrastructure in PoK and Gilgit Baltistan, which are territories claimed by it as part of Jammu & Kashmir.

HEPs as a Cause of Strategic Concern for India

- Over the years, China's economic and strategic interests in Pakistan have grown exponentially.
- It has invested \$62 billion in building China-Pakistan Economic Corridor (CPEC) that includes development of Gwadar port and massive construction of infrastructure projects including HEPs in Balochistan, Gilgit-Baltistan, Khyber Pakhtunkhwa, Punjab and Sindh.
- Such HEPs signify growing influence of China in Pakistan and China's open defiance of India's territorial claims over PoK. Thus, any such infrastructure project is always a cause of concern for India.
- Chinese activity in PoK is in gross violation of the sovereignty of India and also UN resolutions on Jammu and Kashmir.
- By getting China deeply involved in PoK, Pakistan is only trying to ensure that in any possible event of India taking back PoK, China remains a force for India to deal with.

- The Chinese presence in PoK is not being appreciated by the local population.
- Recently, protests were held with a call for saving the rivers over construction of Neelum Jhelum and Kohala hydel projects. The Neelum Jhelum project is being built on river Neelum for diverting river water to the Jhelum.

2.6 GLOBAL COMMONS

Why in News: India has reiterated that its stand is clear and consistent and that the South China Sea was a part of global commons.

Statement by Ministry of External Affairs of India

- India firmly stands for the freedom of navigation and over flight and unimpeded lawful commerce in these international waterways, in accordance with international law, notably UNCLOS.
- India maintains that it has an abiding interest in peace and stability in the region.
- India also believes that any differences should be resolved peacefully by respecting the diplomatic processes.

Global Reactions on SCS Dispute

- India's response followed the recent rejection by US of territorial claims made by Beijing in South China Sea.
- The US has again toughened its position on the South China Sea.
- The US has accused Beijing of attempting to build a "maritime empire" in the potentially energy-rich waterway, ignoring concerns by smaller regional players.
- India's reaction on the disputed region also came after Australia said that it will continue to advocate "very strongly" for the freedom of navigation through the South China Sea.
- Australia is a key player in the Indo-Pacific region.

Global Commons

Definition

- As per United Nations Environment Program (UNEP), the 'Global Commons' refers to resource domains or areas that lie outside of the political reach of any one nation State.
- Put simply, global commons are those resource domains that do not fall within the jurisdiction of any one particular country, and to which all nations have access.

Examples of Global Commons

- **International law identifies four global commons namely**

- High Seas
- Atmosphere
- Antarctica
- Outer Space
- These areas have historically been guided by the principle of the common heritage of humankind.
- The High Seas are guided by open access doctrine
- Despite efforts by governments or individuals to establish property rights or other forms of control over most natural resources, the Global Commons have remained an exception.

Challenges Faced by Global Commons

- Historically, access to most of the resources found within the global commons has been difficult and they have not been scarce.
- With the advancement of science and technology in recent years and the increased demand for resources is leading to an increase in activities such as fisheries, bio-prospecting, navigation, flight, scientific research, and the laying of submarine cables.
- At the same time, our planet is facing critical environmental challenges, most importantly climate change and global warming, the depletion of the Ozone layer, and rapid environmental degradation in the Antarctica.
- There is a growing interest in particular amongst regional economic and military alliances, in access to the global commons from a trade, security and critical resources perspective. The South China Sea dispute is a prominent example of this challenge being faced by global commons like high seas.
- If business as usual prevails, these trends will likely worsen and will negatively impact the global commons' capacity to provide ecosystem services for human well-being.

Management of Global Commons

The international community acknowledges the need to conserve global commons for development and human well-being. The governance and management of global commons is based upon following principles

- Inclusive social development
- Inclusive economic development
- Environmental sustainability
- Peace and security

The international community has adopted a number of conventions and treaties to govern global commons. They include

- **United Nations Convention on the Law of the Sea (UNCLOS) of 1982**
- **Instruments governed by the International Maritime Organization and**
- **UNEP's Regional Seas Conventions to govern the high sea**
- **Antarctic Treaty System (ATS) ensuring the protection of the Antarctica fauna and flora**
- A multitude of international environmental treaties that administer and protect the atmosphere and deal with the air pollution and atmospheric depletion, like the UNFCCC and the Montreal Protocol on Substances that Deplete the Ozone Layer
- The Treaty on Principles governing the Activities of States in the Exploration and Use of Outer Space

Global Governance for Global Commons

- As per the UN, a global governance regime, under the auspices of the UN, will have to ensure that the global commons will be preserved for future generations.
- To achieve coherence in global governance, all three dimensions of sustainable development – sustainable economic growth, social inclusion and protection of the environment and the global commons – need to be integrated at the global level.

2.7 ECOSOC

Why in News: Prime Minister Narendra Modi recently addressed a high-level dialogue of the United Nation's Economic and Social Council (ECOSOC) on the subject 'Multilateralism after COVID-19: What kind of UN do we need at the 75th Anniversary?'

Highlights of PM's speech

- The Prime Minister urged the members of the United Nations to take a pledge to undertake reforms within the world body (UN).
- He highlighted that the United Nations was originally formed after the destruction caused by the Second World War. Thus, the world should use the current pandemic as a chance to reform the United Nations.
- He stressed that the multilateral system needs to be more representative, as the path to achieve sustainable peace and prosperity is through multilateralism.
- He underlined that only reformed multilateralism, along with a reformed United Nations can fulfill the hopes of humanity. In international relations, multilateralism refers to an alliance

(union) of multiple countries pursuing a common goal.

Measures for Covid-19

- The PM said that India has given assistance to more than 150 countries, and helped set up a SAARC (South Asian Association for Regional Cooperation) COVID-19 emergency fund in the South Asian neighbourhood to deal with the Covid-19 pandemic.
- He also shared economic measures to manage the impact of the pandemic, including a government package of \$300 billion to support the economy and to build modern infrastructure.
- He also highlighted India's grassroots health system, which has helped India to achieve one of the best recovery rates in the world.
- India has the third highest number of cases in the world but it also has the third highest recoveries at about 644,000, after the U.S. and Brazil.
- However, its recovery rate is about 63%, which ranks India at number 42 in the world.

ECOSOC

- The UN Charter established the Economic and Social Council (ECOSOC) in 1945 as one of the six main organs of the United Nations.
- Headquartered in New York, the Council serves as the central forum for discussing international economic, social and environmental issues.
- The Council also develops policy recommendations for the member states and the United Nations system.
- Each year, ECOSOC structures its work around an annual theme, which is of global importance to sustainable development.
- Over 1600 non-governmental organizations have consultative status with the council, to participate in the work of the United Nations.

Members

The Council consists of 54 member states, which are elected yearly by the General Assembly for three-year terms. Seats on the Council are allocated through fair geographic rotation among the United Nations regional groups.

SECURITY AND DEFENCE

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

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

❖ **Prelims Oriented Questions**

3.1 DHRUVA STRA

Why in News: The Defence Research and Development Organisation (DRDO) has conducted flight trials of the helicopter-launched anti-tank guided Nag Missile (HELINA). The missile has now been named as Dhruvastra.

Anti-tank guided Nag Missile

- Nag is a third-generation, fire-and-forget, anti-tank guided missile (ATGM) developed by India's Defence Research and Development Organisation (DRDO).
- The Nag missile was indigenously developed under the Indian Ministry of Defence's integrated guided missile development program (IGMDP),
- The missile incorporates an advanced guidance system and possesses high single-shot kill probability.
- It is designed to destroy modern main battle tanks and other heavily armored targets.



Land and Air versions

- Nag can be launched from land and air-based platforms.
- The land version is currently available for integration on the Nag missile carrier.
- The helicopter-launched configuration, designated as helicopter-launched NAG (HELINA), can be fired from Dhruv advanced light helicopter (ALH) and HAL Rudra (ALH WSI) attack

helicopter.

- In the wake of ongoing border tensions between India and China, DRDO conducted flight trials of the helicopter-launch version of the anti-tank guided Nag Missile (HELINA), which has been named now as Dhruvastra.
- The system has all-weather day and night capability and can defeat battle tanks with conventional armour as well as explosive reactive armour.

3.2 DEFENCE INFRASTRUCTURE UPGRADE

Why in News: In the midst of India's tense border standoff with China, the defence ministry has approved several capital procurement projects worth Rs 38,900 crore. The decisions were taken at a meeting of the Defence Acquisition Council (DAC), which is the highest decision-making body of the Defence ministry on procurement.

The projects will take at least two to three years, if not more, to translate into actual inductions into the armed forces but they signal the government's renewed thrust on building military capabilities despite budgetary constraints.

Focused on indigenous design and development, these approvals include acquisitions from Indian Industry worth Rs 31,130 crore.

List of the approvals

- As per the approval 21 MiG-29 fighter jets will be procured from Russia and 12 Su-30 MKI aircraft will be bought from State-run Hindustan Aeronautics Ltd (HAL).
- A separate proposal to upgrade existing 59 MiG-29 aircraft has also been approved, to ensure similar standards across the fleet.
- The ministry has also approved procurement of 248 ASTRA beyond visual range (BVR) air-to-air missile systems.
- Another big take away from the DAC was the approval for eventual induction of over 300 land-attack cruise missiles with a strike range of over 1,000 km. However, it will take 2-3 years for development trials of this advanced version of the Nirbhay missile, which was first successfully tested in 2017, to be completed.
- Further, the DAC has approved the acquisition of software defined radios, Pinaka missile systems and ammunitions.

Benefits

- Acquisition of Pinaka missile systems will enable raising additional regiments over and above the ones already inducted.
- Addition of long range land attack missile systems having a firing range of 1000 KM to the existing arsenal will strengthen the attack capabilities of the Indian Navy and the Indian Air Force.
- Similarly, induction of Astra Missiles having beyond visual range capability will serve as a force multiplier and immensely add to the strike capability of the Indian Navy and the Indian Air Force.

MiG-29

- The MiG-29 is a twin-engine jet fighter aircraft designed by the Soviet Union and entered service with the Soviet Air Forces in 1982.
- While originally oriented towards combat against any enemy aircraft, many MiG-29s have been furnished as multirole fighters capable of performing a number of different operations, and are commonly outfitted to use a range of air-to-surface weapons.
- The MiG-29 has been manufactured in several major variants, including the multirole MiG-29M and the navalised MiG-29K.
- Later models frequently feature improved engines, modern radar and infrared search and track (IRST) sensors, and considerably increased fuel capacity; some aircraft have also been equipped for aerial refueling.
- Following the dissolution of the Soviet Union, the militaries of a number of former Soviet republics have continued to operate the MiG-29, the largest of which is the Russian Air Force.

Sukhoi Su-30 MKIs

- The Sukhoi Su-30MKI is a twinjet multirole air superiority fighter developed by Russia's Sukhoi and built under licence by India's Hindustan Aeronautics Limited (HAL) for the Indian Air Force (IAF).
- A variant of the Sukhoi Su-30, it is a heavy, all-weather, long-range fighter. Development of the variant started after India signed a deal with Russia in 2000 to manufacture 140 Su-30 fighter jets.
- The aircraft is tailor-made for Indian specifications and integrates Indian systems and avionics as well as French and Israeli sub-systems.
- The first Russian-made Su-30MKI variant was accepted into the Indian Air Force in 2002, while the first indigenously assembled Su-30MKI entered service with the IAF in 2004.
- The IAF has nearly 260 Su-30MKIs in inventory as of January 2020 and is expected to form the backbone of the Indian Air Force's fighter fleet in the future.

Astra missile

- Astra is a beyond-visual-range air-to-air missile developed by the Defence Research and Development Organisation. It is the first air-to-air missile developed by India and serial production of Astra missiles began in 2017.
- The missile is designed to engage and destroy highly maneuvering supersonic aircraft and has all weather day and night capability.
- It is designed to be capable of engaging targets at varying range and altitudes allowing for engagement of both short-range targets at a distance of 10 km and long-range targets up to a distance of 110–160 km.
- Astra has been integrated with Indian Air Force's Sukhoi Su-30MKI and will be integrated with Dassault Mirage 2000, HAL Tejas and Mikoyan MiG-29 in the future.

Pinaka missile system

- Pinaka is all-weather, indirect fire, free flight artillery rocket system, according to the DRDO.
- The Pinaka weapon system consists of Rocket, Multi Barrel Rocket launcher, Battery Command Post, Loader cum Replenishment Vehicle, Replenishment Vehicle and Digicora MET Radar.
- It provides a unique capability to accurately deliver a devastatingly lethal and responsive fire against a variety of area targets such as exposed enemy troops, armoured and soft skin vehicles, communication centers and air terminal complexes.

Nirbhay missile

- Nirbhay is a long range, all-weather, subsonic cruise missile designed and developed in India by the Aeronautical Development Establishment (ADE) which is under Defence Research and Development Organisation (DRDO).
- The missile can be launched from multiple platforms and is capable of carrying conventional and nuclear warheads.
- It is claimed to have sea-skimming and loitering capability, i.e., it can go round a target and perform several maneuvers and then re-engage it. It is also able to pick out a target and attack it among multiple targets.
- With two side wings, the missile is capable of flying at different altitudes ranging from 100 m to 4 km above the ground and can also fly at low altitudes (like low tree level) to avoid detection by enemy radar.
- It will eventually supplement the role played by Brahmos missile for the Indian Armed Force by delivering warheads farther than the 400-500 km range of the Brahmos.

3.3 PATROLLING POINTS (LAC INDO-CHINA BORDER)

Why in News: The recent conflict that took place between Indian and Chinese troops in Ladakh on the Line of Actual Control (LAC), are centred around a number of patrolling points or PPs in Galwan, Hot Springs and Gogra areas.

PPs 10 to 13 in Depsang sector, PP14 in Galwan, PP15 in Hot Spring, PP17 and PP17A in Gogra are currently under dispute between the two countries.

Line of Actual Control (LAC)

- The LAC is a diving line that separates Indian-controlled territory from Chinese-controlled territory.
- The LAC, according to Indian claims is 3,488 km long. It is divided into three sectors:
 - The eastern sector in Arunachal Pradesh and Sikkim
 - The middle sector in Uttarakhand and Himachal Pradesh
 - The western sector in Ladakh



Military Patrolling

- Military Patrolling is a tactic in which small groups or individual units are sent to a particular place with an objective of surveillance or observation for the purpose of security.
- The duration of a patrol varies from a few hours to several weeks depending on the nature of the objective and the type of units involved.

Patrolling Points

- Patrolling points are areas identified and marked on the LAC, that are patrolled with a specified frequency by the security forces.
- The PPs have been identified by the China, starting from 1975 when patrolling limits for Indian forces were specified.
- Most of the PPs are actually on the LAC, however, there are a few exceptions which are within the LAC on the Indian side. The exceptions are PP10, PP11, PP11A, PP12 and PP13 in the Depsang plains in northern Ladakh.



Numbering of Patrolling Points

- Some of the PPs are prominent and identifiable geographical features, such as a pass, or a junction, which have not been given any numbers.

- Only those PPs where there are no prominent features, they are numbered, as in the case of PP14 in Galwan Valley.

Significance of Patrolling Points

- They are physical markers on the ground and serve as a guide for soldiers who patrol the LAC.
- PPs indicate the extent of 'actual control' exercised by India on the territory.

Establishment of claim on PPs

- Unlike the Line of Control (LoC) with Pakistan, the entire border with China is not physically held by the Indian Army. Further, the Patrolling Points are not army posts, thus they do not have continuous presence of the army.
- Also, they are just physical markers on the ground, chosen for their location and have no defensive potential or tactical importance for the Army.
- So, India establishes its claims on these PPs through frequent Army or joint Army-ITBP patrols in these areas.
- As the Chinese may not see when the Indian patrols visit these PPs, they leave some cigarette packets or food tins with Indian markings behind. That lets the Chinese know that Indian soldiers had visited the place, which indicates that India is in control of these areas.

3.4 DEFENCE FORCES RESCUE OPERATIONS

Why in News: Indian Navy conducted Operation Samudra Setu to repatriate Indian citizens abroad during the COVID-19 pandemic.

Operation Samudra Setu

- It was launched by the Navy in May and has culminated after successfully bringing back 3,992 individuals.
- The evacuated Indians disembarked at Kochi, Thoothukudi and Porbandhar.
- The exercise covered more than 23,000 kms by the sea and lasted for more than 55 days.

Vessels Used in the Exercise

- Landing Platform Dock INS Jalashwa
- Landing Ship Tanks INS Airavat, Sharduland Magar

Challenge in the Exercise

Greatest challenge was to avoid any incident of outbreak of infection on board the ships during the evacuation operation.

Special Precautions Undertaken

- Rigorous measures were planned and medical/ safety protocols unique to the operating environment of ships were implemented.
- Ships used for the operation were specially provisioned with sick bay or the clinic on board which was equipped with COVID-19 related equipment and facilities.
- The social distancing norms and medical arrangements were taken special care of.
- Also, women officers and military nursing staff were also embarked for the women passengers.

Previous Exercises

The Navy has previously undertaken similar evacuation operations as part of Operation Sukoon in 2006 (Beirut) and Operation Rahat in 2015 (Yemen).

Operation Raahat

- Operation Raahat was an operation of the Indian Armed Forces to evacuate Indian citizens and foreign nationals from Yemen during the 2015 military intervention by Saudi Arabia and its allies in that country during the Yemeni Crisis.
- The evacuation was done by sea and air both in April 2015.
- More than 4,640 Indian citizens in Yemen were evacuated along with 960 foreign nationals from 41 countries.
- The 2015 military intervention in Yemen began in March 2015 when the Royal Saudi Air Force led a coalition of Arab states attacked the Shiite Houthi

Operation Sukoon

Operation Sukoon was an operation launched by the Indian Navy to evacuate Indian, Sri Lankan and Nepalese nationals, as well as Lebanese nationals with Indian spouses, from the conflict zone during the 2006 Lebanon War.

3.5 RAFALE

Why in News: Forty-six months after contract was signed with French aerospace major Dassault Aviation, the first five of the 36 Rafale fighter jets have been delivered to India. All 36 aircraft are scheduled to arrive in India by end of 2021.

- India's last major acquisition of fighter planes was 23 years ago, when the Sukhoi fighter aircrafts were imported from Russia.

- Prime Minister greeted the aircrafts arrival with a Sanskrit shloka, which said there was no virtue like protecting the nation, no vow and 'yagna' (worship) like defence of the nation.
- **In his message the PM also shared the IAF's motto — 'Nabhah sparsham diptam' (touch the sky with glory).**

Increase in squadron strength

- The five aircrafts would be formally included into the Ambala-based, Number 17 Golden Arrows squadron of the Indian Air Force.
- The Golden Arrows, which will be resurrected (revived) with the new Rafale jets, were raised in 1951 and have been involved in many significant operations, including the Kargil War, but was disbanded (discontinued) in 2016.
- This will take the Indian Air Force's squadron strength to 31. After the delivery of all the 36 Rafale jets, the squadron strength will increase to 32, which would still be below the sanctioned strength of 42.
- A squadron in air force, army aviation, or naval aviation is a unit comprising a number of military aircraft and their aircrews, usually of the same type.

Diplomatic engagement to strengthen Defence ties

- India has been in touch with all major arms suppliers — Russia, the US, France and Israel — at the political and diplomatic level during its border conflict with China.
- Both India and Israel have expressed satisfaction at the progress of strategic cooperation between the two countries and the possibility of strengthening the Defence agreements.
- Russia has also assured India of early delivery of weapon systems which have been ordered and has responded positively to Indian acquisition proposals.
- India has also been conducting a series of talks with the US, to advance military and intelligence cooperation.

Rafale aircraft

- The Dassault Rafale is known as the 5 generation aircraft that was developed through the 1990s and early 2000s by France's Dassault Aviation. The name Rafale literally means 'a gust of wind' and a burst of fire' in a more military sense.
- It is considered among the most advanced fighters in the world and can reach almost double the speed of sound, with a top speed of 1.8 Mach.
- This twin-engine aircraft is equipped with a wide range of weapons, and can take up several missions on a single flight. Each aircraft has 14 storage stations for weapons.

- It has multi-role capabilities, which include electronic warfare, air Defence, ground support and in-depth strikes. It also has the capability to deliver nuclear weapons.

ALL 36 TO TOUCH DOWN BY 2021-END

The Deal	The Need	The Delivery
<p>Overall Cost: 7.8 billion euros (Rs 59,000 crore)</p> <p>Inked in: Sept 2016</p> <p>36 fighters (28 single-seat & 8 twin-seat)</p> <p>No Make in India. But has 50% offsets</p>	<ul style="list-style-type: none"> ➤ IAF down to just 30 fighter squadrons (16-18 jets each) ➤ At least 42 needed for collusive China-Pak threat ➤ Just 36 Rafales will not make the 	<ul style="list-style-type: none"> ➤ First 5 Rafales to touch down in India on July 29 ➤ All 36 by end-2021 ➤ First 18 at Ambala in 17 'Golden Arrows' Squadron ➤ Next 18 at Hasimara in 101 'Falcons' Squadron
		
The Punch	Weapons include:	
<ul style="list-style-type: none"> ➤ 4.5-Gen omni-role fighter ➤ Can simultaneously perform both air defence & ground attack missions ➤ Can deliver nuclear weapons 	<ul style="list-style-type: none"> ➤ Combat range from 780-km to over 1,650-km depending on mission ➤ Can carry 9.3-tonne of weapons 	<ul style="list-style-type: none"> ➤ 120-150km beyond-visual range Meteor air-to-air missiles ➤ Over 70-km range Mica air-to-air missiles ➤ Over 300-km Scalp air-to-ground cruise missiles ➤ 20-70 km 'Hammer' air-to-ground precision-guided munitions also planned

Missiles onboard Rafale aircrafts being delivered to India

- The Rafale jets come with one of the most advanced Meteor air-to-air missiles.
- The Rafale jets also come with SCALP missiles and the MICA air-to-air missiles.
- India has also asked for HAMMER (Highly Agile and Maneuverable Munition Extended Range) to be included in the Rafale Jets.

Info on Missiles

Meteor Missile

- Meteor is an active radar guided beyond-visual-range air-to-air missile (BVRAAM) developed by MBDA.
- It offers a multi-shot capability against long range moving targets, jets, and cruise missiles, with range well in excess of 100 kilometers.
- The solid-fueled ramjet motor allows the missile to cruise at a speed of over mach 4.

SCALP missile

- SCALP is an air-to-ground cruise missile with a range of over 300 km. It is a long range deep strike missile, powered by a turbojet at Mach 0.8.
- It is a fire and forget missile, programmed before launch. Once launched, the missile cannot be controlled or commanded to self-destroy and its target information cannot be changed.

MICA missile

- MICA is a multi-mission air-to-air missile system that can be used both for visual and beyond range air-to-air strikes. It is all-weather, fire-and-forget missile.
- MICA outperforms other BVR missiles with its unique stealthy interception (secret interception) capability provided by its silent seeker.

Hammer Missile

- The HAMMER (Highly Agile Modular Munition Extended Range) missile is a medium-range air-to-ground weapon designed for the French Air Force and the Navy.
- It a rocket- enabled precision missile with a range of 60 km perfectly suited for high altitude.

Significance

- The long-awaited Rafale aircrafts would add great strength to IAF and the country's Defence capabilities.
- With its avionics (electronic equipments in aircraft), radars and weapon systems, the Rafale is the most powerful aircraft in South Asia, much ahead of the F-16s that Pakistan uses or even the J20 Chengdu, aircraft of China.
- While China's J20 Chengdu jets are called fifth generation combat jets, compared to 4.5 generation Rafale, the J20 has no actual combat experience (battle experience).
- The Rafale is already combat proven (proven in a battle), as it has been used by the French Air Force for its missions in Afghanistan, Libya and Mali.
- Rafale can also carry more fuel and weapons than the J20.

ECONOMY

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

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



KAVISH IAS
Converting Possibilities into Reality

4.1 COOPERATIVE BANK

Why in News: Cooperative sector had some trouble over the last year. The PMC Bank (Punjab and Maharashtra Cooperative Bank) fiasco made clear the problems with the cooperative structure in India. These cooperative banks had a different kind of regulation from that of the commercial banks.

Hence, while the PMC problem became an RBI problem, which had to be addressed, the fact remains that co-op banks have very opaque structures.

Urban Cooperative Banks (UCBs) vs Commercial banks

- The Urban Cooperative Banks (UCBs), 1,544 of them in 2019, accounted for a balance sheet size of Rs 6 lakh crore compared to the Rs 166 lakh crore of commercial banks.
- Of this Rs 4.8 lakh crore were deposits (Rs 129 lakh crore for commercial banks) and net worth of around Rs 0.5 lakh crore (Rs 13.3 lakh crore for commercial banks).
- On the assets side, loans were at Rs 3 lakh crore (Rs 97 lakh crore for commercial banks) and investments Rs 1.57 lakh crore (Rs 43 lakh crore for commercial banks).

Norms for the UCBs

- **SLR:** Since 2015, the SLR requirements of UCBs have been reduced progressively in line with the prescription applicable to SCBs.
- **Basel norms:** Since UCBs are governed by Basel 1 regulatory norms, the liquidity coverage ratio (LCR) requirement is not applicable to them.
- **CAMELS:** In terms of soundness based on CAMELS, RBI has classified 78% of them in the A and B categories.
- CAMELS rating system is one of the most conventional methods to analyze and evaluate the bank soundness. It consists of six dimensions to measure the performance of the bank.
- **CAR:** The capital adequacy ratio for them was 9% as they are not supposed to be included under Basel 3 with any capital conservation buffers or higher tier-1 capital; 96% of them had a CAR of over 9%.

Some failures but overall UCBs not in bad shape

- Gross NPA ratio was 7.1% in 2019, but was up to 10.5% in H1FY20 due to the large failures.
- As of 2019, return on assets was 0.74%, and the return on net worth was 8.66%.
- Hence, the overall picture is not bad, but for the fact that there have been failures.

- There have also been 132 mergers of UCBs in the last decade and a half.

Recent ordinance on cooperative banks

- The central government recently brought in an ordinance relating to cooperative banks, barring those which lend to farmers. This essentially means that it is for urban cooperative banks and multi-state cooperative banks.
- The ordinance improves regulatory oversight of these banks by putting in place a stronger RBI supervisory structure for them.
- The objective was to provide protection to the deposit-holders.

Two things to note

Dual regulation will continue

- Before the ordinance, the Registrar of Cooperatives (for management) and RBI (for banking) were both the regulators of these cooperative banks.
- Even with the ordinance, the Registrar of Cooperatives does not lose its power and it remains unchanged.
- Therefore, the two regulator model still holds.

RBI had oversight earlier also but this increases now

- Even earlier, there was RBI oversight though not to the extent that is being spoken of today.
- Hence, it is not a case of saying that there was no oversight earlier that has been brought in today.

How will things be different now?

No change in deposit guarantee:

The deposits of UCBs have always been covered under the deposit guarantee scheme, and hence, nothing much will change as deposits upto Rs 5 lakh would be covered under the same.

Access to capital improves:

These banks can, however, now have access to capital in the form of both debt and equity after taking permission from RBI.

Hence, the due diligence process that has to be followed for raising either equity capital or bond will automatically ensure that they work towards maintaining a very good track record of performance, and, more importantly, governance.

RBI now has powers to allow mergers:

- The ordinance also gives RBI the power to allow for mergers or amalgamations.
- This means that, if it is observed that some of them are too weak to survive on their own, action can be taken.

Scope of expansion:

- The cooperative banks have a wide scope to expand their business, which is good for the financial system because these large number of banks has remained at the periphery for too long.
- They have a strong focus on the SME sector, which can benefit a lot.
- In 2019, 44% of their lending was for priority sector, and the two leading segments were MSMEs, with a share of 26.9%, and housing, with 7.5%.

What changes for RBI?

- RBI will also have a say in the appointment of key management positions just as it has for commercial banks, and it can seek changes in case the performance is not up to the mark.
- RBI can, in the public interest, supersede the management of a multi-state cooperative bank for up to five years and appoint an administrator.
- If the bank is registered with the Registrar of Cooperative Societies of a state (single-state UCBs), the regulator will have to consult the state government concerned before issuing an order to supersede the board.
- From the point of view of RBI, the challenge would be to regulate and supervise these 1,500-odd banks with the same rigour as is accorded to the commercial banks.
- This will require expansion in staff to meet the requirement of maintaining high standards of governance that are adhered to in the larger banking space.
- Less than 30% of the banks have total advances of above Rs 500 crore. Over half have a credit size of less than Rs 50 crore, which will make the job of supervision even more challenging.

In the future of the cooperative banking system, as the larger ones expand and diversify their asset portfolio and get into new spaces, it can lead to a wave of merger & acquisition (M&A) activity.

Typically, expansion and M&A activities require better governance practices, and it is expected that they would percolate into the functioning of UCBs. But, getting this done could be one of the tougher challenges for the new regulatory architecture.

4.2 MANUFACTURING SECTOR OUTPUT

Why in News: India's manufacturing sector activity moved towards stabilisation in June, but business conditions continued to deteriorate amid regional lockdown extension. At 47.2 in June, the seasonally adjusted IHS Markit India Manufacturing Purchasing Managers' Index (PMI) remained in contraction mode, but much better than 30.8 in May.

Purchasing Manager Index (PMI)

- The Nikkei India Manufacturing PMI, compiled by IHS Markit, is based on data compiled from monthly survey responses by purchasing managers in more than 400 manufacturing companies, on various factors that represent demand conditions.
- **Note: It is also sometime referred to as IHS Markit India Manufacturing PMI.**
- PMI measures activity at the purchasing or input stage. It is very different from industrial production which is indicative of actual production. For example, the Index of Industrial Production (IIP) measures output.
- The PMI is constructed separately for manufacturing and services sector, but the manufacturing sector holds more importance.
- PMI does not capture informal sector activity.

Significance

- The Index is considered as an indicator of the economic health and investor sentiment about the manufacturing sector.
- PMI is also the earliest indicator of manufacturing activity and economic health, as the manufacturing PMI report for any given month comes out without any delay - either on the last day of that month or on the first day of the next month.

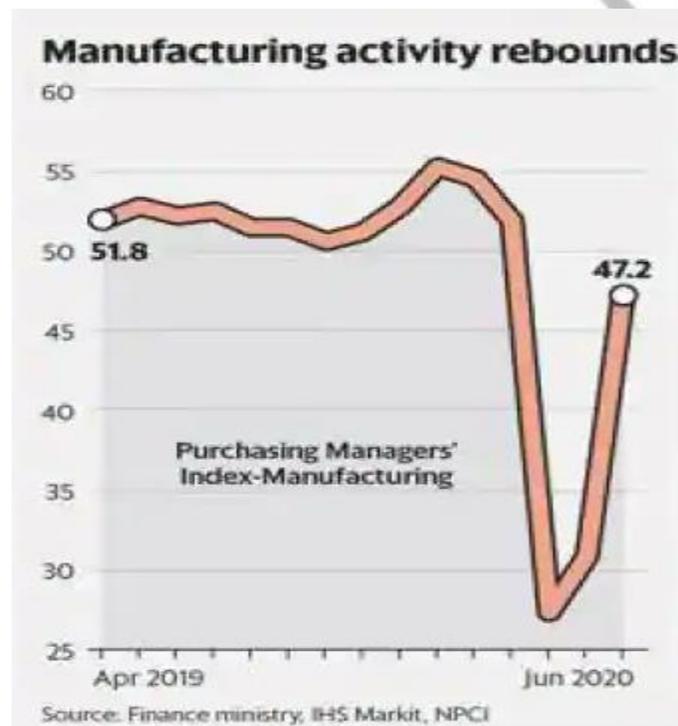
How it is captured

- The PMI is derived from survey responses to a series of qualitative questions from purchasing managers in a panel of around 400 manufacturers.
- PMI is composite index based on five individual sub-indices:
 - New orders

- Output
- Employment
- Suppliers' delivery times
- Stock of items purchased

Reading the PMI

- A figure above 50 denotes expansion in business activity and anything below 50 denotes contraction.
- Higher is the difference from this mid-point, greater is the expansion or contraction.
- The rate of expansion can also be judged by comparing the PMI with that of the previous month data. If the figure is higher than the previous month's then the economy is expanding at a faster rate. If it is lower than the previous month then it is growing at a lower rate.



News Update

- The manufacturing Purchasing Managers' Index (PMI) increased to 47.2 in June from 30.8 in May signaling faster normalisation in factory activity since the lockdown measures were eased starting 1 June.
- Although manufacturing activity as measured by PMI shrank for a third straight month in June, it was at a much slower pace than the previous two months
- Both output and new orders contracting at much softer rates than seen in April and May.

- However, the recent spike in new corona virus cases and the resulting lockdown extensions have seen demand continue to weaken.
- In line with the continued deterioration in demand conditions, Indian goods producers recorded a further reduction in employment during June.

4.3 INDIA PHARMA SECTOR

Rise of India's Pharma sector

- India's pharmaceuticals has seen a transformative shift from a foreign-dominated industry to one controlled by Indian firms.
- The market share of foreign-owned multinationals in India fell dramatically from 80-90 per cent in 1970 to 50 per cent by the early 1980s, and down to 23 per cent today.
- Also, the prices of medicines in India fell from being amongst the highest in the world to amongst the lowest.

Facilitated by policies and laws

- However, the rise of domestically-owned pharmaceutical industry in India did not happen by sudden separation from foreign multinationals, or a complete boycott or ban on imports.
- A series of policy initiatives succeeded in tilting the balance in favour of Indian-owned firms.
- The 1970 Indian Patent Act, which removed product patent protection in pharmaceuticals, is widely lauded for facilitating the growth of India's industry.
- India also benefited from the 1973 Foreign Exchange Regulation Act (FERA) and the subsequent New Drug Policy (1978), which restricted — but did not ban — the activities of foreign multinationals in the country.

Recent calls to boycott trade with China

There is a growing narrative in India for boycotting trade with China amidst recent political tensions between the two countries.

India's Pharma sector depends on China for APIs:

- Active Pharmaceutical Ingredients (APIs) are the key components in making medicines.
- Although India is the third largest producer of finished drugs in the world, it relies significantly on China for supplies of APIs.
- An estimated 70 per cent of API requirements of India's pharmaceutical industry are sourced from China. For some drugs, such as paracetamol and ibuprofen, this dependence is almost 100 per cent.

- This import reliance has been fuelled by environmental controls in India and competition with China, which has higher volumes of production and lower costs.

Issues if India boycotts all trade with China, including pharma-related

Calls for trade ban with China are hugely concerning for India's pharmaceutical industry as well as for people in India, and globally, who rely on the country's world-renowned supply of medicines.

India Pharma industry will be severely hit

- For industries such as pharmaceuticals, where production is organised through global supply chains, trade boycotts or bans are especially costly.
- As explain above, Indian pharma depends on China for APIs, and will thus be severely hit by any trade ban/boycott..
- A severe contraction of Indian pharmaceutical production and its almost \$20 billion worth of annual exports, would affect access to medicines both in India and globally. The impacts would be especially high in low and middle-income countries which have become increasingly dependent on affordable medicines supplied by India.
- In many African countries, in fact, India supplies almost 50 per cent of the medicines in value terms and even higher percentages in terms of volume.

Steps to promote API production in India in the recent months

- During the initial phase of the COVID-19 pandemic, many feared that China's supply of APIs to India would decline due to China's lockdown. Consequently, the Indian government has moved to promote more API production in the country.
- In March, the government announced Rs 3,000 crore to develop three bulk drug parks, as well as Rs 6,940 crore to manufacturers of 53 bulk drugs over the next eight years.

India is well placed to improve API production capabilities

- Planning ahead towards greater domestic production of APIs, as well as reduced dependence on China, is a sensible policy objective.
- India has a stronger starting point than most countries given the continued presence of some API production capabilities, despite relative decline in recent decades.
- For example, Indian firms have capacities to produce COVID-19 treatments, including Remdesivir.

Other countries are also seeking to reduce their reliance on China for APIs, most notably the US. US has been concerned for long over the health security implications of such reliance, including the possibility of China restricting its export of medicines during a crisis.

4.4 AGRICULTURE INFRASTRUCTURE FUND

Why in News: The Union Cabinet chaired by the Prime Minister has given its approval to a new pan-India Central Sector Scheme- Agriculture Infrastructure Fund.

Agriculture Infrastructure Fund

Objective:

To provide a medium to long term debt finance facility for investment in viable projects for post-harvest management infrastructure and community farming assets through interest subvention and financial support.

Features

Beneficiaries: Under the scheme, 1 Lakh Crore will be provided by banks and financial institutions as loans to:

- Primary Agricultural Credit Societies (PACS)
- Marketing Cooperative Societies
- Farmer Producers Organizations (FPOs)
- Self Help Groups (SHG)
- Farmers
- Joint Liability Groups (JLG)
- Multipurpose Cooperative Societies
- Agri-entrepreneurs & Startups
- Aggregation Infrastructure Providers
- Central/State agency or Local Body sponsored Public Private Partnership Projects

Duration

The duration of the Scheme shall be from FY2020 to FY2029 (10 years).

Validity Period

Loans will be disbursed in four years starting with sanction of Rs. 10,000 crore in the current year and Rs. 30,000 crore each in next three financial years.

Interest Subvention

All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore. The interest subvention will be available for a maximum period of seven years.

Credit Guarantee

- Credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore. The fee for this coverage will be paid by the Government.
- Under the scheme, the government will guarantee cover for the portion of credit facility not covered by collateral security.
- This is to ease bank credit for eligible borrowers with fewer hassles of collaterals / third party guarantees.
- In case of FPOs, the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).

Significance of the Fund

By facilitating formal credit to farm and farm processing-based activities, the scheme is expected to create numerous job opportunities in rural areas.

Management & Monitoring of Fund

- Agriculture Infra Fund (AIF) will be managed and monitored through an online Management Information System (MIS) platform.
- It will enable all the qualified entities to apply for loan under the fund.
- The online platform will also provide benefits such as:
 - Transparency of interest rates offered by multiple banks
 - Scheme details including interest subvention and credit guarantee offered
 - Minimum documentation
 - Faster approval process
 - Integration with other scheme benefits

Multi-tiered Monitoring Committees

The National, State and District level Monitoring Committees will be set up to ensure real-time monitoring and effective feed-back.

Different Types of Credit Organizations/ Groups

Primary Agricultural Credit Society (PACS) A Primary Agricultural Credit Society(PACS) is a basic unit at the bottom-tier of three- tier Cooperative credit structure operating in the country.

- It works at the grassroots level of gram panchayat, ie it works at the village level.
- These are owned by local people like farmers; rural artisans etc, and provide mutual credit help among the members.
- It deals directly with the rural borrowers (farmers), gives loans to them and collects repayments of the loans given.
- It serves as the ultimate link between final borrowers on one hand and higher financing agencies like banks.

Marketing Cooperative Society

- An agricultural cooperative is a democratic society where farmers pool their resources in certain areas of activity.
- For example, marketing cooperative societies are established by farmers to undertake transportation, packaging, distribution, and marketing of farm products (both crop and livestock).
- It is a registered body.

Farmers Producers Organization (FPO)

- A Farmer Producer Organisation (PO) is a legal entity formed by primary producers, viz. farmers.
- FPO is a registered body and a legal entity.
- Ownership of FPO is with its members.
- A FPO can be a producer company, a cooperative society or any other legal form which provides for sharing of profits/benefits among the members.

Self Help Groups (SHGs)

Self Help Group is a type of informal financial group of locals or villagers who are usually daily wage earners or poor. The objective of SHGs is to promote small savings among their members which are then kept with the bank under the name of a common fund.

Joint Liability Group (JLG)

A Joint Liability Group (JLG) is an informal group comprising of 4-10 individuals coming together for the purpose of availing bank loan on individual basis or through group mechanism against mutual guarantee.

Generally, the members of a JLG would engage in a similar type of economic activity. In certain groups, members may prefer to undertake different type of economic activities as well.

4.5 BAD BANK

Why in News: The idea of setting up a bad bank often comes up for debate, especially when stress in the banking sector is projected to rise in the near term.

Bad Bank

- When the problem of non-performing loans (NPLs) becomes pervasive and too big for individual banks to handle, governments often propose the setting up of a bad bank to buy out all toxic loans from banks.
- A bad bank buys the bad loans and other illiquid holdings (that cannot easily be sold or exchanged for cash) of other banks and financial institutions (FIs). This clears the balance sheets of the banks/FIs.
- The cleaner balance sheets help the banks/FIs in raising capital, and lending.
- The bad bank then works towards recovering the loans or realising cash from selling the underlying assets.

How it works

- Technically, a bad bank is an Asset Reconstruction Company (ARC).
- ARCs are registered under the RBI and regulated under the Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002 (SARFAESI Act, 2002).
- ARC is a special type of financial institution that buys portion of the debts of the bank at some value and attempts to recover the debts or associated securities by itself. The ARCs take over a portion of the debts of the bank that qualify to be recognised as Non-Performing Assets (NPAs).
- The ARCs then work to recover these loans.
- For example, if it buys bad loans from a bank (basically loans of lenders who are not repaying) of worth 500 crore at a cost of 250 crore, and then recovers 300 crore (from those who took the original loans), then it benefits by 50 crore.
- Banks sell these bad loans for lower price, as they are unable to recover those loans, and could ultimately lose 500 crore. This way, they can cut their losses, and also clean up their balance sheets (as it will have NPAs lesser by 500 crore)
- All the rights that were held by the lender (the bank) in respect of the debt would be transferred to the ARC.

How ARCs get funding to buy bad assets from banks?

- For funds, an ARC may issue bonds and debentures for meeting its funding requirements.
- However, a unique source of funds for the ARCs is the issue of Security Receipts.
- As per the SARFAESI Act, Security Receipts is a receipt or other security, issued by a reconstruction company to any Qualified Institutional Buyers (QIBs) for a particular scheme.
- The Security Receipt gives the holder (QIB) a right, title or interest in the financial asset that is bought by the ARC. These SRs issued by ARCs are backed by impaired assets.

Push for Bad Banks in India

- Though the idea of bad bank was first pioneered in the US in 1988, the idea of forming a 'bad bank' in India was initially floated in 2017, with the Economic Survey of India suggesting the setting up a Public Sector Asset Rehabilitation Agency (PARA), to buy out the largest NPAs from Indian banks.
- Also in 2017, a deputy governor of the RBI came up with a suggestion to form two entities to clean up the bad loan problems ailing PSBs by PAMC (Private Asset Management Company) for those with near term viability and NAMC (National Assets Management Company) for those which may be unviable in the short to medium term.
- In 2018, a panel on faster resolution of stressed assets in public sector banks, headed by Sunil Mehta, proposed an asset management company (AMC), 'Sashakt India Asset Management', for resolving large bad loans.

Bad Bank for India

- There are private Asset Reconstruction Companies (ARCs) in India.
- In Indian context, Bad Bank is often used to refer to a government backed ARC that buys up all the NPAs of all PSBs in India.
- Several economists and agencies project that Indian economy will see negative growth rate this year, due to the adverse effects of Covid-19 on economic activity. This is expected to hit the banking and financial sector in particular, as fall in earnings of companies and individuals could lead to an increase in non-performing assets (NPAs).
- This could lead to the reversal of trends of NPAs, which were falling after enactment of the Insolvency and Bankruptcy Code (IBC) and write-off of bad loans by banks. As per some estimates, in a couple of years, the proportion of stressed assets in the banking system could jump to as high as 18 per cent from around 11 per cent at present. To tackle this upcoming challenge, the banking industry has proposed the setting up of a government-backed bad bank.

Alternatives to a bad bank

- As per latest available RBI data, as a percentage of claims, banks recovered on average 42.5% of the amount filed through the IBC in 2018-19, against 14.5% through the SARFAESI, 5.3% through Lok Adalats and 3.5% through Debt Recovery Tribunals.
- Many industry experts and government officials argue that an IBC-led resolution, or sale of bad loans to ARCs already existing, is a better approach to tackle the NPA problem rather than a government-funded bad bank. IBC provides a transparent and open process is available for all lenders to attempt insolvency resolution.

4.5 E-COMMERCE SITE

Why in News: The Centre recently told the Delhi High Court in an affidavit that all e-commerce entities, including Amazon, Flipkart, and Snapdeal, have to ensure that the country of origin is displayed on imported products sold on their platforms.

News Update

- A Public Interest Litigation (PIL) was filed in the Delhi High Court saying that the economy of the nation would suffer if the e-commerce entities do not mention the manufacturing country or country of origin of products on their websites.
- The petition also stated that the petition was aligned with the recent 'Vocal for Local' and 'Aatm Nirbhar' Bharat push by the government of India.

Response of e-commerce Company

- Responding to the petition, one of the e-commerce companies said that it functions as a 'marketplace-based' e-commerce model in which it only acts as an 'intermediary'. It is for the sellers to mention the country of origin.
- It further said that in many cases, finished goods sourced from different countries are packed together or assembled in a third country, before their shipment into India.
- Thus, it cannot be assumed that the last country of export can be declared as the country of origin.

Government's response

- The Centre told the Delhi High Court in an affidavit that all e-commerce entities have to ensure that the country of origin is displayed on imported products sold on their platforms.
- The affidavit filed by the Department of Consumer Affairs said the laws relating to the issue were enacted under the Legal Metrology Act, 2009 and the Legal Metrology (Packaged Commodities) Rules, 2011.

Legal Metrology Act, 2009

- Legal Metrology is the application of legal requirements to measurements and measuring instruments.
- The Legal Metrology Act, 2009 was passed to establish and enforce standards of weights and measures.
- It regulates trade and commerce for goods which are sold or distributed by weights, and measures.
- The Department of Consumer Affairs is the nodal agency for the implementation of the Act.
- The Act came into effect from 2011, replacing the Standards of Weights and Measures Act, 1976 and Standards of Weights and Measures (Enforcement) Act, 1985.
- The State and Union Territory governments have been given the authority to enforce the provisions of the Act and the Rules under it.

Legal Metrology (Packaged Commodities) Rules, 2011

- Under the Legal Metrology Act, 2009, there are various rules, but an important part of the act is the Packaged Commodities Rules, i.e. Legal Metrology (Packaged Commodities) Rules, 2011.
- The Rules deal with goods that are packaged and state the declarations that have to be made on packaged commodities that are meant for sale.
- The purpose of the Rules is to ensure that the end consumer gets all relevant information when he/she buys a product that is in packaged form.
- The Rules define E-commerce as buying and selling of goods and services, over digital and electronic networks.
- The government had made certain amendments to the Rules, which came into effect from 1 January, 2018.

2018 Amendments

- The retail sale price of the package must be the maximum retail price inclusive of all taxes.
- As per the Rules, the package must mention the name of the country of origin.
- Packages containing commodities that have a shelf life should mention on their labels “Best before or use by date, month and year.”
- Shelf life is the period of time during which a material may be stored and remain suitable for use.
- Medical devices notified as “drugs,” under the Drugs and Cosmetics Act, 1940 will have to follow declarations prescribed under the Rules.

4.6 PRIVATE SECTOR PARTICIPATION IN RAILWAYS

Why in News: To upgrade the country's railway system, the Union government has made plans for long-term partnerships with the private sector.

The government anticipates around Rs 50 lakh crore of investment in rail projects up to 2030. However, as per the Union Budget 2019, only a part of this can be financed by the government and public-private partnerships are needed for faster development.

Thus the Railways has decided to allow private players to run passenger trains. The project is expected to attract Rs 30,000 crore in private investment.

Background

- Several committees have been formed in the past to look into the expansion and modernisation of Indian Railways.
- In 2015, the expert panel chaired by Bibek Debroy constituted by the Ministry of Railways, recommended that the way forward for the railways was "liberalisation and not privatisation" in order to allow entry of new operators.
- Last year, an empowered group of secretaries headed by the NITI Aayog CEO was formed to speed up the process of inviting private players.
- The panel also looked into the redevelopment of railway stations through private participation.

Need for private participation in Railways

Need for more trains:

- As per the Railway Board, five crore intending passengers could not be accommodated during 2019-20 due to lack of capacity, and there was 13.3% travel demand in excess of supply during summer and festival seasons.
- This excess demand leads to long waiting lists, overcrowded trains, and loss of business to other modes like air and road.
- Thus, from a passenger perspective, there is a need for more train services, particularly between big cities.
- Further, it is estimated that around 70 per cent of freight trains will shift to the two upcoming Dedicated Freight Corridors from December 2021.
- This will free up a lot capacity to introduce more passenger trains with better services and higher speeds.

Lack of finances:

- Introducing new, modern trains requires heavy investment in coaches and engines. Further, there is the cost of operations, which includes electricity, manpower and other expenses.
- Thus giving upgraded facilities, such as better services and faster trains, would lead to huge modernisation expense for Indian Railways.
- However, running of passenger trains is a loss-making business for Indian Railways, as it recovers only around 57 per cent of the cost through tickets on an average.
- Thus the government has invited private players to reduce its losses and to convert Railways into a money-making entity.
- The idea is to give passengers an option of superior train services without any money being spent by the Railways.

Details of the project

- The government has identified 109 routes across India to run 151 private trains for 35 years. The 151 trains represent only around 5 per cent of total trains run in India.
- The contract period of 35 years is based on the fact that trains and engines are usually in service for around three decades.
- For the project, the routes are divided into 12 clusters based out of major city centers, such as Patna, Secundrabad, Bengaluru, Jaipur, Prayagraj, Howrah, Chennai, Chandigarh, and two each for Delhi and Mumbai.
- The Railways expects to open financial bids for the project by February-March 2021 and finalise them by April 2021.
- After that, the first set of 12 trains is estimated to begin operations by 2022-23. The expected schedule of the remaining trains is: 45 trains in 2023-2024, 50 in 2025-26, and 44 in 2026-27.

Type of companies expected to run the trains

- Since the business of running passenger trains in India has been a monopoly of Indian Railways, no private company in the country has any experience in this sector.
- Thus, companies across the world, with or without experience in train operations, have been invited to participate in the bidding process.
- There is no restriction on the number of clusters a company can bid for. Moreover, companies can also bid as consortiums.
- However, Railways has set certain financial eligibility for companies. Therefore, any company with a minimum net worth of Rs 1165 crore in the last financial year can apply.
- This financial eligibility is different for different clusters and the eligible range of minimum net worth is Rs 1,165 crore and Rs 1600 crore.

Payments made by private players

- In this business model, the private operator is supposed to share revenues with Railways. The qualifying company that agrees to share the maximum percentage of the yearly revenue with Railways will win the bid.
- The private entity will also have to pay the Railways fixed haulage charges for path, stations, access to railway infrastructure.
- There will be a power meter in every locomotive and private operators will pay for the actual amount of energy consumed. This, will encourage them to keep their energy consumption low.
- Railways have also set certain key performance indicators for the private player, like punctuality, reliability, and maintenance of trains.
- The private entity has to ensure 95 per cent punctuality and record not more than one failure per lakh kilometre of travel. If any performance indicators are not met by private players in passenger train operations, they will be penalised.

Offerings by the Railways to the private players

- In return, Railways will be bound by the contract to provide “non-discriminatory access” to private trains.
- This means that even though its own trains on the same route will, be in competition with the private trains, the Railways, cannot give unfair advantage to its own trains.
- Further, the tickets for the private trains will be booked through the current railway reservation system. Thus, the Railways will have to ensure that its systems and infrastructure are functioning properly for private trains.
- The Railways will give land to private players to set up maintenance facilities for the trains. After completion of 35 years, the maintenance facilities will belong to Railways.
- If the private player fails to meet its key performance indicators due to Railways’ shortcomings, then the Railways will also have to pay certain damages (compensation) to the private players.

Profit viability for private players

- As per internal studies by Railways, private investors can earn healthy profits from this project. This is because it is estimated that the operators will be free to fix their fares and non-fare revenue models.
- Further, fares of these trains are expected to be higher than conventional trains, as they will offer better services.

- However, investors do their own calculations, and experts have said that any company moving into this new business will have to have consider the risks as well.

Benefits of the move

- The major benefit of this project is introduction of modern technology. With improvement in technology the coaches that now require maintenance after running 4,000 km, will need maintenance after every 40,000-km, that is either once or twice a month.
- Besides, the trains would run faster, would be safer and would provide more facilities.
- The introduction of private players would also mean that trains will be available on demand and that passenger waitlist will decrease, addressing the demand-supply deficit.

Opposition to the move

- Both the Opposition as well as the Railway union has opposed the move, as they believe that it will eventually lead to privatisation of Railways.
- They have also given examples of other countries, notably Britain, where private operations of passenger trains have been a failure.
- Defending the move, the Railway Board has said that the current move is only a public-private partnership and there are no plans to privatise Indian Railways.

4.7 AATMANIRBHAR BHARAT

Why in News: With the disruption in global supply chains due to the Covid-19 crisis, and now, the border stand-off with China, Prime Minister Narendra Modi has given a clarion call for Aatmanirbhar Bharat. Modi government banned 59 Chinese apps, stepped up effort to check imports and investments from China, even raised import duties, and exhorted the masses to 'be vocal for local'.

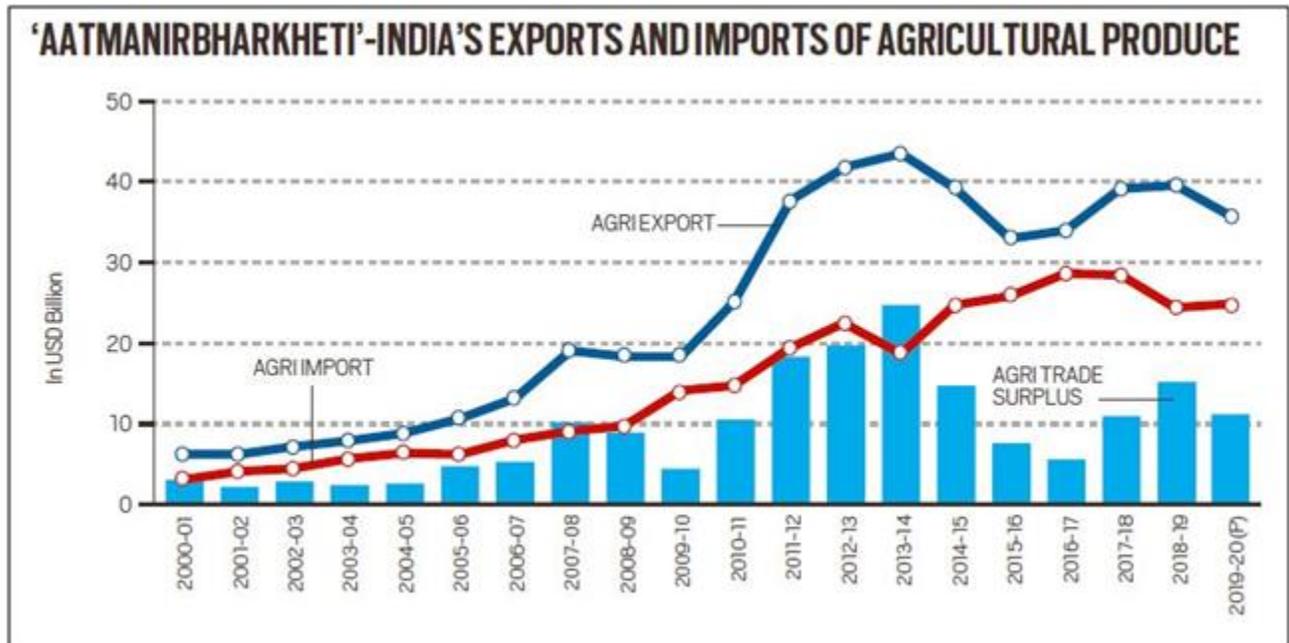
Aatmanirbharta in the agriculture sector

- Food is an essential item.
- For a large country like India with a 1.37-billion population, much of the food has to be produced at home.
- We don't want to be in a situation of depending on food grain imports, as we were in the mid-1960s.

India's agricultural sector

- The graphic below presents exports and imports of agricultural commodities over the last 10 years (2010-11 to 2019-20).

- It clearly shows that India has been a net exporter of agri-produce. In fact, it has been so ever since reforms began in 1991.



Agri trade surplus peaked in 2013-14 and been sluggish since:

- The golden year of Agri-trade has been 2013-14.
- That year Agri-exports peaked at \$43.6 billion while imports were \$18.9 billion, giving a net trade surplus of \$24.7 billion.
- Since 2014, Agri-exports have been sluggish and sliding.
- Agri-exports in 2019-20 were just \$36 billion, and net agri-trade surplus at \$11.2 billion.

India's top Agri- exports

- We need to look at agriculture trade statistics and chalk out a strategy where exports can be augmented and imports compressed.
- We need to be exporting more where we have a competitive edge, and importing where we lack competitiveness.
- As per the current agri-export basket of 2019-20, Marine products with \$6.7 billion exports top the list followed by rice at \$6.4 billion (basmati at \$4.6 billion and common rice at \$2.0 billion), spices at \$3.6 billion, buffalo meat at \$3.2 billion, sugar at \$2.0 billion, tea and coffee at \$1.5 billion, fresh fruits and vegetables at \$1.4 billion, and cotton at \$1.0 billion.

Edible Oil makes up a big part of Agri-imports

On the agri-imports front, the biggest item, edible oil, is worth about \$10 billion (in quantity terms, about 15 mt plus). Edible oil is where there is the need to create atmanirbharta.



SCIENCE AND TECHNOLOGY

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

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



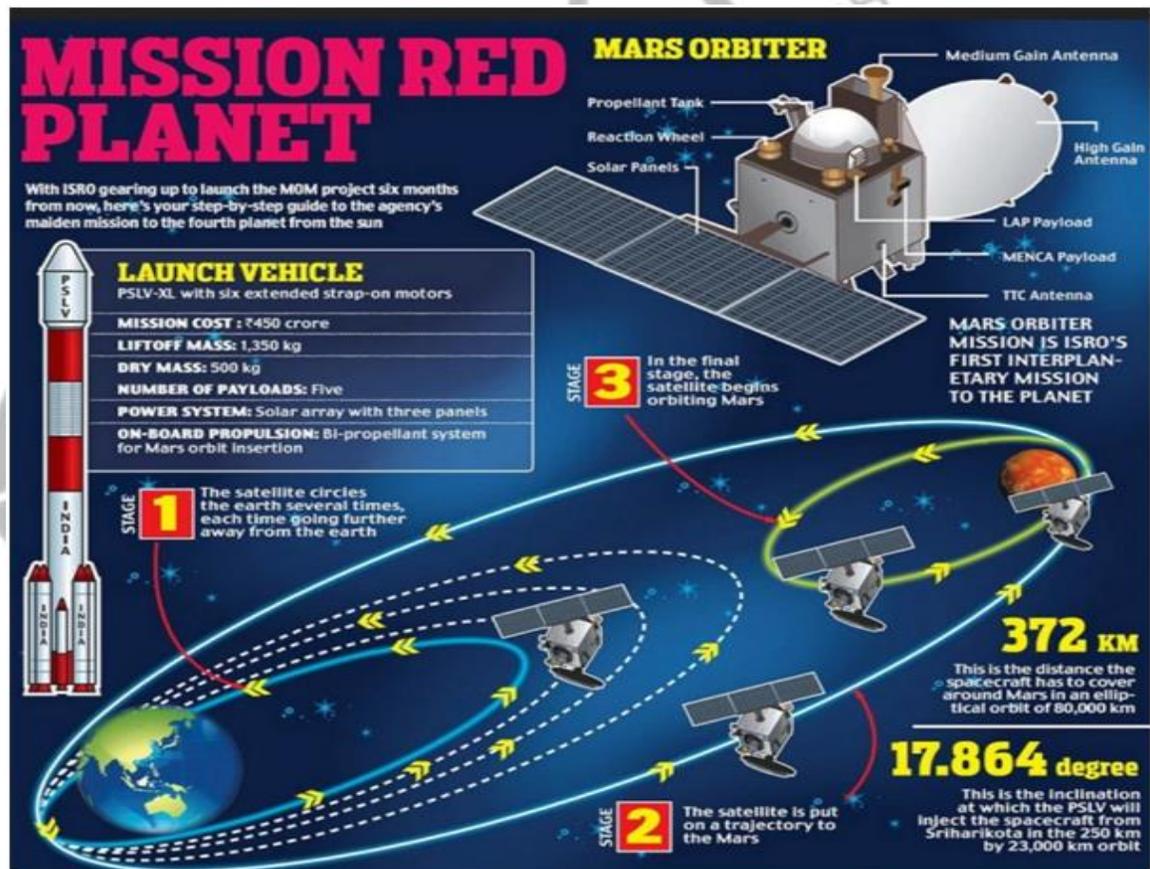
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5.1 MARS ORBITOR MISSION

Why in News: The camera on the Mars Orbiter Mission (MOM) of Indian Space Research Organisation (ISRO) has captured the image of **Phobos, the closest and biggest moon of the red planet.**

Magalyaan or Mars Orbiter Mission (MOM)

- The Mars Orbiter Mission (MOM), also called Mangalyaan is a spacecraft orbiting Mars since 24 September 2014.
- It was launched on November 5, 2013 by the Indian Space Research Organisation (ISRO).
- MOM was launched by using a Polar Satellite Launch Vehicle (PSLV) rocket C25.
- MOM was indigenously-built space probe and is India's first interplanetary mission. MOM made ISRO the fourth space agency to reach Mars.
- India also is the first Asian nation to reach Mars orbit, and the first nation to do so on its first attempt. China referred to India's successful Mangalyaan as the "Pride of Asia".
- Other space agencies which have reached Mars are- Roscosmos, NASA, and the European Space Agency. It costed 450 crore, weight 1350 kg, travelled for 300 days covering 65 crore



Objective of MOM

- India's Mangalyaan mission is aimed at studying Martian atmosphere. Presently, MOM is scanning its atmosphere for methane which is an indicator of life on planet Mars.
- Its objective is to explore Martian surface features, mineralogy, morphology and atmosphere using indigenous scientific instruments.
- A crucial objective of MOM was to develop technologies required in planning, designing, management and operations of an interplanetary mission.

Mangalyaan's Description

- MOM was launched aboard PSLV C-25 (an XL version of the PSLV).
- It carried 850 kg of fuel and 5 science payloads including a Mars Color Camera (MCC) which it has been using to study the Martian surface and atmosphere since entering the orbit successfully.
- The spacecraft is tracked by the Indian Deep Space Network (IDSN), located near Bangalore and complemented by NASA-JPL's Deep Space Network.

Payloads of MOM

- Mars Color Camera (MCC)
- Methane Sensor for Mars (MSM)
- Lyman Alpha Photometer (LAP)
- Thermal Infrared Imaging Spectrometer (TIS)
- Mars Exospheric Neutral Composition Analyzer (MENCA)

Phobos

Phobos is the larger of Mars' two moons. The other moon is called as Deimos.

Composition

- Phobos is composed of Carbon -type rock, similar to blackish carbonaceous asteroids.
- It orbits Mars three times a day, and is so close to the planet's surface that in some locations on Mars it cannot always be seen.
- Phobos is nearing Mars at a rate of 1.8 meters every hundred years; at that rate, it will either crash into Mars in 50 million years or break up into a ring.
- Its most prominent feature is the 9.7 kilometer crater Stickney.
- The impact caused streak patterns across the moon's surface.

5.2 CORONAVIRUS AIRBORNE DEBATE

Why in News: The World Health Organization has recently acknowledged the emerging evidence of the airborne spread of the novel coronavirus.

- This comes after 239 scientists from 32 countries wrote an open letter to the World Health Organization (WHO), which stated that the virus causing Covid-19 can remain airborne for a period of time and thus transmit itself.
- Scientists claim that historically, there has been an opposition in the medical profession to the notion of aerosol transmission, and the criteria for proof has been set very high, as that can lead to panic.

The transmission debate

- A respiratory infection such as Covid-19 is transmitted through droplets of different sizes.
- If the droplets particles are larger than 5-10 microns in diameter, they are referred to as respiratory droplets; if they are smaller than 5 microns in diameter, they are referred to as droplet nuclei.
- As per WHO, Covid-19 virus is primarily transmitted between people through respiratory droplets and contact routes.
- In other words, the WHO's viewpoint is that droplets containing the virus, produced during speech, coughing, sneezing etc, are larger than 5-10 microns in diameter and fall on the ground due to gravity after travelling less than 1 meter.
- The 239 scientists, on the other hand, claim that the virus can be present in droplet nuclei (less than 5 microns in diameter) that do travel distances longer than 1 meter, and can remain in the air for a longer time.
- Thus the scientists suggest that aerosol transmission too can happen. If this can be established, it will mean that the risk of transmission is higher than previously thought.

WHO STAND

Even the WHO has acknowledged in the past that airborne transmission may be possible in specific circumstances and settings.

Various studies studying aerosol transmission

Study published in the journal Nature:

- One of the first studies, published in Nature, was conducted in Renmin Hospital in Wuhan. It investigated the aerodynamic nature (motion in air) of the virus SARS-CoV-2 by measuring its viral RNA in aerosols.
- The study found that the concentration of the virus in aerosols detected in isolation wards and ventilated patient rooms were very low, but it was higher in the toilet areas used by the patients. Further, levels of airborne viral RNA in most public areas were undetectable.
- Although the study has not yet found the infectivity of the virus detected in these hospital areas, it states that SARS-CoV-2 may have the potential to be transmitted through aerosols.

Study published in The New England Journal of Medicine (NEJM):

- A study published in NEJM by researchers from the US National Institute of Allergy and Infectious Diseases in the United States evaluated the stability of SARS-CoV-2 (and SARS-CoV-1, which causes SARS) in aerosols and on various surfaces.
- It found that SARS-CoV-2 remained viable (capable of working) in aerosols throughout the duration of the experiment that lasted for three hours.
- The results indicate that aerosol and fomite transmission of SARS-CoV-2 is possible since the virus can remain viable and infectious in aerosols for hours. Fomite transmission refers to the transmission of infectious diseases by objects.
- However, WHO did not agree with the findings published in NEJM. It stated that the findings do not reflect a clinical setting in which aerosol-generating procedures are performed and that the study was based on experimentally generated aerosols.

Study by Centers for Disease Control and Prevention (CDC):

- The US Centers for Disease Control and Prevention (CDC), has published a study titled “High SARS-CoV-2 Attack Rate Following Exposure at a Choir Practice”.
- The researchers studied super-spreading events in the study. Super-spreading events occur when a single person infects a large number of people in one setting.
- The study found that the 2.5-hour choir practice, which was attended by 61 persons and included a symptomatic patient, led to 32 confirmed and 20 probable secondary Covid-19 cases.
- The study noted that the act of singing itself might have contributed to transmission through the emission of aerosols, which is affected by the loudness of vocalization.
- It further stated, that certain persons, known as super-emitters, who release more aerosol particles during speech than others, might have contributed to the studied event and previously reported COVID-19 super spreading events.

Impact of aerosol transmission

- Any change in the WHO's assessment of risk of transmission could affect its current advice on keeping 1-metre (3.3 feet) of physical distancing.
- Governments, which rely on the agency for guidance policy, may also have to adjust public health measures aimed at reducing the spread of the virus and a comprehensive package of interventions would be required to stop the transmission.
- It would mean that wearing a mask will become more important than ever, more so, in certain settings where physical distancing is not possible.
- It might be possible that N-95 masks, which are used by clinicians in hospital settings, could now be recommended to prevent aerosol transmission, subject to availability, and depending on the health condition of a person.

Way Ahead

- WHO has stated that the possibility of airborne transmission in public settings - especially in very specific conditions, crowded, closed, poorly ventilated settings that have been described, cannot be ruled out.
- It further stated that initial findings need to be interpreted carefully. Researchers will look at the specific settings in which the virus was found airborne, the duration for which the virus was found staying in the air, and, most importantly, whether the virus continues to be infectious throughout this duration.
- The WHO would also publish a scientific brief summarizing the state of knowledge on modes of transmission of the virus in the coming days.

5.3 IMMUNITY

Why in News: A study by the researchers from King's College London has suggested that immunity to Covid-19 might be lost in months.

Immune response

- An immune response is a reaction that takes place in the body to defend itself from pathogens.
- Pathogen is anything that can produce a disease. The term is used to describe an infectious microorganism or agent, such as a virus, bacteria, fungus etc.

Types of immune response

- A human body has two mechanisms of immunity response.

- First is response, is called antibody-mediated immunity (immunity due to antibodies).
- However, when a virus enters a cell and cannot be detected by antibody-mediated immunity, a cell-mediated immune response (immunity due to cells) can also kill the virus.

Findings of the study

- A study by the researchers from King's College London has suggested that immunity to Covid-19 might be lost in months.
- The researchers analysed the immune response of 90 recovered Covid-19 patients and healthcare workers.
- It found that a strong level of antibodies were produced in 60% of participants during the peak of their infection, however only 16.7% participants showed a strong level of antibodies 65 days later.
- Antibodies that specifically help in making the SARS-CoV-2 ineffective decreased by 2 to 23 times during an 18-65 day follow-up period.
- This is similar to the decrease in antibodies seen in seasonal coronaviruses associated with the common cold. There are many different kinds of coronaviruses, and some of them can cause a disease.

Significance of the study

The findings have important implications in considering serological testing, antibody protection against re-infection with SARS-CoV-2, and the duration of vaccine protection.

Note: Serological tests are blood tests that look for antibodies in the blood.

Functioning of antibodies

- Antibodies are like fingerprints that give evidence that a pathogen (the coronavirus in this case) has caused an infection and that the immune system has responded.
- The antibodies usually remain in the blood for a period of time and quickly activate the immune system when the body is exposed to the pathogen again.
- Some antibodies not only recognise when the pathogen returns again (in the body), but also protect the body for the entire life from re-infection, as in the case of Measles.
- However, in the case of seasonal flu, the antibodies give protection for a very small period.

Antibody response in coronavirus

- In the case of the novel coronavirus, it is not yet clear how long the antibodies provide protection to a recovered person.

- Researchers, including those at King's college, London, are looking to find answers to this.
- Further studies are needed to determine the duration for which the antibody response can protect against SARS-CoV-2 virus and the level of antibodies required to protect against re-infection.
- Until then, the presence of antibodies only gives the evidence that a person was exposed to the virus.

Cell-mediated immune response

- Cell-mediated immune response (immunity due to cells) occurs inside the infected cell, and it takes place due to the cells called T lymphocytes (T cells).
- T cells recognise the infected cell and get activated after interacting with a cell infected by the virus.
- Once the T cells are activated, they clone (make identical copies) themselves and generate multiple T cells, and destroy the infected cells.
- During the process of activation, some of the T cells remain inactive as memory cells. These memory cells produce more T cells if the infection returns at a later point in the body. Therefore, memory plays a crucial role in providing cell-mediated immunity.
- There are also helper T cells, which function indirectly by communicating to other immune cells about potential pathogens.
- Thus, the study at King's college has said that the T-cell responses generated through either infection or vaccination should also be considered in dealing with Covid-19.

Evidence on Cell-mediated immune response

- All India Institute of Medical Sciences (AIIMS) has said that data on immune response shows that cell-mediated immunity is also activated in some Covid-19 cases and is giving protection through T cells in the blood.
- In a study published in the journal Cell, researchers from Germany found that T cell clusters develop in recovering patients.
- It said T cells reactive to SARS-CoV-2 have been found in individuals exposed to other common cold coronaviruses.
- This suggests that T-cell response found in healthy individuals is likely to be activated from the memory T cells derived from an earlier exposure.

ECOLOGY and ENVIRONMENT

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

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

❖ **Prelims Oriented Questions**



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6.1 BIOMEDICAL WASTE

Why in News: As per a report from Environment Pollution (Prevention and Control) Authority (EPCA), the daily Covid-19 biomedical waste generation in Delhi increased by 15 times in June as compared to the previous month. The report is based on the data shared by the Central Pollution Control Board and state pollution control boards of Delhi, Haryana, Uttar Pradesh (UP) and Rajasthan.

Highlights of the report

- Delhi has the highest daily share of biomedical waste generation out of the four states, as the quantity went up from 25 tonnes per day in May to 372 tonnes per day in June, which then fell to 349 tonnes per day in July. The huge increase in biomedical waste was because biomedical waste from patients in home isolation and quarantine centers was not segregated (separated) and so general waste was mixed with it.
- Further, due to the Covid-19 pandemic, there was an increase in the amount of plastic waste being generated in the form of PPE kits, gloves and face shields, which increase the problems of general solid waste management. According to experts there could be a waste crisis if proactive steps are not taken by government agencies to handle the biomedical waste.
- Considering the scale of the Covid-19 infection, the government should come up with a detailed plan to deal with biomedical waste generated in hospitals, quarantine centers and households.
- The report urged the Supreme Court to direct the ministry of forests and environment (MoEF) to develop a national bar-coding system (a portal) for tracking of biomedical waste.
- The report also highlighted the need for better segregation of biomedical waste in households and quarantine centers with Covid-19 patients.
- The government needs to make arrangements of dedicated trash bins or make it compulsory for Residents' welfare associations and other commercial establishments to place such bins on their premises for segregating biomedical waste.
- There is also a need to create more awareness among citizens on the need for segregating biomedical waste.

Bio-Medical Waste Management Rules, 2016

- Biomedical waste, according to the existing biomedical waste rules is any waste that is generated during the diagnosis, treatment or immunisation of human beings, animals or research activities etc.

- It could include human tissues, items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs, beddings contaminated with blood or body fluid, blood bags, needles, syringes or any other contaminated sharp object.
- Thus, it is important that the disposal of biomedical waste takes place in a scientific and environmentally sound manner to minimise the adverse impact on health workers and the environment.
- To address the said need, the Bio-Medical Waste Management Rules, 2016 were notified to efficiently manage the generated bio-waste in the country
- Bio-Medical Waste Management Rules, 2016 Rules were later amended to improve compliance and strengthen the implementation of environmentally sound management of biomedical waste in India.

Common Bio-medical Waste Treatment and Disposal Facility (CBWTF)

- A Common Bio-medical Waste Treatment and Disposal Facility (CBWTF) is a set up where biomedical waste generated from health care facilities is given necessary treatment to reduce adverse effects that this waste may pose on human health and environment.
- An installation of individual treatment facility by health care facility (HCF) requires comparatively high capital investment.
- In addition, it requires separate dedicated and trained skilled manpower and infrastructure development for proper operation and maintenance of treatment systems.
- The concept of CBWTF not only addresses such problems but also prevents expansion of treatment technologies in a particular town or city. In turn, it reduces the monitoring pressure on regulatory agencies.
- By running the treatment equipment at CBWTF to its full capacity, the cost of treatment of per kilogram bio-medical waste also gets significantly reduced.
- These considerable advantages have made CBWTF a popular and a proven concept in most parts of the world to deal with biomedical waste.

Environment Pollution (Prevention and Control) Authority (EPCA)

- The EPCA was constituted with the objective of protecting and improving the quality of the environment and preventing and controlling the environmental pollution in the National Capital Region (NCR).
- It also assists the Supreme Court in various environment related matters in the NCR.
- The EPCA has been empowered to take suo motu (on its own) action or on the basis of complaints made by any individual, representative body or organisation functioning in the environmental issues sector.

6.2 NAMAMI GANGE PROJECT

- **Why in News:** The World Bank has approved five-year loan to Namami Gange Project.

Namami Gange Program

It is an Integrated Conservation Mission, approved as 'Flagship Program' by the Union Government in June 2014 with budget outlay of Rs.20,000 Crore

Objectives- It has twin objectives of

- Effective abatement of pollution;
- Conservation and rejuvenation of National River Ganga.

Vision

Its vision is to restore the wholesomeness of the Ganga River by ensuring 'Aviral Dhara' and 'Nirmal Dhara', and maintaining geological and ecological integrity of the river.

Implementation

It is Implemented by the National Mission for Clean Ganga (NMCG), and its state counterparts— State Programme Management Groups.

Need for Namami Gange Program

- River Ganga has significant economic, environmental and cultural value in India.
- The Ganga basin (which also extends into parts of Nepal, China and Bangladesh) accounts for 26 per cent of India's landmass.
- Rapidly increasing population, rising standards of living and exponential growth of industrialization and urbanization have exposed water resources to various forms of pollution and degradation.
- The earlier attempts to clean river Ganga, like Ganga Action Plan (launched in 1985) did not become successful in cleaning Ganga.

Institutional Structure for Namami Gange

The Environment Protection Act (1986) envisages five tier structure at national, state and district level to take measures for prevention, control and abatement of environmental pollution in river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga.

- The institutional structure comprises of following authorities
- National Ganga Council under chairmanship of Prime Minister of India.
- Empowered Task Force (ETF) on river Ganga under chairmanship Union Minister of Jal Shakti
- National Mission for Clean Ganga(NMCG)
- State Ganga Committees
- District Ganga Committees in every specified district abutting river Ganga and its tributaries in the states

National Mission for Clean Ganga (NMCG)

- It was registered as a society in 2011 under the Societies Registration Act 1860.
- Earlier, it acted as implementation arm of National Ganga River Basin Authority (NGRBA) which was constituted under the provisions of the Environment (Protection) Act (EPA),1986.
- NGRBA was dissolved with effect from the 7th October 2016, consequent to constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as National Ganga Council).
- National Ganga Council is under the Chairmanship of Prime Minister. Now, NMCG is the implementation arm of Namami Gange Programme.

Aims & Objectives of National Mission for Clean Ganga (NMCG)

The aims and objectives of NMCG are:

- To accomplish the mandate of National Ganga River Basin Authority (NGRBA) of ensuring effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach.
- To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.

Achievements of Ongoing National Ganga River Basin Project (NGRBP)

- It helped set up the National Mission for Clean Ganga (NMCG) as the nodal agency to manage the river, and financed sewage treatment infrastructure in several riverside towns and cities.
- It is helping to build sewage collection and treatment infrastructure in 20 towns along the mainstream of the Ganga.
- 1,275 MLD sewage treatment capacity was created under first phase of NGRBP.
- 3,632 km of sewage network built under the project.
- It helped to foster public mobilization for Ganga rejuvenation.

National Ganga River Basin Authority (NGRBA)

- It was formed in 2008. Same year, Ganga was also declared as a national river.
- It was headed by the Prime Minister.
- Besides the pollution control, the NGRBA was responsible for flood management and sustainable use of the river water.
- Later, NGBRA was dissolved and replaced by National Ganga Council in 2016.

News Update

- The World Bank has approved five-year loan of Rs. 3000 crore to Namami Gange Project, to develop and improve infrastructure projects to abate pollution in the river basin.
- This is the Second National Ganga River Basin Project (SNGRBP) being supported by the World Bank.
- The World Bank has been supporting the government's efforts since 2011 through the ongoing National Ganga River Basin Project.

6.3 FLOOD MAP

Why in News: Brahmaputra and three of its tributaries are flowing above the danger level at a few stretches in Assam. The total death toll due to floods in Assam reached higher than 50.

Potential Impact of Floods

- Threat to human lives by large scale inundation of homes and other buildings.
- Economic losses due to damage to buildings like houses and infrastructure like power, telecom, communication and transport.
- Surge in vector borne diseases like dengue, malaria in water-logged areas.
- Destruction of natural ecosystems and wildlife.
- In case the disaster management of floods is not timely or effective, these can transform into a humanitarian crisis.

Disaster Management of Floods in India- The Legal & Administrative Framework

- Disaster management of floods falls under the purview of National Disaster Management Act, 2005.
- National Disaster Management Authority laid out the "Guidelines for Disaster Management of Floods in India" in 2008.

- Subsequently, the National Disaster Management Plan 2019 also covers floods as one of the disasters.
- As per the National Disaster Management Act, the generalised disaster management process in India is a four step process covering both pre and post disaster stages.



Disaster Management of Floods in India- Process or Cycle

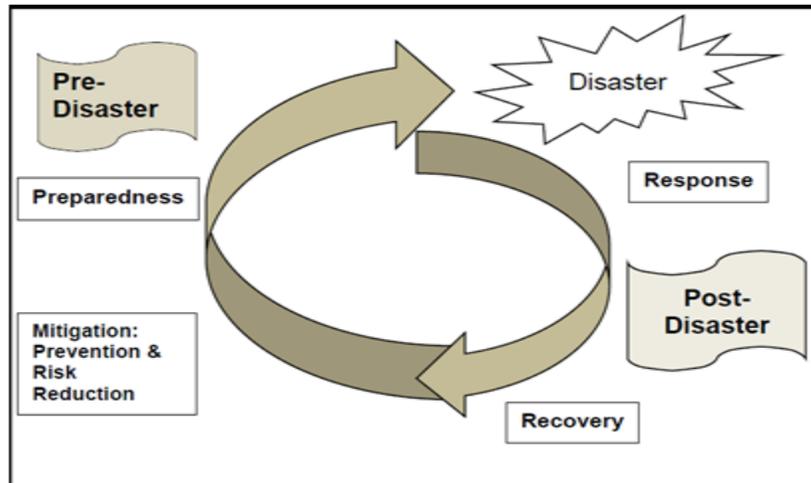


Figure 1-1: Disaster management cycle

Understanding Flood Risk or Hazard Risk Vulnerability Assessment (HRVA)

- Floods affect an average area of around 7.5 million hectares every year. As per National Commission on Floods, about 40 million hectares of area is flood prone in India.
- Riverine flooding which is common to most of the river basins of India is closely related with the monsoonal activity in India.
- The HRVA of floods requires preparing detailed maps to delineate all the regions vulnerable to floods in the country.
- The regions which are prone to flooding in India are-
 - Riverine basins of the country
 - Coastal Areas which are prone to storm surges and cyclones
 - City regions prone to urban flooding
- In present times of anthropogenic climate change, it is important to understand enhanced risk of flooding due to intense precipitation events driven by global warming.

Mitigation or Disaster Risk Reduction (DRR) through Non-Structural Measures

- These comprise of the laws, regulations, enforcement mechanisms and techno-legal regimes for reducing the risk of floods.
- Ecologically sound land-use zonation of flood plains is a critical component of non-structural measures. This is called as Flood Plain Zonation which was suggested by National Commission on Floods in 1970s.
- Land-use zonation of other low-lying areas (apart from flood plains) is also important as these are flood-prone regions.

- Preserving and restoring natural ecosystems like wetlands, especially in urban areas and over flood plains of rivers are non structural measures for flood management. Conservation of natural ecosystems is increasingly important in present times of ecological degradation.
- For riverine flood management, a very important non-structural measure is ecologically sound management of catchment area or afforestation over the catchment area.
- There is also a need of robust dam and reservoir management guidelines for scientific management for these engineering constructions.

Mitigation or Disaster Risk Reduction (DRR) through for Structural Measures

These comprise of construction of engineering structures like reservoirs, dams, weirs and barrages to store and regulate the flow of water. These are especially used for monsoonal months when most of the rainfall occurs in India. However, scientific usage and proper maintenance of dams and reservoirs is must. India needs to enhance the safety of its dams and reservoirs throughout the country, especially as was revealed by the 2018 Kerala flooding disaster.

- The structural measures also comprise of infrastructure like drainage and waterways for cities, roads and highways.
- To prevent riverine flooding, an important structural measure includes de-silting and dredging of rivers to improve the river flow; drainage improvement; floodwater diversion through existing or new channels.
- Focus should also be given to hazard resistant construction, strengthening, and retrofitting of all lifeline structures and critical infrastructure.
- It is critical to install Early Warning Systems (EWS) and State Wide Area Network (SWAN) to disseminate the information to last mile of impending floods due to heavy rainfall.

Preparedness before Floods

- It depends upon capacity development. Capacity Development means building resources, skills and capacities of all the stakeholders- including government agencies; NGOs and communities to develop their resilience for flood management.
- Awareness generation amongst community members about Do's and Don'ts is also an essential part of capacity building for flood management.

Response

- It starts immediately after receiving the warning of very heavy rainfall which may result in flooding in a river basin. It extends in short run till after the occurrence of floods.

- It includes quick and effective evacuation of people and livestock upon receiving flood warnings; information dissemination to the last mile; providing adequate shelter and basic amenities to people in disaster relief shelters.
- The administration may also need to carry out swift and effective rescue of people and livestock trapped or injured in floods.
- Response also includes providing all affected with the medical care and essential supplies.

Inter-Agency coordination

It's needed for the entire process of flood management is an important pivot of any disaster management as multiple agencies are involved.

Ministry of Jal Shakti is the nodal Ministry for riverine flood management in India. Ministry of Urban Housing and Affairs is the nodal Ministry for urban flooding in India.

6.4 TIGER CENSUS

Why in News: Union Environment Minister released the detailed report of Tiger Census on the eve of Global Tiger Day which is celebrated on 29th July every year. Last year PM had released "Status of Tigers in India" in July 2019. It had major findings of the 2018 tiger census.

Major Announcements by the Union Environment Minister

- India hosts more than 70% of global tiger population and is tirelessly working with all 13 tiger range countries towards nurturing the tiger.
- Ministry is working on a program in which efforts would be made to provide water and fodder to animals in the forest itself to deal with the challenge of human-animal conflict which is causing deaths of animals.
- For this LIDAR based survey technology will be used for the first time. Lidar is a method for measuring distances by illuminating the target with laser light and measuring the reflection with a sensor.
- With the presence of nearly 30 percent of India's tigers outside tiger reserves, India had embarked upon assessing management interventions through the globally developed Conservation Assured | Tiger Standards (CA|TS) framework, which will now be extended to all fifty tiger reserves across the country.

Status of Tigers in India Report, 2018

- Tiger census is conducted in India every four years by NTCA. The first countrywide assessment was done in 2006 and it estimated India's tiger population to be 1411.
- The report has the major findings of Tiger Census 2018.
- Tiger population estimate in India-

Year	Tiger Population
2006	1411
2010	1706
2014	2226
2018	2967

Tigers were observed to be increasing at a rate of 6 per cent per annum in India from 2006 to 2018.

Features of Detailed Report

- The detailed report released today assesses the status of tigers in terms of spatial occupancy and density of individual populations across India.
- The detailed report compares information obtained from the earlier three surveys (2006, 2010, and 2014) with data obtained from the 2018-19 survey to estimate population trends at country and landscape scales, patch colonization and extinction rates along with information on likely factors responsible for changes in tiger status at the fine spatial resolution of 100 km.
- The report evaluates the status of habitat corridors connecting major tiger populations and highlights vulnerable areas that require conservation attention for each landscape.
- The report provides information on major carnivores and ungulates regarding their distribution and relative abundance.

Major findings of the Tiger Census 2018

- Tiger population as per the latest census is 2967, which is almost a 33 % rise from the 2014 census.
- India now hosts more than 75% of global tiger population.
- Tigers were observed to be increasing at a rate of 6% per annum in India when consistently sampled areas were compared from 2006 to 2018.

- Madhya Pradesh became the new Tiger State of India with 526 Royal Bengal Tigers. MP has overtaken Karnataka to become the tiger state as per 2018 census. Karnataka was earlier the tiger state since 2010.
- Top 4 states with highest tiger population are-

State	Tiger Population
Madhya Pradesh	526
Karnataka	524
Uttarakhand	442
Maharashtra	312

- The Northeast region has suffered losses in tiger population.
- The tiger status in Chhattisgarh, Jharkhand and Odisha has steadily declined.
- The largest contiguous tiger population in the world of about 724 tigers was found in the Western Ghats (Nagarhole-Bandipur-Wayanad-Mudumalai- Satyamangalam-BRT block).
- The 2018 tiger census divided the tiger habitats in India in 5 tiger landscapes.
- The tiger landscapes and their tiger population are-

Tiger Landscape	States Included	Tiger Population as per 2018 Census
Shivalik Gangetic Plains	Bihar, Uttar Pradesh, Uttarakhand	646
Central India and the Eastern Ghats	Andhra Pradesh, Telengana, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan	1033
Western Ghats	Goa, Karnataka, Kerala, Tamil Nadu	981

North Eastern Hills and Brahmaputra Flood Plains	Arunachal Pradesh, Assam, Mizoram, Nagaland, Northern West Bengal	219
Sunderbans	West Bengal	88

- There were no tigers spotted in the state of Mizoram.
- Pench National Park in Madhya Pradesh and Periyar National Park in Kerala are the top-rated Tiger Reserves in India.

Tiger Count in Tiger Reserves

- Jim Corbett national park in Uttarakhand has the most number of tigers in the country, with 231 of the 2967 big cats of the country.
- It is followed by Nagarhole (127) and Bandipur (126), both in Karnataka. They are followed by Bandhavgarh in MP and Kaziranga in Assam (104 each).
- This time, Corbett is the only reserve with over 200 tigers and has the highest tiger density in the country at 14.
- Four of India's 50 reserves- Udnati Sitanadi in Chhattisgarh, Satkosia in Odisha, Mukundra in Rajasthan, Telangana's Kawal, have just one tiger. No tigers were spotted in following three Tiger Reserves (TR)- Buxa TR, Dampa TR and Palamau TR.
- 2018 tiger census was conducted using the doubling sample technique comprising of two phases. In the first phase the forest official, guards and forest rangers collected raw data based on pugmarks, scat, and leftover prey. In the second phase, data and images from camera traps were collected.
- This cycle recorded primary field data digitally, through mobile phone application **M-STRIPES (Monitoring system for tigers - intensive protection and ecological status)**, that uses GPS to geotag photo-evidences and survey information. It made this exercise more accurate.

Uniqueness of 4th All India Tiger Estimation

The detailed report of the 4th All India Tiger Estimation is unique in the following ways:

- Abundance index of co-predators and other species has been carried out which hitherto was restricted only to occupancy
- Sex ratio of tigers in all camera trap sites has been carried out for the first time.

- Anthropogenic effects on tiger population have been elaborated in a detailed manner.
- Tiger abundance within pockets in tiger reserves has been demonstrated for the first time.
- A feather in India's cap was added with the Guinness World Records recognizing the country's efforts as the world largest camera trap survey of wildlife.

Global Status of Tigers

Tigers have lost 90% of their natural habitat and their world. Their world population is less than 4000.

Project Tiger

- The Government of India has taken a pioneering initiative for conserving its national animal, the tiger, by launching the 'Project Tiger' in 1973.
- Project Tiger is an ongoing Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
- The National Tiger Conservation Authority (NTCA) is a statutory body of the Ministry, with an overarching supervisory / coordination role, performing functions as provided in the Wildlife (Protection) Act, 1972.



KAVISH IAS
Converting Possibilities into Reality

SOCIAL ISSUES

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

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



KAVISH IAS
Converting Possibilities into Reality

7.1 PM GARIB KALYAN ANNA YOJANA

Why in News: Acknowledging that the Covid pandemic and the lockdown have hit the poor the hardest, Prime Minister Narendra Modi has announced an extension of the Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) for 80 crore people till the end of November.

Incidentally, several state Chief Ministers had written to the Prime Minister, asking him to extend the scheme. Initially, the scheme was announced for three months — April, May and June only. Giving reasons for the extension, the PM pointed that the economic activity in the country during the monsoons was more concentrated in the agricultural sector compared to other sectors.

One Nation, One Ration Card

- The PM also shared that the government is keen to cover all ration cardholders under One Nation, One Ration Card (ONORC) scheme by March 2021.
- In the present system, a ration cardholder can buy food grains only from a fair price shop (FPS) that has been assigned to her in the locality in which she lives.
- However, under the ONORC system, the beneficiary will be able to buy subsidised food grains from any FPS across the country.

PM GaribKalyan Anna Yojana (PMGKAY)

- The PMGKAY is one of the main components of the Centre's Rs 1.70 lakh crore relief package under the Pradhan MantriGaribKalyanYojana for the poor to help them fight the battle against coronavirus.
- The scheme involves providing additional 5 kg food grain free to 80 crore beneficiaries of the National Food Security Act (NFSA), over and above their monthly entitlement.
- In addition, every family got one kilogram of dal per month, free of cost, but the milling of pulses, ended up delaying delivery and distribution of dal.
- Thus the government has replaced the provision of one kilogram of dal to one kilogram of chana for the remaining duration of the scheme, which is expected to speed up delivery.
- The five-month extension will cost around Rs 90,000 crore, taking the overall cost of the scheme to Rs 1.5 lakh crore.

National Food Security Act (NFSA), 2013

- The National Food Security Act, 2013 was notified in 2013 with the objective to provide for food and nutritional security, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity.

- The Act provides for coverage of up to 75% of the rural population and up to 50% of the urban population for receiving subsidized food grains under Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population.
- The eligible persons are entitled to receive 5 Kgs of food grains per person per month at subsidised prices.
- Further, the Antyodaya Anna Yojana (AAY) households or the poorest of the poor group, receive 7 kg of subsidised food grains per person per month i.e. 35 kg of food grain/family/month.

7.2 NEW NATIONAL EDUCATION POLICY

Why in News: The government on Wednesday unveiled the new National Education Policy 2020 after it was approved by the Union Cabinet. Ministry of HRD has now been renamed as Ministry of Education.

Salient Features of NEP 2020

This is the first education policy of the 21st century. The first National Policy on Education is 34 years old and dates back to 1986 which was modified in 1992.

Based on Widespread Consultations

- NEP 2020 has been formulated after an unprecedented process of consultation that involved nearly over 2 lakh suggestions from 2.5 lakhs Gram Panchayats, 6600 Blocks, 6000 ULBs, 676 Districts.
- **The new National Education Policy is based upon the recommendations of Subramaniam Committee (2016) and Kasturirangan Committee (2019).**
- It was referred to the Parliamentary Standing Committee on HRD in 2019.

Aim of the Policy

- The Policy will make way for large scale, transformational reforms in both school and higher education sectors.
- The policy is built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability and is aligned to the 2030 Agenda for Sustainable Development.
- It aims to transform India into a vibrant knowledge society and global knowledge superpower by making both school and college education more holistic, flexible, multidisciplinary.

- The policy is suited to 21st century needs and aimed at bringing out the unique capabilities of each student.

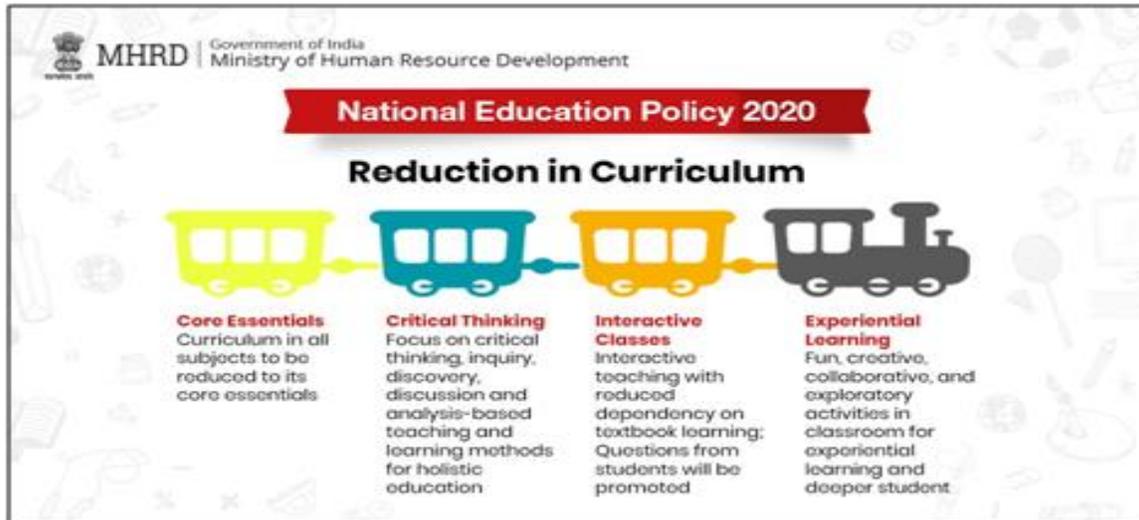
MINISTRY OF HUMAN RESOURCES IS NOW **MINISTRY OF EDUCATION**

FOR SCHOOLS	FOR COLLEGES
<p>From 10+2 to 5+3+3+4: Current 10+2 structure in which policy covered schooling from Class 1 to 10 (age 6-16) and then Class 11-12 (age 16-18) gives way to 5 years of foundational education, 3 of preparatory, 3 of middle & 4 years of secondary schooling</p> 	<p>SAT-Like College Test: National Testing Agency to conduct common college entrance exam twice a year</p> 
<p>Multi-Stream: Flexibility to choose subjects across streams; all subjects to be offered at two levels of proficiency</p>	<p>4-Year Bachelor: 4-year multi-disciplinary bachelor's programme to be preferred; mid-term dropouts to be given credit with option to complete degree after a break</p> 
<p>Diluted Board: Board exams to test only core competencies; could become modular (objective and subjective) and will be offered twice a year</p>	<p>No Affiliation: Over next 15 years, colleges will be given graded autonomy to give degrees, affiliation with universities to end, so would be deemed university status</p>
<p>Multilingual: 3-language policy to continue with preference for local language medium of instruction till class 8</p> 	<p>Fee Cap: Proposal to cap fee charged by private institutions of higher learning</p> 
<p>Bag-Less Days: School students to have 10 bag-less days in a year during which they are exposed to a vocation of choice (i.e. informal internship)</p>	<p>Going Global: Top-rated global universities to be facilitated to come to India, top Indian institutions to be encouraged to go global</p> 

SUMMARY of NEP 2020

Curriculum

NEP aims to provide students with increased flexibility and subjects and there will be no rigid separation between arts and sciences, curricular and extra-curricular activities.



School Education

- The new National Education Policy restructures school education by introducing five years of foundational education.
- The big push in the school education system is to convert it to a **“5+3+3+4” system with** three years as pre-schooling.
- Students will be allowed to take board exams on up to two occasions during any given school year, one main examination and one for improvement. It will also become ‘easier’.
- Thus, it de-emphasises “high stakes” boards and the changes in the board structure, which seek to make the exams a test of “core competencies”, will be implemented from the 2021 academic session.
- Vocational education will start in schools from the sixth grade and will include internships.
- The policy seeks to emphasise learning in regional language or mother tongue and reiterates continuation of the three-language formula.
- The policy introduces assessment reforms with 360 degree Holistic Progress Card, tracking student progress for achieving learning outcomes.

Higher Education

- As per the Policy, GER in higher education to be raised to 50 % by 2035 and 3.5 crore seats to be added in higher education.
- The policy introduces a SAT-like university entrance test and offers the option of a four-year bachelor’s degree.
- The new university entrance test will be implemented for college admissions in the 2022 academic session.

- The reforms look to substantially alter the college education system and replace the University Grants Commission with a new regulator — the Higher Education Commission of India with verticals for regulation, standard-setting, grants and accreditation.
- The NEP calls for flexible curricula, creative combinations of subjects, integration of vocational education and multiple entry and exit points at the undergraduate level.
- In course of time, colleges will not need to seek affiliations but award degrees themselves.
- After the master's degree, there will be no MPhil prior to a PhD.
- The policy proposes that Sanskrit be offered at school and higher education as an important, enriching option for students, including as an option in the three-language formula.

Important Highlights of NEP 2020

NEP 2020 on SCHOOL EDUCATION

Ensuring Universal Access at all levels of school education

NEP 2020 emphasizes on ensuring universal access to school education at all levels from pre-school to secondary.

This will be achieved through the following:

- Infrastructure support, innovative education centres to bring back dropouts into the mainstream;
- Tracking of students and their learning levels;
- Facilitating multiple pathways to learning involving both formal and non-formal education modes;
- Association of counsellors or well-trained social workers with schools;
- Open learning for classes 3, 5 and 8 through NIOS and State Open Schools; and,
- Secondary education programs equivalent to Grades 10 and 12, vocational courses, adult literacy and life-enrichment programs
- About 2 crore out of school children will be brought back into main stream under NEP 2020.

Early Childhood Care & Education (ECCE) with new Curricular and Pedagogical Structure

- **With emphasis on Early Childhood Care and Education, the 10+2 structure of school curricula is to be replaced by a 5+3+3+4 curricular structure corresponding to ages 3-8, 8-11, 11-14, and 14-18 years respectively.**
- This will bring the hitherto uncovered age group of 3-6 years under school curriculum, which has been recognized globally as the crucial stage for development of mental faculties of a child.

- The new system will have 12 years of schooling with three years of Anganwadi/ pre schooling.
- NCERT will develop a National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) for children up to the age of 8.
- ECCE will be delivered through a significantly expanded and strengthened system of institutions including Anganwadis and pre-schools that will have teachers and Anganwadi workers trained in the ECCE pedagogy and curriculum.
- The planning and implementation of ECCE will be carried out jointly by the Ministries of HRD, Women and Child Development (WCD), Health and Family Welfare (HFW), and Tribal Affairs.

Attaining Foundational Literacy and Numeracy

- A National Mission on Foundational Literacy and Numeracy will be set up Ministry of Education, since foundational literacy and numeracy is an urgent and necessary prerequisite to learning.
- States will prepare an implementation plan for attaining universal foundational literacy and numeracy in all primary schools for all learners by grade 3 by 2025.
- A National Book Promotion Policy is to be formulated.

Reforms in school curricula and pedagogy

- The school curricula and pedagogy will aim for holistic development of learners by equipping them with the key 21st century skills, reduction in curricular content to enhance essential learning and critical thinking and greater focus on experiential learning.
- Students will have increased flexibility and choice of subjects.
- There will be no rigid separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams.
- Vocational education will start in schools from the 6th grade, and will include internships.
- A new and comprehensive National Curricular Framework for School Education, NCFSE 2020-21, will be developed by the NCERT.

Multilingualism and the power of language

- The policy has emphasized mother tongue/local language/regional language as the medium of instruction at least till Grade 5, but preferably till Grade 8 and beyond.
- Sanskrit to be offered at all levels of school and higher education as an option for students, including in the three-language formula.
- Other classical languages and literatures of India also to be available as options.
- No language will be imposed on any student.

- Students to participate in a fun project/activity on 'The Languages of India', sometime in Grades 6-8, such as, under the 'Ek Bharat Shrestha Bharat'
- Several foreign languages will also be offered at the secondary level.
- Indian Sign Language (ISL) will be standardized across the country and National and State curriculum materials developed, for use by students with hearing impairment.

Assessment Reforms

- NEP 2020 envisages a shift from summative assessment to regular and formative assessment, which is more competency-based, promotes learning and development, and tests higher-order skills, such as analysis, critical thinking, and conceptual clarity.
- All students will take school examinations in Grades 3, 5, and 8 which will be conducted by the appropriate authority.
- Board exams for Grades 10 and 12 will be continued, but redesigned with holistic development as the aim.
- **A new National Assessment Centre- PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development), will be set up as a standard-setting body.**
- The changes in the board structure, which seek to make the exams a test of "core competencies", will be implemented from the 2021 academic session.

Equitable and Inclusive Education

- NEP 2020 aims to ensure that no child loses any opportunity to learn and excel because of the circumstances of birth or background.
- Special emphasis will be given on Socially and Economically Disadvantaged Groups (SEDGs) which include gender, socio-cultural, and geographical identities and disabilities. This includes setting up of Gender Inclusion Fund and also Special Education Zones for disadvantaged regions and groups.
- Children with disabilities will be enabled to fully participate in the regular schooling process from the foundational stage to higher education, with support of educators with cross disability training, resource centers, accommodations, assistive devices, appropriate technology-based tools and other support mechanisms tailored to suit their needs.
- Every state/district will be encouraged to establish "Bal Bhavans" as a special daytime boarding school, to participate in art-related, career-related, and play-related activities.
- Free school infrastructure can be used as Samajik Chetna Kendras.

Robust Teacher Recruitment and Career Path

- Teachers will be recruited through robust, transparent processes.

- Promotions will be merit-based, with a mechanism for multi-source periodic performance appraisals and available progression paths to become educational administrators or teacher educators.
- A common National Professional Standards for Teachers (NPST) will be developed by the National Council for Teacher Education by 2022, in consultation with NCERT, SCERTs, teachers and expert organizations from across levels and regions.

School Governance

Schools can be organized into complexes or clusters which will be the basic unit of governance and ensure availability of all resources including infrastructure, academic libraries and a strong professional teacher community.

Standard-setting and Accreditation for School Education

- NEP 2020 envisages clear, separate systems for policy making, regulation, operations and academic matters.
- States/UTs will set up independent State School Standards Authority (SSSA).
- Transparent public self-disclosure of all the basic regulatory information, as laid down by the SSSA, will be used extensively for public oversight and accountability.
- The SCERT will develop a School Quality Assessment and Accreditation Framework (SQAAF) through consultations with all stakeholders.

NEP 2020 on HIGHER EDUCATION

Increase GER to 50 % by 2035

- **NEP 2020 aims to increase the Gross Enrolment Ratio in higher education including vocational education from 26.3% (2018) to 50% by 2035**

Holistic Multidisciplinary Education

The policy envisages broad based, multi-disciplinary, holistic Under Graduate education with following features

- flexible curricula;
- creative combinations of subjects;
- integration of vocational education; and
- Multiple entry and exit points with appropriate certification.

UG education can be of 3 or 4 years with multiple exit options and appropriate certification within this period. For example, Certificate after 1 year, Advanced Diploma after 2 years, Bachelor's Degree after 3 years and Bachelor's with Research after 4 years.



- **An Academic Bank of Credit** is to be established for digitally storing academic credits earned from different HEIs so that these can be transferred and counted towards final degree earned.
- **Multidisciplinary Education and Research Universities (MERUs)**, at par with IITs, IIMs, to be set up as models of best multidisciplinary education of global standards in the country.
- **The National Research Foundation** will be created as an apex body for fostering a strong research culture and building research capacity across higher education.

Regulation of Higher Education

Higher Education Commission of India (HECI) will be set up as a single overarching umbrella body for entire higher education, excluding medical and legal education.

HECI will have four independent verticals-

- National Higher Education Regulatory Council (NHERC) for regulation;
 - General Education Council (GEC) for standard setting;
 - Higher Education Grants Council (HEGC) for funding, and;
 - National Accreditation Council (NAC) for accreditation.
- HECI will function through faceless intervention through technology, & will have powers to penalise HEIs not conforming to norms and standards.
 - Public and private higher education institutions will be governed by the same set of norms for regulation, accreditation and academic standards.

Rationalised Institutional Architecture

- Higher education institutions will be transformed into large, well resourced, vibrant multidisciplinary institutions providing high quality teaching, research, and community engagement.
- The definition of university will allow a spectrum of institutions that range from Research-Intensive Universities to Teaching- Intensive Universities to Autonomous degree-granting Colleges.
- Affiliation of colleges is to be phased out in 15 years and a stage-wise mechanism is to be established for granting graded autonomy to colleges.
- Over a period of time, it is envisaged that every college would develop into either an Autonomous degree-granting College, or a constituent college of a university.

NEP 2020 on TEACHER EDUCATION

National Curriculum Framework for Teacher Education (NCFTE)

- A new and comprehensive National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT.
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree.
- Stringent action will be taken against substandard stand-alone Teacher Education Institutions (TEIs).

Mentoring Mission

- A National Mission for Mentoring will be established, with a large pool of outstanding senior/retired faculty, including those with the ability to teach in Indian languages and who would be willing to provide short and long-term mentoring/professional support to university/college teachers.



NEP 2020 on FINANCIAL SUPPORT FOR STUDENTS

- Efforts will be made to incentivize the merit of students belonging to SC, ST, OBC, and other SEDGs.
- The National Scholarship Portal will be expanded to support, foster, and track the progress of students receiving scholarships.
- Private HEIs will be encouraged to offer larger numbers of free ships and scholarships to their students.

7.3 HOUSEHOLD SOCIAL CONSUMPTION ON EDUCATION SURVEY

Why in News: The report of Household Social Consumption on Education survey conducted by the National Statistical Office (NSO) was recently released. The survey covered 1.13 lakh households and 1.52 lakh students in over 8,000 villages and 6,000 urban blocks between July 2017 and June 2018.

Findings of the survey

Preference for English medium instruction

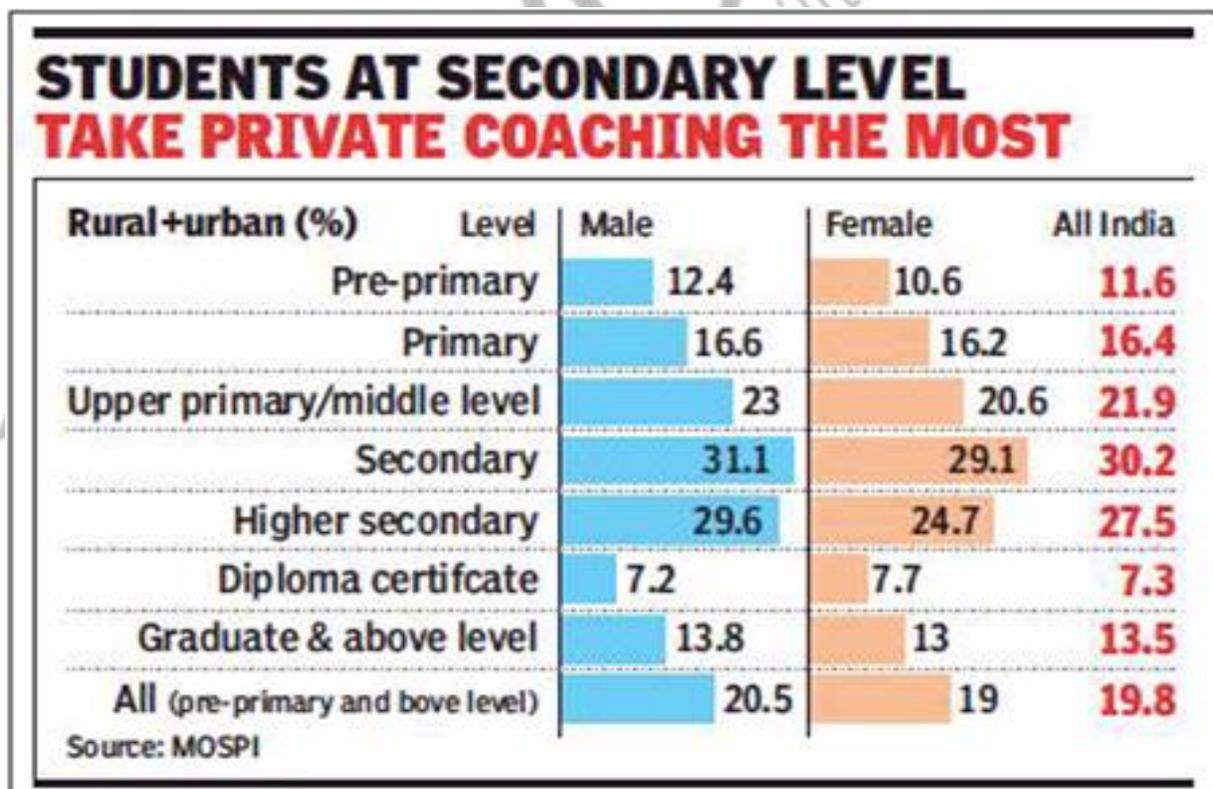
- The survey found an increasing trend in the preference for English as a medium of instruction at different levels of education.
- The report has defined medium of instruction as “the language through which subjects other than ‘languages’ (like Hindi, English, etc.) are taught in the school”.

Class-wise distribution

- At the Primary level (Class I to V), English was the medium of instruction for 23.2 per cent of students (a rise from 22.3 per cent in 2014) and for 65 per cent of children, the medium of instruction was the same as their mother tongue.
- At the Upper Primary level (Class VI-VIII), the proportion of English-medium students has gone up to 21 per cent in 2017-18 from 19.3 per cent in 2014.
- Similarly, at Secondary level (Class IX-X), the proportion of English-medium students has gone up to 20.9 per cent from 19.3 per cent.
- However, it has remained the same at around 29 per cent at Higher Secondary level (Class XI-XII) during the same period.

Language wise distribution

- Over 50 per cent of pre-primary schoolchildren (nursery, KG) who spoke one of 13 regional languages at home, including Tamil, Malayalam, Kannada and Punjabi, were enrolled in English medium schools.
- However, the share of Hindi-speaking students in English-medium schools at the primary level has come down from 18.3 per cent in 2014 to 18.2 per cent in 2018.

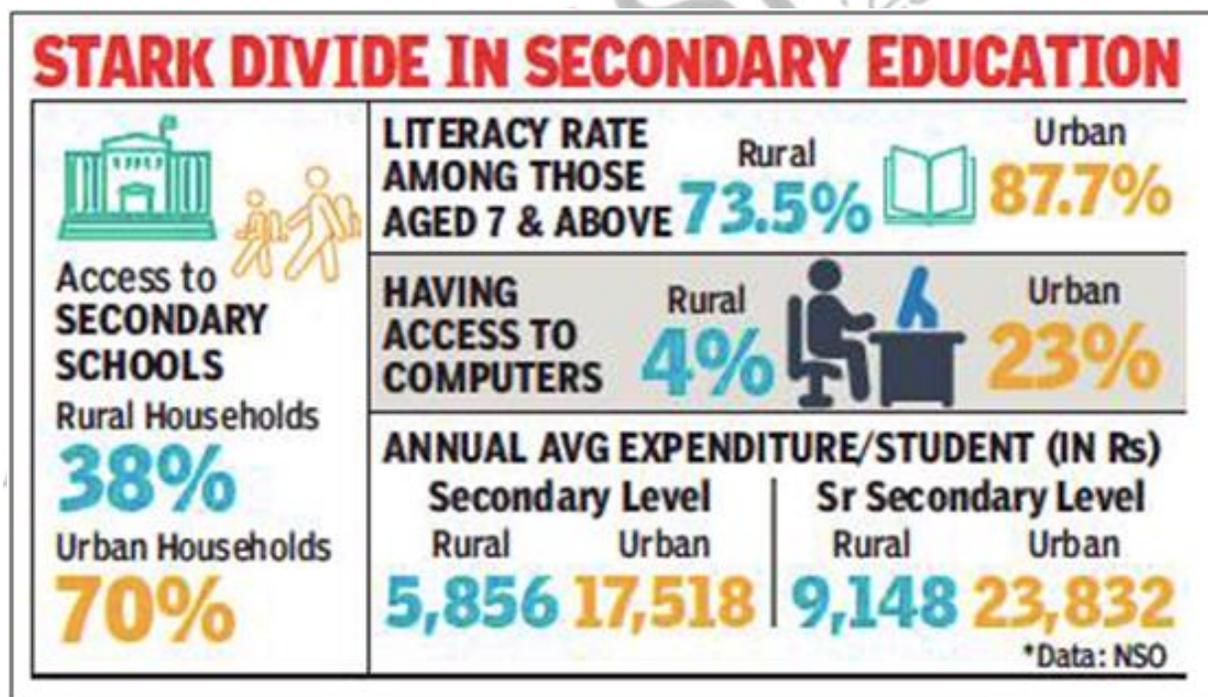


Rural Urban gap in education

- The all India literacy rate among persons aged 7 years and above is 73.5%. However, for the same age group, the rural literacy is 73.5% and in the urban areas it is 87.7%.
- While 92.7% of rural households have a primary school within 1 km compared to 87.2% in urban areas, only 38% of rural household have access to secondary school compared to 70% in the urban areas.

Digital Divide

- The digital divide between rural and urban households is significant with just 4% of the rural population having access to computers, as compared to 23% in urban areas.
- While 15% of the surveyed population in the rural areas has internet access, 42% of the surveyed students in the urban areas have access to the internet.
- Only 24% of the persons between age 15-29 years in rural areas are able to operate a computer as compared to 56% in urban areas.
- Digital learning is growing significantly in India today; however, the numbers show that steps must also be taken to ensure that the technology divide does not become a learning divide.



Gap in annual average expenditure

- The average expenditure per student during an academic session for basic courses was nearly Rs 8,331 for general courses and Rs 50,307 for technical and professional courses.

- However, in Hindi-speaking states, the per capita expenditure on education is lower than the national average: **Chhattisgarh (Rs 3,575), Bihar (Rs 4,379), Jharkhand (Rs 4,840), Madhya Pradesh (Rs 5,769), Uttar Pradesh (Rs 6,301) and Rajasthan (Rs 7,835).**
- **Annual average expenditure per student at secondary and senior secondary level in a rural household is Rs 5,856 and Rs 9,148 respectively. An urban household for the same classes spends Rs 17,518 and Rs 23,832 respectively.**

Status of private coaching

The report shows that nearly 20% students attending pre-primary and above level (21% of males and 19% of females) were taking private coaching. At the pre-primary level 11.6% of students across the country were taking private coaching. Further, this number gradually increased at the upper primary and middle level to 21.9% and increased to 2% at the secondary level.

However, the number of students taking private coaching at the higher secondary level was 27.5%.



MISCELLANEOUS and SCHEMES

❖ KASHMIRI SAFFRON – GI TAG

(Source: The Hindu)

- Kashmir saffron is a spice derived from the crocus flower, which is purple in colour. Saffron threads are plucked out from the flowers.
- It is said to be the world's most expensive spice.
- Saffron is grown commercially primarily in India, Spain and Iran.
- Kashmir saffron is the only saffron in the world that is grown at an altitude of 1,600 meters which adds to its unique characteristics like longer and thicker stigma, natural deep-red colour, high aroma, bitter flavour, chemical free processing and high quality colour strength, flavour and bitterness.

National Mission on Saffron (NMS)

- National Mission on Saffron (NMS) was launched by the Centre in 2010 to increase saffron production in the Kashmir valley.
- Components include rejuvenation of existing Saffron area, improving soil health, strengthening the irrigation system, mechanisation, post harvesting measures etc.
- Under the mission, an area of 3,715 hectare for saffron was proposed to be rejuvenated.
- Under the mission, India International Saffron Trade Centre (Saffron Park) has been commissioned at Dussu area in Pampore.
- An area of 2,500 hectares has been rejuvenated so far and a bumper production is expected during the current season.
- Pampore, the hub of saffron in Kashmir, is expected to have a bumper crop of the spice this season due to initiatives taken by the NMS.

❖ P-8I

(Source: PIB)

- Poseidon 8I (I stand for India) is a long range maritime patrol aircraft developed by Boeing, a US based military equipment manufacturer.
- The Indian Navy had estimated the requirement of 22 Poseidon 8Is. India has already acquired 8 of these aircrafts.
- The P-8I aircraft is designed for long-range anti-submarine warfare, anti-surface warfare, and intelligence, surveillance and reconnaissance missions.
- It is capable of undersea surveillance from a height of up to 40000 ft, and has a range of 4,500 nautical miles. Magnetic Anomaly Detection (MAD) radar helps locate submarines in deep seas.

- It is equipped with Active Electronically Scanned Array (AESA) radars capable of engaging multiple targets simultaneously. The India-version of Poseidon 8 is equipped with Harpoon Block-II missiles, MK-54 lightweight torpedoes to enhance its anti-submarine warfare capability.

❖ **The Naval Exercise- Passex**

(Source: INDIAN EXPRESS)

- India conducted a joint naval exercise with the US in Indian Ocean waters.
- It was largely a 'Passex' (passing exercise) which means an incidental naval exercise during a warship's passage (rather than a planned exercise).
- US called it as a "cooperative" exercise with Indian warships in the Indian Ocean.
- The naval exercise carries geo-political significance as the massive nuclear-powered aircraft carrier USS Nimitz and her accompanying three warships were significantly transiting through the Indian Ocean Region.

Other PASSEX

Indian Navy had also conducted similar PASSEXs with Japan (JMSDF) and with French Navy in recent past.

US in South China Sea

The US warships have recently completed a "freedom of navigation" operation in the South China Sea, where an expansionist and aggressive China is strong-arming its neighbors' like the Philippines, Malaysia, Vietnam, Brunei and Taiwan.

❖ **Padmanabhaswamy Temple**

(Source: The Hindu)

The temple is located inside the East Fort in capital city of Thiruvananthapuram. **Thiruvananthapuram takes its name from the presiding deity of the Sree Padmanabhaswamy Temple, who is also known as Anantha. The word 'Thiruvananthapuram' literally means - the Land of Sree Anantha Padmanabhaswamy.**

- The temple dates back to the 8th century but the present structure was built in the 18th century by the then Travancore Maharaja Marthanda Varma.

Architecture

The temple is built in the unique Chera style of architecture, which is a blend of the Kerala and Dravidian styles of architecture.

- The temple architecture stands out for its work in stone and bronze.
- The temple was first made of wood but later constructed with granite that is seen today.
- The garbhagriha or the sanctum sanctorum of Sree Padmanabhaswamy Temple is located on a stone slab and the main idol, which is about 18 ft long.
- It has 365 pillars, one for each day of the year.
- The temple interiors are adorned by beautiful paintings and murals.
- The temple also has some interesting structural features in the form of huge Mandapas or halls.
- Temple's corridor extends from the eastern side into the sanctum sanctorum is a broad corridor which has 365 and one-quarter sculptured granite-stone pillars with beautiful carvings.

Religious Significance

- It is known to be one of the 108 holy temples associated with Vaishnavism in India.
- The deity at the temple represents the trinity of Brahma, Vishnu and Shiva.
- Temple's main deity is Lord Vishnu who is found in the Anantha Shayana posture (reclined posture of eternal yoga) on Adishesha or king of all serpents.
- The main idol is made with more than 12000 saligram stones transported from the Gandaki river in Nepal.
- Saligramas are auspicious stones worshipped and venerated as the direct manifestation of Lord Vishnu.
- The idol is made of kadasharakara, a composition of herbs, resin and sand.

Temple's Treasure

- There are a total of six vaults located below the temple. It is the opening of these vaults to assess the contents that led to the decade-long legal battle.
- In 2017, the Supreme Court appointed a seven-member panel headed by amicus curiae Gopal Subramaniam to assess the value of the treasure inside the vaults, including two chambers that had not been opened for over 130 years.
- Out of the 6 vaults, 5 have been opened with their treasures assessed. However, the 6th vault is associated with mythical curses and wasn't opened.
- The total treasure in all vaults is estimated to be somewhere around 1 trillion USD.