THE IAS GAZETTE

A House Journal of **APTI PLUS**

JULY 2022

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50 TH EDITION

BAN ON SINGLE-USE PLASTIC

XIV BRICS SUMMIT

AGNIPATH SCHEME

14TH BRICS SUMMIT

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GENERAL STUDIES - I

UPDATED MAP OF EARTH'S TECTONIC PLATE

GS-I GEOGRAPHY

Context

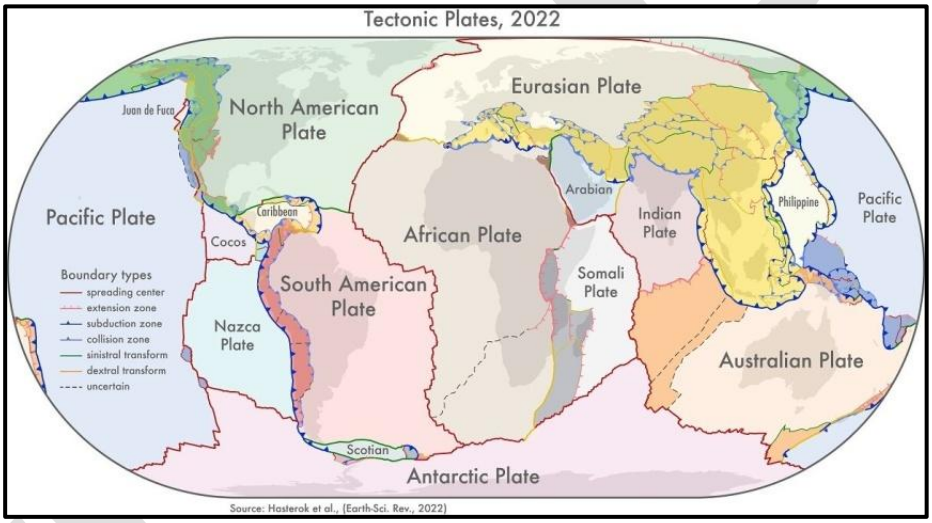
- A new study, titled New maps of global geological provinces and tectonic plates **has given an updated map of the earth's tectonic plates.**

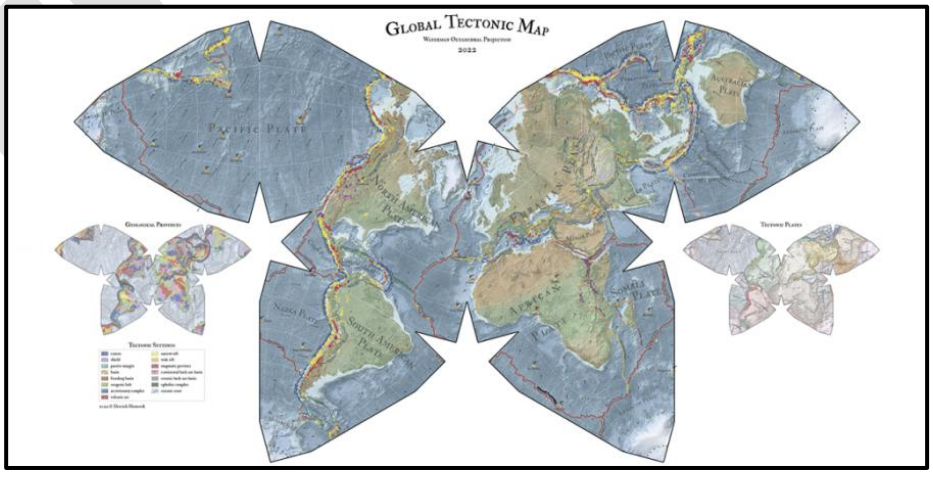
Background

- The study delved into the past construction of continents like the **first supercontinent, Vaalbara.**
- Vaalbara fragmented to form other supercontinents over the years, the last being Pangea, which existed some 335-65 million years ago. Pangea again gave way to the seven modern continents which make the earth's land surface today.

The new model

- The researchers combined three models to map the new geological provinces and tectonic plates:
  1. A plate model based on the existing knowledge of tectonic plates
  2. A province model based on the geological information of the earth's surface
  3. An orogeny model based on the process of mountain formation which is triggered when two tectonic plates collide.
- There are 26 orogenies — the process of mountain formation — that have left an imprint on the present-day architecture of the crust. Many of these, are related to the formation of supercontinents. The last time the tectonic plate model was updated was back in 2003.
- The new study added several new micro-plates to the existing tectonic plate model like the **Macquarie microplate which sits south of Tasmania and the Capricorn microplate that separates the Indian and Australian plates.**
- The new model now includes all the deformation zones north of India as the plate bulldozes its way into Eurasia





Significance

- The new model for tectonic plates better **explains the spatial distribution of 90 per cent of earthquakes and 80 per cent of volcanoes from the past two million years** whereas existing models only capture 65 per cent of earthquakes.
- The new plate model **can be used to evaluate risks from natural hazards**; the province model **can be used for further exploration of minerals and the orogeny model** for a **better understanding of the evolution of the earth.**
- It will help in forming a **better understanding of natural hazards like earthquakes and volcanoes.**

GENERAL STUDIES - II

RAJYA SABHA ELECTION

GS-II POLITY

In News

- Recently the Rajya Sabha election was held for 57 seats.
- 41 out of 57 candidates have been elected unopposed in the Rajya Sabha election.
  - On 10th June, Election was conducted for the 16 remaining seats.

About Rajya Sabha

- Rajya Sabha was 1st Constituted in 1952.
- **In 1954, Rajya Sabha announced that the Council of States would be Called 'Rajya Sabha'.**
- S. Radhakrishnan was appointed as 1st Chairman.
- **Maximum Strength:** 250, of which 238 are to be elected and 12 are to be nominated by the President.
- **Present Strength:** 245, of which 233 are elected and 12 are nominated.
  - 4 members are elected from UTs (3 from Delhi and 1 from Puducherry). Other Union territories are not represented.
- **Not subject to dissolution, one-third of its members retire every 2nd year.**
- **6 years Tenures**, but a member elected in a bye-election Serves for the remainder of the term.
- The vice-President is the ex officio Chairman, elected by members of both Houses of Parliament in accordance with the System of proportional representation by means of a Single transferable vote, 5 years tenure.
  - Deputy Chairman is elected by members of Rajya Sabha from amongst its members.
- Normally, Prime Minister nominates a Minister who is a member of Rajya Sabha as Leader of the House, but if Prime Minister himself is a member of Rajya Sabha, he will act as Leader of the House.
- **Secretary-General in Rajya Sabha:** Appointed by Chairman and holds a rank equivalent to Cabinet Secretary, Assists Presiding Officers by giving them advice and expert opinion.

Members of Rajya Sabha

- **Members are elected by the elected members of Assemblies of States and UTs in accordance with the System of proportional representation by means of the Single transferable vote**.
  - 12 members are nominated by President from amongst persons having special knowledge or practical experience in literature, science, art and Social Service.
- Rajya Sabha members can vote in the election of Vice-President but are not allowed to vote in the election of President.
- A Minister who is a Member of Lok Sabha has the right to speak in and takes part in the proceedings of Rajya Sabha but has no right to vote in Rajya Sabha and vice versa.
- **Under Article 105, Members enjoy certain powers and privileges.**
- If any question arises about disqualification, it is referred to the decision of the President and his decision is final.
  - Before giving any decision on any such question, President obtains the opinion of the Election Commission and acts according to such opinion.
- **If any question arises about disqualification under the 10th Schedule, the question is referred to Chairman and his decision is final.**

Special powers of Rajya Sabha

- **Empower Parliament to make laws in respect of any matter enumerated in the State List in the national interest by adopting a resolution to this effect (Article 249).**
- **Creation of All India Services (Article 312).**
- **Approving Proclamations (issued under article 352 or article 356 or article 360).**
- In legislative matters, Rajya Sabha enjoys almost equal powers with Lok Sabha, except in the case of Money Bills.
- Joint Sitting of the Houses for resolving the deadlock between the two Houses, except in Case of Money Bill and Constitution Amendment Bill, Till now only 3 joint Sitting.

Working of Rajya Sabha

- There are 24 Department-related Standing Committees (DRSCs), and 8 of them function under the Chairman of Rajya Sabha, while 16 Committees function under the Speaker of Lok Sabha.
- **Chairman of Rajya Sabha is the Chairman of the Business Advisory Committee, General Purposes Committee and Committee on Rules.**

- The Deputy Chairman of Rajya Sabha is the Chairman of the Committee of Privileges.
- Chairman has a Casting vote in the case of an equality of votes.
- **To ask a question in Rajya Sabha, Member has to give notice for at least 15 days.**
  - Starred Question requires oral answers and Un-starred Question requires written answers.
- **4 methods of voting are adopted:** Voice vote, Counting, Division by automatic vote recorder and Division by going into the Lobbies.

THE INDIAN PATENT REGIME

GS-II POLITY

In News

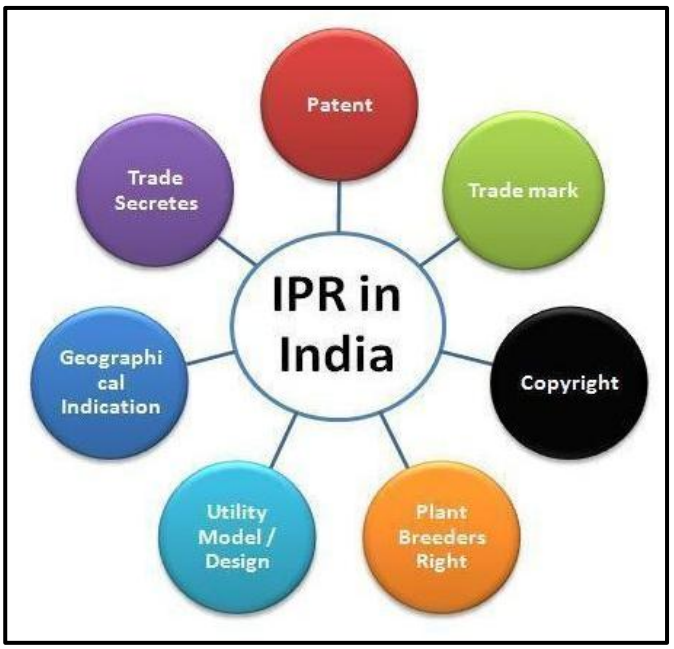
- Recently the **U.S. Trade Representative (USTR) released a report which raised concerns over IP protection and enforcement in India**.
  - The report **categorised India** along with Argentina, Chile, China, Indonesia, Russia and Venezuela **under its Priority Watch List**.
  - The report highlighted issues related to waiting times for obtaining patents, reporting requirements, and data safety.

Indian Patent System

- **A patent is an exclusive set of rights granted for an invention,** it may be granted for a product or process that provides a new way of doing something or offers a new technical solution to a problem.
- In India, **the patent systems are governed by the Indian Patent Act of 1970.**
- India has aligned itself with international rules related to intellectual property rights.
  - India became a party to the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement following its membership to the World Trade Organization in 1995.
  - **India amended its internal patent laws to comply with TRIPS.**
- **India** is also a signatory to several IPR-related conventions including;
  - The Berne Convention governs copyright.
  - The Budapest Treaty.
  - The Paris Convention for the Protection of Industrial Property.
  - The Patent Cooperation Treaty (PCT).
- **Original Indian Patents Act of 1970 did not grant patent protection to pharmaceutical products** to ensure that medicines were available to the masses at a low price.
  - Patent protection of pharmaceuticals was re-introduced with a 2005 amendment to comply with TRIPS Agreement.

Intellectual Property Rights

- **Intellectual property** (**IP**) is a category of property that includes intangible creations of the human intellect.
- **Intellectual property rights include patents, copyright, industrial design rights, trademarks, plant variety rights, trade dress, and geographical indications.**
- The main purpose of intellectual property law is to encourage the creation of a wide variety of intellectual goods, to achieve this, the law gives people and businesses property rights to the information and intellectual goods they create, usually for a limited period.
  - This gives economic incentive for their creation because it allows people to benefit from the information and intellectual goods they create and allows them to protect their ideas and prevent copying.
  - **These economic incentives are expected to promote innovation and contribute to the technological progress of countries.**



Steps by the Government

- **The Cell for IPR Promotion and Management (CIPAM) has been set up to coordinate the implementation of the National IPR Policy**.

- IP awareness programmes have been undertaken in academic institutions, at both school and college levels, as also for industry.
- To streamline the processing of IP applications, IP procedures have been simplified and made user-friendly by amendment to the Patents Rules in 2016 and Trademarks Rules in 2017.
- **Under the amended Patents Rules, 80% patent fee reduction has been provided for Startups as compared to large companies.**
- Establishment of Center of Excellence in Intellectual Property.
- Providing IP Facilitation Support, and Help-Desk services For IPR.
- Creation of IPR Awareness through Digital Media.

Way Forward

- There is an immediate need to take corrective steps to achieve the full potential of geographical indications."
- Provisions for stronger enforcement and action against Violation are the need of the hour".
- Awareness campaigns, especially in rural areas, on these intellectual property rights and promotes the success stories of Darjeeling Tea, Chanderi Silk, etc.
- **Building sufficient capacities in the high court's so that intellectual property litigation can be conducted efficiently and smoothly**.
- These new and additional challenges can be effectively met by strengthening the high courts.
- Need to fill the existing vacancies on an urgent basis, but there is also a need to increase the number of judges.
- Judicial infrastructure needs to be improved. Mere allocation of funds is not enough. The challenge is to put the available resources to optimum use.
- **While adjudicating the claims of intellectual property rights, a balance must be struck between contemporary claims and the sustainable interests of future generations.**

PRESIDENTIAL ELECTION IN INDIA

GS-II POLITY

Context

- The Election Commission of India has announced the schedule for Presidential Elections 2022**.**

Details

- The Election Commission of India has announced 18th July as the date for electing the next President of India.
- The notification for the election will be issued on 15th June, the last date for nomination will be 29th June, and the polls to be held on 18th July.
- The tenure of the **15th President of India 'Ram Nath Kovind'** will come to an end on 24th July 2022.
- According to **Article 62 of the Indian Constitution, an election to the President post due to the expiration of the office term shall be completed before the term ends**

President of India

- **Part V of the Indian Constitution** precisely deals with the **Union executive from Articles 52 to 78**.
  - The President, Vice-President, Prime Minister, Council of Ministers, and Attorney General of India constitute the Union executive.
- He is **India's first citizen** and serves as a **symbol of the country's unity, integrity, and solidarity**.

Eligibility

- The candidate should be an Indian citizen.
- Should have completed the **age of 35 years.**
- Should be **qualified for election as a member of the Lok Sabha.**
- Should not hold any office of profit under the Union Government or any state government or any local or other authority.
- The President should not be a member of any house of Union or State legislature.

Election of the President

- The President of India is **elected by an electoral college consisting of:**
  - **Elected members** of the two Houses of Parliament and Legislative Assemblies of the States.
  - It includes the national capital territory of Delhi and the Union territory of Pondicherry.
- The President's election is held under a **system of proportional representation through a single transferable vote.**

Presidents' Term of Office

- The **oath of office to the President is administered by the Chief Justice of India** and in his absence, by the senior-most judge of the Supreme Court available.
- According to Article 62 (1), An election should be held to fill the vacancy of the Presidential post before the expiration of the President's term.
- The President **holds office for a five-year term** from the date on which he enters the office.
- The President can resign at any time by addressing the resignation letter to the Vice-President of India.
- When a vacancy occurs in the President's office due to his death, resignation or removal or otherwise, the Vice- president acts as the President until a new President is elected.
- **An election to fill such a vacancy should be held within 6 months** from the date of occurrence of such vacancy.
- A person is **eligible for re-election** to the Presidential office.

Impeachment of President

- **According to Article 61**, the President may be impeached from his office for violation of the constitution.
- **The impeachment charges may be initiated by either Lok Sabha or Rajya Sabha and they should be signed by at least 1/4th members**.
- Regarding the charges, a **14 days notice** should be given.
- The **resolution of the charges for the impeachment of the President should be passed by at least 2/3rd majority.**
- Afterwards, the charges are investigated in the other House of the Parliament.
- If the resolution is passed in this House also with a 2/3rd majority, then the President stands removed from his office from the date on which the bill is passed.

SHORTAGE OF JUDGES AND PENDENCY OF CASES — GS-II POLITY

In News

- Total number of judges in the Bombay High Court is less than 60, with nearly 40% of posts vacant.
- Recently the Chief Justice of India has also highlighted that it is necessary to **reduce the caseload per judge and improve the judge-to-population ratio.**
- According to The latest data released by the Department of Justice;
  - The **25 High Courts have a combined sanctioned strength of 1,104 judges.**
  - But the **working strength of judges stood at 717 and 387 seats were vacant.**
- He stated that the existing backlog of cases cannot be tackled without adding to the strength of judges.
- The delay in the verdict of cases creates disillusionment among litigants and undermines the capability of the judicial system to ensure justice efficiently and effectively.

Concern

- **Over 31 million cases are pending in Subordinate Courts across the country.**
- Case pendency Hurts investors' confidence.
- **Economic activity is getting affected by high pendency and delays across the legal system.**
- **It adds a burden on Courts and collaterally harms other litigants.**
- It increases project costs and delays projects.
- **Slows down administrative processes,** delaying decision-making.
- **Diversion of precious resources.**
- Effects ease of doing business.

Steps by the Government

- **Adoption of "National Litigation Policy 2010" to transform government into an Efficient and Responsible litigant.**
- All states formulated state litigation policies after National Litigation Policy 2010.
- Legal Information Management and Briefing System (LIMBS), was created in 2015 with the objective of tracking cases to which the government is a party.
- **The Supreme Court advised the centre that criminals sentenced to imprisonment for 6 months or a year should be allocated social service duties rather than be sent to further choke the already overflowing prisons.**

Steps need to be taken

- National Litigation Policy should be revised.
- **Address all 3 stages of dispute:**

  - Pre-litigation
  - Litigation
  - Post litigation stage.
- Establish Fair accountability mechanisms, Consequences for violation must be provided.
- **Appointment of a Nodal Officer to regularly monitor the status of the cases in every department.**
- **Promotion of alternative dispute resolution mechanisms to encourage mediation.**
- Coordinated action between government and judiciary.
- Judicial capacity should be strengthened in the lower courts to reduce the burden on higher courts.
- Increase expenditure on the judiciary.
- **Improve courts case management and court automation system.**
- **Create subject-specific benches.**
- Tax departments must limit their appeals as their success rate is less than 30% at all three levels of the judiciary.
- Robust internal dispute resolution mechanisms
- Step-by-step online dispute resolution must be adopted as done by the Ministry of Consumer Affairs.
- **Judges should write Shorter and more Pointed judgments.**

Way Forward

- **Courts need to monitor the progress of Cases based on urgency and type of Case.**
- **Courts must set a time limit to dispose of certain types of Cases.**
- Understand why Some Courts perform well despite a Shortage of judges and adopt Such Courts as role models.
- **Analytics tools can be developed in a manner that helps the judges monitor Cases based on parameters Such as how long an accused has been in judicial custody, Cases that can affect the General public, and Cases that have been long pending.**
- Alternative methods should be used for dealing with non-criminal offenders and petty criminals.

NCPCRS GUIDELINES ON ENTERTAINMENT INDUSTRIES

GS-II POLITY

In News

- The **National Commission for the Protection of Child Rights (NCPCR) has released draft guidelines to ensure the protection of children within the entertainment industry.**
- In 2011, the commission has released "Guidelines to Regulate Child Participation in the Entertainment Industry".
  - The released draft expands the coverage of the guidelines to cover social media and OTT platforms.

Key Points of the Guidelines

- **Strict penal provisions for violating** the guidelines, including imprisonment.
- Mandatory for child artists working in the entertainment industry to get register with District Magistrates.
- The guidelines are **also applicable on OTT platforms**.
- Parents of the children have to be held accountable.
- Provisions under the Juvenile Justice Act, 2015, Child Labour Amendment Act, 2016, Protection of Children from Sexual Offences Act, 2012, Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, etc., have been included in the present draft guidelines.
- The **guidelines prohibit children from being cast in roles or situations that are inappropriate.**
  - The production Unit must consider the child's age, maturity, emotional or psychological development and sensitivity.
- A child cannot be exposed to mockery, insult or discouragement, harsh comments or any behaviour that could affect his/her emotional health.
- **A Child cannot be shown consuming alcohol**, smoking or using any other substance.
- No child can be engaged in any situation involving nudity.
- **At least one parent or legal guardian** or a known person needs to be present during a shoot.
- For infants, a registered nurse needs to be present along with the parent or legal guardian.
- **Every person involved in the production or who may be in contact with child artists** will have to submit a medical fitness certificate ensuring that they are not carrying any contagious disease and police verification of the staff also needs to be carried out.
- The **producer also needs to ensure that;**
  - The child's education under the RTE Act,
  - No discontinuity from school.
  - Adequate and nutritious food and water for the children.
  - Medical facilities.

- A child can **only participate in one shift per day,** with a break after every 3 hours.
- **At least 20 % of the income earned by the child shall be directly deposited in a fixed deposit** account in a nationalised bank in the name of the child which may be credited to the child upon attaining Maturity.

About National Commission for Protection of Child Rights

- **The National Commission for Protection of Child Rights (NCPCR) is a statutory body established under the Commission for Protection of Child Rights (CPCR) Act, 2005.**
- **It is under the administrative control of the Ministry of Women and Child Development.**
- **Under the act, a Child is defined as a person in the 0 to 18 years age group.**
- It aims to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in harmony with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.
- **Composition**: This commission has a c**hairperson and six members of which at least two should be women.**
  - **All of them are appointed by the Central Government for 3 years.**
  - **The maximum age to serve in commission is 65 years for Chairman and 60 years for members.**
- The salary and allowances payable to, and other terms and conditions of service of, the Chairperson and Members, shall be such as may be prescribed by the Central Government.

Functions of the National Commission for Protection of Child Rights

- **Examine and review the safeguards provided for the protection of child rights and recommend measures for their effective implementation**.
- **Inquire into child rights violations and recommend initiating proceedings in such cases.**
- Examine all factors that curb the enjoyment of rights of children affected by terrorism, communal violence, riots, natural disaster, domestic violence, HIV/AIDS, trafficking, maltreatment, torture and exploitation, pornography and prostitution and recommend appropriate remedial measures.
- **Look into the matters relating to the children in need of special care and protection including children in distress, marginalized and disadvantaged children, children without families and children of prisoners and recommend appropriate remedial measures.**
- Study treaties and other international instruments and undertake periodical review of existing policies, programmes and other activities on child rights and make recommendations for their effective implementation in the best interest of children.
- **Undertake and promote research in the field of child rights.**
- Spread child rights literacy among various sections of society and promote awareness of the safeguards available for the protection of these rights through publications, the media, seminars and other available means.
- Inspect or cause to be inspected any juvenile's custodial home, or any other place of residence or institution meant for children, under the control of the Central Government or any State Government or any other authority.
- Inquire into complaints and take suo moto notice of matter relating to:
  - Deprivation and violation of child rights.
  - Non-implementation of laws providing for the protection and development of children.
  - Non-compliance with policy decisions, guidelines or instructions aimed at mitigating hardships and ensuring the welfare of the children and providing relief to such children.
- Such other functions may consider necessary for the promotion of Child Rights.
- **The Commission shall not enquire into any matter pending before a State Commission or any other Commission duly constituted under any law for the time being in force.**
- **Present an annual report to the Central Government and at such other intervals as the Commission may deem fit.**
- Compile and analyze data on children.

PERFORMANCE GRADING INDEX FOR DISTRICTS

GS-II POLITY

In News

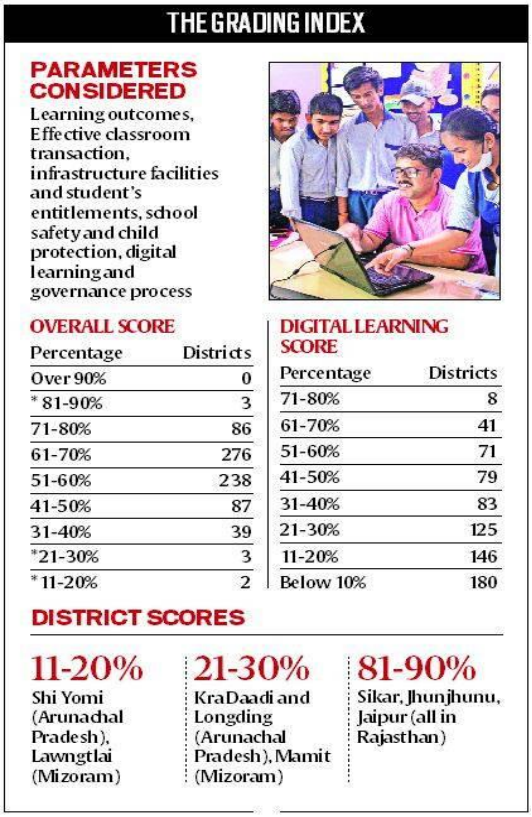
- The **Performance Grading Index for Districts (PGI-D) has been released by the Ministry of Education**.
- Rajasthan's Sikar is the top performer in the Index.

About Performance Grading Index for Districts

- The **index analyses the performance** of the school education system at the District level.
- The **Indian Education System;**
  - One of the largest in the world.
  - Nearly 15 lakh schools.

- Approx 97 lakh teachers.
- About 26 crore students from varied socioeconomic backgrounds.

- The data for the assessment is **filled by districts through the online portal.**
- It assesses institutes across **83 indicators**, which are grouped under **6 categories**;
  - Outcomes.
  - Effective Classroom Transaction.
  - Infrastructure Facilities and Student's Entitlements.
  - School Safety and Child Protection.
  - Digital Learning.
  - Governance Process.
- These categories are further **divided into 12 sub-categories;**
  - Learning Outcomes and Quality.
  - Access Outcomes.
  - Teacher Availability and Professional Development Outcomes.
  - Learning Management.
  - Learning Enrichment Activities.
  - Infrastructure, Facilities, Student Entitlements.
  - School Safety and Child Protection.
  - Digital Learning.
  - Funds convergence and utilization.
  - Enhancing CRCs Performance.
  - Attendance Monitoring Systems.
  - School Leadership Development.



- The index grades the **districts into 10 grades.**
  - Daksh is the Highest achievable Grade for Districts scoring more than 90% of the total points in that category or overall.
  - Akanshi-3 in the lowest grade for scores up to 10% of the total points.
- The Index shows that **schools across India performed poorly digital learning category**.
  - Around 61% of districts of the country, Students had very little exposure to digital learning due to limited availability of computers, Internet facilities and teachers trained to handle technological tools in schools.
  - Nearly 180 districts scored less than 10% on digital learning,

Way Forward

- The Index would **help in identifying the gaps at the district level** and improve their performance in a decentralized manner.
- It will encourage education institutions to perform better and raise the quality of education.

BALIKA PANCHAYAT

GS-II POLITY

In News

- Recently **Gujarat became the first Indian state to launch Balika Panchayat.**
- In the Balika Panchayat, the girls not only vote for their leader but also participate in electioneering, highlighting their aspirations and necessities.
- The Initiative would help in empowering girls at the grassroots level.

Panchayat System in India

- In 1992, the 73rd and 74th constitutional amendments were passed by the Parliament.
- The **73rd Amendment is about rural local governments (which are also known as Panchayati Raj or PRIs) and the 74th amendment made the provisions relating to urban local government (Nagar Palika).**
- The 73rd and 74th Amendments came into force in 1993.
- The 73rd Amendment act added a new Part-IX to the constitution of India and consists of provisions from Articles 243 to 243 Q.
- In addition, the act has also **added a new Eleventh Schedule to the constitution.** This schedule contains **29 functional items of the Panchayats.** It deals with Article 243-G.

Salient Features of the 73rd Amendment Act of 1992

1. Three Tier Structure

- A Gram Panchayat covers a village or group of villages.
- It is the lowest tier of Panchayati Raj Institution (PRI).
- The intermediary level is known as the Mandal (also referred to as Block or Taluka). The intermediary level body need not be constituted in smaller States. At the apex is the Zilla Panchayat covering the entire rural area of the District.
- The amendment also made a provision for the mandatory creation of the Gram Sabha. The Gram Sabha would comprise all the adult members registered as voters in the Panchayat area. Its role and functions are decided by State legislation.

2. Elections

- All members of the three levels of Panchayati Raj institutions are elected directly by the people. The term of each Panchayat body is five years.
- If the State government dissolves the Panchayat before the end of its five-year term fresh elections must be held within six months of such dissolution.

3. Reservations

- One-third of the positions in all Panchayat institutions are reserved for women. Reservations for Scheduled Castes and Scheduled Tribes are also provided for at all three levels, in proportion to their population.
- If the States find it necessary, they can also provide for reservations for the other backward classes (OBCs). It is important to note that these reservations apply not merely to ordinary members of Panchayats but also the positions of Chairpersons at all three levels.
- Further, reservation of one-third of the seats for women is not merely in the general category of seats but also within the seats reserved for Scheduled Castes, Scheduled Tribes and backward castes. This means that a seat may be reserved simultaneously for a woman candidate and one belonging to the Scheduled Castes or Scheduled Tribes. Thus, a Sarpanch would have to be a Dalit woman or an Adivasi woman.

4. Transfer of Subjects

- Twenty-nine subjects, which were earlier in the State list of subjects, are identified and listed in the Eleventh Schedule of the constitution. These subjects are to be transferred to the Panchayati Raj institutions.
- These subjects were mostly linked to development and welfare functions at the local level.
- The actual transfer of these functions depends upon the State legislation. Each state decides how many of these twenty-nine subjects would be transferred to the local bodies.

5. State Election Commissioners

- The State government is required to appoint a State Election Commissioner who would be responsible for conducting elections to the Panchayati Raj institutions. Earlier, this task was performed by the State administration which was under the control of the State government.
- Now, the office of the State Election Commissioner is autonomous like the Election Commissioner of India.
- However, the State Election Commissioner is an independent officer and is not linked to nor is this officer under the control of the Election Commission of India.

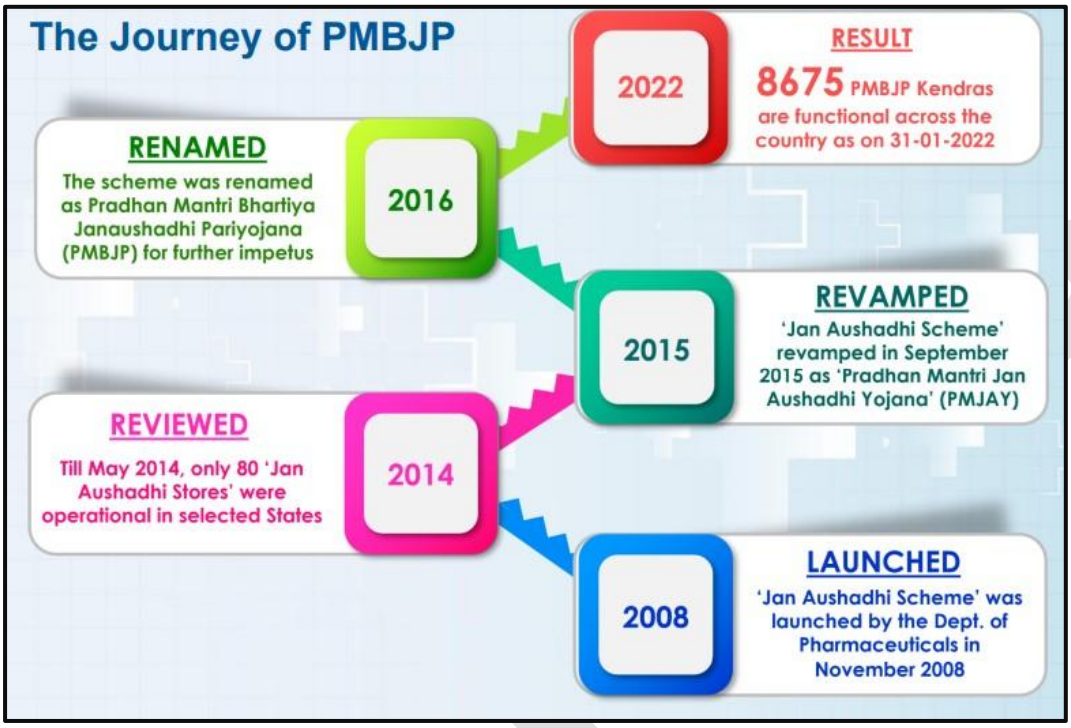
6. State Finance Commission

- The State government is also required to appoint a State Finance Commission once in five years. This Commission would examine the financial position of the local governments in the State.
- It would also review the distribution of revenues between the State and local governments on the one hand and between rural and urban local governments on the other.

PM BHARTIYA JANAUSHADHI PARIYOJNA (PMBJP)

Context

- 1st time Pradhan Mantri Bhartiya Janaushadhi Pariyojana has crossed Rs. 100 Crore sales in a month.



Pradhan Mantri Bharatiya Janaushadhi Pariyojana (PMBJPK)

- It is launched **by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers.**
- The Scheme aims **to provide quality medicines at affordable prices to people through special Kendras** known as Pradhan Mantri Bharatiya Janaushadhi Pariyojana Kendra.
- It was **launched in 2008**, under the name "Jan Aushadhi Medical Store" and later on re-launched in the year 2015 as 'Pradhan Mantri Bharatiya Janaushadhi Pariyojana' (PMJAY).
- In 2016, it was again renamed as " Pradhan Mantri Bharatiya Janaushadhi Pariyojana " (PMBJP).

Pradhan Mantri Bharatiya Janaushadhi Pariyojana Kendra (PMBJPK)

- Pradhan Mantri Bharatiya Janaushadhi Pariyojana Kendra has been set up **to provide generic drugs at lesser prices but is equivalent in quality and efficacy to expensive branded drugs.**
- BPPI (Bureau of Pharma Public Sector Undertakings of India) has been established under the Department of Pharmaceuticals for coordinating the procurement, supply and marketing of generic drugs through Pradhan Mantri Bhartiya Janaushadhi Pariyojana Kendra.
- **Financial Support is provided by the government** to eligible NGOs/Trusts/agencies/individuals to establish Jan Aushadhi stores.
    - One-time financial assistance up to Rs. 2.50 lakh.

Present Status

- As of 31st January 2022, the number of stores has increased to 8,675.
- All districts of the nation have been covered.
- The product basket of PMBJP comprises over 1600 drugs and over 250 surgical instruments. Further, new medicines and nutraceutical products like protein powder, malt-based food supplements, protein bar, immunity bar, sanitiser, masks, glucometer, oximeter, etc. have been added.
- **Some AYUSH products are added** to the product basket of selected Kendras.
- The product basket also covers Cardiovascular, Anti-cancers, Anti-diabetics, Anti-infective, Anti-allergic, Gastrointestinal medicines, Nutraceuticals, etc.
- **4 warehouses** at Gurugram, Chennai, Guwahati and Surat were established, **to strengthen the supply chain.**
- Under the scheme, the **general public has saved around Rs. 15,000 Crores.**

Way Forward

- The scheme **ensures easy reach of affordable medicine** to the people in every nook and corner of the country.
- The Government has set a target to increase the number of Pradhan Mantri Bhartiya Janaushadhi Kendras (PMBJKs) to 10000 by March 2024.

QS WORLD UNIVERSITY RANKINGS — GS-II GOVERNANCE

Context

- India got 35th Position in the QS World University Rankings.

Details

- The recently released Quacquarelli Symonds (QS) World University Rankings has **ranked India at 35th.**
- According to the QS ranking; The **Indian Institute of Science (IISc), Bengaluru** has scored 100 on the research parameter and joined the club of honoured global institutions.
- The President of India has shown satisfaction over the improved ranking of India. He said that the improving quality of higher learning institutions is important to achieve the larger goals in the education sector.
- **This year 6 Indian Universities are on the list of top 300 universities in the world.**
  - Last year 4 Indian universities were on the list of the top 300.
- **University Grants Commission** (**UGC**) has expressed happiness over the improved ranking and also ensures that the ranking will further improve in future.
  - He stated that the National Education Policy (NEP) 2020 will encourage Indian and foreign universities to tie up for research, dual-degree and joint degree programmes from the 2023-24 academic session.
  - He mentioned that the government is going to launch a "One Nation One Subscription" scheme for universities to provide students access to high-quality journals.

INDIA'S BEST

Top Indian institutes in QS World University Rankings 2023

2023	Institute	2022
155	IISc Bangalore	186
172	IIT Bombay	177
174	IIT Delhi	185
250	IIT Madras	255
264	IIT Kanpur	277
270	IIT Kharagpur	280
369	IIT Roorkee	400
384	IIT Guwahati	395

Highlights of New Education Policy-2020

- The National Education Policy (NEP) 2020 was released in July 2020.
- NEP 2020 will **replace the National Policy on Education, 1986.**
- It aims at **ensuring Universal Access at All Levels of schooling** from pre-primary school to Grade 12.
- It Ensures quality early childhood care and education for all children between 3-6 years.
- **It introduced a New Curricular and Pedagogical Structure (5+3+3+4).**
  - 5 years of foundational stage (for ages 3 to 8).
  - 3 years of preparatory stage (for ages 8 to 11 or classes 3 to 5).
  - 3 years of middle stage (for ages 11 to 14 or classes 6 to 8).
  - 4 years of secondary stage (for ages 14 to 18 or classes 9 to 12).
- No strict separations between arts and sciences, between curricular and extracurricular activities, and between vocational and academic streams.
- To establish a **National Mission on Foundational Literacy and Numeracy**.
- Promoting multilingualism and Indian languages.
- Reform in Assessment of Board Exams. Setting up a new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development).
- Special priority is given to socially and Economically Disadvantaged Groups.
- A **separate Gender Inclusion fund and Special Education Zones** for disadvantaged regions and groups;
- A transparent process for recruitment of teachers and merit-based performance assessment.
- Ensuring availability of all resources through school complexes and clusters.
- Setting up of the State School Standards Authority.
- Promoting Vocational education in school and higher education systems.
- **Increasing Gross Enrolment Ratio (GER) in higher education to 50%.**
- Multidisciplinary Education with multiple entry/exit options.
- Establishment of Academic Bank of Credit
- Setting up of Multidisciplinary Education and Research Universities.
- Setting up of **the National Research Foundation**.
- Expansion of open and distance learning to increase GER.
- Teacher Education - 4-year integrated stage-specific, subject-specific Bachelor of Education

- All higher education institutions (HEIs) will be **restructured into 3 categories**:
  - Research universities focus equally on research and teaching.
  - Teaching universities focus primarily on teaching.
  - Degree-granting colleges primarily focused on undergraduate teaching.
- Multiple mechanisms with checks and balances will combat and stop the commercialization of higher education.
- All education institutions will be held to similar standards of audit and disclosure as not-for-profit entities.
- The Centre and the States will work together to increase the public investment in the Education sector to **reach 6% of GDP** at the earliest.
- Strengthening of the Central Advisory Board of Education to ensure coordination to bring overall focus on quality education.

Objectives of NEP 2020

- Reforms in curriculum content.
- The medium of instruction should be in the local language/mother tongue of the child. The current three-language formula will continue to be implemented.
- Reform in the overall assessment process
- Teacher training and management.
- Ensure effective governance of schools.
- Increasing Gross Enrolment Ratio to 50% by 2035 (It was 26.3% in 2018).
- Restructuring of institutions.
- Multidisciplinary education.
- Improving research.
- Promoting Digital education.

E-GOVERNANCE SERVICE DELIVERY ASSESSMENT REPORT

GS-II GOVERNANCE

In News

- The Union Government has released the **2nd edition of the National e-Governance Service Delivery Assessment 2021.**
- The report has been prepared to cover the assessment of States and UTs.
- It focuses on the effectiveness of Central Ministries in delivering online services to citizens.
- It also **provided suggestions for governments to enhance their e-Governance service delivery systems**.

National e-Governance Service Delivery Assessment

- The Department of Administrative Reforms and Public Grievances (DARPG) **initiated the National e-Governance Service Delivery Assessment (NeSDA) in 2019.**
- It was started **to boost the e-government ecosystem and encourage digital governance in the country.**
- It is a **biennial report** that assesses States, and Union Territories (UTs), and also focuses on Union Ministries on their effectiveness of e-Governance service delivery.
- It helped the governments to improve their delivery of e-governance and citizen-centric services.
- The **NeSDA 2021 Portal was formally launched in 2021** to conduct the entire assessment process online.
- The **assessment report covers services across 7 sectors:**
  - Finance
  - Labour& Employment
  - Education
  - Local Governance & Utility Services
  - Social Welfare
  - Environment and Tourism sectors.
- The assessment covered 56 mandatory services for each state & UTs and 27 services for the focus Central Ministries.
- **NeSDA 2021 reflects;**
  - Clear progress for e-Governance services across the country.
  - Increase in e-Service Delivery.
  - Rise in use of Integrated/Centralised Portals for delivery of e-Services.
  - Improvement across assessment parameter scores.
- In the North-East and Hill States category, Meghalaya and Tripura have shown improvement across all 6 sectors compared to the last survey.
- In the Union Territories category, Jammu & Kashmir scored the highest amongst all UTs for 6 sectors.
- Among the Remaining States, Tamil Nadu increased the most in 2021 compared to 2019.
- The **progress shown by the Assessment report encourages the vision of Digital India.**

NATIONAL DATA GOVERNANCE FRAMEWORK POLICY

GS-II GOVERNANCE

Context

- The Ministry of Electronics & Information Technology (MeitY) and Skill Development & Entrepreneurship has organized an interactive session with stakeholders on the Draft National Data Governance Framework Policy in New Delhi.

Details

- More than 250 stakeholders from industry, start-ups, academia, think tanks, international alliances & government officials from various ministries were present at the session.
- The Ministers have highlighted the **fast digitalization in India, and the increase in data volumes gives rise to the need for a framework to utilize the potential of this data.**

Draft National Data Governance Framework Policy

- The policy **aims to formalise Government's Data collection and management.**
- It also **aims to catalyse Artificial intelligence (AI) and Data research and encourage start-ups.**
- The main **objective of the Draft policy is;**
- To improve the institutional framework for government data sharing.
- Promoting principles around privacy and security.
- Design and encourage the use of anonymization tools.
- **Ensuring impartial access to non-personal data** for both the public and private sectors.
- Used the data to improve citizens' experience and turn them into a **Digital Nagrik**.
- Promote Digital Governance.
- **Standardized data management and Security Standards** across the Government data management ecosystem.
- Encourage Public digital platforms while ensuring the privacy, and safety of the users.
- To promote transparency, accountability, and ownership in Non-personal data and Datasets access.
- An "**India Data Management Office (IDMO)" will be established under the Digital India Corporation ("DIC") under MeitY.**
  - It will be responsible for framing, managing and periodically reviewing and revising the Policy.
  - It will be responsible for developing rules, standards, and guidelines periodically.
  - It will formulate all data/datasets/metadata rules, standards, and guidelines in consultation with Ministries, State Governments, and industry.
  - It will also encourage the data and Al-based Research, and start-up eco-systems by working with the Digital India Start-up Hub (the erstwhile MSH).
- **Every Ministry/Department will establish a Data Management Unit (DMUs)** for ensuring the implementation of the Policy.

Way Forward

- The provisions of the draft reflect the government's intention to formalise the management of data and encourage data-based start-ups while addressing the safety and privacy concerns of the citizens.

ACHIEVEMENTS OF THE SOCIAL JUSTICE MINISTRY

GS-II SOCIAL JUSTICE

Context

- The Union Minister for Social Justice & Empowerment held a Press conference about the Achievements of the Ministry in the last 8 Years.

Details

- **The Ministry of Social Justice and Empowerment has been executing many schemes** for the welfare of Socially, educationally and economically marginalized Sections like;
  - Scheduled Castes.
  - Other Backward Classes.
  - Senior Citizens.
  - Victims of Alcoholism and Substance Abuse.
  - Transgender Persons.
  - Beggars.
  - De-notified and Nomadic Tribes (DNTs).
  - Economically Backward Classes (EBCs).
  - Economically Weaker Section (EWS).

Steps taken by the Ministry

- The Ministry is implementing **various schemes for promoting education among Scheduled Castes (SCs),** Other Backward Classes (OBCs), and Denotified and Nomadic Tribes (DNTs).
  - Pre-Matric Scholarship to SC Students and Others.
  - Post Matric Scholarship to the SC Students.
- BabuJagjivan Ram ChhtrawasYojana.
- **Higher Education for Young Achievers (SHREYAS).**
- Free Coaching Scheme for SC and OBC students (FCS).
- Scholarship Scheme for SCs and STs Students.
- **Scheme for Residential Education in High Schools in Targeted Areas (SRESHTA).**
- PM Young Achievers Scholarship Award Scheme for Vibrant India for OBCs and Others (PM –YASASVI).
- National Action Plan for Senior Citizens (NAPSrC).
- RashtriyaVayoshriYojana (RVY).
- Senior Able Citizens for Re-Employment in Dignity (SACRED) Portal was launched.
- National Action Plan for Drug Demand Reduction (NAPDDR).
- NashaMukt Bharat Abhiyaan (NMBA).
- **Support for Marginalised Individuals for Livelihood and Enterprise (SMILE):** For Welfare of Transgender Persons and persons engaged in Begging.
- Ministry has enacted "The Transgender Persons (Protection of Rights) Act, 2019" to protect the rights of transgender persons and their welfare.
- **10% reservation has been provided for the Economically Weaker Sections through 103rd Constitution Amendment in 2019.**
- Released a National Helpline for prevention of atrocities on members of SCs/STs, Toll-free No. "14566".
- **National Helpline for Sr. Citizens** has also been provided on Toll-free no. "14567".
- Categories of Disabilities increased from 7 to 21.
- **Reservation in Government jobs for Persons with Disabilities increased from 3% to 4%.**
- **Reservation in seats for students with disabilities** in Govt./Govt. aided higher educational institutions increased from 3% to 5%.
- **Launched the Accessible India Campaign (Sugamya Bharat Abhiyan)** to create an accessible environment for PwDs in public buildings, transportation systems and the ICT ecosystem.
- The Ministry is also promoting the participation of PwDs in skill development, sports and recreation activities.
- **Unique Disability Identity Card Project** was launched to create a national database of persons with disabilities.

APTI PLUS

NATIONAL TRIBAL RESEARCH INSTITUTE

Context

- The Ministry of Tribal Affairs has inaugurated the **National Tribal Research Institute in New Delhi.**

Details

- National Tribal Research Institute would be an important national-level institution and will become the nerve centre of tribal issues and matters in academic, executive and legislative fields.
- It will cooperate with reputable research institutes, Universities, organizations, academic bodies, resource Centers, etc.
- It will **provide policy inputs to the Ministry of Tribal Affairs as well as State Welfare Departments.**

Schemes for the development of Tribal

- **The Pre and Post Matric schemes** are demand-based schemes and every ST student whose family income is up to Rs 2.5 lakhs is entitled to a scholarship for pursuing education from class IX to Post Doctorate across India.
  - The states send the proposal for the estimated expenditure during the financial year based on the expenditure incurred in previous years and advance up to 50% of the Central share is released to the States.
  - After the State has disbursed the scholarship to the students and has submitted certificates, the balance amount is released to the State provided the State has contributed its share.
- **Pradhan MantriAdiAdarsh Gram Yojna:**
  - Comprehensive development of 36,428 villages will be undertaken to develop these villages as Adarsh Gram, under 'Pradhan MantriAadiAdarsh Gram Yojana'**.**
  - **These villages have a tribal population of more than 500 and are 50% tribal.**
- **Pradhan MantriJanjatiyaVikas Mission**
  - The Mission seeks to achieve livelihood-driven tribal development in the next five years through the formation of Van Dhan groups that have been organized into VandhanKendras.
  - New haats bazaar and warehouses will be developed in the next 5 years as part of *"Atmanirbhar Bharat Abhiyan"*.
  - TRIFED would be the nodal agency for implementing the scheme. The products produced will be marketed through Tribe India Stores.
- **Venture Capital Fund for STs**
  - An amount of Rs. 50 cr. has been sanctioned for the new scheme of 'Venture Capital Fund for Scheduled Tribes' (VCF-ST), which is aimed at promoting Entrepreneurship among the STs.
  - The VCF-ST scheme would be a social sector initiative to promote ST entrepreneurship and to support and incubate the start-up ideas of ST youth.
- **Central Sector Scholarship Scheme for ST students** was introduced in the academic year 2007-08 to encourage meritorious ST students for pursuing studies at the Degree and Postgraduate level in any of the Institutes identified by the Ministry of Tribal Affairs for the purpose.
- Vocational Training Centers in Tribal Areas
  - The main aim of this scheme is to upgrade the skills of the tribal youth in various traditional/ modern vocations depending upon their educational qualification, present economic trends and the market potential, which would enable them to gain suitable employment or enable them to become self-employed.

About Tribal in India

- The Term **"Tribal" is used for the very old Communities**, being among the oldest inhabitants of the Sub-Continent.
- **They did not practice a religion with a written text**, did not have Sharp Caste/Class divisions
- In terms of language, tribes are Categorized into 4 Categories:
  - Indo-Aryan
  - Dravidian
  - Austric
  - Tibeto-Burman
- In terms of size, the biggest tribes are Gonds, Bhils, Santhals, Oraons, Minas, Bodos and Mundas.
  - **The total Population of tribes amounts to about 8.2% of the population of India.**
- Based on livelihood, tribes Can be Categorized into Fishermen, food gatherers and hunters, Shifting Cultivators, Peasants and Plantation and industrial workers.
- Tribal Society is a more egalitarian and kinship-based mode of Social organization.
- **Tribals were not always the oppressed groups as they are now; there were Several Gond kingdoms in Central India**.
  - Many of the So-Called Rajput kingdoms of Central and western India emerged through a Process of Stratification among

Adivasi Communities themselves.

- Adivasis often exercised dominance over the Plains People through their Capacity to raid them, and through their Services as local militias.
- They also occupied a Special trade niche, trading forest Produce, Salt and elephants.
- Capitalist economics to exploit forest resources and minerals to recruit cheap labour has brought tribal Societies into Contact with mainstream Society a long time ago.
- They were losing their land to non-tribal immigrant Settlers, and their access to forests because of the government policy of reservation of forests and the introduction of mining operations.

Challenges faced by Tribals

- Land and Forest were taken away from Tribal Societies in the name of development.
- **Development involved the building of large dams, factories and mines. Because the tribal areas were located in mineral-rich and forest Covered Parts of the Country, tribals have paid a huge price for the development of the rest of Indian Society. This kind of development has benefited the mainstream at the expense of the tribes**.
- Forests started to be systematically exploited in British times and the trend continued after Independence. The Coming of Private Property in the land has also adversely affected tribals, whose Community-based forms of Collective ownership were placed at a disadvantage in the new System.
- Many tribal Concentration regions and States have been experiencing the Problem of heavy in-migration of non-tribals. This threatens tribal Communities and Cultures, besides accelerating the Process of exploitation of tribals.
  - In Tripura, the tribal Share of its Population halved within a Single decade, reducing them to a minority. Similar Pressure is being felt by Arunachal Pradesh.
- **Many Tribals in the North-East States have been living for decades under Special laws that limit the Civil liberties of Citizens, States have been declared as 'disturbed areas.**
- The vicious Circle of armed rebellions Provoking State repression which in turn fuels further rebellions has damaged the economy, Culture and Society of the North-eastern State.

CASTE-BASED CENSUS IN BIHAR

GS-II SOCIAL JUSTICE

Context

- The Chief Minister of Bihar has announced that the state-level caste-based census will start soon in the State.

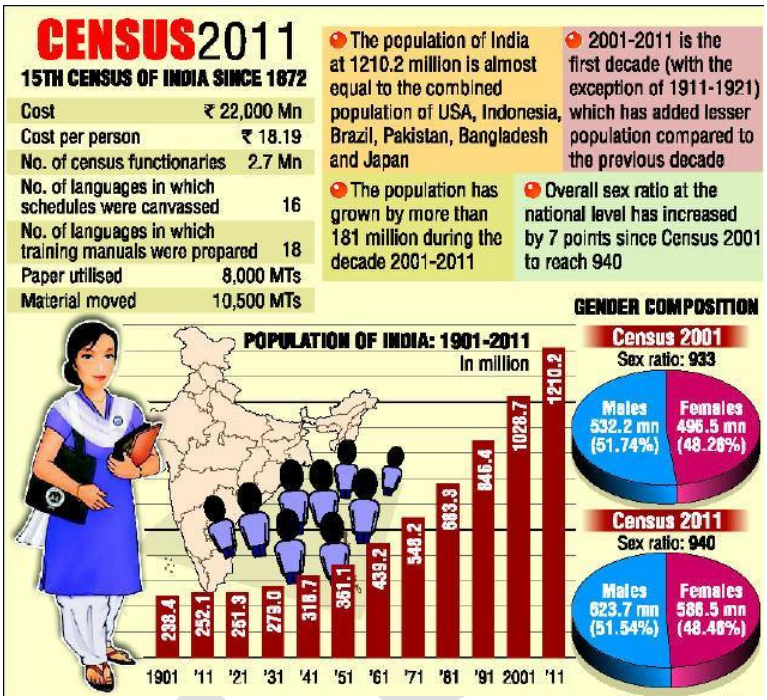
About Census in India

- **Census in India was started in 1872** under British Viceroy Lord Mayo, but the first complete census was taken in 1881 under Lord Ripon.
- **Since 1881, the Census has been undertaken every 10 years;** in 2011 the Census of India was conducted for the 15th time.
- **The Census of India was conducted by the Registrar General and Census Commissioner of India under the Ministry of Home Affairs**.
- All the censuses since 1951 were conducted under the 1948 Census of India Act. The last census was held in 2011.

About Caste Census

- **The Socio-Economic and Caste Census 2011 (SECC) was conducted for the 2011 Census of India.**
- The SECC 2011 was conducted in all states and union territories of India.
- SECC 2011 was also the first paperless census in India conducted on hand-held electronic devices by the government in 640 districts.
- The Rural development ministry has used the SECC data in its programmes such as MGNREGA, National Food Security Act, and the Deen Dayal Upadhyaya Grameen Kaushalya Yojana. SECC 2011 data will also be used to identify beneficiaries.
- **SECC 2011 was the first caste-based census since the 1931 Census of India.**
- **SECC 2011 was not conducted under the 1948 Census of India Act, which made information disclosure voluntary for citizens, and not a mandatory disclosure.**

- SECC 2011 has three census components which were conducted by three separate authorities, but under **the overall coordination of the Department of Rural Development** in the Government of India:
  - Census in Rural Areas has been conducted by the Department of Rural Development.
  - Census in Urban areas is under the administrative jurisdiction of the Ministry of Housing and Urban Poverty Alleviation.
  - Caste Census is under the administrative control of the Ministry of Home Affairs: Registrar General and Census Commissioner of India.



Arguments in favour of Conducting Caste Census

- Those at the lower levels of the Social System are not just disadvantaged socially but also economically, therefore it is important to identify them to ensure their welfare.
- Caste data will promote independent research into the question of who does and does not need affirmative action.
- The faith of our citizens cannot be restored until credible exercises of data collection are undertaken regarding caste.
- **A caste census, which will generate exhaustive data will allow policymakers to develop better policies, and implementation strategies,** and will also enable a more rational debate on sensitive issues.
- **The Justice Rohini committee was appointed in 2017 to look into the sub-categorization of the OBC communities;** however, in the absence of data, there can be no data bank or any proper sub-categorization.
- All commissions have had to depend on data from the last caste census conducted in 1931. Therefore, the data has to be updated.
- **India needs to be bold and decisive in tackling caste questions through data and statistics in the way the US does to tackle race issues,** by collecting data around race, class, language, and inter-race marriages, among other metrics.

Argument against conducting caste census

- **The data will suffer in respect of "completeness and accuracy", as Caste data collected in the Socio-Economic and Caste Census (SECC) of 2011 is "unusable" for official purposes as they are far from accurate and also misleading**.
- Many people may not register themselves in the census to hide their caste identity.
- It is too late now to add caste to the Census 2021, as the Planning and preparations for the census exercise started almost four years earlier and the preparations for Census 2021 are almost done.
- **This could further divide Indian society.** The government had said that the total number of castes surveyed in 1931 was 4,147, while the SECC 2021 figures show that there are more than 46 lakh castes in India.
- Earlier attempts failed as the entire exercise was corrupted because the enumerators had used different spellings for the same castes. **In many cases, the respondents had refused to reveal their castes.**

Way forward

- **In democratic Societies there is nothing to legally stop a Person from the most deprived Class and Caste from reaching the highest Position, but these legal rights also need socio-economic support from the government as affirmative action**.
- Governments need to take effective affirmative action based on strong data to ensure the socio-economic development of marginalized people living at the bottom of the social hierarchy.
- **People also need to understand that our Sources of knowledge about the past and especially the ancient Past are inadequate.** It is difficult to be very certain about what things were like at that time, or the reasons why some institutions and Practices came to be established. But even if we knew all this, just because something happened in the Past or is Part of our tradition, it is not necessarily right or wrong forever.
- **Every age has to think afresh about such questions and Come to its own Collective decision about its Social institutions.**

CiSS APPLICATION

GS-II SOCIAL JUSTICE

Context

- The National Commission for the Protection of Child Rights (NCPCR) has launched the "CiSS application" to help Street Children.

Details

- **'CiSS application' has been launched under the Baal Swaraj portal**; it will help in the rehabilitation process of Street Children.
- **Baal Swaraj portal was launched by the National Commission for the Protection of Child Rights (NCPCR)** for online tracking and monitoring of children in need of care and protection.
- Bal Swaraj portal **follows 6 steps framework for children's rehabilitation**;
  a. Collection of the child's details through the portal.
  b. Prepare a Social Investigating Report (SIR) i.e. investigating the child's background under the supervision of the District Child Protection Unit (DCPU).
  c. Formulating an Individual Care Plan (ICP) for the child.
  d. Release an order of the Child Welfare Committee (CWC) based on the reports.
  e. Allocating the schemes and benefits.
  f. Prepare a Checklist for the evaluation of the progress.
- The CiSS application will **receive data on street children from all the states and union territories,** tracking their rescue and rehabilitation process.
  - The initiative is taken under the direction of the Supreme Court.

Background

- Recently the **Supreme Court has directed the States and Union Territories (UTs) governments to frame their policies to rehabilitate Street children.**
- The Court also issued guidelines to implement the Standard Operating Procedure for Care and Protection of Children in Street Situation 2.0 framed by the National Commission for Protection of Child Rights (NCPCR).
- According to a submitted report in the court, only 17,000 children were identified out of 1.5 million Street children in the country".

National Commission for Protection of Child Rights

- The National Commission for Protection of Child Rights (NCPCR) is a **statutory body established under the Commission for Protection of Child Rights (CPCR) Act, 2005.**
- It is under the **administrative control of the Ministry of Women and Child Development.**
- Under the act, **a Child is defined as a person in the 0 to 18 years age group.**
- It aims to ensure that all Laws, Policies, Programmes, and Administrative Mechanisms are in harmony with the Child Rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.
- **Composition**: This commission has a c**hairperson and six members of which at least two should be women.**
  - **All of them are appointed by the Central Government for 3 years.**
  - **The maximum age to serve in commission is 65 years for Chairman and 60 years for members.**
- The salary and allowances payable to, and other terms and conditions of service of, the Chairperson and Members, shall be such as may be prescribed by the Central Government.

Functions of the National Commission for Protection of Child Rights

- **Examine and review the safeguards** provided for the protection of child rights and recommend measures for their effective implementation.
- **Inquire into violation of child rights** and recommend initiation of proceedings in such cases.
- Examine all factors that curb the enjoyment of rights of children affected by terrorism, communal violence, riots, natural disaster, domestic violence, HIV/AIDS, trafficking, maltreatment, torture and exploitation, pornography and prostitution and recommend appropriate remedial measures.
- **Look into the matters relating to the children in need of special care** and protection including children in distress, marginalized and disadvantaged children, children without families and children of prisoners and recommend appropriate remedial measures.
- Study treaties and other international instruments and undertake periodical review of existing policies, programmes and other activities on child rights and make recommendations for their effective implementation in the best interest of children.

- **Undertake and promote research in the field of child rights.**
- Spread child rights literacy among various sections of society and promote awareness of the safeguards available for the protection of these rights through publications, the media, seminars and other available means.
- Inspect or cause to be inspected any juvenile's custodial home, or any other place of residence or institution meant for children, under the control of the Central Government or any State Government or any other authority.
- Inquire into complaints and take suo moto notice of matter relating to:
  - Deprivation and violation of child rights.
  - Non-implementation of laws providing for the protection and development of children.
  - Non-compliance with policy decisions, guidelines or instructions aimed at mitigating hardships and ensuring the welfare of the children and providing relief to such children.
- Such other functions may consider necessary for the promotion of Child Rights.
- **The Commission shall not enquire into any matter which is pending before a State Commission or any other Commission duly constituted under any law for the time being in force.**
- **Present an annual report to the Central Government** and at such other intervals as the Commission may deem fit.
- Compile and analyze data on children.

GUIDELINES TO CURB MISLEADING ADS

GS-II SOCIAL JUSTICE

Context

- The Union Government has released the 'Guidelines on Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022'.

Details

- The Central Consumer Protection Authority (CCPA) under the **Department of Consumer Affairs has announced the 'Guidelines for Prevention of Misleading Advertisements and Endorsements for Misleading Advertisements, 2022'.**
- The main objective of the guidelines is **to regulate advertisements and protect consumers from misleading advertisements.**
- The Central Consumer Protection Authority (CCPA) has stated that misleading advertisements violate several rights of consumers.
  - The CCPA has been established under the Consumer Protection Act, of 2019.
- Misleading advertisement has already been defined under the Consumer Protection Act, 2019.
  - The current guidelines define "bait advertisement", and "surrogate advertisement" and provide what comprises "free claim advertisements".
- The guidelines have been formed by keeping in view the sensitiveness and vulnerability of advertisements in the Children's minds.

Key points of the Guidelines

- It **prohibited advertisements from magnifying the features of a product or service in such a manner that promotes unrealistic expectations.**
- Prohibited the advertisements of such products or services **that claim any health or nutritional benefits without being scientifically recognized by an authentic body.**
- Advertisements targeting children **should not show any personalities from the field of sports, music or cinema for products that require a health warning or cannot be purchased by children**.
- Disclaimers in advertisements must not hide any information about the products and services.
- **Clear Guidelines are laid for manufacturers, service providers, advertisers and advertising agencies**.
- It aims to protect consumers' interests by ensuring more transparency and clarity in published advertisements, so that, consumers could make informed decisions based on facts rather than wrong narratives and exaggerations.
- CCPA can **impose a penalty of up to 10 lakh rupees on manufacturers, advertisers and endorsers for any misleading advertisements.**
  - It may increase a penalty up to 50 lakh rupees for repetitive violation of the guidelines.
  - It can prohibit the endorser of a misleading advertisement.

Consumer Protection Act, 2019

- The Act defined **a consumer as a person who buys any goods or avails of service for final use.**
  - It does not include a person who buys a good for resale or a good or service for commercial purposes.
- It covers transactions through all modes including offline, and online.
- The Act **clearly defined 6 Rights of consumers:**
  - Right to be protected against the marketing of goods and services which are hazardous to life and property.

- Right to be informed about the quality, quantity, potency, purity, standard and price of goods or services.
- Right to Choice among a variety of goods or services at competitive prices.
- Right to be heard
- Right to seek Redressal against unfair or restrictive trade practices.
- Right to Consumer Awareness

- Central Consumer Protection Authority (CCPA) to **promote, protect and enforce the rights of consumers**.
  - It functions under the guidelines of The Minister of Consumer Affairs, Food and Public Distribution
  - It regulates matters linked to the violation of consumer rights, unfair trade practices, and misleading advertisements.
  - The CCPA has an investigation wing; they may conduct an inquiry or investigation into the case of violations of rules.
- **Central Consumer Protection Authority (CCPA) functions**;
  - Inquiring into violations of consumer rights, investigating and taking appropriate action.
  - It could pass orders to recall goods or withdraw hazardous services, and refund the price paid.
  - It Issues directions to the concerned trader/ manufacturer/ endorser/ advertiser/ publisher to either discontinue a false or misleading advertisement.
  - It imposes penalties on a manufacturer or an endorser of up to Rs 10 lakh and imprisonment for up to two years for a false or misleading advertisement. In case of a subsequent offence, the fine may extend to Rs 50 lakh and imprisonment of up to five years.
  - It Issues safety notices to consumers against unsafe goods and services.
- **Consumer Disputes Redressal Commissions (CDRCs) at the District, State, and national levels.**
  - Appeals from the State CDRC will be heard by the National CDRC.
  - The final appeal to the Supreme Court.
  - The District CDRC will entertain complaints where the value of goods and services does not exceed Rs 1 crore.
  - The State CDRC will entertain complaints when the value is more than Rs 1 crore but does not exceed Rs 10 crore.
  - Complaints with a value of goods and services over Rs 10 crore will be entertained by the National CDRC.

PM eVIDYA

GS-II SOCIAL JUSTICE

Context

- India received UNESCO's recognition for the use of ICT in school education.

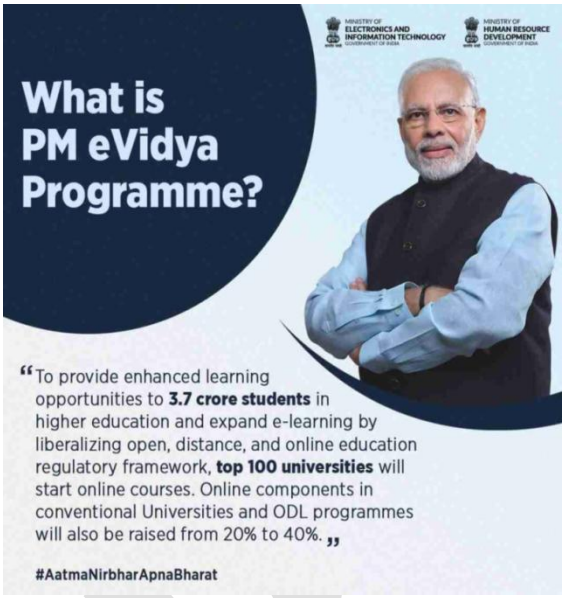
Details

- Use of ICT (Information and communications technology) under the **initiative of PM eVIDYA wins UNESCO's recognition.**
- The **PM eVIDYA programme was initiated as a part of the AtmaNirbhar Bharat Abhiyaan by the Ministry of Education** in May 2020.
  - The objective was to promote digital/online/on-air education to enable multi-mode access for imparting education by using technology to minimise learning losses.
- Central Institute of Educational Technology (CIET), a unit of the National Council of Educational Research and Training (NCERT) under the Ministry of Education (MoE) has been awarded the UNESCO's King Hamad Bin Isa Al-Khalifa Prize for the Use of ICT in Education for the year 2021.

Concern

- India has achieved universal enrolment at the elementary level. This is a great achievement, but getting Students to School is only the beginning of human Capital formation.
- Poor quality of facilities, Shortage of qualified faculty.
- **Out of date Curriculum, Limited university-industry Partnership.**

- Broken governance System. There are few rewards for being a good teacher and few Punishments for being a Careless one. Need more effective and accountable governance Systems**.**
- The greed of Private Colleges to earn the maximum from every Student puts traumatic Pressure on Students which results in mental breakdown.
- **More girls than boys drop out of School. While boys drop out to work, girls usually Stay at home and help with domestic Work.** Social Conception of gender roles is an important factor.
- Learning loss due to pandemics and the digital divide.



Steps by the Government to Reform Education Sector

- **The 86th Constitution Amendment provides the Fundamental right to free and compulsory education under Article 21A** includes a Common education System where the "rich and Poor are educated under one roof".
- **Rashtriya Uchchatar Shiksha Abhiyan** provides funding to eligible State higher educational institutions.
- Declaration of Educational Institutions as **institutions of Eminence,** to provide world-class education to Indian Students within the Country.
- Creation of **Higher Education Financing Agency,** for high-quality infrastructure in Premier educational institutions.
- **National Institution Ranking Framework** for ranking our higher education institutions.
- **GIAN Initiative** to invite distinguished academicians, entrepreneurs, scientists, and experts from premier institutions across the world to teach in higher educational institutions in India.
- **SWAYAM Portal** for online Courses.
- **SWAYAM Prabha** Provide HD educational Channels through DTH on a 24X7 basis.
- Sodhganga to develop a national repository of universities in India, and digital Study material for higher education.
- **Samagra Shiksha Scheme to ensure inclusive and equitable quality education at all levels of school education.**
- The government is encouraging Open Online Courses via Swayam Platforms So that Students Can have access to quality lectures online.
- Artificial Intelligence (AI) can be used to Provide Personalised instructions based on Student needs.
- **The government needs to work on improving digital infrastructure and ensure that students have access to mobile phones or laptops.**

INDIA QATAR BUSINESS FORUM

Context

- The **Vice President, Shri M. Venkaiah Naidu highlighted the strength of India-Qatar ties and called for building an enabling environment and forging more collaborations for mutual benefit**.

More on the news

- He called for **further enriching the robust partnership and diversifying the trade basket, which is currently dominated by energy products.**
- He expressed happiness that **India-Qatar has touched a new milestone of US$ 15 billion in 2021-22 and noted that there has been a steady increase in the number of registered Indian businesses in Qatar which has crossed 15,000**.
- He **launched the "India-Qatar Start Up bridge"** that aims to link the start-up ecosystems of the two countries.
- Vice President, noting that the year **2023 marks 50 years of the establishment of full diplomatic relations between India and Qatar,** suggested that the two Parliaments also plan an event to mark this milestone.
- He also called for more collaboration between India and Qatar at multilateral forums like the Inter Parliamentary Union (IPU), Asian Parliamentary Assembly, and others.

Background

- India-Qatar cooperation in diverse sectors has been steadily growing in an excellent framework provided by historically close ties and regular and substantive engagement, including at the highest levels of the two Governments.
- The large, diverse, accomplished and highly regarded Indian community is making an important contribution to Qatar's progress and in nurturing the bonds of deep-rooted friendship and multi-faceted cooperation between the two countries.

Political Relations

- There has been regular exchange of high-level bilateral visits. The **Amir of Qatar H.H. Sheikh Tamim Bin Hamad Al Thani had paid a State Visit to India in 2015.**

Covid cooperation

- **Qatar Fund for Development (QFFD) sent Covid medical relief material** to India for combating second wave of Covid-19 by special Amiri Air force plane.
- Indian community in Qatar too contributed in a big way in sending oxygen related material to India.

Defence

- India **offers training slots in its defence institutions to a number of partner countries, including Qatar**.
- India regularly participates in the biennial Doha International Maritime Defence Exhibition and Conference **(DIMDEX) in Qatar.**
- Indian Naval and Coast Guard ships regularly visit Qatar as part of bilateral cooperation and interaction.

Commercial & Investment Relations

- **India's bilateral trade with Qatar in 2020-21 was US$ 9.21 billion.**
- India's export to Qatar during 2020-21 was US$ 1.28 billion and India's import from Qatar was US$ 7.93 billion.
- Qatar's key exports to India include LNG, LPG, chemicals and petrochemicals, plastics, and aluminium articles, while India's key exports to Qatar include cereals, copper articles, iron and steel articles, vegetables, fruits, spices, and processed food products, electrical and other machinery, plastic products, construction material, textiles & garments, chemicals, precious stones and rubber.
- **India is among the top three largest export destinations for Qatar** (Japan and South Korea being the other two) and is also among the top three sources of Qatar's imports, along with China and Japan.
- **Qatar is the largest supplier of LNG to India, accounting for over 50% of India's global LNG imports.**
- Besides LNG, India also imports ethylene, propylene, ammonia, urea and polyethylene from Qatar. Therefore, the **balance of trade continues to be heavily in Qatar's favour.** However, there has been a substantial growth in India's exports to Qatar in the last few years.

Cultural Relations

- There are regular cultural exchanges between the two sides, under the provisions of the Agreement on Cultural Cooperation signed between the two sides in 2012. Qataris admire India's cultural diversity.
- **The year 2019 was celebrated as India-Qatar Year of Culture, as envisaged in the Joint Statement issued during the visit of PM Modi to Qatar.**

Indian Community

- There are over 700,000 Indian nationals residing in Qatar.
- **They comprise the largest expatriate community in Qatar and are engaged in a wide spectrum of professions** including medicine; engineering; education, finance; banking; business; and media apart from a large number of blue-collared workers.

- The Indian Community Benevolent Forum (ICBF), functioning under the aegis of Embassy of India, Doha - ICBF was awarded Pravasi Bharatiya Samman in January, 2011.

INDIA-ISRAEL RELATIONS

GS-II INTERNATIONAL RELATIONS

Context

- India and Israel **signed a 'vision Statement' to further deepen the long-standing defence cooperation**. This was adopted at a meeting between Defence Minister Rajnath Singh and his visiting Israeli counterpart Benny Gantz.

More on the news

- **India is an industrial superpower and Israel is a technological superpower –** cooperation between our countries will expand the capabilities of both countries to contend with developing challenges.
- The two Ministers presented **a joint declaration marking 30 years of Israel-India relations and reiterated their commitment to deepening defence ties**.
- A Letter of Intent on enhancing cooperation in the field of futuristic defence technologies was also exchanged between the two Ministers.
- The **discussion covered topics including strategic global challenges, military cooperation, defence industrial cooperation and joint Research and Development** (R&D).
- They also **discussed a cooperation agreement signed between the Indian Defence Research and Development Organisation (DRDO) and Israel's Directorate for Defence R&D,** which will enable the expansion of technological collaboration and development between the countries.
- The Ministers declared their intention to further develop defence cooperation in a manner that harnesses Israel's "technological advance and operational experience", together with India's "extraordinary development and production capabilities".
- In addition, the Ministers **discussed partnerships within the government-to-government framework, military training, and technological cooperation with a focus on Unmanned Aerial Vehicles (UAV) and defensive capabilities.**

Recent developments in defence relations

- In October 2021, **India and Israel had agreed to form a task force to formulate a comprehensive 10-year roadmap to identify new areas of cooperation as part of efforts to further advance the bilateral defence cooperation.**
- At the same meeting, it was also **decided to form a Sub Working Groups (SWG) on defence industry cooperation** and in this regard, a Terms of Reference was signed between the two sides.

Other Recent Development

- India and Israel have launched a commemorative logo to **mark the 30th anniversary of the establishment of diplomatic ties between the two countries.**
- It features the **Star of David and the Ashoka Chakra**- the two symbols that adorn the national flags of both countries- and forms the numeral 30 depicting the 30th anniversary of bilateral relations.
- It symbolises the strong friendship, love and admiration that exists between the people of the two nations.

India-Israel relations

Introduction

- Israel and India **established diplomatic relations** on 29th of January 1992
- The two countries have an extensive economic, military, and strategic relationship.

Political relations

- Political ties between the two countries are friendly.
- Prime Minister Modi undertook an historic first ever visit by an Indian PM to Israel from 4-6 July 2017, during which the relationship was upgraded to a **strategic level.**

Economic and Commercial Relations

- India is Israel's **third largest trade partner in Asia and seventh largest**
- **Major exports**from India to Israel include precious stones and metals, chemical products, textile etc.
- **Major imports** by India from Israel include precious stones and metals, chemicals and mineral products, base metals and machinery and transport equipment.
- **Potash is a major item of Israel's exports** to India.

Cooperation in agriculture

- Under a comprehensive Work Plan for cooperation in agriculture signed on 10 May 2006, bilateral projects are implemented through Centres of Excellence.

- India has benefited from Israeli expertise and technologies in horticulture mechanization, protected cultivation, orchard and canopy management, nursery management, micro- irrigation and post-harvest management particularly in Haryana and Maharashtra.
- Israeli drip irrigation technologies and products are now widely used in India.

Defence relations

- India is the **largest buyer of Israeli military equipment** and Israel is the second-largest supplier of military equipment to India after Russia.
- Military and strategic ties between the two nations extend to intelligence-sharing on terrorist groups and joint military training.

Indian Community

- There are approximately 85,000 Jews of Indian-origin in Israel (with at least one Indian parent), who are all Israeli passport holders.

What can be done to further boost the ties?

- **Free Trade Agreement:** Both countries should push to negotiate the FTA, as attempt have been made over the past 14 years.
- **Military cooperation:** Both nations should look forward for transfer of defence technology along with defence equipment trade.
- **Cooperation on Global issues**: Israel supports India's defence against terror and supported India's nuclear tests in 1998.

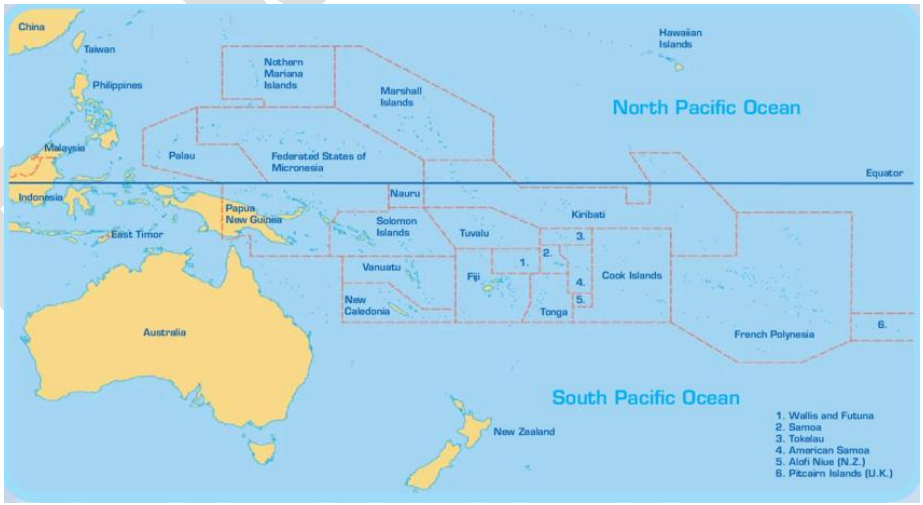
Conclusion

- India and Israel are natural partners. Relations between both nations are steadily growing and have many synergies and complementarities.

CHINA' S FOOTPRINT IN THE PACIFIC ISLANDS / GS-II INTERNATIONAL RELATIONS

Context

- During a meeting with the 14 Pacific Island Countries, China's effort to push through a comprehensive framework deal, the draft of which was leaked earlier, failed to gain consensus among the PICs.



What are PICs?

- The Pacific Island Countries are a **cluster of 14 states which are located largely in the tropical zone of the Pacific Ocean.**
- These countries have **played an important role in major power rivalry as springboards for power projection and laboratories for developing and demonstrating strategic capabilities.**
- The **PICs lie in the natural line of expansion of China's maritime interest**.
- At a time when the Quadrilateral Security Dialogue has emerged as a major force in the Indo-Pacific vis-à-vis China, the need to influence the PICs becomes even more pressing for China.
- They include Cook Islands, Fiji, Kiribati, Republic of Marshall Islands, Federated States of Micronesia (FSM), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.
- The islands are **divided on the basis of physical and human geography into three distinct parts — Micronesia, Melanesia and Polynesia.**

What is the strategic significance of the PICs?

- The islands are very small in land area, and are spread wide across the vast equatorial swathe of the Pacific ocean. As a result, though they are some of the smallest and least populated states, they have some of the **largest Exclusive Economic Zones (EEZs) in the world.**
- Large EEZs translate into **huge economic potential due to the possibility of utilising the wealth of fisheries, energy, minerals and other marine resources present in such zones. Hence, they prefer to be identified as Big Ocean States, rather than Small Island States**.

- In fact, **Kiribati and FSM, both PICs, having EEZs larger than that of India.**
- Moreover, these countries have played an important role in major power rivalry as springboards for power projection and laboratories for developing and demonstrating strategic capabilities.
- The **Pacific islands also acted as one of the major theatres of conflict during the Second World War** — between imperial Japan and the U.S. Due to the remoteness of these islands from the Soviet Union and major population centres of the world, some of the major nuclear weapon test sites of the U.S., the U.K. and France were located here.
- In addition, the **14 PICs, bound together by shared economic and security concerns, account for as many number of votes in the United Nations, and act as a potential vote bank for major powers to mobilise international opinion.**

What does China seek to achieve from the PICs and how?

- China does not have any particular historical linkages to the PICs unlike the Western powers. Therefore, its **interest in the PICs is of relatively recent origin, and is linked to China's rise in the past few decades**.
- The **PICs lie in the natural line of expansion of China's maritime interest and naval power**.
- They are located beyond China's 'First Island Chain', which represents the country's first threshold of maritime expansion.
- **The PICs are located geo-strategically in what is referred to by China as its 'Far Seas', the control of which will make China an effective Blue Water capable Navy — an essential prerequisite for becoming a superpower**.
- At a time when the Quadrilateral Security Dialogue has emerged as a major force in the Indo-Pacific vis-à-vis China, the need to influence the PICs have become an even more pressing matter for China.
- Apart from the vast marine richness of the PICs, the **Taiwan factor plays a major role in China's Pacific calculus**
- **Wooing the PICs away from the West and Taiwan will therefore make the goal of Taiwan's reunification easier for China.** China has been successful in getting diplomatic recognition from 10 out of the 14 PICs through its economic largesse. Only four PICs — Tuvalu, Palau, Marshall Islands and Nauru, currently recognise Taiwan.

What are the implications of China's latest move?

- China has increasingly started talking about security cooperation in addition to its economic diplomacy towards the PICs.
- **In April 2022, China signed a controversial security deal with the Solomon Islands, which raised regional concerns.** The secrecy surrounding the draft, and the haste with which it was discussed with the governments of the PICs during the meeting sent worrying signals across the Pacific.
- The **PICs as a collective did not agree to China's extensive and ambitious proposals, and therefore China failed to get a consensus on the deal**.
- The **intensification of China's diplomacy towards the Pacific Islands have made the powers who have traditionally controlled the regional dynamics like the U.S. and Australia more cautious.**
- The U.S. has started revisiting its diplomatic priority for the region ever since the China-Solomon Islands deal.
- Australia, in the meanwhile, has sent its Foreign Secretary to the islands for revitalising ties, with promises of due priority and assistance to the PICs.

ISRAEL-UAE AGREEMENT

GS-II INTERNATIONAL RELATIONS

Context

- Israel **signed a free trade deal with the United Arab Emirates, its first with an Arab country**, building on their U.S.-brokered normalisation of relations in 2020.

Background

- The 2020 normalisation deal was part of the U. S.-brokered Abraham Accords that also saw Israel establish diplomatic ties with Bahrain and Morocco.
- The **UAE was the first Gulf country to normalise ties with Israel and only the third Arab nation to do so after Egypt and Jordan**.
- Israel has already struck free trade agreements with other countries and blocs, including the United States, European Union, Canada and Mexico.

Other side of the coin

- **UAE "strongly condemned" what it called Israel's "storming" of Jerusalem's Al Aqsa mosque compound**, one of Islam's holiest sites.
- UAE **reiterated its firm position on the need to provide full protection for Al Aqsa Mosque and halt serious and provocative violations taking place there**.

What Is a Free Trade Agreement (FTA)?

- A free trade agreement is a pact between two or more nations to reduce barriers to imports and exports among them. **Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.**
- FTAs usually cover trade in goods (such as agricultural or industrial products) or services (such as banking, construction, trading). FTAs can also cover other IPRs, investment, government procurement and competition policy.
- There are various other arrangements except FTA undertaken by bodies to liberalize the trade between them, namely **Preferential Trade Agreement (PTA), Comprehensive Economic Cooperation Agreement (CECA), Comprehensive Economic Partnership Agreement (CEPA), Customs Union (CU), Custom Market (CM) and Economic Union (EU).**

Advantages and Disadvantages of Free Trade Agreement

Pros

1. **Comparative Advantage:** The idea that everyone benefits when countries produce and sell freely what they do most efficiently. In other words, everyone should specialize in what they do best and governments should intervene as little as possible in the process.
2. **Protectionism is expensive:** Basically, tariff and non-tariff barriers (NTBs) result in higher prices for consumers. Barrier costs are passed on to consumers, or consumers are forced to buy more expensive domestically produced goods.
3. **Competition:** The idea that competition fosters lower prices, efficiency in production, and innovation.
4. **Functionalism:** The argument that cooperation in one area (such as trade) promotes cooperation in other areas. In theory, the drug problem, immigration problems, etc. are more forthrightly addressed.
5. **Interdependence**: The idea that free trade leads to interconnections that make conflict too costly. In other words, dependency undercuts the likelihood of war. (Europe is a commonly cited example).
6. **Economic Growth**: Because free trade promotes economic growth, pressing social problems, such as unemployment, environmental deterioration, or illegal immigration can be alleviated.
7. **Defense against protectionism elsewhere**: Regional free trade agreements help offset the danger of protectionism elsewhere and secure markets for exporters.
8. **Introduction of capital and technology**: For poorer countries, free trade can promote the introduction of capital and technology into their economies.
9. **Democratization**: Some think free trade even promotes democracy because it promotes discipline and transparency.

Cons

1. **Threats to domestic industries/jobs:** Most mainstream economists want to dismiss these threats because they say free trade also creates jobs and growth. But labor unions and domestic industries use this argument to push protectionism. Clearly, free trade agreements can cause dislocations, and attendant ripple effects, in an economy, even if they create a bigger economic pie.
2. **Infant Industries:** Poorer countries have argued that they needed to protect "infant industries" so they can get them off the ground in the first place. Most economists see this as a valid argument, but argue that it then becomes hard to take the protections off.
3. **Too much dependency on a few products:** Specialization through comparative advantage could make an economy (especially a smaller economy) too dependent on a few resources or products. If demand falls in those areas, economic catastrophe could ensue.
4. **Nice free traders can finish last:** In the real world there are governments which control exports and imports, heavily subsidize their producers, or erect NTBs which limit trade. In this world, nice free traders can finish last. The US allowed discriminatory practices from others after WWII, but fights them now that it no longer represents the majority of the world economy.
5. **Security is endangered**: Protectionists sometimes argue that a country should not become so dependent that it cannot defend itself. For example, the US should not let its shipbuilding industry die simply because ships can be built cheaper in other places. Steel is another example.
6. **Cultural Imperialism**
7. **Trade is a powerful policy tool**: When dealing with other countries trade leverage should not be given up because of a belief in economic rationalism. Similarly, we should not give up our sovereignty over trade matters to regional or international bodies. They shouldn't be able to claim our laws are unfair barriers to trade.
8. **Harmonization downward**: Free trade could force countries to lower their environmental, labor, or other standards in order to compete. Also, such standards could be declared unfair trade practices by regional or international bodies.

APTI PLUS

MUTUAL LOGISTICS AGREEMENT- INDIA AND VIETNAM

GS-II INTERNATIONAL RELATIONS

Context

- India and Vietnam signed a **Memorandum of Understanding (MoU) on mutual logistics support during the ongoing visit of Defence Minister Rajnath Singh to the Southeast Asian nation.**

More on the news

- The Defence Ministers **signed the 'Joint Vision Statement on India-Vietnam Defence Partnership towards 2030'**, which will significantly enhance the scope and scale of existing defence cooperation.
- **India has signed several logistics agreements including with all Quad countries, France, Singapore and South Korea beginning with the Logistics Exchange Memorandum of Agreement with the U.S. in 2016.**
- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel and provisions on mutual agreement simplifying logistical support and increasing operational turnaround of the military when operating away from India.
- Both Ministers also agreed for early finalisation of $US 500 million Defence Line of Credit extended to Vietnam.
- Indian defence minister also announced gifting two simulators and a monetary grant towards setting up of Language and IT Lab at Air Force Officers Training School for capacity building of Vietnamese armed forces.

Background

- India and Vietnam, with historical roots in the common struggle for liberation from colonial rule and the national struggle for independence, share traditionally close and cordial bilateral relations.
- **Mahatma Gandhi and Ho Chi Minh, regarded as the Father of Nation in India and Vietnam respectively, led people in their heroic struggle against colonialism in the two countries**.
- **India was the Chairman of the International Commission for Supervision and Control (ICSC), which was formed pursuant to the Geneva Accord of 1954 to facilitate the peace process in Vietnam.**
- India initially maintained Consulate-level relations with the then North and South Vietnams and later established full diplomatic relations with unified Vietnam on 7 January 1972.
- Relations between the two countries were elevated to the level of 'Strategic Partnership' during the visit of Vietnam's Prime Minister Nguyen Tan Dung to India in July 2007.
- **In 2016, during Prime Minister Modi's visit to Vietnam, bilateral relations were further elevated to a "Comprehensive Strategic Partnership".**

Political Relations

- In the context of COVID-related travel limitations, Prime Minister Shri Narendra Modi and Prime Minister Mr. Nguyen Xuan Phuc held the first ever India-Vietnam Virtual Summit on 21 December 2020, during which they adopted a historic "**Joint Vision for Peace, Prosperity and People**" to guide the future development of bilateral relations.

Trade And Economic Cooperation

- According to Indian statistics, during Financial Year (FY) April 2020 – March 2021, bilateral trade between India and Vietnam reached US$ 11.12 billion, with Indian exports to Vietnam amounting to US$ 4.99 billion and Indian imports from Vietnam at US$ 6.12 billion.
- In FY 2020-21, for India, Vietnam was the 15th largest trading partner globally and the 4th largest within ASEAN, following Singapore, Indonesia and Malaysia. For Vietnam, on the other hand, India was the 10th largest trading partner globally.
- Under the Mekong Ganga Cooperation (MGC) framework, India has been taking up Quick Impact Projects (QIPs), each valued at US$ 50,000, in different provinces of Vietnam for development of community infrastructure.

Cultural Cooperation

- The Swami Vivekananda Indian Cultural Centre (SVCC) was established in Hanoi in 2016 to promote a comprehensive understanding of India and to foster closer links between peoples of both countries through cultural exchanges.
- 2019 was celebrated as the ASEAN- India Year of Tourism.
- Vietnam has been a large recipient of training programmes under Indian Technical and Economic Cooperation (ITEC) programme.
- An estimated 5500 people from India, including some short-term visitors, constitute the Indian community in Vietnam.

INDIA-RUSSIA DEAL ON RADIO EQUIPMENTS

GS-II INTERNATIONAL RELATIONS

Context

- Scientific and Production Corporation "Radio technical Systems" (RTS) of Russia has signed a large-scale contract with the Airports Authority of India (AAI) for the supply of radio equipment.

More on the news

- The **Russian company will manufacture 34 sets of instrument landing system (ILS)-734 for the modernisation of 24 airports in India.**
- The contract comes amid the war in Ukraine and pressure from the West on India to diversify its dependence for defence needs.
- **ILS- 734 system allows for the landing of equipped aircraft with a runway visual range of minimum 50 metres and a decision height of minimum 15 metres. The landing system is subject to increased requirements for the reliability and stability of the output parameters of the equipment**

India-Russia relations

Historical background

- India and Russia have enjoyed **good relations since 1947.**
- It started with a visit by the then Indian PM Nehru to the Soviet Union in 1955 and the First Secretary of the Communist Party Khrushchev's return trip during the same year.
- India and the Soviet Union signed the **Treaty of Peace and Friendship**in August 1971
- After the dissolution of the Soviet Union, India and Russia entered into a **new Treaty of Friendship and Cooperation in January 1993 and a bilateral Military-Technical Cooperation agreement in 1994.**
- In 2000 both countries established a **Strategic Partnership**.
- In 2010, it was elevated to the level of a "**Special and Privileged Strategic Partnership**."
- PM Modi is the first Indian Prime Minister to visit the Russian Far East and this visit is intended to give "a new direction, new energy, and new speed" to the bilateral relations.

Political Relations

- **Annual Summit**: The Annual Summit meeting between the Prime Minister of India and the President of the Russian Federation is the highest institutionalized dialogue mechanism in the strategic partnership between India and Russia.
- PM Modi was awarded with Russia's highest state decoration - Order of St Andrew the Apostle.
- Indian Defence Minister undertook a trip to Russia for its 'Victory Day' parade, the first high-level visit from India to any country during the pandemic.
- **Intergovernmental Commissions:** Two Inter- Governmental Commissions - one on Trade, Economic, Scientific, Technological and Cultural Cooperation (IRIGC-TEC), and another on Military Technical Cooperation (IRIGC- MTC) meet annually.
- International/Multilateral Organizations and Connectivity Projects: BRICS, SCO, Russia has been a long standing supporter of India's membership of the Nuclear Suppliers Group and Permanent Membership in an expanded UNSC.

Defence and Security Cooperation

- **Russia-Traditional military supplier:** Russia has been a traditional military supplier, **over 60% of Indian military inventory**is of Russian origin, including fighter jets, tanks, helicopters and submarines.
- In 2021, India and Russia signed a **₹5000 crore deal for 6.1 lakh AK-203 assault rifles**to be manufactured jointly in Uttar Pradesh.
- Russia is **manufacturing two stealth frigates for the Navy**. While another two are being manufactured by the Goa Shipyard Limited under technology transfer.
- India is also looking to receive the third Akula class nuclear attack submarine (SSN) sometime in 2025.
- India-Russia military technical cooperation has evolved from a **buyer - seller framework to one involving joint research, development and production of advanced defence technologies and systems.**
- **BrahMos Missile System**as well as the licensed production in India of **SU-30 aircraft and T-90 tanks**, are examples of such flagship cooperation.
- Furthering this cooperation, an agreement on the cooperation in the production of spare parts for Russian/Soviet military equipment was signed.
- **Agreements on supply of S-400 air defence systems, construction of frigates and shareholders agreement on the formation of joint venture to manufacture Ka-226T helicopters in India.**
- Production of AK Series Assault Rifles at Ordnance Factory Korwa under the 'Make-in-India' program.
- The two countries also hold exchanges and training exercises between their armed forces annually.
- The first-ever Tri-Services exercise –'INDRA 2017' took place in 2017.

Trade and Economic Relations

- Enhancing trade and economic cooperation between India and Russia is a key priority for the political leadership of both the countries.
- It is clear by the revised targets of **increasing bilateral investment to US $ 50 billion and bilateral trade to US $ 30 billion by 2025.**
- India-Russia trade and connectivity lag behind **those between China and Russia.**
- Bilateral trade during April 2020-March 2021 **amounted USD 8.1 billion**. Indian exports amounted USD 2.6 billion while imports from Russia amounted USD 5.48 billion.
- A number of **institutionalized mechanisms** have been set up for the development of economic cooperation between the two countries.
- **India Russia Intergovernmental Commission for Trade, Economic, Scientific & Cultural Cooperation (IRIGC-TEC)**.
- **India-Russia Strategic Economic Dialogue (IRSED)**has been established for cooperation in the field of development of economic policy and to encourage regular interactions and cooperation between the two countries.
- India is **contemplating an FTA/ CECA with the Eurasian Economic Union**. India is keen to engage more closely with Russia and the CIS countries to further intensify our trade and economic cooperation with this region.
- **Bilateral trade in services**: Bilateral trade in services has remained stable during the last 5 years with trade balance in Russia's favor. While in 2017, trade in services was USD 1095.4 million, it reduced slightly in 2018 to USD 999 million. The figure stands at USD 973.645 million for the year 2020.
- **Investment:** Russian investment in India in 2017 has reached 18bn USD and India's total investment in Russia so far is 13 bn USD. The overall investment target of 30 bn USD that was set for 2025 has been already crossed. Investment cooperation has been envisaged in some priority sectors such as hydrocarbons, power, coal, nuclear power, fertilizers, IT, mineral and metallurgy, steel, pharmaceuticals, infrastructure projects amongst others.

Energy Security

- In Energy sector Russia has built nuclear reactors in India (kudankulam reactors), adopted strategic vision in nuclear energy, offered oil, gas and investment opportunities in the fuel sector of Russia e.g. Sakhalin I etc.
- Both are extending civil nuclear cooperation to 3rd countries, e.g. Bangladesh.

Space technology

- The former Soviet Union launched India's first two satellites, Aryabhata and Bhaskar.
- It has provided India Cryogenic technology to build heavy rockets.

Science & Technology

- The Working Group on Science and Technology, the Integrated Long Term Programme (ILTP) and the Basic Science Cooperation Programme are the three main institutional mechanisms for bilateral Science and Technology cooperation.
- Science Academies of the two countries promote inter-academy exchanges.

Cultural Cooperation

- There is a strong tradition of Indian studies in Russia.
- As per the reciprocal agreement, regular cultural exchange between India and Russia has been taking place since 2015.

Reasons for Recent Downturn in Relations

- **India Going West:** China's expansionist foreign policy forced India to shed past hesitations and actively pursue closer ties with the West, particularly the US.
- **Russia Going East:** Russia revved up its own "Pivot to the East". The most distinct results of which are markedly improved relations with China, and better ties with Turkey, Iran, and Pakistan.
- **Defence:** India has been recently diversifying its defence relations with US, Israel etc. Russia's share of Indian defense imports fell from 79 percent between 2008-2012 to 62 percent between 2013-2017. Trade has been one-dimensional i.e. defence based. The trade in 2017-18 was $10.7 billion, which is far below potential in comparison to India's trade with China ($89.7 billion), the United States ($74.5 billion).
- **Towards Taliban:** Russia is showing inclination towards Taliban in Afghanistan while India continues to have concerns about the group.

What are the recent positive developments in India-Russia ties?

- Agreements on the construction of 12 nuclear power plants in India
- The 'localized manufacturing' in India of Russian-designed nuclear power plants
- The finalisation in 2014 and 2015 of the supply of crude oil by Rosneft to Essar.
- Supply of S-400 Triumph Air Defence Missile System, 4 frigates and also the manufacturing of Ka-226T.
- In terms of investments, both the countries had set the target of $30 billion by 2025.
- Gaganyaan Project: Russia would help train the Indian astronauts for the manned space mission.
- Russia supports India's bid for permanent membership in UNSC and NSG.

Importance of Russia for India

Balancing China

- Russia organised a trilateral meeting among the foreign ministers of Russia, India and China following deadly clashes in Galwan valley.
- This shows that Russia can contribute in defusing tensions with China whose relations with India have come to an inflection point.

Emerging New Sectors of Economic Engagement

- mining, agro-industrial, and high technology, including robotics, nanotech, and biotech.
- India's footprint in the Russian Far East and in the Arctic is set to expand.
- Connectivity projects may get a boost too.

Combating Terrorism

- India and Russia are working on Afghanistan.
- Similarly, both are calling for early formalisation of Comprehensive Convention on International terrorism.

Support At Multilateral Forums

- Russia has been a long standing supporter of India's membership of the Nuclear Suppliers Group and Permanent Membership in an expanded UNSC.
- Important supplier of defence materials and equipment of all kinds.

Way Forward

- It is in the vital interest of both countries to ensure that the area which relates to the **security and defence, civil nuclear energy and space** among, is insulated from mutual differences in outlook on some geo-political issues and the pressures of other powers.
- It would also be mutually beneficial for both countries to explore other areas of cooperation such as **connectivity through both land and sea as well as trade**.
- There is a need of a **free trade agreement** to augment trade.
- India should pursue and facilitate **Russia's engagement in the Indo-Pacific.**
- India must promote a mutually **beneficial trilateral cooperation between Russia, China, and India.**
- **Cooperation At Multilateral Forums:** India and Russia continue to share a common strategic rationale for their relationship.
- There are areas of convergence that can be used to improve the relationship between the two countries. For example, **both are involved in the Rooppur nuclear plant project in Bangladesh on a trilateral basis.**
- There is a need for a more **"extensive Eurasian partnership involving the EAEU and China, India, Pakistan, and Iran".**
- India can help Russia by providing the **much-needed workforce in sectors like agriculture and construction** without engaging in permanent settlement.
- Both countries must take advantage of policies like '**Make in India'.**

NORTHERN IRELAND PROTOCOL (NIP) / GS-II INTERNATIONAL RELATIONS

Context

- The **European Commission has launched two new legal proceedings against Britain and re-opened another, after the latter proposed a legislation which seeks to get it out of some of its Brexit obligations**. Britain's government claims the the Northern Ireland Protocol Bill is only meant to maintain "stable social and political conditions in Northern Ireland."

What is Britain's new law?

- It seeks to **reduce customs checks and paperwork for trade between Great Britain (England, Scotland and Wales) and Northern Ireland (which together with Great Britain forms the United Kingdom).**
- Britain's Prime Minister Boris Johnson has said the changes it will introduce are "relatively trivial". However, these changes violate a key part of the painfully negotiated 2019 Brexit deal – the Northern Ireland Protocol.

The Northern Ireland Protocol

- After the UK left the European Union, **Northern Ireland remained its only constituent that shared a land border with an EU-member, the Republic of Ireland.**
- **EU and UK having different product standards**, checks would be necessary before goods could move from Northern Ireland to Ireland.
- However, the **two sides have had a long history of conflict, with a hard-fought peace secured only in 1998 under the Belfast Agreement, also called the Good Friday agreement.**
- **Fiddling with this border was thus considered too dangerous**, and it was decided the checks would be conducted between Northern Ireland and Great Britain. This was called the Northern Ireland Protocol.

- Under the protocol, **Northern Ireland remains in the EU single market, and trade-and-customs inspections of goods coming from Great Britain take place at its ports along the Irish Sea.**

Why UK now wants to violate the Protocol

- The UK government has admitted it violates international law, unilaterally doing away with provisions of the Brexit deal.
- However, it has justified itself using the "**doctrine of necessity**", claiming that breaking this law was its only way to serve crucial domestic interests.
- The doctrine of necessity provides a clear basis in international law to justify the non-performance of international obligations under certain exceptional and limited conditions.
- The **domestic interests it wants to safeguard are both economic and political.**
- The checks have made trade between Great Britain and Northern Ireland cumbersome, with food products, specially, losing out on shelf life while they wait for clearance. Some taxation and spending policies of the UK government can't be implemented in Northern Ireland because of EU rules.
- Also, any kind of border in the Irish Sea irks those who want a united United Kingdom.

What measures does the new Bill propose?

- The bill's main proposals are that **a 'green lane' with fewer clearances be created for goods that will remain in Northern Ireland, while a more stringent 'red lane' looks at goods destined for the EU; spending and tax policies for Northern Ireland be decided only by London; and disputes be resolved not through the European Court of Justice, but through independent arbitration and negotiations.**
- It also proposes that **businesses in Northern Ireland be allowed to choose between UK or EU standards.**

Opposition to the Bill

- Experts have pointed out that the Bill effectively means the UK dishonouring a treaty it signed and is bad for the country's reputation. Also, with its economy already in trouble, the UK can ill-afford a trade war or even fines from the EU.
- In Northern Ireland, a majority of the members of its Assembly have opposed the Bill, as it is likely to bring in more uncertainty for them.

PROPOSED REFORMS TO WTO

GS-II INTERNATIONAL RELATIONS

Context

- **India expressed concern that some suggestions on reforming the** World Trade Organization **(WTO) could give rise to fundamental changes in the institutional architecture of the trade body**, which could eventually damage the developing nations more.

India's concerns:

- Proposed reforms could run the **risk of skewing the system against the interest of** developing countries.
- The **gaps between the developing and developed members have, in fact, widened in many areas, emphasising that the special and differential treatment (S&D) must continue.** Such treatment has been a treaty-embedded and non-negotiable right for all developing members.
- There is a **need to ensure that multilateral rule making processes are neither bypassed nor diluted**.
- While India strongly supports robust WTO reforms and modernisation agenda, the **reform process should take place in the general council and other regular bodies too.**

Key takeaways from the conference:

- **Curtailing harmful fishing subsidies:**
  - The WTO passed a multilateral agreement that would curb 'harmful' subsidies on illegal, unreported and unregulated fishing for the next four years, to better protect global fish stocks. Since 2001, member states have been negotiating the banning of subsidies that promote overfishing.
  - India and other developing countries were able to win some concessions in this agreement. They successfully lobbied to remove a section of the proposal that would threaten some subsidies which would assist small-scale artisanal fishing.
- **Global Food Security**
- Members agreed to a binding decision to exempt food purchased by the UN's World Food Programme (WFP) for humanitarian purposes, from any export restrictions.
- In light of the global food shortages and rising prices caused by the war between Ukraine and Russia, the group's members issued a declaration on the importance of trade in global food security and that they would avoid bans on food exports.
- However, countries would be allowed to restrict food supplies to ensure domestic food security needs.

- India's key demand to allow it to export food from its public stockholdings to other countries will reportedly be discussed in the next Ministerial Conference in 2023.
- **E-commerce transactions:** all members agreed to continue the long-standing moratorium on custom duties on e-commerce transmissions until the subsequent Ministerial Conference or until March 31, 2024, depending on whichever comes first
- **Covid-19 vaccine production:** WTO members agreed to temporarily waive intellectual property patents on Covid-19 vaccines without the consent of the patent holder for 5 years, so that they can more easily manufacture them domestically.

Basic information on the Ministerial Conference:

- The Ministerial Conference is the **topmost body of the WTO under the governance structure set up by the "Agreement establishing the WTO".**
- **Ministerial Conferences**
  - MC12 — Geneva, 12-15 June 2022
  - MC11 — Buenos Aires, 10-13 December 2017
  - MC10 — Nairobi, 15-19 December 2015
  - MC9 — Bali, 3-6 December 2013
  - MC8 — Geneva, 15-17 December 2011
  - MC7 — Geneva, 30 November - 2 December 2009
  - MC6 — Hong Kong, 13-18 December 2005
  - MC5 — Cancún, 10-14 September 2003
  - MC4 — Doha, 9-13 November 2001
  - MC3 — Seattle, November 30 – December 3, 1999
  - MC2 — Geneva, 18-20 May 1998
  - MC1 — Singapore, 9-13 December 1996

Ministerial Conference 12

- The meeting was originally scheduled to take place in Nur-Sultan, Kazakhstan, in June 2020.
- Due to the COVID Pandemic, it was postponed and shifted to Geneva, Switzerland.
- MC12 was scheduled to begin on November 30, 2021, and end on December 3, 2021. Due to the travel bans due to the Omnicron variant, the conference was cancelled.

World Trade Organisation (WTO)

- WTO is the only global international organization dealing with the rules of trade between nations
- It **was created in 1995 superseding the 1947 General Agreement on Tariffs and Trade (GATT)**
- Headquarters – Geneva, Switzerland

INDIA-EU FREE TRADE AGREEMENT

GS-II INTERNATIONAL RELATIONS

Context

- In a joint event held at the Headquarters of the European Union (EU) at Brussels, Union Minister for Commerce and Industry and Executive Vice-President of European Commission **formally re-launched the India-EU Free Trade Agreement (FTA) negotiations. Besides, negotiations were also launched for a stand-alone Investment Protection Agreement (IPA) and a Geographical Indicators (GIs) Agreement.**

More on the news

- Last year, in the India and EU Leaders' Meeting held in Porto on 8th May 2021, an agreement was reached for resuming negotiations for a balanced, ambitious, comprehensive and mutually beneficial FTA and starting fresh negotiations on the IPA and a separate agreement on GIs.
- Both partners are now resuming the FTA talks after a gap of about nine years since the earlier negotiations were left off in 2013 due to difference in the scope and expectations from the deal.
- This **would be one of the most significant FTAs for India as EU is its second largest trading partner after the US.**
- The **India-EU merchandise trade has registered an all-time high value of USD 116.36 Billion in 2021-22 with a year-on growth of 43.5%.** India's export to the EU jumped 57% in FY 2021-22 to $65 billion. India has a surplus trade with EU.

What Is a Free Trade Agreement (FTA)?

- A free trade agreement is a pact between two or more nations to reduce barriers to imports and exports among them. **Under a free trade policy, goods and services can be bought and sold across international borders with little or no government tariffs, quotas, subsidies, or prohibitions to inhibit their exchange.**
- FTAs usually cover trade in goods (such as agricultural or industrial products) or services (such as banking, construction, trading).
- FTAs can also cover other intellectual property rights (IPRs), investment, government procurement and competition policy.
- There are various other arrangements except FTA undertaken by bodies to liberalize the trade between them, namely **Preferential Trade Agreement (PTA), Comprehensive Economic Cooperation Agreement (CECA), Comprehensive Economic Partnership Agreement (CEPA), Customs Union (CU), Custom Market (CM) and Economic Union (EU).**

The concept of free trade is the opposite of trade protectionism or economic isolationism.

How a Free Trade Agreement Works

- In the modern world, free trade policy is often implemented by means of a formal and mutual agreement of the nations involved.
- For example, a nation might allow free trade with another nation, with exceptions that forbid the import of specific drugs not approved by its regulators, or animals that have not been vaccinated, or processed foods that do not meet its standards.

Advantages and Disadvantages of Free Trade Agreement

Pros:

1. **Comparative Advantage:** The idea that everyone benefits when countries produce and sell freely what they do most efficiently. In other words, everyone should specialize in what they do best and governments should intervene as little as possible in the process.
2. **Protectionism is expensive:** Basically, tariff and non-tariff barriers (NTBs) result in higher prices for consumers. Barrier costs are passed on to consumers, or consumers are forced to buy more expensive domestically produced goods.
3. **Competition:** The idea that competition fosters lower prices, efficiency in production, and innovation.
4. **Functionalism:** The argument that cooperation in one area (such as trade) promotes cooperation in other areas. In theory, the drug problem, immigration problems, etc. are more forthrightly addressed.
5. **Interdependence**: The idea that free trade leads to interconnections that make conflict too costly. In other words, dependency undercuts the likelihood of war. (Europe is a commonly cited example).
6. **Economic Growth**: Because free trade promotes economic growth, pressing social problems, such as unemployment, environmental deterioration, or illegal immigration can be alleviated.
7. **Defense against protectionism elsewhere**: Regional free trade agreements help offset the danger of protectionism elsewhere and secure markets for exporters. In other words, they give leverage against other large economic entities, like the European Union.
8. **Introduction of capital and technology**: For poorer countries, free trade can promote the introduction of capital and technology into their economies.
9. **Democratization**: Some think free trade even promotes democracy because it promotes discipline and transparency.

Cons:

1. **Threats to domestic industries/jobs:** Most mainstream economists want to dismiss these threats because they say free trade also creates jobs and growth. But labor unions and domestic industries use this argument to push protectionism. Clearly, free trade agreements can cause dislocations, and attendant ripple effects, in an economy, even if they create a bigger economic pie.
2. **Infant Industries:** Poorer countries have argued that they needed to protect "infant industries" so they can get them off the ground in the first place. Most economists see this as a valid argument, but argue that it then becomes hard to take the protections off.
3. **Too much dependency on a few products:** Specialization through comparative advantage could make an economy (especially a smaller economy) too dependent on a few resources or products. If demand falls in those areas, economic catastrophe could ensue.
4. **Nice free traders can finish last:** In the real world there are governments which control exports and imports, heavily subsidize their producers, or erect NTBs which limit trade. In this world, nice free traders can finish last. The US allowed discriminatory practices from others after WWII, but fights them now that it no longer represents the majority of the world economy.
5. **Security is endangered**: Protectionists sometimes argue that a country should not become so dependent that it cannot defend itself. For example, the US should not let its shipbuilding industry die simply because ships can be built cheaper in other places. Steel is another example.
6. **Cultural Imperialism**: Similarly, countries in Latin America and elsewhere (France is commonly cited) worry about cultural imperialism (Hollywood; rock and roll bands) and the loss of historic industries (French wines).
7. **Trade is a powerful policy tool**: When dealing with other countries trade leverage should not be given up because of a belief in economic rationalism. Similarly, we should not give up our sovereignty over trade matters to regional or international bodies. They shouldn't be able to claim our laws are unfair barriers to trade.
8. **Harmonization downward**: Free trade could force countries to lower their environmental, labor, or other standards in order to compete. Also, such standards could be declared unfair trade practices by regional or international bodies.

India-EU FTA

- India is re-launching talks with the European Union (EU) on a proposed free trade agreement (FTA).
- The EU's key demands include duty **concessions for automobiles, dairy products, and wines and spirits**.
- The EU also wants India to cover concessions extended to other FTA partner nations.
- India, is demanding for **greater market access in financial services and mobility for professionals**. As part of the FTA, India

wants the EU to conclude agreements on investment protection and geographical indicators with the EU accounting for nearly 15% of Indian exports.

- The 27-member bloc accounts for 8.5% of India's imports.

Genesis

- The India-EU FTA talks -- or the Broad-Based Trade and Investment Agreement as it is officially called -- started in 2007 in Brussels, Belgium.
- These negotiations are pursuant to the commitment made by political leaders at the **7th India-EU Summit held in Helsinki in 2006** to move towards negotiations for a broad-based trade and investment agreement .
- But the negotiations were put on hold in 2014 following differences over sensitive non-trade issues such as environment and labour standards.

Areas of Negotiation

- The negotiations cover Trade in Goods, Trade in Services, Investment, Sanitary and Phytosanitary Measures, Technical Barriers to Trade, Trade Remedies, Rules of Origin, Customs and Trade Facilitation, Competition, Trade Defence, Government Procurement, Dispute Settlement, Intellectual Property Rights & Geographical Indications, Sustainable Development.

Implications of FTA

- The India-EU FTA is going to be a **game changer in terms of capacity of trade increase between them**.
- FTA between India and the EU **will help bring down import duties and create a level playing field for European firms.**
- The most important part of the FTA is **to standardize norms. This will make doing business easier for both sides**.
- From the Austrian perspective, a number of Indian companies such as Mahindra and ITC and several IT companies are using Vienna as their hub for European countries. More firms can be set up base in Vienna as Australia shares a very special relationship with East European countries and has a high degree of connectivity. So **if Indian companies set up their bases in Vienna, they can reach all of Europe within one hour.**
- Ireland is looking at **gains in pharmaceuticals and whiskeys from the proposed FTA.**

FIRST INDIA JAPAN FINANCE DIALOGUE / GS-II INTERNATIONAL RELATIONS

Context

- Mr. Masato Kanda, Vice Minister of Finance for International Affairs, Japan, and Mr. Ajay Seth, Secretary, Department of Economic Affairs, Ministry of Finance, held the first India-Japan Finance Dialogue.

More on the news

- In view of the growing importance of India-Japan relations in recent years, the dialogue on India-Japan financial cooperation, which had been held at the level of Deputy Director-Generals, was upgraded to the level of Vice Minister/Secretary.
- The participants exchanged their views on the macroeconomic situation, financial system, financial digitalization and investment environment in both countries, and confirmed that both sides will continue to work closely together as they hold presidency of G20 and G7 next year.
- Both sides agreed to continue discussions for further promoting financial cooperation and strengthening bilateral relations, and agreed to explore holding the next round of the Dialogue in Tokyo.

Highlights of Indo-Japan relationship

- The friendship between India and Japan has a long history rooted in spiritual affinity and strong cultural and civilizational ties.
- India's earliest documented direct contact with Japan was with the Todaiji Temple in Nara, where the consecration or eye-opening of the towering statue of Lord Buddha was performed by an Indian monk, Bodhisena, in 752 AD.
- In contemporary times, among prominent Indians associated with Japan were Swami Vivekananda, Gurudev Rabindranath Tagore, JRD Tata, Netaji Subhash Chandra Bose and Judge RadhaBinod Pal.
- The Japan India Association was set up in 1903, and is today the oldest international friendship body in Japan.
- Today, India is the largest democracy in Asia and Japan the most prosperous.
- **Political Relations:**
  - In the first decade after diplomatic ties were established in 1952, several high level exchanges took place.
  - A transformational development in the economic history of India was Suzuki Motor Corporation's path breaking investment in India.
  - A test of the reliability of Japan as a friend was witnessed in 1991, when Japan was among the few countries that unconditionally bailed India out of the balance of payment crisis.
  - In 2000, the Japan-India Global Partnership in the 21st century was launched.
  - In 2006, the relationship was upgraded to a Global and Strategic Partnership with the provision of annual Prime Ministerial Summits.

- A Comprehensive Economic Partnership Agreement between Japan and India was concluded in 2011.

- **Economic and Commercial Cooperation:**
  - Japan is regarded as a key partner in India's economic transformation.
  - Japan's interest in India is increasing due to a variety of reasons including India's large and growing market and its resources, especially the human resources.
  - The India-Japan Comprehensive Economic Partnership Agreement (CEPA) that came into force in August 2011 is the most comprehensive of all such agreements concluded by India and covers not only trade in goods but also Services, Movement of Natural Persons, Investments, Intellectual Property Rights, Custom Procedures and other trade related issues.
  - Japan has been extending bilateral loan and grant assistance to India since 1958, and is the largest bilateral donor for India.
  - Japanese ODA supports India's efforts for accelerated economic development particularly in priority areas like power, transportation, environmental projects and projects related to basic human needs. The Ahmedabad-Mumbai High Speed Rail, the Western Dedicated Freight Corridor (DFC), the Delhi-Mumbai Industrial Corridor with twelve new industrial townships, the Chennai-Bengaluru Industrial Corridor (CBIC) are all mega projects which will transform India in the next decade. Delhi Metro Project has also been realized with Japanese assistance. In 2017-18, ODA disbursed was JPY 246.32 billion.
  - In FY 2017-2018 India-Japan bilateral trade reached US$ 15.71 billion. Exports from Japan to India during this period were US$ 10.97 billion and imports were US$ 4.74 billion. The trade totaled to US$ 14.90 billion during April 2018 –February 2019. Exports from Japan to India during this period were US$ 10.05 billion and imports were US$ 4.85 billion.
  - India has been ranked as the one of the most attractive investment destination in the survey (2018) of Japanese manufacturing companies, conducted by the Japan Bank for International Cooperation (JBIC).
- **Cooperation in Skill Development:**
  - Under the MoC signed in 2016 to train 30,000 shop floor leaders, Japanese companies have established ten Japan-India Institute of Manufacturing (JIM) in India and 3 Japanese Endowed Courses (JEC) in Indian Engineering Colleges.
  - **Cooperation in Railway Sector:**
  - Mumbai-Ahmedabad High Speed Railway is a very important area of cooperation between India and Japan in Railway Sector.
  - A new High-Speed Rail Training Institute is being built at the National Academy of Indian Railways (NAIR) campus in Vadodara.
- **Science & Technology and Cultural Cooperation:**
  - India-Japan S&T cooperation was formalized through an Inter-Governmental Agreement signed in 1985.
  - Bilateral S&T cooperation began in 1993 with the establishment of the India-Japan Science Council.
  - In 2006, DST initiated a value-based partnership on the principles of 'reciprocity and co-funding with the Japan Society for the Promotion of Science and Japan Science and Technology Agency.
  - Recent initiatives include establishment of three India-Japan Joint Laboratories in the area of Information and Communication Technology ("Internet of Thing, Artificial Intelligence and Big Data Analytics").
  - A cultural agreement was signed between India and Japan on 29 October 1956, whichcame into effect on 24 May 1957.
  - A year-long Festival of India in Japan 2014-15 was held from October 2014 to September 2015.
- **Indian Community:**
  - The arrival of Indians in Japan for business and commercial interests began in the 1870s at the two major open ports of Yokohama and Kobe.
  - In recent years, there has been a change in the composition of the Indian community with the arrival of a large number of professionals, including IT professionals and engineers working for Indian and Japanese firms as well as professionals in management, finance, education, and S&T research.
  - There are growing links between Indian states and Japanese prefectures. As of now 7 Indian states and 3 sister cities/regions have partnered with Japanese prefectures and cities through MoUs to cooperate under diverse sectors.

Importance of India – Japan Relations

- **Wide range of interests:** regional cooperation, maritime security, global climate, and UN reforms.
- **Share several common ideals:** democracy, the rule of law, and human rights
- **India is seeking massive investments in its infrastructure sector and Japan is a major investor**.
- **Japan's technological and economic prowess** could accelerate India's development by transforming its infrastructure and manufacturing sectors.
- **India is a big market for Japanese companies.**
- Japan's interest in India is increasing due **India's large and growing human resources.**
- Share **convergent interests under Indo-Pacific and Quad**.

- **India's Act East Policy and Japan's "Free and Open Indo-Pacific Strategy"** converge in NER
- Both countries are keen to extend their cooperation to the larger **Indo-Pacific region—including the African continent.**
- The **rise of China has been an important factor, while India's growing closeness with the US** has also played a role, as the US and Japan already have a close alliance.

Challenges

- Varying stands on issues like **Ukraine conflict**
- The **trade ties have remained underdeveloped.**
- The two sides have also been **unable to collaborate in the defence sector** in spite of huge potential.
- Both had **diverging interest with respect to economic issues like on E-commerce rules, Regional Comprehensive Economic Partnership**
- India has challenge of **maintaining balance between Quad and BRICS.**

Way Forward

- **Economic front needs to be strengthened** wherein demographic dividend of the India and other Asian countries can be deployed to benefit Asia as whole.
- **A roadmap with actionable items**, such as by stepping up coordination in counter-terrorism, cyber security, and disaster relief.
- **Japanese green technologies can help India tackle pollution.**
- **Smooth implementation of the high speed rail project** linking Ahmedabad and Mumbai.
- **Defence:** Both countries should engage on possibilities of India acquiring Japanese technology and on cooperative research.
- A **technologically deficient India has much to gain from a relationship with a country like Japan.**
- Efforts should be done to **keep the Indo-Pacific multipolar.**

14TH BRICS SUMMIT — GS-II INTERNATIONAL RELATIONS

Context

- Blaming "selfish actions" by western countries for the economic crisis arising due to sanctions, **Russian President Vladimir Putin called for the strengthening of the Brazil-Russia-India-China-South Africa (BRICS) grouping with other countries pursuing an "independent policy" at a virtual summit of BRICS leaders hosted by China**, Prime Minister Narendra Modi and other leaders discussed the situation in Ukraine and Afghanistan.

Details

- While **PM Modi focussed on the importance of BRICS in the post-pandemic global economic recovery**, **Chinese President Xi Jinping too called on members to reject "Cold war mentality" and oppose what he called the US and EU's "unilateral sanctions".**
- The **Beijing summit declaration** said that BRICS countries recalled their national positions as expressed at the United Nations over the past few months.
- While discussing terrorism and terror cooperation, the BRICS countries said that **only the UN Security council has the authority for imposing sanctions.**
- On Afghanistan, BRICS countries called for "**Afghanistan authorities to achieve national reconciliation through dialogue and negotiation, and to establish a broad-based and inclusive and representative political structure",** adding that Afghan territory must not be used to shelter terrorists or attack any other country.
- PM Modi said that **BRICS countries have had a "very similar view of the governance of the global economy", and hailed "practical" cooperation in a number of areas** including the New Development Bank, a satellite agreement, a Covid Research and Development Centre set up in South Africa, and the mutual recognition of Pharma products including COVID vaccines and medicines within BRICS countries.
- Chinese President said that the **BRICS grouping of emerging economies in the developing world should encourage "true multilateralism"** in the world and urge the world to reject the Cold War mentality and bloc confrontation, oppose unilateral sanctions and abuse of sanctions.
- Chinese President suggested a 4-point cooperation plan for BRICS countries and those from Asia, Africa and South America who will take part in proceedings tomorrow including:
  1. the need for "equity and justice" in multilateral organisations,
  2. a strong, joint Covid response,
  3. pooling strength for economic recovery and keeping supply chains secure, and
  4. more investment in poverty alleviation, education, health and food security.

What is BRICS?

- It is an **informal group of states comprising the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa.**
- It is actually a forum than a traditional-type organization with rigid membership and regulations.
- Originally the first four were grouped as "BRIC" (or "the BRICs"), before the induction of South Africa in 2010.
- **At the Fortaleza Summit (2014), in Brazil, the New Development Bank (NDB) and the Contingent Reserve Arrangement (CRA) were created**
- The acronym **BRIC was introduced by Goldman Sachs in 2001 to point out the rising power that will, along with the United States, become the world's five major economies in the 21st century**.
- In 2006, BRIC countries began their negotiations, and in 2009 they took place at the annual summit of heads of state and government.
- BRICS is a group made up of five main emerging countries – Brazil, Russia, India, China, and South Africa – collectively **representing about 42 percent of the world's population, 23% of global GDP, 30% of the territory, and 18 % of world trade.**

India and BRICS

- A close examination of India's record in BRICS reveals that **New Delhi has used its membership to make a substantial contribution to the international financial architecture, while also making efforts to address glaring gaps in areas such as counter-terrorism, the fight against climate change and UNSC reform.**
- India is not a free-rider in a system of global governance dominated by the West, and continues to provide a vision of global governance.
- India was the main BRICS country behind the establishment of the NDB and proposed the idea at the fourth BRICS summit in New Delhi.
- While it might be tempting to position the NDB as a challenge to the West, New Delhi seeks reforms in global governance through BRICS and does not have an anti-West agenda.
- India's efforts to seek changes in international financial governance through BRICS have been successful, as China also shares this objective with India.
- BRICS may have raised the issue of UNSC reform but this is more declaratory in nature than a serious attempt to overhaul the UNSC. This reflects that BRICS is interested in selective reform of the system, as its members have developed vested interests in the existing system.
- Climate governance too has been highlighted as an area where BRICS members have a lot of potential to contribute, but so far, that has not happened. Russia has been ambivalent towards climate change and has recently joined the Paris Agreement.
- At a different level, **BRICS membership elevates India's global profile. China may still not be interested in de-hyphenating India and Pakistan, but India's BRICS membership automatically de-hyphenates India and Pakistan, while it casts India and China as equals. So, even as challenges abound in the BRICS trajectory, the grouping will continue to be of some instrumental value to India in the years ahead.**

What challenges BRICS is facing?

- **Disagreements between its members.**
- **Slow progress shown on the ground** when it comes to implementation of initiatives makes it quite vulnerable to criticism.
- The development trends of the BRICS nations are not very similar, as there is a **huge difference in the economic structure of the member countries.**
- The members also **have differences over the UN Security Council (UNSC) reforms**. It will be tough for the member countries to make a consensus on contemporary global issues.
- The burden of the NDB cannot be shared equally, as the size of the economy of each member varies with great magnitude. So, it is inevitable that the disputes will arise in sharing the burden of NDB.

Way Ahead

- It is now important for the BRICS nations to engage in the grouping at the highest level to change the world order to counter the US supremacy.
- BRICS forum should be **effectively utilized for consultation, coordination and cooperation on contemporary global issues of mutual interest and promoting mutual understanding.**
- The future of BRICS depends on the adjustment of the internal and external issues of India, China and Russia.
- **Mutual communication between India, China and Russia is important for moving ahead.**

APTI PLUS

PARTNERS IN BLUE PACIFIC INITIATIVE

Context

- Amid China's aggressive push to increase its Pacific sphere of influence, the **US and its allies — Australia, New Zealand, Japan and the United Kingdom — have launched a new initiative called 'Partners in the Blue Pacific' for "effective and efficient cooperation" with the region's small island nations.**
- The geostrategic competition in the region has intensified of late after China made the projected scope of its growing footprint clear by pushing for a sweeping, common cooperation agreement with 10 Pacific nations.

Details

- The PBP is a **five-nation "informal mechanism" to support Pacific islands and to boost diplomatic, economic ties in the region.**
- It speaks of enhancing "**prosperity, resilience, and security**" in the Pacific through closer cooperation. It simply means that through the PBP, these counties — together and individually — will direct more resources here to counter China's aggressive outreach.
- The initiative members have also declared that they will "**elevate Pacific regionalism**", and forge stronger ties with the Pacific Islands Forum.
- Five member nations said that the **forum remains open to cooperating with additional partners**, adding that "at every stage, we will be led and guided by the Pacific Islands. We will seek Pacific guidance on the PBP's selection of its lines of effort and its flagship projects".
- The areas where PBP aims to enhance cooperation include "**climate crisis, connectivity and transportation, maritime security and protection, health, prosperity, and education**".

How is China trying to transform its ties in the Pacific?

- As **China signed a security pact with Solomon Islands in April, the deal flagged serious concerns about the Chinese military getting a base in the southern Pacific, close to the US island territory of Guam, and right next to Australia and New Zealand.**
- The deal, which boosted Beijing's quest to dominate crucial shipping lanes criss-crossing the region, rattled the US and its allies.
- It also triggered urgent moves to counter China's growing Pacific ambition amid a power vacuum fuelled by apparent lack of US attention.
- But Beijing followed up on that win with its Foreign Minister Wang Yi undertaking a multi-nation tour to push 10 Pacific nations to endorse a "game-changing" agreement called the "Common Development Vision".
- The draft agreement spoke about China wanting to work with "traditional and non-traditional security," and expand law enforcement cooperation with these countries.
- China and the US are among 21 PIF dialogue partners, but this year the regional forum had decided not to engage with the dialogue partners in-person during the Fiji meet.

What is being done by the US and its allies to counter China?

- Before launching the PBP, the US and its partners started the **Indo-Pacific Economic Framework for Prosperity** (IPEF), a trade-boosting play in the region with 13 nations — Australia, Brunei, India, Indonesia, Japan, Malaysia, New Zealand, the Philippines, Singapore, South Korea, Thailand, Fiji and Vietnam — as partners.
- Away from the Pacific, the G7 announced a plan — **Partnership for Global Infrastructure and Investment** (PGII) — to rival China's Belt and Road Initiative by promising to raise $600 billion to fund development projects in low and middle-income countries.

Why is the Pacific region strategically important?

- In its 2019 strategy report, the **US Department of Defence called the Indo-Pacific the "single most consequential region for America's future".**
- **Among the 10 largest standing armies in the world, 7 reside in the Indo-Pacific**; and **6 countries in the region possess nuclear weapons.**
- Nine of the world's 10 busiest seaports are in the region, and 60 percent of global maritime trade transits through Asia, with roughly one-third of global shipping passing through the South China Sea alone.
- The US has long maintained a balance of power in the region with its **hub-and-spoke system** where America is the hub and its allies are spokes whose security is guaranteed by the US military power.
- China is trying to make its own version of the same system, even as it insists the sole aim of the US policy of having overwhelming influence in the region is to contain Beijing's rise.

APTI PLUS

INDIA-MALAYSIA DEFENCE COOPERATION MEETING

Context

- **Raksha Mantri Shri Rajnath Singh held a Video Conference with Senior Defence Minister of Malaysia, YB Dato 'Seri HishammuddinTun Hussein on June 27, 2022.** A wide range of issues concerning bilateral, regional and defence industrial cooperation were discussed during the meeting.

More on the news

- Both Ministers expressed the intent to further boost the already strong India-Malaysia Defence cooperation.
- The two Ministers discussed the existing defence cooperation activities and framework, and ways to further enhance them under the existing **Malaysia India Defence Cooperation Meeting (MIDCOM) framework.**
- The next MIDCOM is scheduled to held in July 2022, and it was decided to use this platform for a deeper engagement in defence.
- Shri Rajnath Singh highlighted the areas in which Indian Defence industries could assist Malaysia. He **suggested a visit of senior officers from Malaysia to India to get a first-hand experience of the facilities and products of Indian Defence industry.**
- The Malaysian Senior Defence Minister expressed the **need for inducting women personnel in peace keeping missions. Both sides agreed to engage each other on this issue. It was also agreed to upgrade capability for Humanitarian Assistance and Disaster Relief (HADR) operations.**

Brief summary of India-Malaysia relations

- India established diplomatic relations in 1957 immediately after Malaysia's independence.
- The two countries enjoyed a strong relationship in the 1960s as a result of the personal friendship between Prime Ministers Nehru and Tunku Abdul Rahman Putra.
- Presently, India and Malaysia have developed close political, economic and socio-cultural relations. There is a considerable goodwill for India in Malaysia at people to people level, which hosts the third largest PIO community in the world.
- India and Malaysia are witnessing growing engagements in all aspects of bilateral relationship, including political, economic and trade, defence and security, tourism and education, health, human resources, public administration, etc.
- During the visit of former PM Dr. Manmohan Singh in 2010, it was agreed to establish a Strategic Partnership and during PM Narendra Modi visit in 2015 it was strengthened to Enhanced Strategic Partnership.
- **The following institutional mechanisms have been established between India and Malaysia:**
  - Joint Commission Meeting
  - Foreign Office Consultations
  - India-Malaysia Defence Cooperation Meeting
  - India-Malaysia CEOs' Forum
  - The two countries have signed a number of Agreements and Memoranda of Understanding from time-to-time in different sectors.
  - A bilateral Comprehensive Economic Cooperation Agreement (CECA) covering goods, services and investment has come into effect from 1 July 2011. India and ASEAN have also signed an FTA covering goods, services and investment.
- In 2018-19, the bilateral trade was US$ 17.24 billion, with India's exports being US$6.43 billion and imports being US$ 10.81 billion.
- Malaysia has emerged as 13th largest trading partner for India while India figures among the ten largest trading partners for Malaysia.
- As DPIIT, Malaysia ranks as the 24th largest investor in India with FDI inflow of US$ 932.19 million which constitutes 0.22% of total FDI inflows of US$ 421 billion into India during the period April 2000 to March 2019.
- **India's defence relations with Malaysia have gained momentum during recent years. The MoU on Defence Cooperation signed in 1993 is the cornerstone of defence relations between the two countries.**
- About 2,000 Indian students are studying in Malaysia, while an estimated 4,000 Malaysian students are studying in India, mostly medicine.
- The Indian Scholarship and Trust Fund was created in 1946 by PM Nehru to benefit and assist Malaysian-Indian students on an annual basis.
- India and Malaysia signed a MoU on cooperation in the field of Traditional Systems of Medicine in October 2010. Ayurveda, Siddha, Unani and Homeopathy systems are practiced in Malaysia.
- A new Indian Cultural Centre, Kuala Lumpur, under ICCR was established in February 2010 which conducts classes in Carnatic Vocal, Kathak dance, Yoga, Hindi language and Tabla by trained teachers from India and Malaysia. The Centre was renamed as Netaji Subhash Chandra Bose ICC by our PM during his visit to Malaysia in November 2015.
- Total number of Persons of Indian Origin is around 2.75 million (about 9% of Malaysia's population). 90% of PIOs speak Tamil and the rest speak Telugu, Malayalam, Punjabi, Bengali, Gujarati, Marathi, etc.
- Malaysia has been sending the largest contingent to the PravasiBharatiya Divas.
- There are approx. 2,25,000 NRIs in Malaysia.

LIFE EXPECTANCY

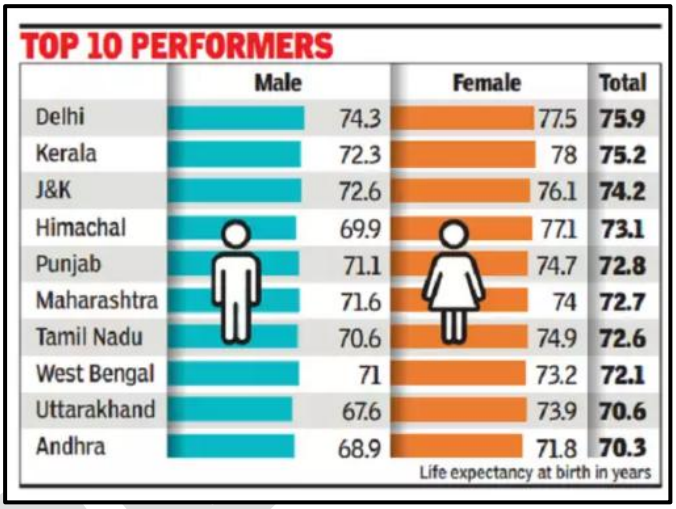
GS-II HEALTH

Context

- Data in the recently released "abridged life tables" 2015-19 of the sample registration system (SRS) shows that India's life expectancy at birth inched up to 69.7 in the 2015-19 period, well below the estimated global average life expectancy of 72.6 years.

What is Life Expectancy?

- Life expectancy is a statistical measure of the average time an organism is expected to live, based on the year of its birth, its current age, and other demographic factors like sex.



Findings of the recent report

- It has taken almost ten years to add two years to life expectancy.
- High infant and under-five mortality could be the reason India finds it difficult to raise life expectancy at birth faster.

State wise scenario

- The gap between life expectancy at birth and life expectancy at age one or age five is the biggest in states with the **highest infant mortality (IMR), Madhya Pradesh and Uttar Pradesh.**
- Huge gaps in how long the average person can expect to live at birth and at one year is evident in several states, including **Rajasthan, Chhattisgarh, Gujarat, Assam and Odisha.**
- Over a 45-year period, India had added about 20 years to its life expectancy at birth from 49.7 in 1970-75 to 69.7 by 2015-19.
- **Odisha has had the highest increase**, of over 24 years, from 45.7 to 69.8 years followed by Tamil Nadu, where it increased from 49.6 to 72.6.
- **Uttar Pradesh had the second lowest life expectancy of 65.6** in 2015-19, after Chhattisgarh with just 65.3. However, from having the lowest life expectancy in India of just 43 years in 1970-75, it has increased by 22.6 years in Uttar Pradesh.

Rural Urban variation

- Within India, there are **huge variations across states and between urban and rural areas**.
- **Urban women in Himachal Pradesh had the highest life expectancy at birth of 82.3 years** while at the other end, **rural men in Chhattisgarh had the lowest, just 62.8 years, a gap of 15.8 years.**
- In Assam, the gap in life expectancy between rural and urban areas is almost eight years. The state with the next highest urban-rural gap of five years was Himachal Pradesh.
- **Kerala is the only state where rural life expectancy was higher than urban life** expectancy for both men and women, while in Uttarakhand that was the case among women.
- **Bihar and Jharkhand remained the only states where male life expectancy was higher than for women** in both urban and rural areas.

Cross Countries comparison

- In the neighborhood, Bangladesh and Nepal, which had lower IMRs than India (24 compared to 28), now have higher life expectancy at birth of 72.1 and 70.5 respectively, according to the UN's Human Development Report, 2019.
- **Japan has the highest life expectancy of 85**. Norway, Australia, Switzerland and Iceland had a life expectancy of 83. The Central African Republic had the lowest life expectancy of 54 followed by Lesotho and Chad at 55 in 2020.

NATIONAL RESEARCH INSTITUTE FOR PANCHAKARMA (NRIP)

GS-II HEALTH

Context

- The Department of Biochemistry and Pathology of National Ayurveda Research Institute for Panchakarma (NARIP), Kerala has got NABL M(EL)T Accreditation for its clinical laboratory services.

About

- National Research Institute for Panchakarma (NRIP) at Cheruthuruthy in Thrissur district, is the **only organization in the public sector for research and development in Indian systems of medicine, especially Panchakarma related to ayurvedic system**.

- The institute was **set up in 1971 on the southern bank of Bharathapuzha river in Cheruthuruthy**.
- The institute comes **under the Central Council for Research in Ayurveda and Siddha (CCRAS) of the Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH), Ministry of Health and Family Welfare**.
- The institute is functioning with hospital, laboratories and pharmacy and is undertaking various research activities, especially Clinical Research on Neuromuscular problems and Training programmes to Doctors and Therapists on Panchakarma.
- The institute also provides intensive training on Panchakarma for Ayurvedic physicians. This institute organises Post-Graduate three-month-long Special Certificate Course in Panchkarma after graduation for Ayurvedic doctors is held twice a year.
- In 2010, the Union Ministry of Health and Family Welfare upgraded the institute as a Centre of Excellence.

Significance of NABL accreditation

- Accreditation of laboratory ensures that citizens get quality health care service especially for those residing in villages, small towns.
- As an Ayurveda research institute, the scientific data released from this accredited lab provides trust and confidence for its accuracy and precision among scientific communities.
- The accreditation is significant considering the large number of about 80,000 individuals attending the OPD/IPD services of NARIP in a year. Apart from this, members of scientific communities including those working on diverse research projects, outreach medical camps etc. also benefit from accredited labs.

RAMSAY HUNT SYNDROME

GS-II HEALTH

Context

- Justin Bieber has been diagnosed with a condition called Ramsay Hunt Syndrome, which has fully paralysed the right side of his face.

What is Ramsay Hunt Syndrome?

- Ramsay Hunt Syndrome is **neurological disease in which a virus – Varicella Zoster** – causes **inflammation of the nerves** involved in facial movements.
- When the nerves get inflamed, they **lose their ability to function, leading to temporary facial palsy or paralysis.**
- Facial muscles in the infected person cannot receive necessary signals to function properly.
- There are 12 cranial nerves in the body. **Ramsay Hunt Syndrome is the viral infection impacting the 7th cranial nerve that is involved in facial movements**. The inflammation caused by the Varicella Zoster Virus makes the nerve ineffective.

What are the symptoms of Ramsay Hunt Syndrome?

- The symptoms include **painful, red rash and blisters in and around the ear, and facial paralysis on the same side**.
- Patients also report **hearing loss in the ear that has been impacted apart from Tinnitus or ringing sounds**.
- Inability to close the eye causes dryness.
- **Other**: A rash on the eardrum, the ear canal and the earlobe. Rashes can also appear inside the mouth, on the tongue. There is **hearing loss, vertigo or spinning sensation**. It causes weakness of one side of the face and causes difficulty in closing one eye and eating as food falls off from the affected side. There is **drooping of the face.**

The virus that causes Ramsay Hunt Syndrome

- The **Varicella Zoster Virus (VZV) is the same virus that causes chickenpox and shingles**.
- This virus **belongs to the Herpesvirus group and can stay in the body as a latent infection**.
- The virus can stay dormant in a person's body and can reawaken to attack the nerves.
- VZV **can get reactivated due to weakening of the immune system**.
- Stress is also considered a trigger, according to some studies, as it depresses the immune system.
- Some reports also suggest that **T-cell dysfunction caused by coronavirus infection can reactivate VZV.**

T Cells

- T cells are **part of the immune system and develop from stem cells in the bone marrow**. They help protect the body from infection. Also called T lymphocyte and thymocyte.
- T cells (also called T lymphocytes) are major components of the adaptive immune system. Their roles include **directly killing infected host cells, activating other immune cells, producing cytokines and regulating the immune response.**

How is Ramsay Hunt Syndrome treated?

- It is **treated using anti-viral drugs, steroids and physiotherapy**.

- Facial exercises are very important. Patients need to protect their eyes. When one eye doesn't close, there is a chance of developing corneal aberration. Patients must **use tear drops and use eye protection**. They should wear glasses when they go out, and tape the eye that has been impacted when they sleep at night.

Is Ramsay Hunt Syndrome contagious?

- The disease is **not contagious but can lead to chickenpox in those not vaccinated for the disease**.
- Till the blister scabs fall off, the patients are advised to avoid contact with those with low immunity and the ones who have not had chickenpox, or are not vaccinated against it.

Do patients recover fully from Ramsay Hunt Syndrome?

- The **disease is reversible**. Patients get cured within 15 days to three months of starting the treatment.

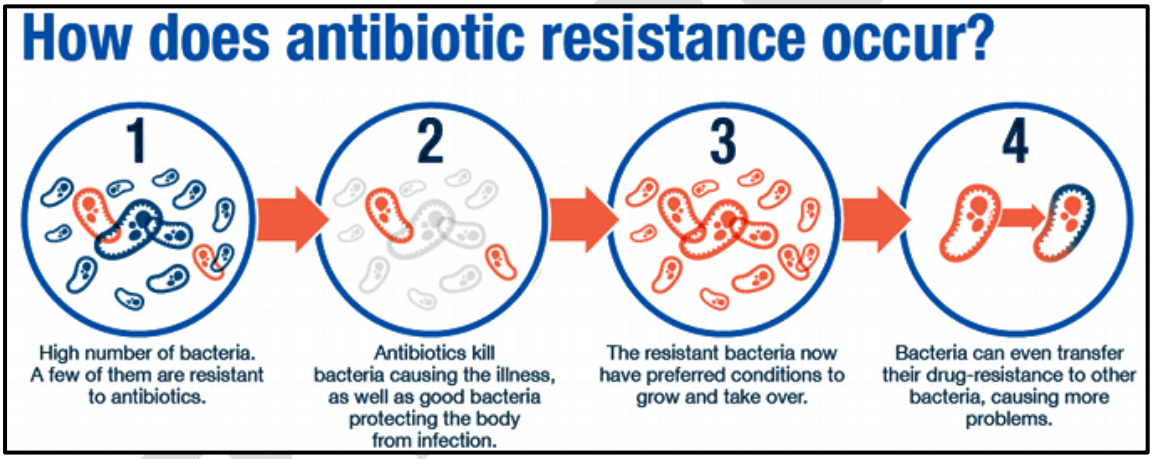
ANTIMICROBIAL RESISTANCE (AMR) — GS-II HEALTH

Context

- Health ministers from the Group of Seven (G7) highly industrialised countries recently recognised antimicrobial resistance was a bigger threat to low- and middle-income countries (LMIC) even though fighting it was a shared responsibility.

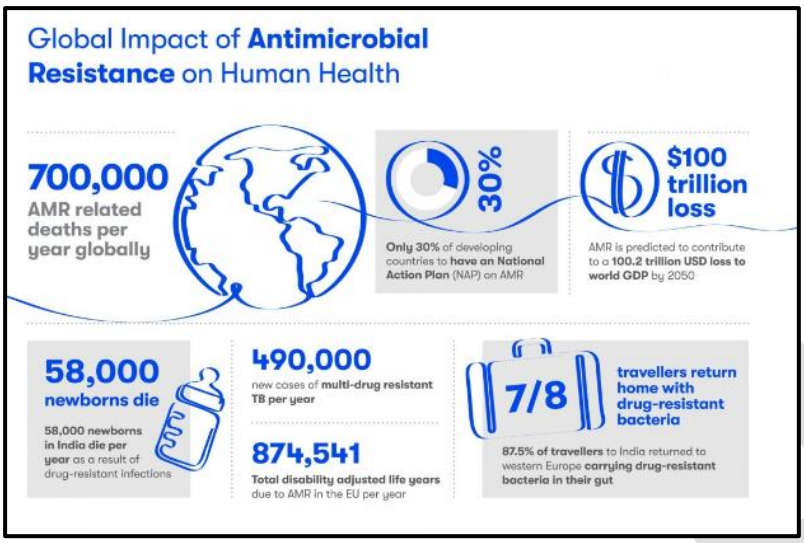
What is antimicrobial resistance?

- Antimicrobial Resistance (AMR) occurs **when bacteria, viruses, fungi and parasites change over time and no longer respond to medicines** making infections harder to treat and increasing the risk of disease spread, severe illness and death.
- As a result of drug resistance, **antibiotics and other antimicrobial medicines become ineffective** and infections become increasingly difficult or impossible to treat.



Impact of AMR Resistance

- Nearly 700,000 people die of AMR every year. The toll can rise to as many as 10 million by 2050 and eat up 3.8 per cent of annual global gross domestic product (GDP), according to a 2017 **report Drug-Resistant Infections: A Threat to Our Economic Future.**



Economic impact	Extra healthcare costs: diagnostics, use of second-line drugs, increase of time in care, and prolonged hospital stay
	Indirect costs such as loss of productivity and costs of not doing interventions because of AMR
	Societal costs to address the problem of AMR: costs of surveillance, conservation programs, and support for R&D
	Loss of productivity in animal health
Societal impact	Lack of trust in the healthcare system, fear of medical procedures, and barriers to poverty eradication
Abbreviations: AMR, antimicrobial resistance; CSF, cerebrospinal fluid; R&D, research and development.	

Initiatives being taken by G7

International Integrated Surveillance

- The G7 commited to establish **new International Integrated Surveillance Systems** and improve existing ones **to monitor AMR and antibiotics use among humans, animals and plants** and the effect on the environment. This will be in cooperation with the World Health Organization, Food and Agriculture Organization, World Organization for Animal Health and the United Nations Environment Programme.

National measurable targets on AMR

- The group also committed to promote prudent and appropriate use of antimicrobials through 2023 by **defining national measurable targets on AMR** in line with domestic authorities, including antibiotic usage in human health.

Incentivize sustainable market for antibiotics

- G7 will try to expedite implementation of existing strategies to ensure a sustainable market for antibiotics.

Status of AMR in India: Stats and Facts

- Antibiotic use in India has risen sharply, with about a 30% increase in their per capita use during the past decade, according to the **State of the World's Antibiotics 2021 report.** The percentage change in total use between 2010 and 2020 has also been about 48% (47.40%).

Livestock

- Antibiotics are used in animals to treat infections, for growth promotion using sub-theraputic levels, and for prophylactic purposes to prevent disease. There is high level of antibiotic resistance in veterinary sectors. Resistant bacteria in animals can spread to humans in several ways with the consumption of animal products, exposure to raw meat products, and direct contact between animals and humans as the main modes of transfer. The total use of antimicrobials in animals in 2020 in India was 2,160.02 tonnes, which is expected to reach 2,237 tonnes by 2030.

Trivia

In India, the resistance rate against common antibiotics such as ampicillin among chicken has been as high as 69.7%. The resistance rate against anibiotic treatment for E.Coli and Salmonella has been 16.5%. Between 2005 and 2009, 40 per cent more units of antibiotics were sold. Powerful drugs like newer generation **cephalosporins** are sold far more frequently for no apparent reason—**between 2005 and 2009, sales of cephalosporins increased 60 per cent.**

Measures Taken to Rising Anti-Microbial Resistance in the Country

National programme on AMR containment:

- It was launched during 12th FYP in 2012-17. Under this programme, AMR Surveillance Network has been strengthened by establishing labs in State Medical College.

National Action Plan on Antimicrobial Resistance (NAP-AMR):

- Focusing on One Health approach it was **launched in 2017 with the aim of involving various stakeholder ministries/departments**.
- **Delhi Declaration on AMR**– an inter-ministerial consensus was signed by the ministers of the concerned ministries pledging their support in AMR containment. In the line with NAP-AMR three states have launched their state action plan:
- Kerala has launched KARSAP
- Madhya Pradesh has launched MP-SAPCAR
- Delhi has launched SAPCARD

AMR Surveillance Network:

- ICMR has established AMR surveillance and research network (AMRSN) in 2013**, to generate evidence and capture trends and patterns of drug resistant infections in the country.** This network comprises of 30 tertiary care hospitals, both private and government.

AMR Research & International Collaboration:

- ICMR has taken initiatives to develop new drugs through international collaborations in order to strengthen medical research in AMR.
- ICMR along with Research Council of Norway (RCN) initiated a joint call for research in antimicrobial resistance in 2017.
- ICMR with Federal Ministry of Education and Research (BMBF), Germany has a joint Indo-German collaboration for research on AMR.

Initiatives to control overuse or misuse of antibiotics

- ICMR has initiated **Antibiotic Stewardship Program (AMSP)** in hospitals across India to control misuse and overuse of antibiotics.
- On the recommendations of ICMR, **DCGI has banned 40 fixed dose combinations (FDCs) which were found inappropriate**.
- ICMR worked in collaboration with Indian Council of Agriculture Research, Department of Animal Husbandry, Dairy and Fisheries and the DCGI to **ban use of Colistin as growth promoter in animal feed in poultry.**

Guidelines issued

- National Guidelines for Infection Prevention and Control in Healthcare Facilities have been released by MoHFW in 2020.
- ICMR has developed evidence based treatment guidelines for treatment of ten syndromes of infections. It aims to rationalize the usage of antibiotics on Essential Medicines Formulary (EMF) and to establish consistency in the treatment of various infectious conditions.
- Further, ICMR has also issued the **Treatment Guidelines for Antimicrobial Use in Common Syndromes" in 2019.**

Red Line Campaign

- It is an awareness campaign urges people not to use medicines marked with a red vertical line, including antibiotics, without a doctor's prescription. These medicines are called the **'Medicines with the Red Line'.**

Way Ahead

- New laws and **stronger enforcement of existing laws** could slow the spread of antibiotic resistance in animals and, therefore, humans.
- **India does not have standardized national data** on resistance rates and everything we know about resistance comes from a few reports from hospitals and communities. Data is absolutely necessary for prudent and appropriate use of antimicrobials.
- **Providing sanitation, clean water and good governance,** increasing public health expenditure and better regulating the private health sector are all necessary to reduce antimicrobial resistance.

From a policy perspective, some important changes we could consider to effectively tackle AMR in India are:

1. **Detection and prevention of the sale of spurious drugs**, particularly in tier 2 and tier 3 cities.
2. Making drug packaging tamper-proof **while improving the capacity of drug-testing laboratories.**
3. Enforcement of antibiotics policies via **prescription databases and auditing of pharmacies**
4. **Monitoring sale of drugs with GST tracking**/matching of e-prescriptions.

5. **Shift from the syndromic approach to treatment of the diagnosis**, use of new technologies such as imaging and bioinformatics and geographic information systems.
6. Appropriate continuing **medical education courses and virtual/in-person training** for registered medical practitioners, and **behavioural changes in community** through holistic communication and advocacy strategies
7. Rationalized treatment of fever, cough, cold and diarrhoea (the three major drivers of AMR)
8. **Adherence to the WASH strategy**: antibiotic-free animal feed, and antibiotics fed to animals should be different from those consumed by humans (e.g. marked by different colour schemes).
9. Enhanced antibiotic lifetimes and **creation of a prescription database,** so sub-regional and country-wide policies can be credibly formulated; new antibiotic-discovery policies, such as through the Global Antibiotic Research and Development Partnership.
10. Global approach and adoption rather than just local interventions.
11. A **commission** to coordinate activities, plan and effectively implement policy decisions.
12. Initiatives like **molecular surveillance of humans and animals** can help highlight antimicrobial resistance in different geographies as well as between communities and hospitals.
13. Most bulk drug manufacturers often discharge their antibiotic-laden effluents as sewage without treating it properly. This is one of the weakest links in the AMR management chain and needs the attention of policymakers. There is an **urgent need to establish surveillance and appropriate guidelines to mitigate the risk of AMR through the effluent discharge route.**
14. New modes of therapies such as **change in microbiota, the new peptide based antibiotics with novel delivery systems** which will not be effected by mutations would also have a vital role to play.

Final Thoughts

- India already carries one of the highest burdens of drug-resistant pathogens worldwide; one estimate suggests AMR will cause nearly 10 million deaths every year by 2050 around the world.
- Each of the above interventions could lead to better health outcomes and potentially vast socio-economic benefits as well.

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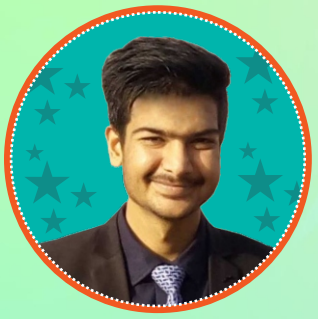

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AIR 29
BHAVISHYA

AIR 43
SHUBHAM SHUKLA

AIR 50
ABHIJIT RAY

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DEEPESH KUMARI

AIR 102
PRAKHAR

AIR 107
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AIR 137
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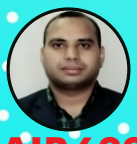

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GENERAL STUDIES - III

FOREIGN PORTFOLIO INVESTMENT

GS-III ECONOMY

Context

- Amid continuing volatility in the stock market, retail investors seem to act as shock absorbers in Stock Market even when foreign portfolio investors went away- Finance Ministry.

Background

- Foreign investors pulled out nearly ₹40,000 crore from the Indian equity market in May on fears of an aggressive rate hike by US Federal Reserve that dented investor sentiments.
- With this, net outflow by foreign portfolio investors (FPIs) from equities reached at ₹1.69-lakh crore so far in 2022, data with depositories showed.

What is Foreign Portfolio Investment?

- FPI is an investment by **non-residents in Indian securities** including **shares, government bonds, corporate bonds, convertible securities, units of business trusts**, etc. The class of investors who make an investment in these securities is known as Foreign Portfolio Investors.

What are the major laws/regulations applicable to an FPI in India?

- FPIs are primarily **governed by The Securities and Exchange Board of India (SEBI)**.
- SEBI has recently introduced the SEBI (Foreign Portfolio Investors) Regulations, 2019, repealing the erstwhile 2014 Regulations.
- Further, FPIs are also **required to comply with the Foreign Exchange Management Act, 1999and** the **Income-tax Act, 1961.**

Foreign Portfolio Investment Eligibility Criteria

To become an FPI, an individual must meet the following requirements:

- The petitioner **must not be a non-resident Indian,** according to the Income Tax Act of 1961.
- Should not be a citizen of a country that is subject to the FATF's public statement.
- If the bank is the applicant, it **must be from a country whose central bank is a Bank for International Settlements member.**

Compliances applicable to an FPI under the Income Tax Act, 1961

- Since FPIs invest in securities such as shares, bonds, debentures, units of business trust, etc., they **earn income in the nature of dividend, interest, and capital gains**. FPIs would also need to remit such incomes (along with capital investment) out of India at regular intervals.
- As a pre-condition to remittance of funds, the **applicable income tax on such income needs to be deposited with the government treasury.** The taxes are deposited either **in the form of withholding taxes** or payment of taxes in a self-assess mode or a combination of both depending upon the nature of income.
- The custodian/banker would also require a certificate from a professional tax advisor prior to remitting the funds.
- Moreover, after the end of the financial year (April 1st to March 31st in India), the **FPI is required to file an annual tax return.**

Reasons behind recent outflow of FPI from India

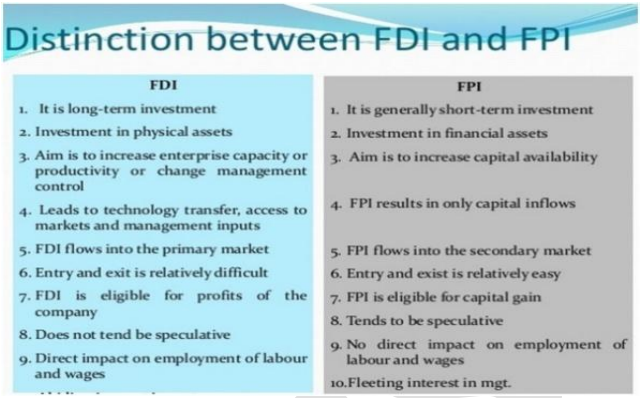
- Rising geo-political risk,
- Rising inflation,
- Tightening of monetary policy by central banks
- Supply Chain Disruption due to the ongoing war between Russia and Ukraine.
- Impact on crude oil prices amid uncertainty due to Russia-Ukraine war.
- On the domestic front, the concerns over surging inflation as well as further rate hikes by the RBI, and its impact on the economic growth, loomed large.
- Globally, the rate hikes by US Federal Reserve, tightening of monetary policy by the global central banks and appreciation of the foreign currency dollar rate has triggered the offshore investors to withdraw the equities from sensitive markets.
- Investors are also cautious due to the fear that high inflation could hamper corporate profits and also impact consumer spending.

Foreign investors have been taking out money from equities in the last eight months (from October 2021 to May 2022), withdrawing a massive net amount of ₹2.07-lakh crore.

Pros and Cons of FPIs

FPI advantages	FPI disadvantages
Helps companies raise significant capital without incurring massive expenses.	Economic turmoil and political instability may have a negative impact on any investment via the FPI route.
Investors can gain substantially from exchange rate differences.	Markets in any country are inherently volatile. Despite the fluid nature of FPIs, losses may pile up if funds are not withdrawn hastily.
FPIs help investors diversify their portfolios, which, in turn, boosts their confidence.	
FPIs inevitably move towards larger markets with lower competition. This combination is rather attractive to any investor.	

Distinction between FPI and FDI



Conclusion

- Foreign Portfolio Investment is one the most accessible routes for small and retail investors living outside India, to invest in India and take benefit from its economic growth.
- Indian market also capitalizes on this influx of fund and hence it is beneficial for economy too. Keeping this aspect in mind the Government of India through the market regulatory body SEBI has made the process of investment via FPI route easier and more streamlined.
- The regulatory framework is now more investment friendly and offers various advantages to any foreign individual/entity investing as Foreign Portfolio Investor in India.

BAD BANK

GS-III ECONOMY

Context

- The National Asset Reconstruction Company Ltd. (NARCL), set up to take over large bad loans of more than ₹500 crore from banks, will pick up the first set of such non-performing assets (NPAs) in July - Finance Ministry.

What is a 'bad bank'?

- A 'bad bank' is a **financial entity set up to acquire NPAs from banks and resolve them**.
- The bank, which sells the stressed assets to the bad bank, is now relieved of the burden of the bad loans. It can now focus instead on growing its business by advancing fresh loans to borrowers requiring credit.
- The cleaner balance sheet also makes it relatively easier for the lender to raise fresh capital, if required.

NARCL

- The NARCL, which is being set up by lenders proposes to take over the fully provisioned stressed assets of about ₹90,000 crore in the first phase.
- The minimum size of each NPA to be acquired will be ₹500 crore as the focus is on resolving big-ticket bad loans.
- The longer-term goal for the NARCL is to help resolve NPAs worth ₹2 lakh crore, with the remaining assets with lower provisions expected to be transferred in a second phase.
- NARCL will have **a 51% owned by public sector banks.**
- The NARCL, which will acquire the bad loans from banks, and the India Debt Resolution Company Ltd. - which will then manage these assets and seek to enhance their value - have secured necessary approvals and permissions.
- With the account-wise due diligence nearing completion, the first set of accounts is expected to be transferred during July 2022.

Proposal for a National Bad Bank

- In May 2020, the Indian Banks' Association (IBA), a body representing major Indian banks submitted a proposal to the RBI and Government to set up a national Bad Bank.
- According to the proposal, the bad bank would initially start with a book of approximately Rs.75000 Crores worth of bad loans.
- A bad bank would allow banks to devote more time and effort to lending and flow of credit instead of being burdened with the recovery of past loans.

- As bad loans ratio is expected to increase in the next few months due to the damage caused by the pandemic, it is argued that the time is ripe for the Government to set up a bad bank as it would help banks to deal with the spike in NPA's and to assess the true extent of bad loans post the pandemic.

Cons of Bad Banks

- **No takers:** When there are no takers for bad assets, so why have a bad bank;
- **Fire Sale Externality:** The regular bank usually transfers the toxic assets to the bad bank at a discounted value. This lowers the market value of similar assets held by other banks. This forces the other banks to liquidate similar assets at lower prices thereby starting a vicious cycle which pushes prices below their fundamentals. This is known as fire sale externality.
- **Reduces Bank's efficiency:** If banks become aware that there will always be a bad bank to takeover and manage their toxic assets, then banks will tend to be less careful while granting loans.
- **Political Interference:** Since toxic assets are held by bad banks, these bad banks are prone to political interferences by politicians supporting the chronic debtors. Unless the legislations creating the bad banks enact provisions to prevent such interferences, the functioning of the bad banks will be seriously jeopardized.
- **Huge Costs:** Huge costs are involved in the creation and running of bad banks, transfer of toxic assets from the regular bank to the bad bank, restructuring the toxic assets, eventual disposal of the toxic assets etc. Many of these costs can be avoided, if the toxic assets are left with the regular bank itself.
- **Tight Fiscal Position:** Why waste government resources when the Covid-19 crisis has put tremendous strain on resources. In an economy hit by the pandemic, it is hard to find buyers for distressed assets.
- **Price Discovery:** The price at which toxic assets will be transferred will not be market-determined and price discovery might not happen properly;
- **Multiplicity of Agencies:** ARCs are already there for the purpose.
- **Lack of skilled staff:** Sufficient number of skilled and specialized staff that is necessary to actively manage these stressed assets may not readily available. Even if available, engaging them would be a very costly affair.
- **Not a Panacea:** Creating Bad Bank is like shifting the problem from one head to other without addressing the structural and fundamental issues of NPA.

Pros of Bad Banks

- **Revival of Regular Banks:** If there are no takers for the assets, then it makes sense to let domain experts deal with toxic assets till these can be sold. The regular bank after transferring its toxic assets to the bad bank can focus on its long term core operations without worrying about those toxic assets.
- **Good-books of stakeholders & agencies:** Cleaning up of the balance sheet of the regular bank by transferring the toxic assets to the bad bank will have a positive impact about the regular bank in the eyes of the credit rating agencies, investors, lenders, borrowers and depositors.
- **Growth of Business:** Transfer of Toxic Assets would enable it to involve itself in profitable/growth oriented business activities.
- **Centralization of bad assets:** The ownership of the toxic assets and its collaterals are centralized in the bad bank thereby facilitating better management of those assets.
- **Speedy Disposal of Assets:** The bad bank, which is created as a specialized agency to deal with toxic assets, hires specialized personnel to manage those assets. This helps in the speedy disposal of those assets with minimum loss in the most efficient manner.
- **Curbs risks of Failure:** The good bank-good bank scheme minimizes contagion risks. Since the toxic assets of the regular bank are removed from its balance sheet and transferred to a new entity, the Non- performing assets of the regular bank are less exposed to risks of failure.
- **Better Price Discovery:** Price discovery is an important component of the deal and a bad bank is best suited for fixing price. A good bank should make additional provision in case the discovered cost is less than the book value and they want to retain it on its books.

International Experience on Bad Banks

- Countries like the UK, the US, Spain, Malaysia, France, Finland, Belgium, Germany, Austria and Sweden have
- Successfully experimented with bad asset resolution through a bad bank. The earliest case was of the Mellon Bank in
- 1988—to hold bad assets of $1.4 billion. The UK Asset Resolution (UKAR), a bad bank, repaid 48.7 billion pound taxpayers' loan that it had taken, and is close to selling the last of its asset portfolio before winding down. International experience should come handy for us to model our bad bank on.

Closing Thoughts

- The above analysis clearly shows that the **basic task of the bad bank is to mop up the mess created by the regular banks** in relation to the management of their toxic assets. The toxic assets of a regular bank are transferred to the bad bank not just for the purpose of better management of the transferred assets but also for the purpose of **cleaning up the balance sheet of the regular bank**. This process however involves some costs.
- As long as these costs are borne by the concerned banks or private players, the impact on the economy will be limited and the government needs to have only a regulatory control over the entire process.
- However, if these costs are financed with tax payer's money, a mere regulatory control by the government agencies will not be sufficient. Rather**, a more strict and watchful control of the bad banks by the government will be necessary**.

MINIMUM SUPPORT PRICE (MSP) — GS-III ECONOMY

Context

- The Cabinet Committee on Economic Affairs (CCEA) chaired by the Prime Minister, has approved the increase in the Minimum Support Prices (MSP) for all mandated Kharif Crops for Marketing Season 2022-23.

Details

- Government has **increased the MSP of Kharif Crops for Marketing Season 2022-23,** to ensure remunerative prices to the growers for their produce and to encourage crop diversification.
- The increase in MSP for Kharif Crops for Marketing Season 2022-23 is in line with the Union Budget 2018-19 announcement of **fixing the MSP at a level of at least 50 percent over the All-India weighted average Cost of Production**, aiming at **reasonably fair remuneration for the farmers.**
- Return over MSP for **bajra, tur, urad sunflower seed, soybean and groundnut is more than 50 percent over the All-India weighted average Cost of Production at 85%, 60%, 59%, 56% , 53% and 51% respectively.**
- Concerted efforts have been made over the last few years to realign the MSP in favour of oilseeds, pulses and coarse cereals to encourage farmers to shift larger area under these crops and adopt best technologies and farm practices, to correct demand – supply imbalance.
- As per 3rd Advance Estimates for 2021-22, production of Foodgrains in the country is estimated at record 314.51 million tonnes which is higher by 3.77 million tonnes than the production of foodgrain during 2020-21.
- The **production during 2021-22 is higher by 23.80 million tonnes than the previous five years'** (2016-17 to 2020-21) average production of foodgrains.

MSP

- The Minimum Support Price or the MSP is commonly known as the **way of protecting the farmers in India from the uncertainties of the markets** as well as those of the natural kind.
- **A 'safety net' for the farmers**, the MSP is the core of the agricultural revolution that saw India transforming from a food-deficient to a food-surplus nation.

When was the MSP introduced in India?

- At the time of Independence, India was staring at a major deficit in terms of cereal production. After the struggling first decade, India decided to go for extensive agricultural reforms**. It was the first time in the year 1966-67 that the Minimum Support Price was introduced** by the Centre. **At Rs 54 per quintal, the MSP for wheat was fixed for the first time.**

What was the need of introducing MSP?

- On the path of the Green Revolution, Indian policymakers realized that the farmers needed incentives to grow food crops.
- Otherwise, they won't opt for crops such as wheat and paddy as they were labour-intensive and didn't fetch lucrative prices. Hence, to incentivize the farmers and boost production, the MSP was introduced in the 1960s.

Calculating MSP

- Since 2009, the Commission for Agricultural Costs and Prices fixes the MSP of a crop based on:
  1. Cost of production
  2. Demand
  3. Supply
  4. Price fluctuations
  5. Market price trends
  6. Different costs and
  7. International market prices

8. Agricultural wage rate

How the Govt. decides on the MSP?

- In India, there are two major cropping seasons, namely 'Rabi' and 'Kharif'.
- The government announces the MSP **at the start of each cropping season.**
- The MSP is decided after the government exhaustively studies the major points made by the Commission for Agricultural Costs and Prices.
- These recommendations are based on some pre-fixed formulae. This includes the actual cost incurred, implicit family labour as well as fixed assets or rent paid by the farmers.
- In technical terms, these variables are called A2, FL and C2. The MSP is calculated by the government by often adding all these.

How many crops are covered under the MSP?

- Government announces minimum support prices (MSPs) **for 22 mandated crops and fair and remunerative price (FRP) for sugarcane:**
  - Cereals (7) – paddy, wheat, barley, jowar, bajra, maize and ragi
  - Pulses (5) – gram, arhar/tur, moong, urad and lentil
  - Oilseeds (8) – groundnut, rapeseed/mustard, toria, soybean, sunflower seed, sesamum, safflower seed and niger seed
  - Raw cotton
  - Raw jute
  - Copra
  - De-husked coconut
  - Sugarcane (Fair and remunerative price)
  - Virginia flu cured (VFC) tobacco
  - The **Food Corporation of India (FCI), the nodal central agency of the Government of India**, along with other State Agencies undertakes procurement of crops.

Is MSP legal?

- No. While Centre has been providing the MSP to the wheat and paddy farmers since mid-60s to tide over the food crisis, the fact remains that the MSP doesn't have any legal stature.

Procurement

- The procurement at MSP is being done by **Central and State Agencies under various schemes of Government.**
- Procurement centres are opened by respective **State Government Agencies and Central Nodal Agencies like NAFED, FCI etc.**
- This is done after taking into account the production, marketable surplus, convenience of farmers

Pros of MSP

- One price policy. Assured pay. Directly influences farmer's pocket. (Prices for all crops from 2009 to 2018.)
- Considers various factors when fixing the price, does not leave the farmer at the mercy of the market.
- Procurement for PDS and Buffer stock for food security come from this planning.
- Has a heavy influence on market prices. Also helps the farmer grow and match up with the other sectors in terms of income.

Cons of MSP & What can be done better

- Hiking MSP without investing in infrastructure is **just a short-term play**. While it does deliver immediate results, long-term developments to back-it up are also important.
- MSP covers numerous costs. Like cost of sowing (A2), labour (FL), etc. These considerations are controversial with suggestions that **it should be based on comprehensive costs (C2), which includes the land rent costs.**
- Too much of an hike on MSP, either paves way for **inflationary effects on the economy, with rise in prices of foodgrains and vegetables, or loss to government treasury** if it decides to sell at lower price as compared to the higher MSP it bought at.
- MSP is a nationwide single price policy. But the actual costing for production varies from place to place, more severely so in areas with lack of irrigation facilities and infrastructure. Thus, **not all farmers have equal benefits.**
- **Market prices should ideally never be below MSP**. If they fall below, in concept the farmer can always sell it to the government, which will then resell it or store as buffer. But practically this does not always happen.
- **Market value in many cases does fall below MSP** due to lack of infrastructure and procurement apparatus on government's behalf.
- MSP is notified for 23 crops but **effectively ensured only for two-three crops.**

Way Ahead

Direct Income Transfers

- Public procurement needs to continue for staple cereals, but **farmers of non-staple food crops need to be provided with direct income transfers.** These are fiscally prudent, obviate the need for physical procurement and storage by the government, do not distort current production, and also provide a basic income to farmers. These will also address the main concern over the recent farm laws related to the vulnerability of small and marginal farmers and may help these farmers to avoid distress sales.

Swaminathan Commission recommendation

- **Swaminathan Commission prescribed MSP 50 per cent above C2.**

Deficiency Price Payment

- The Govt. can also go for the alternative of **'deficiency price payment'** without requiring the government to purchase undesirable quantities and undesirable commodities.
- Deficiency price payment must be part of the difference between the actual price received by farmers and the MSP.
- **Example:** The Madhya Pradesh government has launched a 'Price Deficiency Payment' schemes for the farmers called 'Bhavantar Bhugtan Yojana' (BBY) in 2017.

WORLD OF WORK SUMMIT

GS-III ECONOMY

Context

- **Union Minister For Labour & Employment Shri Bhupender Yadav participated in High Level Panel discussion in Geneva , organized by ILO under the World of Work summit on the sidelines of ILC meeting.**
- The theme of the discussion was "**Tackling multiple global crises: promoting human-centered recovery and resilience".**

More on the news

- The discussion mainly focussed on **multiple challenges that the world of work is facing such as worsening inequalities, demographic realities, unequal technological progress, informality, climate change and what action should be taken by the countries and the international communities to tackle these challenges so as to achieve the goal of human-centred, resilient and sustainable recovery.**
- The Minister spoke at length about the measures India has taken to tackle informality and for providing social security to the informal sector workers. He mentioned about e-shram portal for registering the informal workers and the establishment of social security fund for financing their social security.
- He also talked about future of work, digital transformation, gig and platform workers and measures taken in the code for the protection of their rights and their welfare. He emphasised on need for planned migration and mobility of the workers which has become an imperative owing to changes in the demography across the world. He also talked about global skill mapping for facilitating mobility of the skilled workforce across the world.
- Government's action in building a resilient society and bringing about inclusive and sustainable development was also emphasised.

About ILO

- The International Labour Organization (ILO) is a **United Nations agency whose mandate is to advance social and economic justice through setting international labour standards.**
- Founded in 1919 under the League of Nations, it is the **first and oldest specialised agency of the UN.**
- The ILO has 187 member states: 186 out of 193 UN member states plus the Cook Islands.
- **It is headquartered in Geneva, Switzerland.**
- With its focus on international development, it is a member of the United Nations Development Group, a coalition of UN organization aimed at helping meet the Sustainable Development Goals.
- Within the UN system the organization has a **unique tripartite structure**: all standards, policies, and programmes require discussion and approval from the representatives of governments, employers, and workers.

About the conference

- The **member States of the ILO meet at the International Labour Conference, held every year in Geneva, Switzerland, in the month of June**
- .**Each member State is represented by a delegation consisting of two government delegates, an employer delegate, a worker delegate, and their respective advisers**.
- Every delegate has the same rights, and all can express themselves freely and vote as they wish. So it happens that worker and employer delegates sometimes vote against their government's representatives or against each other.
- **The Conference, which is often called an international parliament of labour, has several main tasks.**

1. First, there is the crafting and adoption of international labour standards in the form of Conventions and Recommendations.
2. The Conference also supervises the application of Conventions and Recommendations at the national level.
3. Since the adoption of the Declaration on Fundamental Principles and Rights at Work (1998), another important function of the Conference is to examine the Global Report prepared by the Office under the follow-up procedure required by the Declaration.
4. The Conference is also a forum where social and labour questions of importance to the entire world are discussed freely
5. The Conference also passes resolutions that provide guidelines for the ILO's general policy and future activities.
6. Every two years the Conference adopts the ILO's biennial work programme and budget, which is financed by member States.

CRYPTOCURRENCIES REGULATIONS

GS-III ECONOMY

Context

- SEBI, the watchdog which regulates the securities and commodities market, has reportedly told the Parliamentary Standing Committee on Finance that regulation of crypto assets would be difficult given the nature of technology that sustains them.

Details

- **SEBI has essentially flagged the problems with regulating crypto assets because they "are maintained in decentralised distributed ledgers, which are nested in computer nodes spread all across the globe**."
- Crypto assets is usually used as an umbrella term to encompass cryptocurrencies (e.g., Bitcoin, Ether) as also non-currency tokens such as utility tokens (which provide a certain utility within an ecosystem) and non-fungible tokens (which help establish ownership of unique items), among others.
- The underlying technology for crypto assets is the same — distributed ledgers that aren't controlled by any one entity.
- **RBI officials told the committee that cryptocurrencies can lead to "dollarisation" of a part of the economy.** This, they said, was against India's sovereign interest
- **Over the last few years, the government's stance has definitely changed. But there is still ambiguity around what it really wants to do.** A Bill that was sought to be introduced last year signalled its intention to ban cryptocurrencies outright. It, however, didn't see the light of day.

What is a Cryptocurrency?

- A cryptocurrency is **an encrypted data string that denotes a unit of currency**.
- Crypto-currency is a **form of payment that can be exchanged online for goods and services**.
- Many companies have issued their own currencies, often called tokens, and these can be traded specifically for the good or service that the company provides. Think of them as tokens or casino chips. You'll need to exchange real currency for the cryptocurrency to access the good or service.
- Cryptocurrency is completely in the cloud, **it does not attain a physical form but have a digital value**, and can be used for digital equivalent of cash in a steadily increasing number of retailers and other businesses. **Bitcoin was the first cryptocurrency that was ever created.**

How do crypto-currencies work?

- Cryptocurrencies work using a technology called blockchain. **Blockchain is a decentralized technology** spread across many computers that manages and records transactions.
- So, instead of relying on traditional financial institutions like RBI who verify and guarantee transactions, cryptocurrency transactions are verified by the user's computers logged into the currency's network.
- Thus, it is monitored and organized by a peer-to-peer network called a blockchain, which also serves as a secure ledger of transactions, e.g., buying, selling, and transferring. Unlike physical money, cryptocurrencies are decentralized, which means they are not issued by governments or other financial institutions.

Advantages of Cryptocurrencies

- In the trading of cryptocurrency, each and every transaction is recorded on the blockchain. The blockchain keeps the information about everything. If at any point in time, anyone has publicly used the address of cryptocurrency, then anyone can see that how much crypto that person is owned. This means that the data is available to view by anyone at any time, and that's a major boon for those wishing for a more transparent banking system or financial system.
- Since the miners are getting paid for it, they keep transaction records accurate and up-to-date, keeping the integrity of the cryptocurrency and the records decentralized.

- As of now, Cryptocurrencies are easily and readily available to all its users. It is simply a decentralized system of currency which can be accessed across the globe.
- With the help of cryptocurrency, the transaction fees paid by a user are reduced to a negligible or zero amount.
- Many governments around the world are implementing isolationist policies which restrict remittances made from other countries by making the charges too high or by writing new regulations. This fear of not being able to send money to family members and others is driving more people towards digital Cryptocurrency, chief amongst them being Bitcoin.
- Inflation has caused many currencies to get their value declined with time. Almost every cryptocurrency, at the time of its launch, is released with a fixed amount. So, as the demand increases, its value will increase which will keep up with the market and, in the long run, prevent inflation.
- Cryptocurrency is completely anonymous, which is great for those that value their online privacy and are wary of handing over too much of their digital data.
- This accessibility is a key feature for the adoption of bitcoin, and is being used across the world to provide opportunities for those who would previously have struggled to become online consumers.
- Cryptocurrency can be bought using many currencies like the US dollar, European euro, British pound, Indian rupee or Japanese yen.
- The decentralization helps keep the currency monopoly free and in check so that no one organization can determine the flow and the value of the coin, which, in turn, will keep it stable and secure, unlike fiat currencies which are controlled by the government.
- The blockchain ledger is based on different mathematical puzzles, which are hard to decode. This makes a cryptocurrency more secure than ordinary electronic transactions
- With the help of a crypto wallet, you can pay anyone, any amount and anywhere, there is no restriction on sending limit. The transaction cannot be prevented or controlled, so you can make transfers across the globe wherever another user with a cryptocurrency wallet is located.

Disadvantages of Cryptocurrencies

- Cryptocurrencies are much more prone to volatility. Cryptocurrencies are digital asset, not usually backed by a physical commodity or currency. This means that their value is completely dependent on faith.
- Since the privacy and security of cryptocurrency transactions are high, it's hard for the government to track down any user by their wallet address or keep tabs on their data.
- If any user loses the private key to their wallet, there's no getting it back. The wallet will remain locked away along with the number of coins inside it. This will result in the financial loss of the user.
- The flow and amount of some currencies in the market are still controlled by their creators and some organizations. These holders can manipulate the coin for large swings in its price. Even hugely traded coins are susceptible to these manipulations like Bitcoin, whose value doubled several times in 2017.
- Some cryptocurrencies can only be traded in one or a few fiat currencies.
- If there is a dispute between concerning parties, or if someone mistakenly sends funds to a wrong wallet address, the coin cannot be retrieved by the sender.
- Cryptocurrency is only accepted by the few vendors.
- The black market and the dark web are big users of cryptocurrency.
- Although cryptocurrencies are very secure, exchanges are not fully secure.

Supreme Courton Cryptocurrency

- The Supreme Court in 2020 however quashed the order by the Reserve bank of India (RBI) banning financial services firms from trading in virtual currency or cryptocurrency declaring the RBI circular unconstitutional.
- Cryptocurrency exchanges, thus, sprung back to life and the SC ruling came at the best possible time, coinciding with the crypto boom.

2021: Announcement of Crypto Bill

- However, the battle for cryptocurrencies in India was not over yet. In 2021, the Indian government announced that it will introduce a bill to create a sovereign digital currency and subsequently put a blanket ban on private cryptocurrencies. In November 2021, the Standing Committee on Finance, met the Blockchain and Crypto Assets Council (BACC) and other cryptocurrency representatives and concluded that cryptocurrencies **should not be banned but regulated.**

Budget 2022

- The government imposed a 30% fixed tax rate on all income generated through crypto trading while also aiming to introduce the Digital Rupee in 2022–23.

- It has also highlighted that losses on these crypto-assets cannot be offset to a later date. This means that any loss encountered during the trading of these assets will not be set off with other income sources and that it will be carried on to subsequent years.

Way Ahead

- The Government can bring the crypto exchanges and other providers under the Prevention of Money Laundering Act, under the reporting entities in which case they will be treated same as banks, stock exchanges, intermediaries etc.
- As they will follow all KYC measures and for this an amendment is not required and it can be done by a government notification which is the lowest hanging fruit.
- Experts are of the opinion that regulations will bring more transparency and accountability to crypto trading platforms.
- Checks and balances might also be introduced to prevent fraud and monitor cross-border transactions.

REPO RATE

GS-III ECONOMY

Context

- **Reserve Bank of India (RBI) announced a 40-basis-point hike in the key Repo Rate** - the key lending rate.

Repo and Reverse Repo

- **Repo rate:** Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.
- **Reverse Repo rate:** It is the reverse of repo rate, i.e., this is the rate RBI pays to banks in order to keep additional funds in RBI. It is linked to repo rate in the following way:
  Reverse Repo Rate = Repo Rate – 1

The Recent sudden rise in repo rate and other policy rates

- The Monetary Policy Committee of Reserve Bank of India, which met from 6-8 June 2022, has unanimously decided to hike the Repo Rate by 50 basis points to 4.90 %
- Consequently, Standing Deposit Facility Rate stands adjusted to 4.65% and Marginal Standing Facility rate and Bank Rate to 5.15%
- The MPC also decided to remain focused on withdrawal of accommodation to ensure that inflation remains within the target going forward, while supporting growth.

Why has the RBI increased the repo rate?

- RBI has increased the repo rate due to rising inflation, geopolitical tensions, high crude oil prices, and shortage of commodities globally, which have impacted the Indian economy.
- Monetary policy action is aimed at containing inflation spike and re-anchoring inflation expectation. High inflation is known as detrimental to growth.

Impact

Stock market

- An increase in interest rates means **an increase in savings and a reduction in the flow of capital to the economy, which results in slump in stock markets.**
- The stock market and the interest rates have an inverse relationship. Every time the central bank increases the repo rate, it prompts companies to also cut back on the spending on the expansion, which leads to a dip in growth and affects the profit and future cash flows, **resulting in a fall in stock prices.**

Loan and EMI Rates

- The increase in repo rate will push banks and non-banking financial companies (NBFCs) to hike lending and deposit rates.
- This means the interest rates on loans will go up. Equated monthly installments (EMIs) on home, vehicle and other personal and corporate loans are likely to rise.

Unequal impact

- Capital-intensive sectors such as capital goods, infrastructure, etc, are **more vulnerable** to these changes due to high capital or debt on the books of these companies.
- While stocks of sectors like Information Technology (IT) or Fast-moving consumer goods (FMCG) usually see a lesser impact.

Inflation

- During high levels of inflation, RBI makes strong attempts to bring down the flow of money in the economy.
- One way to do this is by increasing the repo rate. This makes borrowing a costly affair for businesses and industries, which in turn slows down investment and money supply in the market.
- As a result, it negatively impacts the growth of the economy, which helps in controlling inflation.

PERIODIC LABOUR FORCE SURVEY (PLFS)

Context

- National Statistical Office (NSO) launched Periodic Labour Force Survey (PLFS). The fourth Annual Report is being brought out by NSO on the basis of Periodic Labour Force Survey conducted during July 2020-June 2021.

Objective

The objective of PLFS is primarily twofold:

- To **estimate the key employment and unemployment indicators** (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).
- To **estimate employment and unemployment indicators in both 'Usual Status' (ps+ss) and CWS** in both rural and urban areas annually.

PLFS

- From 1st April 2017, the NSSO has adopted a new employment and unemployment survey called Periodic Labour Force Survey (PLFS).
- First report of the PLFS was published in June 2019 for the period of 2017-18.
- The PLFS has now become the major employment and unemployment data of the NSSO; replacing the previous five-year surveys.
- Since the PLFS aims to provide more employment data for more frequent intervals (annual and quarterly), the PLFS is superior to the earlier five-year employment estimates.
- Methodologically, the PLFS is different from the earlier quinquennial surveys in terms of survey methodology, data collection mechanism and sampling design.

Key Findings of PLFS, Annual Report 2020- 2021 in percentage

LFPR, WPR and UR (in per cent) in usual status (ps+ss)* during PLFS, 2020-21

all-India

Rates	Rural			Urban			Rural+Urban		
	male	female	person	male	female	person	male	female	person
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
PLFS 2020-21									
LFPR	57.1	27.7	42.7	58.4	18.6	38.9	57.5	25.1	41.6
WPR	54.9	27.1	41.3	54.9	17.0	36.3	54.9	24.2	39.8
UR	3.9	2.1	3.3	6.1	8.6	6.7	4.5	3.5	4.2

Percentage distribution of workers in usual status (ps+ss) by status in employment during PLFS 2020-21

all-India

Survey period	male			female		
	self-employed	regular wage/ salaried employees	casual labour	self-employed	regular wage/ salaried employees	casual labour
(1)	(2)	(3)	(4)	(5)	(6)	(7)
PLFS 2020-21	Rural					
	59.7	13.6	26.8	64.8	9.1	26.2
	Urban					
	39.9	45.3	14.9	38.4	50.1	11.5

Unemployment in India rose to 7.83 per cent in April from 7.60 per cent in March, 2022, data from the independent think-tank, Centre for Monitoring Indian Economy (CMIE).

Causes of Poor Labour Force Participation in India

- In India, since independence, the rate of growth of employment has been considerably less than the rate of economic growth.
- Moreover, the rate of economic growth has not been adequate enough to absorb the increasing labour force in India. As a
- Over the years, the mortality rate has declined rapidly without a corresponding fall in birth rate and the country has, thus, registered an unprecedented population growth.
- This was naturally followed by an equally large expansion in the labour force.

- In India, manpower is available in large quantities. Under these circumstances, the country would have a labour intensive technique of production.
- However, in India, not only in' industries but also in agriculture, the capital-intensive technique of production is being used. This policy results in large scale unemployment.
- In India, vocational skill development courses which are compatible with the Indian industry are comparatively less in number. So, there is a dearth of skilled manpower needed by the industry.
- In India, most of the graduates prefer to remain unemployed till they get a job which is up to their expectations in terms of salary and nature of work.
- Agriculture in India is seasonal by nature. It depends on monsoon.
- The overall economic development of India is very slow.
- Inadequate irrigation facilities, fertilizers, unsatisfactory growth of infrastructure are all due to inadequate industrial expansion. As a result, employment opportunities have not increased enough in the rural sector to absorb the growing labour force.
- There has been a continuous migration of people from rural to urban areas in search of jobs. This has increased the problem of unemployment in urban areas.

Remedial Measures

Expanding Volume of Work

- Solution to the problem of unemployment lies in enlarging the opportunities for work. This needs to be completed to clear the backlog of unemployment and to provide jobs to the large additions being made to labour-force.
- The work to be expanded has to be both in the sphere of wageemployment and self-employment.
- The ultimate avenue of more employment has to be found in the industrial sector, as also in the service sector.

Raising Capital Formation

- It is also necessary that the accumulation of capital is stepped up.
- It helps employment expansion in two principal ways: One, it becomes possible to maintain the existing activities, as also to expand the current activities and to set up new ones.
- Secondly, capital formation directly generates employment in the capital goods sector. This also provides capital goods for the production of consumer goods and services.

Appropriate Mix of Production Techniques

- It is also necessary to choose such a combination of capital-intensive and labor-intensive technologies of production may generate maximum employment.
- Labour-intensive activities such as cottage/household activities and also many agricultural operations, provide employment but capital-intensive technologies, are, by and large, more employment-creating, labour when employed in capital intensive industries, give rise not only to capital goods but also generate employment in industries which provide inputs to them.
- Hence, the right mixes of technologies which may provide maximum employment at a higher wage rate and provide a surplus for further investment.

Special Employment Programmes

- Till the economy matures to a level where everyone finds the job as described above, it is necessary, as an interim measure, to undertake special employment programmes for those who do not get benefit from this type of growth in the short run.
- The need for supplement programmes is all the more important for poor people, residing mostly in rural areas and small towns.
- Specific employment programmes to suit specific group of people and specific areas.

PAYMENTS VISION 2025

GS-III ECONOMY

Context

- The Reserve Bank of India (RBI), in a document for payments systems, outlined its vision on the architecture of digital finance- Payments Vision 2025.

About

- Payment systems foster economic development and financial stability as well as support financial inclusion. Ensuring safe, secure, reliable, accessible, affordable and efficient payment systems has been the strategic objectives and goals of the Reserve Bank of India (RBI).
- The Payments Vision 2021 had envisaged to **empower every Indian with access to a bouquet of e-payment options** that is **safe, secure, convenient, quick and affordable**, and had set four goalposts of Competition, Cost, Convenience and Confidence.
- The Payments Vision 2025 has the **core theme of 'E-Payments for Everyone, Everywhere, Everytime' (4Es).**

- The Vision comes with an objective of providing strategic direction and implementation plan **for structured development of the payment and settlement systems in India** through periodic Payments Vision documents, which was started from the year 2001.

RBI's Digital Finance architecture under Payments Vision 2025

RBI's Digital Finance architecture includes the following:

- Regulations for BigTechs and fintechs in payments;
- Guidelines on payments involving "Buy Now Pay Later" (BNPL) services;
- Introducing the central bank digital currency (CBDC); and
- Linking credit cards and credit components of banking products to the Unified Payments Interface (UPI).

Objective

- Titled "Payments Vision 2025", this document aims to provide every user safe and affordable e-payment options.

Goalposts

- The activities to be taken up by the central bank up to 2025 have been captured across five anchor goal posts of **"integrity, inclusion, innovation, institutionalization and internationalization".**
- These goal posts have 47 initiatives through which the central bank aims to achieve 10 outcomes by 2025: These are:
  i. Volume of cheque-based payments to be less than 0.25% of the total retail payments;
  ii. More than 3x increase in number of digital payment transactions;
  iii. UPI to register average annualized growth of 50% and IMPS / NEFT at 20%;
  iv. Increase of payment transaction turnover vis-à-vis GDP to 8;
  v. Increase in debit card transactions at PoS by 20%;
  vi. Debit card usage to surpass credit cards in terms of value;
  vii. Increase in PPI transactions by 150%;
  viii. Card acceptance infrastructure to increase to 250 lakh;
  ix. Increase of registered customer base for mobile based transactions by 50% CAGR; and
  x. Reduction in Cash in Circulation (CIC) as a percentage of GDP.

Initiatives

Some of the initiatives through which RBI envisages to achieve its goals are:

- Expand inter-operability to contactless transit card payments in offline mode.
- Leverage Online Dispute Resolution System for fraud monitoring and reporting.
- Provide enhancements to Central Payments Fraud Information Registry (CPFIR)
- Provide payee name look-up for fund transfers through NEFT, RTGS, IMPS etc. to tackle complaints about credit to unintended beneficiary due to inadvertent wrong account number entry.
- Include assessment of RTGS and NEFT under Principles for Financial Market Infrastructures (PFMI).
- Creation of DIGITAL PAYMENTS PROTECTION FUND (DPPF).
- Geo-Tagging of digital payment infrastructure and transactions.
- Promote efficient cheque processing, by migrating from the current architecture of three regional grids to 'One Nation, One Grid'.
- Extend Internal Ombudsman Scheme to all Payment System Operators.
- Link credit cards and credit components of banking products to UPI.
- Organise payment innovation contests and Hackathons.
- Constitute payments advisory council (PAC) to assist Baseline Personnel Security Standard (BPSS).

US FEDERAL RESERVE RATE HIKE

GS-III ECONOMY

Context

- The **US Federal Reserve hiked interest rates by three quarters of a percentage point, its most aggressive move since 1994, in a bid to tame runaway inflation.** The hike in rates by the Fed, the third since March, comes after inflation in the US surged unexpectedly last month.

What is the importance of the Fed's signalling?

- While markets have largely factored in the reversal in the Fed's policy stance, there are renewed concerns about the pace of the hike given that the **US central bank is now under renewed pressure to tame runaway inflation as prices in the world's largest economy rose at their fastest rate in 40 years** during May.

- There are now clear indications that the US central bank would be far more aggressive in its intensity of rate hikes.

How does these impact global markets?

- Traders across markets have been looking for signs that the **Fed might be more aggressive about rolling back the stimulus that has been feeding stock market gains across geographies.**
- The new projections are being seen as a **definitive move to frontload the reversal of the central bank's expansionary monetary policy put in place in early 2020 to invigorate the American economy amid the Covid-19 outbreak.**
- Theoretically, a signal to hike policy rates in the US should be a negative for emerging market economies, especially from a debt market perspective.
- Emerging economies such as India tend to have higher inflation and, therefore, higher interest rates than in developed countries.
- As a result, investors, including Foreign Portfolio Investors, tend to borrow in the US at lower interest rates in dollar terms, and invest that money in the bonds of countries such as India in rupee terms to earn a higher rate of interest.

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

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

SURETY BONDS — GS-III ECONOMY

Context

- The government move to allow the use of surety insurance bonds as a substitute for bank guarantees is likely to take time for implementation by the insurance industry.

What purpose does a surety bond serve?

- A surety bond is a contract between the person who needs to be bonded and the bonding company. It guarantees that if an event such as **negligence, fraud, or dishonesty takes place on behalf of this individual in their professional capacity**, they will repay any damages caused. The most common use for these bonds is for contractors.
- A surety bond is provided by the insurance company on behalf of the contractor to the entity, which is awarding the project. When a principal breaks a bond's terms, the harmed party can make a claim on the bond to recover losses.

What Does a Surety Bond Mean?

- A surety bond can be defined in its simplest form as a written agreement to guarantee compliance, payment, or performance of an act. Surety is a unique type of insurance because it involves a three-party agreement. The three parties in a surety agreement are:
- **Principal –** the party that purchases the bond and undertakes an obligation to perform an act as promised.
- **Surety –** the insurance company or surety company that guarantees the obligation will be performed. If the principal fails to perform the act as promised, the surety is contractually liable for losses sustained.
- **Obligee -** the party who requires, and often receives the benefit of — the surety bond. For most surety bonds, the obligee is a local, state or federal government organization
- Surety bonds guarantee the performance of a variety of obligations, from construction or service contracts, to licensing and commercial undertakings.

Relevance of Surety Bonds in India

- Surety bonds help provide owners of construction projects with guarantees of success and enhanced reputations.
- According to Insurance Regulatory and Development Authority of India (IRDAI) surety bonds are **proven risk management mechanisms with a long history that help ensure public and private owners execute their construction projects** in accordance with the plans and specifications and ensure subcontractors and suppliers are paid.
- Also, according to IRDAI the surety bonds should be accepted as **an alternative form of guarantee by the Reserve Bank of India (RBI) and government departments and accordingly reflect in the appropriate contract documents**.
- For surety market to develop in India and keeping in mind best practices observed in other markets, **a robust legislation requiring surety bonds and other non-fund based guarantees would be a necessary condition.**

- The Ministry of Micro, Small, and Medium Enterprises runs various schemes to aid the smaller businesses in development, such as, the credit guarantee scheme, where the businesses eligible for these schemes can approach approved banks and can get collateral-free loans. This can be extended for issuance of surety bonds also and in such cases, surety bonds and government guarantees can work more efficiently than banks to secure and promote the MSME sector within India.
- Further, the surety bonds business may be revived with offering of **surety bonds to construction companies in India that covers road projects, housing/commercial buildings and other projects of government as well as private sector.**
- A huge market is available for surety bonds in the country and now, the onus is on the insurance fraternity to come out with products quickly.

BLACK SWAN EVENT — GS-III ECONOMY

Context

- Capital outflows to the tune of $100 billion are likely to take place from India in a major global risk scenario or a black swan event, says a Reserve Bank of India (RBI) study.

What are Black Swan Events

- The term **"black swan event" describes events with catastrophic results, like the collapse of a currency or a huge stock value loss**. Economists use the term for **events that economic models couldn't predict.**
- The **term was popularized by Nassim Nicholas Taleb**, a finance professor, writer, and former Wall Street trader. Taleb wrote about the idea of a black swan event in a 2007 book prior to the events of the 2008 financial crisis.

Examples of Past Black Swan Events

- The **crash of the U.S. housing market during the 2008 financial crisis is one of the most recent and well-known black swan events.** The effect of the crash was catastrophic and global, and only a few outliers were able to predict it happening.
- Also **in 2008, Zimbabwe had the worst case of hyperinflation in the 21st century** with a peak inflation rate of more than 79.6 billion percent. An inflation level of that amount is nearly impossible to predict and can easily ruin a country financially.
- The **dotcom bubble of 2001 is another black swan event that has similarities to the 2008 financial crisis**. America was enjoying rapid economic growth and increases in private wealth before the economy catastrophically collapsed. Since the Internet was at its infancy in terms of commercial use, various investment funds were investing in technology companies with inflated valuations and no market traction. When these companies folded, the funds were hit hard, and the downside risk was passed on to the investors. The digital frontier was new so it was nearly impossible to predict the collapse.
- A **more recent example could be the emergence of the COVID-19 virus** that caused a global pandemic beginning in the Spring of 2020, and which disrupted markets and global economies around the world.

What Is a Black Swan Event in the Stock Market?

- A black swan event in the stock market is often **a market crash that exceeds six standard deviations, making it exceedingly rare from a probabilistic standpoint.** Some have argued that stock prices are "fat-tailed" and that such events are, in reality, more frequent than the statistics would let on.

Why Do They Call It a Black Swan Event?

- A black swan is considered to be rare, since most swans are white. In fact, the story goes that black swan were thought once to not at all exist, until finally one was discovered. The lesson is that what we think are very rare events may be more common than previously thought.

What Is a Grey Swan Event?

- A grey swan event is an outlier, but which is more probably than a black swan. As a result, people can better prepare for and hedge against a grey swan than for a black swan.

PURPLE REVOLUTION — GS-III ECONOMY

Context

- During a review meeting on the "Purple Revolution", the Union Government stated that the revolution has encouraged Agri-tech StartUps.
- **Shifting to lavender cultivation** is being called the **purple revolution.** It was initiated under **Aroma Mission.**
- The **aroma crop ensures high monetary returns**, and therefore many farmers in hilly areas of Jammu and Kashmir are switching from traditional crops to aroma crops like lavender.
- The aroma crops are both drought and pest-resistant.

- The Government has also informed that they are planning to **introduce the aroma crops in other hilly States** with similar climatic conditions like Uttarakhand, Himachal Pradesh and the North-Eastern States.

Aroma Mission

- **Aromatic plants are used as natural medicines because of their medical properties**. **Aromatic Plants include lavender, damask rose, etc.**
- Aromatic plants are mainly used for oil extraction that is used in various industries: Cosmetics, Pesticides, flavouring and fragrance, Insect repellents and herbal beverages.
- The Aroma Mission was started to promote **the cultivation of aromatic crops.**
- **The twin aim of the mission** is to increase production to meet domestic demand and also **to become a global leader** in production and export.
- **Technical support from CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), Lucknow.**
- Government to Promote cooperatives for marketing activities, promotion of cultivation and processing of high-value aromatic plants, development of agro technologies, setting up of processing facilities, promoting Skill development, infrastructure support, Credit facilities, etc.

The expected outcome of the Mission

- Bring about an additional area of 5500 ha under aromatic crop cultivation.
- **Promoting aromatic crops in rain-fed/degraded land across the country.**
- **Enhance technical and infrastructural support** to farmers/growers all over the country.
- **Promote market buy-back mechanisms** to ensure profitable prices for the farmers/growers.
- This mission also aims to promote Job Creation, Rural Development, and Women empowerment.
- It will generate employment, open research opportunities and promote development for the region.
- Lavender Cultivation has the potential to double farmers' income.
- **By increasing aromatic crop production, India could take a big step towards achieving the goal of 'Atmanirbhara Bharat'.**

SALT SECTOR CRISIS

GS-III ECONOMY

Context

- Recently, president of the Indian Salt Manufacturers' Association wrote a letter to Prime Minister Narendra Modi on behalf of the salt manufacturers association**. Salt, being the cheapest commodity, was getting the least attention from the government, he wrote, warning the Centre that if the neglect continued, India could lose its position as the world's third largest producer of salt.**

Details

- Salt industry is **facing huge challenges in meeting the demand and in tackling the realisation crisis faced by salt farmers.**
- About five lakh people work in the salt industry directly and indirectly. At the moment, a farmer earns about ₹250 to ₹300 for a tonne of salt he or she produces. The prices keep fluctuating.
- **Gujarat produces about 28.5 million tonnes of salt per year, which is more than 80% of the country's total production.**
- There are about 12,800 salt processing units in Gujarat's coastal belt, out of which only 119 are considered as medium and large.
- When India attained Independence in 1947, salt was being imported from the United Kingdom & Adens to meet its domestic requirement. But today it has not only achieved self-sufficiency in production of salt to meet its domestic requirement but also in a position of exporting surplus salt to foreign countries

Issues

- While **farmers are facing low price as there is no minimum support price, workers are also in distress due to a lack of proper system for wages and social security.**
- Even after 75 years of Independence, **the laws that govern this industry are framed by the British**.
- One hundred and twenty years ago, Britishers got salt from Mandi in Himachal Pradesh by mining. Therefore, the British put salt production as mining.
- Hardly 0.5% salt is produced by mining. 99.5% salt is produced either from the sea water or from the sub soil water and the entire process is done by seeding, cultivation and harvest**. It is a seasonal industry and it should be considered as agriculture.**
- The production units and farmers say that **all the laws pertaining to the industries are applicable to salt production even though the production is done through simple solar evaporation as it is listed as mining industry.**
- The **demand is rising at the rate of 8% and the production increase is just 3%**.

Way forward

- Salt is a Central subject. The **industries demand that there should be a nodal agency with common rules and regulations**.
- There is **need for a new Salt Act as a common policy for entire country.**
- To keep the salt farming alive, f**armers must be given the access to the technology to make the final by-product of their effort. They must get crop insurance and minimum support price.**

TOKENISATION OF DEBIT AND CREDIT CARD

GS-III ECONOMY

Context

- In September 2021, the RBI prohibited merchants from storing customer card details on their servers with effect from January 01, 2022, and mandated the adoption of card-on-file (CoF) tokenisation as an alternative to card storage.
- The Reserve Bank of India has extended the implementation date of card-on-file (CoF) tokenisation norms by six months to June 30, 2022.

Background

- Digital is currently one of the most convenient and favoured platforms for availing services and making purchases.
- Because of our increased frequency of making online transactions, most of us have been saving our payment information on merchant sites, which means that our payment partners have access to sensitive financial information that should otherwise be highly personal.
- In order to secure this data and protect not just customers but also merchants and banks, RBI is now prohibiting merchants from storing debit and credit card details on their servers post June 30, 2022.
- As a safer and more convenient alternative to card storage, RBI has mandated the adoption of tokenization through which one's sensitive card information can be replaced with a non-sensitive uniquely generated code called 'Token'.

What is Tokenization?

- Tokenisation is a **process by which card details are replaced by a unique code or token, allowing online purchases to go through without exposing sensitive card details.**
- Under tokenisation services, **a unique alternate code is generated to facilitate transactions through cards**.
- It is the process of **substituting a 16 digit customer card number with a non-sensitive equivalent value**, referred to as a token.
- This essentially means that a **customer's card information will no longer be available on any Merchant, Payment Gateway, or 3rd party** that helps in the processing of digital transactions today.
- With card tokenisation, **consumers no longer need to fear saving their card details**.
- Cardholders will have to give an explicit consent that will be collected for tokenisation.

Why RBI wants cards to be tokenized?

- Customer's card details are stored by merchants, and if their security measures are inadequate, this **puts all the customers at risk.** There have been several instances in the past where merchant websites have been hacked and debit and credit card details have been leaked. This is what the RBI wants to eliminate.
- By mandating card tokenization, the burden of security is now on payment processors and banks, not merchants.
- Thus, a tokenised card transaction is considered safer as the actual card details are not shared with the merchant during transaction processing.
- Tokenization ensures standardization for card on file transactions through higher security standards which is irreversible as compared to existing reversible cryptographic standards.

How can the tokenisation be carried?

- The card holder can get the card tokenised by initiating a request on the app provided by the token requestor. The token requestor will forward the request to the card network which, with the consent of the card issuer, will issue a token corresponding to the combination of the card, the token requestor, and the device.

How does this card tokenisation work?

- At check-out time on an online shopping portal one has to enter card details and opt for tokenisation. The merchant forwards it to the respective bank or the card networks (VISA, Rupay, Mastercard, etc). A token is generated and sent back to the merchant, which then saves it for the customer. Now, the next time the customer comes back to shop, she has to just select this saved token at check-out time. The same masked card details and last four digits of customer's card number will be visible. Customer needs to enter your CVV and complete the transaction.
- The customer, does not need to remember the token. The end-customer experience is not changing while making the payment.

- The implementation of the tokenisation request is carried out through the **Additional Factor of Authentication (AFA) by the cardholder.** This **algorithmically generated token protects sensitive information and prevents card frauds** as it allows you to make payments without exposing your bank details.

RBI's latest directions

- As per the Reserve Bank of India's latest order, all merchants must delete customer debit and credit card data on or before June 30 2022 and replace card payments with unique tokens for all online, point-of-sale and in-app transactions.

Benefits of tokenization in a nutshell

- Largely designed to counter online frauds and curb digital payment breaches, tokenization comes with a slew of benefits. Some of them are:
- **Enhanced safety and security:** Tokens generated will be unique to a single card at a specific merchant and this will take up the overall security of making card-based transactions. It eliminates the risk of storing card details online and ensures the uncompromised convenience of storing customer's token details on the merchant site.
- **Quicker checkouts**: Tokenized Mastercard will allow the convenience of quick checkouts as one doesn't need to punch in the card number for each purchase.
- **No more 'False Declines'**: Many times legitimate online payments using valid cards are declined on the grounds of the transaction looking like a fraud. With tokenization, this becomes a thing of the past as the usage of tokens for payments confirms security of the highest order.
- **Easy card management:** With tokenization, one can also keep track of all your cards and the merchants they have been tokenized with.
- **No need for a physical card**: With tokenization, one can store a virtual version of one's card on a smartphone for the days one forgets to carry your wallet.
- **Added benefits:** Tokenization also comes with cash back benefits when secured with platforms like Amazon, PayTM, Swiggy, Flipkart and PhonePe among others.

OPEN NETWORK FOR DIGITAL COMMERCE (ONDC) — GS-III ECONOMY

Context

- Recently, Commerce Minister Piyush Goyal chaired ONDC Advisory Council Meeting.

About

- Open Network for Digital Commerce, abbreviated ONDC, is **a private non-profit Section 8 company established by the Department for Promotion of Industry and Internal Trade (DPIIT) under the Ministry of Commerce and Industry of Government of India to develop open e-commerce.**
- It was **incorporated in 2021 with initial investment from Quality Council of India and Protean eGov Technologies Limited** (formerly NSDL e-Governance Infrastructure Limited).
- Often referred to as the UPI of e-commerce, ONDC is a freely accessible government-backed platform that aims to democratize e-commerce by moving it from a platform-centric model to an open network for buying and selling goods and services.

Aim

- The ONDC (Open Network for Digital Commerce), is **an initiative aiming at promoting open networks for all aspects of exchange of goods and services over digital or electronic networks**.
- Open Network for Digital Commerce (ONDC) is being seen as a step in the direction of **democratizing the e-commerce space in India, mainly controlled by multinational players Amazon and Flipkart.**

What led to the creation of ONDC?

- Technological self reliance, demand for level playing field mainly from small retailers, smoothen the ease of doing business online, adoption of open digital ecosystem across key sectors and fixing the non-competitive behavior of big ecommerce firms like Amazon and Flipkart to capture the US$810 billion domestic retail market led to the creation of ONDC.
- It will also help check Big Tech companies violating Consumer Protection (E-Commerce) (Amendment) Rules, 2021 due to concentration of market power by integrating them into a decentralized open-source platform.

Major Objectives

The major objectives include:

- Ending monopolies of the platforms
- Democratisation and decentralisation

- Digitisation of the value chain
- Standardisation of operations
- Inclusivity and access for sellers, especially small and medium enterprises as well as local businesses
- Increased efficiency in logistics
- More choices and independency for consumers
- Ensured data privacy and confidentiality
- Decreased cost of operation

It is compared to unified payments interface (UPI)

Key Features

- Unlike the platform-based model, the ONDC **will not be owned or controlled by a single entity or platform.**
- Businesses and consumers **will be able to carry out transactions over ONDC using any compatible application of their choice.**

ONDC Advisory Council

- **About:** The primary role of the advisory council is **to watch over ONDC implementation in the country**.
- **Member and Convener:** The members were selected based on their experience in fields such as technology, finance, commerce etc. Convener of the ONDC Advisory Council is Additional Secretary from Department for Promotion of Industry and Internal Trade under Ministry of Commerce and Industry.

Structure

- The ONDC uses "free softwared methodology, open specifications and open network protocol".
- The backend of the ONDC is built on Beckn Protocol, an open and interoperable protocol for decentralized digital commerce. Beckn Gateways provides anonymised aggregated data generated from the network.
- On the ONDC, the consumers and merchants can transact for goods and services via open protocol instead of the central platform or application.

RFID VS BARCODE

Context

- Baggage tags equipped with radio-frequency identification (RFID) will soon be available at Delhi's Indira Gandhi International Airport, marking a first of its kind for the country.

What is Radio-frequency identification (RFID) technology?

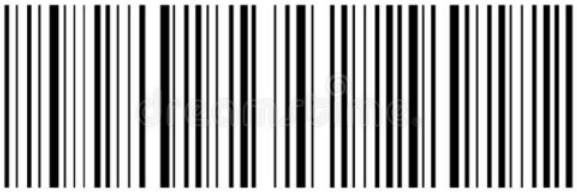
- Radio-frequency identification (RFID) is a **technology that uses radio waves to automatically identify various tagged objects.**
- Radio Frequency Identification (RFID) is a **wireless tracking method** that uses tags and readers to track objects. Transponder, receiver, and transmitter are the three components of an RFID system.
- The **RFID reader continually sends radio waves of a specific frequency in RFID system**. If the object to which the RFID tag is attached is within the range of the radio waves, it provides feedback to the RFID reader, which then identifies the object based on the feedback.

What are the different kinds of RFID?

- Passive tags, semi-passive tags, and active tags are the three types of RFID tags that are commercially available.
- There is **no power supply for passive tags**. They acquire their power from the readers' incoming radio waves.
- Semi-passive tags comprise an internal circuit with a power source, but rely on the radio waves received from the reader to transmit the response.
- The internal circuit of **active tags is powered by a power source.**
- **Passive RFID tags do not have a battery** and are powered by the reader.
- Batteries are being used to power active RFID tags. It also utilizes its own power supply to send the response to the reader.
- The Low Frequency, High Frequency, and Ultra-High Frequency bands are used by RFID systems.

What is a barcode?

- A barcode is a **printed series of parallel bars or lines of varying width used for entering data into a computer system.**
- The bars are black on a white background and vary in width and quantity depending on the application.
- The **bars represent the binary digits zero and one**, which represent the digits zero to nine processed by digital computer.



- These barcodes are scanned using special optical scanners known as barcode readers, which come in a variety of shapes and sizes.
- The majority of these codes use only two different widths of bars, however some use four.
- The numbers that make up a barcode are also printed at the bottom. One of the most well-known examples of a barcode is the QR code.

Radio-frequency identification (RFID) technology Vs barcodes

- RFID uses radio waves to communicate data from RFID chips to readers that do not require line of sight in order to obtain the data, whereas barcodes use light to read the black-and-white pattern printed on the sticky tag. **An RFID tag can communicate with a powered reader even when the tag is not powered.**
- When printed on paper or sticky labels, barcodes are more susceptible to wear and breakage, which can affect their readability. RFID tags, on the other hand, are sometimes placed in plastic labels or into the object itself, making them more durable than barcodes.
- In contrast to barcode scanners, **RFID scanners can process dozens of tags in a single second**. Also, barcodes are simple and easy to copy or counterfeit, whereas **RFID is more complicated and difficult to replicate or counterfeit.**
- **Unlike barcodes, which must in line of sight, RFID tags need not be.** Also, RFID tags are expensive compared to barcodes.

Is RFID enhanced version of barcode?

- Since their introduction in the 1970s, barcodes have become an indispensable part of commercial activity on a daily basis, whether in grocery stores or at airports.
- When it comes to speed, there is a noticeable difference between barcodes and RFID. This is because **barcodes** must be read manually, making them **more susceptible to human error and more difficult to evaluate their accuracy**.
- However, **RFID's accuracy may be compromised if the tags are applied to metals or liquid**. Since **RFID frequencies can be transmitted over greater distances than barcode frequencies, there is also concern that RFID technology raises data protection issues, resulting in personal information becoming accessible without consent**.

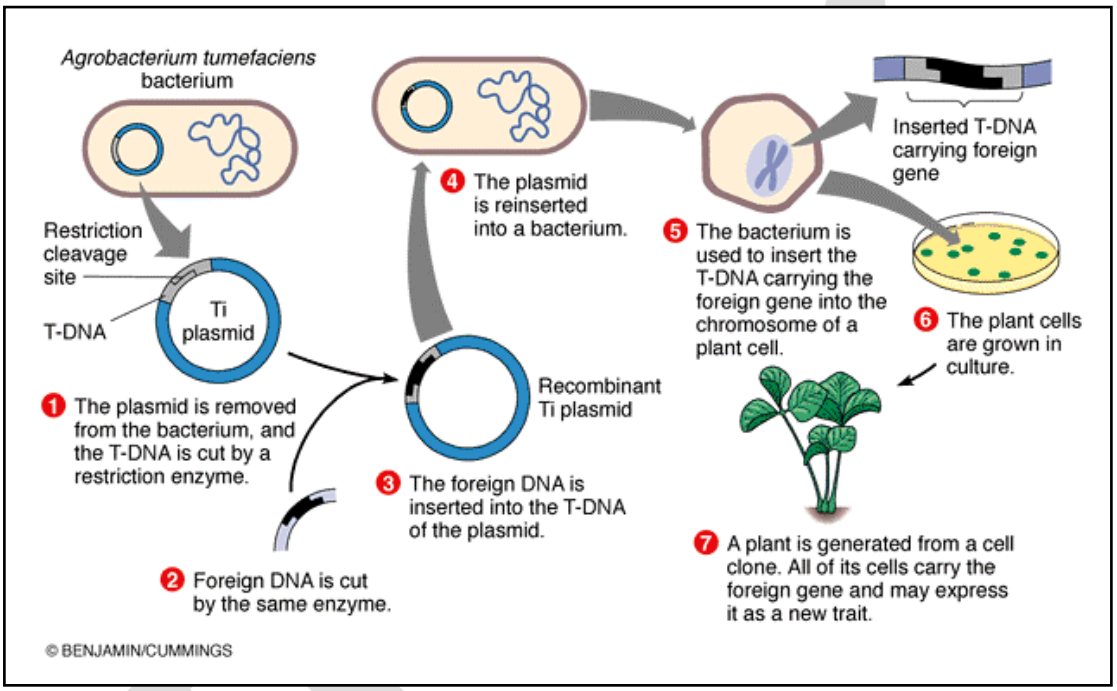
Context

- The Haryana government has issued a no-objection certificate (NOC) for conducting field trials on BG-2 RRF, a herbicide tolerant and insect resistant variety of BT cotton.

Note: So far, India has allowed commercial use of BG-1 and BG-2 GM cotton in the country while the approval for the BG-2 RRF has been pending at various stages. BG-2 RRF can provide protection against devastating pest attack such as American Bollworm.

What are GM Crops?

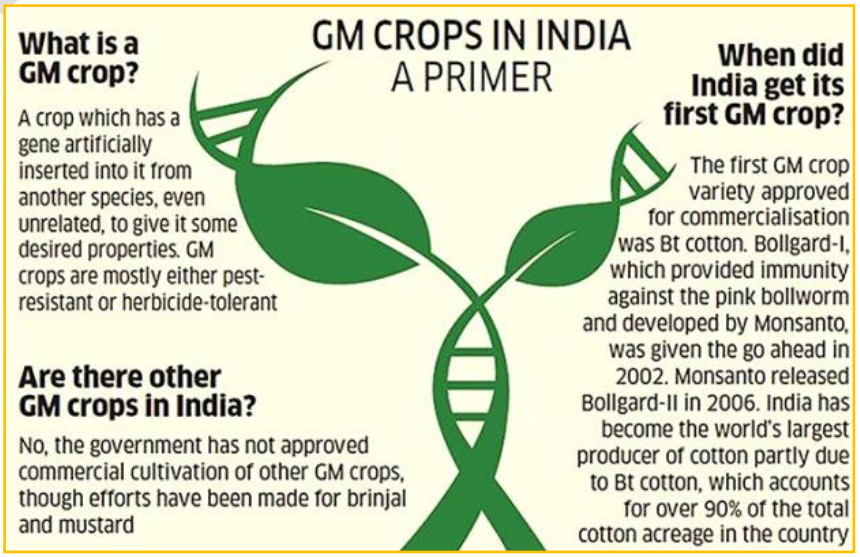
- Genetically modified crops (GM crops) are **plants used in agriculture, the DNA of which has been modified using genetic engineering methods**. To produce a GM plant, new DNA is transferred into plant cells. Usually, the cells are then grown in tissue culture where they develop into plants. The **seeds produced by these plants will inherit the new DNA**.



- The aim is to introduce a new trait to the plant which does not occur naturally in the species.

Advantages of GM Crops

- **Nutritional enhancement**: Higher vitamin content; more healthful fatty acid profiles; this plays a significant role in fighting against malnutrition in third-world countries.
- **Stress tolerance**: Tolerance to high and low temperatures, salinity, and drought;
- **Disease resistance:** For example, orange trees resistant to citrus greening disease or American chestnut trees resistant to fungal blight;
- **Biofuels**: Plants with altered cell wall composition for more efficient conversion to ethanol;
- **Phytoremediation:** Plants that extract and concentrate contaminants like heavy metals from polluted sites.



- **Reduced input burden:** Genetically modified crops require minimal pesticides, fertilizers or insecticides so the cost of input is reduced.
- **Environmental Protection**: The increase of GM animals and crops often requires less time, tools and chemicals, and may help with reducing greenhouse gas emissions, soil erosion and environmental pollution.

- **Longer Shelf life**: Genetically modified foods have a longer shelf life. This enhances the ease of transportation and storage.
- **Affordability:** Due to reduced burden of inputs & longer shelf life hence reduced wastages, the prices of the output will be low.
- **Decreased Use of Pesticides**: It has been proven that genetically modified crops do not need pesticides to become stronger against various types of insects or pests that may destroy them.

Concerns

- **Super-weeds due to Gene Transfer:** Experts warn that genes from commercial crops that are resistant to herbicides may cross into the wild weed population, thus creating super-weeds that have become impossible to kill.
- **Antibiotic resistance:** Genetically modified crops have inbuilt antibiotic properties due to their inbuilt mechanisms for disease control.
  This can result in superbugs which can disrupt the health care sector.
- **Carcinogen exposure risk:** Research shows that crops tolerant to commercial pesticides greatly increase the risk of cancer development in rats. Genetically modified crops can also pose serious threats to human health.
- **Lower Level of Biodiversity:** When we remove a certain pest that is harmful to crops, we could also be removing a food source for a certain species. In addition, genetically modified crops could prove toxic to some organisms, which can lead to their extinction.
- **Gene Spilling:** It is unclear what effects, if there are any, the genetic pollution resulting from inadequate sequestering of genetically modified crop populations would have on the wild varieties surrounding them.
- **Exploitation:** Some countries may use genetic engineering of foods as a very powerful weapon against their enemies.
- **Economic Concerns:** Consumer advocates are worried that this will raise seed prices to very high levels that third-world countries and small farmers cannot afford them, thus widening the gap between the rich and the poor.
- **Fall in production:** The introduction of Bt cotton saw India's cotton production zoom from around 175 lakh bales (170 kg each) to 390 lakh bales in 2013-14. Since then, cotton yield has dropped, affecting production. Over the last two seasons, production has stagnated in the 350-360 lakh bales region.

Way ahead

- Biotechnology **holds a lot of promise in achieving food security** and transgenic crops, especially, are a sustainable way forward.
- **Transparent, science-based, and efficient bio-safety laws and regulations** will enable full utilization of modern biotechnology for ensuring food security but **without compromising on the safety of human and livestock health.**

VIRTUAL PRIVATE NETWORK

GS-III SCIENCE & TECHNOLOGY

Context

- The Computer Emergency Response Team (CERT-In) has extended the deadline for the new cyber security directives that mandate virtual private network providers to store customer data for up to five years.

About VPN

- VPN or "virtual private network" is a **service that helps internet users stay private online by hiding their IP addresses**.
- VPN **establishes an encrypted connection between the user's computer and the internet,** providing a private tunnel for their data, making them anonymous and blocking anyone from tracking their movements like where they are going or what they are doing.
- This makes it more difficult for third parties to track user's activities online and steal data. User's Internet Service Provider (ISP) and other third parties cannot see which websites user visits or what data user sends & receives online. The encryption takes place in real time.

Significance

- An increasing part of our lives takes place online. We do our banking, check our medical records and work online. **A VPN shields user's data from hackers, governments, your internet provider, websites, our employer and others hijacking our data**.

India's new VPN rules

- CERT-In passed a rule mandating Virtual Private Network (VPN) providers to **record and keeps their customers' logs for 180 days**. It also asked these firms to **collect and store customer data for up to five years.** VPN providers are required to store validated customer names, their physical addresses, IP addresses, email ids, phone numbers, and the reason they are using the service, along with the dates they use it and their "ownership pattern".

- It further mandated that any cybercrime recorded must be reported to the CERT-In (Computer Emergency Response Team) within six hours of the crime.

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

Implications of the new VPN rules

Positives

- It will help the government in **tracing anti-social elements and cybercriminals** indulging in various heinous activities online.
- It will **shut door for money laundering** as with the rise in digital banking.
- It will bring in much needed **accountability and stability in the banking sector**.
- It will **improve overall cyber security posture and ensure safe & trusted internet** in the country.

Downsides and concerns

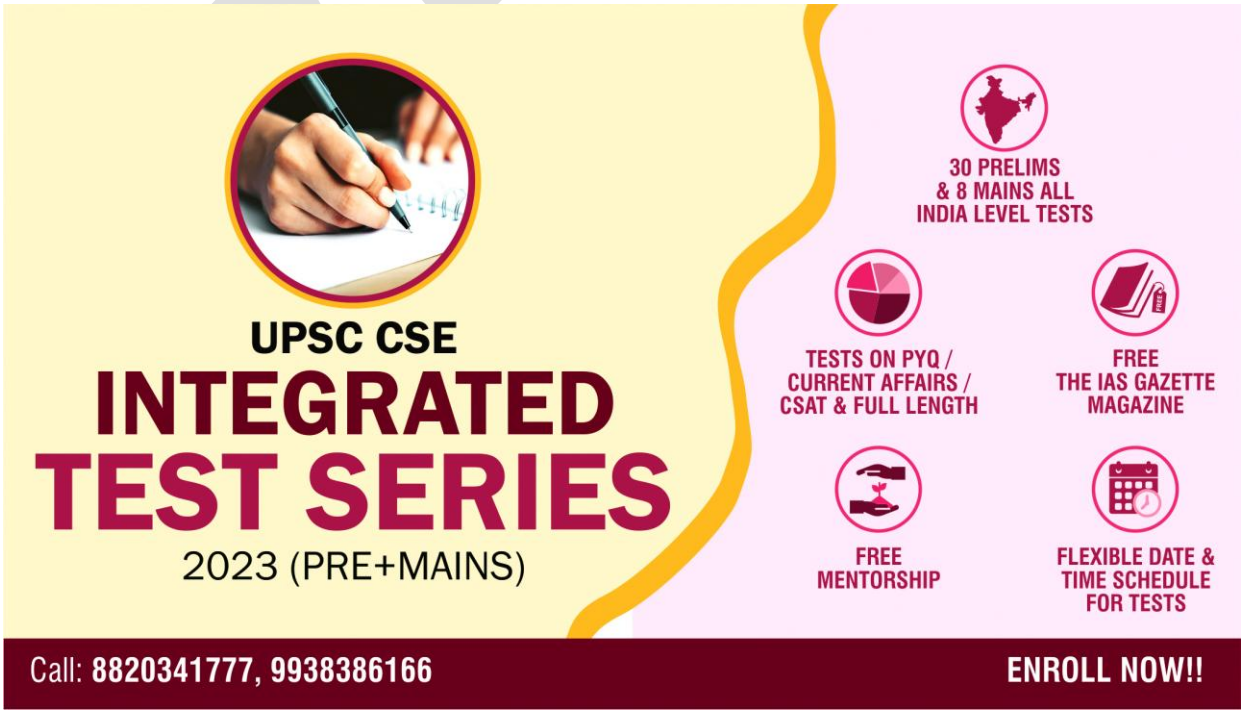
- Removing physical servers from India **would affect jobs.**
- VPN users are **now at the risk of being targets of surveillance and loss of privacy**. New VPN Rules could potentially **violate the "Right to Privacy" of the customers, as enumerated under Article 21.**
- It **may violate the basic principles of Contract Act** which may hamper the rights of the users.
- **India's developing IT industry might get affected** if we lose VPN providers.
- Users' ability to rely on the privacy and anonymity offered by VPNs, data centers and cloud storage facilities for genuine and legitimate activities, may also be impacted.
- It can be used maliciously by the state **to suppress dissent.**

Way ahead

- Before introducing rules that mandate the collection of personal data by the service providers **Government needs to implement a robust data protection mechanism.**
- **Data privacy bill** needs to come into force effectively. **Striking a right balance between Privacy and Security** is the need of the hour.

CERT-IN

The Indian Computer Emergency Response Team (CERT-IN or ICERT) is an office within the Ministry of Electronics and Information Technology. It is the **nodal agency to deal with cyber security threats like hacking and phishing**. It strengthens security-related defence of the Indian Internet domain. CERT-IN was **formed in 2004** by the Government of India under Information Technology Act, 2000 Section (70B) **under the Ministry of Communications and Information Technology.**



AMENDMENT OF RULES FOR APPOINTMENT OF CDS

GS-III SECURITY & DEFENSE

Context

- The Defence **Ministry issued new guidelines broadening the scope of eligible officers for the post of the Chief Of Defence Staff (CDS) of the Indian armed forces.**

More on the news

- **Any serving or retired Lieutenant General, Air Marshal and Vice Admiral under the age of 62 years will be eligible for the post of Chief of Defence Staff.**
- This essentially opens the doors for the second-highest active rank officers of the tri-services to possibly supersede their seniors -- the chief of the army, air force, or navy -- to take on the role and widens the pool from which a CDS can be appointed.
- **Another change in eligibility criteria is that recently retired service chiefs and vice chiefs will also be eligible for the post, though there's an age ceiling of 62 years.**
- The move paves the way for India to have a new CDS after General BipinRawat, India's first Chief of Defence Staff died last year. India has been without a CDS since then.
- The government has issued separate notifications as part of the Air Force Act, the Army Act and the Navy Act to make the provisions to make any serving or retired Lt General, Air Marshal or Vice Admiral eligible to be appointed as the CDS.
- **Government may extend the service of the Chief of Defence Staff for such a period as it may deem necessary subject to a maximum age of 65 years.**
- Identical notifications were issued under the Army Act 1950 and the Navy Act 1957.
- **The tenure of three service chiefs is three years of service or when they turn 62, whichever is earlier.**

About

- The Chief of Defence Staff runs the Department of Military Affairs in the Ministry of Defence and is principally responsible for getting the armed forces better integrated rather than operating in silos as has been the case for decades.
- This includes the creation of new military commands which integrate the Army, Air Force, and Navy to fight together.
- **A high-level committee set up to examine the gaps in India's security system in the wake of the Kargil war in 1999 had recommended the appointment of the CDS as a single-point military adviser to the defence minister.**
- The Chief of Defence Staff (CDS) is a post that will act as the single-point advisor to the Government of India. The officer concerned will be in a position to advise on matters related to all the three services -- Army, Navy and Air Force -- thus making India's armed forces integrated.

Need for CDS

- Will strengthen coordination between the three forces: Army, Navy and Air Force.
- Facilitate 'jointmanship' and render single-point military advice to the government on matters of national security
- Reconcile possible differences" in service-specific opinions to enable the government to arrive at considered military decisions.
- CDS would play a critical role in fostering inter-services jointness in terms of budgeting, equipment purchases, training, joint doctrines and planning of military operations-an imperative of modern warfare.
- India may be the only country in world where, a generalist, civil servant occupies defense secretary post to advise government on defense requirements and preparation of operational plans.
- It will do away with duplications occurring in the functioning of three forces.

BRAHMOS SUPERSONIC CRUISE MISSILE

GS-III SECURITY & DEFENSE

Context

- In the 21 years since its first test, BrahMos has been upgraded several times, with versions tested on land, air and sea platforms. India recently bagged an export order from the Philippines.

Background and development

- Since the early 1980s, the Integrated Guided Missile Development Programme, conceived and led by Dr A P J Abdul Kalam, started developing a range of missiles including Prithvi, Agni, Trishul, Akash and Nag, with a wide spectrum of capabilities and ranges.
- In the early 1990s, India's strategic leadership felt the need for cruise missiles —primarily following the use of cruise missiles in the Gulf War.
- An Inter-Governmental Agreement was signed with Russia in Moscow in 1998.

- This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyenia (NPOM), the Indian side holding 50.5% and the Russians 49.5%.
- The first successful test in 2001 was conducted from a specially designed land-based launcher.

Strategic significance

- BrahMos is a **two-stage missile with a solid propellant booster engine.**
- Its first stage brings the missile to supersonic speed and then gets separated.
- The liquid ramjet or the second stage then takes the missile closer to three times the speed of sound in cruise phase.
- The missile has **a very low radar signature**, making it stealthy, and can achieve a variety of trajectories.
- The '**fire and forget' type missile can achieve a cruising altitude of 15 km and a terminal altitude as low as 10 m to hit the target.**
- **Cruise missiles such as BrahMos, called "standoff range weapons",** are fired from a range far enough to allow the attacker to evade defensive counter-fire. These are in the arsenal of most major militaries in the world.
- The BrahMos has three times the speed, 2.5 times flight range and higher range compared to subsonic cruise missiles. With missiles made available for export, the platform is also seen as a key asset in defence diplomacy.
- An extended range version of the BrahMos air-launched missile was tested from a Sukhoi-30 MKI recently.
- In January, an advanced sea-to-sea variant of BrahMos was tested from the newly commissioned INS Visakhapatnam.

Versions

- **Land-Based:** The land-based BrahMos complex has four to six mobile autonomous launchers, each with three missiles on board that can be fired almost simultaneously. The upgraded land attack version, with capability of cruising at 2.8 Mach, can hit targets at a range up to 400 km with precision
- **Ship-Based:** The Navy began inducting BrahMos on its frontline warships from 2005. These have the capability to hit sea-based targets beyond the radar horizon. The Naval version has been successful in sea-to-sea and sea-to-land modes. The BrahMos can be launched as a single unit or in a salvo of up to eight missiles, separated by 2.5-second intervals.
- **Air-Launched:** In 2017, BrahMos was successfully flight-tested for the first time from a Sukhoi-30MKI against a sea-based target in the Bay of Bengal. It has since been successfully tested multiple times.
- **Submarine-Launched:** This version can be launched from around 50 m below the water surface. This version was successfully tested first in March 2013 from a submerged platform off the coast of Visakhapatnam.

CORVETTE

GS-III SECURITY & DEFENSE

Context

- The **Defence Acquisition Council (DAC) has given the Acceptance of Necessity (AoN) for several capital acquisition projects of the Indian defence forces.**
- This includes the procurement of next-generation Corvettes for the Indian Navy at an approximate cost of Rs 36,000 crore.

What is a Corvette?

- A Corvette is the **smallest class of naval ships and it falls below the warship class of a frigate.**
- These are **highly agile ships and are categorised as missile boats, anti-submarine ships, coastal patrol crafts and fast attack naval vessels.**
- The word corvette itself is **derived from French and Dutch origin.** Corvettes date back to the 18th and the 19th century when they were extensively used in the naval warfare duels that were fought at high seas.
- However, these were powered by sails and masts, and disappeared for a while when steam powered naval ships made their appearance.
- During World War II, the term Corvette was used to describe vessels which had anti-submarine roles assigned to them.
- Modern Corvettes can go up to 2,000 tons in displacement which helps in keeping them agile.

What kind of Corvettes does the Indian Navy possess?

- The **Indian Navy at present has the Kamorta Class Corvettes, which are also known as Project 28.**
- These ships have an anti-submarine role and are manufactured at Garden Reach Shipbuilders and Engineers in Kolkata.
- The **four Kamorta Class Corvettes that the Indian Navy possesses are named INS Kamorta, INS Kadmatt, INS Kiltan and INS Kavaratti.** The first of these was commissioned in 2014 and the last one in 2020.
- The next-generation Corvettes will be manufactured for various roles like surveillance missions, escort operations, deterrence, surface action group operations, search and attack and coastal defence.
- It is worth noting that these roles will be in addition to the anti-submarine roles being already performed by the existing Corvettes in the Navy.

CRITICAL INFORMATION INFRASTRUCTURE

GS-III SECURITY & DEFENSE

Context

- Union Ministry of Electronics and IT (MeitY) has declared IT resources of ICICI Bank, HDFC Bank and UPI managing entity NPCI as 'critical information infrastructure'.

What is critical information infrastructure?

- The Information Technology Act of 2000 defines **"Critical Information Infrastructure" as a "computer resource, the incapacitation or destruction of which shall have debilitating impact on national security, economy, public health or safety".**
- The government, under the Act, has the **power to declare any data, database, IT network or communications infrastructure as CII to protect that digital asset.**
- **Any person who secures access or attempts to secure access to a protected system in violation of the law can be punished with a jail term of up to 10 years**.

Why is CII classification and protection necessary?

- World over governments have been moving with alacrity to protect their critical information infrastructure.
- IT resources form the backbone of countless critical operations in a country's infrastructure, and given their interconnectedness, disruptions can have a cascading effect across sectors.
- **An information technology failure at a power grid can lead to prolonged outages crippling other sectors like healthcare, banking services.**
- In 2007, a wave of denial-of-service attacks, allegedly from Russian IP addresses, hit major Estonian banks, government bodies – ministries and parliament, and media outlets.
- In 2020 as India battled the pandemic, the **electric grid supply to Mumbai suddenly snapped hitting the mega city's hospitals, trains and businesses.**

How are CIIs protected in India?

- Created in January 2014, the **National Critical Information Infrastructure Protection Centre (NCIIPC) is the nodal agency for taking all measures to protect the nation's critical information infrastructure.**
- It is mandated to guard CIIs from "unauthorized access, modification, use, disclosure, disruption, incapacitation or distraction".
- NCIIPC will monitor and forecast national-level threats to CII for policy guidance, expertise sharing and situational awareness for early warning or alerts

VL-SRSAM

GS-III SECURITY & DEFENSE

Context

- **Vertical Launch Short Range Surface to Air Missile** (VL-SRSAM) was successfully flight-tested by Defence Research & Development Organisation (DRDO) and the Indian Navy from an Indian Naval Ship at Integrated Test Range (ITR), Chandipur off the coast of Odisha.

About

- The VL-SRSAM, a ship borne weapon system, is meant for neutralising various aerial threats at close ranges including sea-skimming targets.
- The launch of the system was conducted against a high-speed aerial target mimicking aircraft, which was successfully engaged.
- The **indigenously developed shipborne weapon system has been designed to strike at the high-speed airborne targets at the range of 40km to 50km and at an altitude of around 15km.**
- DRDO officials have said its design is based on Astra missile which is a Beyond Visual Range Air-to-Air missile.
- Two key features of the VL-SRSAM are cruciform wings and thrust vectoring.
- The key DRDO facilities that contributed to the development of the system are Defence Research and Development Laboratory (DRDL) and Research Centre Imarat (RCI), both from Hyderabad, and Research & Development Establishment (Engineers) based in Pune.
- VL-SRSAM is a **canisterised system,** which means it is stored and operated from specially designed compartments. In the canister, the inside environment is controlled, thus making its transport and storage easier and improving the shelf life of weapons.

ECO-SENSITIVE ZONE (ESZ)

GS-III ENVIRONMENT & ECOLOGY

Context

- The Supreme Court directed that **every protected forest, national park and wildlife sanctuary across the country should have a mandatory eco-sensitive zone (ESZ) of a minimum one km starting from their demarcated boundaries.**

More on the news

- These zones would act as a transition zone from areas of high protection to those involving lesser protection.
- A three-judge Bench highlighted how the nation's natural resources have been for years ravaged by mining and other activities.
- The judgment observed that the **government should not confine its role to that of a "facilitator" of economic activities for the "immediate upliftment of the fortunes of the State".**
- In a series of directions, the court held that **in case any national park or protected forest already has a buffer zone extending beyond one km, that would prevail.**
- The court directed that **"mining within the national parks and wildlife sanctuaries shall not be permitted".**
- It held the **Principal Chief Conservator of Forests and Home Secretaries of States responsible for the compliance of the judgment.**

Eco-Sensitive Zones (ESZs)?

- Eco-Sensitive Zones or Ecologically Fragile Areas **are areas within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries.**
- ESZs are **notified by MoEFCC, Government of India under Environment Protection Act 1986.**
- In case of places with sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, even area beyond 10 km width can also be included in the eco-sensitive zone.
- The basic aim is to regulate certain activities around National Parks and Wildlife Sanctuaries so as to minimise the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.
- **Prohibited activities:** Commercial mining, saw mills, industries causing pollution (air, water, soil, noise etc), establishment of major hydroelectric projects (HEP), commercial use of wood, Tourism activities like hot-air balloons over the National Park, discharge of effluents or any solid waste or production of hazardous substances.
- **Regulated activities:** Felling of trees, establishment of hotels and resorts, commercial use of natural water, erection of electrical cables, drastic change of agriculture system, e.g. adoption of heavy technology, pesticides etc, widening of roads.
- **Permitted activities:** Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy sources, adoption of green technology for all activities.

POLICY FOR CONSERVATION OF BIODIVERSITY

GS-III ENVIRONMENT & ECOLOGY

Context

- NTPC Ltd, India's largest integrated energy producer has **issued renewed Biodiversity Policy 2022 to establish a comprehensive vision and guiding principle for conservation, restoration, and enhancement of biodiversity.**

Details

- This Biodiversity Policy is an integral part of NTPC's Environmental Policy.
- Its **objectives are aligned with environmental and sustainability policies. Moreover, the policy is also designed to support all the professionals of the NTPC Group to help them contribute toward the achievement of the targets set in this field.**
- The company will further strengthen its current efforts to achieve a 'no net loss' of biodiversity at all of its currently operating sites and ensure there is a net positive balance wherever applicable.
- The power major **aims to mainstream the concept of biodiversity across NTPC's value chain and adopt a precautionary approach for sustainable management of biodiversity in all the decision-making processes to ensure the Earth's variety of life in and around the business units of NTPC.**
- The policy also **aims to adopt systematic consideration of local threats to biodiversity beyond the company's business activities.**

Background

- NTPC was the **first PSU to issue Biodiversity Policy in 2018. In the same year, NTPC became a member of the India Business & Biodiversity Initiative (IBBI).**

- As part of its capacity building, NTPC is raising awareness among local communities, employees, and its associates across the supply chain about biodiversity through project-specific and national level trainings in collaboration with experts.
- NTPC is also collaborating with local communities, organizations, regulatory agencies and research institutes of national/international repute in the field of biodiversity.
- Further, NTPC will be adhering to legal compliances with respect to biodiversity by complying with rules and regulations related to the environment, forest, wildlife, coastal zone, and green cover during planning and execution of its projects.

About NTPC

- NTPC Ltd. is a **central Public Sector Undertaking (PSU) under the Ministry of Power**.
- It is **India's largest energy conglomerate with roots planted way back in 1975 to accelerate power development in India.**
- It aims to provide reliable power and related solutions in an economical, efficient and environment-friendly manner, driven by innovation and agility.
- It **became a Maharatna company in 2010.**

INDUSTRY TRANSITION DIALOGUE — GS-III ENVIRONMENT & ECOLOGY

Context

- Recently, **India and Sweden hosted the Industry Transition Dialogue in Stockholm**, as a part of their joint initiative i.e. Leadership for Industry Transition (LeadIT).
- This high level dialogue has contributed to the UN Conference 'Stockholm+50' and set the agenda for COP27 (Climate Change).

What is LeadIT?

- The LeadIT initiative **lays specific focus on hard to abate sectors that are key stakeholders in the global climate action and require specific interventions.**
- It gathers countries and companies that are committed to action to achieve the Paris Agreement.
- It was **launched by the governments of Sweden and India at the UN Climate Action Summit in 2019 and is supported by the World Economic Forum.**
- LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions by 2050.

Stockholm+50

- **Reiterating that the principles outlined during the 1972 Stockholm conference remain relevant even today, India has said the world needs to ensure that when the Stockholm conference turns 75, it can look back with satisfaction of our collective action -- to leave no one behind.**
- This was Indian Union Environment Minister making India's statement on the first day of the **two-day Stockholm+50 conference being held to mark the 50 years of the 1972's first UN conference on human environment.**
- In 1968-1969, the General Assembly, by Resolutions 2398 and 2581 decided to conduct the conference.
- The **Stockholm Convention was held in Sweden from June 5-16, 1972.**
- **The object behind this convention was to "create a basis for comprehensive consideration within the United Nations of the problems of the human environment," and to "focus the attention of Governments and public opinion in various countries on the importance of the problem."**
- This convention led UNEP to coordinate global action for the protection and preservation of the environment in December 1972.

STATE OF ENVIRONMENT REPORT: 2022 — GS-III ENVIRONMENT & ECOLOGY

Context

- According to Down To Earth 2022 Annual State of India's Environment, **three out of every four river monitoring stations in India posted alarming levels of heavy toxic metals** such as lead, iron, nickel, cadmium, arsenic, chromium and copper.

About the report

- The report is an annual compendium of environment-development data and is derived from public sources.
- It is released by environmental NGO, the Centre for Science and Environment (CSE).

Findings

- The Down To Earth 2022 Annual State of India's Environment has stated that India is behind on at least 17 key government targets that have a deadline in 2022.
- **Economy:** The target for the economy is to raise the gross domestic product to nearly $4 trillion by 2022-23. But by 2020, the economy has grown only to $2.48 trillion (Rs 18 trillion). In fact, the economy has largely shrunk during the COVID-19 pandemic, making it even more difficult to meet the deadline.
- **Employment:** The target is to increase the female labour force participation rate to at least 30 per cent by 2022-23; it stood at 17.3 per cent in January-March 2020.
- **Housing:** The targets are to construct 29.5 million housing units under Pradhan MantriAwasYojana (PMAY)-Rural and 12 million units under PMAY-Urban; only about 46.8 per cent and 38 per cent respectively of the targets under 'Housing for All' have been achieved.
- **Provision of drinking water:** The target is to provide safe piped drinking water to all by 2022-23; only 45 per cent of the target has been achieved.
- **Agriculture:** The target is to double farmers' income by 2022. While the average monthly income of an agricultural household has increased to Rs 10,218 from Rs 6,426, this increase is largely due to increase in wages and income from farming animals.
- **Digitisation of land records:** Another target is to digitise all land records by 2022. While states like Madhya Pradesh, West Bengal and Odisha have made good progress, states like Jammu and Kashmir, Ladakh and Sikkim languish at 5 per cent, 2 per cent and 8.8 per cent digitisation of land records, respectively.
- **Air pollution:** The target is to bring down PM2.5 levels in Indian cities to less than 50 microgramme per cubic metre (µg/m3). In 2020, when vehicular movement was restricted due to the pandemic, 23 of the 121 cities monitored for PM2.5 exceeded 50 µg/m3.
- **Solid waste management:** The target is to achieve 100 per cent source segregation in all households. The overall progress is 78 per cent; and while states like Kerala and Union territories like Puducherry have achieved the target, others like West Bengal and Delhi are woefully behind
- **Increasing the forest cover:** The target is to increase it to 33.3 per cent of the geographical area, as envisaged in the National Forest Policy, 1988. By 2019, 21.67 per cent of India was under forest cover.
- **Energy:** The target is to achieve 175 GW of renewable energy generation capacity by 2022. Only 56 per cent of this target has been achieved thus far.

GREEN JOBS

GS-III ENVIRONMENT & ECOLOGY

Context

- At an event to mark World Environment Day recently, Prime Minister mentioned India's efforts to create 'green jobs', and said: **There is another aspect of these efforts of India (in fighting climate change) which is rarely discussed and that is the subject of green jobs.**

What are 'green jobs'?

- 'Green jobs' refer to a **class of jobs that directly have a positive impact on the planet, and contribute to the overall environmental welfare.**
- Jobs involving renewable energy, conservation of resources, ensuring energy efficient means are categorised under the same.
- In all, they're aimed at reducing the negative environmental impact of economic sectors and furthering the process of creating a low-carbon economy.
- The idea behind a low-carbon economy or decarbonisation is fairly simple — it is about maintaining a sustainable economy, one that doesn't lead to vast emissions of greenhouse gasses, especially carbon dioxide.

India and 'green jobs'

- **The Skill Council for Green Jobs was launched by the Union government on October 1, 2015.**
- Aligned to the National Skill Development Missions, it was set up to be a **not-for-profit, independent, industry-led initiative**.
- Promoted by the Ministry of New and Renewable Energy (MNRE) and the Confederation of Indian Industry (CII), the council **aims to help manufacturers and other service providers in India's 'green business' sector to implement industry-led, collaborative skills push the country on the path to truly realising the real potential and significance of 'green jobs'**.
- According to the Skill Council for Green Jobs, **awareness and training individuals regarding green jobs skills will ensure limiting greenhouse gas emissions, minimising waste and pollution, protect and restore ecosystems, support adaptation to the effects of climate change.**

Scenario across the world

- Globally too, there have been multiple initiatives to further the 'green jobs' sector.

- The International Labour Organisation, the International Trade Union Confederation, the United Nations Environment Programme and the International Employers Organisation collectively launched the **Green Jobs Initiative in 2008**, aimed at bettering placements, training and creating opportunities for individuals to work in 'green jobs'.
- The **United Kingdom is likely to have nearly 694,000 green jobs by the year 2030, projecting an overall 11% increase per year in the green economy.**

Way forward

- According to the ILO, **India moving to a green economy by the next decade would alone create about 3 million jobs in the renewable energy sector**. The renewable energy sector created about 47,000 new jobs in 2017 accounting for a 12% increase in just the span of a year.
- For India 'green jobs' can prove immensely useful to the country with sectors like renewable energy, waste management, green transport and urban farming all having great potential to employ a trained workforce.
- An **integrated, systematic approach** is crucial to ensuring this.

CARBON BOMBS

GS-III ENVIRONMENT & ECOLOGY

Context

- A group of environmentalists, lawyers, and activists have come together **to identify and 'defuse carbon bombs'– coal, oil and gas projects that have the potential to contribute significantly to global warming.**

More on the news

- The usage of the term 'carbon bombs' picked up after an investigative project of The Guardian from May this year.
- The project reported the plans of countries and private companies all over the world to engage in 195 'carbon bomb' projects. Each such project, it is believed, will release huge amounts of CO2 emissions into the atmosphere.

What are carbon bombs?

- Defining the term in its report, The Guardian said that it is "**an oil or gas project that will result in at least a billion tonnes of CO2 emissions over its lifetime.**"
- Whenever coal, oil, or gas is extracted it results in pollution and environmental degradation. Further, carbon emissions take place in particularly large amounts when fuel is burned.
- **In total, around 195 such projects have been identified world over, including in the US, Russia, West Asia, Australia and India.**
- According to the report, they will collectively overshoot the limit of emissions that had been agreed to in the Paris Agreement of 2015.
- More than 60% of these carbon bomb projects are already underway, according to the investigation.
- Apart from coal, oil, and gas operations, the report highlighted the **threat of methane, which "routinely leaks from gas operations and is a powerful greenhouse gas, trapping 86 times more heat than CO2 over 20 years".**
- It also put the blame on the companies conducting these operations, pointing to present time where multiple factors, especially the Russia-Ukraine crisis, have led to a reduction in supply and rise in the demand for fuel.
- The report criticised reliance on fuel from conventional sources and not making use of emerging, green sources of energy.

What is the plan for 'defusing' carbon bombs?

- The network working towards this goal is called **Leave It In the Ground Initiative (LINGO).** Its mission is to "leave fossil fuels in the ground and learn to live without them."
- It believes the root of climate change is the burning of fossil fuels, and the 100% use of renewable energy sources is the solution.
- On its website, it has listed carbon bomb projects from all over the world. This includes the Carmichael Coal Project owned by the Adani Group, Gevra Coal Mines in Chhattisgarh owned by Coal India, and Rajmahal Coal Mines in eastern Jharkhand owned by Eastern Coalfields.
- LINGO **aims to organise ground support for protesting such projects, challenge them through litigation, and conduct analysis and studies for the same.**

RHINO REINTRODUCTION SUCCESS IN ASSAM

Context

- The **one-horned rhinos of western Assam's Manas National Park, bordering Bhutan, have an age structure pyramid, indicating higher life expectancy and significant growth in the population.**

More on the news

- On the flip side, the **500-sq.-km park does not have "a wider representation of calves and sub-adults" to sustain the population structure unless it is supplemented through conservation translocations, the 14 th Assam rhino estimation conducted in April has revealed.**
- **Manas, a UNESCO World Heritage Site and a tiger reserve**, had about 100 resident rhinos prior to 1990, but a prolonged **ethno-political conflict thereafter took a heavy toll with extremist groups known to have traded the horns of the herbivores for weapons.**
- A **rhino reintroduction programme under the Indian Rhino Vision 2020 was started in 2006.** This entailed the **translocation of rhinos from Kaziranga National Park and Pobitora Wildlife Sanctuary besides orphans hand-reared at the Centre for Wildlife Rehabilitation and Conservation at Kaziranga.**

Great Indian rhinoceros

- The Indian rhinoceros also called greater one-horned rhinoceros or great Indian rhinoceros is a rhinoceros species **native to the Indian subcontinent**.
- It is the **only large mammal species in Asia to be down-listed from endangered to vulnerable in the International Union for Conservation of Nature,** IUCN Red list in 2008.
- The extent and quality of the rhino's most important habitat are considered to be in decline due to hunting, agricultural development in Tarai region and livestock encroachment.
- Indian rhinos once ranged throughout the entire stretch of the Indo-Gangetic Plain has reduced drastically to 11 sites in northern India and southern Nepal.

Indian Rhino Vision 2020 (IRV2020)

- Designed in **2005**, the IRV2020 is believed to have achieved its target of attaining a population of **3,000 rhinos in Assam.**
- But the plan to spread the Rhinoceros unicorn is across four protected areas beyond Kaziranga National Park, Orang National Park and Pobitora could not materialise.
- **Wild-to-wild translocations were** an essential part of IRV2020 – moving rhinos from densely populated parks like Kaziranga NP to ones in need of more rhinos, like Manas NP.
- Rhinos are now found in **four Protected Areas in Assam: Pabitora Wildlife Reserve, Rajiv Gandhi Orang National Park, Kaziranga National Park, and Manas National Park.**

National Rhino Conservation Strategy for India

- It called for active engagement between **India and Nepal to conserve the greater one-horned rhinoceros**
- The single population of rhinos in Sukla-Phanta (Nepal), **Valmiki tiger reserve (India)**and Chitwan National Park (Nepal) and **Dudhwa (India)**is separated by the political boundary between the two countries.
- Instead of managing the two populations differ in the two countries, plan focus on the managing rhino population with the same protocol.
- The plan calls for expanding distribution range as occurrence of 90 per cent of the rhino in one protected area is a cause of concern.
- It also calls for strengthening protection, having dedicated research and monitoring and strict enforcement.
- The objectives include
  - strengthening protection,
  - expanding the distribution range,
  - research and monitoring, and
  - adequate and sustained funding.

ENVIRONMENTAL PERFORMANCE INDEX 2022

GS-III ENVIRONMENT & ECOLOGY

Context

- The newly released Environmental Performance Index (EPI) 2022, measured by Yale and Columbia universities, **ranks India at the bottom position** among 180 countries. The Environment Ministry has issued a rebuttal saying the indicators used in the assessment are **based on "unfounded assumptions"**.

About

- The EPI is an international ranking system of countries based on their environmental health.
- It is **a biennial index, first started in 2002 as the Environment Sustainability Index by the World Economic Forum in collaboration with the Yale Center for Environmental Law and Policy and Columbia University Center for International Earth Information Network.**
- EPI 2022 **uses 40 performance indicators to assess and rank 180 countries.**
- The 40 indicators are under the broad categories of climate change performance, environmental health, and ecosystem vitality. The 2022 EPI has included new parameters to its earlier assessments, with projections of progress towards net-zero emissions in 2050, as well as new air quality indicators, and sustainable pesticide use.

How poor is the EPI assessment of India?

- With a rank of 180 and a score of 18.9, **India has fallen from rank 168 and a score of 27.6 in 2020**.
- **India comes after Pakistan, Bangladesh, Vietnam and Myanmar, the poorest performers**.
- **Denmark tops the list with a score of 77.9.**
- India ranks close to the bottom on a number of indicators including ecosystem vitality (178th), biodiversity (179th), biodiversity habitat index (170th), species protection index (175th), wetland loss, air quality (179th), PM 2.5 (174th), heavy metals such as lead in water (174th), waste management (151st) and climate policy (165th) including projected greenhouse gas emissions (171st).
- India has also scored low on rule of law, control of corruption and government effectiveness.

What objections has India raised?

- Ministry of Environment, Forest and Climate Change said that some of the **indicators used for assessing performance are extrapolated and based on surmises and unscientific methods.**
- Ministry cited two major concerns – **that baseline data does not seem to have been used, and that there has been no explanation for the weights assigned to certain indicators**.
- The Ministry said the **shifting of weightage on many indicators has resulted in India's low ranking**. For example, for black carbon growth, India's score actually improved from 32 in 2020 to 100 (the top score) in 2022, but the weightage of this indicator has been reduced to 0.0038 in 2022 from 0.018 in 2020.
- Experts also believe that the climate change parameter of the EPI report is "highly problematic"

How seriously should the findings be taken?

- Despite the inconsistencies, the government should not ignore the fact that India was at 168th rank in 2020 and has never been in the top 150 countries since the index was started.
- India does have severe local environmental issues, which have been highlighted in the report and need to be addressed.

BAN ON SINGLE-USE PLASTIC

GS-III ENVIRONMENT & ECOLOGY

Context

- The Centre **has banned the use of 'single-use plastic' from July 1.** The Ministry for Environment, Forest and Climate Change issued a gazette notification last year announcing the ban and has now defined a list of items that will be banned from next month.

What is single-use plastic?

- As the name suggests, it refers to **plastic items that are used once and discarded.**
- Single-use plastic has **among the highest shares of plastic manufactured and used** — from packaging of items, to bottles (shampoo, detergents, cosmetics), polythene bags, face masks, coffee cups, cling film, trash bags, food packaging etc.
- A 2021 report by one of the Australian philanthropic organisations the Minderoo Foundation said single-use plastics account for a third of all plastic produced globally, with 98% manufactured from fossil fuels.

- Single-use plastic also accounts for the majority of plastic discarded – 130 million metric tonnes globally in 2019 — "all of which is burned, buried in landfills or discarded directly into the environment", the report said.
- On the current trajectory of production, it has been projected that **single-use plastic could account for 5-10% of greenhouse gas emissions by 2050.**
- The report found that India features in the top 100 countries of single-use plastic waste generation – at rank 94 (the top three being Singapore, Australia and Oman.
- With domestic production of 11.8 million metric tonnes annually, and import of 2.9 MMT, India's net generation of single-use plastic waste is 5.6 MMT, and per capita generation is 4 kg.

What are the items being banned?

- The items on which the Central Pollution Control Board (CPCB) have announced a ban are **earbuds; balloon sticks; candy and ice-cream sticks; cutlery items including plates, cups, glasses, forks, spoons, knives, trays; sweet boxes; invitation cards; cigarette packs; PVC banners measuring under 100 microns; and polystyrene for decoration.**
- The Ministry had already banned polythene bags under 75 microns in September 2021, expanding the limit from the earlier 50 microns.
- From December, the ban will be extended to polythene bags under 120 microns.
- While manufacturers can use the same machine for 50- and 75-micron bags, the machinery will need to be upgraded for 120 microns.
- According to the Plastic Waste Management Rules, 2016, there is also a complete ban on sachets using plastic material for storing, packing or selling gutkha, tobacco and pan masala.
- The items chosen are difficult to collect, especially since most are either small, or discarded directly into the environment – like ice-cream sticks. It then becomes difficult to collect for recycling, unlike the much larger items.

How will the ban be enforced?

- The **ban will be monitored by the CPCB from the Centre and by the State Pollution Control Boards** (SPCBs) that will report to the Centre regularly.
- **Directions have been issued at national, state and local levels** — for example, to all petrochemical industries — to not supply raw materials to industries engaged in the banned items.
- **Directions have also been issued to SPCBs and Pollution Control Committees** to modify or revoke consent to operate issued under the Air/Water Act to industries engaged in single-use plastic items.
- **Local authorities have been directed to issue fresh commercial licenses** with the condition that SUP items will not be sold on their premises, and existing commercial licences will be cancelled if they are found to be selling these items.

How are other countries dealing with single-use plastic?

- Earlier this year, **124 countries, parties to the United Nations Environment Assembly, including India, signed a resolution** to draw up an agreement which will in the future make it legally binding for the signatories to address the full life of plastics from production to disposal, to end plastic pollution.
- **Bangladesh became the first country to ban** thin plastic bags in 2002. New Zealand became the latest country to ban plastic bags in July 2019. China issued a ban on plastic bags in 2020 with phased implementation.
- As of July 2019, **68 countries have plastic bag bans with varying degrees of enforcement**.
- Eight states in the US have banned single-use plastic bags, beginning with California in 2014. Seattle became the first major US city to ban plastic straws in 2018.
- On July 2, 2021, the **Directive on Single-Use Plastics took effect in the European Union** (EU). The directive bans certain single-use plastics for which alternatives are available; single-use plastic plates, cutlery, straws, balloon sticks and cotton buds cannot be placed on the markets of the EU member states.

CORAL SPECIES IN INDIAN WATER

GS-III ENVIRONMENT & ECOLOGY

Context

- Four new corals recorded from Indian waters. The **species newly found off Andaman and Nicobar Islands belong to same family.**

More on the news

- These new species of azooxanthellate corals were found from the waters off the Andaman and Nicobar Islands.
- The **azooxanthellate corals are a group of corals that do not contain zooxanthellae and derive nourishment not from the sun but from capturing different forms of planktons.**

- They are deep-sea representatives with the majority of species being reported from depths between 200 metres and 1,000 metres. They are also reported from shallow waters unlike zooxanthellate corals that are restricted to shallow waters.
- **A**ll the four groups of corals are **from the same family, Flabellidae.**
- Truncatoflabellumcrassum (Milne Edwards and Haime, 1848), T. incrustatum (Cairns, 1989), T. aculeatum (Milne Edwards and Haime, 1848), and T. irregulare (Semper, 1872) under the family Flabellidae were **previously found in Japan, the Philippines and Australian waters, while only T. crassum was reported with the range of Indo-West Pacific distribution.**
- **Azooxanthellate corals are a group of hard corals and the four new species recorded are not only solitary but have a highly compressed skeletal structure**.
- Degradation and loss of coral reefs can affect about 4.5 million people in southeast Asia and the Indian Ocean, according to the Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report on Impacts, Adaptation and Vulnerability.
- Corals occupy **only 0.1% of the global sea surfaces**; but more than **25% of marine biodiversity** is supported by them.
- Due to global warming and anthropogenic activities coral reefs are being bleached and are dying due to **rising temperature, ocean acidification and sea level rise**
- The report added that regional long-term trends and inter-decadal variations were observed in coral growth and sea surface temperatures in the South China Sea.
- Report pointed out that the **increase in pathogen abundance (virulence) and increase in susceptibility of the host reef**, has led to a rise in the severity of coral diseases. It has also led to the decline in coral reef community composition.

What are corals?

- Corals exhibit characteristics of plants but are marine animals that are related to jellyfish and anemones.
- Coral polyps are tiny, soft-bodied organisms. At their base is a hard, protective limestone skeleton called a calicle, which forms the structure of coral reefs.
- Reefs begin when a polyp attaches itself to a rock on the seafloor, then divides, or buds, into thousands of clones.
- The polyp calicles connect to one another, creating a colony that acts as a single organism.
- As colonies grow over hundreds and thousands of years, they join with other colonies, and become reefs.
- There are soft corals as well, which are non-reef-building, and resemble bushes, grasses, trees.

Why are coral reefs important?

- Coral reefs are like underwater cities that **support marine life**.
- According to the UN Environment programme, they provide at least half a billion people around the world with **food security and livelihoods.**
- Coral reefs also act as **'wave breaks'** between the sea and the coastline and **minimise the impact of sea erosion**.
- In India, they are protected in the same way as the tiger or elephant, under **Schedule I of the Wildlife Protection Act (WPA), 1972.**

What poses a threat to coral reefs?

- **Climate change** remains one of the biggest threats to corals.
- This threat has been visible in the "**bleaching" of corals.**
  - Bleaching is a process during which corals, under stress from warm weather, expel the algae that give corals their brilliant colours and live in their tissues and produce their food.
- The **Great Barrier Reef** off the coast of Australia, a **UNESCO World Heritage site** and home to one of the largest collections of coral reefs on the planet, has suffered six mass bleaching events due to warmer than normal ocean temperatures: in 1998, 2002, 2006, 2016, 2017, and now 2020.

WATER HYACINTH

GS-III ENVIRONMENT & ECOLOGY

Context

- Bikram Mitra from Kolkata, West Bengal has made an outstanding example by utilising this obnoxious aquatic weed plant to develop small-scale cottage industry that is both financially rewarding as well as environmentally friendly in approach.

More on the news

- He meticulously studied and trained himself to **use water hyacinth stems in preparing biodegradable paper.**
- Slowly, he mastered the craft and started designing biodegradable cups, plates, boxes and other environmentally friendly daily-use products that are cheaper and can serve as an alternative for plastic and thermocol cups, plates, dishes and glasses.
- He has now **successfully established his own, small cottage industry-based workshop in North Kolkata, along with his associates under an organization named Earth Trust.**

- Mitra and his core team have been running a series of workshops and training programmes across West Bengal on making sustainable products from water hyacinth stems.
- A large section of the students participating in these workshops are women representing various age groups.
- **The self-employed rural women are not only earning extra money to support their families but are also serving as local trainers for Mitra.**
- Thus, within the last five years, the **network has developed strongly in rural Bengal and shows promises for rural employment in the not-so-distant future.**

About

- Water hyacinth, scientifically known as **Eichhorniacrassipes Mart. (Pontederiaceae),** is an **aquatic weed common in waterbodies across South Asia, including India.**
- This is **not an indigenous species but was introduced to India during the British colonial rule as an ornamental aquatic plant from South America.**
- The plant **produces beautiful purple flowers that have high aesthetic value.**
- This simple, floating aquatic plant, unfortunately, is also an **obnoxious weed that has been suffocating surface freshwater sources like rivers, rivulets, streams, ponds, dams, lakes and bogs, making the waterbodies unsuitable for commercial fishery, transportation and recreation.**
- The plant is a **prolific vegetable matter-producer and has the ability to choke out any closed waterbody at an astonishing rate.** This **cuts off sunlight as well as reduces oxygen level in the water, making it unfit for commercial use.**
- It is an **expensive and labour-intensive process to remove this weed from time to time**.
- The plant has been **used as a bio-fertiliser in some organic agriculture practises**, but it is mostly a nuisance plant detrimental to both ecosystem and environment.
- However, it has been reported that **this plant is a good phytoremediation species, suggesting it has the ability to trap and remove toxic metabolites and harmful heavy metals from water**.
- The plant is extremely tolerant of, and has a high capacity for, the uptake of heavy metals, including cadmium, chromium, cobalt, nickel, lead and mercury, which could make it **suitable for the biocleaning of industrial wastewater.**
- Plant has abundant nitrogen content, it can be used as a **substrate for biogas production and the sludge obtained from the biogas.**

MULTILATERAL FUND FOR BIODIVERSITY

GS-III ENVIRONMENT & ECOLOGY

Context

- The **Global Environment Facility, the only multilateral fund focused on biodiversity, has promised to provide $5.33 billion over the next four years to address problems related to biodiversity worldwide, it announced at an information session of the ongoing preparatory meeting on the Post-2020 Global Biodiversity Framework meeting in Nairobi.**

More on the news

- The amount is **30 per cent more than the last four years**.
- **Biodiversity would be the focus area during these years and at least 60 per cent of the commitments will be related to biodiversity**
- GEF plans to provide the funds to improve food systems, ecosystem restoration, ensuring clean and healthy oceans, climate change mitigation and managing chemicals and waste, among other things.
- The **plan is to provide $1 million per country for in-country work and $9 million as global technical assistance.**
- This would help meet goals. But **it is much less than the requirement estimated by Campaign for Nature, a non-profit. They said that at least one per cent of global gross domestic product is needed each year to deal with the biodiversity crisis.**
- The organisation estimates the requirement to be at least $60 billion each year.
- Earlier, **a group of countries including Argentina and Brazil and Gabon, called for developed countries to provide at least $100 billion a year, rising to $700 billion per year by 2030.**

Background

- The **world failed to meet the Aichi targets on biodiversity set for 2011-2020, due to lack of adequate financial resources.** In 2020, an assessment showed that none of the 20 Aichi targets had been met.
- Campaign for Nature asked developed countries to provide funds in the form of grants and not debt and also ensure that indigenous people and local communities had direct access to these resources.
- This is important in light of the recent developments where people from Tanzania's Maasai community are being forcefully evicted from their ancestral land to make way for a luxury game reserve for the rich.

- Investing in the environment is important considering that money spent now can help avoid massive future costs that come from the degradation of nature as well as zoonotic diseases and pandemics that can be caused due to the loss of nature.
- There is also a need to eliminate subsidies that are harmful to nature. These include subsidies on fishing or promotion of fossil fuels.

About GEF

- The Global Environment Facility (GEF), **established on the eve of the 1992 Rio Earth Summit**, is a **unique partnership of 18 agencies** — including United Nations agencies, multilateral development banks, national entities and international NGOs — working with 183 countries to address the world's most challenging environmental issues.
- The GEF has a large network of civil society organizations, works closely with the private sector around the world, and receives continuous inputs from an independent evaluation office and a world-class scientific panel.
- It is a **financial mechanism for five major international environmental conventions:** The Minamata Convention on Mercury, the Stockholm Convention on Persistent Organic Pollutants (POPs), the United Nations Convention on Biological Diversity (UNCBD), the United Nations Convention to Combat Desertification (UNCCD) and the United Nations Framework Convention on Climate Change (UNFCCC).
- GEF is also an **innovator and catalyst that supports multi-stakeholder alliances to preserve threatened ecosystems on land and in the oceans, build greener cities, boost food security and promote clean energy for a more prosperous, climate-resilient world; leveraging $5.2 in additional financing for every $1 invested.**
- The **GEF Trust Fund was established to help tackle our planet's most pressing environmental problems.** Funds are available to developing countries and countries with economies in transition to meet the objectives of the international environmental conventions and agreements.

INVASIVE PLANT SPECIES / GS-III ENVIRONMENT & ECOLOGY

Context

- A **vitamin D3-rich weed and shrub with roots wild boars love to gorge on are among 18 invasive plants stifling the Kaziranga National Park** and Tiger Reserve, the best-known address of the greater one-horned rhinoceros on earth.
- Kaziranga has had to deal with encroachment, poaching, and annual floods for decades. But none of these has been as damaging to the health of the 1,300 sq. km tiger reserve as the green invaders that have gone under the radar until now.

What is an invasive species?

- A species is termed invasive **if it's previously absent in that ecosystem and has been introduced in that area from outside mostly by human intervention.**
- A common trait is the presence of some trait absent in local fauna or flora which enables it to have a competitive edge over the native species.
- The **Rio de Janeiro Convention on Biodiversity** (1992) had recognised the biological invasion of alien species of plants as the second-worst threat to the environment after habitat destruction.
- **Cartagena Protocol on Biosafety** (2000) seeks to protect biological diversity from the potential risks posed by Living Modified Organisms resulting from modern biotechnology.
- Article 8 (h) of the **Convention on Biological Diversity** calls on Parties to prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species.
- **Bonn Convention** (1979) also aims to control or to eliminate already present invasive alien species.
- **Convention on International Trade in Endangered Species** of Wild Fauna and Flora also consider the problems of invasive species when it is involved in trade and threatens the survival of live animals or plants.
- **Ramsar Convention** (1971) addresses the environmental, economic and social impact of invasive species on wetlands.

About KNP

- Kaziranga National park's is home to more than 2200 Indian **one-horned rhinoceros**, approximately **2/3rd of their total world population.**
- It is located in the edge of the **Eastern Himalayan biodiversity hotspots** – Golaghat and Nagaon district.
- In 1985, it was declared as a **World Heritage Site by UNESCO.**
- **It was declared as Tiger Reserve in 2006.**
- It is recognized as an **Important Bird Area by BirdLife International** for the conservation of avifaunal species.

BHARAT GAURAV SCHEME

GOVERNMENT SCHEMES

In News

- The Indian Railways **flagged off** the Bharat Gaurav Train from Coimbatore to Shirdi.
- It was **the country's first privately-run train under the Bharat Gaurav scheme.**
- The Union Government has launched the Bharat Gaurav policy in 2020 to allow private players to operate trains on theme-based circuits.
- The Private Service provider has renovated the interiors of the coaches.
- A team of service professionals to offer passengers a healthy experience.
- A public address system has been equipped in all coaches for standard communication, and playing of devotional songs and mantras.

Bharat Gaurav policy

- **Under the Bharat Gaurav policy, an operator or service provider can lease trains from Indian Railways** to operate on a theme-based circuit as a special tourism package.
- The lease period will be **a minimum of 2 years and a maximum of the coral life of the coach.**
- The operator or service providers will have **the freedom to decide the route, the halts, the services provided, and the tariff.**
- The operator has to take care of end-to-end, comprehensive services like hotel stay, local arrangements, etc.
- These trains **cannot be used as ordinary transport or passenger trains**.
- **Indian Railways** will provide staff to drive the trains, guards and also maintenance staff.
  - Other staff, like housekeeping and catering, etc, will be deployed by the operator.

NIPUN

GOVERNMENT SCHEMES

In News

- **The Minister of Housing & Urban Affairs has launched the "NIPUN" initiative to provide skill training to construction workers**.
- National Initiative for Promoting Upskilling of Nirman workers (NIPUN) initiative is launched under the Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM) to train over 1 lakh construction workers.
- The Minister also interacted with some construction workers and presented them with safety helmets.
- It will **provide skills to workers and help them to adopt future trends in the construction industry.**
- It will also increase their capabilities and diversify their skill sets.

National Urban Livelihoods Mission

- It was **launched by the Ministry of Housing and Urban Poverty Alleviation in 2013.**
  - It replaced the Swarna Jayanti Shahari Rozgar Yojana (SJSRY).
- **The main objective is to;**
  - Organizing urban poor at the grassroots level.
  - Ensuring their sustainable livelihood opportunities through skill development.
  - Provide the poor with market-based employment.
- Implemented in all districts and all other cities with a population of 1,00,000 or more as per the 2011 census.
- The **mission aims to;**
  - **Reduce poverty** and vulnerability of the urban poor households.
  - Enabling them to **access gainful self-employment** and skilled wage employment opportunities.
  - Bring **improvement in their livelihoods** on a sustainable basis.
  - **Building strong grassroots** level institutions.
  - **Providing shelters** equipped with essential services to the urban homeless in a phased manner. In addition, the mission would also address livelihood.
- 7 important **components of NULM:**
  - Innovative and Special project
  - Self-Employment Programme.

- Support to Urban Street Vendors.
- Capacity Building and Training.
- Social Mobilization and Institution Development.
- Scheme of Shelter for Urban Homeless.
- Employment through Skills Training and Placement

AGNIPATH SCHEME

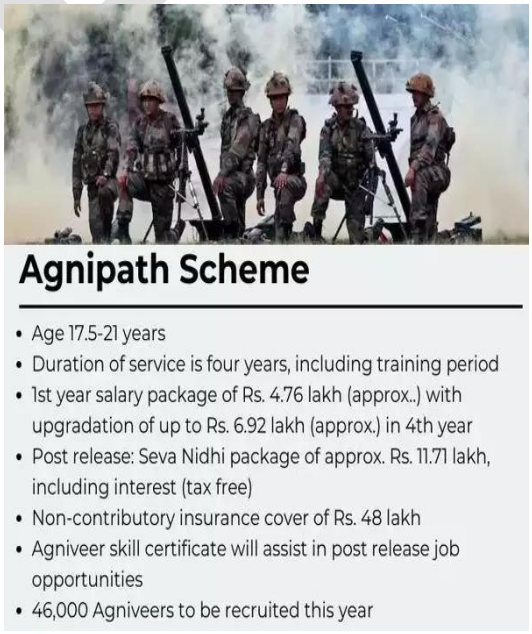
GOVERNMENT SCHEMES

In News

- The Union government has announced the 'Agnipath Scheme' **to transform the process of recruitment of soldiers, sailors and airmen into the Defence Services.**
- The scheme has created controversies and protests in several parts of the country.

AGNIPATH Scheme

- **The objective of the AGNIPATH Scheme** is to **encourage youth to serve in the Armed Forces for 4 years**.
- The youth **selected under the scheme will be known as Agniveers.**
- They will get an attractive monthly package with Risk and Hardship allowances.
- They will be paid a **one-time Seva Nidhi package after the engagement of four years**.
  - It will be exempt from Income Tax.
- Agnipath Scheme will positively impact the Human Resources Management of the Armed Forces.
- They will get a salary of Rs 30,000 to Rs 40,000 per month and an allowance as applicable.
- There shall be no entitlement to gratuity and pensionary benefits.
- They will get a Life Insurance Cover of Rs 48 lakh during their service in the Indian Armed Forces.
- **About 25% of Agniveers will be selected in the Armed Forces as regular cadres.**
- The **eligibility age limit will be in the range of 17.5 to 21 years**, and they will be selected based on all India-level competitions.



Arguments in Support of the Scheme

- It will **provide a younger military**; the average age will go down from 32 to 26 years.
- It will **attract technologically smart people** and they will be more talented in handling new kinds of modern equipment.
- It will **attract people from the Industrial Training Institutes** (ITIs) and other technical institutes.
- It will help to **reduce the salary and pension budgets**.

Arguments against the Scheme

- 4-year limitations will **discourage people** from joining defence forces.
- It will **mentally and psychologically affect** the youth as they could fail to maintain the same levels of morale and motivation that permanent soldiers have in the military.
- The shortened training period **will affect the skill and capabilities** of the new soldiers.
- It **will impact the operational effectiveness** of the defence forces.

Way Forward

- It will be too early to judge the outcome of the scheme. It should be **adopted first at a small level to observe how it works**, and then after proper observation and making adjustments according to the ground realities, we can adopt it on large scale.

TÜRKIYE — PLACES IN NEWS

Context

- Turkey will now be known as Türkiye at the United Nations, after the UN agreed to a formal request for the name change from Ankara.

Geography

- 97% of Turkey located in Asia and the rest in Europe.
- European part of Turkey called Eastern Thrace is located at the extreme eastern edge of the Balkan Peninsula. The Asian part that is separated from the former by the Turkish Straits, occupies most of the Anatolian Plateau region.
- Turkey's **highest point is Mt. Ararat** which peaks at 16,948 ft. (5,166m).
- The Tigras, Kizilirmak, Sakarya, and Euphrates are the most significant rivers, and **Lake Van is the largest lake.**
- The Turkish Straits (Bosphorus and Dardanelles) and Sea of Marmara separate the European part of Turkey called East Thrace from Anatolia.
- Turkey is located in the **Northern and Eastern Hemispheres of the Earth**.

- It is **bordered by seven countries**: Greece and Bulgaria to the northwest, Georgia to the northeast, Armenia and Iran to the east, Iraq to the southeast, and Syria to the south. The country has **coastlines on the Black Sea to the north Aegean Sea to the west and the Mediterranean Sea to the south.**
- **Major Cities:** Istanbul , Izmir , Bursa Adana , Gaziantep Konya , Antalya , Diyarbakir , Mersin. **Capital:** Ankara.

YANKTI KUTI VALLEY — PLACES IN NEWS

Context

- Multiple events of glacial advances have been witnessed from the Yankti Kuti valley since 52 thousand years that synchronizes with climate variability, according to a new study.

About

- Kuti Valley is a Himalayan valley situated in the **Pithoragarh District, Kumaon division of the**.
- Located in the **eastern part of Uttarakhand**, it is the **last valley before the border with Tibet**.
- It **runs along a NW to SE axis,** formed by the river Kuti Yankti, which is one of the headwaters of the Kali River that forms the boundary between India and Nepal in this region.
- This valley is mainly **dominated by Byansis, one of the four Bhotiya communities of Kumaon**, with the others being Johar, Darmiya and Chaudansi.
- In May 2020, Nepal laid claim to the northeastern half of the valley, claiming that Kuthi Yanki represented the Kali River and it was meant to be Nepal's border by the 1816 Sugauli Treaty. India said that the claim was not based on historical facts and evidence.

LAKE SAWA — PLACES IN NEWS

Context

- Iraq's 'pearl of the south' Lake Sawa is drying amid water crisis.

About

- Sawa Lake is an **endorheic basin located in the Iraqi governorate of Muthanna near to the Euphrates River**. It is some 23 kilometres to the **west of Al-Samawa city.**

- This **lake has no inlet or outlet**, but it **draws water from the Euphrates** through a system of joint cracks and fissures. Lake Sawa is characterized by **highest salinity value.** Sawa Lake is characterized by arid climate. The lake has been designated as a **protected Ramsar site since 2014.**

PADMA MULTIPURPOSE BRIDGE — PLACES IN NEWS

Context

- Recently, PM of Bangladesh inaugurated the Padma Multipurpose Bridge across the Padma river, calling it "a symbol of pride.

Details

- **About:** The Padma Multipurpose Bridge is a two-level **road-rail bridge** across the Padma River, the **main distributary of the Ganges in Bangladesh**.
- **Links:** It **connects Shariatpur and Madaripur**, linking the southwest of the country to the northern and eastern regions.
- **Dimensions:** It is the **longest bridge in Bangladesh**, the **longest bridge over the river Ganges** by both span and total length, and features the **highest pile depth of any bridge in the world** at 120 m (390 ft).

Padma River

- The Padma is a major river in Bangladesh. It is the main distributary of the Ganges, flowing generally southeast for 120 kilometres to its **confluence with the Meghna River near the Bay of Bengal**. The **city of Rajshahi is situated on the banks of the river.**

SNAKE ISLAND — PLACES IN NEWS

Context

- Ukraine's army has said it had launched airstrikes on Zmiinyi Island, also known as Snake Island, causing significant losses to Russia.

Snake Island

- Snake Island, also known as Serpent Island or Zmiinyi Island, is an **island belonging to Ukraine located in the Black Sea**.
- The island is **X-shaped** and it is located **east of the mouth of the Danube River roughly southwest of the port city of Odessa.**
- The island has been known since classical antiquity, and during that era hosted a Greek temple to Achilles.
- The island is marked on the map by the tiny **village of Bile that is located on it,** belongs to Ukraine.

Black Sea

- **About:** The Black Sea is a marginal sea of the Atlantic Ocean **lying between Europe and Asia.**
- **Borders:** It is bordered by **Bulgaria, Georgia, Romania, Russia, Turkey, and Ukraine.**
- **Rivers flowing into it**: It is supplied by major rivers, principally the **Danube, Dnieper, and Don.**
- **Drainage:** The Black Sea **drains into the Mediterranean Sea**, via Turkish Straits and Aegean Sea.
- **Straits**: The **Bosporus Strait connects it to the Sea of Marmara** which in turn is connected to the Aegean Sea via the Strait of the Dardanelles. To the north, the Black Sea is **connected to the Sea of Azov by the Kerch Strait.**
- **Coverage:** Black Sea covers 436,400 km2, making it the **world's largest inland body of water.**

Danube

- **About:** The Danube is the **second-longest river in Europe**, after the Volga in Russia. It **flows through Central and Southeastern Europe**, from the Black Forest into the Black Sea.
- **Origin:** Danube originates in the **town of Donaueschingen**, in the **Black Forest of Germany**, at the **confluence of the rivers Brigach and Breg.**

- **Cities it flows through:** Danube flows through four capital cities (Vienna, Bratislava, Budapest, and Belgrade) before emptying into the Black Sea via the Danube Delta in Romania and Ukraine.
- **Borders of countries**: The River touches the borders of 10 countries: Romania, Hungary, Serbia, Austria, Germany, Bulgaria, Slovakia, Croatia, Ukraine, and Moldova.

SHORT NEWS ARTICLES

GS-I

CULTURE & HISTORY

Sant Kabir Das

Context

- President Ram NathKovind said **SantKabir Das showed the path of equality and harmony to society and inspired it to do away with the evils, pomp and discrimination.**

About

- He was a **15th-century Indian mystic poet and saint**, whose writings **influenced Hinduism's Bhakti movement and his verses are found in Sikhism's scripture Guru Granth Sahib**.
- He was **strongly influenced by his teacher, the Hindu bhakti leader Ramananda.**
- He **questioned meaningless and unethical practices of all religions**.
- Kabir's legacy survives and continues through the **Kabirpanth, a religious community that recognises him as its founder and is one of the Sant Mat sects.**
- SantKabir Das was **born in the city of Varanasi, Uttar Pradesh**.
- Literature: KabirGranthawali, Anurag Sagar, Bijak, and SakhiGranth.
- **The major part of his work was collected by the fifth Sikh guru, Guru Arjan Dev.**

Sital Sasthi

Context

- According to the Hindu calendar, SitalSasthi is **observed on the sixth day of the Jyestha month during the Shukla Paksha.**

About

- SitalSasthi is a **sacred Hindu festival is being celebrated in Odisha**.
- It is **celebrated as the marriage of Shiva and Parvati, a major festival of Utkal Brahmins (commonly called as Odia brahmans) and Aranyaka Brahmins (commonly called as Jhaduabrahmans) since ages**.
- It was started 400 years ago in Sambalpur after the king of Sambalpur brought UtkalSrotriyaVaidika Brahmins from brahminsasana villages of Puri district.
- This Hindu festival is in the form of a carnival where people and artists from different walks of life participate making it more beautiful and bringing out the true colours of life.
- The aim being to call the rain Gods to give reprieve from the scorching heat of the Sun.

Kheerbhawani Temple

Context

- **Kashmiri Hindus, locally known as Pandits, will celebrate the Zyestha Ashtami at the Mata Kheerbhawani temple at Tulmulla in central Kashmir's Ganderbal.**

About

- The temple is dedicated to the **goddess Ragnya Devi.**
- Situated 30 km from Srinagar city, it is one of the most sacred pilgrimage sites for Kashmiri Hindus.
- **The temple gets its name from kheer, or milk and rice pudding, that pilgrims pour into the spring inside the temple complex as an offering to the goddess.**
- Legend has it that the water of the temple's spring changes colour from white to red and black. The colour of the water is said to predict the impending future. If it changes to black, it is seen as inauspicious or an impending disaster.
- Kashmiri Pandits say that the water had turned black before they were forced to flee Kashmir during the militancy of 1990.
- Every year, a mela or festival is held at the temple. **The festival, known as MelaKheerbhawani, is the largest gathering of Hindus in Kashmir after the annual AmarnathYatra**.
- Maharaja Pratap Singh built this temple in 1912, which was later renovated by Maharaja Hari Singh.
- The shrine has a hexagonal spring and a small marble shrine where the goddess' idol is installed.
- According to legends, Lord Rama worshipped the goddess during his exile. He expressed his desire of shifting the holy seat to

Shadipora, which was fulfilled by Lord Hanuman. The temple was shifted to its present site after the goddess appeared in the dream of a local pundit named RugnathGadroo.

Tukaram Temple

Context

- Prime Minister Narendra Modi will **inaugurate the SantTukaramShilaMandir in the temple town of Dehu in Pune district.**

More on the news

- **Shila refers to a rock that is currently on the DehuSansthan temple premises, and that for centuries has been the starting point of Wari, the annual pilgrimage to Pandharpur.**
- The Bhakti saint SantTukaram had sat on this piece of rock for 13 continuous days when challenged about the authenticity of the Abhyangs he had written.
- **SantTukaram and his work are central to the Warkari sect spread across Maharashtra. His message about a casteless society and his denial of rituals had led to a social movement. SantTukaram is credited with starting the Wari pilgrimage.**

Sant Tukaram

- Tukaram **was born in the Indian state of Maharashtra**. Tukaram Bolhoba Ambile was his full name.
- His **master was Saint Chaitanya Mahaprabhu** of the Bhakti movement.
- A 17th-century poet-saint who lived with Maratha ruler ShivajiMaharaj and saints such as Eknath and Ramdas.
- His **poetry was dedicated to Vithoba or Vitthala**, an avatar of Vishnu, the Hindu God.
- He is **most known for his Marathi Abangas** (dohas), which are a rich inheritance of Gatha - devotional poetry, and he was also crucial for laying the groundwork for Maratha nationalism.
- He emphasized community-based worship through spiritual melodies known as Kirtans. He promoted the virtues of piety, forgiveness, and inner tranquillity.

Sao Joao Festival

Context

- Catholics in Goa celebrated Sao Joao, the **feast of St John the Baptist, on June 24.**

About

- In Goa, Catholics celebrate all the feasts of the Roman Catholic Church, which include the feast of St John the Baptist on June 24 (**John the Baptist because he had baptised Jesus Christ on the river Jordan**).
- Traditionally, there are spirited Sao Joao festivities in the **villages of Cortalim in South Goa and Harmal, Baga, Siolim and Terekhol in North Goa.**
- However, over the years, pool parties and private Sao Joao parties in Goa have been a "complete package of merriment and joy" for tourists, according to the Goa Tourism Development Corporation (GTDC).
- The **boys are found merrily jumping into the water to commemorate the leap of joy, which St John is said to have taken in the womb of his mother St Elizabeth when virgin Mary visited her**.
- The festivities also include **revellers wearing the Kopel, the crown of fruits, flowers and leaves, parading in villages and often well hopping from one place to another as they chant, "Sao Joao! Viva Sao Joao".**
- Villagers gather near the well and cheer for those throwing and dunking themselves into the water.
- Full-throated renditions of Konkani songs written for the occasion are accompanied by traditional musical instruments like the gumott and cansaim (cymbal).
- In Goa, **Sao Joao is an occasion for the family and the villagers to get to know their newly wed daughters' husbands a little better.** Traditionally, the new son-in-law would be crowned with festive headgear of fruits and leaves, taken around the village and would then jump into the well with other revelers.

Pattachitra Painting

Context

- Odisha Chief minister Naveen Patnaik met Pope Francis, the head of the Catholic Church in Vatican City, during his visit to Rome, the first CM of an Indian state to do so. **Naveen presented him a Pattachitra painting depicting the tree of life during his visit.**

About

- **Pattachitras,** are **traditional paintings in which mythological, religious stories and folk lore are told through intricate canvassing.**
- Pattachitra is a traditional painting of Odisha, India. These **paintings are based on Hindu mythology and specially inspired by Jagannath and Vaishnava sect.**
- All **colours used in the Paintings are natural** and paintings are made fully old traditional way by Chitrakaras that is Oriya Painter.

- Pattachitra style of painting is one of the oldest and most popular art forms of Odisha.
- The name Pattachitra has **evolved from the Sanskrit words patta, meaning canvas, and chitra, meaning picture.**Pattachitra is thus a painting done on canvas, and is manifested by rich colourful application, creative motifs, and designs, and portrayal of simple themes, mostly mythological in depiction.
- The traditions of pattachitra paintings are more than thousand years old.
- Geographical indication of Patachitra is registered under to different state of India, as the style and motif of Odisha and West Bengal Patachitra are so different. **The Patachitra of Odisha is registered as Orissa Pattachitra. The Patachitra of West Bengal is registered as Bengal Patachitra.**

Jyotirgamaya Festival

Context

- Union Culture Minister inaugurated Jyotirgamaya – a **festival showcasing the talent of unsung performers** in New Delhi.

Details

- As **part of AzadiKaAmritMahotsav and on the occasion of World Music Day, SangeetNatakAkademi has organised this festival to showcase the talent of rare musical instruments from across the country**, including street performers and train entertainers.
- **Preservation of folk music and their instruments** should be a top priority and this event will take it further.
- The festival **envisages sensitising people about the need to safeguard the craft of making as well as the skill of playing rare musical instruments.**
- The 5 day festival showcased the talent of unsung performers from all corners of the country. Each day 15 performers displayed their artistry.
- The Fête de la Musique, also known in English as Music Day, Make Music Day or **World Music Day, is an annual music celebration that takes place on 21 June.**
- **The day was first celebrated as Fete de la Musique in France in the year 1982**.
- **The theme for World Music Day 2022 was "Music on the intersections"**

GEOGRAPHY

West Dam Project

Context

- India will be taking over an ambitious hydropower project in Nepal — West Seti — nearly four years after China withdrew from it.

Details

- The West Seti Dam is a **proposed hydroelectric dam on the Seti River in the Far-Western Development Region of Nepal**.
- The power station would be **located approximately 63 kilometres upstream of the Seti River confluence with the Karnali River**, with the dam site located a further 19.2 kilometres upstream. The dam would be a 195-metre (640 ft) **high concrete-face rock-fill dam**.

GS II
POLITY

National Pension System

In News

- The state governments of **Rajasthan and Chhattisgarh have decided to walk out of National Pension System.**
- Since 1st April, both states have stopped contributing funds to the National Pension System.

National Pension System

- The **Pension Fund Regulatory and Development Authority (PFRDA) manage** National Pension System (NPS).
- NPS was designed to **unburden both the Union government and state governments** from future pension liabilities.
- All other states except Tamil Nadu and West Bengal had joined the NPS.
    - Recently Rajasthan and Chhattisgarh have decided to walk out of National Pension System.
    - Both state governments have decided to restore the old pension scheme.
- NPS is a **voluntary defined contribution pension system** in India.

- The entire corpus escapes tax at maturity and the entire pension withdrawal amount is tax-free.
- The scheme was initially started for only government employees, but now it is **open to all citizens between the age of 18 and 70 years.**
- A citizen of India, whether resident or non-resident or an OCI cardholder can join NPS.
  - A non-resident account will be closed if the citizenship status of the NRI has been changed.

Demolition Drives and Rule of Law

In News

- Recent incidents of demolition drives in some states have **raised concern over the effectiveness of certain basic structures of rule of law, including the right of a person to be heard first**.
- **Under Article 300A** of the Indian Constitution, the state can deprive a person of his or her property only after following due procedure.

Article 300A

- The Article states that **no person shall be deprived of his property save by the authority of law.**
- In the **Original Indian Constitution, the Right to Property was a fundamental right but it was removed by the 44th Constitution Amendment Act.**
  - At present, the Right to Property is not a fundamental right, now it is a Constitutional Right under Article 300A.
  - Article 300A was inserted in the Indian Constitution through **the 44th Constitutional Amendment Act of 1978.**
- Supreme Court mentioned that the right to property under Article 300A is a human right.
- In the **T Plantation Pvt. Ltd. Vs. State of Karnataka, 2011 case,** the Supreme Court stated that public purpose should be a precondition for the deprivation of a person of his property under Article 300A of the Constitution and the right to claim compensation was an integral part of the Article.

Rule of Law

- **Rule of law is a legal principle that explains that a nation should be governed by the rules,** not by arbitrary decisions of individual government officials.
- The doctrine of rule of law has its origin in England and it is part of the basic structure of the Indian constitution.
- **Essential principles of Rule of law:**
  - Absence of arbitrary power; no man will be punished except for a breach of law and that too after proper hearing and following rules.
  - **Equality before the law:** Treating all citizens as equal and following the law of the land without making any discrimination or special treatment.

Criminalization of Politics

In News

- According to a report published by the Association for Democratic Reforms (ADR) and National Election Watch **nearly 40% of newly-elected Rajya Sabha MPs have criminal cases.**
- The report was prepared after analysing the self-submitted affidavits of all 57 newly elected MPs to Rajya Sabha.
- The criminalization of politics means the **participation of criminals in politics**.
  - Criminals contest elections and also get elected as members of the Parliament and the State legislature.

Reasons for the criminalization of politics

- **Loopholes in the electoral process** and a lack of powers with the election commission of India to scrutinize and prevent criminal elements.
- **Nexus between politicians and criminals**.
- Political Parties are **biased toward candidates having money and muscle power** because they believe that they can win elections compared to a clean candidate with no money.
- No political party is free of this problem. The use of muscle power along with money power is a weapon used by all political parties to maximise electoral gain
- Many voters tend to vote through a **narrow prism of community interests like caste or religion.**
- Due to the **huge pendency of cases in courts**, conviction is getting delayed.
- ECI has no power to call off elections based on electoral offences.
- Moral code of Conduct is not legally enforceable.

Effects of Criminalization on Politics

- Against the Principle of Free and Fair Election.
- It limits the choice of voters to elect a suitable candidate.
- Affecting Good Governance.
- **Law-breakers become law-makers**; this affects the effectiveness of the democratic process.

- It reflects a poor image of India's institutions, the quality of its elected representatives, and the democratic structure.
- It encourages a culture of violence in society and sets a bad example for the youth.
- It reduces people's faith in democracy, governance and rule of law.

Registered Unrecognised Political Parties

In News

- The Election Commission has delisted 111 additional Registered Unrecognised Political Parties.
    - On verification, many of these Political parties either are non-existent or the letters issued to them have returned undelivered.

Registered Unrecognised Political Parties

- There are total **2,360 political parties registered** with the **Election Commission of India** and about **97.50% of them are unrecognised parties.**
- Unrecognised Political Parties are those n**ewly registered parties which have not secured enough percentage of votes in the assembly or general elections** to become a state party, or **which have never contested elections** since registered.
    - They **don't enjoy the benefits extended to the recognised parties.**
- **A Political Party is called a Recognised Political Party** if it meets certain conditions.
    - **Won a certain percentage of valid votes or a certain number of seats** in the State legislative assembly or the Lok Sabha in the last election.

Election Commission of India

- It is a permanent constitutional body.
- **Article 324** of the constitution establishes the Election Commission of India.
- It was established on 25th January 1950.
- It supervises the conduct of elections to Parliament and Legislature of every State and elections to the offices of President and Vice-President of India.
- It consists of the Chief Election Commissioner and two Election Commissioners.
    - **Originally, there was only Chief Election Commissioner**, there were no Election Commissioners.

Powers of the Election Commission

- The EC enjoys complete **autonomy and is insulated from any interference from the Executive**.
- It also functions as a **quasi-judicial body** regarding matters related to elections and electoral disputes.
- Its recommendations are binding on the President of India.
- However, its **decisions are subject to judicial review by High Courts and the Supreme Court** acting on electoral petitions.
- During the election process, the entire Central and state government machinery (including paramilitary and police forces) is deemed to be on deputation to the Commission.
- The Commission takes effective control of government personnel and movable and immovable property for the successful conduct of elections.

Functions of the Election Commission

- Demarcation of constituencies.
- Preparation of electoral rolls.
- Issue notification of election dates and schedules.
- Establish and enforce a code of conduct.
- Scrutiny of nomination papers of candidates.
- Scrutiny of election expenses.
- Allot symbols and accord recognition to political parties.
- Render advice to the President and Governors regarding the disqualification of MPs and MLAs.
- Allot schedules for broadcast and telecast of party campaigns.
- Grant exemptions to persons from disqualifications imposed by judicial decisions.

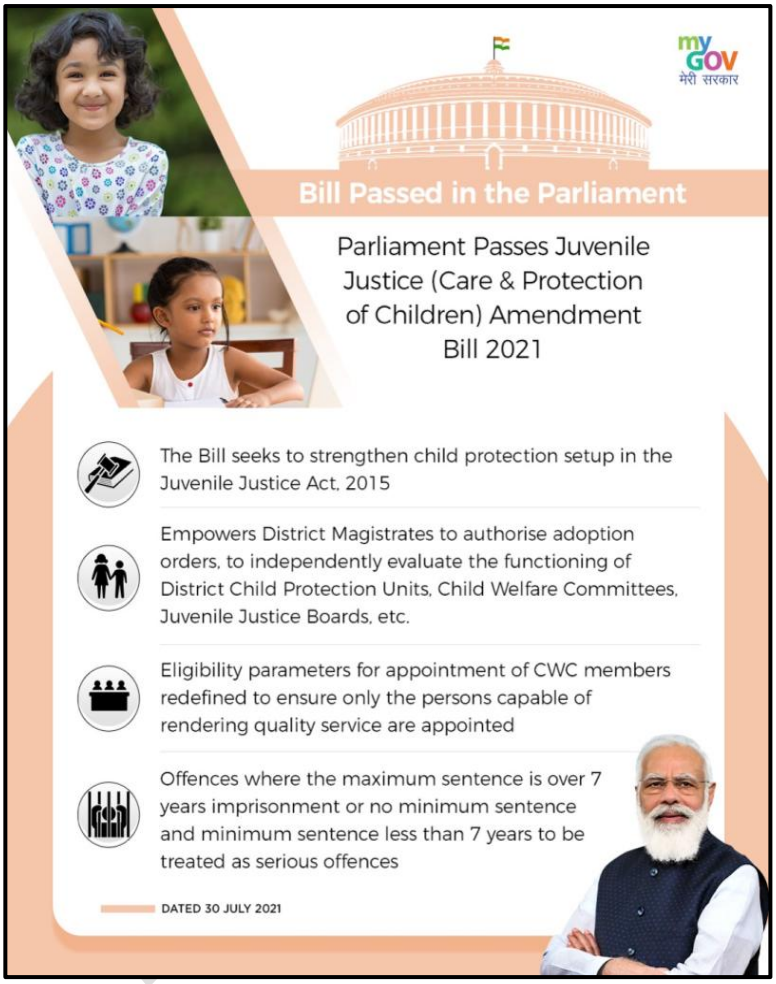
Juvenile Justice Amendment Act 2021

In News

- Several experts have **raised concern over the recent amendments made to Juvenile Justice Act,** according to them it could make it **harder to report abuse at childcare institutions.**
    - After the amendments, reporting abuse and cruelty done by staffers or persons in-charge at child care institutions (CCI) will be difficult.
    - Victims are unable to directly report complaints.
    - Their parents are mostly daily wage labourers and are unaware of the process.
- The Juvenile Justice Amendment Act, 2021 has amended various provisions of the Juvenile Justice Act, 2015.

Juvenile Justice (Care and Protection) Amendment Act 2021

- Crimes against children that allow imprisonment between 3 to and 7 years will be considered "non-cognisable".
  - A cognizable offence is an offence in which the **police officercan arrest the convict without a warrant and can start an investigation without the authorisation of the court**.
  - Cognizable offences are serious such as **kidnapping, theft, dowry death, rape, murder etc**.
- It strengthened the provision of protection and adoption of children.
- Adoption **power was transferred to the district magistrate.**



Juvenile Justice Act, 2015

- In 2015, the Indian Parliament has passed the Juvenile Justice (Care and Protection of Children) Act.
- It **replaced the Juvenile Delinquency Law and the Juvenile Justice (Care and Protection of Children Act) 2000.**
- The Act introduced the provisions **to allow trials of juveniles in the age group of 16-18 years as an adult who were found to be indulged in heinous crimes.**
- It replaced the Hindu Adoptions and Maintenance Act of 1956 and the Guardians of the ward Act of 1890 with a more universally accessible adoption law.
- It made the Central Adoption Resource Authority (CARA) the statutory body for adoption-related matters.

SOCIAL JUSTICE

Mukhyamantri Matrushakti Yojana

In News

- Recently during the Gujarat visit, the **Prime Minister launched the "MukhyamantriMatrushaktiYojana" for the welfare of pregnant and lactating mothers in Gujarat**.
  - It is a scheme by the Gujarat Government.
- Under the scheme, the government will **provide 2 kg of chickpeas, 1 kg of tur dal and 1 kg of edible oil free of cost every month to pregnant and lactating mothers at Anganwadicentres** in Gujarat.
  - Nearly 1.36 lakh women will get the benefit from the scheme.
- On this occasion, the Prime Minister has disbursed around Rs 120 crores towards **'PoshanSudhaYojana'.**
  - The amount will be utilised for the tribal beneficiaries in Gujarat.
  - Under the scheme, one nutritious meal a day is provided to pregnant and lactating women.
- The **schemes aim to;**
  - Provide nutritional support during the first 1,000 days of a child's life.
  - Reduce the number of underweight newborns.
  - Improve infant mortality and maternal mortality rates.

PM Aadi Adarsh Gram Yojana

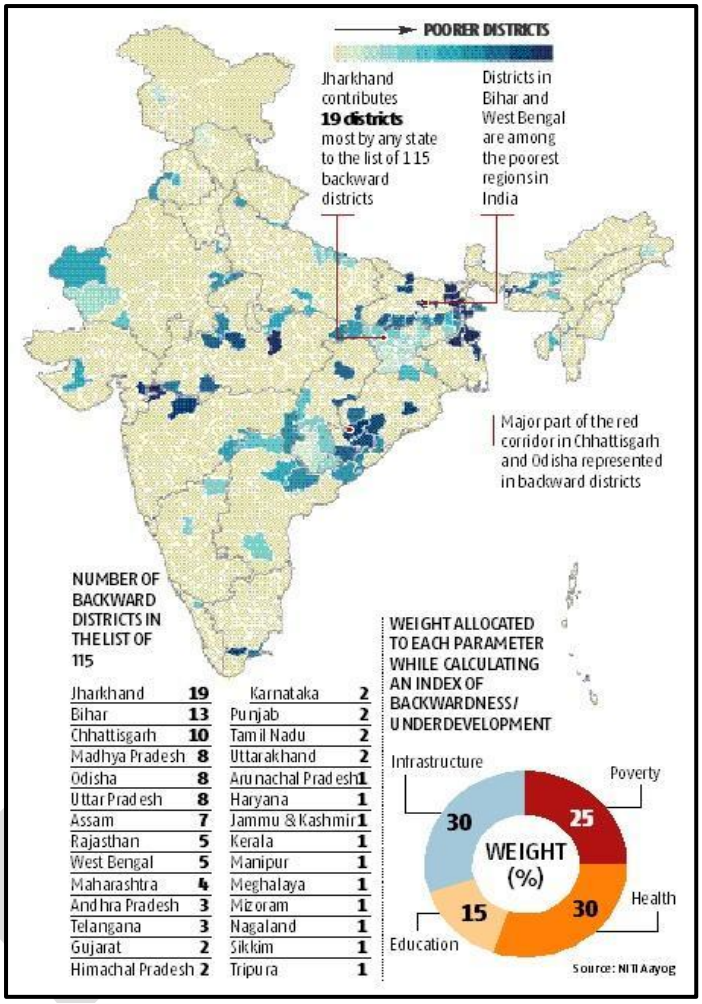
In News

- The Union Minister of Tribal Affairs has launched **Pradhan MantriAadiAdarsh Gram Yojana to ensure the faster development of tribal villages.**

- The main aim of the scheme is to consolidate programs of different ministries to ensure the all-around development of the tribal areas.
- The **Scheme was launched during an Aspirational district programme.**

Aspirational District Programme (ADP)

- The Union Government launched the **'Transformation of Aspirational Districts' programme in 2018.**
- The overall **objective of the programme**;
  - Convergence of Central & State Schemes.
  - Collaboration of Central, State level 'Prabhari' Officers and District Collectors.
  - Competition among districts with a spirit of mass Movement.
- **115 districts were transparently identified from 28 states** by a committee of Senior Officers to the Government of India, in consultation with State Officials using a composite index.
  - The **Composite index included data from the Socio-Economic Caste Census**, Key health and education sector performance and the basic infrastructure of the State.
- **The NITI Aayog coordinates and manages the programme** with support from Central Ministries and the State Governments.
  - NITI Aayog is supervising the initiative in 30 districts.
  - Various central ministries oversee 50 districts.
  - The Ministry of Home Affairs focuses on 35 Left Wing Extremism (LWE) affected districts.



- The Officers at the level of Joint Secretary or Additional Secretary are nominated to become the 'Central Prabhari Officers' of each district.
- States have appointed Prabhari officers.
- An Empowered Committee under the NITI Aayog will help in the convergence of various government schemes and efforts.
- **NITI Aayog release the Delta ranking for Aspirational Districts to assess the performance across 5 developmental areas;**
  - Health and Nutrition
  - Education
  - Agriculture and Water Resources
  - Financial Inclusion and Skill Development
  - Basic Infrastructure

UN Report on Education

In News

- According to the recently released report by the United Nations (UN), **22 million school-aged children in crisis-impacted countries require educational support.**
- Nearly 54% of out-of-school children are girls.
- **Many girls and boys miss out on quality education** due to;
  - Armed conflicts
  - Forced displacement.
  - Climate-induced disasters

Challenges in Indian Education System

- India has achieved universal enrolment at the elementary level. This is a great achievement, but getting Students to School is only the beginning of human Capital formation.
- Poor quality of facilities, Shortage of qualified faculty.
- **Out of date Curriculum, Limited university-industry Partnership.**
- Indian-origin Scientists have won the Nobel Prize, but post-independence work done in India has not led to a Science novel. If Indians Studying and working abroad can have a great impact, then obviously the problem has to do with our Systems of

education and research.

- Broken governance System. There are few rewards for being a good teacher and few Punishments for being a Careless one. Need more effective and accountable governance Systems.
- The greed of Private Colleges to earn the maximum from every Student puts traumatic Pressure on Students which results in mental breakdown.
- **More girls than boys drop out of School. While boys drop out to work, girls usually Stay at home and help with domestic Work.** Social Conception of gender roles is an important factor.
- Learning loss due to pandemics and the digital divide.

Steps by the Government

- **The 86th Constitution Amendment provides the Fundamental right to free and compulsory education under Article 21A** includes a Common education System where the "rich and Poor are educated under one roof".
- **RashtriyaUchchatarShikshaAbhiyan** provides funding to eligible State higher educational institutions.
- Declaration of Educational Institutions as **institutions of Eminence,** to provide world-class education to Indian Students within the Country.
- Creation of **Higher Education Financing Agency,** for high-quality infrastructure in Premier educational institutions.
- **National Institution Ranking Framework** for ranking our higher education institutions.
- **GIANInitiative** to invite distinguished academicians, entrepreneurs, scientists, and experts from premier institutions across the world to teach in higher educational institutions in India.
- **SWAYAM Portal** for online Courses.
- **SWAYAM Prabha** Provide HD educational Channels through DTH on a 24X7 basis.
- Sodhganga to develop a national repository of universities in India, and digital Study material for higher education.
- **SamagraShiksha Scheme to ensure inclusive and equitable quality education at all levels of school education.**
- The government is encouraging Open Online Courses via Swayam Platforms So that Students Can have access to quality lectures online.
- Artificial Intelligence (AI) can be used to Provide Personalised instructions based on Student needs.
- **The government needs to work on improving digital infrastructure and ensure that students have access to mobile phones or laptops.**

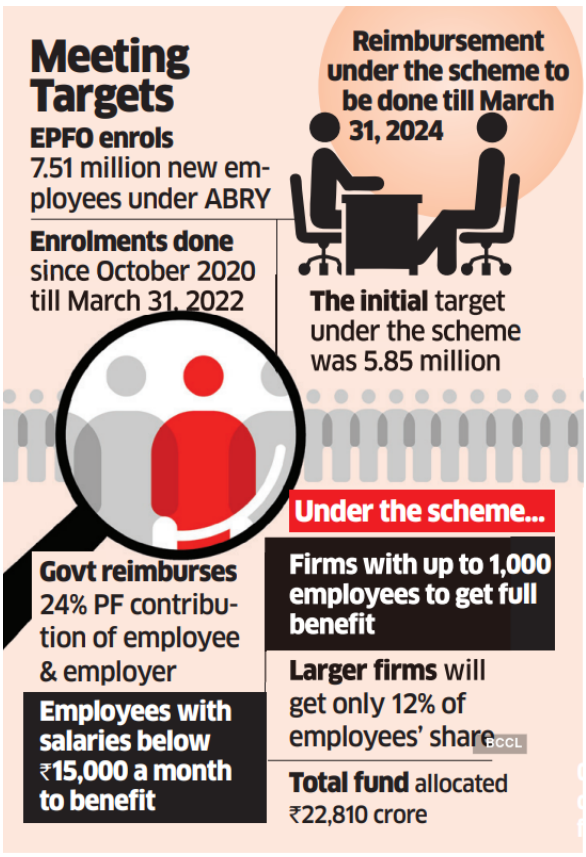
Atmanirbhar Bharat Yojna

In News

- The Union government has exceeded the employment creation target set under the Atmanirbhar Bharat RozgarYojana (ABRY).
  - The Scheme was launched during the 2020 lockdown to incentivise employers for creating jobs.
- According to the latest data 7.51 million jobs were created under the scheme, which is more than the initial target of 5.85 million.

Atmanirbhar Bharat RozgarYojana (ABRY)

- The scheme was launched **for enterprises having more than 1,000 workers**; the rebate was restricted to the employees' share of 12% to Provident Fund.
  - The government created a fund of Rs 22,810 crore for the scheme which will be spent till 2024.
- As of May 31, 2022, about 3.1 lakh establishments have been registered and about 75 lakh new employees got benefit from the scheme.
- The scheme was launched **to encourage employment generation and minimise the socio-economic impact of the Covid-19 pandemic.**
- It helped in promoting formalise employment and created new employment opportunities during and after the Covid-19 pandemic.



HEALTH

Noro Virus

Context

- Two cases of norovirus have been found in Thiruvananthapuram among lower primary school students.

Norovirus

- **About:** Norovirus is a highly contagious virus that is also sometimes referred to as the **'stomach flu' or the ' winter vomiting bug'.**
- **Transmission:** It can be transmitted through **contaminated food, water, and surfaces**. The **primary route is oral-faecal**.
- **Symptoms:** The initial symptoms of norovirus are **vomiting and/or diarrhoea**, which **show up one or two days after exposure** to the virus. Patients also suffer from **abdominal pain, fever, headaches and body aches.** In extreme cases, loss of fluids could lead to **dehydration**. Norovirus infection is associated with **intestinal inflammation, malnutrition and may cause long-term morbidity**".

Trivia

- Norovirus is resistant to many disinfectants and can withstand heat up to 60°C.
- Therefore, merely steaming food or chlorinating water does not kill the virus. The virus can also survive many common hand sanitisers.

- **Precautions:** Repeatedly washing hands with soap after using the lavatory or changing diapers. During outbreaks, surfaces must be disinfected with a solution of hypochlorite at 5,000 parts per million. Those infected should avoid contact with others.
- **Treatment:** The disease is self-limiting. Individuals can cope with it with sufficient rest and hydration.
- **Diagnosis:** Diagnosis is done **by real-time reverse transcription-polymerase chain reaction.**
- **Vaccines: No vaccines are available** for the disease.

ANCOVAX

Context

- The Agriculture Ministry unveiled India's first Covid-19 vaccine for animals. Developed by the Hisar-based National Research Centre on Equines, the vaccine, called Ancovax, can protect animals against the Delta and Omicron variants of SARS-CoV-2.

Need

- The aim of the vaccine is **to protect endangered animals such as lions and tigers**. India reported at least nine Covid infections in Asiatic lions in Chennai zoo last year, with one of the lioness likely to have died of it.
- There have been reports of Covid-19 infection in several animals, including dogs and cats. The vaccine can protect animals in the zoo. It can also **prevent transmission from companion animals to the humans.**

The vaccine

- Ancovax can be used in dogs, lions, leopards, mice, and rabbits. It is **an inactivated vaccine developed using an infectious part of the Delta variant.** In addition, it **uses Alhydrogel as an adjuvant to boost the immune response.**
- This is the first Covid-19 vaccine for animals developed in India. There were reports from Russia in 2021, that had developed a vaccine against animals such as dogs, cats, minks, and foxes.

Advantage of killed vaccine over live vaccine

- **Live vaccine is avoided in wild animals**. This is because a live vaccine might have been attenuated for one particular species, but it can still cause disease in another. Some 15 or 20 years back, a rabies vaccine developed for dogs was given to wolves in Africa and unfortunately the entire pack died. **A killed virus vaccine will not harm the animals.**

Lumpy Skin Disease

Context

- Cattle across five districts of Gujarat have been infected with Lumpy Skin Disease (LSD), an infectious viral disease, in the past one month.

About

- Lumpy skin disease is a **vector-borne pox disease** of domestic cattle and Asian water buffalo and is **characterized by the appearance of skin nodules. Lumpy skin disease does not affect humans.**

Origin

- Lumpy skin disease was first seen as an epidemic in Zambia in 1929. But now it

occurs in several countries in the Middle East, Asia, and eastern Europe.

Causal organism

- Lumpy skin disease is caused by the lumpy skin disease virus (LSDV), a member of the genus Capripoxvirus (CaPV) within the family Poxviridae. Lumpy skin disease virus (LSDV) is **double-stranded DNA virus.**

Transmission

- Lumpy skin disease virus **is transmitted between animals**. **Arthropod vectors, direct contact, contaminated feed and water and iatrogenic means** (for example, repeated use of needles on different animals) can all spread the disease.

Symptoms

- After an initial period of high fever (41°C) and swollen lymph glands, the **animal may develop large, firm nodules that are up to 5 cm in diameter in the skin.**

Control of disease

- Management of Lumpy Skin Disease relies on **isolation and treatment of affected animals, vector control on the premises, awareness, vaccination, control of animal movements and culling infected animals.**

Treatment

- There is **no treatment for the virus**, so **prevention by vaccination is the most effective means of control**. Secondary infections in the skin may be treated with Non-Steroidal Anti-Inflammatories (NSAIDs) and also antibiotics (topical +/- injectable) when appropriate.

Impact

- Lumpy skin disease causes huge economic losses to the livestock farmers due **to significant milk loss, damage of the hides, and reproductive problems such as abortion and infertility in affected animals.**

Bubonic Plague

Context

- In a study published in the journal Nature researchers have claimed that **Bubonic Plague originated in modern day northern Kyrgyzstan** around 1338-1339 – nearly 7-8 years before it ravaged large parts of the world.

Plague

- Plague is an infectious disease that affects animals and humans. It is caused by the ***bacterium Yersinia pestis***. This bacterium is **found in rodents and their fleas.**

What was the Black Death?

- The term Black Death refers to the **bubonic plague that spread across Western Asia, Northern Africa, Middle East and Europe in 1346-53.**
- Black Death, which killed millions, was caused by ***bacterium Yersinia pestis*** and was spread by fleas that were carried by rodent hosts.
- Term Black Death gets its name from the black marks that appeared on victims' bodies.

The Three Types of Plague: *Yersiniapestis*

What is it?	*What happens?*	*What causes it?*	*Is it contagious?*
Bubonic Plague	Patients get flu-like symptoms and swollen, tender lymph nodes 3-7 days after infection.	*Yersiniapestis* bacteria spread from a flea or insect bite.	Bubonic Plague is rarely spread from human to human.
Septicemic Plague	The bacteria multiply in the blood. Can involve more serious symptoms such as gangrene and bleeding from mouth, nose, or under the skin.	Septicemic Plague comes from a flea or insect bite. Patients can also develop it from untreated Bubonic Plague.	Septicemic Plague is rarely spread from human to human.
Pneumonic Plague	The most dangerous form of plague, it happens when the *Yersiniapestis* bacteria invade the lungs and cause pneumonia.	Patients inhale airborne plague bacteria from a person or animal infected with either Septicemic or Bubonic Plague.	Yes. Pneumonic Plague is primarily spread through human-to-human contact.

Symptoms

- **Fever, headaches, Acral necrosis - the dark discoloration of skin, vomiting, swollen and painful lymph nodes** occurring in the area closest to where the bacteria entered the skin.

How is bubonic plague treated?

- The bubonic plague can be **treated and cured with antibiotics.** Bubonic plague can be fatal if it's not treated.

How did researchers pinpoint the Black Death's origin recently?

- In the late 19th century, excavations of two Christian cemeteries near Lake Issyk-Kul in Kyrgyzstan unearthed a settlement of a trading community that had been affected by an unknown disease in 1338-1339. The researchers then extracted DNA from the teeth of seven people that were buried at the cemetery and found genetic traces of ***Y. pestis bacterium.***

India

- In 1896, the first "official" case of the bubonic plague in India was reported from Bombay. Over 12 million Indians had died.

Drug Resistant Typhoid Strains

Context

- The effectiveness of antibiotics for typhoid fever is threatened by the emergence of resistant strains - study in The Lancet Microbe.

About

- Multidrug-resistant (MDR) strains of ***Salmonella Typhi*** that are resistant to the first-line antibiotics **ampicillin, chloramphenicol, and trimethoprim-sulfamethoxazole** first emerged in the 1970s and have become prevalent in parts of South Asia and Africa.

Status

- Since 2000, multi-drug-resistant (MDR) ***S Typhi***has **declined steadily in Bangladesh and India, remained low in Nepal**, and increased slightly in Pakistan. However, these are **being replaced by strains resistant to other antibiotics.**
- The genome analysis also reveals that resistant strains – almost all originating in South Asia – have spread to other countries 197 times since 1990.
- In recent years, there has been an increase in resistant strains. Strains resistant to the **antibiotic (azithromycin)** have been seen in India, Bangladesh, Nepal and Pakistan.

Steps being taken

- India's Health Ministry is considering introducing **new typhoid conjugate vaccines into the national immunization program.**

Read:
https://www.iasgyan.in/daily-current-affairs/antimicrobial-resistance-and-antimicrobial-waste
https://www.iasgyan.in/daily-current-affairs/global-research-on-antimicrobial-resistance-gram-report

Autism spectrum disorder

Context

- Researchers have indicated that non-humanoid toy robots can be better teaching aids for children with autism spectrum disorder.

Details

About ASD

- Autism spectrum disorder (ASD) is a **neurological and developmental disorder** that **affects how people interact with others, communicate, learn, and behave**. Although autism can be diagnosed at any age, it is described as a "developmental disorder" because symptoms **generally appear in the first two years of life.**

Causes

- **Genetic:** For some children, autism spectrum disorder can be associated with a genetic disorder, such as Rett syndrome or fragile X syndrome. For other children, genetic changes (mutations) may increase the risk of autism spectrum disorder.
- **Environmental factors.** Researchers are currently exploring whether factors such as **viral infections, medications or complications during pregnancy, or air pollutants play a role in triggering autism spectrum disorder.**

Treatment

- **Educational/behavioral interventions:** Therapists use highly structured and intensive skill-oriented training sessions to help children develop social and language skills.
- **Medications:** While **medication can't cure ASD** or even treat its main symptoms, there are some that can help with related symptoms such as anxiety, depression, and obsessive-compulsive disorder.

GS-III
ECONOMY

Unicorn Startup

Context

- Prime Minister Modi praised India's startup ecosystem as he highlighted that the **country has reached a landmark figure of 100 unicorns with a valuation of more than $300 billion.**

What is a unicorn startup?

- Unicorns are **privately held, venture-capital backed startups that have reached a value of $1 billion.**
- The valuation of unicorns is not expressly linked to their current financial performance, but largely based on their growth potential as perceived by investors and venture capitalists who have taken part in various funding rounds.
- **American venture capitalist Aileen Lee is credited with coining the term in 2013.** It was used to **emphasise the rarity of the**

emergence of such startups.

- From the time the term was first used, it has become more common for startups to bag the unicorn tag, but the $1 billion valuation still gets industry attention, and is considered an impressive achievement.

Decacorns

- There is a gradual transition happening from the age of unicorns to the age of decacorns.
- **A decacorn is a company that has attained a valuation of more than USD10 billion.**
- As of May 2022, 47 companies world over have achieved the decacorn status.
- **India has four startups namely, Flipkart, BYJU's, Nykaa and Swiggy, added in the decacorn cohort.**

Government e Marketplace (GeM)

Context

- The Cabinet decided to **widen the mandate of the government e-marketplace (GeM) by allowing it to register cooperatives, including the private ones, as buyers on its platform.**

More on the news

- The move will **help over 854,000 registered cooperatives and their 270 million members, as they would get to purchase products from the GeM portal at competitive rates while ensuring greater transparency in their procurement system**.
- Currently, the portal is primarily meant for purchases of goods and services by ministries/departments of the Central government, state governments and various firms and entities run by them.

About

- The GeM portal was **launched in August 2016, as the Centre wanted to improve transparency in official procurement, apart from providing a new-age platform for this purpose**
- GeM is a short form of one stop Government e-Market Place hosted by Directorate General of Supplies and Disposal DGS&D where common user goods and services can be procured
- A spurt in purchases by various ministries and departments drove up the procurement of goods and services through the GeM portal to a **record INR 1 trillion in FY22**, reflecting its growing acceptability as an online marketplace.
- GeM is a **completely paperless, cashless and system driven e-market place** that enables procurement of common use goods and services with minimal human interface.

GeM Advantages

- **For Buyers**
  - Rich listing of products for individual categories of Goods/Services
  - Search, Compare, Select and Buy facility
  - Buying Goods and Services online, as and when required.
  - Transparent and ease of buying
  - Continuous vendor rating system
  - User-friendly dash board for Buying and monitoring supplies and payments
  - Easy Return policy
- **For Sellers**
  - Direct access to all Government departments.
  - One stop shop for marketing with minimal efforts.
  - One stop shop for bids / reverse auction on products / services
  - New Product Suggestion facility available to Sellers
  - Dynamic pricing: Price can be changed based on market conditions
  - Seller friendly dashboard for selling and monitoring of supplies and payments
  - Consistent and uniform purchase procedures

New Method on Food Subsidies: WTO

Context

- Ahead of a key ministerial meeting of the World Trade Organization, **at least 60 countries including India, China, Pakistan, Egypt, Indonesia and South Africa have proposed a new method to calculate subsidies given to purchase, stockpile and distribute food to ensure food security for developing and poor nations.**

Proposal

- A **permanent solution for public stockholding should account for inflation and also be based on a recent reference price instead of an old one based on 1986-88 prices.**
- They proposed that exports of food grain from public stocks be allowed for international food aid and humanitarian purposes to the needy countries.
- The grouping has also proposed to **amend the anti-circumvention clause** in the Bali Ministerial Declaration of 2013 as per

which developing countries who procure food stocks for security "do not distort trade or adversely affect the food security of other Members".

New methodology

- They have suggested a new methodology to calculate the subsidies by **either accounting for "excessive inflation" in the External Reference Price (ERP) or calculating the ERP based on the last five years excluding the highest and the lowest entry for that product.**
- ERP is the average price based on the base years 1986-88 and has not been revised for decades.

Present status

- At present, they have a **peace clause which protects them from legal disputes if the subsidies breach the de minimis level (10% of the total value of production of the product) but is subject to conditions such as anti-circumvention.**

Coal Plan for 2022-23

Context

- The **Ministry of Coal has finalized an Action Plan Document** for the year 2022-23.

Details

- **It broadly focuses on the following areas:**
  - Grey Hydrogen
  - Just Transition/ Energy Transition
  - Restructuring Coal Mines Provident Fund Organisation. (CMPFO)
  - Coal evacuation
  - Benchmarking of Machines & Quantifiable Parameters (Output per hr/per machine)
  - Outsourcing of Coal India Ltd. (CIL) Mines
  - Coal Trading Platform
  - Regulatory Mechanism for coal
  - Training
  - Corporate Restructuring of Coal Sector (CPSEs)
  - Quality Issues
  - Lignite Gasification
  - Coking Coal Strategy
  - Coal Pricing Reforms
- Futuristic Agenda- comprises of :-
  - Coal to Chemical
  - CIL diversification
  - Robust Media campaign
  - Close monitoring of CSR activities

Background

- This is for the **second time that an Agenda document for the year has been brought out in the form of a compilation and provided to all senior functionaries who have been apportioned the responsibility of steering these focus areas through the year with regular monitoring and appraisals.**
- The areas covered step up the major reforms done in the last few years and also give direction for covering and meeting the existing and the emerging challenges of the Coal Sector and aligns itself well with the emerging technologies and diversification thrust of the Coal Sector.
- The Action Plan covers the entire gamut of areas for steering the Coal Sector into new technologies while focussing on the core competence of increasing production targets. **Coking Coal Mission had been launched by the Ministry for enhancement of coking coal production from 45 Million Ton in 2020-21 to 140 MT by 2029-30 which includes 105 MT from CIL.**
- **Work on the following areas from previous year's Agenda will be continued this year also :**
  1. Coking Coal Strategy
  2. Coal Pricing Reforms
  3. Futuristic Agenda
     - The Futuristic Agenda includes- Coal to Chemical: Syn Gas, Hydrogen Gas, Liquid fuels, Chemicals and fertilizers,
     - CIL - diversify its business and explore prospects in sunrise industries electric charging pods, EVs etc.,
     - acquisition and mergers of similar or new business after due diligence, media campaigns and close monitoring of CSR activities.

Rules on Tax Deduction at Source (TDS)

Context

- **Central Board of Direct Taxes (CBDT) issued a circular explaining how tax will be deducted on transfer of virtual digital assets (VDA) and cryptocurrencies**. The new rules of TDS on VDA and crypto will **come into effect from July 1, 2022.**

Details

- As per the new law, the **purchaser of a virtual digital assets (VDA) is required to deduct 1% of the amount paid to the seller (resident Indian) as income tax deducted at source** (TDS).
- The tax is required to be deducted at the time of credit of amount or at the time of payment to the resident individual,

whichever is earlier.

- The tax will be deducted only if the amount paid exceeds the specified limit.
- The TDS on VDA will be applicable under section 194S of the Income-tax Act, 1961.
- If PAN of the deductee (seller) is not available, then the tax at the time of transfer of VDA will be deducted at the rate of 20%. Further, if an individual has not filed his/her income tax return, then TDS will be deducted at a higher rate of 5% (as against normal rate of 1%), if the payer is not a specified person.

When will TDS on VDA, crypto applicable?

As per the circular issued by CBDT, the TDS on transfer of VDA, crypto will be applicable if:

- If the amount paid (single or on aggregate basis) by the 'specified person' (buyer) exceeds Rs 50,000 during the financial year; or
- The amount paid (single or on aggregate basis) by any other person/buyer (other than 'specified person' as mentioned above) exceeds Rs 10,000 during the financial year.
- **A 'specified person':**
  - An individual or Hindu Undivided Family (HUF) who does not have any income under the head 'profit and gains from business and profession' and
  - An individual or HUF having income under the head 'profit and gains from business and profession' whose total sales/gross receipts/turnover from business does not exceed Rs 1 crore or in case of profession does not exceed Rs 50 lakh.

Background

- Recently, the **Finance Minister, in her Budget 2022 announced a 30% tax on income from virtual digital assets.**
- Additionally, she also proposed a Tax Deduction at Source (TDS) on payment made in relation to the transfer of virtual digital assets at 1% above a monetary threshold.
- The **finance bill defined the term "virtual digital asset" by entering a new clause (47A). As per the proposed new clause, a virtual digital asset is proposed to mean any information or code or number or token (not being Indian currency or any foreign currency), generated through cryptographic means.**

Bharat- NCAP

Context

- The **Ministry of Road Transport and Highways has issued a notification, whereby it is proposed to insert a new rule 126E in CMVR (Central Motor Vehicles Rules), 1989 regarding the Bharat New Car Assessment Program (BNCAP)**.

Details

- It is applicable on Type Approved **motor vehicles of category M1** [motor vehicles used for the carriage of passengers, comprising not more than eight seats, in addition to driver's seat] with **gross vehicle weight less than 3.5 Tonnes, manufactured or imported in the country, in accordance with the Automotive Industry Standard (AIS)-197, as amended from time to time**
- Bharat NCAP rating **will provide consumers an indication of the level of protection offered to occupants by evaluating the vehicle in the areas of (a) Adult Occupant Protection (AOP) (b) Child Occupant Protection (COP) and (c) Safety Assist Technologies (SAT).**
- The **vehicle shall be assigned a star rating from one to five stars** , based on scoring against various tests undertaken as per AIS 197.
- It **introduces the concept of safety rating of passenger cars and empowers consumers to take informed decisions.**
- It will **promote export worthiness of the cars produced by OEMs in the country and increase the domestic customer's confidence in these vehicles** .
- Additionally the program **will encourage manufacturers to provide advanced safety technologies to earn higher ratings.**
- **Date of Applicability: 1st day of April 2023.**
- Bharat NCAP will **prove to be a critical instrument in making our automobile industry Aatmanirbhar with the mission of making India the Number one automobile hub in the world.**

SCIENCE & TECHNOLOGY

Fast Radio Burst

Context

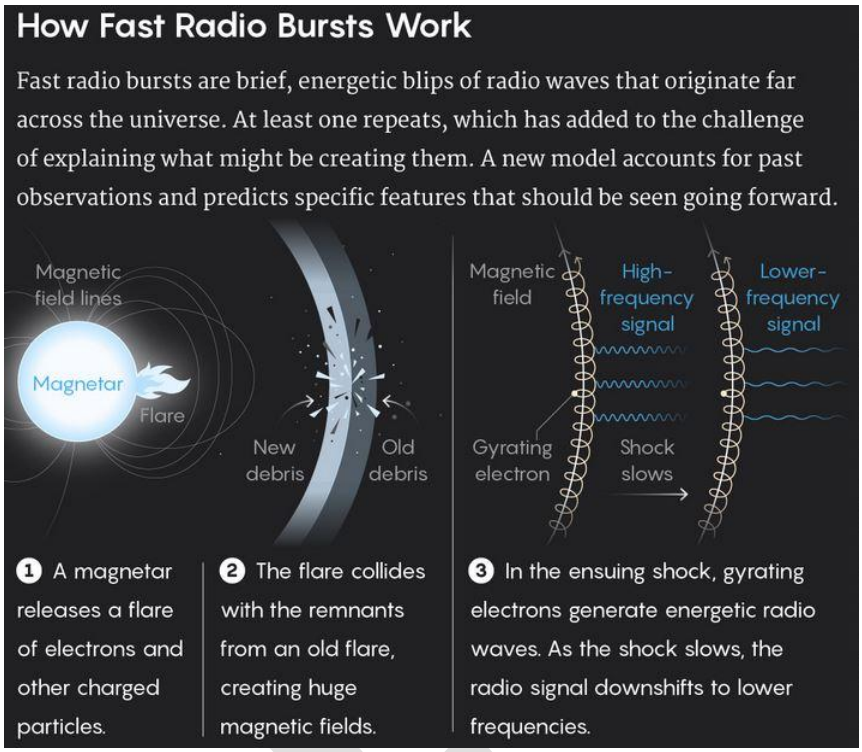
- Astronomers have reported a fast radio burst (FRB) whose characteristics are different from almost all other FRBs previously detected.

About

- Fast radio bursts, or FRBs, are **extremely bright pulses of radio waves that come from faraway galaxies**. They release as much energy in a millisecond as the Sun does over many days. FRBs are **caused by some high-energy astrophysical process not yet understood.**
- Since the first FRB was discovered in 2007, 140 more were discovered until June 2021.

Origin

- Their origins are unknown, and their appearance is unpredictable.
- Among the candidates for the sources of FRBs are the **superdense neutron stars left over after a supernova, or magnetars (neutron stars with ultra-strong magnetic fields).**



Tamagotchi Generation

Context

- A new book has predicted that by the third quarter of this century, parents will have the choice of having digital offspring. This will be the 'Tamagotchi Generation'.

Tamagotchi Pets

- The name 'Tamagotchi' kids comes from the digital pet created by the Japanese toy manufacturer Bandai, in the 1990s.
- The toy is an egg-shaped video game the size of a keychain, which has a screen and buttons. Once the pet is activated, an egg appears on the screen, and hatches into a pet for the player to raise. The pets feel hungry, happy, sick, and want to go to the toilet etc., and the player can care as much or as little for the pet as they desire. What the pet grows up to be depends on how it has been trained and raised by the player.

Tamagotchi Kids

- Within 50 years technology will have advanced to such an extent that babies which exist in the metaverse are indistinct from those in the real world - Virtual children.
- Virtual children of the future can be built to look like their parents, and will be able to provide a range of emotional responses.
- Wearing "high-tech gloves able to deliver tactile feedback" while handling the Tamagotchi kid "might reproduce the physical sensations of cuddling, feeding and playing with one's offspring".
- Parents would be able to interact with their digital kids in digital environments such as a park, swimming pool or living room. They will also be able to choose how quickly the children grow up, if at all, and can share conversations and listen to a baby's coo and giggle as part of the vision for the futuristic technology.

Heteroprotein Films

Context

- Scientists have developed ultra-thin heteroprotein films with excellent thermal, mechanical and pH stability.

Thin Films

- A thin film is a layer of material ranging from fractions of a nanometer (monolayer) to several micrometers in thickness.
- Thin Films are used in electronic semiconductor devices, Integrated passive devices, LEDs, optical coatings (such as antireflective coatings), hard coatings on cutting tools, and for both energy generation (e.g. thin-film solar cells) and storage (thin-film batteries). It is also being applied to pharmaceuticals, via thin-film drug delivery. A stack of thin films is called a multilayer.

Details

- Researchers have successfully developed **ultrathin monolayer protein films consisting of** two globular proteins: **bovine serum albumin (BSA) and lysozyme (Lys).** They used the technique called using Langmuir-Blodgett (LB) technique which gives the films thickness in the order of nanometer. N
- These films are **much thinner as compared to the other protein or plastic films**. They are soft and thin and have the advantage of being more flexible than the other films.
- This can pave the way for expanding **applications of thin films in biomedical and food packaging industries.**

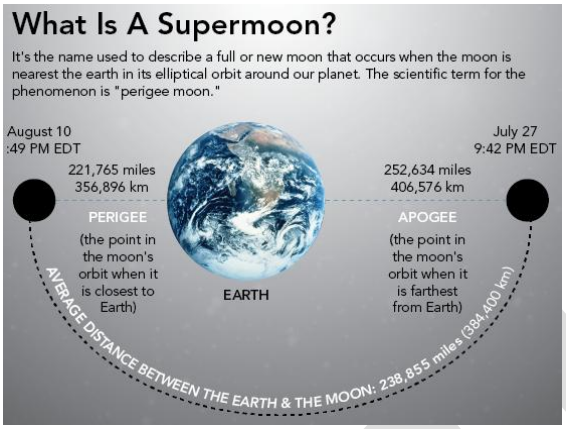
Supermoon

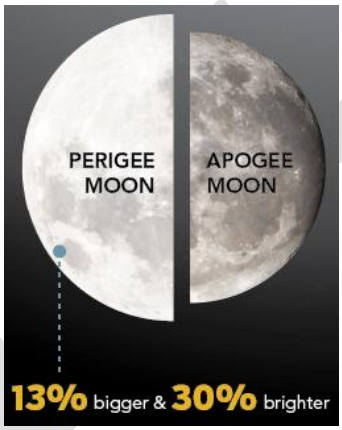
Context

- Recently, Supermoon took over the night skies across the world.

About

- A supermoon is **a full moon or a new moon that nearly coincides with perigee**—the closest that the Moon comes to the Earth in its elliptic orbit—resulting in a slightly larger-than-usual apparent size of the lunar disk as viewed from Earth.
- Supermoons **cast about 30% more light on the planet than when the Moon is at its dimmest**. This is because as it is closer, more of the Sun's rays that reflect off the lunar surface make it to Earth. Sometimes full Moons coincide with the Moon passing especially close to Earth. There **can be only two supermoons each year (a full moon supermoon and new moon supermoon).**
- When a Full Moon takes place when the Moon is near its closest approach to Earth, it is called a Super Full Moon. When there is a New Moon around the closest point to Earth, it is known as a Super New Moon.





Language Model for Dialogue Applications (LaMDA)

Context

- Google claimed that the company's artificial intelligence-based chatbot Language Model for Dialogue Applications (LaMDA) had become "sentient".

What is LaMDA?

- LaMDA is Google's generative language model for dialogue applications which can ensure that the **Assistant would be able to converse on any topic.** The tool can engage in a **free-flowing way about a seemingly endless number of topics**. This ability could unlock more natural ways of interacting with technology and entirely new categories of helpful applications.

LaMDA 2.0

- Google announced LaMDA 2.0 which further builds on these capabilities. The new model can take an idea and generate "imaginative and relevant descriptions", stay on a particular topic even if a user strays off-topic, and can suggest things needed for a specified activity.

Why is LaMDA being called sentient?

- Sentient means ability to perceive or feel things. LaMDA can actually replicate human emotions and the ethics hence called sentient.

GSAT-14

Context

- Recently, NewSpace India Limited (NSIL) launched GSAT-24.

Details

- **About**: GSAT-14 is the twenty third **geostationary communication satellite** of India built by ISRO. **Mission Life:** 12 years.

A communications satellite is an artificial satellite that relays and amplifies radio telecommunication signals via a transponder; it creates a communication channel between a source transmitter and a receiver at different locations on Earth. Communications satellites are used for television, telephone, radio, internet, and military applications.

- **Objectives:** The main objectives of GSAT-14 mission are: i) To augment the In-orbit capacity of Extended C and Ku-band transponders ii) To provide a platform for new experiments.
- **Propulsion System:** Bi propellant-Mono Methyl Hydrazine and Mixed Oxides of Nitrogen (MON-3).

C and Ku Band Transponders

- KU-BAND TRANSPONDERS means transponders operating in the portion of the radio-frequency spectrum that covers approximately **12 gigahertz to 18 gigahertz.** (**Note:** A transponder is a wireless communications, monitoring, or control device that picks up and automatically responds to an incoming signal.)
- C-band refers to the portion of the electromagnetic spectrum allotted for satellite transmissions **in the 4GHz to 8GHz frequency range**.
- **C-band satellite antennas** are **used** frequently in areas of the world where signals can become degraded due to **heavy rain or other intense climate-related conditions.**
- **Ku-Band is characterized by its high powered signals** compared to C-band. Thus, smaller dishes can be used to achieve the same distance as C-band and the KU band radio transmitter also requires less power.
- The **C-band** is preferred over the Ku band for satellite communications as it is **less susceptible to rain fade than Ku band**. This band is also used for weather radars, the 802.11a version of Wi-Fi devices and Radio LAN in the 5 GHz range

Hermit

Context

- A cloud-based security company, has recently discovered a new spyware called "Hermit".

About

- Hermit is a **commercial spyware** that is known to be used by governments with victims in Kazakhstan, Italy and northern Syria. It is **capable of affecting both Android and iOS devices.** The spyware was first detected in Kazakhstan.
- The spyware is **distributed by text message which looks like coming from a legitimate source**. The malware can impersonate other apps that are developed by telecom companies and manufacturers like Samsung and Oppo which tricks the victim to download the malware.
- It uses different modules to **collect call logs, photos, messages, emails along with recording audio, redirecting phone calls** and even exposing the device's exact location. The spyware can root phones by controlling files from the command and control server required to break the device's protections and **allow unhindered access without user interaction.**

Hypogonadism

Context

- In a recent study, analysis of data from 3,400 patients with hypogonadism from 17 clinical trials found **little evidence** that testosterone treatment increases the risk of cardiovascular events such as arrhythmia, heart attack, and stroke, in the short to medium terms.

Table 3. Signs and Symptoms of Hypogonadism

Signs of Hypogonadism	Symptoms of Hypogonadism
Incomplete sexual development	Reduced libido and activity
Gynecomastia	Decreased spontaneous erections
Loss of axillary and pubic hair	Hot flashes
Small or shrinking testes	Fatigue, decreased motivation
Infertility related to low sperm counts	Depression or dysthymia
Height, BMD, and muscle loss	Poor concentration and memory
Anemia, mild (normochromic, normocytic)	Sleep disturbance or increased sleepiness
Increased BMI and body fat percentage	

BMD: bone mineral density; BMI: body mass index.
Source: Reference 7.

Hypogonadism

- **About:** Hypogonadism is a failure of the gonads, testes in men and ovaries in women, to function properly.
- **Cause:** The causes of primary hypogonadism include: autoimmune disorders, such as Addison's disease and hypoparathyroidism. genetic disorders, such as Turner syndrome and Klinefelter syndrome. severe infections, especially mumps involving your testicles.
- **Treatment:** Hypogonadism can be treated effectively with **Hormone Replacement Therapy.** This treatment consists of taking medications containing the hormone that YOUR body is lacking, such as testosterone, estrogen and progesterone, or pituitary hormones to replace the ones that the body no longer produces.

TVS-2M Nuclear Fuel

Context

- Russia has supplied the first batches of more reliable and cost-efficient nuclear fuel over the existing one, the TVS-2M nuclear fuel, to India for the Units 1 & 2 of Kudankulam Nuclear Power Plant (KNPP).

About

- TVS-2M Nuclear Fuel **contains gadolinium-oxide** which is mixed with UO2 (by different Gd density and U-235 enrichments)
- Also the core does not contain BARs (Burnable Absorbers Rods). With this there will be elongation of the fuel cycle from 12 to 18 months for reactors.

Benefits

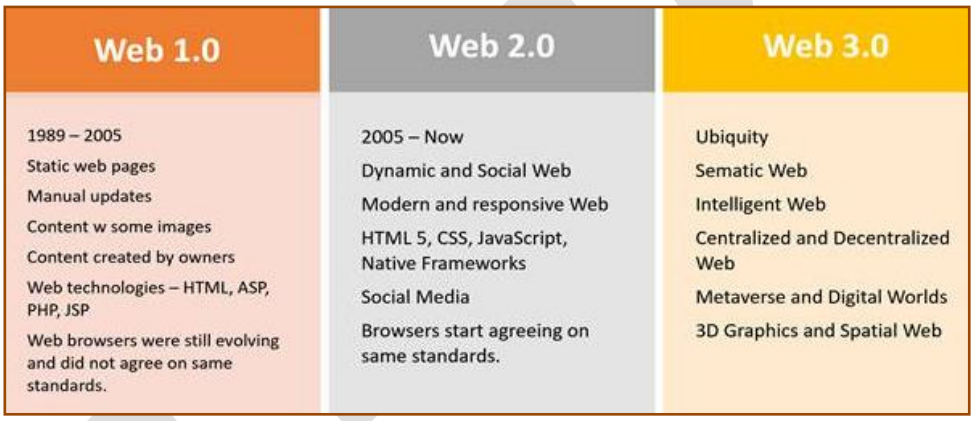
- The new fuel **has increased uranium capacity.**
- It has **longer fuel cycle**: operation in longer fuel cycles also enhances economic efficiency of a plant, as reactors have to undergo stoppage and refuelling less frequently, so the power units produce more electricity.

Read more at: https://www.iasgyan.in/daily-current-affairs/kudankulam-nuclear-power-plant-and-tvs-2m-nuclear-fuel

WEB 5.0

Context

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



Web 1.0; 2.0 and 3.0

- Web 1.0 is the "read-only Web," Web 2.0 is the "participative social Web," and Web 3.0 is the "read, write, execute Web."
- This Web interaction and utilization stage moves users away from centralized platforms like Facebook, Google, or Twitter and towards decentralized, nearly anonymous platforms.

Web 5.0

Background

- The web democratized the exchange of information, but it's missing a key layer: identity.
- We struggle to secure personal data with hundreds of accounts and passwords we can't remember. On the web today, identity and personal data have become the property of third parties."

About

- Web 5.0 is Web 2.0 plus Web 3.0 that will allow users to 'own their identity' on the Internet and 'control their data'.
- Web 5.0 is aimed at "building an extra decentralized web that puts one in control of one's data and identity".

Difference between Web 1.0, Web 2.0 and Web 3.0 –

Web 1.0	Web 2.0	Web 3.0
Mostly Read-Only	Wildly Read-Write	Portable and Personal
Company Focus	Community Focus	Individual Focus
Home Pages	Blogs / Wikis	Live-streams / Waves
Owning Content	Sharing Content	Consolidating Content
Web Forms	Web Applications	Smart Applications
Directories	Tagging	User Behaviour
Page Views	Cost Per Click	User Engagement
Banner Advertising	Interactive Advertising	Behavioural Advertising
Britannica Online	Wikipedia	The Semantic Web
HTML/Portals	XML / RSS	RDF / RDFS / OWL

LaMDA

Context

- Google engineer Blake Lemoine was placed on administrative leave after he claimed that LaMDA, a language model created by Google AI, had become sentient and begun reasoning like a human being.

What is LaMDA?

- LaMDA or Language Models for Dialog Applications is **a machine-learning language model created by Google as a chatbot that is supposed to mimic humans in conversation.**
- Like BERT, GPT-3 and other language models, LaMDA is built on Transformer, a neural network architecture that Google invented and open-sourced in 2017.
- This architecture **produces a model that can be trained to read many words while paying attention to how those words relate to one another and then predict what words it will think will come next**.

What makes LamDA unique?

- What makes LaMDA different is that **it is trained on dialogue**, unlike most models.
- While conversations do tend to revolve around specific topics, they are often open-ended, meaning that they can start at one place and end up somewhere else, traversing different topics and subjects. This fluid quality of conversations is what eventually gives away conventional chatbots. They are unable to follow such shifting dialogue because they are designed to follow narrow, pre-defined conversation parts. But **LaMDA is designed to be able to engage in free-flowing conversations about a virtually endless number of topics.**

Neptune and Uranus

Context

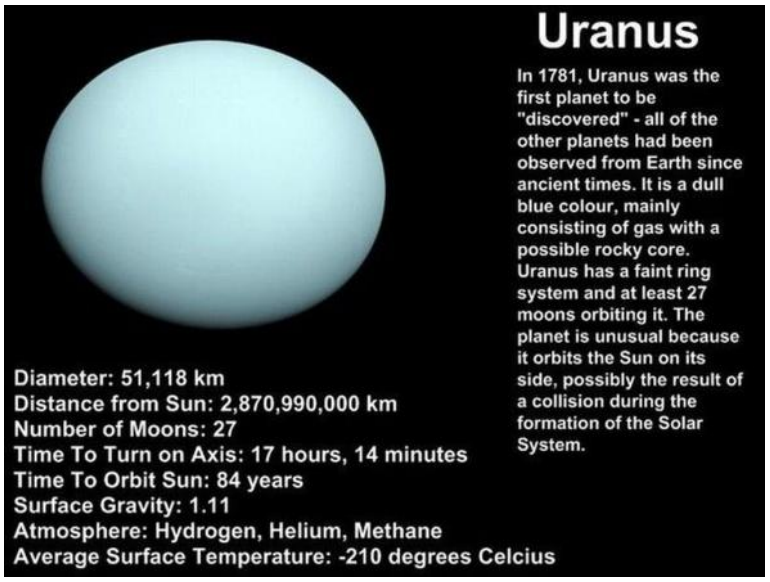
- A new research model shows that the haze around Uranus is thicker than that around Neptune.

About

- Neptune and Uranus have much in common – they have similar masses, sizes, and atmospheric compositions – yet their appearances are in different shades of blue.
- Uranus's stagnant, sluggish atmosphere and makes it appear a lighter tone than Neptune. If there was no haze in the atmospheres of Neptune and Uranus, both would appear almost equally blue as a result of blue light being scattered in their atmospheres.

Details of the new research

- The model describes three aerosol layers in the atmospheres of Neptune and Uranus. The key layer that affects the colours is the middle layer, which is a layer of haze particles that is thicker on Uranus than on Neptune.
- On both planets, methane ice condenses onto the particles in this layer, pulling the particles deeper into the atmosphere. Because Neptune has a more active, turbulent atmosphere than Uranus does, Neptune's atmosphere is more efficient at churning up methane particles into the haze layer. This removes more of the haze and keeps Neptune's haze layer thinner than it is on Uranus, with the result that the blue colour of Neptune looks stronger.



Nano Urea

Context

- Prime Minister Narendra Modi officially inaugurated the country's first liquid nano urea plant at Kalol.

What is Nano Urea?

- Urea is a chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- Nano Urea is a nutrient to provide nitrogen to plants as an alternative to the conventional urea. Nano Urea is essentially urea in the form of a nanoparticle.
- **Liquid nano urea contains 4 per cent total nitrogen (w/v) evenly dispersed in water**. The size of a nano nitrogen particle varies from 20-50 nm. (A nanometre is equal to a billionth of a metre.) The product has been developed at IFFCO's Nano Biotechnology Research Centre (NBRC) at Kalol.

Advantages of Nano Urea over Urea

Cost

- The liquid nano urea comes in a half-litre bottle priced at Rs 240, and carries no burden of subsidy currently. By contrast, a farmer pays around Rs 300 for a 50-kg bag of heavily subsidised urea. So it reduces the country's subsidy bill.

Optimum usage

- It is aimed at reducing the unbalanced and indiscriminate use of conventional urea, increase crop productivity, and reduce soil, water, and air pollution.

Efficiency

- While conventional urea has an efficiency of about 25 per cent, the efficiency of liquid nano urea can be as high as 85-90 per cent.

Lack of wastage

- Conventional urea fails to have the desired impact on crops as it is often applied incorrectly, and the nitrogen in it is vaporised or lost as gas. A lot of nitrogen is also washed away during irrigation.

Targeted supply

- Liquid nano urea is sprayed directly on the leaves and gets absorbed by the plant. Fertilisers in nano form provide a targeted supply of nutrients to crops, as they are absorbed by the stomata, pores found on the epidermis of leaves.

Higher shelf life

- Liquid nano urea has a shelf life of a year, and farmers need not be worried about "caking" when it comes in contact with moisture.

Read: https://www.iasgyan.in/daily-current-affairs/nano-urea-and-urea-sector

VPN

Context

- Express VPN has removed its servers from India, becoming the first major virtual private network (VPN) provider to do so in the aftermath of the recent cybersecurity rules introduced by the country's cyber security agency.

What it VPN?

- VPN stands for **virtual private network**. In basic terms, a VPN **provides an encrypted server and hides your IP address from corporations, government agencies and would-be hackers.** A VPN protects one's identity even if one is using public or shared Wi-Fi, and her/his data will be kept private from any prying internet eyes.
- A virtual private network is a key privacy tool that one should use when one is logging onto the internet from a public place such as a coffee shop, hotel lobby, or any other spot that offers access to free public Wi-Fi.
- A VPN creates a type of tunnel that hides one's online activity, including the links one clicks or the files one downloads, so that cybercriminals, businesses, government agencies, or other snoops can't see it.

New guidelines

- The Indian Computer Emergency Response Team (CERT-In) asked VPN service providers along with data centres and cloud service providers, to store information such as names, e-mail IDs, contact numbers, and IP addresses of their customers for a period of five years.
- The government said it wants these details to fight cybercrime, but the industry argues that privacy is the main selling points of VPN services, and such a move would be in breach of the privacy cover provided by VPN platforms.

Vertiplane X3

Context

- Recently, a startup company called Tech Eagle launched a hybrid-electric vertical take-off and landing (VTOL) drone called 'VertiplaneX3'.

About

- VERTIPLANE X3 stands VERTI (Vertical flying, landing and take-off capabilities like a helicopter) + Plane (Can cruise fast and cover long-distance like a passenger Aeroplane),X3 is model number in the VERTIPLANE series.
- The newly launched drone has **hybrid capabilities of a helicopter and an aeroplane,** allowing it to take off and land vertically like a helicopter without the need for a runway. Vertiplane X3 has a **payload capacity of 3 kg, a range of 100 km and a top speed of 120 kph.**
- It **can travel diverse terrains to bring cargo and services to locations** where conventional transportation would take hours or even days.
- The VTOL drone has the capability to take off and land vertically like a helicopter from a small area of 5mx5m.

Significance

- All stakeholders will benefit from the debut of the new drone, which **will boost last-mile logistics delivery.**

SECURITY & DEFENSE

ASTRA Mk-1

Context

- **Ministry of Defence signed a contract** with defence public sector undertaking Bharat Dynamics Limited (BDL) for supply of the **indigenously developed Astra Mk-I Beyond Visual Range (BVR) air to air missiles and associated at a cost of Rs 2,971 crore.**

What's a beyond visual range air to air' (BVRAAM) missile?

- A beyond-visual-range missile is an air-to-air missile that **is capable of engaging at ranges of 37 km or beyond.**
- Beyond Visual Range Air-to-Air Missile (BVRAAM) technology enables the fighter-pilots to shoot precisely at the enemy targets which are beyond their visual range.

The Astra Mk-I missile

- The Astra, the first air-to-air missile developed by India, has been **designed and developed by the Defence Research and Development Organisation (DRDO).**
- It is intended to engage and destroy aerial targets with high manoeuvrability and supersonic speeds.
- The missile's advanced air combat capabilities allow it to **engage multiple high-performance targets.**
- The Astra Mk-I has a **range of 80 to 110 km in a head-on chase and can travel at 4.5 Mach speed**.
- According to a report, the missiles will cost Rs 7.5 crore apiece, **a fraction of the cost of Russian, French, and Israeli BVRAAMs that IAF fighters are now armed with.**
- The features of Astra Mk-I make it a very effective weapon, **enabling a very high single-shot kill probability in both head-on and tail-chase modes.**
- Astra Mk-2 and Astra Mk-3 are also being developed by the DRDO.

Why Astra Mk-1 is a big deal?

- The induction of Astra Mk-I will **provide a large standoff range to India's fighter aircraft that can neutralise the enemy aircraft without exposing itself to air defence measures**.
- The missile will also **reduce India's dependency foreign sources**.

SIPRI Yearbook 2022

Context

- **India had 160 nuclear warheads as on January 2022** and it appears to be expanding its nuclear arsenal, the Stockholm International Peace Research Institute (SIPRI), a defence think tank, said.

More on the news

- The **nine nuclear-armed states—the United States, Russia, the United Kingdom, France, China, India, Pakistan, Israel and the Democratic People's Republic of Korea (North Korea)—continue to modernize their nuclear arsenals** and although the **total number of nuclear weapons declined slightly between January 2021 and January 2022**, the number will probably increase in the next decade.
- China had 350 nuclear warheads in January 2021 as well as January 2022.
- India does not share official data on its nuclear arsenal.
- Russia and the USA together possess over 90% of all nuclear weapons.
- While India's nuclear stockpile increased from 156 in January 2021 to 160 in January 2022, Pakistan's nuclear stockpile has remained at 165, it claimed
- The **five largest suppliers in 2016-20 - the United States, Russia, France, Germany and China** - accounted for 76% of the total

volume of exports of major arms.

- The **five largest arms importers were Saudi Arabia, India, Egypt, Australia and China**, which together accounted for 36% of total arms imports.

What is SIPRI?

- The SIPRI is an **independent international institute dedicated to research into conflict, armaments, arms control and disarmament.**
- **Established in 1966 at Stockholm,** SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.

Prithvi-II Missile

Context

- A **successful training launch of a Short-Range Ballistic Missile, Prithvi-II was carried out from the Integrated Test Range, Chandipur, Odisha**.

About

- Prithvi II is a **single-stage missile that falls under the liquid fuelling category and is known to have a maximum warhead mounting capability of 500 kg and a range of 250 km**
- It was **developed by DRDO and was first used by the Indian Air Force.**
- There are 3 Prithvi missiles with India with **Prithvi I having a range of 150 km, Prithvi II with 250 km range and Prithvi III with 350 km range.**
- The Prithvi Missile is an **indigenously developed missile by DRDO (Defence Research & Development Organization) under the flagship of the Integrated Guided Missile Development Program (IGMDP).**

Agni-IV Missile

Context

- India successfully tested the Intermediate Range Ballistic Missile (IRBM) Agni-4, which met all parameters.

Agni Missile Series

- The Agni missile is a **family of medium to intercontinental range ballistic missiles developed by India**, named after one of the five elements of nature.
- Agni missiles are **long range, nuclear weapons capable, surface to surface ballistic missiles**. The first missile of the series, **Agni-I was developed under the Integrated Guided Missile Development Program (IGMDP)** and tested in 1989.
- After its success, **Agni missile program was separated from the IGMDP upon realizing its strategic importance**.
- The family comprises the following:

***Launched**

Agni-IV

- Agni-IV ("Fire") is the fourth in the Agni series of missiles which was earlier known as Agni II prime.
- It has been developed by India's DRDO and displayed a number of new technologies and significant improvement in missile technology.
- The **Intermediate-Range Ballistic Missile**, is **light-weight and has two stages of solid propulsion and a payload with re-**

entry heat shield.

- With **3,500 to 4,000 km range**, it is capable of striking targets in nearly all of mainland China, if launched from north-eastern part of India.

EX SAMPRITI-X

Context

- As part of the ongoing India Bangladesh bilateral defence cooperation, **a joint military training exercise Ex SAMPRITI-X is being conducted at Jashore Military Station in Bangladesh.**

About

- The **aim of the exercise is to strengthen interoperability between the two armies and to understand each other's tactical drills and operational techniques.**
- During the joint military exercise Ex SAMPRITI-X, armies of both the Nations will share expertise in multiple simulated scenarios of Counter Terrorism, Humanitarian Assistance & Disaster Relief and UN Peacekeeping Force under UN mandate.

ENVIRONMENT & ECOLOGY

Fishing Cat

Context

- The Chilika Lake, Asia's largest brackish water lagoon, has 176 fishing cats, according to a census conducted by Chilika Development Authority (CDA) in collaboration with The Fishing Cat Project (TFCP).
- This is the **world's first population estimation of the fishing cat, which has been conducted outside the protected area network.**

About

- **Scientific Name: Prionailurusviverrinus**
- About twice the size of a typical house cat, it is a **feline with a powerful build and stocky legs**.
- The fishing cat is an **adept swimmer** and enters water frequently to prey on fish as its name suggests.
- **Wetlands are the favorite habitats of the fishing cat.** In India, fishing cats are **mainly found in the mangrove forests of the Sundarbans, on the foothills of the Himalayas along the Ganga and Brahmaputra river valleys and in the Western Ghats.**
- The fishing cat is **nocturnal** and apart from fish also preys on frogs, crustaceans, snakes, birds, and scavenges on carcasses of larger animals.
- **One of the major threats facing the fishing cat is the destruction of wetlands**, which is its preferred habitat.
- **Another threat to the fishing cat is depletion of its main prey-fish due to unsustainable fishing practices.** It is also occasionally poached for its skin.
- The fishing cat is listed as **Endangered on the IUCN Red List**.
- CITES lists the fishing cat on **Appendix II part of Article IV**, which governs international trade in this species.
- In India, the fishing cat is included in **Schedule I of the Indian Wildlife (Protection) Act, 1972** and thereby protected from hunting.

Bird Village as Wetland

Context

- **Recognised as the "bird village" following community-driven conservation efforts, Menar in Udaipur district is set to be notified as Rajasthan's new wetland.**

More on the news

- The two lakes in the village – the Brahma and Dhandh – play host to a large number of migratory birds in the winter season every year.
- At present, **Rajasthan has two wetlands recognised as Ramsar sites – Keoladeo Ghana in Bharatpur district and Sambhar Salt Lake in Jaipur district.**
- More than 150 species of local and migratory birds inhabit the two lakes in the winter season. They include **greater flamingo, white-tailed lapwing, pelican, marsh harrier, bar headed goose, common teal, greenshank, pintail, wagtail, green sandpiper and red-wattled lapwing.**

About

- **Any wetland site which has been listed under the Ramsar Convention that aims to conserve it and promote sustainable use of its natural resources** is called a Ramsar Site.

- Ramsar Convention is known as the Convention of Wetlands. It was established in 1971 by UNESCO and came into force in 1975.
- **India is a party** to the Ramsar Convention. India signed under it on 1st February 1982.
- There are **49 Ramsar Sites** in India
- **Sundarbans is the largest**Ramsar Site of India
- **Chilika Lake (Orissa) and Keoladeo National Park (Rajasthan) were recognized as the first** Ramsar Sites of India
- **Uttar Pradesh has the most** number of Ramsar Sites in India.
- **Renuka Wetland in Himachal Pradesh is the smallest** wetland of India.

Painted Leopard Gecko

Context

- Deep in the **forests of Odisha and Andhra Pradesh** in India lives a colourful gecko species that only now revealed its true identity.

About

- **Eublepharispictus**, also known as the Painted Leopard Gecko.
- With this new addition, the **gecko genus Eublepharis now contains 7 species**.
- The Painted Leopard Gecko measures 11.7 cm in length, which is **somewhat large for a leopard gecko**.
- The **Brahmani River**, which runs through the Eastern Ghats, **separates it geographically from the East Indian Leopard Gecko, with which it shares a lot of similar traits.**
- The **new species lives in dry evergreen forests mixed with scrub and meadows**.
- It is strictly **nocturnal**, actively foraging along trails in the forest after dusk.
- While looking for food, it has been **observed licking surfaces as it moves**, which suggests it might use its tongue as a sensory organ.
- It is currently not listed on IUCN list.

Chelinoidis

Context

- **A giant tortoise, found alive in 2019, has been confirmed to belong a Galápagos species long believed extinct.** The tortoise is the first of her species, **Chelonoidisphantasticus,** to be identified in more than a century.

More on the news

- Chelonoidisphantasticus means **"fantastic giant tortoise"**. Commonly called the **Fernandina Island Galápagos giant tortoise, the species was so far known only from a single individual, collected in 1906.**
- The IUCN listed it as **critically endangered & possibly extinct**.
- Its habitat is largely dry brush land at lower elevations, but much of that habitat has been destroyed by extensive lava flows.

DIFFERENCE

Turtle	Tortoise
Most turtles are primarily water-dwelling reptiles	Tortoises are land-dwelling reptiles
Turtles are usually omnivores	Tortoises are primarily herbivores
Turtles generally have lighter shells on their backs	Tortoises have much heavier and robust shells
Not all turtles are Tortoises	All tortoises are turtles, as they belong to the order Testudines
Turtles usually have a shorter life span from 20-40 years	Tortoises usually have a long life from 80-150 years

Spiny Horntail

Context

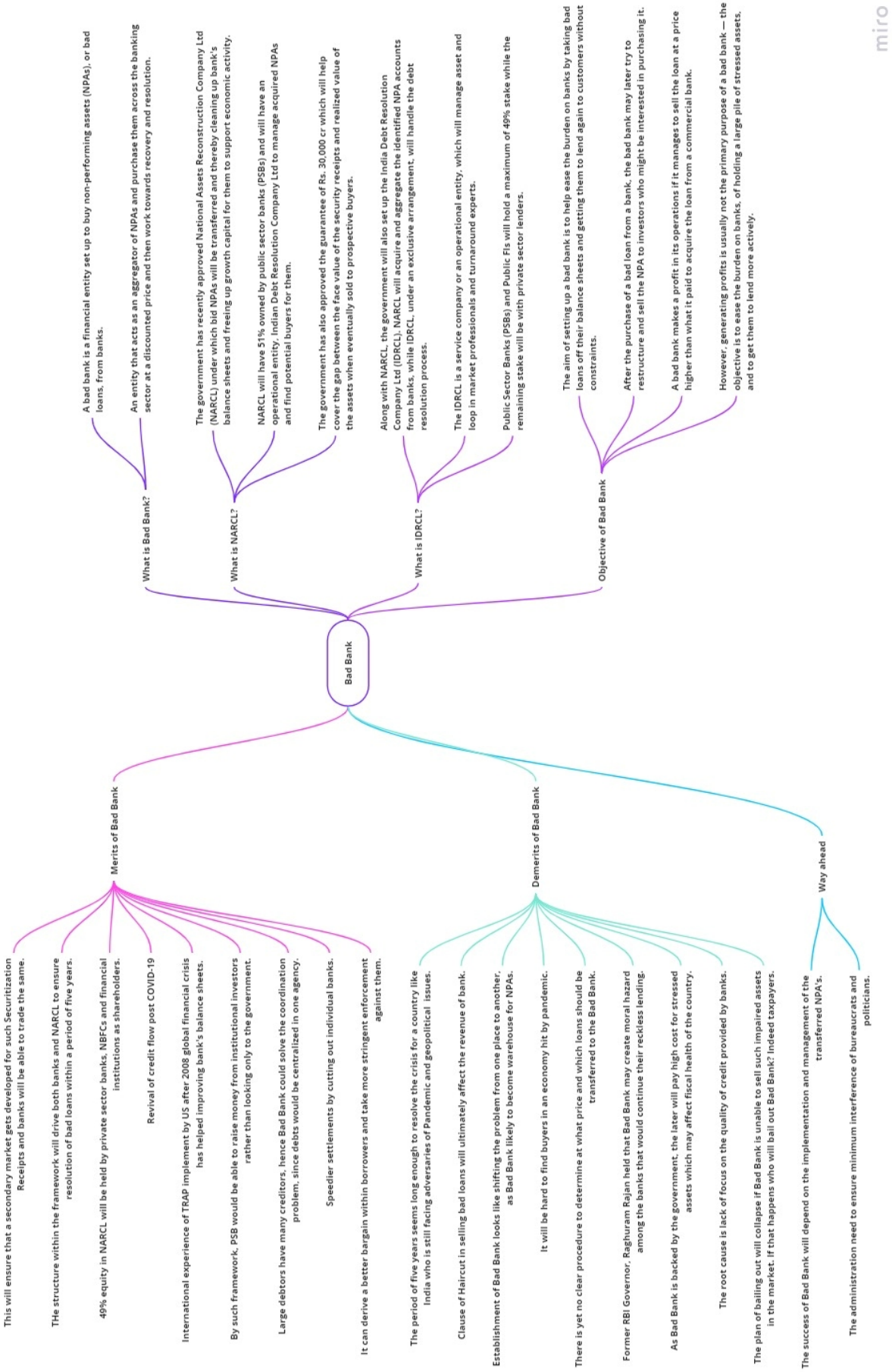
- Dragonfly enthusiasts have recorded the presence of a **rare dragonfly that was hitherto unseen in Kerala.**

About

- **Spiny Horntail, *Burmagomphuschaukulensis*** was spotted in Kottiyoor forests of Kannur.
- The species that is known to be **endemic to the Western Ghats** was discovered in Maharashtra earlier this year.
- The new species **can be separated from its congeners by the markings on the lateral thorax and peculiar shape of anal appendages**

About Burmagomphus:

- The **dragonfly genus Burmagomphus was represented by three species – *B. cauvericus, B. pyramidalis and B. laidlawi.***
- While *B. laidlawi* is found throughout the Western Ghats, *B. cauvericus* is more restricted in its distribution.
- *B. pyramidalis* is found in the Western Ghats as well as in Peninsular India.
- All other species of the genus are found in the Western and Eastern Himalayas.


Bad Bank
What is Bad Bank?
A bad bank is a financial entity set up to buy non-performing assets (NPAs), or bad loans, from banks.
An entity that acts as an aggregator of NPAs and purchase them across the banking sector at a discounted price and then work towards recovery and resolution.
What is NARCL?
The government has recently approved National Assets Reconstruction Company Ltd (NARCL) under which bid NPAs will be transferred and thereby cleaning up bank's balance sheets and freeing up growth capital for them to support economic activity.
NARCL will have 51% owned by public sector banks (PSBs) and will have an operational entity, Indian Debt Resolution Company Ltd to manage acquired NPAs and find potential buyers for them.
The government has also approved the guarantee of Rs. 30,000 cr which will help cover the gap between the face value of the security receipts and realized value of the assets when eventually sold to prospective buyers.
What is IDRCL?
Along with NARCL, the government will also set up the India Debt Resolution Company Ltd (IDRCL). NARCL will acquire and aggregate the identified NPA accounts from banks, while IDRCL under an exclusive arrangement, will handle the debt resolution process.
The IDRCL is a service company or an operational entity, which will manage asset and loop in market professionals and turnaround experts.
Public Sector Banks (PSBs) and Public FIs will hold a maximum of 49% stake while the remaining stake will be with private sector lenders.
Objective of Bad Bank
The aim of setting up a bad bank is to help ease the burden on banks by taking bad loans off their balance sheets and getting them to lend again to customers without constraints.
After the purchase of a bad loan from a bank, the bad bank may later try to restructure and sell the NPA to investors who might be interested in purchasing it.
A bad bank makes a profit in its operations if it manages to sell the loan at a price higher than what it paid to acquire the loan from a commercial bank.
However, generating profits is usually not the primary purpose of a bad bank — the objective is to ease the burden on banks, of holding a large pile of stressed assets, and to get them to lend more actively.
Merits of Bad Bank
This will ensure that a secondary market gets developed for such Securitization Receipts and banks will be able to trade the same.
THe structure within the framework will drive both banks and NARCL to ensure resolution of bad loans within a period of five years.
49% equity in NARCL will be held by private sector banks, NBFCs and financial institutions as shareholders.
Revival of credit flow post COVID-19
International experience of TRAP implement by US after 2008 global financial crisis has helped improving bank's balance sheets.
By such framework, PSB would be able to raise money from institutional investors rather than looking only to the government.
Large debtors have many creditors, hence Bad Bank could solve the coordination problem, since debts would be centralized in one agency.
Speedier settlements by cutting out individual banks.
It can derive a better bargain within borrowers and take more stringent enforcement against them.
Demerits of Bad Bank
The period of five years seems long enough to resolve the crisis for a country like India who is still facing adversaries of Pandemic and geopolitical issues.
Clause of Haircut in selling bad loans will ultimately affect the revenue of bank.
Establishment of Bad Bank looks like shifting the problem from one place to another, as Bad Bank likely to become warehouse for NPAs.
It will be hard to find buyers in an economy hit by pandemic.
There is yet no clear procedure to determine at what price and which loans should be transferred to the Bad Bank.
Former RBI Governor, Raghuram Rajan held that Bad Bank may create moral hazard among the banks that would continue their reckless lending.
As Bad Bank is backed by the government, the later will pay high cost for stressed assets which may affect fiscal health of the country.
The root cause is lack of focus on the quality of credit provided by banks.
The plan of bailing out will collapse if Bad Bank is unable to sell such impaired assets in the market. If that happens who will bail out Bad Bank? Indeed taxpayers.
Way ahead
The success of Bad Bank will depend on the implementation and management of the transferred NPA's.
The administration need to ensure minimum interference of bureaucrats and politicians.
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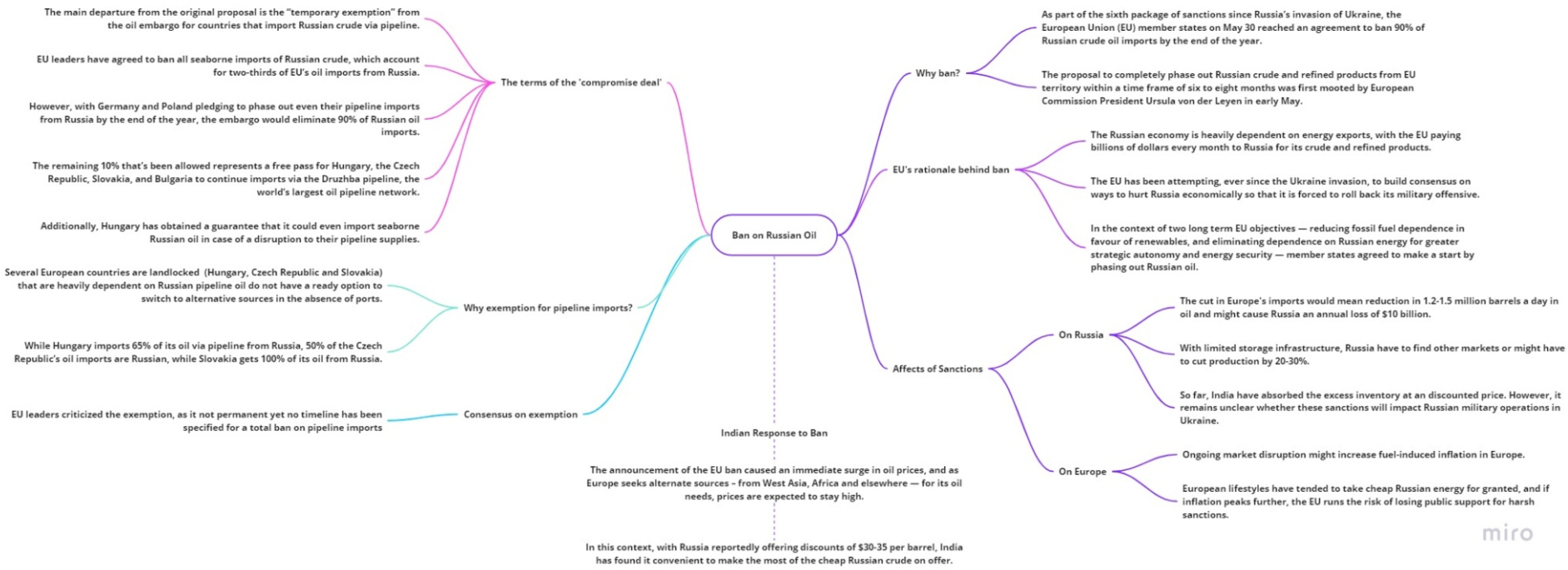
Ban on Russian Oil
The terms of the 'compromise deal'
The main departure from the original proposal is the "temporary exemption" from the oil embargo for countries that import Russian crude via pipeline.
EU leaders have agreed to ban all seaborne imports of Russian crude, which account for two-thirds of EU's oil imports from Russia.
However, with Germany and Poland pledging to phase out even their pipeline imports from Russia by the end of the year, the embargo would eliminate 90% of Russian oil imports.
The remaining 10% that's been allowed represents a free pass for Hungary, the Czech Republic, Slovakia, and Bulgaria to continue imports via the Druzhba pipeline, the world's largest oil pipeline network.
Additionally, Hungary has obtained a guarantee that it could even import seaborne Russian oil in case of a disruption to their pipeline supplies.
Why exemption for pipeline imports?
Several European countries are landlocked (Hungary, Czech Republic and Slovakia) that are heavily dependent on Russian pipeline oil do not have a ready option to switch to alternative sources in the absence of ports.
While Hungary imports 65% of its oil via pipeline from Russia, 50% of the Czech Republic's oil imports are Russian, while Slovakia gets 100% of its oil from Russia.
Consensus on exemption
EU leaders criticized the exemption, as it not permanent yet no timeline has been specified for a total ban on pipeline imports
Why ban?
As part of the sixth package of sanctions since Russia's invasion of Ukraine, the European Union (EU) member states on May 30 reached an agreement to ban 90% of Russian crude oil imports by the end of the year.
The proposal to completely phase out Russian crude and refined products from EU territory within a time frame of six to eight months was first mooted by European Commission President Ursula von der Leyen in early May.
EU's rationale behind ban
The Russian economy is heavily dependent on energy exports, with the EU paying billions of dollars every month to Russia for its crude and refined products.
The EU has been attempting, ever since the Ukraine invasion, to build consensus on ways to hurt Russia economically so that it is forced to roll back its military offensive.
In the context of two long term EU objectives — reducing fossil fuel dependence in favour of renewables, and eliminating dependence on Russian energy for greater strategic autonomy and energy security — member states agreed to make a start by phasing out Russian oil.
Affects of Sanctions
On Russia
The cut in Europe's imports would mean reduction in 1.2-1.5 million barrels a day in oil and might cause Russia an annual loss of $10 billion.
With limited storage infrastructure, Russia have to find other markets or might have to cut production by 20-30%.
So far, India have absorbed the excess inventory at an discounted price. However, it remains unclear whether these sanctions will impact Russian military operations in Ukraine.
On Europe
Ongoing market disruption might increase fuel-induced inflation in Europe.
European lifestyles have tended to take cheap Russian energy for granted, and if inflation peaks further, the EU runs the risk of losing public support for harsh sanctions.
Indian Response to Ban
The announcement of the EU ban caused an immediate surge in oil prices, and as Europe seeks alternate sources - from West Asia, Africa and elsewhere — for its oil needs, prices are expected to stay high.
In this context, with Russia reportedly offering discounts of $30-35 per barrel, India has found it convenient to make the most of the cheap Russian crude on offer.
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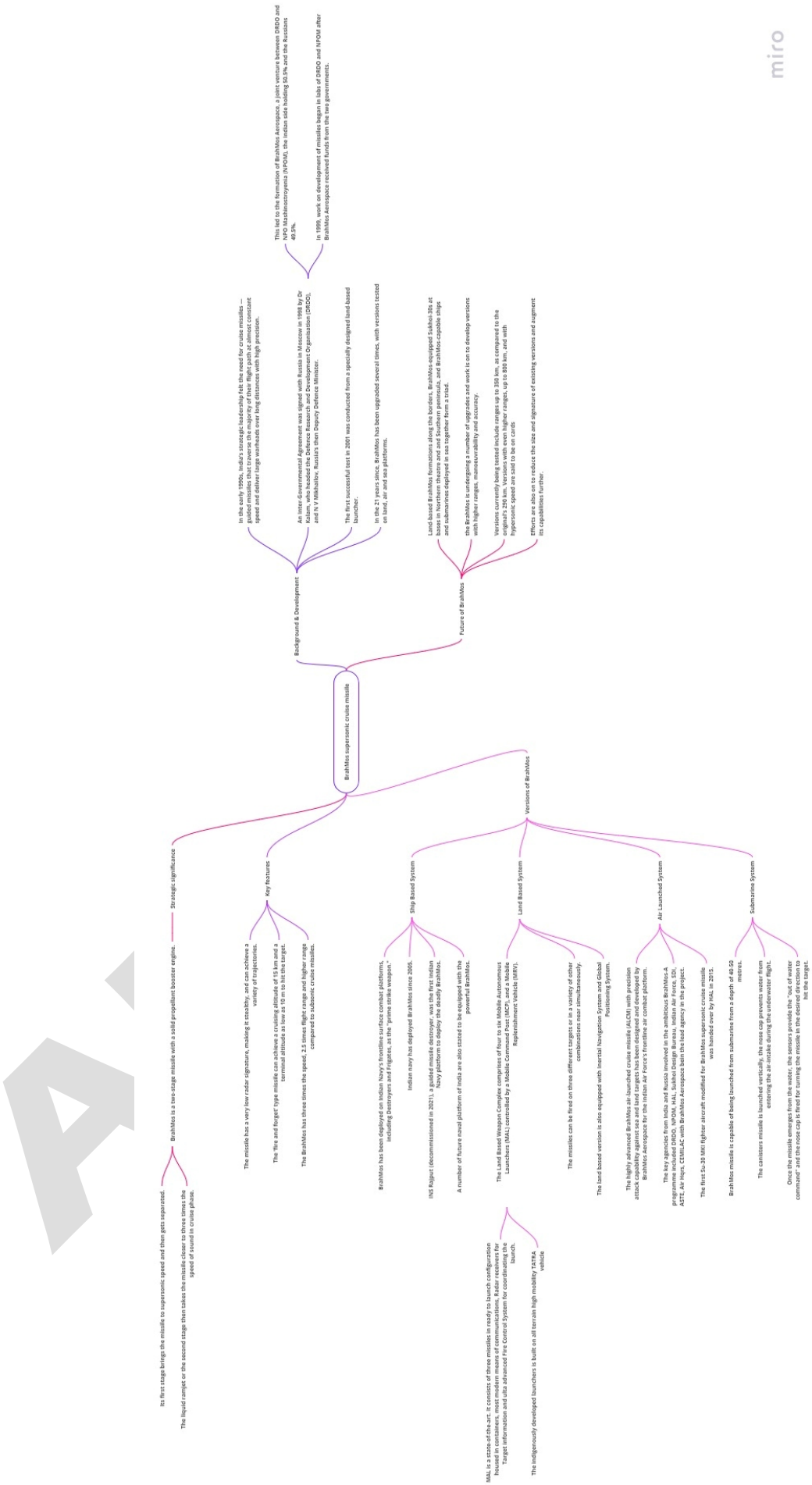
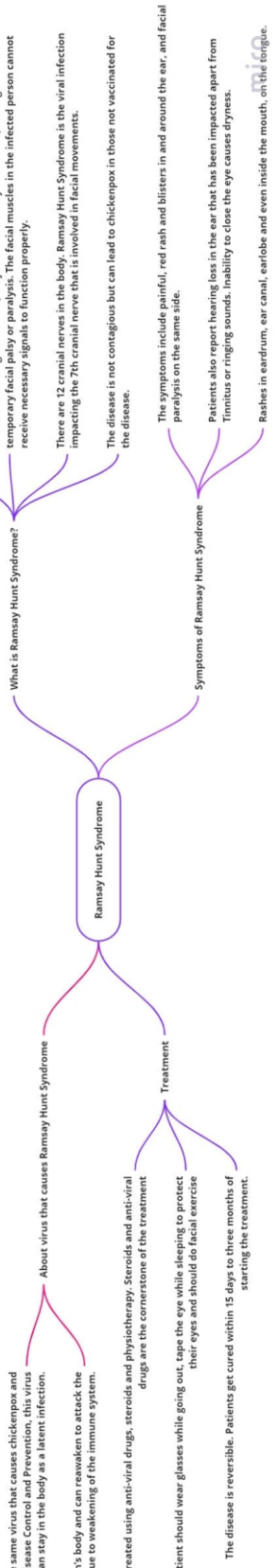
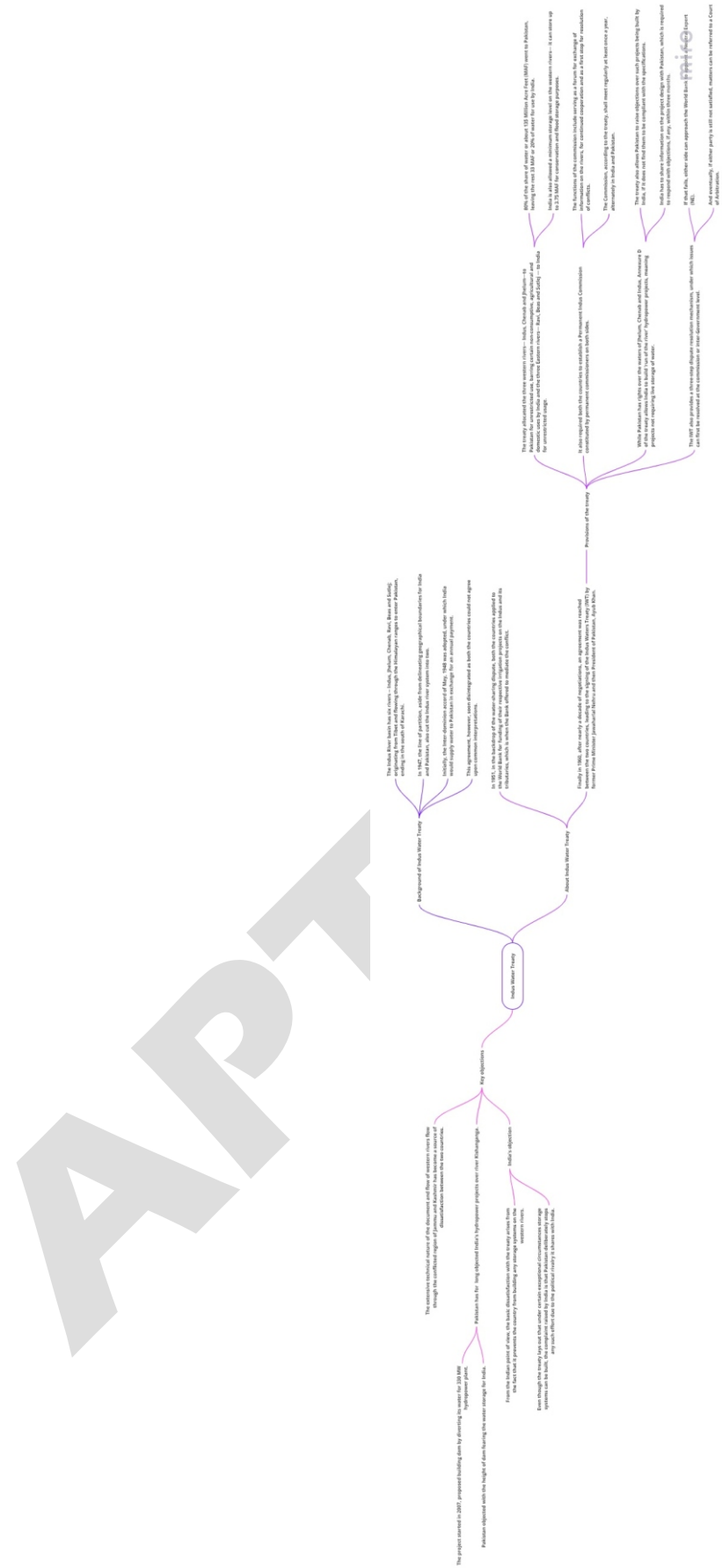
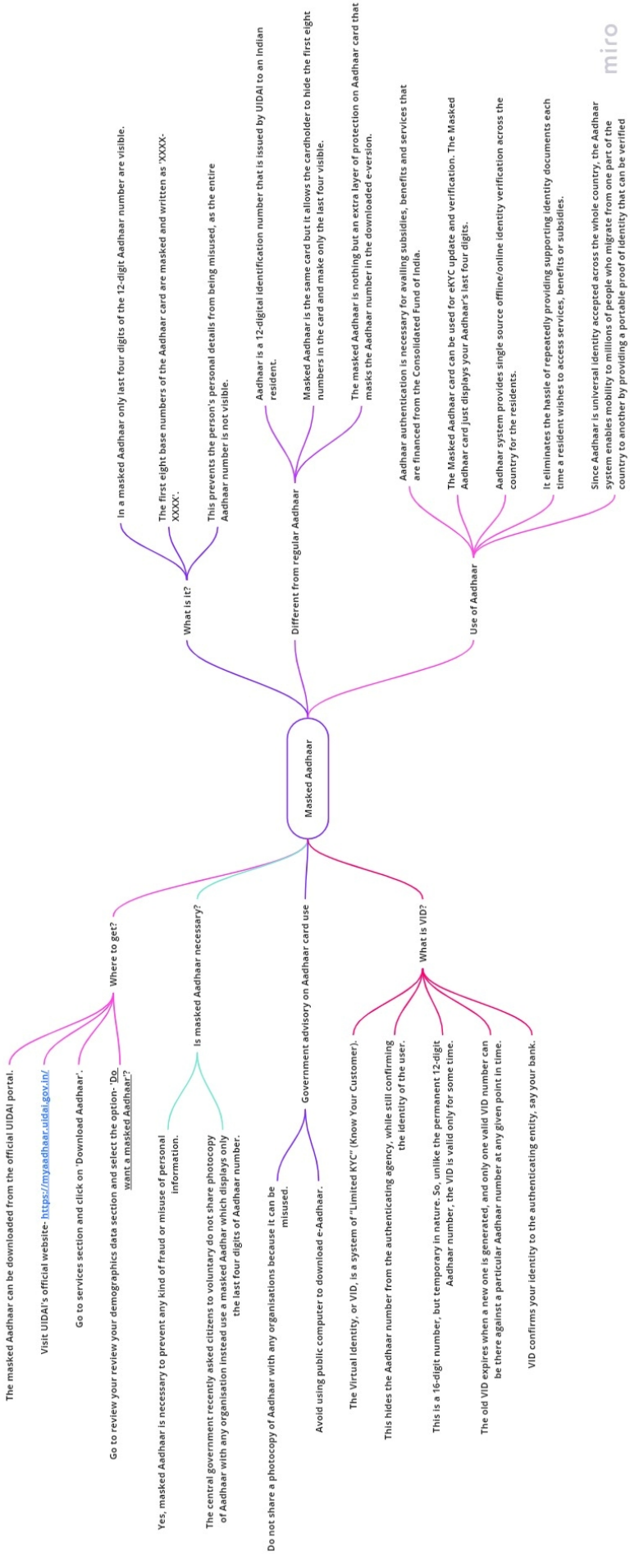

BrahMos supersonic cruise missile
Background & Development
In the early 1990s, India's strategic leadership felt the need for cruise missiles – land-attack missiles that could deliver a nuclear warhead at supersonic speed and deliver large warheads over long distances with high precision.
An Inter-Governmental Agreement was signed with Russia in Moscow in 1998 by Dr Kalam, who headed the Defence Research and Development Organisation (DRDO), and N V Mikhailov, Russia's then Deputy Defence Minister.
The first successful test in 2001 was conducted from a specially designed land-based launcher.
In the 21 years since, BrahMos has been upgraded several times, with versions tested on land, air and sea platforms.
This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyenia (NPOM), the Indian side holding 50.5% and the Russians 49.5%.
In 1999, work on development of missiles began in labs of DRDO and NPOM after BrahMos Aerospace received funds from the two governments.
Future of BrahMos
Land based BrahMos formations along the borders, BrahMos-equipped Sukhoi-30s at bases in Northern theatre and and Southern peninsula, and BrahMos-capable ships and submarines deployed in sea together form a triad.
the BrahMos is undergoing a number of upgrades and work is on to develop versions with higher ranges, manoeuvrability and accuracy.
Versions currently being tested include ranges up to 350 km, as compared to the original's 290 km. Versions with even higher ranges, up to 800 km, and with hypersonic speed are said to be on cards
Effects are also on to reduce the size and signature of existing versions and augment its capabilities further.
Strategic significance
BrahMos is a two-stage missile with a solid propellant booster engine.
Its first stage brings the missile to supersonic speed and then gets separated.
The liquid ramjet or the second stage then takes the missile close to three times the speed of sound in cruise phase.
Key Features
The missile has a very low radar signature, making it stealthy, and can achieve a variety of trajectories.
The 'fire and forget' type missile can achieve a cruising altitude of 15 km and a terminal altitude as low as 10 m to hit the target.
The BrahMos has three times the speed, 2.5 times flight range, and higher range compared to subsonic cruise missiles.
Versions of BrahMos
Ship Based System
BrahMos has been deployed on Indian Navy's frontline surface combat platforms, including Destroyers and Frigates, as the "prime strike weapon."
Indian navy has deployed BrahMos since 2005.
INS Rajput (decommissioned in 2021), a guided missile destroyer, was the first Indian Navy platform to deploy the deadly BrahMos.
A number of future naval platform of India are also stated to be equipped with the powerful BrahMos.
Land Based System
The Land Based Weapon Complex comprises of four to six Mobile Autonomous Launchers (MAL) controlled by a Mobile Command Post (MCP), and a Mobile Replenishment Vehicle (MRV).
The missiles can be fired on three different targets or in a variety of other combinations near simultaneously.
The land based version is also equipped with Inertial Navigation System and Global Positioning System.
MAL is a state-of-the-art. It consists of three missiles in ready to launch configuration housed in containers, most modern means of communications, Radar receivers for Target information and ultra advanced Fire Control System for coordinating the launch.
The indigenously developed launchers is built on all terrain high mobility TATRA vehicle
Air Launched System
The highly advanced BrahMos air-launched cruise missile (ALCM) with precision attack capability against sea and land targets has been designed and developed by BrahMos Aerospace for the Indian Air Force's frontline air combat platform.
The key agencies from India and Russia involved in the ambitious BrahMos-A programme included DRDO, NPOM, HAL, Sukhoi Design Bureau, Indian Air Force, SDI, ASTE, Air Hqrs, CEMILAC with BrahMos Aerospace both the lead agency in the project.
The first Su-30 MKI fighter aircraft, modified for BrahMos supersonic cruise missile was handed over by HAL in 2015.
Submarine System
BrahMos missile is capable of being launched from submarine from a depth of 40-50 metres.
The canisters missile is launched vertically, the nose cap prevents water from entering the air-intake during the underwater flight.
Once the missile emerges from the water, the sensors provide the "out of water commands" and the nose cap is fired for turning the missile in the desired direction to hit the target.


Ramsay Hunt Syndrome
What is Ramsay Hunt Syndrome?
Ramsay Hunt Syndrome is neurological disease in which a virus - Varicella Zoster - causes inflammation of the nerves involved in facial movements.
When the nerves get inflamed, they lose their ability to function, leading to temporary facial palsy or paralysis. The facial muscles in the infected person cannot receive necessary signals to function properly.
There are 12 cranial nerves in the body. Ramsay Hunt Syndrome is the viral infection impacting the 7th cranial nerve that is involved in facial movements.
The disease is not contagious but can lead to chickenpox in those not vaccinated for the disease.
Symptoms of Ramsay Hunt Syndrome
The symptoms include painful, red rash and blisters in and around the ear, and facial paralysis on the same side.
Patients also report hearing loss in the ear that has been impacted apart from Tinnitus or ringing sounds. Inability to close the eye causes dryness.
Rashes in eardrum, ear canal, earlobe and even inside the mouth, on the tongue.
About virus that causes Ramsay Hunt Syndrome
The Varicella Zoster Virus (VZV) is the same virus that causes chickenpox and shingles. According to the US Centre for Disease Control and Prevention, this virus belongs to the herpesvirus group and can stay in the body as a latent infection.
The virus can stay dormant in a person's body and can reawaken to attack the nerves. VZV can get reactivated due to weakening of the immune system.
Treatment
It is treated using anti-viral drugs, steroids and physiotherapy. Steroids and anti-viral drugs are the cornerstone of the treatment
Patient should wear glasses while going out, tape the eye while sleeping to protect their eyes and should do facial exercise
The disease is reversible. Patients get cured within 15 days to three months of starting the treatment.


Indus Water Treaty
Background of Indus Water Treaty
The Indus River basin has six rivers – Indus, Jhelum, Chenab, Ravi, Beas and Sutlej, originating from Tibet and flowing through the Himalayan ranges to enter Pakistan, making the world's driest area.
In 1947, the line of partition, aside from delineating geographical boundaries for India and Pakistan, also created a water dispute over the rivers.
Initially, the Inter-dominion accord of May, 1948 was adopted, under which India was to release water to Pakistan in exchange for a fixed payment.
This agreement, however, soon disintegrated as both the countries could not agree over payments, transport, etc.
In 1951, in the backdrop of the water-sharing dispute, both the countries agreed to the World Bank's proposal to conduct a survey of the waters and their potential for future use in industries, which is when the Bank offered to mediate the conflict.
About Indus Water Treaty
Finally in 1960, after nearly a decade of negotiations, an agreement was reached between India's Jawaharlal Nehru and Pakistan's Mohammad Ayub Khan (MAT) by former Prime Minister Jawaharlal Nehru and then President of Pakistan, Ayub Khan.
Provisions of the treaty
The treaty allocated the three western rivers – Indus, Chenab and Jhelum – to Pakistan for unrestricted use, barring certain non-consumptive, agricultural and domestic uses, while the three eastern rivers – Ravi, Beas and Sutlej – to India for unrestricted usage.
80% of the share of water or about 135 Million Acre Feet (MAF) went to Pakistan, leaving the rest 33 MAF or 20% of water for use by India.
India is also allowed a minimum storage level on the western rivers – it can store up to 3.6 MAF for conservation and flood storage purposes.
It also required both the countries to establish a Permanent Indus Commission consisting of a commissioner from each side.
The functions of the commission include serving as a forum for exchange of information on the rivers, for continued cooperation and as a first step for resolution of conflicts.
The Commission, according to the treaty, shall meet regularly at least once a year, alternately in India and Pakistan.
While Pakistan has rights over the waters of Jhelum, Chenab and Indus, Annexure D of the treaty allows India to build 'run of the river' hydropower projects, meaning projects not requiring the storage of water.
The treaty also allows Pakistan to raise objections over such projects being built by India, if it does not find them to be compliant with the specifications.
India has to share information on the project design with Pakistan, which is required to respond with objections, if any, within three months.
If that fails, either side can approach the World Bank (WB) to appoint a Court of Arbitration.
The ToR also provides a three-step dispute resolution mechanism, under which issues can be resolved at the commission or inter-Government level.
And eventually, if either party is still not satisfied, matters can be referred to a Court of Arbitration.
Key objections
Pakistan has for long objected India's hydropower projects over river Kishanganga
The project started in 2007, proposed building dam by diverting 5½ water for 330 MW hydropower plant.
Pakistan objected with the height of dam fearing the water storage for India.
India's objection
The extensive institutist nature of the document and flow of western rivers flow through the conflicted region of Jammu and Kashmir has become a source of dissatisfaction between the two countries.
From the India's point of view, the basic dissatisfaction with the treaty arises from the fact that it prevents the country from building any storage projects on the western rivers.
Even though the treaty lays out that under certain exceptional circumstances storage systems can be built, the complaint raised by India is that Pakistan dallies only stalls any such efforts due to the protocol treaty it shares with India.

Dutch Disease
What is Dutch Disease?
Dutch disease is a concept that describes an economic phenomenon where the rapid development of one sector of the economy (particularly natural resources) precipitates a decline in other sectors.
It is also often characterized by a substantial appreciation of the domestic currency.
Dutch disease is a paradoxical situation where good news for one sector of the economy, such as the discovery of natural resources, results in a negative impact on the country's overall economy.
Dutch Disease Phenomenon
The Dutch disease term was first introduced in The Economist magazine in 1977 to analyze the economic situation in the Netherlands (hence the name) after the discovery of large natural gas fields in 1959.
Although the Dutch economy increased its revenues from the export of natural gas, the significant appreciation of the national currency from the large capital influx into the country ultimately led to higher unemployment rates in the country, as well as a decline in the manufacturing industry.
The phenomenon of Dutch disease commonly occurs in countries whose economies are highly dependent on the export of natural resources. The paradox contradicts the concept of comparative advantage.
According to the comparative advantage model, each country should specialize in the industry in which it possesses a comparative advantage over other countries.
However, it does not work well with countries that primarily export natural resources. For example, the volatility of commodity prices cannot sustain a country's economy for long time periods.
Also, the overdependence on the export of natural resources leads to the underdevelopment of other sectors of the economy, such as manufacturing and agriculture.
The Working of Dutch Disease
The negative influence of Dutch disease on the economy can be explained by some features attributable to the sectors that are related to natural resources.
For example, mining industries generally require heavy capital investments, but they are not labor intensive.
Therefore, multinational corporations and foreign countries that have capital are often interested in investing in such ventures.
Foreign investment may lead to higher demand for the country's domestic currency, and it will start appreciating.
The appreciation of the domestic currency will make the country's exports in other industries more expensive while imports will become cheaper.
Subsequently, domestic producers will face lower demand for their products abroad, as well as greater competition from foreign producers. Thus, the lagging sectors of the economy will face further troubles.
How to Avoid Dutch Disease?
The two primary strategies that can help solve Dutch disease
Deceleration of domestic currency appreciation
The deceleration of currency appreciation is an easier and more viable strategy to prevent the adverse effects of Dutch disease. It can sometimes be achieved by smoothing the spending of revenues earned from the export of natural resources.
One of the most common methods to do so is the creation of a sovereign wealth fund. Many developed and developing countries, including Australia, Canada, Norway, and Russia, manage large sovereign wealth funds.
Sovereign wealth funds aim to stabilize the inflows of capital into the economy to prevent it from overheating and causing significant currency appreciation. Excess revenues can be spent on education or infrastructure that will help to diversify the economy.
Diversification of the economy
The diversification of the economy is a strategy that can almost eliminate the negative impact of Dutch disease on the economy.
Economic diversification can be achieved by subsidizing lagging sectors of the economy or establishing tariffs to support domestic producers.


Masked Aadhaar
What is it?
In a masked Aadhaar only last four digits of the 12-digit Aadhaar number are visible.
The first eight base numbers of the Aadhaar card are masked and written as 'XXXX-XXXX'.
This prevents the person's personal details from being misused, as the entire Aadhaar number is not visible.
Different from regular Aadhaar
Aadhaar is a 12-digital identification number that is issued by UIDAI to an Indian resident.
Masked Aadhaar is the same card but it allows the cardholder to hide the first eight numbers in the card and make only the last four visible.
The masked Aadhaar is nothing but an extra layer of protection on Aadhaar card that masks the Aadhaar number in the downloaded e-version.
Use of Aadhaar
Aadhaar authentication is necessary for availing subsidies, benefits and services that are financed from the Consolidated Fund of India.
The Masked Aadhaar card can be used for eKYC update and verification. The Masked Aadhaar card just displays your Aadhaar's last four digits.
Aadhaar system provides single source offline/online identity verification across the country for the residents.
It eliminates the hassle of repeatedly providing supporting identity documents each time a resident wishes to access services, benefits or subsidies.
Since Aadhaar is universal identity accepted across the whole country, the Aadhaar system enables mobility to millions of people who migrate from one part of the country to another by providing a portable proof of identity that can be verified through Aadhaar authentication on-line anytime, anywhere.
Where to get?
The masked Aadhaar can be downloaded from the official UIDAI portal.
Visit UIDAI's official website- https://myaadhaar.uidai.gov.in/
Go to services section and click on 'Download Aadhaar'.
Go to review your review your demographics data section and select the option- 'Do want a masked Aadhaar'?
Is masked Aadhaar necessary?
Yes, masked Aadhaar is necessary to prevent any kind of fraud or misuse of personal information.
The central government recently asked citizens to voluntary do not share photocopy of Aadhaar with any organisation instead use a masked Aadhar which displays only the last four digits of Aadhaar number.
Government advisory on Aadhaar card use
Do not share a photocopy of Aadhaar with any organisations because it can be misused.
Avoid using public computer to download e-Aadhaar.
What is VID?
The Virtual Identity, or VID, is a system of "Limited KYC" (Know Your Customer).
This hides the Aadhaar number from the authenticating agency, while still confirming the identity of the user.
This is a 16-digit number, but temporary in nature. So, unlike the permanent 12-digit Aadhaar number, the VID is valid only for some time.
The old VID expires when a new one is generated, and only one valid VID number can be there against a particular Aadhaar number at any given point in time.
VID confirms your identity to the authenticating entity, say your bank.
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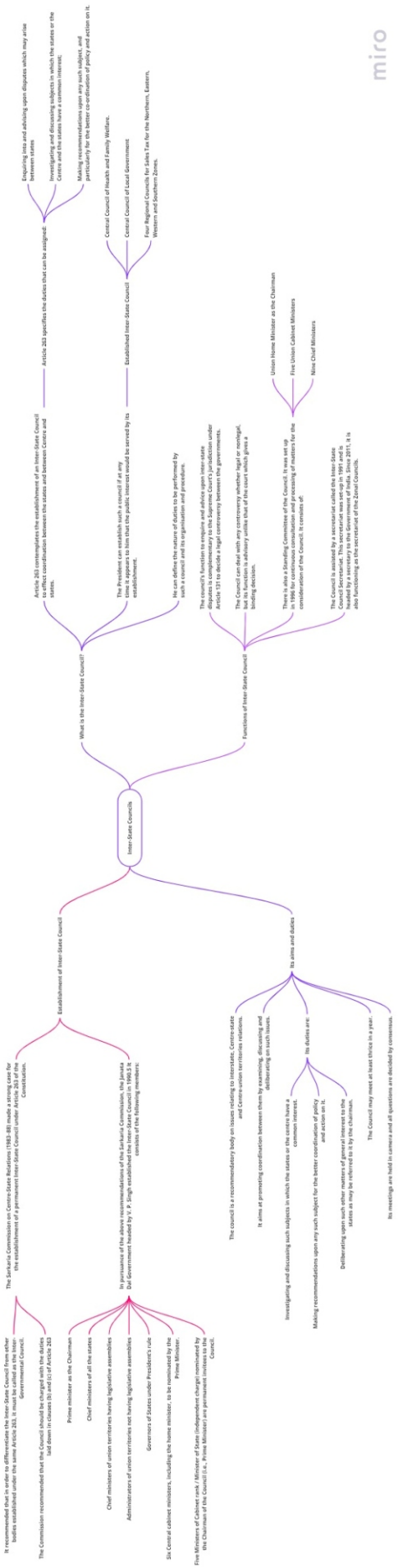
Inter-State Councils
Establishment of Inter-State Council
The Sarkaria Commission on Centre-State Relations (1983-88) made a strong case for the establishment of a permanent Inter-State Council under Article 263 of the Constitution.
It recommended that in order to differentiate the Inter-State Council from other bodies established under the same Article 263, it must be called as the Inter-Governmental Council.
The Commission recommended that the Council should be charged with the duties laid down in clauses (b) and (c) of Article 263
In pursuance of the above recommendations of the Sarkaria Commission, the Janata Dal Government headed by V. P. Singh established the Inter-State Council in 1990. It is constituted of the following members:
Prime minister as the Chairman
Chief ministers of all the states
Chief ministers of union territories having legislative assemblies
Administrators of union territories not having legislative assemblies
Governors of States under President's rule
Six Central cabinet ministers, including the home minister, to be nominated by the Prime Minister.
Five Ministers of Cabinet rank / Minister of State (Independent charge) nominated by the Chairman of the Council (i.e., Prime Minister) are permanent invitees to the Council.
Its aims and duties
The council is a recommendatory body on issues relating to interstate, Centre-state and Centre-union territories relations.
It aims at promoting coordination between them by examining, discussing and deliberating on such issues.
Its duties are:
Investigating and discussing subjects in which the states or the centre have a common interest.
Making recommendations upon any such subject for the better coordination of policy and action on it.
Deliberating upon such other matters of general interest to the states as may be referred to it by the chairman.
The Council may meet at least thrice in a year.
Its meetings are held in camera and all questions are decided by consensus.
What is the Inter-State Council?
Article 263 contemplates the establishment of an Inter-State Council to effect coordination between the states and between Centre and states.
Article 263 specifies the duties that can be assigned:
Enquiring into and advising upon disputes which may arise between states
Investigating and discussing subjects in which the states or the Centre and the states have a common interest.
Making recommendations upon any such subject, and particularly for the better co-ordination of policy and action on it.
Established Inter-State Council
Central Council of Health and Family Welfare.
Central Council of Local Government
Four Regional Councils for Sales Tax for the Northern, Eastern, Western and Southern Zones.
The President can establish such a council if at any time it appears to him that the public interest would be served by its establishment.
He can define the nature of duties to be performed by such a council and its organisation and procedure.
Functions of Inter-State Council
The council's function to enquire and advice upon inter-state disputes is complementary to the Supreme Court's jurisdiction under Article 131 to decide a legal controversy between the governments.
The Council can deal with any controversy whether legal or nonlegal, but its function is advisory unlike that of the court which gives a binding decision.
There is also a Standing Committee of the Council. It was set up in 1996 for continuous consultation and processing of matters for the consideration of the Council. It consists of:
Union Home Minister as the Chairman
Five Union Cabinet Ministers
Nine Chief Ministers
The Council is assisted by a secretariat called the Inter-State Council Secretariat. This secretariat was set-up in 1991 and is headed by a secretary to the Government of India. Since 2011, it is also functioning as the secretariat of the Zonal Councils.