

EDGE IAS



Celebrate Learning !

Monthly Current Affairs March 2023

LET'S

TODAY

LEARN

Great Teachers, Great Content !!

Edge IAS

CURRENT AFFAIRS, IAS EDGE

This Document was prepared under the supervision of Mr. Pramod Singh, Director, IAS Edge.

Current Affairs, March 2023

INDEX

1. Polity and Governance	6
1.1 Swachh Sujal Shakti Samman 2023	6
1.2 Whip	6
1.3 Grievance Appellate Committee (GAC) Portal	7
1.4 Punchhi Commission	8
1.5 Norms Eased for Selection of Consumer Court Presidents, Members	9
1.6 Hallmark Unique Identification Number (HUID)	10
1.7 Right to Health Bill	12
1.8 Mandatory minimum sentencing	13
2. International Relations	15
2.1 Bhutan's Graduation from UN List of Least Developed Countries	15
2.2 Saudi Arabia and Iran Agree to Restore Ties	16
2.3 AUKUS Partnership	16
2.4 Turmoil in Israel	17
2.5 Japan-South Korea Summit	18
2.6 Xi - Putin Meeting	19
2.7 State Visit of Prime Minister of Australia to India	20
2.8 India-US Commercial Dialogue 2023	21
3. Economics	23
3.1 SWAMIH Fund	23
3.2 Har Payment Digital Mission	24
3.3 Fugitive Economic Offenders (FEO)	24
3.4 Frozen Semen Station	25
3.5 SWAYATT	26
3.6 CoEs under Mission for Integrated Development of Horticulture	27
3.7 National Flagship Programmes for Fisheries	28
3.8 Animal Husbandry Statistics	29
3.9 International Intellectual Property Index	30
3.10 International Arms Transfers 2022	31
3.11 Sagar Manthan	32
3.12 Electronics Manufacturing Cluster (EMC)	32
3.13 City Finance Rankings 2022	33
3.14 PM MITRA Parks	33
3.15 Samarth (Scheme for Capacity Building in Textile Sector)	34
3.16 MSME for Resilient Global Value Chains	35
4. Science and Tech	38
4.1 PoTS	38
4.2 NASA's Imaging X-ray Polarimetry Explorer (IXPE)	38

4.3 Lewis Super Acids	39
4.4 Megha-Tropiques-1	39
4.5 Fumarate Hydratase	40
4.6 Nancy Grace Roman Space Telescope	40
4.7 IITR 00693	41
4.8 Fluorescence Microscope	41
4.9 Terran 1	42
4.10 MQ 9 Reaper	43
4.11 Starberry-Sense	44
4.12 Low-temperature Thermal Desalination Technology	44
4.13 Ceramic Radome Technology	45
4.14 Oumuamua	45
4.15 Arudhra Radar	46
4.16 OSIRIS-REx Mission	46
4.17 PALM 400 Drones	47
4.18 TRAPPIST-1 b	47
4.19 Piezoelectric Effect	48
4.20 Role of Sodium in Human Body	48
4.21 H3N2 Virus (Hong Kong flu & subtype of the Influenza A virus)	48
4.22 Whole Genome Amplification (WGA)	49
5. Environment and Ecology	50
5.1 World Wildlife Day 2023 (and 50th Anniversary of first signing of CITES)	50
5.2 World's 1st Bamboo Crash Barrier	51
5.3 Wildlife Sanctuaries (WLS) in the News	51
5.4 Multi-Angle Imager for Aerosols Mission	53
5.5 Cyclone Freddy	54
5.6 Committee to Oversee Transfer and Import Of Captive Wild Animals In India	54
5.7 Batrachochytrium Dendrobatidis	55
5.8 Zealandia	56
5.9 IPCC Published Its Synthesis Report	56
5.10 Earth Hour	57
5.11 Carbon Sequestration	58
5.12 Renewable energy transition	59
6. Security and Defence	62
6.1 Protocols to Tackle Threat of Spy Balloons	62
6.2 Amendments to the Rules on Money Laundering	62
6.3 AFSPA Lifted From More Areas in Northeast States	64
6.4 Unlawful Activities Prevention Act (UAPA): SC Changes Stand	65
6.5 Court Martials in Armed Forces	66
6.6 Manipur Govt Ends Its Peace Pact with 2 Insurgent Groups	66
6.7 Exercise TROPEX	68

6.8 First IAF Woman Officer to Head Frontline Unit	68
6.9 Naval Commanders' Conference 2023	68
7. Social Issues	69
7.1 e-Pharmacies: On Regulating Online Sale of Drugs In India	69
7.2 India's Stand On Same-Sex Marriage	70
7.3 Recurring Migrant Workers' Issues	71
7.4 Review Panel Red-Flags How NAAC Grades Colleges and Universities	72
7.5 NCST Upset With Environment Ministry Over Forest Rights	73
7.6 Women, Business and the Law Report 2023	74
7.7 PM-ABHIM	75

Edge IAS

1. Polity and Governance

1.1 Swachh Sujal Shakti Samman 2023

Recently, Ministry of Jal Shakti organized an event named 'Swachh Sujal Shakti Samman 2023' to highlight contribution of women towards making of a 'Swachh Sujal Bharat'.

About Swachh Sujal Shakti Samman

- Objective: To felicitate women who have done exemplary work at the grassroots level in the implementation of Swachh Bharat Mission – Grameen (SBM-G), Jal Jeevan Mission (JJM), Jal Shakti Abhiyan: Catch the Rain (JSA-CTR).
- 36 women WASH Champions were conferred with the 'Swachh Sujal Shakti Samman 2023' under following categories:

SBM – G	JJM	NWM
1. Making the village ODF Plus Model 2. GOBARdhan/Bio-degradable Waste and/or Plastic Waste Management 3. Greywater Management and/or Faecal Sludge Management	1. Women change-makers in the category of O&M of piped water supply	1) Jal Shakti Abhiyan – Catch the Rain 2) Water Warriors

About SBM-G, JJM & JSA

Mission & Objective	Features
Swachh Bharat Mission – Grameen (SBM-G) Objective: to stop Open Defecation	1) Launched on 2nd October 2014 2) All villages in the country declared themselves as OpenDefecation Free (ODF) by 2019.
Jal Jeevan Mission (JJM) Objective: To involve each & every person in water conservation and recharge efforts.	1) Launched in 2019 2) It led to the creation and rejuvenation of more than 6 lakhwater related structures.
Jal Shakti Abhiyan (JSA)- Catch the Rain Objective: To focus on rainwater harvesting of the monsoon season geo-tagging & making inventory of all water bodies Intensive afforestation.	1) Launched in 2020 under National Water Mission (NWM) 2) It commences prior to the monsoon season and continues for the next six months. (Launched for 2023) 3) Tag line: Catch the rain, where it falls, when it falls. 4) Setting up of Jal Shakti Kendras in all districts

1.2 Whip

A five-judge bench while hearing petitions related to Maharashtra political crisis observed that Members of a House are bound by the 'whip' and if any section of MLAs from a political party that is part of a ruling coalition disagrees with the alliance, then the MLAs will attract disqualification.

What Is A Whip?

- It refers both to a written order to members of a party in the House to abide by a certain direction, and to a designated official of the party who is authorized to issue such a direction.
- The term is derived from the old British practice of "whipping in" lawmakers to follow the party line.
- All parties can issue whips to their members in India. It requires party members to be present in the House for an important vote, or to vote only in a particular way.
- Parties appoint a senior member from among their House contingents to issue whips — this member is called a chief whip, and he/ she is assisted by additional whips.

Type of Whips

The importance of a whip can be inferred from the number of times an order is underlined and is categorized in the same manner:

One-Line Whip- underlined once, is usually issued to inform party members of a vote and allows them to abstain in case they decide not to follow the party line.

Two-Line Whip- directs the party members to be present during the vote.

Three-Line Whip- is the strongest one and is employed on important occasions such as the second reading of a Bill or a no-confidence motion. It places an obligation on members to follow the party line.

Chief Whip:

- ✓ Appointed by a political party to serve as an assistant floor leader.
- ✓ His task is to ensure party discipline in a legislature.
- ✓ Ensures the members attend the meetings of the House of Legislature for their support on any important matter during division on the Floor of the House, as the party leadership desires.
- ✓ Are the party's "enforcers".

Related Constitutional Provision

- The office of 'whip' is mentioned neither in the Constitution of India nor in the Rules of the House nor in a Parliamentary Statute. It is based on the conventions of the parliamentary government.
- However, the Tenth Schedule (anti-defection law) allows a political party to issue a whip to its legislators.

Consequences of Defying a Whip

- A member may face disqualification proceedings if she/he disobeys the party whip unless the number of lawmakers defying the whip is 2/3 of the party's strength in the house.
- The speaker takes the decision on the disqualification according to the anti-defection law.

Limitations of Whip

- Whips cannot direct a Member of Parliament (MP) or Member of Legislative Assembly (MLA) to vote in a particular fashion during Presidential elections.
- In the case of *Kihoto Hollohan vs Zachillhu* in 1992, the Supreme Court of India ruled that the Tenth Schedule is applicable only in situations where a vote of confidence or no-confidence is being taken in the government, or where the motion being considered is related to a policy or program that is central to the political party.

1.3 Grievance Appellate Committee (GAC) Portal

The Ministry of Electronics and Information Technology (Meity) recently launched the Grievance Appellate Committee (GAC) portal under the IT Rules, 2021.

Background

The Amendments were made to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 (Comes under the ambit of IT Act, 2000).

Objectives of This Portal

- This portal will allow users to appeal online to the Government against decisions taken by social media platforms to take down or retain content posted by users.
- This Portal will also ensure safe, trusted and Accountable internet for Digital Nagarik's (Digitally empowered Citizens).
- The amended rules expect social media intermediaries to respect the rights guaranteed to users under the Constitution including in the articles 14, 19 and 21 and ensure accessibility of its services to users with a reasonable expectation of due diligence, privacy and transparency.

About GAC & Its Portal

- The Portal is Designed & developed by NIC.
- It will adopt an online dispute resolution mechanism wherein the entire appeal process, from filing of

appeal to the decision shall be conducted through digital mode.

- All its orders will be complied with by the intermediary concerned and its report will be uploaded on its website.
- There will be three GACs (Announced in Jan' 2023) to investigate users' complaints against social media giants.
- Each committee will consist of a chairperson (ex-officio) and two whole time (independent) members appointed by the Central Government.

	First Committee	Second Committee	Third Committee
Focus Area	To handle complaints against unlawful or criminal activity	To deal with false information or material	To focus on copyright issues and any other illegal activity that is not addressed in first two Committee
Under the purview of	The Ministry of Home Affairs	The Ministry of Information and Broadcasting	The Meity

- Any aggrieved person can appeal to the Grievance Appellate Committee within a period of 30 days from the date of receipt of communication from the Grievance Officer.
- The appeals can be made on <https://www.gac.gov.in>
- The appeal should be resolved within 30 days from the date of receipt.
- It may seek assistance from any person having the requisite qualification, experience and expertise in the subject matter if required.

Need

- The need for GAC was created due to large numbers of grievances being left unaddressed or unsatisfactorily addressed by Internet Intermediaries.
- It is expected to create a culture of responsiveness & Accountability amongst all Internet Platforms and Intermediaries towards their consumers.

1.4 Punchhi Commission

The Union Ministry of Home Affairs (MHA) has decided to start the process of seeking the states' comments on Punchhi commission's center-state relations report.

About Punchhi Commission

- It was constituted in 2007 under the chairmanship of Justice Madan Mohan Punchhi, former Chief Justice of India. It made 273 recommendations in its seven-volume report presented to the Government in 2010.
- It looked into the issues of Centre-State relations keeping in view the changes that took place in the polity and economy of India since the Sarkaria Commission had last looked at the issue of Centre-State relations over two decades ago.
- The Sarkaria Commission was the first commission ever to be appointed to investigate Centre-State relations. It was set up in 1983 and was headed by Justice Ranjit Singh Sarkaria.
- Major Responsibilities: It examined and reviewed the working of the existing arrangements between the Union and States, various pronouncements of the Courts regarding powers, functions and responsibilities in all spheres including legislative relations, administrative relations, role of governors, emergency provisions, financial relations, economic and social planning, Panchayati Raj institutions, sharing of resources including inter-state river water etc.

Major Recommendations

Communal Violence Bill	<ul style="list-style-type: none"> • It proposed amending the communal violence bill and allowing the <u>Centre to deploy its forces in the State without the consent of the State.</u> • Such deployment of forces can last only for a week and after that week 'post-facto' consent should be taken from the state.
-------------------------------	--

National Integration Council	<ul style="list-style-type: none"> • It recommended the creation of a superseding structure known as the 'National Integration Council' for matters relating to internal security (like the Homeland Security Department in the United States). • It recommended that this council should have at least one annual meeting and that a five-member delegation of the Council must, within a period of two days, visit any communally affected area.
Article 355 and Article 356	<ul style="list-style-type: none"> • It recommended amending the articles- <ul style="list-style-type: none"> ✓ Article 355- It deals with the duty of the Centre to protect the state against any external aggression. ✓ Article 356- It deals with the implementation of the President's rule in case of failure of the machinery of the state. • It specified that the Centre should, rather than bringing the whole state into emergency, bring only the <u>troubled area under its jurisdiction</u> and the period of an emergency should not be more than three months.
Subjects in the Concurrent List	<p>It recommended consulting the States through the inter-state council before introducing bills on matters falling under the concurrent list.</p> <ul style="list-style-type: none"> ✓ Concurrent List: One of the three lists present in the seventh schedule of the Indian Constitution i.e., Union, State and Concurrent lists. It contains the matters on which both the State and Centre can formulate laws.
Veto Power	<p>It recommended making a provision according to which the President's decision to exercise his Pocket Veto Power is communicated within a period of six months to the respective State.</p> <ul style="list-style-type: none"> ✓ Pocket Veto Power: If the President chooses to take no action indefinitely on a bill.

Way Forward

The M.M. Punchhi Commission gave amazing recommendations for flawless working and cooperation between the Centre and the State. Although some recommendations have been put into practice, others can be considered too like the ones on the governor. A proper framework should be chosen to implement the remaining recommendations and get better results.

1.5 Norms Eased for Selection of Consumer Court Presidents, Members

Using its extraordinary powers under Article 142, the Supreme Court eased norms for selecting presidents and members for consumer courts to attract younger talent.

Article 142- It empowers the SC to pass orders as necessary for doing complete justice in any matter pending before it. Such orders are enforceable throughout the country.

SC's Ruling

- The apex court upheld the judgement of Nagpur Bench. It said that Rule 6 lacked transparency and it conferred uncontrolled discretion and excessive power to the Selection Committee.
- The court agreed with the high court ruling and said that the provision of 20 years' experience under Rule 3(2)(b) is rightly held to be unconstitutional, arbitrary and violative of the Article 14 of the Constitution of India.
- It eased the norms for appointments and said that its orders will serve as a basis for appointment to the vacant posts until an amendment is introduced.

Changes Introduced	Amendments Required	Eligibility	Selection Procedure
The mandatory professional experience for the post of President and members has been reduced to 10 years from 20 years and 15 years respectively.	The Central Government and the concerned State Governments need to amend the Consumer Protection (Qualification for appointment, method of recruitment, procedure of appointment, term of office, resignation and removal of president and members of state commission and district commission) Rules, 2020 within three months of this verdict.	A person having bachelor's degree from a recognized university and who is a person of ability, integrity and standing, and having special knowledge and professional experience of not less than 10 years in consumer affairs, law, public affairs, administration, economics, commerce, industry, finance, management, engineering, technology, public health or medicine, shall be treated as qualified for appointment of President and members of the State Commission.	It will consist of a written test and interview. The written test would have two papers on subjects like current affairs, the Constitution, consumer laws, drafting, etc.

About Consumer Commissions

- The Consumer Protection Act 2019 provides for protection of the interests of consumers and establishes authorities for timely and effective administration and settlement of consumers' disputes.
- It replaced the old Consumer Protection Act, 1986.
- It provides for the establishment of three tier Consumer Commissions-

District Commission	State Commission	National Commission
Each District has a District Commission.	Each state has one State Commission.	The National Commission is in Delhi.
It consists of one President, who is or has been or is qualified to be a District Judge and not less than two members.	It consists of a President, who is or has been a Judge of a High Court and at least four other members.	It consists of a President who is or has been a Judge of the Supreme Court and not less than four other members.
At least one of the members or the President shall be a woman.	At least one of the members or the President shall be a woman.	At least one of the members or the President shall be a woman.

1.6 Hallmark Unique Identification Number (HUID)

The sale of gold jewelry and gold artefacts hallmarked without 6-digit alphanumeric HUID will not be allowed from 1st April 2023.

Objective


To safeguard and protect the consumers and enhance their confidence in purchase of hallmarked gold jewelry with traceability and assurance of quality.

Key Points

- Hallmarked jewelry lying with consumers as per old schemes will be valid.
- If the Hallmarked Jewelry bought by the consumer is of lesser purity than that marked on jewelry, then he/she will be entitled for compensation which shall be two times the amount of difference calculated based on shortage of purity for the weight of such article sold and the testing charges.
- A consumer can check and authenticate hallmarked gold jewelry items with HUID number using 'verify HUID' in BIS CARE app which is available in both android as well as iOS.
- It provides information of the jeweler, their registration number, purity of the article, type of article as well as details of hallmarking center which test and hallmarked the article.

Background

- At present, the old, hallmarked jewellery with *four marks without HUID* was also permitted to be sold by the jewellers along with the 6-digit HUID to clear their stock of their 4-digit hallmarked articles.
- The simultaneous sale of two types of hallmarked jewellery was creating confusion in the mind of consumers.
- Therefore, after several rounds of consultations with all stakeholders including jewellers on the issue by BIS, it was decided that after 31st March 2023, sell, or offer to sell gold jewellery or gold artefacts unless it is hallmarked with 6-digit Hallmark Unique Identification (HUID) number is prohibited.



Which Metals Are Covered Hallmarking In India?

- The government, through a notification issued in 2018, notified two categories—gold jewellery and gold artefacts; and silver jewellery and silver artefacts—under the purview of hallmarking.
- So, hallmarking in India is available for jewellery of only two metals—gold and silver.

Exemptions

- A certain category of jewellery and items will be exempted from the mandatory requirement of hallmarking.
- Export and re-import of jewellery as per Trade Policy of Government of India — Jewellery for international exhibitions, jewellery for government-approved B2B domestic exhibitions will be exempted from mandatory Hallmarking.
- Watches, fountain pens and special types of jewellery such as Kundan, Polki and Jadau are exempted from hallmarking.

What Is Hallmarked Jewelry

- Hallmark is a mark to assure the fineness and purity of gold jewelry. There are three categories of hallmarked jewelry:
 1. 22K916- It is a 22-carat gold, and the piece of jewelry has 91.6 percent gold.
 2. 18K750 - It is an 18-carat gold, and the piece of jewelry has 75 percent gold.
 3. 14K585 - It is a 14-carat gold, and the piece of jewelry has 58.5 percent gold.

About HUID

- It is a six-digit alphanumeric code introduced from 01 July 2021 and is allotted to every piece of jewelry at the time of hallmarking.
- The jewelry is stamped with this unique number manually at the Assaying & Hallmarking Centre.

- It helps in tracing the individual piece of jewelry and provides a guarantee of its quality.
- Registration of jewelers while hallmarking with HUID is automatic with no human interference.

Need	Benefits
To safeguard and protect the consumer's interest.	The consumer is aware of the quality of the product she is buying and will not be cheated.
Enhance consumer confidence in purchase of hallmarked gold jewelry.	Enhances the confidence and trust of consumers in the authenticity of jewelry.
Allows traceability.	Gold jewelry with guaranteed quality will fetch a higher price when re-sold.
Assures quality.	Loans will be provided on better terms by banks on mortgaging hallmarked gold.

Process to Check Gold Purity

- Gold is a very soft metal and therefore it needs to be mixed with other metals to shape it into jewelry items. The more gold a piece of jewelry has, the purer and expensive the jewelry is.
- Its purity can be checked at any BIS-recognized Assaying and Hallmarking Centre by paying a fee of Rs 200.

How to Apply For Hallmarking

A consumer cannot directly apply to the Assaying and Hallmarking Centre to get a hallmark on her gold jewelry. This must be done through a BIS-registered jeweler.

1.7 Right To Health Bill

Recently, Rajasthan became the first state to introduce a Right to Health bill. This bill gives every resident of the state the right to avail free Outpatient Department (OPD) services and In Patient Department (IPD) services at all public health facilities and selected private facilities. It extends a total of 20 Rights to the citizens of the state.

Objective

- To provide protection and fulfilment of rights and equity in health and well-being under Article 47.
- Article 47- It is one of the Directive Principles of State Policy which guides the state to raise the level of nutrition and the standard of living and to improve public health.
- To secure the Right to Health as per the expanded definition of Article 21 (Protection of life and personal liberty)“.

Key Highlights of Bill

Obligations on Government	
<ul style="list-style-type: none"> • To formulate a public health model with appropriate provisions in the state budget. • Develop and institutionalize a <u>Human Resource Policy</u> to ensure the equitable distribution of health workers. 	
Health Authorities	
<ul style="list-style-type: none"> • Independent bodies will be set up at the state and district levels, called the State Health Authority (SHA) and District Health Authority (DHA), respectively. • They will formulate, implement, and monitor mechanisms for quality healthcare and management of public health emergencies. • The State Health Authority will be chaired by an Indian Administrative Service officer not below the rank of Joint Secretary, appointed by the state government. • The District Health Authority will be chaired by the district collector. 	
Right of Residents	Duties of Residents
<ul style="list-style-type: none"> • Avail free outdoor and indoor patient department services, medicines, diagnostics in public health institutions and freetransport facility. 	<ul style="list-style-type: none"> • Provide relevant and important information to

<ul style="list-style-type: none"> • The hospital can't delay treatment on grounds of police clearance if it is a medico-legal case. • After emergency care, stabilisation and transfer of patient, if patient does not pay requisite charges, the healthcare provider shall be entitled to receive requisite fee and charges or proper reimbursement from the state government. • Avail tertiary healthcare by referral from primary and secondary level institution. • Informed consent & Confidentiality before specific tests or treatments. 	<p>the healthcare provider & comply with prescribed healthcare.</p> <ul style="list-style-type: none"> • Refrain from misconduct with healthcare provider.
Rights of Healthcare Provider	Duties of Healthcare Provider
<ul style="list-style-type: none"> • Protection from complaints relating to adverse consequences. • To be treated with respect and dignity by patients and attendants. • Decent working conditions • Right to physical safety. 	<ul style="list-style-type: none"> • Follow standard treatment guidelines and protocol. • Maintain confidentiality, privacy and dignity of residents. • Respect residents' right to take a decision. • Explain/inform patients/relatives about disease severity, progression and treatment.
Grievance Redressal	
<ul style="list-style-type: none"> • A web portal and helpline centre will be established for filing complaints and the officer concerned will have 24 hours to respond to a complaint. • The District Health Authority will take up unresolved complaints exceeding the above timeframe, take appropriate action and upload the action taken report on the web portal within 30 days. • If the grievance remains unresolved within 30 days, the complaint will be forwarded to the State Health Authority who will then hear appeals against the District Authority's decisions. 	
Penalty	
<ul style="list-style-type: none"> • Anyone found in contravention of the Act will be punishable with a fine of up to Rs 10,000 for the first contravention, and up to Rs 25,000 for the subsequent contraventions. 	
Bar of Jurisdiction	
<ul style="list-style-type: none"> • No civil court shall have jurisdiction to entertain any suit with respect to any matter which an appellate authority constituted under the act is empowered. 	

The right to health is a fundamental human right that is recognized by Indian constitution under article 21. Despite the recognition of this right, many people across India still face significant barriers to accessing essential healthcare services, particularly in low-income pockets of India.

Addressing these challenges requires a coordinated effort from governments, international organizations, and civil society groups. By working together to ensure that everyone has access to the resources they need to maintain good health, we can make significant progress towards realizing the right to health for all.

1.8 Mandatory minimum sentencing:

- A CJI Chandrachud-led bench of the Supreme Court decided to examine a petition challenging the constitutional validity of Section 376 DB of the Indian Penal Code.
- This section describes the punishment for gangrape of a minor under 12 years of age, to the extent that it prescribes a 'minimum mandatory sentence' of life imprisonment for the remainder of the convict's life and even death.

Mandatory minimum sentencing:

- The concept of mandatory minimum sentencing refers to "a sentence which must be imposed without leaving any discretion to the court".
- It means a quantum of punishment which cannot be reduced below the period fixed – the Apex court held in its 2016 ruling in 'Mohd Hashim vs State Of UP And Others'.
- Essentially, this predetermines the minimum punishment or sentence for certain offenses which are considered to be more serious than others, with a view to ensure justice and not let the perpetrator of such an offense go unpunished.

- No matter what the unique, individual circumstances of the offender or the offense might be, the court must mandatorily award this minimum period of sentencing for the offenses which prescribe it.

What provisions award a mandatory sentence

- A concept that comes primarily from the Canadian and American legal systems; in India, such sentences are prescribed for all sexual offenses under the Prevention of Children from Sexual Offences (POCSO) Act except the offense of sexual harassment
- Under Section 8 of the POCSO Act, a punishment of 3-5 years has been prescribed for offenses under Section 7 which deals with offenses of sexual assault against children. However, imposing the minimum punishment in such cases is mandatory.
- When the legislature has prescribed a minimum sentence without discretion, the same cannot be reduced by the courts.
- In such cases, imposition of minimum sentence, be it imprisonment or fine, is mandatory and leaves no discretion to the court," the Supreme Court reiterated in its 2019 ruling in 'State Of Madhya Pradesh vs Vikram Das'.
- However, it was first in the year 1983, following nationwide protests in the wake of the Supreme Court's 1978 ruling acquitting two policemen for the rape of a 16-year-old Adivasi girl in 'Tukaram And Ors v. State Of Maharashtra' that the Criminal Law Amendment Act Of 1983 was passed.
- The 1983 amendment was the first instance of 'mandatory minimum punishment' being prescribed, with seven years for general rapes and ten years for aggravated cases which could include rapes of minors below 12 years, and pregnant women, while the maximum punishment or life imprisonment for both was stipulated as 14 years.
- Years later, in 2012, following the brutal gangrape and death of a medical student in Delhi, the demand for more stringent rape laws with stricter punishments gained widespread momentum.
- This resulted in the Criminal Law (Amendment) Act, of 2013, which expanded the definition of 'rape' beyond penetration to include insertion of objects, anal sex, and oral sex.
- The 2013 reforms also updated the definition of 'life imprisonment' to mean the entire remainder of the convict's life and introduced a minimum sentence of 20 years for gang rape. Following this, even the death penalty could be meted out to those repeatedly indulging in such offenses.

What are the arguments for and against?

- The proponents of minimum mandatory sentencing say that it limits the scope for judicial discretion and arbitrariness, thereby enhancing the cause of justice.
- It is also believed that it acts as a deterrent for serious or harsh offenses by ensuring that the perpetrator doesn't go unpunished.
- On the other hand, critics say that this leads to overcrowding of prisons and is unfair as the convict's mitigating circumstances, such as if they are a first-time offender or the sole breadwinner in the family, are often overlooked.
- Moreover, such provisions can often have unintended consequences as judges might feel the prescribed punishment to be excessively stringent in such cases and acquit the accused altogether.

2. International Relations

2.1 Bhutan's Graduation From UN List of Least Developed Countries

From December 2023, the landlocked Himalayan kingdom of Bhutan will no longer be on the list of LDCs. It will become only the seventh country to graduate from the list.

What is an LDC?

- The LDC classification was introduced by the UN in 1971 to identify countries that are deemed highly disadvantaged in their development process, for structural, historical and also geographical reasons.
- LDC designated countries are those that are in need of the highest degree of attention from the international community.
- According to the United Nations Committee on Development Policy (CDP), there are now 46 nations, including Bangladesh, Nepal and Laos on the LDC list.
 - These countries comprise around 880 million people, representing 12% of the global population, but less than 2% of world GDP and around 1% of world trade.

Criteria for Classification As LDC

- The CDP measures the LDC category on the basis of per capita income;
- human assets index (includes indicators of nutrition, health, school enrolment and literacy); economic vulnerability Index (includes indicators of natural and trade-related shocks, physical and economic exposure to shocks, and smallness and remoteness).

How Does A Country Graduate Out Of LDC Category?

- Every three years, the CDP review the list of LDCs. Based on rigorous assessment, it makes its recommendations for inclusion in and graduation from the category.
- Decision in that regard is made by the UN Economic and Social Council (ECOSOC) and ultimately by the General Assembly.
- A country must exceed thresholds on two of the three criteria at two consecutive triennial reviews to be considered for graduation.
- E.g., on GNI per capita, the inclusion threshold is set at a three-year average in keeping with the cut-off determined by the World Bank for identifying low-income countries. As of 2021, the threshold is USD 1,018.
- To exit the LDC group, a country has to have this GNI per capita rise 20 per cent above the inclusion threshold, which in 2021 is USD 1,222.
- On the human assets index, a country's score has to improve by 10 per cent (that is, it has to score 66) above the inclusion cut-off of 60.
- On vulnerability index, its score has to come down by 10 % to 32 from the inclusion threshold of 36.

Advantages Associated With LDC Tag

- The LDC list is a means of giving a strong signal to the international community to the need of special concessions in support of LDCs.
- These cover the areas of development financing, like the award of grants and loans, and special trade concessions like preferential market access.
- Countries are also encouraged to provide technical assistance to the LDCs. Drawbacks Of Being Out Of LDC Group
- Graduating countries stand to lose preferential support, grants and subsidies, etc. The loss of preferential market access can affect their export competitiveness, industrial production and jobs.
- These countries would see a shift from the International Development Association (IDA)-type of concessional foreign aid to the International Bank for Reconstruction and Development (IBRD)-type of

non-concessional finance with a higher interest rate and stringent conditions.

- The graduation would also cause an erosion of facilities and relaxations in relation to intellectual property rights as well as other obligations in trade matters under the WTO

2.2 Saudi Arabia and Iran Agree to Restore Ties

Iran and Saudi Arabia agreed to re-establish diplomatic relations and reopen embassies after 7 years of tensions. This major diplomatic breakthrough was negotiated after the talk between Iran and Saudi Arabia which was hosted by China in Beijing.

Key Highlights of the Agreement

- The two countries agreed on a meeting between their top diplomats to implement the restoration of ties and organize the logistics of exchanging ambassadors.
- The two countries plan to reopen their respective embassies in Tehran and Riyadh within two months.
- Both the countries also agreed to activate a 2001 Security Cooperation Agreement, as well as a General Economy, Trade and Investment Agreement signed in 1998.
- They also confirmed their “respect for the sovereignty of states and non-interference in their internal affairs.

Significance Of This Agreement

- Peace And Stability In The Middle East
- Iran and Saudi Arabia had been engaged in many proxy wars in the region.
- Against this backdrop, the recent agreement would help end the war in Yemen and de-escalate tensions in the Middle East region.

Highlights Beijing’s Growing Role

- China hosted the talks that led to the breakthrough, highlighting Beijing’s growing role as a global economic and political power, and counterbalance to Washington — particularly in the Middle East.
- So far, middle east had been a region that long shaped by the military and diplomatic involvement of the United States.
- For United States, the agreement signals that USA cannot take for granted the pre-eminent influence it once wielded in Saudi Arabia.

For India

- So far, India had maintained a good relationship with both the countries. However, due to the rivalry between Iran and Saudi Arabia, India had to walk on a diplomatic tight rope.
- Tension between the two major countries in the region often endangered India’s interests.
- Hence, this agreement would provide much needed space for India to manoeuvre.
- This could help stabilize global oil prices and ensure a consistent supply of oil to India.
- Chinese mediation will create challenges for India as it will contribute to increasing Chinese influence in the region.

As both countries face common challenges like COVID-19 pandemic, economic pressures, and security threats, therefore restoration of diplomatic ties could pave the way for greater cooperation & stability in the Middle East. While many obstacles still remain, the recent diplomatic efforts provide a positive sign for the future of Iran-Saudi Arabia relations.

2.3 AUKUS Partnership

- The United States, Australia and Britain unveiled details of a plan to provide Australia with nuclear-powered attack submarines from the early 2030s to counter China’s ambitions in the Indo-Pacific.
- This agreement was finalised under the 2021 AUKUS partnership.

- Under the deal, the United States intends to sell Australia three US Virginia class nuclear-powered submarines, in the early 2030s, with an option for Australia to buy two more if needed.
- The multi-stage project would culminate with British and Australian production and operation of a new submarine class – SSN-AUKUS.
- SSN (Submersible Ship Nuclear)-AUKUS will be a trilaterally developed vessel based on Britain’s next-generation design.
- It would be built in Britain and Australia and include cutting edge U.S. technologies.
- Britain would take delivery of its first SSN-AUKUS submarine in the late 2030s, and Australia would receive its first in the early 2040s.

What Is the Significance of This Deal

- US has only shared nuclear submarine technology once before in 1958 with Great Britain.
- **For Indo-Pacific Region**
 - Under this partnership, technology, scientists, industries and defence forces of these three countries will work together to deliver a safer and more secure region.
 - Some analysts feel that this partnership will lead to intensified arms race in the region.
- **For Australia**
 - Australia has never had nuclear-powered submarines.
 - Hence, this step will give Australia naval heft in the Pacific, where China has been particularly aggressive.
 - Critics, on the other hand, claim that this **deal would antagonize Beijing** which will not be good for Australia.
 - Australia is now set to join **an elite group of only six countries** – India, US, UK, France, Russia and China – that operate nuclear-powered submarines.
 - It will also be the only country to have such submarines without having a civilian nuclear power industry.
- **For India**
 - The new pact will add to the global efforts to balance China in the region.
 - It should be noted that Australia and India are close strategic partners in the Indo-Pacific region.
 - Australia is also a member of **QUAD group**. A stronger Australia would lead to further strengthening of QUAD.
- **For France**
 - France is not happy with the deal and has termed this deal a “stab in the back”.
 - Australia had signed a contract to buy 12 Attack-class submarines from France in 2016. The first submarine was expected to be operational around 2034.
 - As a result of the current deal, Australia ditched the contract.

How China views this agreement?

- China denounced a new Indo-Pacific security alliance saying such partnerships should not target third countries.
- It claims that the current cooperation would gravely undermine regional peace and stability, aggravate arms race and hurt the international non-proliferation efforts.
- China claimed that western powers are using nuclear exports for geopolitical gaming tools.

Under this deal, highly-sensitive nuclear powered submarine technology will be exported to Australia.

2.4 Turmoil in Israel

- Tens of thousands of Israelis are in the streets, protesting Israeli government’s plans to reform the judicial system.
- The protesters say that these reforms will threaten democratic checks and balances on ministers by the courts.

What are the proposed judicial reforms against which Israelis are protesting?

The plan includes four major changes:

- The government wants to enable the 120-member parliament, or Knesset, to *override any Supreme Court judgement by a simple majority of 61 votes unless those rulings are unanimous.*
- Another bill *takes away the High Court's determination that it can strike down Basic Law in cases where the Knesset has misused its authority.*
 - *Israel has no constitution, and many of the rights and freedoms that its people enjoy are contained in **Basic Law**.*
- Also, a law has been proposed that would give a *greater role to lawmakers in the appointment of Supreme Court judges.*
 - *As of now, a committee comprising professionals, justices and lawmakers elevate judges to the top court.*
 - *The new change would provide lawmakers a majority in the committee.*
- The government wants to allow ministers to choose their own legal advisors instead of using independent professionals.

What Are The Concerns of The Protesters?

- The protesters say the future of Israeli democracy is at stake if the government succeeds in pushing through the plans.
- The proposed reform would:
- tighten political control over judicial appointments;
- limit the
- Supreme Court's powers to overturn government decisions or declare Knesset laws unconstitutional.
- It would also empower the government to overrule the court's decisions.
- It will undermine the rights of minorities and open the doors to more corruption.

2.5 Japan-South Korea Summit

- South Korean President Yoon Suk Yeol met Japan's Prime Minister Fumio Kishida in Tokyo - the first such meeting in 12 years
- During this summit, both the countries agreed to resume regular visits between their leaders and take steps to resolve a trade dispute.

What Are The Issues Between Japan And South Korea?

- Colonization of Korean Peninsula by Japan
- Japan effectively colonized the Korean Peninsula between 1910 and 1945, in a regime that imposed Japanese names and language on Koreans.
- During this period, Japan conscripted many into forced labor or forced prostitution in military brothels.
- Japan paid \$800 million in reparations to South Korea's military-run government in 1965, but this money was never distributed to victims.
- Recently, Seoul has offered Tokyo concessions on South Korean demands for compensation over wartime forced labor.
- However, it remains to be seen whether the South Korean public will accept reconciliation.

Longstanding territorial dispute

- The two sides also have a longstanding territorial dispute over a group of islands controlled by South Korea and claimed by Japan.
- Regular visits between top leaders of both the countries were ended in 2012 after South Korean President Lee Myung-bak visited the disputed islands.

Escalation of tensions in recent years

- Tensions escalated in the past 10 years as conservative Japanese governments moved to rearm the country while stepping up attempts to whitewash Japan's wartime atrocities.
- In 2018 South Korea's Supreme Court ordered Japan's Nippon Steel and Mitsubishi Heavy Industries to compensate forced labour victims.
- In 2019, Japan placed export controls on chemicals used to make semiconductors and displays used in smartphones and other high-tech devices.

What Is The Significance Of This Summit?

- Shared security concerns in the region
- Improved ties between South Korea and Japan could pave the way for the two U.S. allies to cooperate more closely on shared security concerns related to China and North Korea.
- Japan increasingly bolstered defense ties with the U.K., Australia, India and the Philippines.
- Hence, an improved relation between Japan and South Korea will further increase the security in the region.

For South Korea

- South Korea is putting efforts to strengthen alliances to counter North Korea.
- North Korea has been expanding nuclear-capable missiles and issuing threats of pre-emptive nuclear strikes.
- For South Korea, stronger economic cooperation with Tokyo has become more crucial in the face of industrial supply chain disruptions and other global challenges.

For India

- Improved ties between Japan and South Korea could potentially benefit India in various ways, especially in terms of economic and strategic relations.
- Japan and South Korea are two of India's largest trading partners in Asia.
- Both Japan and South Korea have significant technological expertise, and India has been trying to develop its technology sector as part of its "Make in India" campaign.
- From a strategic standpoint, Japan and South Korea are important partners for India in the Asia- Pacific region.

2.6 Xi - Putin Meeting

- China's President Xi Jinping paid a state visit to Russia. He landed in Moscow days after the International Criminal Court issued warrants for the arrest of President Vladimir Putin for alleged war crimes.
- This was his first trip to Russia since the country invaded Ukraine last year.
- His trip to Russia offers a symbolic shot in the arm to his increasingly isolated Russian counterpart, Vladimir Putin.
- It also highlights Xi's determination to push back against American power in the world.

Why China-Russia Relationship Matters To Beijing?

- From security point of view
- It is imperative for Beijing to maintain both outreach and cordial relations with Moscow.
- Despite the fall of the Soviet Union, Russia is still China's largest neighbour, a major source of military technology.
- Russia continues to exercise influence in the former Soviet states that border China's troubled west.

Economic and energy security

- Russia is now a major source of hydrocarbon energy as well as a market for China's manufacturing and technology.

Strategic

- China sees in Russia an ally in the opposition to Western liberal ideas and a US-led global order.
- The Chinese under Xi declared a partnership with no limits during Putin's visit to Beijing in early February 2022 on the eve of his invasion of Ukraine.
- To the Chinese, Western sanctions against Russia are an example of what a new Chinese document on their Global Security Initiative calls "abusing unilateral sanctions and long-arm jurisdiction".

Message to non-western world

- Xi sees value in showing the non-Western world that there is an alternative to American power and ideas of how the world should be run.

Does China Want The War To End?

- Experts believe Beijing is unlikely to want an end to the Russian war in Ukraine for several reasons.
- Weak Russia is an opportunity for China
- Being tied down in Ukraine has the effect of weakening Russia militarily, economically, and politically.
- This is a vacuum that China can step into, especially in Eurasia.
- Diversion of the United States' attention and resources
- A prolonged conflict in Ukraine means that the West's, and in particular the United States', attention and resources are diverted.
- Rising Chinese role
- A continuing crisis in Ukraine offers opportunities for international messaging about the relative rise in Chinese power in comparison to both the Russians and Americans.

2.7 State Visit of Prime Minister of Australia to India

- The Prime Minister of Australia, Anthony Albanese, paid a State Visit to India. This was Albanese's first visit to India in his current role.
- During this visit, PM Albanese and PM Modi participated in the India-Australia Annual Summit.
- This was the 1st Annual Summit between India and Australia at the level of the Leaders.
- The summit mechanism itself was established as an outcome of the 2nd Virtual Summit that was held in March 2022.

List of Outcomes

- Audio-visual Co-production Agreement between the two countries were signed.
- MoU on Cooperation in Sports.
- The two sides agreed on the establishment of two task forces one on solar (solar task force) and second on Green Hydrogen.
- Letter of Intent was signed between the India's Atal Innovation Mission (AIM) and Commonwealth Scientific & Industrial Research Organisation for Furthering Cooperation in Innovation.

Other Highlights of This Visit

- Cricket Diplomacy
- PM Modi and PM Albanese went to the Narendra Modi stadium in Ahmedabad, where India and Australia were playing the fourth test match of the Border-Gavaskar series.
- Business Delegation
- The Australian prime minister brought with him a huge delegation of business leaders.
- This assumes significance as the business relations between the two countries have not taken off fully.
- Australian businesses have mainly concentrated on China, which buys about a third of Australia's exports.
- First foreign leader to visit INS Vikrant
- During the current visit, PM Albanese became the first foreign leader to visit INS Vikrant, India's locally built aircraft carrier.

- While visiting INS Vikrant, Albanese said: For Australia, India is a top security partner.
- Comprehensive Economic Cooperation Agreement (CECA)
- India and Australia discussed the finalisation of CECA.
- CECA is aimed at upgrading an interim trade deal finalised last year in the form of Economic Cooperation and Trade Agreement (ECTA).
- The two also decided to move ahead with negotiations on a migration and mobility pact to benefit students and professionals.
- India and Australia recently finalised a mechanism for recognising each other's educational qualifications.
- In this context, the mobility agreement will benefit students, workers and professionals.
- India was invited to join the Talisman Sabre exercises
- Australia invited India to join the Talisman Sabre exercises later this year, a major operation for the Australian Defence Force.
- General Rawat Australia-India Young Defence Officers' Exchange Programme
- As part of General Rawat Australia-India Young Defence Officers' Exchange Programme, a 15-member Australian contingent, visited the Agra-based Military establishment.
- This programme was instituted in honour of India's first Chief of Defence Staff, General Bipin Rawat.

Why Is There Growing Synergy Between India And Australia?

China Factor

- Ties between Australia and China were strained after Canberra in 2018 banned Chinese telecom firm Huawei from the 5G network.
- Later, it called for an inquiry into the origins of Covid-19, and slammed China's human rights record in Xinjiang.
- China responded by imposing trade barriers on Australian exports, and by cutting off all ministerial contact.
- On the other hand, India has been facing an aggressive Chinese military along the border.
- Centrality of Indian Ocean for both the countries
- The Indian Ocean is central for the security and prosperity of both the countries.
- Both the countries depend on free and open access to sea lanes in the Indo-Pacific for trade and economic well-being.

Economic imperative

- Australia is looking to diversify its economic relation which is heavily dependent on China.
- India, being a fast growing economy with a large market, is an attractive destination for Australia.
- India, on the other hand, wants to increase economic cooperation in the form of bilateral free trade agreements with countries across India-Pacific.
- This is because, India has not joined the RCEP (Regional Comprehensive Economic Partnership).
- It wants to compensate the loss of not joining the RCEP with signing multiple bilateral FTAs with countries in the region.

2.8 India-US Commercial Dialogue 2023

India-US bilateral Commercial Dialogue 2023 was co-chaired by India's Union Commerce and Industry Minister and US Secretary of Commerce.

Key Highlights of the Dialogue

- Semiconductor sub-committee was established
- This sub-committee will be led by the Department of Commerce for the US and the Ministry of Electronics and Information Technology (MeitY) and the Ministry of Commerce and Industry for the Indian side.
- It is aimed at establishing semiconductor supply chain. It will help develop an ecosystem to reduce the dependency on China and Taiwan.
- Welcomed the launch of the U.S.-India initiative of Critical and Emerging Technology (iCET)

- iCET aims to elevate and expand the strategic technology partnership and defence industrial cooperation between India and USA.
- It seeks to build supply chains which increase co-production and co-development between the countries and increase linkages between the countries' start-up ecosystems.

Edge IAS

3. Economy

3.1 SWAMIH Fund

- The Special Window for Affordable and Mid-Income Housing (SWAMIH) Investment Fund has completed 20,557 homes since its inception in 2019.
- The SWAMIH Fund is India's largest social impact fund, specifically formed for completing stressed and stalled (brownfield) residential projects. The Fund is sponsored by the Ministry of Finance.
- It has so far raised Rs. 15,530 crore to provide relief to real estate developers that require funding to complete their unfinished projects and ensure the timely delivery of homes to homebuyers.
- The Investment Manager of the fund is SBICAP Ventures, a wholly owned subsidiary of SBI Capital Markets, which in turn is a wholly owned subsidiary of the State Bank of India (SBI).
- The fund has been set up as a Category-II AIF (Alternate Investment Fund) debt fund registered with SEBI.
- The Fund is considered as the lender of last resort for distressed projects.
- This is because it considers first time developers, established developers with troubled projects, developers with a poor track record of stalled projects, customer complaints and NPA accounts, even projects where there are litigation issues.

Alternative Investment Fund (AIF)

- As per SEBI (Alternative Investment Funds) Regulations, 2012, AIF is any fund incorporated in India which is a **privately pooled investment vehicle**.
- It collects funds from both Indian and foreign investors. Generally, high net worth individuals and institutions invest in AIFs as it requires a high investment amount, unlike Mutual Funds.
- It can be established in the *form of a company or a corporate body or a trust or a Limited Liability Partnership (LLP)*.
- AIFs are divided into 3 unique categories – Category I, Category II and Category III.

- **Category I AIF:** Funds are mainly invested in start-ups, SMEs or any other sector which Govt. considers economically and socially viable. Examples include venture capital funds, social venture funds, infrastructure funds.
- **Category-II AIF** are funds that *do not borrow money other than to meet day-to-day operational requirements*. Real estate funds, private equity funds (PE funds), funds for distressed assets are all Category-II AIF funds.
- **Category III AIF:** Funds are invested with a view to make short term return. Examples include hedge funds.

Real Estate Regulatory Authority (RERA)

- RERA was established, under Real Estate (Regulation and Development) Act, 2016 to *enhance accountability and transparency with respect to housing transactions* and real estate.
- The Act *establishes RERA* in each state for regulation of the real estate sector and also acts as an *adjudicating body for speedy dispute redressal*.

- Net-worth positive projects are projects for which the value of their receivables (debts owed to them by buyers), plus the value of their unsold inventories is greater than their completion costs and outstanding liabilities.
- Affordable or Mid-income Housing units is defined as any housing units that do not exceed 200sqm RERA carpet area and are priced as following (as applicable):
- Less than INR 2cr in Mumbai Metropolitan Region;
- Less than INR 1.5cr in NCR, Chennai, Kolkata, Pune, Hyderabad, Bangalore and Ahmedabad;
- Less than INR 1cr in the rest of India

Impact

- SWAMIH has so far provided final approval to about 130 projects with sanctions worth over Rs 12,000 crore. Due to strong controls, the Fund has been able to complete construction in 26 projects and generate returns for its investors.

- It aims to complete over 81,000 homes in the next three years across 30 tier 1 and 2 cities.
- Once these homes are constructed and completed, a large amount of capital locked up in these projects will be released. For instance, it has successfully unlocked liquidity of more than Rs 35,000 crore till now.
- Besides, it will provide employment to construction workers as well as a boost to the allied industries such as steel and cement.
- Further, it will improve portfolios of banks and NBFCs, and significantly improve the economic sentiment in the nation

3.2 Har Payment Digital Mission

- RBI has launched the 'Har Payment Digital' Mission on the occasion of Digital Payments Awareness Week (DPAW) 2023.
- The campaign theme is "Digital Payment Apnao, Auron ko bhi Sikhao" (Adopt digital payments and also teach others).
- The Mission is aimed at reinforcing the ease and convenience of digital payments and facilitating onboarding of new consumers into the digital fold.

75 Digital Villages Programme

- As part of this Mission, the RBI has launched 75 Digital Villages programme under which 75 villages across the country will be adopted to convert them into digital payment enabled villages.
- Under it, Payment System Operators (PSOs) will adopt these villages and conduct two camps in each of these villages with an aim to improve awareness and onboard merchants for digital payments.
- PSOs are entities authorised by RBI to set up and operate a payment system.
- As of February 2023, there are 67 PSOs including NPCI, Mastercard, Visa, SBI, Punjab National Bank, Amazon Pay (India), PhonePe, Muthoot Finserv USA, Ola Financial Services, PayU Payments etc.
- The PSOs are under various categories such as retail payments organisations, card payment networks, ATM networks, prepaid payment instruments, etc.

3.3 Fugitive Economic Offenders (FEO)

- India has called upon G20 countries to adopt multilateral action for faster extradition of fugitive economic offenders (FEOs) and recovery of assets both on domestic front as well as from abroad.
- The call was made at the first anti-corruption working group (ACWG) meeting of G20 Nations held in Gurugram, which was chaired by India.
- India has been fighting cases in UK courts for extradition of Nirav Modi and Vijay Mallya for several years now. Similarly, many countries are facing the problem of economic offences and it becomes difficult to prosecute such offenders when the person flees overseas.
- India has called for better coordination, streamlining of judicial processes, and timely disposal of cases for multilateral action rather than bilateral coordination.
- The reason being that bilateral coordination proves to be more complex and presents obstacles in making progress on cases related to economic offenders.
- Due to India's legislative initiative, the Enforcement Directorate has been able to transfer assets worth \$180 billion to public sector banks that suffered losses of around
- \$272 billion due to frauds committed by high-net worth individuals.

Need For FEO Law

- In 2017, Finance Ministry released a draft Bill to address cases of high-value economic offenders fleeing the country to avoid prosecution.
- It observed that existing civil and criminal laws did not contain specific provisions to deal with such offenders, and that a new legal framework was needed to prosecute them.
- The Ministry also argued that procedures under these laws were time-consuming, and led to roadblocks in investigation and impacted the financial health of banks.

- In March 2018, the Ministry of External Affairs stated that over 30 businessmen, under investigation by the CBI and the ED, had fled the country to avoid facing prosecution before Indian courts.
- Fugitive Economic Offenders (FEO) Act, 2018
- The Act replaced The Fugitive Economic Offenders Ordinance, 2018, which was promulgated in April 2018.
- The FEO Act aims to provide for measures to discourage FEOs from escaping the process of law in India by staying outside the jurisdiction of Indian courts.
- In doing so, it intends to preserve the sanctity of the rule of law in India for matters specified in the act.

Process for Declaring an Individual an FEO

- Under the Act, an application must be filed in special court asking that a particular individual may be declared an FEO.
- The application must be accompanied by:
 - Reasons for the belief that an individual is an FEO;
 - Any information available regarding the whereabouts of the FEO;
 - A list of properties or the value of such properties believed to be the proceeds of crime.
- The special court may then issue notice to the individual to appear at a specified place and drop the proceedings if the individual complies.
- If, however, the special court is satisfied that an individual is an FEO, it may, declare the person an FEO.
- The court may then order the confiscation of the properties of the accused individual in India or abroad.

Other Provisions for Economic Offences

- Economic offences relate to fraud, counterfeiting, money-laundering, tax evasion, etc.
- Among the laws available for prosecuting these offences are The Prevention of Money-Laundering Act (PMLA), 2002, The Benami Properties Transactions Act, 1988, and The Companies Act, 2013.
- Sections of The Indian Penal Code, 1860 and The Code of Criminal Procedure, 1973, also cover offences such as forgery and cheating.

3.4 Frozen Semen Station

- The Ministry of Fisheries, Animal Husbandry & Dairying has laid the foundation stone of the Frozen Semen station in Ranbir bagh, Jammu & Kashmir (J&K).
- The semen station has been sanctioned a sum of Rs. 2163.57 lakhs under the Rashtriya Gokul Mission.
- It will enable Kashmir province to be self- sufficient in the production of high quality and disease free- germ plasm to be used for Artificial Insemination (AI) coverage.
- Increased AI coverage will be a great step towards increasing productivity of dairy animals in the UT of J&K.
- The project will strengthen Frozen Semen Bull Station, Ranbir Bagh to realise production of over 10 Lac frozen semen straws (FSSs) annually.



Rashtriya Gokul Mission (RGM)



- RGM, launched in December 2014, is a focussed project under National Programme for Bovine Breeding and Dairy Development.
- It aims to conserve and develop indigenous breeds in a focused and scientific manner.
- Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture has been implementing the Mission through the State Implementing Agencies (SIA viz Livestock Development Boards).

OBJECTIVES

- Undertake *breed improvement programmes* for indigenous cattle breeds to improve the genetic makeup and increase the stock.
- Enhance milk production and productivity.

Provisions

- Establishment of integrated indigenous cattle centres - *Gokul Gram*.
- Establishment of breeder's societies - *Gopalan Sangh*.
- Distribution of disease free high genetic merit bulls for natural service.
- Incentive to farmers maintaining elite animals of indigenous breeds.
- Organization of training programme for technical and non-technical personnel

- working at the Institute/Institutions engaged in indigenous cattle development.
- Strengthening of bull mother farms to conserve high genetic merit indigenous breeds.
- Assistance to Institutions/Institutes which are repositories of best germplasm.

Other initiatives under RGM

- Establishment of **National Kamdhenu Breeding Centre (NKBC)** as a centre of excellence for the development and conservation of indigenous breeds in a scientific way
- Developing an e-market portal for connecting the breeders and farmers. This e-market portal was named as '**E-Pashu Haat – Nakul Prajnan Bazaar**'.
- **Pashu Sanjivani**: An animal wellness program with the provision of animal health cards.
- Use of advanced reproductive technology like In-vitro Fertilization (IVF) and Multiple Ovulation Embryo Transfer (MOET) for a disease-free female bovine.
- Establishment of **National Bovine Genomic Center for Indigenous Breeds (NBGC-IB)**

3.5 SWAYATT

The Government e-Marketplace (GeM) recently commemorated the success of "Start-ups, Women, and Youth

Advantage Through e-Transactions" (SWAYATT).

- SWAYATT was launched in 2019 by the Ministry of Commerce and Industry.
- Its goal is to stimulate the inclusion of diverse categories of sellers and service providers on the portal.
- This is done by taking measures to simplify training and registrations of such specialised categories of manufacturers and sellers, encourage female entrepreneurship, and boost MSME sector and Start-up participation in public procurement.

Progress under SWAYATT

- More than 8.5 lakh Micro and Small Businesses (MSEs) have been registered on GeM platform. They have been able to receive approximately Rs. 1.87 lakh crore distributed across 68 lakh+ orders.
- Additionally, approximately 43000 SC/ST MSEs have delivered 1.35 lakh+ orders worth Rs 2,592 Crore on the GeM platform.
- More than 1.45 lakh women MSEs had completed 7.32 lakh orders totalling Rs 15, 922 Crore.
- It has enabled more than 105 Farmer Producer Organizations (FPOs) to sell more than 200 agri-goods to the government.

HORTICULTURE

- Horticulture is a branch of plant agriculture dealing with garden crops, generally fruits, vegetables, and ornamental plants.
- It is the science of development, sustainable production, marketing and use of high-value, intensively cultivated food and ornamental plants.
- The word is derived from the Latin hortus, “garden,” and colere, “to cultivate”.



Significance of Horticulture

- Horticulture crops are a source of variability in farm produce and diets. These crops have aesthetic value and protect the environment. The crops are useful for cultivation in wasteland or poor quality soil.
- These crops are of high value, labour intensive and generate employment throughout the year.
- Horticultural produce serves as raw material for various industries, such as processing, pharmaceutical, perfumery and cosmetics, chemical, confectionery, oils and paints, etc
- They have national and international demand and are a good source of foreign exchange.

3.6 CoEs under Mission for Integrated Development of Horticulture

- The Ministry of Agriculture and Farmers Welfare recently approved three Centers of Excellence (CoE) under the Mission for Integrated Development of Horticulture (MIDH).
- The ministry has approved 49 CoEs till now. The CoEs are being established in various states through Bilateral Cooperation or Research Institutes.
- These CoEs serve as demonstration and training centres for latest technologies in the field of horticulture.
- The CoEs also serve as source of planting material for fruits and vegetable seedlings for protected cultivation.
- They are used for transfer of technology and knowhow in diverse areas, viz., post-harvest management, irrigation and fertigation, plant protection, introduction of new varieties, pollination etc.

The three CoEs currently approved are:

- CoE for Kamlam (Dragon Fruit) will be set up by the Indian Institute of Horticultural Research (IIHR) in Bengaluru.
- CoE for mango and vegetables will be set up under the Indo-Israel Action Plan at Jajpur.
- CoE for vegetables and flowers under the Indo-Israel Action Plan will be established at a government agricultural farm in Ponda, South Goa.

Mission for Integrated Development of Horticulture

- MIDH is a Centrally Sponsored Scheme launched in 2014-15, for the holistic growth of the horticulture sector.
- MIDH covers fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.
- The Central Government contributes 85% of total outlay for developmental programmes in all the states except the states in Northeast and Himalayas and 15% share is contributed by State Governments.

Objectives of MIDH

- Promote holistic growth of horticulture sector, based on regionally differentiated strategies, which include research, technology promotion, post-harvest management, processing and marketing.
- Encourage farmers to form farmer groups like Farmer Producer Organizations (FPOs) to bring economy of scale.
- Enhance horticulture production, increase farmers income and strengthen nutritional security.
- Support skill development and create employment generation opportunities for rural youth in horticulture and post-harvest management, especially in the cold chain sector.

Impact of MIDH

- MIDH has played a significant role in increasing the area under horticulture crops. Area and production during the years 2014 – 15 to 2019 – 20 has increased by 9% and 14% respectively.
- Government intervention in the horticulture sector has led to a situation where horticulture production has surpassed the agriculture production in the country.
- During the year 2021-22, the country recorded the highest ever production of 342.33 million tonne.
- Moreover, the mission has led to significant improvement in the quality of produce and productivity of farmland.
- It has not only led to India's self-sufficiency in the horticulture sector but also contributed towards achieving sustainable development goals of zero hunger, good health and wellbeing, no poverty, gender equality etc.

Way Ahead

- However, the horticulture sector is still facing a lot of challenges in terms of high post-harvest loss and gaps in post-harvest management and supply chain infrastructure.
- There is tremendous scope for enhancing the productivity of Indian horticulture which is necessary to address the country's estimated demand of 650 Million MT of fruits and vegetables by the year 2050.
- Some of the new initiatives like focus on planting material production, cluster development programme, credit push through Agri Infra Fund, formation and promotion of FPOs will help to address the issues in the sector.

3.7 National Flagship Programmes for Fisheries

The Ministry of Fisheries, Animal Husbandry and Dairying has launched three National Flagship Programmes for the development of fisheries sector.

National Surveillance Programme for Aquatic Animal Diseases Phase II

- India is the third-largest fish-producing country with a fish production of 14.73 million metric tonnes. Further, it is one of the largest exporters of farmed shrimp at around 7 lakh tonnes.
- However, fish diseases cost the country approximately 7,200 crores per year. Therefore, early detection and managing the spread of diseases are considered crucial for controlling the diseases.
- For this, the government has implemented the National Surveillance Programme for Aquatic Animal Diseases (NSPAAD) since 2013, with a focus on strengthening the farmer-based disease surveillance system.
- The objective is to ensure that disease cases are reported immediately, investigated, and farmers receive scientific assistance.
- The results of the first phase proved the reduction in revenue losses due to diseases, increased farmers' income and exports.
- To continue the efforts, NSPAAD: Phase-II has been launched under the Pradhan Mantri Matsya Sampada Yojana.
- Phase II will be implemented across India, and all the state fisheries departments, along with the Marine Products Export Development Authority (MPEDA) are expected to play an important role in this nationally important surveillance programme.

Genetic Improvement Programme of Indian White Shrimp

- Farmed shrimp accounts for approximately 70% of India's seafood exports worth Rs. 42000 crores.
- However, the shrimp farming sector mostly depends on one exotic specific pathogen free stock of pacific white shrimp (*Penaeus vannamei*).
- It is highly risky to depend on one species for the production of 10 lakh tonnes with huge investments on farming infrastructure and the livelihoods of two lakh farm families directly and around ten lakh families indirectly associated in the ancillary sectors.
- Therefore, to break this single species dependence and to promote indigenous species the government has taken up the 'Genetic Improvement Program of *Penaeus indicus* (Indian White Shrimp)-Phase-I', as a national priority under the Make in India program.
- The program has an outlay of Rs. 25 crore under PMMSY, to establish a National Genetic Improvement Facility for shrimp breeding.

Shrimp Crop Insurance Product

- Similarly, shrimp farming is labelled as a risky venture and due to this, the banking and insurance institutions are cautious about taking up business in the shrimp sector.
- However, India has achieved about 430% growth in shrimp production during the last decade, which highlights the overall profitability, growth and stability of the shrimp farming sector.
- Majority of the aquaculture farmers are small farmers who own 2–3 ponds and face huge obstacles to raise working capital for the crop due to a lack of access to institutional credit and insurance.
- The loss of one crop due to natural calamities or viral diseases makes the farmers fall into deep debt.
- It is estimated that Rs 1000 to Rs 1500 crores is the business potential of shrimp crop insurance per year and a microcredit requirement of over Rs 8,000 to 10,000 crores per annum, which is now being serviced by informal creditors at higher interest rates.
- Therefore, a Shrimp Crop Insurance product has been developed, which charges differential premium based on location and requirements of the individual farmer from 3.7 to 7.7 % of input costs.
- The farmer will be compensated up to 80% loss of input cost in the event of total crop loss. i.e., more than 70% crop loss.

3.8 Animal Husbandry Statistics

- The Ministry of Fisheries, Animal Husbandry and Dairying recently released its annual publication '**Basic Animal Husbandry Statistics 2022**'.
- The publication gives an overview of animal husbandry sector briefly in terms of important livestock statistics.
- It is the primary source of data on production estimates of **four Major Livestock Products (MLPs)** like *milk, egg, meat and wool* for the year 2021-22.
- The information will be useful for all stakeholders for planning and policy making purposes as well as for research and academicians across the globe.

Major Highlights

- In 2020-21, the share of Livestock at constant prices in Agriculture Sector and total GVA was 30.13% and 4.9% respectively.
- During 2014-15 and 2020-21, the value addition of sector grew at a **compound annual growth** rate of 7.93%.

Milk Production

- Total milk production in the country during 2021-22 is 221.06 million tonnes. In 2021-22, the milk production registered an annual growth rate of 5.29%.
- Top five major milk producing States are Rajasthan (15.05%), Uttar Pradesh (14.93%), Madhya Pradesh (8.06%), Gujarat (7.56%) and Andhra Pradesh (6.97%).
- The per-capita availability of milk is 444 gram/day during 2021-22 increased by 17 gram/day over previous year.

Egg Production

- In 2021-22, the total egg production in the country was 129.60 billion numbers which has increased by 6.19% as compared to previous year.
- Total five major egg producing States are Andhra Pradesh (20.41%), Tamil Nadu (16.08%), Telangana (12.86%), West Bengal (8.84%) and Karnataka (6.38%).
- In 2021-22, the per-capita availability of egg is 95 numbers/annum increased by 5 numbers/annum over previous year.

Meat Production

- The total meat production in the country is 9.29 million tonnes for the year 2021-22 with an annual growth rate of 5.62%.
- The total five major meat producing States are Maharashtra (12.25%), Uttar Pradesh (12.14%), West Bengal (11.63%), Andhra Pradesh (11.04%), and Telangana (10.82%).
- The per-capita availability of meat is 6.82 kg/annum during 2021-22 increased by 0.30 kg/annum over previous year.

Wool Production

- The total wool production in the country during 2021-22 is **33.13 thousand tonnes** which has decline by 10.30% as compared to previous year.
- The top **five major wool producing States** are Rajasthan (45.91%), Jammu and Kashmir (23.19%), Gujarat (6.12%), Maharashtra (4.78%) and Himachal Pradesh (4.33%).

3.9 International Intellectual Property Index

- The **US Chambers of Commerce** recently released the 11th edition of the **International Intellectual Property(IP) Index**.
- The annual index evaluates the protection of IP rights in **55 of the world's leading economies**, together representing around **90% of global GDP**. The evaluation is done across **50 unique indicators**.
- The report covers everything from patent and copyright laws to the ability to monetise IP assets and the ratification of international agreements.
- By analyzing the IP landscape in global markets, the index aims to help nations navigate towards a brighter economic future marked by greater innovation, creativity, and competitiveness.

Intellectual Property (IP)

- IP refers to creations of the mind, such as **inventions; literary and artistic works; designs; and symbols, names and images** used in commerce.
- IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create.
- By striking the right balance between the interests of innovators and the wider public interest, the IP system aims to create an environment in which creativity and innovation can flourish.

Key Findings

- Following a decade of steady, incremental improvement in IP systems worldwide, several proposals under consideration by US and international policy leaders, including at multilateral organisations, *threaten to compromise hard-won economic gains*.
- **India has been ranked 42nd** out of 55 countries in the index. As India's size and economic influence grows on the world stage, India is ripe to become a leader for emerging markets seeking to transform their economy through IP-driven innovation.
- India has taken steps to improve enforcement against copyright-infringing content and provides a best-in-class framework to promote better understanding and utilisation of IP assets.
- India has maintained continued strong efforts in copyright piracy through the issuing of "dynamic" injunction orders.
- It is a global leader on targeted administrative incentives for the creation and use of IP assets for SMEs. It

provides generous R&D and IP-based tax incentives.

- It has also taken strong awareness-raising efforts regarding the negative impact of piracy and counterfeiting.

Gaps in India's IP Framework

- However, addressing various gaps in its IP framework will be critical to India's ability to creating a new model for the region and India's continued economic growth.
- Among India's key areas of weakness are the **2021 dissolution of the IP Appellate Board**.
- Furthermore, there is a longstanding issue of an **under-resourced and overstretched judiciary**, which raises serious concerns about rights holders' ability to enforce their IP rights in India and to resolve IP-related disputes.

Limited framework for the protection of **biopharmaceutical IP rights** and patentability requirements which are outside international standards are the other weaknesses.

3.10 International Arms Transfers 2022

Stockholm International Peace Research Institute (SIPRI) recently released Trends in International Arms Transfers 2022.

Key Findings

- SIPRI identified **India, Saudi Arabia, Qatar, Australia and China** as the top five arms importers during 2018-2022, accounting for **36 per cent of global arms imports** during the period.
- **India's share globally was 11%** followed by Saudi Arabia with 9.6% and Qatar with 6.4%
- The **US, Russia, France, China, and Germany** were the **five biggest arms exporters**. The five countries alone **accounted for 76 per cent of global arms transfers** between 2018 and 2022.
- Of this, the US had a lion's share (40 per cent) with countries in the middle east receiving 41 per cent of the arms exported by it in the said period.
- Imports of major arms by European states increased by 47 per cent between 2013-17 and 2018-22 in the backdrop of the war in Ukraine even as the global volume of international arms transfers fell by 5.1 per cent.
- The report highlighted the all-weather friendship between Pakistan and China. China accounted for 77 per cent of Pakistan's arms imports between 2018-2022. This reflects the extent to which Pakistan is dependent on China for its military needs.

Findings from India

- India remained the world's largest arms importer during 2018-2022 even though its arms imports dropped by 11% between 2013-2017 and 2018-2022.
- The decrease can be attributed to several factors including India's slow and complex arms procurement process, efforts to diversify its arms suppliers, and attempts to replace imports with major arms that are designed and produced domestically.
- Russia was the largest supplier of arms to India from 2013 to 2022, but its share of total imports fell from 64% to 45%, between 2013-2017 and 2018-2022. Russia was followed by France (29%) and the U.S. (11%).
- India also imported arms during this five-year period from Israel, South Korea, and South Africa which are among the top arms exporters globally.
- Russia's position as India's main arms supplier is under pressure due to strong competition from other supplier states, increased Indian arms production and, since 2022, also the impact of war in Ukraine.
- India's arms **import from France**, which included 62 combat aircraft and four submarines, **increased by 489%** between 2013-2017 and 2018-2022.
- France therefore displaced the U.S. to become the 2nd largest supplier to India in 2018 to 2022.
- Also, India was the third largest arms supplier to Myanmar after Russia and China accounting for 14% of its imports.

SIPRI

- SIPRI is an **independent international institute** dedicated to **research into conflict, armaments, arms control and disarmament**.
- Established in 1966, SIPRI provides data, analysis and recommendations, to policymakers, researchers and media.
- It has a vision of a world, in which sources of insecurity are identified and understood, conflicts are prevented or resolved, and peace is sustained.
- **Based in Stockholm**, SIPRI is regularly ranked among the most respected think tanks worldwide.

3.11 Sagar Manthan

- The Ministry of Ports, Shipping and Waterways (MoPSW) has launched the Real-Time Performance Monitoring Dashboard called **Sagar Manthan**.
- Developed in-house by the MoPSW, the platform will have all the integrated data related to the ministry and other subsidiaries.
- It will enable organizations to monitor and track the progress of their projects and key performance indicators (KPIs).
- In addition to **real-time project tracking** it also promotes risk management, resource allocation and progress reporting.

Features of the Dashboard

- Data visualization
- Real-time monitoring
- Improved communication
- Data-driven decision making
- Increased accountability
- In future, the dashboard would further be integrated with input from CCTV camera, live streaming from drones, AI based algorithm to map actual progress.

Significance

- It is a significant step towards digitalization and transparency in the **maritime transport sector**.
- The dashboard will transform the workings of various departments by improving well-coordinated real time information.

Effective project monitoring will ensure timely completion of projects, informed decision-making, increased efficiency & effectiveness of projects.

3.12 Electronics Manufacturing Cluster (EMC)

- The Ministry of Electronics and IT (MeitY) has announced the approval for setting up a Rs 180 crore worth Electronics Manufacturing Cluster (EMC) at Dharwad.
- The project will be set up at Kotur-Balur Industrial Area in **Dharwad District of Karnataka** under EMC 2.0 scheme.
- It is expected to create over 18,000 jobs and catalyse investments of over Rs 1,500 crore soon.
- The EMC has strategic locational advantage and will be well connected with NH -48 and Hubli Domestic Airport which will reduce the logistics/ transportation cost of the industry in the EMC.
- The Centre has already approved a Common Facility Centre (CFC) for development of an advanced testing facility in Mysore, Karnataka that will meet the various testing requirement of the industry.

Electronics Manufacturing Cluster (EMC) Scheme

- **EMC scheme** was launched in **2012**, to make India a global player in the field of electronics manufacturing and to offset disabilities faced by industries for reliable infrastructure.
- It provided support for creation of world-class infrastructure for attracting investments in the Electronics

System Design and Manufacturing (ESDM) sector.

- EMC provided grant assistance:
 - **Greenfield EMC** - 50% of project cost subject to a ceiling of Rs. 50 crores per every 100 acres of land
 - **Brownfield EMC** - 75% of the project cost subject to a ceiling of Rs. 50 crores per project

EMC 2.0

- The Modified Electronics Manufacturing Cluster (EMC 2.0) scheme was introduced in **2020**.
- Its **objective** is to create world class infrastructure along with common testing facilities, including Ready Built Factory sheds/Plug & Play infrastructure for attracting Anchor unit along with their supply chain to set up their manufacturing facility in the country.

Under it, three EMCs over an area of 1,337 acres with project cost of Rs 1,903 crore, including Central financial assistance of Rs 889 crore have been approved which projected investment target of Rs 20,910 crore.

3.13 City Finance Rankings 2022

- The **Ministry of Housing and Urban Affairs** recently launched the City Finance Rankings 2022 under which urban local bodies in the country will be evaluated on the basis of their financial health.
- The urban local bodies will be evaluated on 15 indicators across **three key parameters**:

resource mobilisation

expenditure performance

fiscal governance

- The **objective** is to evaluate, recognise and reward municipal bodies across the country based on the quality of their current financial health and improvement over time in financial performance.
- The cities will be ranked based on their scores under **four population categories** — above 40 lakh, 10 lakh-40 lakh, one lakh to 10 lakh and below one lakh. Awards would be given to the top three cities in each category.

Significance

- At a state- and national-level, the rankings will highlight the outcomes achieved by municipalities and provide critical insights to key policy makers into the state of finances of urban local bodies.
- Thus, the rankings will serve as a constant motivation for city/state officials to continue to implement municipal finance reforms.
- It will help the ULBs in identifying areas in their financial performance where they can make further improvements and enable them to deliver quality infrastructure and services to its citizens.

It would create a conducive environment for developing a robust municipal finance ecosystem for promoting financially healthy, transparent and sustainable cities.

3.14 PM MITRA Parks

The government recently announced that **seven mega textile parks** under the ₹4,445-crore **PM Mega Integrated Textile Regions and Apparel (PM MITRA)** scheme will be set up in the first phase.

Background

- Currently, the entire value chain of textiles is scattered and fragmented in different parts of the country. Cotton is made in Maharashtra and Gujarat. It is then processed in Tamil Nadu before it is shipped to Bengaluru or Noida after which it is sent to the port.
- This leads to high logistics costs, which is a key hurdle to India's goal of boosting textile exports.

Details of PM MITRA

- First announced in Union Budget 2021, PM MITRA is designed to make the textile industry globally competitive.
- It is inspired by the **5F vision of Farm to Fibre to Factory to Fashion to Foreign**. It aims to create an **integrated textiles value chain** from spinning, weaving, processing/dyeing and printing to garment

manufacturing at one location.

- Under the first phase of the PM MITRA scheme, large textile parks, spread across at least 1,000 acres, will come up in 7 States —Tamil Nadu, Karnataka, Telangana, Madhya Pradesh, Maharashtra, Gujarat, and UttarPradesh.
- The parks will have **plug-and-play manufacturing facilities** and all the common amenities required.
- **Special purpose vehicles (SPVs)**, with a 51% equity shareholding of the State government and 49% of the Centre, will be formed for each park.
- Each park will have an incubation centre, common processing house, a common effluent treatment plant, design and testing centres, skill training centres and warehouses too.
- It is designed to attract investment from companies that are looking to scale up, and require integrated manufacturing facilities in one location.

Support Under The Scheme

- The centre will provide **Development Capital Support** for the development of common infrastructure (@30% of the project cost) with a cap of Rs 500 crore for each greenfield MITRA park and up to Rs 200 crore for each brownfield park.
- A **greenfield** project refers to a completely new project and **brownfield** projects are pre-existing projects that are modified or upgraded.
- An additional Rs 300 crore will be provided as **Competitiveness Incentive Support (CIS)** for the early establishment of textiles manufacturing units in each of these parks.
 - Under CIS, a maximum support of Rs 10 crore per year for a maximum of three years will be provided to such anchor (early) investors.
- State Government support will include provision of **1,000 Acre land** for development of a world class industrial estate.

Benefits

- Convergence with other Central Government and State Government Schemes is also available under the scheme. This will **enhance competitiveness** of the textiles industry, by helping it **achieve economies of scale**.
- It will help in setting up world-class industrial infrastructure that would attract new age technology, boost FDI and local investment (expected to generate investments worth ₹70,000 crore) and help Indian companies to emerge as **global champions**.
- The value chain at one location will **reduce logistics cost** and each park is expected to directly generate around **20 lakh jobs**.

3.15 Samarth (Scheme for Capacity Building in Textile Sector)

- In order to broad base the panel of implementing partners of **Samarth**, Ministry of Textiles has invited proposals for **empanelment** from textile industry and industry associations related to textile sector.
- Samarth is a **demand driven and placement-oriented umbrella skilling programme** of Ministry of Textiles.
- The scheme was formulated under the broad skilling policy framework adopted by Ministry of Skill Development & Entrepreneurship. Its implementation period is **up to March 2024**.
- The scheme is **implemented through** Implementing Partners (IPs) comprising of Textile Industry/ Industry Associations, State government agencies and Sectoral Organizations of Ministry of Textiles like DC/ Handloom, DC/ Handicrafts and Central Silk Board.
- Samarth **aims to** incentivize and supplement the efforts of the industry in creating jobs in the organized textile and related sectors, covering the entire value chain of textiles, **excluding spinning and weaving**.
- The training programme and course curriculum have been rationalized keeping in view the technological and market demand of the domestic and international economies.
- In addition to the entry level skilling, a special provision for upskilling/re-skilling programme has also been operationalized towards improving the productivity of the existing workers.
 - It also caters to the upskilling/ re-skilling requirement of traditional textile sector such as handloom, handicraft, silk and jute.

- Furthermore, a total of 184 courses aligned with **National Skill Qualification Framework (NSQF)** have been adopted under the scheme.
- **Employment linkage** is mandated in the courses under organized textile sector with **mandatory placement 70% in entry level & 90% for Upskilling programmes.**

Impact

- The scheme has been penetrated across 28 States and 6 Union territories and caters to all sections of the society including SC, ST and other marginalized categories.
- Out of the skilling target of 3.47 lakh beneficiaries allocated so far, **1.5 lakh beneficiaries have been provided training.**

More than **85% of the beneficiaries trained** so far are **women**. More than **70% of the beneficiaries** trained in organized sector courses have been **provided placement.**

3.16 MSME for Resilient Global Value Chains

Recently, the Union Ministry of Commerce and Industry, Consumer Affairs, Food and Public Distribution and Textiles held the fourth Plenary Session of B20 India Inception Meeting on Building Resilient Global Value Chains in Gandhinagar, Gujrat.

About MSMEs:

- MSMEs or Micro, Small, and Medium Enterprises are businesses that are defined by their investment and turnover levels. They are considered an important sector of the economy as they create jobs, generate income, and promote entrepreneurship.

Classification of MSMEs:

Existing & Revised definition of MSMEs			
Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Mfg. Enterprises	Investment < Rs. 25 lac	Investment < Rs. 5 cr.	Investment < Rs. 10 cr.
Services Enterprise	Investment < Rs. 10 lac	Investment < Rs. 2 cr.	Investment < Rs. 5 cr.
Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < Rs. 1 cr. and Turnover < Rs. 5 cr.	Investment < Rs. 10 cr. and Turnover < Rs. 50 cr.	Investment < Rs. 20 cr. and Turnover < Rs. 100 cr.

Based on the nature of activities and sectors

- Manufacturing Enterprise: Manufacturing of goods pertaining to any industry specified in the first schedule of the industries (Development and Regulation) Act, 1951
- Service Enterprise: Providing or rendering of services and covered under 'Services' sector as defined in the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006.
- Advantages of MSMEs: MSMEs play a crucial role in the global value chain and their support and integration is vital for a resilient global supply chain.
- MSMEs flourish around a larger unit or anchor, an example given is that when a large company such as Apple sets up a manufacturing plant, thousands of MSME units flourish in the ecosystem as mini value chain suppliers to Apple.
- Diversification: MSMEs can help diversify an economy by creating new industries and markets.
- Regional development: These are often based in specific regions, which can promote development in

those areas.

- Flexibility: MSMEs have more flexibility than larger companies in terms of decision-making and the ability to pivot their business models.
- Economic development: They play a crucial role in the economic development of a country by providing goods and services, generating income, and creating opportunities for people to improve their standard of living.
- Innovation: These are often more adaptable and innovative than larger companies, which can lead to new products, processes, and business models.
- Reduced risk: MSMEs typically have lower startup costs and are less risky investments than larger companies.
- Lower regulatory burden: MSMEs typically have to navigate fewer regulations than larger companies, making it easier for them to start and operate their business.
- Easier access to credit: They have easier access to credit than larger companies.

Issues associated with the MSMEs:

- Lack of skilled labour: MSMEs often struggle to find skilled workers, which can make it difficult for them to grow and expand their businesses.
- Bureaucratic red tape: MSMEs have to navigate a complex web of regulations and bureaucratic procedures, which can be time-consuming and costly.
- Competition from larger companies: MSMEs in India often have to compete with larger, more established companies, which can make it difficult for them to succeed in the market.
- Access to finance: MSMEs often struggle to access capital due to a lack of collateral or credit history or access to formal financial institutions.
- Lack of infrastructure: MSMEs often lack access to basic infrastructure, such as electricity and transportation, which can make it difficult for them to operate their businesses.
- Lack of technological know-how: MSMEs often lack the technical knowledge and expertise to modernize their operations and stay competitive in the market.
- Issues with supply chain and logistics: MSMEs face issues with supply chain and logistics, which can make it difficult for them to get their products to market in a timely and cost-effective manner.
- Lack of formalization: Many MSMEs in India are unregistered or operate informally, which can make it difficult for them to access government support and benefits.
- Lack of marketing and networking opportunities: MSMEs in India often lack the resources and networks to effectively market their products and services, which can make it difficult for them to reach new customers and grow their businesses.

Government of India Initiatives for strengthening MSMEs:

- Comprehensive Economic Partnership Agreement (CEPA): It will help MSMEs of both India and UAE to leverage benefits of the District as export hub initiative of the government.
- Harmonizing value chain: Government to focus on integrating India's value chains with the rest of the world and creating logistics that are easier and faster is crucial to make it easier for international companies to include India in their value chains.
- Quality assurance: Government to focus on creating Quality as the most important factor in the success story of India through steps including- setting global benchmarks, harmonizing Indian standards with global standards, and consumers becoming more demanding of quality.
- Under this initiative, every district for their unique products and identify the speciality of districts by knowing which district exports which products.
- This initiative is expected to help in promoting local products and in turn, boost the local economy.

Pradhan Mantri MUDRA Yojana (PMMY)

- Prime Minister's Employment Generation Programme (PMEGP)
- Stand Up India: The scheme provides financial assistance to scheduled caste (SC), scheduled tribe (ST) and women entrepreneurs for setting up new enterprises.
- Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE): This scheme provides collateral-

free credit to micro and small enterprises through a credit guarantee mechanism.

Way Forward:

- Infrastructure development: Improving infrastructure in areas where MSMEs are concentrated, such as by building roads, providing electricity and water supply, and improving transportation.
- Access to finance: The government can work to improve access to finance for MSMEs by providing credit guarantees, offering tax incentives for lending to MSMEs, and encouraging banks and other financial institutions to lend to MSMEs.
- Simplifying regulations: The government can simplify regulations and procedures for MSMEs, such as by streamlining registration and compliance processes and reducing the bureaucratic burden on MSMEs.
- Skilled labor: Taking steps to improve the availability of skilled labor by investing in vocational education and training programs, and encouraging workers to acquire new skills.
- Support for innovation: The government can help MSMEs to innovate by providing funding, mentorship, and other forms of support to help them develop new products and services.
- The government can support the adoption of new technologies by MSMEs by providing subsidies, tax incentives, and other forms of financial assistance to help them modernize their operations. To become a trusted and resilient partner in global value chains, the government is focusing on creating an ecosystem that is simpler, faster, and promotes ease of doing business for MSMEs.

4. Science & Technology

4.1 PoTS

PoTS or Postural orthostatic tachycardia syndrome has affected around three million Americans before Covid-19 and at least one million new patients after the pandemic.

About PoTS

- It is a condition when your heart rate increases very quickly after getting up from sitting or lying down.
- Each word of “postural orthostatic tachycardia syndrome” has a meaning –
 - Postural: Related to the position of your body.
 - Orthostatic: Related to standing upright.
 - Tachycardia: A heart rate over 100 beats per minute.
 - Syndrome: A group of symptoms that happen together.

Causes	Symptoms	Treatment
It is not yet clear what are the causes of POTS disease. It can develop suddenly or maybe over time.	Symptoms may include dizziness or light-headedness, noticeable heartbeats (heart palpitations), chest pain, shortness of breath, shaking and sweating, diarrhea, constipation, bloating, tummy pain, etc.	It can get better with changes to your lifestyle, but some people may need treatment with medicines.

4.2 NASA's Imaging X-ray Polarimetry Explorer (IXPE)

A team of researchers has unveiled new light on the explosion of a star in a supernova which occurred more than 450 years ago by using Imaging X-ray Polarimetry Explorer (IXPE).

- The explosion, called Tycho, was visible to people on Earth in 1572. The Tycho supernova is classified as a Type Ia supernova, which occurs when a white dwarf star in a binary system shreds its companion star.

About Imaging X-ray Polarimetry Explorer (IXPE)

- It is a joint effort of NASA and the Italian Space Agency.
- It's the **first satellite** to take X-ray polarimetry measurements since the **Eighth Orbiting Solar Observatory (OSO-8)** mission in 1975 and will be 100 times more sensitive.
- IXPE exploits the polarization state of light from astrophysical sources to provide insight into our understanding of X-ray production in objects such as neutron stars and pulsar wind nebulae, as well as stellar and supermassive black holes.
- This new mission will complement other X-ray telescopes such as the Chandra X-ray Observatory and the European Space Agency's X-ray observatory, XMM-Newton.
- The mission's primary length is two years (launched in 2021 with plans for 3 or more years), and the observatory will be at 600 kilometre's altitude (a low-Earth orbit), orbiting around Earth's equator.

Objective of IXPE

According to NASA, IXPE's polarization measurements will help scientists answer questions such as:

- How do black holes spin?
- Was the black hole at the centre of the Milky Way actively feeding on surrounding material in the past?
- How do pulsars shine so brightly in X-rays?
- What powers the jets of energetic particles that are ejected from the region around the supermassive black holes at the centers of galaxies?

Significance & Mechanism (Working) of IXPE

- IXPE will provide new insights into the physical processes that occur in extreme environments and help us better understand the behavior of matter and energy in the universe.
- IXPE carries 3 state-of-the-art space telescopes. The telescopes will be arranged such that they can observe the same astrophysical source simultaneously from different angles, allowing for more precise measurements of the polarization.
- By measuring the polarization of these X-rays, we can study where the light came from and understand the geometry and inner workings of the light source.

4.3 Lewis Super Acids

Researchers at the Paderborn University, Germany have reported being able to make a unique class of catalysts called Lewis super-acids.

About Lewis Super Acids (Properties)

- It is derived from Lewis acids, named after the chemist, G N Lewis.
- It can be used to split strong chemical bonds and accelerate reactions.
- It is highly reactive reagents, thus difficult to produce and use.
- It is stronger than **antimony pentafluoride**, the strongest Lewis acid and can break even the toughest bonds.
- One of the most well-known Lewis **super acids** is the compound fluoroantimonic acid, which is considered the strongest acid known to science.
 - It is formed by mixing hydrogen fluoride (HF) and antimony pentafluoride (SbF₅).

Application of Lewis Super Acids

- It enables non-biodegradable fluorinated hydrocarbons (similar to Teflon) to be converted back into sustainable chemicals.
- It can also convert climate-damaging greenhouse gases, such as sulfur hexafluoride, into sustainable gases.

Lewis Acid: Compounds that add pairs of electrons are called Lewis acids.

Lewis Base: It is any substance, such as OH⁻ ion, that can donate a pair of nonbonding electrons. Therefore, it is an electron-pair donor.

4.4 Megha-Tropiques-1

ISRO has successfully carried out the controlled Re-Entry experiment for the decommissioned Megha-Tropiques-1 (MT-1) Satellite in an uninhabited area in the Pacific Ocean.

ISRO is crashing the satellite as part of its commitment UNIADC (Inter-Agency Space Debris Coordination Committee).

Ways to Crash Satellite


UN IADC space debris mitigation guidelines recommend deorbiting a Low Earth Orbit object at its end-of-life.

- It can be done preferably through controlled re-entry to a safe impact zone, or by bringing it to an orbit where the orbital lifetime is less than 25 years.
- It is also recommended to carry out passivation of on-board energy sources to minimise the risk of any post-mission accidental break-up.

ISRO System for Safe and Sustainable Space Operations Management (IS4OM) has been established to spearhead such activities.

ABOUT MEGHA-TROPIQUES-1

- It was launched into Low Earth Orbit (LEO) in 2011 as a joint satellite venture of ISRO and the French space agency (CNES) for tropical weather (Clouds & Precipitation) and climate studies (Water Cycle).
- The mission life was originally 3 years, with the satellite continuing to provide valuable data services for over a decade, supporting regional and global climate models through 2021.
- It had day, night and all-weather viewing capabilities; it passes over India almost a dozen times every day, giving scientists an almost real-time assessment of the evolution of clouds.



What is Controlled Re-entry?

- Controlled re-entry refers to the deliberate and planned descent of a spacecraft or satellite from orbit back to Earth's atmosphere, in a way that ensures the object is destroyed during re-entry and does not pose a risk to human life or property on the ground.
- The process involves adjusting the spacecraft's trajectory and speed in order to achieve a controlled descent.

4.5 Fumarate Hydratase

Scientists have found that Fumarate hydratase is repressed in macrophages, a frontline inflammatory cell type implicated in a range of diseases including Lupus, Arthritis, Sepsis and Covid-19.

- Scientists also have made an important link between Fumarate Hydratase and immune proteins called **cytokines** that mediate inflammatory diseases.

Fumarate hydratase (FH)	Mutated or Repressed Fumarate hydratase (FH)
<ul style="list-style-type: none"> • It is a gene that makes an enzyme that helps cells in the body use oxygen and make energy. • FH plays an important role in the citric acid cycle (also known as the Krebs cycle or TCA cycle), which is a series of biochemical reactions that occur in the <i>mitochondria of cells</i>. 	<ul style="list-style-type: none"> • Mutated form of FH may cause cells to lose the ability to use oxygen. This may increase the growth of some cells, including abnormal cells and cancer cells. • The mutated gene has been found in an inherited condition called <i>hereditary leiomyomatosis and renal cell cancer (HLRCC)</i>. • This condition is characterized by the development of benign smooth muscle tumours (leiomyomas) in the skin and uterus, as well as an increased risk of developing kidney cancer. • When Fumarate Hydratase is repressed, RNA is released from mitochondria which can bind to key proteins 'MDA5' and 'TLR7' and trigger the release of cytokines, thereby worsening inflammation. <ul style="list-style-type: none"> ➤ Cytokines are small proteins that are crucial in controlling the growth and activity of other immune system cells and blood cells.

4.6 Nancy Grace Roman Space Telescope

Scientists have created synthetic survey that shows what we can expect from the Nancy Grace Roman Space Telescope's future observations.

About Nancy Grace Roman Space Telescope or Roman Space Telescope (RST)

- It is NASA's future infrared deep space observatory.
- Though originally referred to as the Wide Field Infrared Space Telescope (WFIRST), NASA renamed the mission in 2020 after Nancy Grace Roman, NASA's first chief astronomer.
- It is set to launch around 2026 or 2027 and is projected to last for five years.
- It will be situated at Lagrange point 2, a stable gravitational point between Earth and the sun located around 1.5 million kilometres from our planet.

Objective of Roman Space Telescope (RST)

- To know essential astrophysics questions about **dark energy, dark matter**, exoplanets, the formation, evolution of galaxies and infrared astrophysics.
- To study the distribution and properties of dark energy. As NASA points out that dark energy accounts for around 68% of the universe's total energy/matter content yet have little idea what it actually is.

Features of the RST

- The primary mirror of the RST has a diameter of 2.4 meters, the same size as the mirror of the Hubble Space Telescope.
- It will have a field of view that is 100 times greater than the Hubble infrared instrument, capturing more of the sky with less observing time.
- It has two other instruments: the Wide Field Instrument and the Coronagraph Instrument.
- The Wide Field Instrument performs **microlensing surveys** to find exoplanets, and the Coronagraph Instrument performs high-contrast imaging and spectroscopy of nearby exoplanets.

4.7 IITR 00693

The researchers at the IIT Roorkee have discovered a new molecule named IITR00693 that has the potential to fight against drug-resistant infections.

About IITR00693

- It is a novel antibacterial small molecule.
- It has shown potent antibacterial activity against a wide range of Gram-positive and Gram-negative bacteria, including some of the most problematic drug-resistant strains.
- In single stage infections of lungs, intestines, joints and skin infections, these molecules will also give better results when combined with other anti-gity drugs.

Extra Mile	
Gram-positive bacteria	Gram-negative bacteria
<ul style="list-style-type: none">• Show blue or purple after gram-staining in a laboratory test• They do not have a protective outer membrane.	<ul style="list-style-type: none">• show pink or red on staining• They have an outer membrane. The outer membrane makes them more resistant to certain antibiotics.

4.8 Fluorescence Microscope

Researchers at Winona State University, Minnesota have designed a cost-effective device named **Glowscope** (Based on Fluorescence Microscopy) which could be used to study an object and how it reemits light.

About Glowscopes

- It does not use scientific components. Instead, it combines our smartphone with a few inexpensive components, thereby converting it into a basic fluorescence microscope.
- It may be useful for some research applications, but we expect their primary use will be for STEM education and outreach.
- It could make learning genetics more interesting for young kids as they count the number of glowing and non-glowing animals.

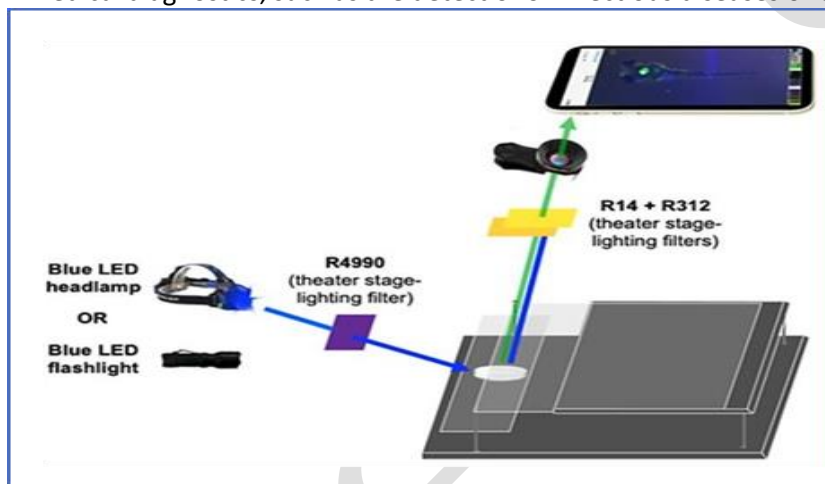
About Fluorescence Microscope

- It is a type of microscope that uses fluorescence to study biological samples.
- Fluorescence occurs when a molecule absorbs light at one wavelength and then emits light at a longer wavelength, which can be detected by the microscope.

- Fluorescence microscopes use *specific dyes or fluorescent proteins* that can bind to specific molecules or structures within a sample.
- When excited by a light source, these fluorescent molecules emit light of a specific color, allowing researchers to visualize specific structures or molecules within the sample.

Advantages of Fluorescence Microscope

- One major advantage of fluorescence microscopy is its ability to distinguish between different structures or molecules within a sample.
- Different molecules can now be stained with different colours, allowing multiple types of molecules to be tracked simultaneously within the same sample.
- Fluorescence microscopy is commonly used in the *study of cell biology, immunology, and neuroscience*, as it allows researchers to visualize specific structures within cells, such as organelles, proteins, or DNA, in real-time.
- It is also used in medical diagnostics, such as the detection of infectious diseases or cancer cells.



4.9 Terran 1

The launch of the world's first 3D-printed rocket named Terran 1 was cancelled at the last second due to fuel temperature concerns.

About Terran 1

- It is the world's 1st 3D-printed rocket which is expendable two-stage small-lift launch vehicle.
 - An expendable launch vehicle can be launched only once, after which its components are either destroyed during re-entry or discarded in space.
- It is built by California aerospace startup 'Relativity Space'.
- 85% of its mass is 3D printed with metal alloys, including the engines.
- It is powered by Aeon engines using liquid oxygen and liquid natural gas as propellants.
- It is ultimately capable of sending satellites up to 1,250 kg into low Earth orbit.

3D Printing:	<ul style="list-style-type: none"> • 3D printing or additive manufacturing is a process of making three-dimensional solid objects from a digital file. • 3D printing enables you to produce complex shapes using less material than traditional manufacturing methods.
4D Printing:	<ul style="list-style-type: none"> • 4D printing is an emerging technology that builds on the concepts of 3D printing by adding the dimension of time. • While 3D printing allows objects to be created layer by layer in a static form, 4D printing enables objects to self-assemble or transform into different shapes over time in response to a specific stimulus, such as heat, moisture, or light. • For example, 4D printing can be used to create <i>self-folding structures, such as medical implants or packaging materials that can assemble themselves upon contact with water or heat.</i> • In the construction industry, 4D printing can be used to create <i>self-assembling buildings that can adapt to changing environmental conditions or to repair themselves when damaged.</i>

4.10 MQ 9 Reaper

The US military said its MQ-9 Reaper drone crashed in the Black Sea after a Russian Su-27 fighter jet damaged its propeller.

About MQ-9 Reaper (Predator B)

- It is an **unmanned aerial vehicle (UAV)** capable of remotely controlled or autonomous flight operations. It is engineered to meet and exceed manned aircraft reliability standards.
- It is developed by General Atomics Aeronautical Systems (GA-ASI), primarily for the United States Air Force (USAF).
- They have previously been used by the US military in Iraq and Afghanistan and though they are known for precision strikes.
- MQ-9s have also been purchased by NASA and the air forces of the UK, Spain and France.

Features

- It is designed for long-endurance, high-altitude Intelligence, Surveillance and Reconnaissance (ISR) missions with Top speed 275 mph.
- It can fly at an altitude of 15 km and can loiter over targets for over 27 hours.
- It can carry as many as 16 Hellfire missiles, equivalent to the payload capacity of an Apache helicopter.

Extra Mile
<p>MQ 9 Reaper & India</p> <ul style="list-style-type: none"> • In November 2020, the Indian Navy inducted two Sea Guardian MQ9B Reapers (maritime variant of the Predator MQ9). • The Navy has for the first time inducted two surveillance drones using the emergency powers granted by the Centre to the Armed forces amid the China standoff. • Amidst the intensifying border conflict with China, the government under Defence Acquisition Procedure (DAP) 2020 has allocated emergency funds of up to Rs. 500 crore per procurement project to the three-armed services for the purchase of weaponry and ammunition. • The Basic Exchange and Cooperation Agreement for Geo-Spatial Cooperation (BECA) has simplified such high-technology cooperation. <ul style="list-style-type: none"> ➤ BECA will provide Indian military systems with a high-quality GPS to navigate missiles with real-time intelligence to precisely target the adversary. This could be a key to Air Force-to-Air Force cooperation between India and the US.

4.11 Starberry-Sense

Researchers at the Indian Institute of Astrophysics (IIA) have developed a low-cost star sensor named **Starberry-Sense** for astronomy and small CubeSat class satellite missions.

Star Sensor	Starberry-Sense
<ul style="list-style-type: none">It is an instrument (a celestial compass) that is used by any satellite that needs to know where it is pointed in space.The position of stars in the sky is fixed relative to each other and can be used as a stable reference frame to calculate the orientation of a satellite in orbit.This is done by correctly identifying the stars in the sky towards which the star sensor is pointed.	<ul style="list-style-type: none">It is a cost-effective star sensor.It can help small CubeSat class satellite (Type of nanosatellite with weight less than 1.33 kg) missions find their orientation in space.Based on commercial/off-the-shelf (COTS) components, it costs less than 10% of those available in the market.The brain of the instrument is a single-board Linux computer called Raspberry Pi, which is widely used among electronics hobby enthusiasts.

4.12 Low-temperature Thermal Desalination Technology

The National Institute of Ocean Technology (NIOT) is providing **potable water** in six islands of Lakshadweep using Low Temperature Thermal Desalination technology.

About Low-temperature thermal desalination Technology (LTTD)

- LTTD is a technique that turns seawater (Brackish/Saline water) into drinkable water.
- It uses the difference in temperature between surface seawater and deep seawater to evaporate and condense water, thus separating the salt and other impurities from the water to produce fresh water.

How It Works?

- The LTTD process works by pumping cold water from a depth of several hundred meters and passing it through a heat exchanger.
- The cooled water is then used to evaporate the feed water in a vacuum chamber, which reduces the boiling point of water and requires less energy to produce steam.
- The steam is then condensed on a heat exchanger, producing fresh water that is collected and stored for use.

Significance of This Technology

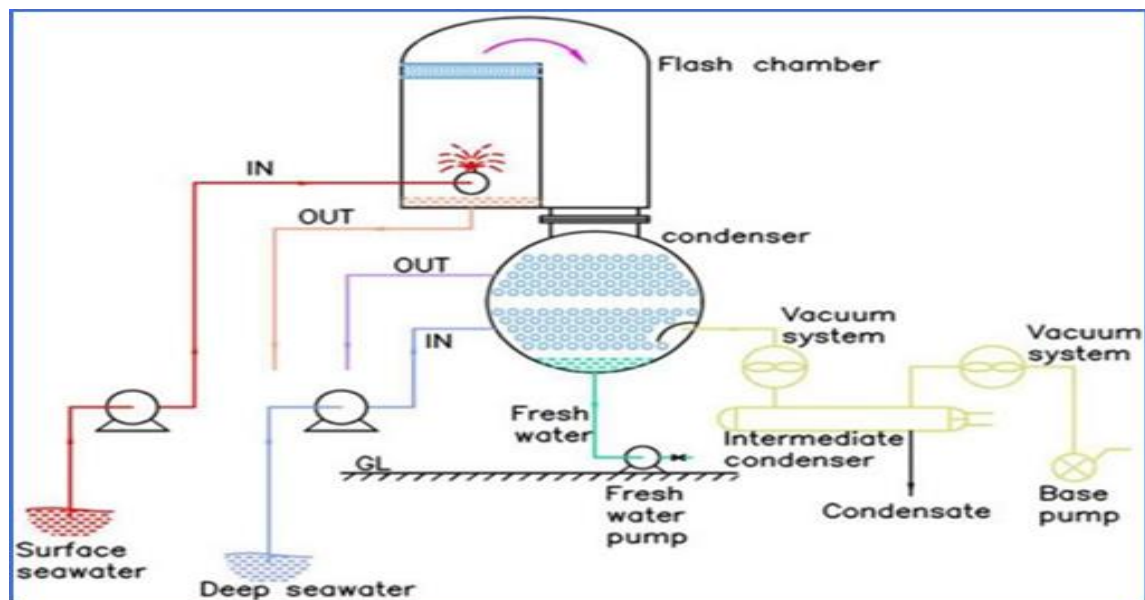
- LTTD has a lower environmental impact compared to other desalination technologies as this technology does not require any chemical pre- and post-treatment of seawater and thus the pollution problems are minimal and suitable for island territories.
- LTTD uses low-grade waste heat, such as solar or geothermal energy, to drive the process, making it energy-efficient and cost-effective.
- It has applications in areas where there is a shortage of fresh water, such as islands, coastal regions, and arid regions.

However, LTTD has its limitations, including the requirement for deep, cold water, which is not always available, and the relatively low production rate compared to other desalination technologies.

LTTD has been successfully used in several pilot projects in India, Japan, and the United Arab Emirates.

National Institute of Ocean Technology (NIOT)

- It was established in November 1993 as an autonomous society under the Ministry of Earth Sciences.
- Major aim is to develop reliable technologies to solve the various engineering problems associated with harvesting of non-living and living resources in the Indian Exclusive Economic Zone (EEZ).



4.13 Ceramic Radome Technology

Carborundum Universal Limited (CUMI- a private sector pioneer in material sciences) has signed a Licensing Agreement for Transfer of Technology with the DRDO for manufacturing ceramic radomes used in aerospace and missile systems.

About Ceramics Radome

A ceramic radome is a type of protective cover that is used to protect radar equipment and antennas from environmental factors such as rain, snow, UV light, and strong wind.

- **Ceramics:** They are inorganic and non-metallic materials that are essential to our daily lifestyle. Ceramics are corrosion-resistant, hard, and brittle. The majority of ceramics are also excellent insulators and can withstand high temperatures.
- Ceramic radomes also play an important role in signal transmission and reception. They help to reduce signal loss and distortion, improving radar performance and accuracy.
- Ceramic radomes are used in various industries, including aerospace, defense, and telecommunications, where high-performance radars are required.

About Ceramic Radome Technology

- It is regarded as an essential, state-of-the-art technology for ballistic and tactical missiles and high-performance aircraft.
- Missiles undergo extremely high surface temperatures while travelling through the atmosphere, and while re-entering it from space.
- To withstand those temperatures, radomes located at the tip of a missile are made of ceramic.
- It has been developed indigenously by Research Centre Imarat (RCI), one of the premier DRDO labs in the DrAPJ Abdul Kalam Missile Complex.

4.14 Oumuamua

Scientists think they have explained the unexpected behaviour of Oumuamua (1st known interstellar object).

About Oumuamua

- It is the first confirmed object from another star (interstellar object) to visit our solar system.
- It was discovered in 2017, by the NASA's Near-Earth Object Observations (NEOO) Program funded Pan-STARRS1 telescope.
- Two of NASA's space telescopes (Hubble and Spitzer) tracked the object traveling about 85,700 miles per

hour.

- The object was dubbed as 'Oumuamua' which means "a messenger that reaches out from the distant past" in Hawaiian.

Features

- It was Initially assumed to be a comet, then it was reclassified as an asteroid.
- Oumuamua is dense, composed of rock and possibly metals, has no water or ice, and that its surface was reddened due to the effects of irradiation from cosmic rays over hundreds of millions of years.
- Its trajectory (hyperbolic orbit) indicated that it had come from another solar system, traveling through the Milky Way galaxy for hundreds of millions of years before encountering our sun.

4.15 Arudhra Radar

The Defence Ministry signed two contracts with Bharat Electronics Limited (BEL) for Arudhra radar for the Indian Air Force (IAF).

About Arudhra Radar

- It is a **Medium Power Radar (MPR)** designed and developed by DRDO.
- It will be manufactured by Bharat Electronics Limited (BEL).

Features

- Arudhra being a 4D multifunction radar, can determine the following four parameters:
 - ✓ range (straight distance from radar),
 - ✓ azimuth (angular position from a reference direction),
 - ✓ altitude (distance from the ground) and
 - ✓ velocity vector (representation of the direction of motion) of a target.
- The system has an instrumented range of 400 Km and have range with the altitude coverage from 100 metersto 30 Kms.
- The transceiver modules (TRM) are based on the antenna array itself, leading to high receiver sensitivity, enabling the radar to detect low observable targets at a long range.
- MPR technology can be to be used for any ship borne radar applications. The technology will be used formountain radar. Presently MPR technology is used for similar class of radars for Indian Army.

4.16 OSIRIS-REx Mission

NASA is preparing for the finale of the OSIRIS-REx mission, it will reach on earth in September 2023.

About OSIRIS-REx Mission

- It stands for Origins, Spectral Interpretation, Resource Identification, Security-Regolith Explorer.
- It was launched in 2016, as the 1st-ever return-sample mission by NASA to collect surface and dust particles (extra-terrestrial material) from asteroid Bennu.
- In October 2020, the spacecraft successfully completed a "Touch-And- Go" (TAG) manoeuvre, where it briefly touched down on the asteroid's surface to collect a sample of regolith, the loose surface material on the asteroid.
 - Regolith is a mixture of rocky debris and dust.
- It will help scientists investigate how planets formed and how life began, as well as improve our understanding of asteroids that could impact Earth.

ASTEROID BENNU

- It is an ancient asteroid, currently more than 200 million miles from Earth.
- It was discovered by the NASA-funded **Lincoln Near-Earth Asteroid Research (LINEAR survey)** team in 1999 and is named after an Egyptian mythological bird associated with rebirth and renewal.
- Its composition is similar to that of carbonaceous chondrite meteorites, which are believed to be remnants of the early solar system.
- Bennu also has a **low albedo**, which means it reflects very little light and appears dark in color.
- It likely formed in the Main Asteroid Belt between Mars and Jupiter and has drifted much closer to Earth since then.



4.17 PALM 400 Drones

The Indian army has tested the prototype version of the PALM-400 drones successfully.

About PALM 400 Drones

- It is a long-range, high-precision loitering munition system acronym for '**Precision Attack Loitering Munition**'. The system is broadly defined as the armed Remotely piloted vehicle (RPV).
- It is the result of a joint venture between AVision Systems (Israel), UVision Air Ltd, and Aditya Precitech PrivateLtd (APPL).
- It is built to fly over areas where armoured vehicles are concentrated or are anticipated.

Feature

It has a range of more than 100 km and travels at a speed 90 to 260 km/h.

- It has been equipped with next-generation dual electro-optical and infrared cameras to detect and engage targets both during the day and at night.
- It uses complex navigational techniques that enable it to function even in environments where the GPS has been disabled.
- It can loiter above a target in stealth mode, collect information, and immediately strike at time-sensitive threats.
- In addition to their intelligence, surveillance, target acquisition, and reconnaissance (**ISTAR**) capabilities, the RPVs can also play a critical role in providing military logistic support.

4.18 TRAPPIST-1 b

James Webb Space Telescope has found that TRAPPIST-1 b does not have any significant atmosphere as most observations were predicting that it may have a substantial atmosphere.

About TRAPPIST-1 b

- TRAPPIST-1 b is one of the **seven exoplanets** that orbit the ultra-cool **dwarf star TRAPPIST-1**, located about 40 light-years away from Earth in the constellation **Aquarius**.
- TRAPPIST-1 b was the first exoplanet to be discovered in the TRAPPIST-1 system.
- It has 1.4 times the mass and 1.1 times the radius of Earth. This means TRAPPIST-1 b has a radius similar to Earth's, but it is much denser, suggesting that it may have a large iron core.
- It receives about four times the amount of energy that Earth gets from the Sun.
- It is tidally locked, meaning that one side of the planet always faces the star, and one side looks away.

4.19 Piezoelectric Effect

A pair of chemists at Michigan State University has observed the **piezoelectric effect in liquids** for the 1st time.

About Piezoelectric Effect (Conversion Of Kinetic Or Mechanical Energy Into Electrical Energy)

- It is a phenomenon where specific types of material (Piezoelectric Materials) e.g., quartz, topaz, etc. produce an electric charge proportional to the mechanical stress applied to them.
 - Piezoelectric Materials are materials that can produce electricity due to mechanical stress, such as compression. All piezoelectric materials are non-conductive in order for the piezoelectric effect to occur and work.
- This effect has only been expected in solids thus far because the body being squeezed needs to have an organised structure, like pyramids of quartz.
- Liquids don't have such structure. Instead, they take shape of their container.

Applications of Piezoelectric Effect

- The sonar device is the first practical application for piezoelectric devices.
- High voltage generators, electronic frequency generators, microbalances, inkjet printers are using piezoelectric technology.
- Piezoelectric sensors can be used to measure pressure, force, acceleration, and temperature, and are commonly found in devices such as microphones, accelerometers, and ultrasound machines.
- Piezoelectric actuators, which can convert electrical energy into mechanical energy, are used in precision positioning and control systems.
- It is also the basis of several scientific instrumental techniques with atomic resolution, such as scanning tunnelling microscopes.

Significance of This Discovery

- The researchers suggest that liquid piezoelectric materials could prove to be useful because they would be more environmentally friendly than solid materials.
- They also note that liquid piezoelectric materials could allow more variety in device shape, opening wider design opportunities.

4.20 Role Of Sodium In Human Body

Sodium is one of the body's electrolytes, which are minerals that the body needs in relatively large amounts. Electrolytes carry an electric charge when dissolved in body fluids such as blood.

Effects of Sodium Deficiency	Importance if taken Within Limit (about 500 mg of sodium daily)	Adverse effects if consumed Beyond Limit
Hyponatremia: when there are low sodium levels in the blood. It can lead to lethargy, confusion, fatigue, and other symptoms.	1) Maintains fluid levels in the body, and maintain blood pressure by attracting and retaining water and minerals. 2) Conducts nerve impulses, contract and relax muscles.	Too much sodium in the diet can lead to high blood pressure, heart disease, and stroke. It can also cause calcium losses, some of which may be pulled from bone.

4.21 H3N2 Virus (Hong Kong flu & subtype of the Influenza A virus)

H3N2 and H1N1 Virus Differences

H1N1 (Swine Flu)

It originally emerged in pigs and was transmitted to humans.

H1N1 tends to affect younger people

H3N2 (Hong Kong Flu)

It is believed to have originated in birds, Swines and was later transmitted to humans.

while H3N2 is more common in older adults. However, the current one is commonly seen in younger populations

H1N1 has been associated with more severe respiratory symptoms, such as cough and shortness of breath

Both can be treated by antiviral medications. H1N1 and H3N2 both can be fatal if immunity is compromised, especially in uncontrolled diabetes and those who have undergone an organ transplant.

4.22 Whole Genome Amplification (WGA)

- It is a technology for **non-selective amplification** of the **whole genome sequence** in order to generate enough material for downstream applications such as sequencing, genotyping, or microarray analysis along with comprehensive genome research.
- Genome is the complete set of genes or genetic material present in a cell or organism.
- It is especially suitable for forensic identification and genetic disease and cancer research.
- WGA can be used to **amplify DNA** from small amounts of tissue, such as single cells, which is useful in studying rare mutations or genetic heterogeneity within a tissue sample.
- WGA can also be used to amplify DNA from degraded or ancient samples, which can help in understanding evolutionary relationships or ancient human migrations.

5. Environment & Ecology

5.1 World Wildlife Day 2023 (and 50th Anniversary of first signing of CITES)

- March 3 is World Wildlife Day. It is a United Nations International day (Adopted in 2013) to celebrate all the world's wild animals and plants and the contribution that they make to our lives and the health of the planet.
- Thus, for the first time, World Wildlife Day was celebrated in 2014.

Why March 3 for World Wildlife Day?

- The date chosen coincides with the day of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which was signed in 1973.
- This World Wildlife Day 2023 is also a celebration of CITES as it turns 50. The theme for World Wildlife Day this year is 'Partnerships for Wildlife Conservation'.
- Sustainable Development Goal 15 focuses on halting biodiversity loss.

Recent Reports Related to Environment

Reports (By)	Features/Key Findings
<p>CO2 Emissions in 2022 by International Energy Agency (IEA)</p> <p>About IEA Established in 1974 based in Paris as a response to physical disruptions in global oil supplies and to promote energy savings and conservation.</p>	<ul style="list-style-type: none"> • This report is the first in the IEA's new series, the Global Energy Transitions Stocktake. • The new tracker consolidates the IEA's latest analysis in one place, making it freely accessible in support of the first Global Stocktake in the lead-up to COP 28. • It also provides information on <u>methane and nitrous oxide</u> emissions related to energy. • The biggest sectoral increase in emissions in 2022 came from electricity and heat generation, whose emissions were up by 1.8%. • The use of clean energy technologies, including renewables, electric vehicles, and heat pumps, prevented an additional 550 Mt of CO2 emissions
<p>Global Methane Tracker 2023 (The International Energy Agency's (IEA))</p> <p>Key publications of IEA</p> <ul style="list-style-type: none"> ➤ World Energy Outlook (WEO) ➤ Net Zero by 2050: a roadmap for the global energy sector ➤ Energy Technology Perspectives (ETP) ➤ Global EV Outlook (GEVO) 	<ul style="list-style-type: none"> • It is an indispensable resource in the fight to bring down these emissions and implement the Global Methane Pledge. • Fossil fuel companies emitted 120 million metric tonnes of methane into the atmosphere in 2022, only slightly below the record highs seen in 2019. • These companies have done almost nothing to curb the emissions despite their pledges to find and fix leaking infrastructure. • The report said 75% of methane emissions from the energy sector can be reduced with the help of cheap and readily available technology. • The energy sector accounts for around 40% of the total average methane emissions from human activity. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Step taken to cut methane emission</p> <ul style="list-style-type: none"> • Around 150 countries have joined the Global Methane Pledge which aims to reduce methane emissions from human activity by 30% from 2020 levels by 2030. • In its part, India has committed to reducing the emissions intensity of its GDP by 33-35% below 2005 levels by 2030. </div>

5.2 World's 1st Bamboo Crash Barrier

As part of Aatmanirbhar Bharat, India has developed the world's 1st bamboo crash barrier which has been installed on the Vani-Warora Highway, Vidarbha, Maharashtra.

- Crash barriers are installed on either side of a highway to prevent vehicles from moving out of the road network and also restrict movement of outside elements onto the highways.
- It is a 200m long Bamboo Crash Barrier, named Bahu Balli.
- This Bamboo Crash Barrier underwent rigorous testing at various government-run institutions such as the **National Automotive Test Tracks (NATRAX)** in Pithampur, Indore and was rated as Class 1 during the Fire Rating Test conducted at the Central Building Research Institute (CBRI) in Roorkee. It has also been accredited by the Indian Road Congress.
- It is made from Bambusa Balcoa species of bamboo, which has been treated with creosote oil and coated with recycled High-Density Polyethylene (HDPE).

Significance of Bamboo Crash Barrier

- It offers a perfect alternative to steel and addresses environmental concerns.
- The recycling value of the bamboo barrier is 50-70% whereas that of steel barriers is 30-50%.
- The tensile strength of bamboo is higher than that of steel due to the axial orientation of its fibers.
- Bamboo has a high resistance to fire, and it can tolerate temperatures of up to 400 degrees Celsius.
- Due to their lightweight nature, bamboos are easy to transport and install, making them highly convenient for both construction and transportation purposes.

About Bambusa Balcoa

- Bambusa Balcoa, also known as **Female Bamboo**, is a tropical clumping bamboo mainly grown in Northeast India and West Bengal.
- It is commonly used in building material for houses, bridges, fishing floats, scaffolding, baskets etc.

5.3 World's 1st Bamboo Crash Barrier

Shendurney Wildlife Sanctuary

International Women's Day (8 March) was celebrated in Shendurni Wildlife Sanctuary under the aegis of the State Forest Development Agency working under the Forest Department.

About Shendurni Wildlife Sanctuary (WLS)

- It is a protected area located in the Western Ghat (a UNESCO World Heritage Site), Kerala.
- It comes under the control of Agasthyamalai Biosphere Reserve.
- It owes its name to the endemic tree species, Gluta travancorica, locally known as **Chenkurinji**.
- It has an artificial lake and surrounded by the reservoir of **Thenmala Dam**.
- Tropical evergreen and semi-evergreen forests cover a major area of the sanctuary.
- The 1st eco-tourism project in India, the Thenmala Eco-Tourism Project has been developed in and around this sanctuary.

Thanthai Periyar Wildlife Sanctuary

The Tamil Nadu Government has announced the notification of Thanthai Periyar Wildlife Sanctuary, making it the 18th wildlife sanctuary in the state.

- It is situated at proximity with the Malai Mahadeshwara wildlife sanctuary, Biligiri Ranganatha Swamy Temple Wildlife Sanctuary, Cauvery wildlife sanctuary.
- It acts as the connecting point between Nilgiris Biosphere Reserve and Cauvery South Wildlife Sanctuary.
- This sanctuary is home to various wild animals including tigers, elephants, leopards, wild boars, gaurs and deer.

Mhadei / Mahadaya Wildlife Sanctuary

Under the banner of Save Mahadaya Save Goa, the activists reiterated their demand to notify Mahadaya Wildlife Sanctuary as a Tiger Reserve.

About Mhadei Wildlife Sanctuary

- It is located in the Northern Part of Goa.
- There are a number of picturesque waterfalls within the sanctuary boundaries. The most prominent are the Vazra Sakla Falls and the Viridi Falls.
- It is thickly forested with moist deciduous vegetation and some evergreen species too.
- The sanctuary is being considered for being elevated to the status of a Project Tiger Reserve because of the presence of Royal Bengal Tigers.
- The three highest peaks in Goa – Sonsogod, Talache Sada and Vageri are located in the hill ranges within the sanctuary.

Sunabeda Wildlife Sanctuary

A 65-year-old woman was killed in a suspected attack by a Royal Bengal Tiger in Sunabeda Wildlife Sanctuary.

About Sunabeda Wildlife Sanctuary

- It is a wildlife sanctuary and a proposed tiger reserve located in the Nuapada, Odisha, adjoining Chhattisgarh.
- It adjoins the Sitanadi and Udanti sanctuaries of Chhattisgarh.
- It harbors a great diversity of wildlife habitats with a vast plateau, canyons, and 11 waterfalls.
- The sanctuary forms the catchment area of the Jonk River, on which a dam has been constructed to facilitate irrigation.
- The Indra nullah and Udanti River lies to the south of the sanctuary.

Human-Animal Conflict

- It occurred when human beings take negative actions on wildlife and vice-versa.
- Such conflicts have been recorded throughout the world in terrestrial, aquatic, and aerial environments.

Cause of Human-Animal Conflict

- **Population overload** - Rapid population growth contributes for the destructions wildlife habitat that leads to competition for survival.
- **Minimum Food in Jungle** - Carnivores are attacking domestic livestock due to declining number of herbivorous in the wild due to prolonged droughts and habitat degradation.
- **Infrastructure** - Animals have been killed or injured in accidents on roads or railway tracks because of the expansion of road and rail networks through forest ranges.
- **Small area for Animals** - As the population increases, the demand for land also increases, people start cutting down the forest and sometimes animals move out of that small area.
 - Wildlife experts estimate that 29% of the tigers in India are outside the protected areas.

Impact of Human-Animal Conflict

- **On Food Security** - Huge amounts of crops were lost by wildlife in different countries.
- **Health and disease** - Conflict arises due to human perception of public health risks from zoonotic pathogens transmissible to humans. E.g. Covid -19 pandemic
- **Livestock depredation** - The easier availability of domestic animal and other resources to a given species outside a protected area than inside, increase livestock depredation.
- **On Tourism** - Nature and wildlife tourism provides essential revenue to a country or region and tourists refuse to visit the region if conflict escalates.
- **On Conservation efforts** - Human wildlife conflict is hindering the implementation of conservation initiatives.

Measures Taken to tackle Human-Animal Conflict

- **Legal measure** - Wildlife management in India is carried out under the Wildlife Protection Act of 1972, which is strongly preservationist in its thrust.
 - The Act makes it virtually illegal to kill or capture wild animals even when problem animals are involved in severe conflict situations.
- **Technology** - High-tech surveillance equipment such as sensors can help in tracking animal movement and alerting the local population.
- **Biological measures** - We can build barriers and fences around animal territory, separate wildlife corridors and put-up beehive fencing around farms to deter elephants.
 - For example, in Mozambique, communities began growing chili pepper plants after discovering that elephants disliked and avoided plants containing capsaicin.
- **Infrastructure Measure** - Wildlife bridges corridors and underpass provide wildlife with a safe pathway as they travel between larger areas of intact habitat.
 - Some of the major wildlife corridors in India are the Kanha-Pench Corridor and the Kaziranga-Karbi Anglong Corridor.
- **Relocation of human settlements** - Relocation of human settlements is a proactive strategy that tries to alter the ecological setting, and thus prevent conflict.

Extra Mile

- WLS is notified under Wildlife (Protection) Act of 1972 and it is notified by the State Government.
- The Wildlife Protection Act of 1972 defines four categories of protected areas, namely 1) National Parks, 2) Wildlife Sanctuaries, 3) Community Reserves, and 4) Conservation Reserves.
- The main purpose of Wildlife Sanctuaries (WLS) is to safeguard and preserve a specific species or group of species.
- In India, there are currently 567 wildlife sanctuaries that amounting to 3.73% of the country's geographical area. (National Wildlife Database, Jan 2023).
- Andaman & Nicobar Islands have the highest numbers of Wild life Sanctuaries.
- National Wildlife Database (NWD) (of Wildlife Institute of India (WII)) is providing information on the conservation status of animal species, biogeographic regions, administrative units, habitat types and the network of protected areas in India.

5.4 Multi-Angle Imager for Aerosols Mission

The NASA and Italian Space Agency ASI (Agenzia Spaziale Italiana) will build and launch the Multi-Angle Imager for Aerosols (MAIA) missions.

- The mission is set to launch before the end of 2024.

About Multi-Angle Imager for Aerosols Mission (MAIA)

- MAIA is the first mission by the agency whose primary goal is to benefit **societal health**. Epidemiologists and public health researchers will be directly working on the development of a satellite mission.
- It is a state-of-the-art satellite instrument producing data that will be used in health studies to examine the health effects of various types of air pollution.
- It will consist of the PLATINO-2 satellite, which will be provided by ASI, and a science instrument that will be built at NASA's Jet Propulsion Laboratory (JPL).
- The 3-year mission will focus on 11 primary target areas: Los Angeles, Atlanta, Boston, Rome, Addis Ababa, Ethiopia, Barcelona, Spain, Beijing, Johannesburg, **New Delhi**, Taipei, Taiwan and Tel Aviv.
- Its measurements of sunlight reflecting off airborne particles will help researchers determine the abundance, size and optical properties of certain pollutants in the atmosphere.

5.5 Cyclone Freddy

The World Meteorological Organization (WMO) is setting up a committee to evaluate whether cyclone Freddy has broken the record as the longest-lasting tropical cyclone on record.

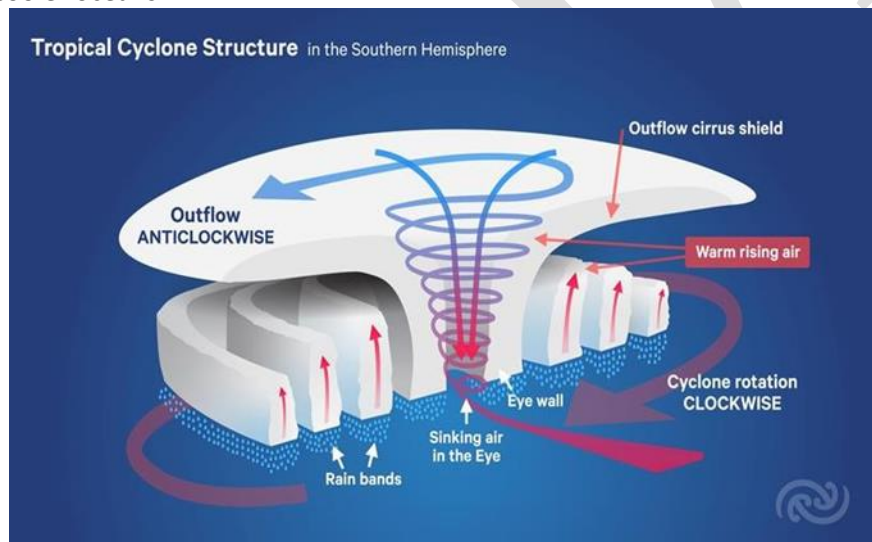
About Cyclone Freddy

- It originated off the northern coast of Australia. It has been a named tropical cyclone for 33 days, crossed the entire South Indian Ocean and travelled more than 8,000 kilometres.
- It affected Mauritius and La Reunion, before making landfalls in Madagascar two weeks later and then Mozambique.
- It is the 1st tropical cyclone in the Southern Hemisphere to undergo six separate rounds of rapid intensification.

Tropical Cyclones

- These are low pressure systems that form when the sea surface temperature is above 26.5 °C.
- This may continue for several days, even weeks, and may follow quite erratic paths.
- Once developed, a tropical cyclone is like a giant, atmospheric heat engine. The moisture from the warm ocean acts as its fuel, generating huge amounts of energy as clouds form.

Tropical Cyclones are dangerous because they can produce extreme winds, heavy rainfall with flooding and damaging storm surge that can cause inundation of low-lying coastal areas. A cyclone will dissipate once it moves over land or over cooler oceans.



5.6 Committee To Oversee Transfer And Import Of Captive Wild Animals In India

The Supreme Court has increased the jurisdiction and powers of a high-powered committee.

What Changes Have Been Made In The Jurisdiction?

From Regional to National

- The ambit of the committee was earlier restricted to Tripura and Gujarat. It will now have a wider responsibility and will cater to all wild animals in need of rehabilitation or rescue anywhere in India.

Larger Role to the Committee

- The committee can consider requests for approval, dispute, or grievance regarding the welfare of wild animals by rescue centres or zoos across India.
- The Supreme Court ordered the Central and State authorities to report the seizure of wild animals or the release of captive wild animals to the committee.

Enlarging Committee

- State Chief Wildlife Wardens will also be part of the committee.

About the High-Powered Committee on Wild Animals

Composition

- It is set up under the chairmanship of former judge Justice Deepak Verma.
- The other members of the committee include the Director General of Forests, Head of Project Elephant Division (MoEF) and Member Secretary (Central Zoo Authority of India) and Chief Wildlife Warden(s) of the State(s) to which the issue relates will be co-opted as Members.

Mandate: To consider approval, dispute, or grievance concerning the **transfer or import of wild animals** into India or their procurement or welfare by any rescue or rehabilitation center or zoo.

Powers and Functions:

- All State and Central authorities shall report the seizure of wild animals or abandonment of captive wild animals to the Committee.
- The Committee shall be at liberty to recommend the transfer of ownership of captive animals or of seized wild animals to any willing rescue center or zoo for their immediate welfare, care, and rehabilitation.
- The Committee is free to conduct necessary checks and to undertake fact-finding exercises in any pending or future complaint.

Major Issues Related to Captive Wild Animals

- Many zoos and rescue centres are not equipped with the necessary resources to provide proper care for captive animals.
- Zoo animals also suffer due to lack of veterinary care for diseases.
 - In the last three years, the National Zoological Park located in the national capital has lost around 450 animals, including tigers, lions and others.
- Captive animals seldom learn crucial survival skills and often are too habituated to human contact.
- Lacking a natural fear of humans, they are vulnerable to poachers and ill equipped for life in the wild.

5.7 Batrachochytrium Dendrobatidis

A fungus named *Batrachochytrium dendrobatidis* is expanding across Africa and killing out or driving to the verge of extinction hundreds of amphibian species (Particularly Frogs).

About *Batrachochytrium dendrobatidis* (Bd)

- Bd is a species of chytrid fungus that is known to cause the disease chytridiomycosis in amphibians, particularly frogs. The disease has had devastating effects on amphibian populations worldwide, leading to declines and extinctions of numerous species.
- It affects (Via Water) the keratin in the skin of amphibians, resulting in skin infections and lesions.
- It infects the skin of amphibians, which is critical for respiration, osmoregulation, and other functions.
- Bd can disrupt the skin's permeability and cause electrolyte imbalances, leading to a range of symptoms, including lethargy, loss of appetite, and eventually death.
- It was initially discovered in Queensland, Australia, in the 1990s after several frog species were found dead.
- It is most prevalent in South and Central America, Australia, and North America.

Role of Climate Change on This Fungus

- According to Nature World News, previous studies have found that climate change may be beneficial for the fungus (grows best in a range of 63 to 77 degrees Fahrenheit).
- Increased cloud cover may lead to cooler daytime temperatures and warmer night-time temperatures,

which would be more conducive to the growth of the microscopic fungus.

5.8 Zealandia

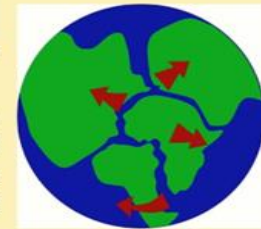
After 375 years of speculation and exploration, scientists have finally confirmed the existence of a missing continent known as Zealandia.

About Zealandia

- It is a long, narrow microcontinent that is mostly submerged in the South Pacific Ocean.
- It is approximately 1.89 million square miles in size, about half the size of Australia.
- It was once part of an ancient supercontinent called Gondwana, which also included Western Antarctica and Eastern Australia over 500 million years ago.
- It began to pull away from Gondwana for reasons that geologists are still trying to understand roughly 105 million years ago.
- As it did so, it gradually sank beneath the waves, with over 94% of the landmass remaining underwater for millennia.
- The part of Zealandia which is above water forms the foundation of New Zealand's north and south islands as well as the island of New Caledonia.

Formation of Continents

- In 1912, German scientist Alfred Wegener proposed a theory he called continental drift theory.
- Wegener's theory was based on several lines of evidence, including the matching coastlines of South America and Africa, similar rock formations and fossils found on opposite sides of the Atlantic Ocean, and the distribution of plant and animal species.
- According to Wegener's theory, Earth's continents once formed a single, giant landmass, which he called Pangaea.
- Around 200 million years ago Pangaea started splitting and broke down into two large continental masses as Laurasia and Gondwanaland forming the northern and southern components respectively. This process was thought to have been driven by the movement of the Earth's crustal plates, which he referred to as "continental drift."
- Subsequently, Laurasia and Gondwanaland continued to break into various smaller continents that exist today.
- In total, there are 7 Continents in the World. They together occupy 29% of the surface area of the world.
- More than two third of this continental mass is located in Northern Hemisphere.



Despite the evidence he presented, Wegener's theory was met with skepticism by many geologists at the time. It wasn't until the 1960s, with the discovery of sea-floor spreading and the theory of plate tectonics, that Wegener's theory gained widespread acceptance.

5.9 IPCC Published Its Synthesis Report

The 4th and final instalment of the sixth assessment report (AR6) by the Intergovernmental Panel on Climate Change (IPCC) was released.

About Synthesis Report

- It is supposed to be a relatively **non-technical summary** of the previous reports, aimed largely at policymakers around the world.
- This report is meant to address a wide range of policy-relevant scientific questions related to climate change, but, like all IPCC reports, in a non-prescriptive manner.
- This will bring an end to the Sixth Assessment Report, a collective work of thousands of scientists over a period of **eight years**, starting in February 2015.

Key Findings Of This Report	Recommendations In This Report
<ul style="list-style-type: none"> Human-induced global warming of 1.1 degrees C has spurred changes to the Earth's climate that are unprecedented in recent human history. Adaptation measures can effectively build resilience, but more finance is needed to scale solutions. 	<ul style="list-style-type: none"> Deep systemic changes are needed across all economic sectors to reduce emissions. Some steps include: <ul style="list-style-type: none"> ➤ Widespread electrification ➤ Diversifying energy generation to include more wind, solar, and small-scale hydropower ➤ Conserving and restoring forests while also reducing tropical deforestation.
<ul style="list-style-type: none"> There is a more than 50% chance that global temperature rise will reach or surpass 1.5 degrees C (2.7 degrees F) between 2021 and 2040 	<ul style="list-style-type: none"> Accelerated financial support for developing countries from developed countries is a critical enabler, with a greater focus needed on public grant-based finance.

Extra Mile

IPCC

- It is an intergovernmental body established in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).
- Headquarter is at Geneva, Switzerland.
- It serves to provide policy makers with a regular assessment of the scientific basis of climate change, its impacts and future risks, and adaptation and mitigation options.
- IPCC does not conduct its own research, nor does it monitor climate related data or parameters.* Thousands of people from all over the world contribute to the work of the IPCC.

IPCC Assessment Reports (AR)

- IPCC Assessment Reports (AR) cover the full scientific, technical and socio-economic assessment of climate Change. It is generally divided into following parts:
- IPCC Assessment Report = (Working Group (WG) I Report + WG II Report + WG III Report) + Three Special Reports + Methodology Reports + Synthesis Report**
- Five Assessment Reports have been completed in 1990, 1995, 2001 and 2007, 2014. The IPCC is now in its sixth assessment cycle, in which it is producing the Sixth Assessment Report (AR6).
- For AR 6, Three Special reports have been published including:
 - 1) Special Report on Global Warming of 1.5°C (2018)
 - 2) Special Report on Climate Change and Land (2019)
 - 3) Special Report on the Ocean and Cryosphere in a Changing Climate (2019)
- Methodology reports provide practical guidelines for the preparation of greenhouse gas inventories under the UNFCCC.
- The Synthesis report is the last of the AR6 publications to inform the 2023 Global Stocktake by UNFCCC.

5.10 Earth Hour

- It is a global grassroots movement organized by World Wildlife Fund (WWF) to unite people to act on environmental issues and protect the planet.
 - ✓ WWF is an international non-governmental organization (NGO) founded in 1961 in Morges, Switzerland with objective to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
- It was started as a lights-off event in Sydney, Australia, in 2007 and takes place on the last Saturday of March every year.
- It encourages people to switch off all non-essential lights for an hour, from 8:30 pm to 9:30 pm local time.

5.11 Carbon Sequestration

Forest is the second largest land use in India next to agriculture. In 2021, the total forest and tree cover in India is 80.9 million hectares, which is 24.62% of the geographical area of the country, ranging from the Himalayan Temperate to Dry Zone forests.

Being a mega-bio diversity country, the nation possesses high level of endemism.

Carbon Sequestration:

There are two types:

- Geologic
- Biologic
- Carbon capture from power plants and industrial facilities is called Geologic Carbon sequestration.
- It is pressurized into liquid and then stored in porous rock formations underground.
- Atmospheric carbon is captured by natural processes like photosynthesis.
- It is stored in soil, plants and trees or the entire forest ecosystem.

Role of forests in carbon sequestration:

- Create carbon pools – Forests absorb carbon dioxide from the atmosphere and store it in different repositories, called carbon pools, which include trees (both living and dead), root systems, undergrowth, the forest floor and soils.
- Currently existing forests store ~45% of the organic carbon on land in their biomass and soils
- Live trees have the highest carbon density, followed by soils and the forest floor. Harvested wood products and landfills also store carbon.
- Prevent Global warming – When a carbon pool decomposes or is burned, it releases carbon as carbon dioxide back into the atmosphere and causes Greenhouse Gas (GHG) emissions.
- In past 40 years, forests have absorbed 25% of human carbon emissions. This slows the rate of climate change.
- Regulate rate of carbon sequestration and storage – However, invasive insects and diseases, drought, wildfires and urban development can affect this regulation.

Other significant benefits:

- Purifies air and water – One tree can take 10 pounds of pollution and produce enough oxygen for two people.
- Flood control – it moderates river run offs and reduces erosion
- Protection of ecosystem services – resources such as medicinal plants, herbs, timber, Minor forest produce and landscaping materials is found in forests.
- Prevents desertification – too few trees can increase severity of sun exposure.
- This can lead to dry soil, dead organisms and more release of carbon

Carbon trading mechanisms:

- Carbon trading – Carbon trading is the process of buying and selling permits and credits in the market that allow the permit holder to emit carbon dioxide.
- The right to emit a tonne of CO₂ is often referred to as a carbon 'credit' or carbon 'allowance'.
- Clean development mechanism under Kyoto protocol – Financially-reliant nations offer incentives towards developing countries to put into place projects which reduce greenhouse gases such as carbon dioxide, while at their own expense, they earn what are called CER credits or Emission Reduction Units that are equivalent to 1 tonne of CO₂.
- European Union's Emissions Trading System (ETS) – is the key tool for reducing greenhouse gas emissions, such as carbon dioxide (CO₂), from electricity generation and industry.

Challenges in current system:

Additionality

- It refers to carbon sequestration that can happen even in the absence of targeted action.
- Forests can grow back on agricultural land abandoned by households moving to industrial jobs. This is

known as the Forest Transition.

- This transition has been underway in India since the mid-90s, with steady net-positive growth.

Leakage

- While protecting one forest, emission generating activities that can be deflected to other neighbouring forests.
- Counting negative emissions from this forest will be fraudulent.
- For example, in rural India, the fuelwood has to come from somewhere, and all that changes is that the women have to walk farther, spend more time, and face more harassment but total emissions remain the same.

Permanence

- With climate change, we can expect more heat waves, dry spells, and more frequent and intense forest fires.
- Example – The Bootleg fire in Oregon burned through 90,000 acres of forest set aside as carbon offsets for Microsoft and BP. This forest, and the carbon it holds, were expected to live for at least 100 years.
- Cost and logistical challenges and biophysical limitations (e.g., poor water availability constrains growth and increases mortality)

Suggestions:

- To protect and restore, our forests, we must create incentives and build equity for local communities to reap a fair share of benefits.
- Forests will be protected and restored when communities living near these forests expect to derive direct material benefits.
- India's Forest Rights Act 2006 allows communities to own and manage their forests. Chhattisgarh, Odisha, and Jharkhand have already recognised this opportunity to create jobs and wealth. But this opportunity requires the private sector to step up and support the process.
- By engaging directly with communities, the informal forest economy can be transformed into business transactions that are fair and transparent and incentivise sustainable protection, management, and restoration of India's forests.
- If communities protect forests because they get better prices for Sal seeds, Mahua flowers, or Tendu leaves, they will protect them from fires as well as any other threats that come along. Carbon sequestration will be a side benefit.
- The rising demand for forest based products and resultant deforestation and encroachment has led to a severe loss of natural resources and destruction of habitat

Way forward:

- The Living Planet Report 2006 ranked India as the third highest gross foot print nation, followed by US and China.
- India is presently 4th largest economy in terms of purchasing power parity and is growing at 8-9 per cent per annum. This fast growth coupled with the needs and aspirations of more than one billion people is a challenge for conservation of forests unless environmentally responsible policies are in place.
- In this regard, the new initiative apart from carbon sequestration such as Payment for Forest Ecosystem Services (PES), Ecological Footprint Analysis and Forest Certification, must be explored.

5.12 Renewable energy transition

- Livelihoods powered by clean energy are major outliers in the country that's the third-largest emitter of planet-warming gases in the world
- India missed its target to install 175 gigawatts of renewable energy to its overall power production by 2022.
- To meet its 2030 renewable energy target of installing a total of 450 gigawatts, India needs to build out clean energy at a far greater rate than it is doing now.

Role of coal in India's Energy mix

- Coal is by far the largest share of dirty fuels.
- Nationwide fossil fuels generate more than 70% of India's electricity and have been doing so for decades.
- The Indian government has repeatedly defended its use of coal and its energy transition strategy, stating that the fuel is necessary for the nation's energy security.
- In 2021, India announced its biggest-ever auction for coal mines inviting bids for 141 mines spread across 12 states in the country
- It will contribute to its target of producing 1 billion tons of coal by April 2024.
- From 2001 to 2021, India installed 168 gigawatts of coal-fired generation, nearly double what it added in solar and wind power combined, as per Ember data.
- Coal India limited, a government-owned company, is the largest state-owned coal producer in the world.
- It is responsible for about 82% of the total coal produced in India.
- The country's coal-fired power plants have an average age of 13 years and India has 91,000 MW of new proposed coal capacity in the works, second only to China
- According to the Draft National Electricity Plan 2022, coal's share in the electricity generation mix will decrease to 50% by 2030, compared to the current contribution of 70%

Status of Renewable energy

- Contribution It currently contributes about 10% of India's electricity needs.
- Price of renewable energy has plummeted.
- The cost of solar power has dropped roughly sixfold from 12 rupees (14 cents) per kilowatt-hour in 2011 to 2.5 rupees (0.03 cents) per kilowatt-hour.
- Economic savings The planned buildout of 76 GW of solar and wind power by 2025 will avoid the use of almost 78 million tons of coal annually and could lead to savings of up to 1.6 trillion rupees (\$19.5 billion) per year.
- Coal's share in producing electricity for Gujarat fell from 85% to 56% in the last six years, according to analysis by London-based energy think tank Ember
- The share of renewable energy for Gujarat grew from 9% to 28% in the same period.
- Gujarat is one of four of India's 28 states that met their renewable energy targets for 2022.
- Other states Most states have installed less than 50% of their targets and some states such as West Bengal have installed only 10% of their target.

Challenges in transition

- Reducing the share of coal in the electricity generation mix is particularly acute because the sector is growing rapidly
- Development goals India's quickly developing economy and growing electricity consumption per capita is causing rising demand
- Historically, countries that have achieved substantial and rapid transitions away from coal-fired power tend to have had either slowly growing or stagnant or even slightly declining electricity demand
- Growing demand India's federal power ministry estimates that its electricity demand will grow up to 6% every year for the next decade.
- Acquiring land for clean energy projects is tough due to resistance from local communities.
- While longstanding contracts with coal plants also make it easier for state-run electricity companies to buy coal power instead of clean power.
- Inefficiency of DISCOMS As of December 2022, Indian state-owned electricity distribution companies owed power generators \$3.32 billion in overdue payments.
- Their poor financial health has dampened their ability to invest in clean energy projects
- Skewed Lending scenario 60% of lending to the mining sector was for oil and gas extraction, while one-fifth of manufacturing sector debt is for petroleum refining and related industries.
- High-carbon industries — power generation, chemicals, iron and steel, and aviation — account for 10% of outstanding debt to Indian financial institutions. However, these industries are also heavily indebted, and therefore have less financial capacity to respond to shocks and stresses.

Suggestions for future:

- Planning It is great that India has a 2070 net zero target, but changes need to happen now for us to achieve this.
- Building renewables capacity and energy storage– electricity distribution companies need to allow for more rooftop solar installations even if it results in short-term economic losses for them.
- Investing in modernizing and building new wind energy projects will also speed up the transition.
- India needs \$223 billion to meet 2030 renewable capacity goals
- Enacting more progressive policies — such as the \$2.6 billion government scheme that encourages making components required to produce solar energy — and ensuring these policies are being implemented is essential to speed up a move toward renewables
- New laws such as the energy conservation bill as well as updated mandates issued by the federal government that make it necessary for electricity companies to purchase renewables provide hope
- Investment in new technology such as clean fuels like green hydrogen may improve battery storage for renewables to provide uninterrupted electricity
- Sovereign green bonds India is expected to launch its first-ever sovereign green bonds auction, with the Reserve Bank of India

Way forward

- A report by the Global Energy Monitor ranks India among the top seven countries globally for prospective renewable power.
- At the end of the day what is needed is speeding up the installation of renewables and associated infrastructure
- Ultimately in India, renewable energy is a highly cost-effective technology. The perception that coal is cheap is changing.

6. Security issues

6.1 Protocols To Tackle Threat Of Spy Balloons

- The Indian military has drafted a set of basic protocols to tackle newer threats like surveillance balloons or other unidentified objects in the sky.
- This was after a similar entity was spotted a year ago over the strategic Andaman and Nicobar Islands.

Key Highlights of Draft Protocols to Tackle Newer Threats Like Surveillance Balloons

- **Detail the sequence of action**
 - The protocols detail the sequence of action in case an unidentified slow-moving aerial object is spotted.
 - This includes detection, positive identification, verification and targeting using a suitable platform and weapon system.
- **Process to be photographed**
 - The entire operation from the launch of the weapon system to destroying the target will be photographed and recorded in detail.
- **A detailed report will be prepared**
 - It includes the sighting time, size of target, its description recorded on the radars on ground, analysis of remnants, if recovered and this will be intimated through the chain of command.

Associated Challenges

- The primary challenge in such a sighting is the detection and identification of the object. The satellites or radars cannot detect balloons as they are slow-moving.
 - In India, several radars at key military sites are being upgraded to detect such aerial objects.
- Even the US, which possesses the most sophisticated military equipment, had earlier failed to detect the slow-moving Chinese balloons.

Need For a Protocol To Tackle Threat Of Spy Balloons

- **Increasing cases of spy balloons**
 - In February 2023, the United States shot down a giant Chinese balloon, which it accused of spying on its crucial military sites.
 - Days later, the US shot down a cylindrical-shaped object over Canada and another unidentified aerial object in its own airspace.
- **Aerial object was spotted over the Andamans Last year**
 - Even though its origin could not be ascertained at that time, as per media reports, the object had drifted away over the ocean before military authorities could take a decision on action to be taken.

What Is The Significance Of Andaman & Nicobar For India?

- The Andaman and Nicobar Islands house the tri-service Andaman and Nicobar military command.
- What makes these islands strategically important is their proximity to the Indo-Pacific as well as to major choke-points or sea lines of communication (SLOC) in the Bay of Bengal — the Malacca Strait, Sunda Strait, Lombok Strait and the Ombai-Wetar straits.
 - Most of the world's shipping trade passes through these choke-points.
- And, the islands offer India the potential to play a critical role towards enhancing its influence in the Indian Ocean region and support its military operations in the area.

6.2 Amendments To The Rules On Money Laundering

- The Department of Revenue under the Ministry of Finance brought in The Prevention of Money Laundering (Maintenance of Records) Amendment Rules, 2023.

- These amendments have widened the ambit of reporting entities under money laundering provisions.
- These changes are in line with the recommendations of the Financial Action Task Force (FATF).

Key Highlights of the Amendment

- **Rules related to Politically Exposed Persons (PEP)**

- The rules related to PEP covers individuals *working for a foreign country, senior politicians, functionaries of political parties, senior bureaucrats, judges, and military personnel.*
 - Earlier, these entities and individuals were not included in the PMLA.
- For these people, banks will need to maintain records on the nature and value of transactions.
- The new rule also lays down the procedure:

○	for how this information will be shared
○	time for which such data will be retained
○	manner in which identity records of such clients will be maintained by banking companies, financial institutions and intermediaries

- **For NGOs**

- The new rules add more data retention requirements:
 - Every banking company or financial institution shall register the details of such a client on the **DARPAN Portal** of Niti Aayog.
 - These records should be maintained for a period of 5 years.

- **For identifying beneficial owners by reporting entities**

- The term beneficial owner was defined to mean ownership of or entitlement to more than **25%** of shares or capital or profit of the company.
- The threshold of **25% is now reduced to 10%**, thereby bringing more indirect participants within the reporting net.

- **Regarding cryptocurrencies**

- The tweaks to the PMLA rules brought transactions involving crypto assets under the ambit of the money laundering watchdog. The ED is the main agency probing allegations under PMLA.
- The notified activities included transactions between *fiat currencies and crypto*, between one crypto and *another*, safekeeping of such assets and participating or offering financial services based on these.
- In other words, this would cover those who carry out transactions as well as those that offer crypto-based financial services, such as some popular Web3 financial services.

Purpose of Bringing These Amendments

- **Bringing uniformity in PEPs**

- The move to define PEPs under PMLA is to bring uniformity with a **2008 circular** of the RBI for KYC norms/anti-money laundering standards for banks and financial institutions.
 - RBI had already defined PEPs in line with **FATF norms**.
- With this amendment, the same definition will be applicable everywhere.

- **Proposed FATF assessment of India**

- The amendments assume significance ahead of the proposed FATF assessment of India, which is expected to be undertaken later this year.
 - These amendments remove ambiguities before the FATF assessment.
 - Previously, in June 2010, the FATF conducted an evaluation for India.

Prevention of Money Laundering Act (PMLA)

- PMLA is a **criminal law** of the Parliament of India **passed in 2002** to prevent money laundering and confiscate property derived from the laundered money.
 - PMLA became law and came into force on **July 1, 2005**.
- The act has undergone various critical changes from time to time in order to give itself more strength and meaning.
 - E.g., the definition of Money Laundering under the act was broadened via amendments done in 2012 and again in 2019.
- The act gives blanket powers to the Enforcement Directorate (ED) for seizing, investing, searching and attaching assets.

Financial Action Task Force (FATF)

- It is an intergovernmental institution established in 1989 in the endeavour of the G7 to create policies to battle money laundering.
 - In 2001, its directive was expanded to include terrorism financing.
- FATF releases grey and black lists, in which few countries are mentioned.
 - A grey list is created to **check its nation's progress** on measures against money laundering and terrorism financing activities.
 - A black list includes **non-cooperative countries** against battling money laundering and terror financing.

6.3 AFSPA Lifted From More Areas In Northeast States

- The Centre has decided to further reduce the jurisdiction of 'disturbed areas' under the **Armed Forces (Special Powers) Act, 1958 (AFSPA)** in Assam, Nagaland and Manipur.
- With the latest decision, starting April 1, the Disturbed Areas notification will be lifted from:
 - 1 more district in Assam; 4 more police stations in Manipur & 3 more police stations in Nagaland.
- On the other hand, 1 police station in Arunachal Pradesh — Chowkham — was declared a Disturbed Area under the Act.

Armed Forces (Special Powers) Act, 1958 [AFSPA]

- The Armed Forces (Special Powers) Act was enacted in 1958 to bring under control what the government of India considered **disturbed areas**.
 - AFSPA was first implemented in the Northeast, and then in Punjab.
- Under its provisions, the armed forces have been empowered to open fire; enter and search without warrant, and arrest any person who has committed a cognisable offence.
- **Prosecution of the officer on duty needs prior permission of the Central Government.**

States Where AFSPA Is In Effect

- **AFSPA can be implemented in an area after it has been declared as disturbed.**
- Before the current (March 2023) notification, States/UT under AFSPA included:
 - Assam, Nagaland, Manipur (excluding seven assembly constituencies of Imphal),
 - Arunachal Pradesh (only the Tirap, Changlang and Longding districts plus a 20-km belt bordering Assam), and Jammu and Kashmir.
 - It was completely **lifted from Meghalaya** in April 2018. It was **repealed in Tripura** in 2015

Disturbed Area

- A disturbed area is one which is declared by notification under **Section 3** of the AFSPA.
 - Section (3) of the AFSPA Act empowers the **governor of the state** or the **Administrator of UT** to issue an official notification on The Gazette of India.

- Following which the centre has the authority to send in armed forces for civilian aid.
- The state or central government considers those areas as disturbed by reason of differences or disputes between members of different religious, racial, language or regional groups or castes or communities.
- Once declared 'disturbed', the region has to maintain status quo for a minimum of **three months**, according to The Disturbed Areas (Special Courts) Act, 1976.
- The state governments can suggest whether the AFSPA is required to be enforced or not.
 - But under Section (3) of the APSPA, their opinion can still be overruled by the governor or the centre.

Controversial Provisions of AFSPA

- **Section 3** – It empowers the Centre to declare any area as Disturb Area without taking consent of the concerned state.
- **Section 4** – Accords certain power to an authorised officer which also include power to open fire at any individual even if it results in death.
 - Under this section, the officer has also been given the power to (a) arrest without a warrant; and (b) seize and search any premise without any warrant.
- **Section 7** – It mandates prior executive permission from central or state authorities for prosecution of a member of the security forces.

6.4 Unlawful Activities Prevention Act (UAPA): SC Changes Stand

Recently, the Supreme Court ruled that **membership** of an unlawful organisation by itself would constitute an offence under the **Unlawful Activities (Prevention) Act, 1967**.

Key Highlights

- **Apex court had overruled its earlier judgment**
 - In 2011, the SC had held that mere membership of a banned organisation will not make a person a criminal unless he resorts to violence or incites people to violence or creates public disorder by violence or incitement to violence.
- **Upheld Section 10(a)(i) of UAPA**
 - The Supreme Court upheld Section 10(a)(i) of UAPA that makes membership of an association, which has been declared to be unlawful, to be an offence.
 - The court said that Section 10(a)(i) is in consonance with 19(1)(a) and 19(2) of the Constitution and accordingly, it is also in consonance with the objectives of the UAPA

Unlawful Activities (Prevention) Act (UAPA)

- Also known as the Anti-terror law, UAPA was enacted in 1967.
- It lays down the definitions and rules for designating an organisation as an "unlawful association" if it is engaged in certain types of activities directed against the integrity and sovereignty of India.
- Under the Act, the central government may designate an organisation as a terrorist organisation if it:
 - commits or participates in acts of terrorism;
 - prepares for terrorism;
 - promotes terrorism;
 - is otherwise involved in terrorism;
- The most recent amendment of the law, the Unlawful Activities (Prevention) Amendment Act, 2019 has made it possible for the Union Government to designate **individuals as terrorists** without following any formal judicial process.
- The law provides the government with wide-ranging powers to arrest, detain and prosecute individuals or groups who are suspected of being involved in terrorism or related activities.

Criticism of UAPA

- **Extremely wide ambit**
 - This makes it possible to use them against not just criminals and terrorists, but even authors, academics,

and human rights activist.

- **Undefined and vague terms**
 - The definition of unlawful activities includes terms which are vague and broad.
 - For instance, questioning the territorial integrity of India and activities to cause **“disaffection against India”** are an unlawful activity.
 - However, it has not defined what constitutes dissatisfaction against India.
- **No definition of membership**
 - There is no definition of membership (when should a person be called a member of banned organisation?) in the UAPA, making it susceptible to misuse.
- **Other controversial provisions**
 - Some of the provisions such as extended detention periods, no anticipatory bail, no bail if case seems prima facie true etc. have been termed as draconian.

6.5 Court Martials In Armed Forces

- An Army court has recommended life imprisonment for a Captain involved in the staged killings of three men at Amshipora in J&K's Shopian district in 2020.
- The sentence will be final after it is confirmed by the Northern Army Commander.

What is Court Martial?

- A court martial is a type of military court that is empowered to try members of the armed forces for offenses committed under military law.
- The purpose of a court martial is to maintain discipline and order within the military by ensuring that members of the armed forces are held accountable for their actions.
- A court martial is typically composed of military officers who serve as both judge and jury.

What Is The Legal Recourse Available To The Accused?

- Under the Army Act, the accused can file a pre-confirmation petition as well as one post-confirmation.
 - A pre-confirmation petition will go to the Army Commander, who may look into its merits.
 - Post-confirmation petition must be filed with the government since the officer is cashiered — his ranks are removed and he is dismissed from service — after confirmation of the sentence by the Army commander.
- After these options have been exhausted, the accused can approach the Armed Forces Tribunal, which can suspend the sentence.
- The President of India, under **Article 72 of the Constitution**, can use his/her powers to pardon, reprieve, respite or remission of punishment or sentence given by a court martial.

6.6 Manipur Govt Ends Its Peace Pact With 2 Insurgent Groups

- The Manipur government withdrew from the **Suspension of Operations (SoO) agreement** with two hill-based tribal insurgent groups.
 - SoO pact was signed in August, 2008, with the primary objective of initiating political dialogue.
 - The important terms under the SoO are that security forces, including state and central forces, are not to launch any operations, nor can the underground groups (UG).
 - On the other hand, signatories groups shall abide by the Constitution of India, the laws of the land and the territorial integrity of Manipur.
 - As a rehabilitation package, the UG cadres living in the designated camps are given a monthly stipend of Rs 5000.
- The state government claimed that a protest rally organised recently, defying Section 144, was influenced by the two groups, Kuki National Army (KNA) and Zomi Revolutionary Army (ZRA).

Insurgency in Manipur

- There is an ongoing armed conflict between India and a number of separatist rebel groups in Manipur.
- This insurgency in Manipur is part of the wider Insurgency in Northeast India which combines elements of a national liberation war as well as an ethnic conflict.

Historical background

- Following the brief **Anglo-Manipur War of 1891**, the Kingdom of Manipur was conquered by Britain.
 - After this war, Manipur kingdom became a British protectorate.
- Manipur became a part of India in October 1949 and became a **separate state in 1972**.

Rise of insurgency in Manipur

- Manipur's incorporation into the Indian state led to the formation of a number of insurgent organisations.
 - These groups demanded the creation of an independent state within the borders of Manipur, and dismissed the merger with India as involuntary.
- The insurgency problem in Manipur came into existence in the late 1960s and 1970s.
 - There was no problem of insurgency when Manipur merged into India.
- The first separatist faction, **United National Liberation Front (UNLF)**, was founded in November 1964.
 - Now, the region is infested with many insurgent groups.

Reasons for insurgency in Manipur

- **Merger with India**
 - **Meiteis** are the majority community of Manipur. Their influence declined after Indian Independence.
 - This led to resentment in a section of Meities about the merger of the State with the Indian Union, which led to the Meitei insurgency from the 1960s.
- **Ethnic conflict**
 - Manipur has a diverse ethnic population with **Meitis controlling the Valley, Nagas on the surrounding hills and Kukis interspersed in between.**
 - This leads to clashes between these communities.
 - Kukis and Nagas of Manipur have overlapping and conflicting territorial interests over almost all the hill districts of Manipur.
 - Similarly, there are competing interests between the Nagas and Meitis.
 - The demand for **Nagalim or Greater Nagaland** includes the Naga inhabited areas of Manipur. On the other hand, the Meitis want to preserve what has been a single geographic entity for centuries.
- **Lack of socio-economic development**
 - Owing to its topographical structure, the state has had problems of economic development and socio-economic transformation for a long period.
 - Over the years, endless corruption, mismanagement of funds and the failure to devolve power to common people have led to the rise of dissatisfaction.

Steps taken to address the issue of insurgency in NE

- The govt has negotiations with the Hill-based groups in the region.
 - NLFT Tripura Agreement, Bru Accord, Naga peace accord etc. are few examples.
 - Govt signed the Bodo agreement in January 2020 and the Karbi Anglong agreement in September 2021.
- The **Ministry of Development of North Eastern Region** has been created to provide an impetus to the socio-economic development of the region.
- Also, the North Eastern Council was created as the nodal agency for the economic and social development of the North Eastern Region.

6.7 Exercise TROPEX

- The Indian Navy's major Operational level exercise TROPEX for the year 2023 was conducted across the expanse of the Indian Ocean.
- The overall exercise construct included **coastal defence exercise Sea Vigil** and the **amphibious exercise AMPHEX**.
- The exercise also saw significant participation from the Indian Army, the Indian Air Force and the Coast Guard.

6.8 First IAF Woman Officer to Head Frontline Unit

- The Indian Air Force selected **Group Captain Shaliza Dhama** to take command of a frontline combat unit in the Western sector.
- Group Captain Dhama will be the first woman officer in the IAF to command a missile squadron in the Western sector facing Pakistan.
- The Indian Army, being the largest of the three services, has the largest number of women officers at 1,705, followed by 1,640 women officers in the Indian Air Force, and 559 in the Indian Navy.

6.9 Naval Commanders' Conference 2023

- Naval Commanders' Conference 2023 was held at sea aboard indigenous aircraft carrier **INS Vikrant**.
- The conference reviewed major operational, material, logistics, human resource development, training and other administrative activities undertaken by the Navy in the last six months.
- The first edition of the conference served as a platform for the officers to discuss important security issues at the military-strategic level and interact with senior government functionaries.

7. Social issues

7.1 e-Pharmacies: On Regulating Online Sale Of Drugs In India

Union Ministry of Health and Family Welfare (MoH&FW) **pulled up at least twenty companies** including Tata-1mg, Flipkart, Apollo, PharmEasy, **for selling medicines online**. This happened after the All-India Organisation of Chemists and Druggists (AIOCD), a powerful lobby of over 12 lakh pharmacists, threatened to launch a country-wide agitation if the government didn't act.

Legislative Framework for e-Pharmacies in India

- As of now, **no exact rules are in place for E-drug stores in India**, and this is a significant inhibitor to the onlinedrug store market in India.
- At present, E-pharmacies in India follow the ***Drugs and Cosmetics Act 1940, the Drugs and Cosmetics Rules 1945, the Pharmacy Act 1948, and the Indian Medical Act 1956***.
- However, the electronic sale of physician-prescribed drugs from online drug store sites is expressed under the IT Act, 2000.
- E-pharmacies are managed by **state drug controllers** and approvals for E-pharmacies should be given by the Drug Controller General of India (DCGI).
- The MoH&FW in **2018** came out with **draft rules** to control the online offer of medications and availability of genuine drugs from certifiable online sites. But, after being sent to a group of ministers, the proposal was immediately put on hold.
- Since then, **multiple court orders** and the 172nd Parliamentary Standing Committee report have called for regulating e-pharmacies.
- **An administrative structure** to oversee/regulate e-pharmacy sector is necessary when antimicrobial resistance (AMR), criminal and risky movement of drugs etc is on the rise.



How Are e-Pharmacies Competing With Chemist Shops

- Flushed with billions of dollars of private equity, e-pharmacies started offering hefty discounts on medicines in a bid to garner more market share.
- Companies like PharmEasy are building a supply chain from the ground up by buying out big and small wholesale drug distributors like Ascent Health, Desai Pharma, etc.
- **But this aggressive growth is coming at a cost.** Since 2015, e-pharmacies have recorded losses year-on-year. For example, Tata-1 Mg posted a loss of ₹146 crore in FY22.

Is Banning e-Pharmacies A Viable Option?

- The demand for online delivery of drugs is burgeoning. The year 2020 marked a watershed moment for the growth of e-pharmacies as it saw nearly 8.8 million households using home delivery services during lockdown.
- There is a possibility that some of these businesses **will go underground if banned. What Lies Ahead – A hybrid Model of e-Pharmacies and Brick and Mortar Stores**
- In a climate where drug delivery is driven by consumer sentiments, it is futile to stick to any one way of doing business.

- For acute care and emergency, patients still rely on their neighbourhood pharmacy stores. This has led e-pharmacy players to now open capital-intensive brick and mortar stores.
- Stiff competition has forced chemist shops to also offer home delivery options over their own store apps/Whatsapp.
- In an ecosystem that is moving towards a **hybrid mode**, all eyes are on the government which will have to effectively regulate the new way of doing e-commerce in the drug space.

7.2 India's Stand On Same-Sex Marriage

Recently, a Bench led by Chief Justice of India D.Y. Chandrachud referred petitions to legally recognise same-sex marriages to a Constitution Bench of five judges of the Supreme Court.

About the case

- The Court has been hearing multiple petitioners' requests for *legal recognition of same-sex marriages under a special law*.
- SC took up the case as petitioners claimed that the *non-recognition of same-sex marriage* amounted to discrimination that strikes at the root of dignity and self-fulfillment of LGBTQIA+ couples.
- The petitioners cited the **Special Marriage Act, 1954** and appealed to the Court to extend the right to the LGBTQIA+ community, by making the *marriage between any two persons gender neutral*.
- **Special Marriage Act, 1954** provides a civil marriage for couples who cannot marry under their personal law.

Why Does the Community Want This Right

- Even if LGBTQIA+ couples may live together, legally, they are on a slippery slope.
 - In *Navtej Singh Johar Case (2018)* homosexuality was **decriminalised**.
- They do not enjoy the rights married couples do.
 - For example, LGBTQIA+ couples cannot adopt children or have a child by surrogacy;
 - They do not have automatic rights to inheritance, maintenance and tax benefits;
 - After a partner passes away, they cannot avail of benefits like pension or compensation.
- Most of all, since marriage is a social institution - that is created by and highly regulated by law - without this social sanction, same-sex couples struggle to make a life together.

Centre's Stand

- The Centre has opposed same-sex marriage.
- It said that the judicial interference will cause complete havoc with the delicate balance of personal laws and in accepted societal values.
- While filing a counter-affidavit during this hearing, the government said that decriminalisation of Section 377 IPC does not give rise to a claim to seek recognition for same-sex marriage.

Arguments Forwarded By the Government

- **Notion of Marriage**
 - The notion of marriage itself necessarily and inevitably presupposes a union between two persons of the opposite sex.
 - This definition is socially, culturally and legally ingrained into the very idea and concept of marriage and ought not to be disturbed or diluted by judicial interpretation.
- **Marriage Laws Governed By The Personal Laws/Codified Laws**
 - Parliament has designed and framed the marriage laws in the country to recognise only the union of a man and a woman to be capable of legal sanction, and thereby claim legal and statutory rights and consequences.

- **Reasonable Restriction**
 - Even if such a right is claimed under Article 21, the right can be curtailed by competent legislature on permissible constitutional grounds including legitimate state interest.

Way Ahead

- The Court is leaning towards granting equal rights, including marriage of same-sex couples, citing the Constitution and changing norms.
- Even if the Court rules in its favour, the march towards equality for the LGBTQIA+ community will be hard.
- Enforcing something like same-sex marriage in a diverse country with well-entrenched traditions will not be easy.
- Rights activists are calling for awareness on sex, gender and constitutional rights from the school level to change things on the ground.

7.3 Recurring Migrant Workers' Issues

Rumours of migrant workers being assaulted in Tamil Nadu have triggered concern among manufacturers in the state. Officials have rejected the reports as fake news, and political leaders and the administration have appealed to workers to not pay heed to the rumours.

Different Problems That Migrant Workers Continue To Face

- **Exploitation:** Often paid less than their local counterparts, poor working conditions and no job security.
- **Lack of Legal Protection:** They are not covered by many labour laws.
- **Poor Living Conditions:** They often live in crowded and unhygienic conditions with inadequate facilities for sanitation, clean water, and healthcare.
- **Discrimination** based on their ethnicity, language, and place of origin, which can lead to social exclusion and marginalization.
- **Lack of Documentation** makes it difficult for them to access government services, open bank accounts.
- **Forced Labour and Debt Bondage**
- **Lack of Social Security** schemes such as pensions, insurance, and healthcare.
- **Lack of Awareness** of their rights and entitlements makes them vulnerable to exploitation and abuse.
- **Inadequate Coordination Among States** on a formal exchange of information on migrant workers.
- **Absence of data**, it is difficult to track labourers during times of crisis.

What Is The Legal Framework For Migrant Welfare?

- The **Inter-State Migrant Workmen Act, 1979** looks into the welfare of the labourers.
 - The Act mandates that the establishment which proposes to employ migrant workers be required to be registered with destination states.
 - Contractors will also have to obtain a **licence** from the concerned authority of the home states as well as the host states.
 - However, in practice, this Act has not been fully implemented.
- This Act has been subsumed into the four broad labour codes notified by the Centre:
 - **The Code on Wages, 2019;**
 - **The Industrial Relations Code, 2020;**
 - **The Code on Social Security, 2020;** and
 - **The Occupational Safety, Health and Working Conditions Code, 2020.**
- These have not been implemented yet.
- Also, the registration under the inter-state migrant workers' act is negligible. This is due to:
 - **Lack of awareness** about the rights and the benefits of registration
 - **Complex registration process**
 - **Lack of enforcement** reduces the incentive for migrant workers to register.
 - **Inadequate infrastructure** to register and monitor the movement of migrant workers.
 - **Fear of losing jobs:** Migrant workers often fear that registering under the Act will lead to loss of employment, as employers may prefer to hire workers who are not registered.

- **Informal nature of work:** Many migrants work in the informal sector, which is not covered by the Act, and hence, they are not required to register.

Are There Any States Which Have Tried To Implement The Inter-State Act?


- In 2012, an MoU was signed between Odisha and Andhra Pradesh to track labourers migrating from 11 districts of Odisha to work in brick kilns in then-merged Andhra Pradesh.
 - It was signed with the help of the International Labour Organisation (ILO).
- Kerala has set up facilitation centers for migrant workers whom the state refers to as “guest workers.”
 - These facilitation centers maintain data regarding migrant workers arriving in Kerala as well as help migrant workers navigate any problems they might face.
 - However, there is no data sharing between Kerala and the migrant workers’ home states.

New Initiative of Jharkhand To Generate Migration Data

- Jharkhand has started the Safe and Responsible Migration Initiative (SRMI) in 2021.
- It aims at enabling systemic registration of migrant workers for monitoring and analysis in the source as well as the destination districts.
- The priority of SRMI is to generate data and then map the labourers who move out to several states for work.

7.4 Review Panel Red-Flags How NAAC Grades Colleges And Universities

Lack of action on the report, which was submitted to the University Grants Commission (UGC), was flagged by NAAC executive committee chairperson in the days before he recently announced his resignation.



National Assessment and Accreditation Council
An Autonomous Institution of the University Grants Commission
राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्
विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

- It is a **government organization** (HQ in Bangalore) in India established in **1994** in response to recommendations of **National Policy in Education (1986)**.
- It is an **autonomous body** that **assesses and accredits** Higher Education Institutions (HEIs) such as colleges, universities/other recognised institutions to derive an understanding of the ‘Quality Status’ of the institution.
- It is **funded by the UGC** and evaluates the institutions in terms of their performance related to the teaching-learning processes, faculty, research, infrastructure, governance, financial wellbeing, student services, etc.

NAAC’s Accreditation Process

- The first step involves an applicant institution submitting a **self-study report (SSR)** based on quantitative and qualitative metrics.
- The **data is subjected to validation** by expert teams of NAAC, with quality reviewed during site visits by peer teams.
- According to the Government of India, of the 1,113 universities and 43,796 colleges in the All-India Survey on Higher Education Report 2020-21, **NAAC accredited 418 universities and 9,062 colleges as on January 31, 2023.**

What Circumstances Led To Resignation Of The Chair Of NAAC Executive Committee

- Based on various complaints, the NAAC executive committee chairperson suggested the **need for an independent inquiry by appropriate high-level national agencies.**
- **The review panel** was set up by NAAC executive committee chairperson to **review the functioning of the NAAC.**
- **A report was submitted** (to the UGC last year) by the panel, with **major findings** -
 - The possibility of a compromised IT system;

- Presence of multiple “**super admins**” who have full access to the NAAC’s internal system and the power to allot experts;
- Non-maintenance of logs which may have adverse fall outs;
- Arbitrary allocation of experts raising questions of conflict of interest;
- **Vested interests, malpractices** are manipulating processes in the accreditation system;
- The **process of selection of experts** who comprise peer teams that are sent to assess applications for accreditation is **neither random nor sequential**;
- **Nearly 70% of experts** from the pool of assessors do not appear to have received any opportunity to conduct site visits while some others have had multiple such visits.
- **Lack of action on the report** was flagged by NAAC executive committee chairperson.

7.5 NCST Upset With Environment Ministry Over Forest Rights

- The National Commission for Scheduled Tribes (NCST) is caught in a row with the Ministry of Environment, Forest and Climate Change over the latest **Forest Conservation Rules (FCR), 2022**.
- The row is over the potential violation of provisions enshrined in the **Scheduled Tribes and Other Forest Dwellers (Recognition of Forest Rights) Act, 2006** dubbed as Forest Rights Act (FRA).

FOREST CONSERVATION RULES

- The Forest Conservation Rules deal with the implementation of the **Forest Conservation Act (FCA), 1980**.
- They prescribe the procedure to be followed for forest land to be diverted for non-forestry uses such as road construction, highway development, railway lines, and mining.
- The **broad objectives of the Forest Conservation Act** are to –
 - Protect forest and wildlife,
 - Put brakes on State governments’ attempts to hive off forest land for commercial projects and
 - Strive to increase the area under forests.
- For forest land beyond five hectares, approval for diverting land must be given by the Central government.
- This is via a specially constituted committee, called the Forest Advisory Committee (FAC).

Role of Forest Advisory Committee (FAC)

- The FAC is a **statutory body** established under the **Forest Conservation Act (FCA), 1980**.
- The FAC considers questions on the diversion of forest land for non-forest uses such as mining, industrial projects, townships and advises the state government on the *issue of granting forest clearances*.
- Once the FAC is convinced and approves (or rejects a proposal), it is forwarded to the concerned State government where the land is located, who then has to ensure that provisions of the **Forest Right Act, 2006**, a separate Act that protects the rights of forest dwellers and tribals over their land, are complied with.
- The FAC approval also means that the future users of the land must **provide compensatory land** for afforestation as well as **pay the net present value** (ranging between Rs 10-15 lakh per hectare.)

Forest Conservation Act, 2022 Rules

- The latest version of the rules, which consolidates changes to the Forest Conservation Act over the years from various amendments and court ruling, was made public in June, 2022.
- The new rules make a provision for private parties to cultivate plantations and sell them as land to companies who need to meet compensatory forestation targets.
 - This, according to the Central government, will help India increase forest cover as well as solve the problems of the States of not finding land within their jurisdiction for compensatory purposes.

- In the earlier rules, there was no such provision.
- Also, in the new rules, there is no mention about what happens to tribals and forest-dwelling communities whose land would be hived off for developmental work.
 - Prior to the updated rules, state bodies would forward documents to the FAC that would also include information on the status of whether the forest rights of locals in the area were settled.
- The opposition parties have alleged that the amended rules would disempower crores of tribals and others living in forest areas.

NCST on FCA Rules 2022

- Within two months of the FCR, 2022 coming into force, the National Commission for Scheduled Tribe (NCST) constituted a “Working Group on the Forest Rights Act 2006.”
- It was constituted to monitor the implementation of the FRA and “make recommendations to the Union government and State governments”.
- The NCST concluded that the **new FCR infringed on the rights of STs and other traditional forest dwellers (OTFDs) by violating the FRA.**
- According to the **FRA 2006**, in case of a dispute over forest land, precedence has to be given to the rights of STs and OTFDs, who live in the forest and its resources, over any other party.
- The NCST argued that the previous versions of the Rules provided a legal space for “ensuring completion of the processes for recognition and vesting of rights under the FRA in areas where forests are being diverted.”

Environment Ministry’s Response

- FCR, 2022 does not violate any provisions granting land rights to STs and OTFDs.
- It said that the FCR has been issued in accordance with the Forest (Conservation) Act, 1980, which will run “parallel” to the provisions of the FRA, 2006.
- It also said that there was “no legal basis” for the NCST’s concerns about the FCR’s impact on the FRA.

7.6 Women, Business And The Law Report 2023

According to **World Bank’s (WB) Women, Business and Law report 2023** - an index on the life cycle of a working woman - India's score dropped to 74.4 out of 100.

EXPANDING THE SCOPE OF THE WOMEN, BUSINESS AND THE LAW INDEX



Source: Women, Business and the Law team.

Women, Business and The Law (WBL) Project

- It is a **World Bank Group project** collecting data on the **laws and regulations** that affect women’s economic opportunity.
- It is committed to **informing research and policy discussions** about the state of women’s economic opportunities and empowerment.
- It demonstrates the progress made while emphasising the work still to be done **to ensure economic empowerment for all.**
- **Since 2009**, the project has aided economies to **achieve gender equality and hence become more**

resilient.

- It covers **190 economies and eight topics** relevant to women's economic participation and the **2023 report** measures the legal differences on access to economic opportunities between men and women.
- **A score of 100** on the Index means that women are on an equal standing with men on all the eight indicators being measured.
- In the 2023 index **only 14** (Belgium, Canada, Denmark, etc) economies scored a perfect 100.

EIGHT WOMEN, BUSINESS AND THE LAW INDICATORS MEASURE LEGAL DIFFERENCES BETWEEN MEN AND WOMEN AT DIFFERENT STAGES OF THEIR WORKING LIFE



Source: Women, Business and the Law team.

India Specific Findings in the WBL Report 2023

- The Index used data on the laws and regulations applicable in **Mumbai**, viewed as the country's main business city.
- The laws affecting the Indian working **woman's pay, pension, work after having children, starting and running a business, property and inheritance**, do not provide for equality with Indian men, dragging India's score down to 74.4.
- **India scored higher than the 63.7** (average for the South Asian region), **though lower than Nepal** which had the region's highest score of 80.6.
- **India gets a perfect score**, when it comes to constraints on freedom of movement, laws affecting women's decisions to work and constraints related to marriage.
- **Reforms needed:** To improve on the Pay indicator, India may wish to consider -
 - Mandating **equal remuneration for work of equal value**,
 - Allowing women to work at night in the same way as men, and
 - Allowing women to work in an industrial job in the same way as men.

7.7 PM-ABHIM

The World Bank (WB) is lending up to **\$1 billion** (divided into two complementary loans of \$500 million under PHSP and EHSDP each) to help India with preparedness for future pandemics as well as to strengthen its health infrastructure.

- Through this combined financing, the bank will support India's flagship Pradhan Mantri-Ayushman Bharat Health Infrastructure Mission (**PM-ABHIM**).

PM-ABHIM

- The PM Atmanirbhar Swasth Bharat Yojana (PMASBY), which has now been renamed as PM-ABHIM, was announced in the **Union Budget 2021-22**.
- The PM-ABHIM scheme was launched in October 2021 by the Union **Ministry of Health and Family Welfare**, and will run in addition to the National Health Mission (NHM).
- It is one of the largest Pan-India health schemes **for strengthening healthcare infrastructure** to accomplish the vision of comprehensive healthcare across the country.

- **Objectives:**
 - To strengthen grass root public health institutions.
 - To expand and build an IT enabled disease surveillance system.
 - To expand research on COVID-19 and other infectious diseases and to develop the core capacity to deliver the **One Health Approach**.
- **Components:** It consists of Centrally Sponsored Scheme Components [like Ayushman Bharat - Health & Wellness Centres (**AB-HWCs**) in rural and urban areas] and some Central Sector Components (like Critical Care Hospital Blocks).

What Is PHSP And EHSDP?

- The \$500-million **Public Health Systems for Pandemic Preparedness Program** (PHSPP) will support the government's efforts to prepare *India's surveillance system* to detect and report epidemics of potential international concern.
- Another \$500 million **Enhanced Health Service Delivery Program** (EHSDP) will support government's efforts to strengthen service delivery through a redesigned primary healthcare model, which includes -
 - Improved household access to primary healthcare facilities,
 - Stronger links between each household and its primary care facility through regular household visits
 - Risk assessment of noncommunicable diseases.
- Both the PHSPP and the EHSDP utilise the Program-for-Results financing instrument that focuses on achievement of results rather than inputs.
- Both the PHSPP and EHSDP loans from the International Bank for Reconstruction and Development (IBRD) of WB have a final maturity of 18.5 years including a grace period of five years.
- PHSPP and EHSDP will leverage the unique strengths of both the Center and the States to support the development of more accessible, high-quality, and affordable health services.

Regarding WB Lending

- **India's performance in health has improved over time.**
 - According to WB, India's life expectancy has increased from 58 in 1990 to 69.8 in 2020.
 - The under-five mortality rate, infant mortality rate and maternal mortality ratio are all close to the average for India's income level.
- Despite these advances in the health of the Indian population, **COVID-19 brought to the fore the urgent need** for pandemic preparedness (a global public good) and health system strengthening around the world.
- The current WB loans will prioritise health service delivery in seven States including Andhra Pradesh, Kerala, Meghalaya, Odisha, Punjab, TN and UP.

Celebrate Learning !



India's only classroom program with complete online backup and support.

Salient Features

- Personal Mentoring 1 to 1
- Small Batch Size
- Special Classes - Thought process and Writing Skills Development
- Structured Class Schedule (time Bound)
- Personality Development and Brain-storming Session
- English Development Classes

Contact: 9910922241 / 9999114095

Center 1: 57/17, 2nd Floor, Old Rajinder Nagar Market, Bada Bazaar Marg, New Delhi - 110060

Center 2: 71, 1st Floor, Near GTB Metro Station Gate No 1, Kingsway Camp, GTB Nagar, New Delhi - 110009

www.iasedge.in