

Current Affairs (Consolidation)

May 2021 (Part – II)

Drishti, 641, First Floor, Dr. Mukherjee Nagar, Delhi-110009 Phone: 87501 87501, WhatsApp: 92058 85200, IVR: 8010-440-440 Email: engweb@groupdrishti.com

Contents

Pc	blity and Governance	1
•	Chief Secretary Transfer Issue	1
•	Mekedatu Project: River Cauvery	2
•	ACCR Portal & Ayush Sanjivani App	4
•	Appointment of CBI Director	6
•	Pradhan Mantri Swasthya Suraksha Yojana	6
•	E-Way Bill Integration with FASTag, RFID	7
•	US Global Entry Programme	8
•	Legislative Council	8
•	India Resists Community Transmission Tag	9
•	Independent Collegium for Election Commission	10
•	Electoral Bonds	12
•	Data Protection in India	12
•	One Stop Centres	14
•	Draft Lakshadweep Development Authority Regulation, 2021	15
•	Registration of Unorganised Workers	16
•	National Pension System and Atal Pension Yojana	17
•	Traceability Provision in New IT Rules 2021	18
•	Defining Hate Speech	20
•	Centre Extends Powers Related to Citizenship Application	20
Fc	onomic Scenario	23
•	RBI's Annual Report 2020-21	
•	New Rules for Increased FDI in Insurance Sector	
•	FDI Inflow Touches \$82 Bn in FY21	
•	Personal Guarantors Liable for Corporate Debt	
•	Proposal for Gold Exchange	
•	SWAMIH Fund	
	National Programme on Advanced Chemistry Cell Battery Storage	
•		25
-	Intrastructure Status for Convention Centres	
•	Infrastructure Status for Convention Centres	30
•	Subsidy on DAPIncreased	30 30
•	Subsidy on DAPIncreased Competition Commission Of India	30 30 31
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal	30 30 31 32
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing	30 30 31 32 33
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing Currency Swap Facility	30 30 31 32 33 34
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing Currency Swap Facility 43 rd GST Council Meeting	30 30 31 32 33 34 35
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing Currency Swap Facility 43 rd GST Council Meeting ternational Relations	 30 31 32 33 34 35 37
•	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing Currency Swap Facility 43 rd GST Council Meeting ternational Relations Non Aligned Movement: Health Ministers' Meet	 30 31 32 33 34 35 37 37
• • • In	Subsidy on DAPIncreased Competition Commission Of India MCA 21 Version 3.0: Digital Corporate Compliance Portal Semiconductor Chips Shortage in Vehicle Manufacturing Currency Swap Facility 43 rd GST Council Meeting ternational Relations	 30 30 31 32 33 34 35 37 38

•	Cultural Exchange Programme between India and Mongolia	
•	Farzad-B Gas Field: Iran	
•	China's New Strategic Highway	
•	India, Oman MoU	
•	Lithuania Quits China's 17+1	
•	Call for Permanent Commission for Israel and Palestinian Areas	
•	EU Imposes Sanctions Against Belarus	
•	EAM's Visit to US	
So	cience and Technology	50
•	Launching Baby Squids and Tardigrades into Space	
•	WHO BioHub Initiative	
•	Kyasanur Forest Disease	
•	White Fungus	53
•	Tianwen-1: China's Mars Mission	
•	Coviself: Self Testing Kit	
•	Havana Syndrome	
•	National Award for Recycling Carbon Technology	
•	Yellow Fungus	
Er	nvironment and Ecology	
•	Jayanti: New Species of Cricket	
•	Blackbuck Population Increased in Odisha	
•	Rights of Van Gujjars	60
•	Death of 186 Elephants in 10 Years	
•	International Day for Biological Diversity	
•	Sunderlal Bahuguna: Chipko Movement	
•	Zebrafish and its Importance in Human Spaceflights	
•	COP 28	
•	Net Zero by 2050: IEA	
•	Whiteflies: Threat to Agriculture	
•	Protected Planet Report 2020	69
•	National Mission on use of Biomass in Coal Based Thermal Power Plants	
•	The Climate Breakthroughs Summit	71
Hi	listory	73
•	Veer Savarkar Jayanti	
G	eography	74
•	Total Lunar Eclipse and Supermoon	
•	A-76: World's Largest Iceberg	
•	Cyclone Tauktae	
•	, Cyclone Yaas	
Sc	ocial Issues	80
•	NGT Upholds Rights of Pastoralists in Banni Grasslands	
•	Immediate Subsistence Assistance to Transgender	

•	Initiative for Digital Transformation of Tribal Schools	
•	Covid leaves Orphaned Children Vulnerable to Trafficking	
•	January 30: World Neglected Tropical Diseases Day	
Aı	rt & Culture	86
•	Six Sites in Tentative List of World Heritage Sites	
•	Vesak Celebration	
•		
Se	ecurity	91
	ecurity OPV Sajag	
•		91
•	OPV Sajag	
• M	OPV Sajag /liscellaneous Sun Halo/Kaleidoscope Effect	
• M	OPV Sajag /liscellaneous Sun Halo/Kaleidoscope Effect International Museums Day	

Polity and Governance

Highlights

- Chief Secretary Transfer Issue
- Mekedatu Project: River Cauvery
- ACCR Portal & Ayush Sanjivani App
- Appointment of CBI Director
- Pradhan Mantri Swasthya Suraksha Yojana
- E-Way Bill Integration with FASTag, RFID
- US Global Entry Programme
- Legislative Council
- India Resists Community Transmission Tag
- Independent Collegium for Election Commission
- **Chief Secretary Transfer Issue**

Why in News

The Central Government may initiate disciplinary action against the West Bengal Chief Secretary after he failed to report to the Department of Personnel and Training (DoPT) in New Delhi as ordered earlier.

- The Appointments Committee of the Cabinet (ACC) has approved the "placement of services" of Chief Secretary, as per provisions Rule 6(1) of the Indian Administrative Service (cadre) Rules, 1954.
 - The ACC is headed by the Prime Minister, and the Home Minister is the other member.

Key Points

- > Chief Secretary of State:
 - Appointment:
 - The Chief Secretary is **'chosen'** by the Chief Minister.
 - As the appointment of Chief Secretary is an executive action of the Chief Minister, it is taken in the name of the Governor of the State.
 - o Position:
 - The post of Chief Secretary is the **senior-most position in the civil services** of the states and union territories of India.

- Electoral Bonds
- Data Protection in India
- One Stop Centres
- Draft Lakshadweep Development Authority Regulation, 2021
- Registration of Unorganised Workers
- National Pension System and Atal Pension Yojana
- Traceability Provision in New IT Rules 2021
- Defining Hate Speech
- Centre Extends Powers Related to Citizenship Application
 - The position is a cadre post for the Indian Administrative Services.
 - The Chief Secretary is the chief advisor to the Chief Minister in all matters of the cabinet.
 - Tenure:
 - The office of Chief Secretary has been excluded from the operation of the tenure system.
 - There is **no fixed tenure** for this post.
 - All India Services (AIS):
 - Pre Independence:
 - The Indian Civil Service (ICS) was the senior most amongst the Services of the Crown in India.
 - Besides the ICS, there was also the Imperial Police.
 - Post Independence:
 - The need of All India Services for maintaining the unity, integrity and stability of the nation was felt after Independence.
 - **Constitutional Provisions**: Accordingly, a provision was made in **Article 312** of the Constitution for **creation of one or more All India Services common** to the Union and State.
 - The Indian Administrative Service and the Indian Police Service are deemed to be constituted by the Parliament in terms of Article 312 of the Constitution.



2 CURRENT AFFAIRS MAY 2021

- After the promulgation of the Constitution, a **new All India Service**, namely, **the Indian Forest Service**, was created in 1966.
- Recruitment and Postings:
 - The members of these services are recruited by the Centre, but their services are placed under various State cadres, and they have the liability to serve both under the State and under the Centre.
 - This aspect of the All India Services strengthens the **unitary character** of the **Indian federation**.
- Controlling Authority:
 - The **Ministry of Personnel**, **Public Grievances and Pensions** is the cadre controlling authority for the IAS.
 - The Union Home Ministry is the cadre controlling authority of IPS officers.
 - The recruitment to all the three services is made by the **Union Public Service Commission (UPSC)**.
 - These officers are recruited and trained by the Central Government, and then allotted to different State cadres.

• IAS Cadre Rules:

- After the All India Services Act, 1951 came into existence, the IAS cadre rules were framed in 1954.
- **Deputation of Cadre Officers:** A cadre officer may, with the concurrence of the State governments concerned and the Central government, be deputed for service under the Central government or another State government.
- Scenario of Disagreement: In case of any disagreement, the matter shall be decided by the Central government.
 - The rule on deputation giving more discretionary powers to the Centre was added in May 1969.

• Extension of Service:

• Rule 16(1) of DCRB (Death-cum-Retirement Benefit) Rules says that "a member of the Service dealing with budget work or working as a full-time member of a Committee which is to be wound up within a short period may be given extension of service for a period not exceeding three months in public interest, with the prior approval of the Central Government".

- For an officer posted as Chief Secretary of a state, this extension can be for six months.
- Precedence in Deputation:
 - **Concurrence Required**: Before any officer of AIS is called for deputation to the Centre, his or her concurrence is required.
 - **Procedure**: The Establishment Officer in DoPT invites nominations from State governments.
 - Once the nomination is received, their eligibility is scrutinised by a panel and then an offer list is prepared, traditionally done with the State government on board.
 - Central Ministries and offices can then choose from the list of officers on offer.
 - Course of Action on Refusal of Order:
 - The All India Services (Discipline and Appeal) Rules, 1969 are not clear on the punishment in such cases.
 - Penalising Authority: Rule 7 says, the authority to institute proceedings and to impose penalty will be the State government while he or she was "serving in connection with the affairs of a State."

Mekedatu Project: River Cauvery

Why in News

Recently, the Karnataka government has decided to challenge before the **National Green Tribunal (NGT)** its decision **to appoint a joint committee**.

- The joint committee is supposed to look into allegations of unauthorised construction activity taking place in Mekedatu, where Karnataka had proposed to construct a dam across the Cauvery.
 - Mekedatu, meaning goat's leap, is a deep gorge situated at the confluence of the rivers Cauvery and its tributary Arkavathi.

Key Points

- > Mekedatu Project:
 - The Rs. 9,000 crore project aims to store and supply water for drinking purposes for the Bengaluru city. Around 400 megawatts (MW) of power is also proposed to be generated through the project.



www.drishtilAS.com



- It was first approved by the Karnataka state government in 2017.
- It received approval from the erstwhile Ministry of Water Resources for the detailed project report and is awaiting approval from the Ministry of Environment, Forest and Climate Change (MOEFCC).
 - The approval from MoEFCC is crucial because 63% of the forest area of the Cauvery Wildlife Sanctuary will be submerged.
- In 2018, Tamil Nadu approached the Supreme Court (SC) against the project even if Karnataka had held that it would not affect the flow of water to Tamil Nadu.
- In June 2020, during the Cauvery Water Management Authority's meeting, Tamil Nadu reiterated its opposition to the project.
- > Reasons for Opposition by Tamil Nadu:
 - Tamil Nadu is **opposed to any project being proposed in the upper riparian** unless it was approved by the SC.
 - Karnataka has **no right to construct any reservoir on an inter-state river without the consent of the lower riparian state** i.e. Tamil Nadu in this case.
 - The project is against the final order of the **Cauvery Water Disputes Tribunal (CWDT)** in which the SC held that no state can claim exclusive ownership or assert rights to deprive other states of the waters of inter-state rivers.
 - The CWDT and the SC have found that the existing storage facilities available in the Cauvery basin were adequate for storing and distributing water

so Karnataka's proposal is ex-facie (on the face of it) untenable and should be **rejected outright.**

 It has also held that the reservoir is not just for drinking water alone, but to increase the extent of irrigation, which is in clear violation of the Cauvery Water Disputes Award.

Cauvery River Dispute

- > River Cauvery (Kaveri):
 - It is known as 'Ponni' in Tamil also known as Ganga of the south, and it is the fourth largest river of southern India.
 - It is a sacred river of southern India. It rises on Brahmagiri Hill of the Western Ghats in southwestern Karnataka state, flows in a southeasterly direction through the states of Karnataka and Tamil Nadu, and descends the Eastern Ghats in a series of great falls and drains into Bay of Bengal through Pondicherry.
 - Some of its tributaries are Arkavathi, Hemavathi, Lakshmana Theertha, Shimsa, Kabini and Harangi.



- > The Dispute:
 - Historical Background:
 - As the river originates in Karnataka, flows through Tamil Nadu with major tributaries coming from Kerala and drains into Bay of Bengal through Pondicherry the dispute therefore involves 3 states and one Union Territory.
 - The genesis of the dispute is 150 years old and dates back to the two agreements of arbitration in 1892 and 1924 between the then Madras presidency and Mysore.
 - It entailed the principle that the upper riparian state must obtain consent of lower riparian



4 CURRENT AFFAIRS MAY 2021

state for any construction activity viz. reservoir on the river Cauvery.

• Recent Developments:

- From **1974**, Karnataka started diverting water into its four newly made reservoirs, without the consent of Tamil Nadu resulting in a dispute.
- To resolve the matter, the **CWDT was established** in **1990** which took 17 years to arrive at the **final** order (2007) on how Cauvery water should be shared between the 4 riparian states in normal rainfall conditions.
- In distress years, a pro-rata basis shall be used, it instructed. The government again took 6 year and **notified the order in 2013.**
- This was challenged in SC which directed Karnataka to release 12000 cusecs of water to Tamil Nadu prompting protests in the State.
- The final verdict of the SC came in 2018 where it declared the **Cauvery a national asset** and largely **upheld the water-sharing arrangements finalised by the CWDT** and also reduced the allocation of water from Karnataka to Tamil Nadu.
 - As per the SC, Karnataka would get 284.75 thousand million cubic feet (tmcft), Tamil Nadu 404.25 tmcft, Kerala 30 tmcft and Puducherry 7 tmcft.
 - It also directed the Centre to notify the Cauvery Management Scheme. The central government notified the 'Cauvery Water Management Scheme' in June 2018, constituting the 'Cauvery Water Management Authority' and the 'Cauvery Water Regulation Committee'.

ACCR Portal & Ayush Sanjivani App

Why in News

Recently, the Ministry of Ayush launched its Ayush Clinical Case Repository (ACCR) portal and the third version of Ayush Sanjivani App in a virtual event.

Key Points

Note:

- > Ayush Clinical Case Repository Portal:
 - o About:

- It is conceptualized and developed by the Ministry of Ayush as a platform to support both Ayush practitioners and the public.
- It welcomes Ayush practitioners from all over the world to enrol and share information about successfully treated cases for the benefit of all.
- Cases whose details are posted here will be screened by experts, and will be uploaded for all to read/ view subject to their review.
- o Aim:
 - To portray the strengths of Ayush systems for treatment of various disease conditions.
- > AYUSH Sanjivani App Third Version:
 - o About:
 - It is developed by the Ministry of Ayush and the Ministry of Electronics and Information Technology (MeitY).
 - First version was **launched in May 2020**.
 - It targets to reach out to **50 lakh people in the country.**
 - The app intends to generate data on usage of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy) advocacies and measures among the population and its impact in prevention of Covid-19.
 - o Aim:
 - To understand the measures adopted by the public for enhancing immunity and keeping themselves healthy in difficult Covid-19 situations.
 - Data analyzed will be helpful for the further development of Ayush Systems.
 - o Benefits:
 - It will facilitate a significant study and documentation regarding the efficacy of selected Ayush interventions, including Ayush 64 and Kabasura Kudineer medicines in the management of asymptomatic and mild to moderate Covid-19 patients.
 - Ayush 64 is a poly-herbal formulation developed by the Central Council for Research in Ayurvedic Sciences (CCRAS). It is useful in the treatment of asymptomatic, mild and moderate Covid-19 infection as an adjunct to standard care.
 - Initially the drug was developed for Malaria in the year 1980 and now is repurposed for Covid-19.



www.drishtilAS.com

- Kabasura Kudineer is a traditional formulation used by Siddha practitioners for effectively managing common respiratory health.
- Related Initiatives:
 - National Ayush Mission Government of India is implementing the Centrally Sponsored Scheme of National Ayush Mission (NAM) through States/ UTs for development and promotion of AYUSH system of medicine.
 - AYUSH Health and Wellness Centres.
 - Recently, government notification listed out specific surgical procedures that a postgraduate medical student of Ayurveda must be practically trained to acquaint with, as well as to independently perform.

AYUSH Systems

- > Ayurveda:
 - The word 'Ayurveda' has derived from the fusion of two separate words- 'Áyu' i.e. life and 'veda' i.e. knowledge. Thus in literal meaning Ayurveda is the science of life.
 - It aims to keep structural and functional entities in a state of equilibrium, which signifies good health (Swasthya) through various procedures, regimen, diet, medicines and behavior change.
- > Yoga:
 - Yoga is an ancient **physical**, **mental and spiritual practice** that originated in India.
 - The word **'yoga' is derived from Sanskrit and means to join or to unite,** symbolizing the union of body and consciousness.
 - Today it is practiced in various forms around the world and continues to grow in popularity (International Day of Yoga - 21st June).

> Naturopathy:

- Naturopathic medicine is a system that uses natural remedies to help the body heal itself. It embraces many therapies, including herbs, massage, acupuncture, exercise, and nutritional counseling.
- Some of its treatments are centuries old but today, it combines traditional treatments with some aspects of modern science.
- > Unani:
 - The Unani system **originated in Greece** and its foundation was laid by Hippocrates.

- However, the system owes its present form to the Arabs who not only saved much of the Greek literature by rendering it into Arabic but also enriched the medicine of their day with their own contributions.
- It was **introduced in India by the Arabs and Persians** sometime around the eleventh century.
- India has the largest number of Unani educational, research and health care institutions.
- Siddha:
 - Siddha system of medicine is practiced in some parts of South India especially in the state of Tamil Nadu.
 - The term **'Siddha' has come from 'Siddhi'- which means achievement.** Siddhars were the men who achieved supreme knowledge in the field of medicine, yoga or tapa (meditation).
- Sowa-Rigpa:
 - "Sowa-Rigpa" commonly known as Tibetan system of medicine is one of the oldest, living and well documented medical traditions of the world.
 - It originated from Tibet and popularly practiced in India, Nepal, Bhutan, Mongolia and Russia. The majority of theory and practice of Sowa-Rigpa is similar to "Ayurveda".
 - Sowa-Rigpa is based on the principle that bodies of all the living beings and non living objects of the universe are composed of five Cosmo physical elements of Jung-wa-nga (Prithvi, Jal, Agni, Vayu and Akash).
 - When the proportion of these elements is imbalanced in our body, disorder results.
- Homoeopathy:
 - The word 'Homoeopathy' is derived from two Greek words, Homois meaning similar and pathos meaning suffering. It was introduced in India in the 18th Century.
 - Homoeopathy simply means treating diseases with remedies, prescribed in minute doses, which are capable of producing symptoms similar to the disease when taken by healthy people, i.e.principle of - "Similia Similibus Curantur" which means "likes are cured by likes".
 - It takes a holistic approach towards the sick individual through promotion of inner balance at mental, emotional, spiritual and physical levels.



Appointment of CBI Director

Why in News

Recently, the Central Government has appointed 'Subodh Kumar Jaiswal' as a new Director of the Central Bureau of Investigation (CBI).

The Director of the CBI is appointed as per section 4A of the Delhi Special Police Establishment Act of 1946.

Key Points

- > About the Central Bureau of Investigation (CBI):
 - The CBI was **set up in 1963** by a resolution of the Ministry of Home Affairs.
 - Now, the CBI comes under the administrative control of the Department of Personnel and Training (DoPT) of the Ministry of Personnel, Public Grievances and Pensions.
 - The establishment of the CBI was **recommended** by the **Santhanam Committee** on Prevention of Corruption (1962–1964).
 - The CBI is not a statutory body. It derives its powers from the Delhi Special Police Establishment Act, 1946.
 - The CBI is the main investigating agency of the Central Government.
 - It also provides assistance to the **Central Vigilance Commission** and **Lokpal**.
 - It is also the nodal police agency in India which coordinates investigations on behalf of Interpol Member countries.
 - The CBI is headed by a Director.
 - The CBI has jurisdiction to investigate offences pertaining to 69 Central laws, 18 State Acts and 231 offences in the IPC.
- > Appointment of CBI Director:
 - The Director of CBI as Inspector General of Police, Delhi Special Police Establishment, is responsible for the administration of the organisation.
 - The Lokpal and Lokayuktas Act (2013) amended the Delhi Special Police Establishment Act (1946) and made the following changes with respect to appointment of the Director of CBI:
 - Appointment Committee: The Central Government shall appoint the Director of CBI on the recommendation of a three-member

committee consisting of the Prime Minister as Chairperson, the Leader of Opposition in the Lok Sabha and the Chief Justice of India or Judge of the Supreme Court (SC) nominated by him.

- The Delhi Special Police Establishment (Amendment) Act, 2014 made a change in the composition of the committee related to the appointment of the Director of CBI.
 - It states that where there is no recognized leader of opposition in the Lok Sabha, then the leader of the single largest opposition party in the Lok Sabha would be a member of that committee.
- **Tenure of Director**: The Director of CBI has been provided **security of two-year tenure** in office by the CVC Act, 2003.
- > SC Rulings Related to CBI Director:
 - The **six-month minimum residual tenure** rule was introduced by the Supreme Court in a **March 2019 order.**
 - No officer with less than six months' tenure remaining can be considered for the post of chief.
 - Though the order in the Prakash Singh case pertained to the appointment of DGPs, it was extended to CBI Director too.
 - In the *Prakash Singh case*, 2006 the SC had stressed the point that appointment of DGPs "should be purely on the basis of merit and to insulate the office from all kinds of influences and pressures".
 - The Director of CBI is to hold the post for not less than two years as held by the Vineet Narain judgment of 1998.
 - He/she may not be transferred except with the previous consent of the high-level committee.
 - The SC in Union of India versus C. Dinakar, 2001 case has held that "ordinarily IPS officers of the senior most four batches in service on the date of retirement of CBI Director, irrespective of their empanelment, shall be eligible for consideration for appointment to the post of CBI Director".

Pradhan Mantri Swasthya Suraksha Yojana

Why in News

Setting up of 22 new regional AIIMS (All India Institute of Medical Sciences) has been approved



under the **Pradhan Mantri Swasthya Suraksha Yojana** (PMSSY) so far.

Key Points

- > About:
 - o Launch:
 - **PMSSY** was announced **in 2003** with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.
 - Nodal Ministry:
 - Ministry of Health and Family Welfare.
 - Two Components:
 - Setting up of AIIMS like institutions.
 - Upgradation of government medical colleges in various states.
 - The project cost for upgradation of each medical college institution is shared by the Centre and the state.
- > Other Initiatives Related to Healthcare Sector:
 - Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN)
 - A single non-lapsable reserve fund for Health from the proceeds of Health and Education Cess.
 - PM Atmanirbhar Swasth Bharat Scheme:
 - Announced in the Union Budget 2021-22.
 - Aims to develop capacities of primary, secondary, and tertiary care health systems even in the last miles of the nation, and developing a modern ecosystem for research, testing and treatment in the country itself.
 - National Digital Health Mission (NDHM):
 - The NDHM is a complete digital health ecosystem with four key features — health ID, personal health records, Digi Doctor and health facility registry.
 - Ayushman Bharat (a two-pronged approach):
 - Creation of **health and wellness centres** to bring health care closer to homes.
 - The formulation of a **Pradhan Mantri Jan Arogya Yojana (PMJAY)** to protect poor and vulnerable families against financial risk arising out of catastrophic health episodes.
 - National Health Policy (NHP) 2017:

- Aims to provide healthcare in an "assured manner" to all, the NHP 2017 strives to address current and emerging challenges arising from the ever-changing socio-economic, technological and epidemiological scenarios.
- Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)
 - PMBJP stores have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.
- National Health Mission:
 - NHM was launched by the government of India in 2013 subsuming the National Rural Health Mission and the National Urban Health Mission.
 - The main programmatic components include Health System Strengthening in rural and urban areas for - **Reproductive-Maternal- Neonatal-Child and Adolescent Health (RMNCH+A)**, and **Communicable and Non-Communicable Diseases.**

E-Way Bill Integration with FASTag, RFID

Why in News

The Union Government has integrated the E-Way Bill (EWB) system with FasTag and RFID.

Key Points

- > Electronic Way (E-Way) Bill:
 - **E-Way Bill** is usually a unique bill number generated for the specific consignment involving the movement of goods.
 - Under the Goods and Services Tax (GST) regime, EWBs are mandatory for inter-state transportation of goods valued over Rs. 50,000 from April 2018, with the exemption to precious items such as gold.
 - It is a mechanism to ensure that goods being transported comply with the GST Law and is a tool to track movement of goods and check tax evasion.
- > FASTag:
 - The **FASTag** is a reloadable tag that **allows automatic deduction of toll** without having to stop for carrying out the cash transaction.



- The tag uses Radio Frequency Identification (RFID) technology and is fixed on the windscreen of the vehicle once active.
 - RFID is the use of radio waves to read and capture information stored on a tag attached to an object.
 - A tag can be read from up to several feet away and does not need to be within the direct line-of-sight of the reader to be tracked.
- From 15th February, 2021, **FASTag has become compulsory for all vehicles** across the country.
- It is operated by National Highway Authority of India (NHAI).
- > Significance of Integration:
 - Large Movement of Goods Vehicles: On an average, 25 lakh goods vehicle movements from more than 800 tolls are reported on a daily basis to the E-Way Bill system.
 - Live Vigilance: The integration of EWB, RFID and FASTag will enable tax officers to undertake live vigilance in respect of EWB compliances by businesses.
 - Taxmen can now access reports on vehicles that have passed the selected tolls without e-way bills in the past few minutes.
 - Stop Revenue Leakage : It will aid in preventing revenue leakage by real-time identification of cases of recycling and/or non-generation of EWBs.

US Global Entry Programme

Why in News

Indian security agencies in the past two years checked the antecedents of more than 9,000 Indians who wanted to enrol for the US' Global Entry Program.

The Crime and Criminal Tracking Network and Systems (CCTNS) is being used for antecedent verification.

Key Points

- > About:
 - Global Entry is a US Customs and Border Protection (CBP) program that allows speedy clearance for low-risk travellers upon their arrival in the US.
 - Though the pilot project started in 2008, India became a member of Global Entry in 2017.

- The travellers are pre-approved for the programme after a rigorous background check.
- After receiving a request, the US authorities send them to the Ministry of External Affairs (MEA). The MEA forwards it to the Ministry of Home Affairs, which taps other ministries, State police and other databases to run a background check.
- The CBP does not process the application if a person has been "convicted of any criminal offence or have pending criminal charges, including outstanding warrants, have been found in violation of any customs, immigration or agriculture regulations or laws in any country."
- Crime and Criminal Tracking Network and Systems (CCTNS):
 - About:
 - CCTNS is a centrally funded scheme, developed by the National Crime Records Bureau (NCRB).
 - It is a Mission Mode Project under the National e-Governance Plan (NeGP) of the Ministry of Home Affairs.
 - It was approved in 2009.
 - It is a secure application that **links over 97% of police stations** in the country.
 - Objectives:
 - Make the Police functioning citizen friendly and more transparent by automating the functioning of Police Stations.
 - Improve delivery of citizen-centric services through effective usage of ICT.
 - Provide the Investigating Officers of the Civil Police with tools, technology and information to facilitate investigation of crime and detection of criminals.

Legislative Council

Why in News

Recently, the **West Bengal** government has decided to set up a **Legislative Council (Vidhan Parishad)**.

For setting up the Council, a Bill has to be introduced in the Assembly and then a nod from the Governor is required. The Legislative Council in the State was abolished in 1969.



CURRENT AFFAIRS MAY 2021 9

Key Points

- > Basis of Formation:
 - o India has a **bicameral system** of legislature.
 - Just as Parliament has two Houses, the states can also have a Legislative Council in addition to the Legislative Assembly through Article 169 of the Constitution.
- Six States having a Legislative Council: Andhra Pradesh, Telangana, Uttar Pradesh, Bihar, Maharashtra, Karnataka.
 - In 2020, Andhra Pradesh Legislative Assembly passed the resolution for abolition of the Legislative Council. This resolution is yet to be cleared by the Parliament of India to finally abolish the council.
 - In 2019, the Jammu & Kashmir Legislative Council was abolished through the J&K Reorganisation Bill, 2019, which reduced the State of J&K to the Union Territories of J&K and Ladakh.
- > Article 169 (Creation and Abolition):
 - The **Parliament** can **abolish** a Legislative Council (where it already exists) **or create** it (where it does not exist) **by a simple majority**, that is, a majority of the members of each House present and voting, **if the legislative assembly of the concerned state**, **by a special majority**, **passes a resolution** to that effect.
 - o Special majority implies
 - A majority of the total membership of the assembly and
 - A majority of not less than two-thirds of the members of the assembly present and voting.
- Composition:
 - Under Article 171 of the Constitution, the Legislative Council of a state shall not have more than onethird of the total strength of the State Assembly, and not less than 40 members.
 - Like the Rajya Sabha, the legislative council is a continuing chamber, that is, it is a permanent body and is not subject to dissolution. The tenure of a Member of the Legislative Council (MLC) is six years, with one-third of the members retiring every two years.

Manner of Election:

 One-third of the MLCs are elected by the state's MLAs,

- Another 1/3rd by a special electorate comprising sitting members of local governments such as municipalities and district boards,
- 1/12th by an electorate of teachers and another 1/12th by registered graduates.
- The remaining members are appointed by the Governor for distinguished services in various fields namely, literature, science, art, cooperative movement and social service.
- LC vis-à-vis Rajya Sabha:
 - The **legislative power of the Councils are limited.** Unlike Rajya Sabha which has substantial powers to shape non-financial legislation, Legislative Councils lack a constitutional mandate to do so.
 - Assemblies can override suggestions/amendments made to legislation by the Council.
 - Again, unlike Rajya Sabha MPs, MLCs cannot vote in elections for the President and Vice President. The Vice President is the Rajya Sabha Chairperson while a member from the Council itself is chosen as the Council Chairperson.

Role of Legislative Council:

- It can ensure individuals who might not be cut out for the elections are able to contribute to the legislative process (like artists, scientists, etc).
- It can keep an eye on hasty decisions taken by the Legislative Assembly.
- Arguments Against Legislative Council:
 - It can delay legislation, also it is considered a burden on the state budget.
 - It can also be used to park leaders who have not been able to win an election.

India Resists Community Transmission Tag

Why in News

As per a latest report by the **World Health Organisation** (WHO), India continues to label itself as a country with no Community Transmission (CT) since the beginning of the Covid-19 pandemic.

Countries such as the United States, Brazil, United Kingdom, France have all labelled themselves as being in the 'community transmission' stage whereas Italy and Russia do not label themselves as being in 'community transmission'.



Key Points

- > Community Transmission (CT):
 - o It is one of the stages of the Pandemic.
 - Broadly, CT is when new cases in the last 14 days can't be traced to those who have an international travel history, when cases can't be linked to specific clusters.
 - CT classification is now **divided into four levels**, from low incidence (CT1) to very high incidence (CT4).

Four Stages of a Pandemic

- > Stage 1-Imported Transmission:
 - It is reported among the travellers entering the country via the borders and airports. This can be controlled through thermal screening and quarantine.
- > Stage 2-Local Transmission:
 - It is defined as the transmission through direct contact with an infected person within the country.

> Stage 3-Community Transmission:

 It signifies that a virus is circulating in the community and can affect people with no history of travel to affected areas or of contact with an infected person.

Stage 4- Epidemic:

 Stage 4 is when the disease actually becomes an epidemic in a country, such as it (Covid-19) was in China, with large numbers of infections and a growing number of deaths with no end in sight. It is then considered to be endemic or now prevalent in the region.

> India's Current Classification:

- India opts for the lower, less serious classification called 'cluster of cases'.
- It says 'Cases detected in the past 14 days are predominantly limited to well-defined clusters that are not directly linked to imported cases'.
- It is assumed that there are a number of unidentified cases in the area. This **implies a low risk of infection** to others in the wider community if exposure to these clusters is avoided.
- Implications for India for not classifying itself as being in CT:
 - India's refusal to describe itself as being in community transmission shows an "ostrich in

the sand" approach since being in CT — far from being stigmatic or an indicator of failure **shows how authorities addressed a pandemic.**

- If cases were still a cluster, it would mean that the government ought to be prioritising testing, contact tracing and isolating to prevent further infection spread. While on the other hand being in CT, it meant prioritising treatment and observing advisories to stay protected.
- Community transmission means that the health system has now lost track of the trajectory of the virus and infections are happening without the source of the infection being known.
 - Once the government accepts community transmission, pandemic control strategy will move on to the next phase, which is the mitigation phase, when the focus will be to ensure that only those people get to the hospital who really need medical care. This would ensure lives are saved. Keeping track of infections or containing them would then no longer be the primary strategy.

Independent Collegium for Election Commission

Why in News

Recently, a petition was filed in the **Supreme Court** (SC) seeking the constitution of an independent collegium to appoint members of the Election Commission.

Key Points

- > Present System of Appointment:
 - There is **no prescribed procedure for appointment** of the **CEC** and **EC** as per the Constitution.
 - Under the Transaction of Business rules 1961, the President shall appoint the CEC and EC based on the recommendations made by the Prime Minister.
 - Therefore, it is the executive power of the President to appoint CEC and ECs.
 - However, according to Article 324(5), the Parliament has the power to regulate the terms of conditions of service and tenure of ECs.
 - Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991 was passed to determine the



conditions of service of the CEC and other ECs and to provide for the procedure for transaction of business by the ECI.

Election Commission of India

- > About:
 - It is an autonomous constitutional authority responsible for administering Union and State election processes in India.
 - The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies, and the offices of the President and Vice President in the country.
 - Article 324 of the Constitution: It provides for appointment of a Election commission to superintend, direct and control the elections.

> Structure:

- Originally the commission had only one election commissioner but after the Election Commissioner Amendment Act 1989, it has been made a multimember body.
- The commission presently consists of one Chief Election Commissioner (CEC) and two Election Commissioners (ECs).
- The secretariat of the **commission is located in New Delhi.**
- It is under Article 324(5) that the Parliament has made laws till date, and not under Article 324(2) in which the Parliament can establish a selection committee for regulating the appointments made by the President.
 - Article 324(2) states that the President shall, with aid and advice of the Council of Ministers, appoint CEC and ECs, till Parliament enacts a law fixing the criteria for selection, conditions of service and tenure.
- > Need for an Independent Collegium:
 - Recommendation of Committees:
 - The recommendation to have a neutral collegium to fill up vacancies in the Election Commission have been given by **several expert committees, commissions from 1975.**
 - The recommendation was also part of the Law Commission's 255th report in March 2015.
 - In 2009, the Second Administrative Reforms Commission in its fourth report suggested a collegium system for CEC and ECs.

- In **1990**, the **Dinesh Goswami Committee** recommended effective consultation with neutral authorities like the Chief Justice of India and the Leader of the Opposition for the appointment in the Election Commission.
- In **1975**, **the Justice Tarkunde Committee** recommended that the members of the Election Commission should be appointed by the President on the advice of a Committee consisting of the Prime Minister, the Leader of the Opposition in the Lok Sabha and the Chief Justice of India.

• Insulation from Political and Executive Interference:

• The appointment of members of the Election Commission on the whims and fancies of the Executive violates the very foundation on which it was created, thus, making the Commission a branch of the Executive.

O Unfair Election Process:

- The Election Commission is not only responsible for conducting free and fair elections, but it also renders a quasi judicial function between the various political parties including the ruling government and other parties.
- In such circumstances, the Executive cannot be the sole participant in the appointment of members of the Election Commission as it gives unfettered discretion to the ruling party to choose someone whose loyalty to it is ensured and thereby renders the selection process vulnerable to manipulation.

> Challenges:

- Similar Demand for Others:
 - For other constitutional positions, similar demands can be raised where it is the imperative of the executive to make such appointments like for Attorney General or Comptroller & Auditor-General.
 - For the appointment of **Central Bureau of Investigation (CBI) director** and the **Central Vigilance Commissioner**, committees are constituted. But these are statutory positions. As of now, there is no committee for constitutional appointments.
- Distinction between CEC & EC:
 - There is a difference between the position of a CEC & EC. The **appointments to both the positions may differ** according to the task they perform.



- Therefore, to differentiate the process of appointment which is still done on an ad-hoc basis (because of absence of any constitutional law) becomes a challenging task that needs to be addressed properly to ensure the independent working of the commission.
- o Judicial Overreach:
 - The SC interprets any law on the basis of provisions of the constitution, and constitutionally the decision for appointment procedure of EC comes under executive domain.
 - Thereby, decisions by the SC in this regard can possibly shake the harmonious balance of power.

Electoral Bonds

Why in News

The Electoral Bonds worth Rs. 695.34 crore were sold during elections to the Assemblies of Tamil Nadu, Puducherry, West Bengal, Assam and Kerala.

The amount sold was the highest-ever for any Assembly elections since the scheme started in 2018.

Key Points

- Electoral Bond is a financial instrument for making donations to political parties.
- The bonds are issued in multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any maximum limit.
- State Bank of India is authorised to issue and encash these bonds, which are valid for fifteen days from the date of issuance.
- > These bonds are **redeemable** in the designated account of a **registered political party**.
 - Political parties registered under Section 29A of the Representation of the People Act, 1951, which have secured not less than 1% of the votes in the last general election to an Assembly or Parliament, are eligible to open current accounts for redemption of electoral bonds.
- The bonds are available for purchase by any person (who is a citizen of India or incorporated or established in India) for a period of ten days each in the months of January, April, July and October as may be specified by the Central Government.

- A person being an individual can buy bonds, either singly or jointly with other individuals.
- $\sigma\;$ Donor's name is not mentioned on the bond.
- There are two key problems with it one, lack of transparency as the public do not know who is giving what to whom and what they are getting in return; two, that only the government, through ministries, has access to this information.
- However, the Election Commission of India has said that the scheme is one step forward compared to the old system of cash funding, which was unaccountable.
- Also, recently, the Central Information Commission (CIC), the lead body for implementing the Right to Information Act 2005, has ruled that the disclosure of identity of electoral bond scheme donors will not serve any larger public interest and will violate provisions of the Act itself.

Data Protection in India

Why in News

Recently, the **Ministry of Electronics and IT (MeitY)** has sent **a notice to WhatsApp** asking it to withdraw a controversial update to its privacy policy which might be a **threat to Data Protection of Indians.**

Key Points

- About the Issue:
 - According to WhatsApp's updated privacy policy, users would no longer be able to stop the app from sharing data (such as location and number) with its parent Facebook unless they delete their accounts altogether.
 - Its privacy updates are designed to make the business interactions that take place on its platform easier while also personalising ads on Facebook. That is how it will have to make its money.
 - According to the Government, the messaging app discriminates against Indian users vis-à-vis users in Europe on the matter of a choice to opt-out of the new privacy policy.
 - WhatsApp users in Europe can opt-out of the new privacy policy owing to the laws in the European Union (EU) called the General Data Protection Regulation (GDPR), which shield



How It Goes JANUARY WhatsApp introduces new privacy policy that allows user data sharing Defers implementation of policy from Feb to May after user outrage, migration to apps like	JAN 19 Ministry of IT asks co to immediately 'withdraw' proposed	MARCH CCI orders probe into privacy policy for breaching antitrust laws	APRIL WhatsApp contests CCI probe in HC, court quashes it pending	MAY Govt tells HC WhatsApp's policy does not conform to India's IT rules; court seeks co response	MAY 18 MeitY writes again to WhatsApp to withdraw Egglate; gives
Signal and Telegram	changes		final probe	response	7 days' notice

them from sharing data from Facebook or grant them the power to say no to WhatsApp's new terms of service.

- > Data Protection (Meaning):
 - Data protection is the process of safeguarding important information from corruption, compromise or loss.
 - **Data** is the large collection of information that is stored in a computer or on a network.
 - The importance of data protection increases as the amount of data created and stored continues to grow at unprecedented rates.
- > Need:
 - According to the Internet and Mobile Association of India (IAMAI)'s Digital in India report 2019, there are about 504 million active web users and India's online market is second only to China.
 - Large collection of information about individuals and their online habits has become an important source of profits. It is also a potential avenue for invasion of privacy because it can reveal extremely personal aspects.
 - Companies, governments, and political parties find it **valuable** because they can use it to find the most convincing ways to advertise to you online.
- > Laws for Data Protection across the Globe:
 - European Union: The primary aim of the General Data Protection Regulation (GDPR) is to give individuals control over their personal data.
 - US: It has sectoral laws to deal with matters of digital privacy such as the US Privacy Act, 1974, Gramm-Leach-Bliley Act etc.
- > Initiatives in India:
 - Information Technology Act, 2000:

- It provides for safeguard against certain breaches in relation to data from computer systems. It contains provisions to prevent the unauthorized use of computers, computer systems and data stored therein.
- Personal Data Protection Bill 2019:
 - The Supreme Court maintained the right to privacy as a fundamental right in the landmark decision of *K.S. Puttaswamy v. Union of India* 2017 after which the Union government had appointed Justice B.N. Srikrishna Committee for proposing skeletal legislation in the discipline of data protection.
 - The Committee came up with its report and draft legislation in the form of the **Personal Data Protection Bill, 2018.**
 - In 2019, Parliament again revised the Bill and much deviation from the 2018 Bill was evident. The new Bill was named as **Personal Data Protection Bill, 2019.**
 - The purpose of this Bill is to provide for protection of privacy of individuals relating to their Personal Data and to establish a Data Protection Authority of India for the said purposes and the matters concerning the personal data of an individual.
- Concerns Related to Personal Data Protection Bill 2019:
 - It is like a two-sided sword. While it protects the personal data of Indians by empowering them with data principal rights, on the other hand, it gives the central government with exemptions which are against the principles of processing personal data.
 - The government can process even sensitive personal data when needed, without explicit permission from the data principals.



One Stop Centres

Why in News

The **Ministry of Women and Child Development** will set up **One Stop Centres (OSCs) across 10 countries** to provide assistance to Indian women who are survivors of gender-based violence.

- The missions where the OSCs will come up are Bahrain, Kuwait, Qatar, Oman, UAE, Jeddah and Riyadh in Saudi Arabia, Australia, Canada and Singapore.
- It will also set up 300 OSCs in the country in addition to the nearly 700 existing ones across all districts.

Key Points

- > About:
 - It is a **centrally sponsored scheme** for addressing the **problem of violence against women.** It was **launched in April 2015.**
 - It is a subscheme of the umbrella scheme for National Mission for Empowerment of Women including Indira Gandhi Mattritav Sahyaog Yojana.
 - One stop centre will be established across the country and at least one OSC in every mission around the world to provide integrated support and assistance under one roof to women affected by violence.
 - Indian missions represent an important form of contact between the Indians around the world and the government of India.

> Objectives:

- To support women affected by the violence that they may face within the family or at the workplace or within the community, in private or public places.
 - Specially for women who face **sexual, physical, psychological, emotional and economic abuse,** irrespective of their caste, creed, race, class, education status, age, culture, or marital status.
- Funding:
 - It is funded through Nirbhaya Fund and the central government provides 100% financial assistance to the state governments/Union Territories administrations.

Nirbhaya Fund

- The Nirbhaya Fund Framework provides for a non-lapsable corpus fund for safety and security of women.
 - o It was established in 2013.
- It is administered by the Department of Economic Affairs (DEA) of the Ministry of Finance (MoF).
- It can be utilized for projects and initiatives related to women safety.
- > Auditing:
 - Audit will be done as per Comptroller & Auditor General of India norms and social audit will also be undertaken by civil society groups.
- > Services:
 - Emergency response and rescue services.
 - Medical assistance.
 - Assistance to women in lodging the FIR.
 - Psycho-social support and counselling.
 - Legal aid and counselling.
 - o Shelter.
 - Video conferencing facility.
- Indian Legislative Framework to Prevent Violence
 Against Women:
 - The Sexual Harassment of Women at Workplace (Prevention, Prohibition, and Redressal) Act, 2013.
 - The Protection of Children from Sexual Offences (POCSO), 2012.
 - Protection of Women from Domestic Violence Act, 2005.
 - The Dowry Prohibition Act, 1961.
- Some Other Initiatives for Women:
 - SHe-Box portal.
 - o Sukanya Samriddhi Yojana.
 - Pradhan Mantri Ujjwala Yojana.
 - o Beti Bachao Beti Padhao Scheme.
 - National Creche Scheme.
 - Mahila e-haat.
 - o GATI Scheme.
 - KIRAN Scheme.



- It establishes penalties such as **imprisonment** for obstructing the development plan's work or workers.
- People's Concern:

• Penalties:

- $\sigma\,$ Real Estate Interests:
 - People suspect that this might have been issued at the behest of 'real estate interests' seeking to usurp the small holdings of property owned by the islanders, a majority of them (94.8% as per the 2011 census) belonging to the Scheduled Tribes (ST).
 - Proposals to bring real estate development concepts such as 'transferable development rights' to the island have raised people's fear of forced migration en masse.
- Forcible Relocation & Eviction:
 - It vests such powers with the authority that it can prepare comprehensive development plans for any area and **relocate people regardless of their will.**
 - It provides for forcible eviction, puts the onus on the owner to develop his holding as per the plan prepared by the authority as also to heavily penalise them in the event of non-compliance.
- Destruction of Culture:
 - The island community is a **close-knit group with families living in close proximity.** The regulation will destroy the way of life practised by them for generations.
- Ecological Concerns:
 - It is neither ecologically sustainable nor socially viable and the people's representatives were not consulted before drafting it.

Lakshadweep

> About:

- India's smallest Union Territory, Lakshadweep is an archipelago consisting of 36 islands with an area of 32 sq km.
- It is directly under the control of the Centre through an administrator.
- There are three main group of islands:
 - Amindivi Islands
 - Laccadive Islands
 - Minicoy Island.



Draft Lakshadweep Development Authority Regulation, 2021

Why in News

The latest **Draft Lakshadweep Development Authority Regulation, 2021, for the creation of a Lakshadweep Development Authority (LDA)** is widely resented by the people of Lakshadweep.

Key Points

- > About:
 - Constitution of Lakshadweep Development Authority:
 - It empowers the government, identified as the administrator, to constitute Planning and Development Authorities under it to plan the development of any area identified as having "bad layout or obsolete development".
 - The authority would be a body corporate with a government-appointed chairman, a town planning officer and three 'expert' government nominees besides two local authority representatives.
 - These authorities are to prepare land use maps, carry out zonation for type of land use and indicate areas for proposed national highways, arterial roads, ring roads, major streets, railways, tramways, airports, theatres, museums etc.
 - Only cantonment areas are exempted from this.
 - Defines 'Development':
 - It defines development as the carrying out of building, engineering, mining, quarrying or other operations in, on, over or under land, the cutting of a hill or any portion thereof or the making of any material change in any building or land or in the use of any building or land.
 - Fees for Changing Zones:
 - It stipulates that islanders must pay a processing fee for zone changes.
 - It implies that localities would be required to pay fees to gain approval to alter zones as per the development plan, as well as fees for permission to develop their own land.

- Amindivi Islands are the northernmost while Minicoy island is the southernmost.
- All are tiny islands of **coral origin (Atoll)** and are **surrounded by fringing reefs.**
- The **Capital is Kavaratti** and it is also the principal town of the UT.
- **Pitti island**, which is uninhabited, has a bird sanctuary.

Population:

- More than 93% of the population who are indigenous, are Muslims and majority of them belong to the Shafi School of the Sunni Sect.
- Malayalam is spoken in all the islands except Minicoy where people speak Mahl which is written in Divehi script and is spoken in Maldives also.
- The entire indigenous population has been classified as Scheduled Tribes because of their economic and social backwardness. There are no Scheduled Castes in this Union Territory.
- The **main occupation** of the people is fishing, coconut cultivation and coir twisting. Tourism is an emerging industry.
- Organic Agricultural Area: Recently, the entire Lakshadweep group of islands has been declared as an organic agricultural area under the Participatory Guarantee System (PGS) of India.



Registration of Unorganised Workers

Why in News

The **Supreme Court (SC)** has directed the Central Government and the State Governments to complete the **registration process of unorganized workers** so that they can avail the welfare benefits given under various government schemes.

Key Points

- > SC's Observations:
 - Record of Migrant Workers:
 - It has asked states and Union territories to keep a record of the **returning migrant labourers**, including details about their skills, place of their earlier employment, etc so that the administration can extend necessary help to them.
 - Common National Database:
 - There should be a common national database for all organised workers situated in different states.
 - The process initiated by the Ministry of Labour and Employment for creating a National Database for Unorganised Workers should be completed with collaboration and coordination of the States.
 - It may serve registration for extending different schemes by the States and Center.
 - Mechanism for Supervision:
 - There should be a suitable mechanism to monitor and supervise whether the benefits of the welfare schemes reach the beneficiaries which may be from grassroot levels to higher authorities with names and places of beneficiaries.
 - Dry Ration to Stranded Workers:
 - The stranded migrant workers throughout the country should be provided dry ration under the **Atmanirbhar Bharat Scheme** or any other scheme found suitable by the Centre and the states.
- Migration in India:
 - Migration is the movement of people away from their usual place of residence, across either internal (within country) or international (across countries) borders.



- The latest **government data on migration** comes from the **2011 Census.**
 - As per the Census, India had 45.6 crore migrants in 2011 (38% of the population) compared to 31.5 crore migrants in 2001 (31% of the population).
- Migrant workers keep moving from one place to another place in search of work and such workforce also keeps shifting from one sector to another depending upon the opportunities (such as more wages, duration, and continuity of work), hence, it is not easy to keep record/data of migrant labour workforce.
- The **Covid-19** lockdown has led to an exodus of migrant workers from cities to rural areas and threw the spotlight on the vast number of Indians who live outside their home states.
 - Lakhs of migrant workers were rendered jobless as urban areas were shut due to lockdown.
 - Night shelters run by local authorities began overflowing, and supplies started dwindling.

Provisions Related to Migrant Workers:

- Section 112 of the Code of Social Security, 2020, registration of unorganised workers, gig workers and platform workers was contemplated.
- Section 21 of the Code on Occupational Health, Safety and Working Conditions enables the provision for maintaining a database of migrant workers to help in targeting, skill mapping and utilising government schemes effectively.
 - The Code ensures that migrant workers get journey allowance once a year from employers to visit their hometowns.
- The Inter-State Migrant Workmen Act, 1979, required all establishments who hired inter-state migrants to be registered, as well as all contractors who recruited these workers to be licensed.
- Related Initiatives Taken:
 - Interoperability of Ration Card: Under the One Nation-One Ration Card (ONORC), the beneficiaries from one state can get their share of rations in other states where the ration card was originally issued.
 - Pradhan Mantri Garib Kalyan Ann Yojana (PMG-KAY): PMGKAY is a part of Pradhan Mantri Garib Kalyan Package (PMGKP) to help the poor fight the battle against Covid-19.
 - o Garib Kalyan Rojgar Abhiyan (GKRA): The scheme

provides livelihood opportunities to the returnee **migrant** workers and rural citizens who have returned to their home states due to the **Covid-19** induced **lockdown**.

- ASEEM Portal: The Ministry of Skill Development and Entrepreneurship (MSDE) has launched 'Atmanirbhar Skilled Employee Employer Mapping (ASEEM)' portal to help skilled people find sustainable livelihood opportunities.
 - Database of labour migrants in Indian states and overseas citizens, who returned to India under the Vande Bharat Mission and filled SWADES Skill Card, has been integrated with the ASEEM portal.
- National Migrant Information System (NMIS): The National Disaster Management Authority (NDMA) has developed an online dashboard called 'NMIS'.
 - It would maintain a central repository of migrant workers and help in speedy inter-state communication to facilitate the smooth movement of migrant workers to their native places.

National Pension System and Atal Pension Yojana

Why in News

Recently, the Pension Fund Regulatory and Development Authority (PFRDA) announced that Assets Under Management (AUM) under the National Pension System (NPS) and Atal Pension Yojana (APY), crossed the milestone of Rs. 6 trillion.

> AUM is the total market value of the investments that a person or entity handles on behalf of investors.

Key Points

- > National Pension System:
 - o About:
 - The Central Government has introduced the National Pension System (NPS) with effect from **January 2004** (except for armed forces).
 - In 2018 to streamline the NPS and make it more attractive, the Union Cabinet approved changes in the scheme to benefit central government employees covered under NPS.



- NPS is being **implemented and regulated by PFRDA** in the country.
- National Pension System Trust (NPST) established by PFRDA is the registered owner of all assets under NPS.
- Structure: NPS is structured into two tiers:
 - Tier-I account:
 - This is the non-withdrawable permanent retirement account into which the accumulations are deposited and invested as per the option of the subscriber.
 - Tier-II account:
 - This is a voluntary withdrawable account which is allowed only when there is an active Tier I account in the name of the subscriber.
 - The withdrawals are permitted from this account as per the needs of the subscriber as and when claimed.
- o Beneficiaries:
 - NPS was made available to all Citizens of India from May 2009.
 - Any individual citizen of India (both resident and Non-resident) in the age group of 18-65 years can join NPS.
 - However, OCI (Overseas Citizens of India) and PIO (Person of Indian Origin) card holders and Hindu Undivided Family (HUFs) are not eligible for opening of NPS accounts.
- Atal Pension Yojana:
 - \circ About:
 - The scheme was launched in May, 2015, with the objective of creating a universal social security system for all Indians, especially the poor, the under-privileged and the workers in the unorganised sector.
 - The scheme has been implemented comprehensively across the country covering all states and Union Territories with male to female subscription ratio of 57:43.
 - However, only 5% of the eligible population has been covered under APY till date.

• Administered By:

- PFRDA through NPS.
- Eligibility:
 - Any citizen of India can join the APY scheme.

The age of the subscriber should be between **18-40 years**.

- The contribution levels would vary and would be low if a subscriber joins early and increases if she joins late.
- o Benefits:
 - It provides a **minimum guaranteed pension** ranging from Rs 1000 to Rs 5000 on attaining 60 years of age.
 - The amount of pension is guaranteed for lifetime to the spouse on death of the subscriber.
 - In the event of death of both the subscriber and the spouse, **the entire pension corpus is paid to the nominee.**

Pension Fund Regulatory and Development Authority

- > About:
 - It is the statutory Authority established by an enactment of the Parliament, to regulate, promote and ensure orderly growth of the National Pension System (NPS).
 - It works under the **Department of Financial Services** under the Ministry of Finance.
- Functions:
 - It performs the function of appointing various intermediate agencies like Pension Fund Managers, Central Record Keeping Agency (CRA) etc.
 - It develops, promotes and regulates the pension industry under the NPS and also administers the APY.

Traceability Provision in New IT Rules 2021

Why in News

Recently, messaging platform WhatsApp has moved the Delhi High Court to challenge the **traceability provision** in the **New IT Rules 2021.**

Earlier the Ministry of Electronics and IT (MeitY) had sent a notice to WhatsApp asking it to withdraw a controversial update to its privacy policy which might be a threat to Data Protection of Indians.

Key Points



> Traceability Provision:

- It requires intermediaries to enable identification of the first originator of information on their platforms.
- Rule 4(2) of the Intermediary Rules states that a significant social media intermediary providing services primarily in the nature of messaging shall enable the identification of the first originator of the information on its computer resource as may be required by a judicial order or an order passed by a competent authority under the Information and Technology (IT) Act 2000.
- Failure to comply with this requirement would take away the indemnity provided to social media intermediaries under Section 79 of the IT Act.

Concerns Raised:

- Infringes Rights to privacy and freedom of speech:
 - This breaks end-to-end encryption and impermissibly infringes upon users' fundamental **Rights** to privacy and Freedom of speech.
 - Article 19(1)(a) of the Indian Constitution guarantees the freedom of speech and expression.
 - The right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution (Puttaswamy Judgement 2017).
 - States throughout the world have recognised the "important benefits" of end-to-end encryption and the dangers of undermining that security protocol.

• Discourages Free Expression:

- Freedom of Speech and Right to Privacy encourages users to express their ideas and opinions, report unlawful activities, and challenge popular views without fear of reprisal, whereas enabling the identification of the first originator of information in India subverts privacy and discourages free expression of views.
- Will Curb Freedom of Media:
 - Such a requirement would put journalists at risk of retaliation for investigating issues that may be unpopular, civil or for discussing certain rights and criticizing or advocating for politicians or policies.

- Clients and attorneys who could become reluctant to share confidential information for fear that the privacy and security of their communications are no longer ensured.
- Traceability not Effective in Finding Originator:
 - Traceability would not be effective in finding the originator of a particular message because people commonly see content on websites or social media platforms and then copy and paste them into chats.

Section 79 of the IT Act 2000

- It says any intermediary shall not be held legally or otherwise liable for any third party information, data, or communication link made available or hosted on its platform.
 - **Third party information** means any information dealt with by a network service provider in his capacity as an intermediary.
- This protection shall be applicable if the said intermediary does not in any way initiate the transmission of the message in question, select the receiver of the transmitted message and does not modify any information contained in the transmission.
- It is not granted if the intermediary, despite being informed or notified by the government or its agencies, does not immediately disable access to the material under question.
- The intermediary must not tamper with any evidence of these messages or content present on its platform, failing which it loses its protection under the Act.

End-to-End Encryption vs Traceability

- End-to-end encryption was designed to help ensure that nobody other than the person you are talking to can know that you sent a particular message. This is the exact opposite of traceability, which would reveal who sent what to whom.
 - End-to-end encryption is a system of communication where only the communicating users can read the messages.
- Traceability would force private companies to collect and store who-said-what and who-shared-what for billions of messages sent each day. This will require platforms to collect more data than they need, solely for the purpose of turning it over to law enforcement agencies.



• It would also be **impossible to understand the context** of how it was originally shared.

Defining Hate Speech

Why in News

As there is no clear definition of what constitutes a "Hate Speech" in the Indian Penal Code (IPC), the Committee for Reforms in Criminal Laws constituted by the Union Home Ministry to suggest reforms to the Britishera IPC, is attempting for the first time to define such speech.

Key Points

- > Hate Speech:
 - In general, it refers to words whose intent is to create hatred towards a particular group, that group may be a community, religion or race. This speech may or may not have meaning, but is likely to result in violence.
 - The Bureau of Police Research and Development recently published a manual for investigating agencies on cyber harassment cases that defined hate speech as a language that denigrates, insults, threatens or targets an individual based on their identity and other traits (such as sexual orientation or disability or religion etc.).
 - In the 267th Report of the Law Commission of India, hate speech is stated as an incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief and the like.
 - In order to determine whether a particular instance of speech is a hate speech or not, the **context of the speech plays an important role.**
- > Major Reasons of Hate Speech:
 - Individuals believe in stereotypes that are ingrained in their minds and these stereotypes lead them to believe that a class or group of persons are inferior to them and as such cannot have the same rights as them.
 - The **stubbornness to stick to a particular ideology** without caring for the right to co-exist peacefully adds further fuel to the fire of hate speech.
- Indian Penal Provisions Related to Hate Speech:
 O Under Indian Penal Code:

- Sections 153A and 153B of the IPC: Punishes acts that cause enmity and hatred between two groups.
- Section 295A of the IPC: Deals with punishing acts which deliberately or with malicious intention outrage the religious feelings of a class of persons.
- Sections 505(1) and 505(2): Make the publication and circulation of content which may cause ill-will or hatred between different groups an offence.
- $\circ~$ Under Representation of People's Act:
 - Section 8 of the Representation of People's Act, 1951 (RPA): Prevents a person convicted of the illegal use of the freedom of speech from contesting an election.
 - Sections 123(3A) and 125 of the RPA: Bars the promotion of animosity on the grounds of race, religion, community, caste, or language in reference to elections and include it under corrupt electoral practices.
- Suggestion for Changes in IPC:
 - Viswanathan Committee 2019:
 - It proposed inserting Sections 153 C (b) and Section 505 A in the IPC for incitement to commit an offence on grounds of religion, race, caste or community, sex, gender identity, sexual orientation, place of birth, residence, language, disability or tribe.
 - It proposed punishment of up to two years along with Rs. 5,000 fine.
 - Bezbaruah Committee 2014:
 - It proposed amendment to Section 153 C IPC (promoting or attempting to promote acts prejudicial to human dignity), punishable by five years and fine or both and Section 509
 A IPC (word, gesture or act intended to insult member of a particular race), punishable by three years or fine or both.

Centre Extends Powers Related to Citizenship Application

Why in News

Recently, the Central Government issued a notification granting powers related to citizenship applications under existing rules to authorities of five states.



The order has been issued under the Citizenship Act, 1955 and the Citizenship Rules, 2009 and not under the Citizenship Amendment Act, 2019 since its rules have not yet been framed.

Key Points

- > The Notification:
 - In accordance with section 16 of the Citizenship Act, 1955 the central government directed that powers exercisable by it for registration as a citizen of India, or for grant of certificate of naturalisation shall also be exercisable by the collector (District Magistrate), within whose jurisdiction the applicant is ordinarily resident.
 - Section 16 of the Citizenship Act 1955: The Central Government may, by order, direct that any power which is conferred on it can be exercisable also by such officer or authority as may be so specified.
 - Exceptions: However powers mentioned in section 10 (certificate of registration to be granted to persons registered) and section 18 (form of certificate of naturalisation) can be exercised by the central government only.
 - It also granted similar powers to the Home Secretaries of Haryana and Punjab, except for Faridabad and Jalandhar.

States and Districts:

- Powers were extended to 13 districts office states which are:
 - Gujarat: Morbi, Rajkot, Patan and Vadodara.
 - Chhattisgarh: Durg and Balodabazar.
 - **Rajasthan:** Jalore, Udaipur, Pali, Barmer and Sirohi.
 - Haryana: Faridabad.
 - Punjab: Jalandhar.
- > Extended Powers:
 - It includes power to accept, verify and approve citizenship applications from members of minority communities hailing from Pakistan, Afghanistan and Bangladesh.
 - It lists Hindus, Sikhs, Buddhists, Jains, Parsis and Christians as the communities that will be covered.
 - In 2018, the Government had granted similar powers to Collectors and Home Secretaries of states such as Chhattisgarh, Madhya Pradesh,

Gujarat, Rajasthan, Uttar Pradesh and Delhi with regard to certain districts.

Citizenship

- > About:
 - Citizenship signifies the relationship between individual and state.
 - Like any other modern state, India has two kinds of people—citizens and aliens.
 - Citizens are full members of the Indian State and owe allegiance to it. They enjoy all civil and political rights.
 - Citizenship is an idea of exclusion as it excludes non-citizens.
 - There are two well-known principles for the grant of citizenship:
 - While 'jus soli' confers citizenship on the basis of place of birth, 'jus sanguinis' gives recognition to blood ties.
 - From the time of the Motilal Nehru Committee (1928), the Indian leadership was in favour of the enlightened concept of jus soli.
 - The racial idea of jus sanguinis was also rejected by the Constituent Assembly as it was against the Indian ethos.
- > Constitutional Provisions:
 - Citizenship is listed in the Union List under the Constitution and thus is under the exclusive jurisdiction of Parliament.
 - The Constitution does not define the term 'citizen' but details of various categories of persons who are entitled to citizenship are given in Part 2 (Articles 5 to 11).
 - Unlike other provisions of the Constitution, which came into being on 26th January, 1950, these articles were enforced on 26th November, 1949 itself, when the Constitution was adopted.

Citizenship (Amendment) Act, 2019 (Major Provisions)

- > Citizenship on the basis of religion:
 - The Bill amends the Act to provide that the Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, who entered India on or before 31st December, 2014, will not be treated as illegal migrants.



> Non-Muslim Communities Excluded:

 Hindu, Sikh, Buddhist, Jain, Parsi, and Christian. This implies that migrants, who identify themselves with any group or community other than those mentioned here, from the above mentioned countries won't be eligible for citizenship.

> Exceptions:

- The provisions on citizenship for illegal migrants will not apply to two categories - states protected by the **'Inner Line'**, and areas covered under the **Sixth Schedule of the Constitution.**
 - Inner Line Permit (ILP): This is a special permit that citizens from other parts of India require to enter a state protected by the ILP regime. Without an ILP granted by the state government, an Indian from another state cannot visit a state that is under the ILP regime.
 - Sixth Schedule: The Sixth Schedule relates to special provisions in administration of certain Northeastern states (Assam, Mizoram, Meghalaya and Tripura). It provides special powers for Autonomous District Councils (ADCs) in these states.

> Citizenship by Naturalization:

o Under The Citizenship Act, 1955, one of the

drishti

requirements for citizenship by naturalisation is that the applicant must have resided in India during the last 12 months, as well as for 11 of the previous 14 years.

- The amendment relaxes the second requirement from 11 years to 5 years as a specific condition for applicants belonging to the specified six religions, and the above-mentioned three countries.
- > Cancellation of registration of OCIs:
 - The Act provides that the central government may cancel the registration of **Overseas Citizens of India** (**OCIs**) on certain grounds which are:
 - If the OCI has registered through fraud.
 - If, within five years of registration, the OCI has been sentenced to imprisonment for two years or more.
 - If it becomes necessary in the interest of sovereignty and security of India.
 - If the OCI has **violated the provisions of the Act** or of any other law as notified by the central government.
 - However the orders for cancellation of OCI should not be passed till the OCI cardholder is given an opportunity to be heard.



Economic Scenario

Highlights

- RBI's Annual Report 2020-21
- New Rules for Increased FDI in Insurance Sector
- FDI Inflow Touches \$82 Bn in FY21
- Personal Guarantors Liable for Corporate Debt
- Proposal for Gold Exchange
- SWAMIH Fund
- National Programme on Advanced Chemistry Cell Battery Storage
- Infrastructure Status for Convention Centres
 Subsidy on DAPIncreased
- Competition Commission Of India
- MCA 21 Version 3.0: Digital Corporate Compliance Portal
- Semiconductor Chips Shortage in Vehicle Manufacturing
- Currency Swap Facility
- 43rd GST Council Meeting

RBI's Annual Report 2020-21

Why in News

Recently, the **Reserve Bank of India (RBI)** released its Annual Report for 2020-21.

Key Points

- Foreign Exchange:
 - Gain from foreign exchange transactions rose from Rs 29,993 crore to Rs 50,629 crore in 2020-21.
 - Foreign Exchange is the trading of one currency for another.
- > Surplus Transfer to the Government:
 - RBI has been able to transfer a higher amount to the government as surplus this year following a sharp fall in provisions (drop in expenditure was on account of a lower provision) and gains from foreign exchange transactions during the year ended March 2021.
 - It transferred **Rs.99,122 crore** to the government which is likely to **boost the government's finances.** It helped the government even as the **Covid pandemic** continued.

> Rupee Against Dollar:

- The rupee strengthened by **3.5%** against the US dollar (at end-March 2021 over end-March 2020) but underperformed vis-a-vis other Asian countries during 2020-21.
- > Decreased Bank Frauds:
 - o Bank frauds of Rs.1 lakh and more fell by 25% in

value to Rs.1.38 trillion in the year 2020-21 with the number of such cases also seeing a **decline of 15% during the year.**

Provision for Giving Surplus to the Government

Under Section 47 of the RBI Act, 1934, after making provisions for bad and doubtful debts, depreciation in assets, contribution to staff and superannuation funds and for all matters for which provisions are to be made by or under the Act or that are usually provided by bankers, the balance of the profits of the Reserve Bank is required to be paid to the central government.

Digital Payments:

- The Covid-19 pandemic **increased** the proliferation of digital modes of payments.
 - Total digital transaction volume in 2020-21 stood at 4,371 crore, as against 3,412 crore in 2019-20.
- The prospects for **FinTech** in India's financial system in 2021-22 will depend upon the degree of entrenchment of digital usage.
- Various initiatives such as an innovation hub, a regulatory sandbox and offline payment solutions are underway to ensure that in the digital ecosystem, India maintains its position as a leader.
- The RBI is also in the process of extending the geo-tagging framework put in place to capture location of bank branches and ATMs to cover payment system touch points, enabling accurate capture of their location across the country.



• Further, the **possibility of leveraging India's domestic payment systems to facilitate cross-border transactions** is being explored, and corridors and charges for inward remittances will be reviewed.

Ensuring Liquidity:

- The RBI will ensure a comfortable level of liquidity in the system during 2021- 22 in alignment with the stance of monetary policy.
 - This is exemplified by the introduction of the secondary market **G-sec acquisition programme** (G-SAP).
- Monetary transmission will continue unimpeded while maintaining financial stability.
 - Monetary transmission refers to the process by which a central bank's monetary policy signals (like repo rate) are passed on, through the financial system to influence the businesses and households.

Economic Growth:

- As the vaccination drive picks up and cases of infections fall, a sharp turnaround in growth is likely, supported by strong favourable base effects.
 - The base effect refers to the effect that the choice of a basis of comparison or reference can have on the result of the comparison between data points.
- RBI predicted **10.5% GDP (Gross Domestic Product)** growth for the year 2021-22.

New Rules for Increased FDI in Insurance Sector

Why in News

Recently, the Ministry of Finance amended Indian Insurance Companies (Foreign Investment) Rules, 2015 and clarified on the final rules for increased FDI (Foreign Direct Investment) in the Insurance Sector.

- Parliament had passed the Insurance Amendment Bill 2021 to increase the FDI limit in the insurance sector to 74% from 49%.
- The Ministry of Finance has notified 'Indian Insurance Companies (Foreign Investment) Amendment Rules, 2021'.

Key Points

- Highlights of New Rules:
 - Management Persons to be Resident Indian Citizens:
 - For an Indian insurance company having foreign investment - majority of its directors, key management persons, and at least one among the chairperson of its Board, its managing director and its chief executive officer - will be a resident Indian citizen.

• Meaning of Foreign Investment:

- Total foreign investment here would mean the **sum of both direct** and **indirect** foreign investment.
 - Direct investment by a foreigner will be called Foreign Direct Investment, while investment by an Indian company (which is owned or controlled by foreigners) into another Indian entity is considered as Indirect Foreign Investment.

Significance:

- The increase in foreign ownership to 74% can result in inclusion of global best practices in terms of insurance products going forward. It will also help in bringing down the cost of insurance products in India.
- It is good for Indian Promoters, it will let them keep control of management and board, the additional capital inflow will help them with funds to push for growth.
- It will benefit small insurance players or the ones where the sponsors don't have the ability to put in more capital and hence it will benefit in strengthening them and increasing competition across the industry.
- It is likely to help local private insurers grow fast and expand their presence across India, which has one of the lowest insurance penetration levels globally.
- > Insurance Penetration in India:
 - Insurance penetration in India is currently at 3.7% of the Gross Domestic Product (GDP) compared to the world average of 6.31%.
 - Growth in the life insurance sector has slowed to 11-12% currently from 15-20% until fiscal 2020, as the pandemic pushed customers to save cash instead of spending on stocks or life insurance policies.



www.drishtilAS.com

- o As of 31st March, 2021, there were only 24 life and 34 non-life direct insurers in India, whereas there were 243 life insurance companies (1956) and 107 non-life insurance companies (1973) at the time of nationalisation.
- > Other Related Step (Model Insurance Villages):
 - The Insurance Regulatory and Development Authority of India (IRDAI) has mooted the concept of 'Model Insurance Village (MIV)' to boost insurance penetration in rural areas.
 - The idea is to offer **comprehensive insurance protection** to all the major insurable risks that villagers are exposed to and make available covers at affordable or subsidised cost.

Insurance Regulatory and Development Authority of India

- Following the recommendations of the Malhotra Committee report, in 1999, the Insurance Regulatory and Development Authority (IRDA) was constituted as an autonomous body to regulate and develop the insurance industry.
- > The IRDA was incorporated as a statutory body in April 2000.
- The **key objectives** of the IRDA include the promotion of competition so as to enhance customer satisfaction through increased consumer choice and lower premiums while ensuring the financial security of the insurance market.
- It is headquartered in Hyderabad.

FDI Inflow Touches \$82 Bn in FY21

Why in News

In the Financial Year 2020-21, India sees growth of 10% (to \$82 bn) in Foreign Direct Investment (FDI). FDI equity investments rise 19% to \$60 billion.

In 2019-20, India had received \$74.39 billion in FDI, with almost \$50 billion coming in the form of equity investments.

Key Points

- > Top Investors:
 - o Singapore emerged as the top investor with almost a third of all investments, followed by the US which

accounted for 23% of FDI and Mauritius from where 9% of the foreign capital flows originated.

Record FDI

Total FDI up 3 FDI equity **10%** on-yr to \$81.72 b 19% to \$59.64 b

inflows up

Trend endorses India's status as preferred investment destination



- \geq Sharpest Growth from Saudi Arabia:
 - The sharpest growth among the **top 10 FDI-origin** countries was recorded from Saudi Arabia.
 - Investments jumped from \$90 million in 2019-20 to \$2.8 billion in 2020-21.
 - **FDI Equity:**

- FDI equity flows from the US more than doubled during the year compared with 2019-20, while investments from the UK surged 44%.
- **Top FDI Destinations:** ≻
 - o Gujarat was the top FDI destination in 2020-21, accounting for **37% of** the foreign equity inflows, followed by Maharashtra (2nd) which got 27% of the equity inflows.
 - Karnataka(3rd) accounted for another 13% of the equity investments.
- **Top Sectors:**
 - Computer software and hardware has emerged as the top sector during 2020-21 with about 44% share of the total FDI equity inflow.
 - These are followed by **construction (infrastructure)** activities (13%) and services sector (8%), respectively.

Foreign Direct Investment

Definition: FDI is the process whereby residents of one country (the home country) acquire ownership of assets for the purpose of controlling the production, distribution and other activities of a firm in another country (the host country).



 It is different from Foreign Portfolio Investment where the foreign entity merely buys stocks and bonds of a company. FPI does not provide the investor with control over the business.

> Three Components:

- Equity capital is the foreign direct investor's purchase of shares of an enterprise in a country other than its own.
- Reinvested earnings comprise the direct investors' share of earnings not distributed as dividends by affiliates, or earnings not remitted to the direct investor. Such retained profits by affiliates are reinvested.
- Intra-company loans or intra-company debt transactions refer to short- or long-term borrowing and lending of funds between direct investors (or enterprises) and affiliate enterprises.

> Routes through which India gets FDI:

- Automatic Route: In this, the foreign entity does not require the prior approval of the government or the RBI.
- **Government Route:** In this, the foreign entity has to take the approval of the government.
 - The Foreign Investment Facilitation Portal (FIFP) facilitates the single window clearance of applications which are through approval route.
 - It is administered by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.

Government Measures to Promote FDI:

- In 2020, factors such as a swift response in combating the Covid crisis, favourable demographics, impressive mobile and internet penetration, massive consumption and technology uptake, played an important role in attracting the investments.
- Launch of Schemes attracting investments, such as, National technical Textile Mission, Production Linked Incentive Scheme, Pradhan Mantri Kisan SAMPADA Yojana, etc.
 - The government has elaborated upon the initiatives under the Atmanirbhar Bharat to encourage investments in different sectors.
- As a part of its Make in India initiative to promote domestic manufacturing, India deregulated FDI rules for several sectors over the last few years.

Personal Guarantors Liable for Corporate Debt

Why in News

The **Supreme Court of India** has upheld the **Central Government 2019 notification** that allows lenders to **initiate insolvency proceedings against personal guarantors**.

- It will allow the lenders to recover their remaining debt from personal guarantors following the conclusion of the Corporate Insolvency Resolution Process (CIRP).
- The CIRP is a recovery mechanism made available to creditors as under the Insolvency and Bankruptcy Code, 2016 (IBC).

Key Points

- Background:
 - Definition: A personal guarantor is a person or an entity that promises payment of another person's debt, in case the latter fails to pay it off.
 - Central Government Notification 2019: It brought personal guarantors to companies facing insolvency proceedings under the purview of the Insolvency and Bankruptcy Code (IBC).
 - Section 1(3) of the IBC code allows the central government to notify different provisions of the code at different dates, to allow its implementation bit by bit.
 - These rules and regulations lay down the process for initiating insolvency resolution and bankruptcy proceedings against personal guarantors to corporate debtors, inviting claims from creditors, withdrawal of such applications, etc.
 - Simultaneously Proceedings: The new rules and regulations will allow creditors to simultaneously proceed against the principal borrower, i.e. the company, and the personal guarantor before the National Company Law Tribunal (NCLT).
 - Until now, the IBC code only covered insolvency resolution and liquidation of corporate debtors.
 - Counter Argument: The Central Government did not have the power to bring in IBC provisions selectively to personal guarantors of corporate debtors.
 - The singling out of guarantors is violative of the fundamental right to equality.



> Supreme Court Verdict:

- Intrinsic Connection: There was an "intrinsic connection" between personal guarantors and their corporate debtors.
 - Section 60(2) of the IBC Code had required the bankruptcy proceedings of corporate debtors and their personal guarantors to be held before a common forum, the NCLT.
- Adjudicating Authority: The adjudicating authority for personal guarantors will be the NCLT if a parallel resolution process is pending in respect of a corporate debtor for whom the guarantee is given.
 - The side by side bankruptcy proceedings before the same forum for both the corporate debtors and their personal guarantors **would help the NCLT consider the whole picture.**
- Concept of Guarantee: The concept of 'guarantee' is derived from Section 126 of the Indian Contracts Act, 1872.
 - A contract of guarantee is made among the debtor, creditor and the guarantor.
 - If the debtor fails to repay the debt to the creditor, the burden falls on the guarantor to pay the amount.
 - The creditor reserves the right to begin insolvency proceedings against the personal guarantor if the latter does not pay.

Possible Benefits:

- By initiating the insolvency proceedings against personal guarantors, there is a greater likelihood that they would "arrange" for the payment of the debt to the creditor bank in order to obtain a quick discharge.
- The creditor bank would be prepared to take a haircut or forego the interest amounts so as to enable an equitable settlement of the corporate debt, as well as that of the personal guarantor.
- It would result in maximising the value of assets and promoting entrepreneurship.

Note:

- Insolvency: It is a situation where individuals or companies are unable to repay their outstanding debt.
- Bankruptcy: It is a situation whereby a court of competent jurisdiction has declared a person or other entity insolvent, having passed appropriate orders to resolve it and protect the rights of the creditors. It is a legal declaration of one's inability to pay off debts.

Proposal for Gold Exchange

Why in News

The Securities and Exchange Board of India (SEBI) has proposed a framework for setting up a spot gold exchange.

- The spot exchange is where financial instruments, such as commodities, currencies, and securities, are traded for immediate delivery.
- SEBI is a statutory body established in April, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.

ON THE TABLE

- Sebi issues discussion paper for discovering one national gold price
- The regulator is open to multiple spot exchanges

Quantity tradable on the proposed exchange can be as low as 5–10 gms **but traders** will be incentivised on electronic exchange

- Setting up vault companies to prevent frauds also part of the proposal
- Gold will be traded in form of electronic gold receipts before converting back to physical metal on delivery
- Physical market to co-exist,

Key Points

- Framework of Gold Exchange:
 - In the first tranche, an entity desirous of delivering gold, locally manufactured or imported, on the exchange platform would have to approach a SEBI regulated vault manager and deposit physical gold meeting quality and quantity parameters with it.
 - Against this, the **vault manager will issue an EGR** (Electronic Gold Receipt), which will be tradeable on the exchanges, in the **second tranche**.
 - A beneficial owner will surrender the EGR to a vault manager and take delivery of the gold in the third tranche.
 - A common interface will be developed between vault managers, depositories, clearing corporations and stock exchanges to enable seamless execution of the three tranches.
 - The proposed denominations reflecting underlying physical gold of EGRs are 1 kilogram, 100 gram, 50 gram and subject to conditions, those can also be even for 5 and 10 gram.



- STT (Security Transaction Tax) will be levied on trading of the EGR and IGST (Integrated Goods and Services Tax) at the time of delivery.
- > Other Issues Raised by SEBI:
 - This includes **fungibility and interoperability** between vault managers.
 - Fungibility means gold deposited under, say, EGR
 1 can be delivered against surrender of EGR 2 meeting the same contract specifications.
 - Interoperability means gold deposited at one location and with one vault manager can be withdrawn from a different location of the same or different vault manager, subject to availability of the physical gold. This will reduce the cost for buyers.
- > Reason for Creating Separate Exchange for Gold:
 - To **create a vibrant gold ecosystem in India** which is commensurate with its large share of global gold consumption.
 - India (after China) is the second largest consumer of gold globally, with annual gold demand of approximately 800-900 tonnes, and holds an important position in the global markets.
 - The objective behind setting up gold exchanges is for India to become a price setter rather than a price taker and to establish an India good delivery standard, akin to London Bullion Market Association (LBMA) accredited gold bars.
 - Setting up a new stock spot gold exchange has advantages such as single good delivery standard, reduced market fragmentation, improved liquidity, and single reference price.

SWAMIH Fund

Why in News

Recently, the Government of India's **Special Window** for Affordable & Mid-Income Housing (SWAMIH) completed its first residential project.

The residential project - Rivali Park, located in suburban Mumbai, was the first housing project in India to have received funding under the SWAMIH Fund.

Key Points

> About the SWAMIH Fund:

 This is a government backed fund that was set up as a Category-II AIF (Alternate Investment Fund) debt fund registered with SEBI, launched in 2019.

www.drishtilAS.com

- SWAMIH Investment Fund was formed to complete construction of stalled, RERA-registered affordable and mid-income category housing projects which are stuck due to paucity of funds.
- 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.
- The **Sponsor of the Fund** is the **Secretary, Department of Economic Affairs, Ministry of Finance**, on behalf of the Government of India.

RERA

Inception:

- Real Estate (Regulation and Development) Act (RERA) is an act passed by the Parliament in 2016 that came into effect fully from 1st May, 2017.
 - The Act establishes Real Estate Regulatory Authority (RERA) in each state for regulation of the real estate sector and also acts as an adjudicating body for speedy dispute resolution.
- > Aim:
 - It seeks to protect home-buyers as well as help boost investments in the real estate sector by bringing efficiency and transparency in the sale/ purchase of real estate.
- > Alternative Investment Fund (AIF):
 - AIF means any fund established or incorporated in India which is a privately pooled investment vehicle which collects funds from sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy for the benefit of its investors.
 - Regulation 2(1)(b) of Securities and Exchange Board of India (SEBI) Regulations (AIFs), 2012 lays down the definition of AIFs.
 - Through a company, or a Limited Liability Partnership (LLP), an Alternative Investment Fund can be established.
 - AIF does not include funds covered under the SEBI (Mutual Funds) Regulations, 1996, SEBI (Collective Investment Schemes) Regulations, 1999 or any



other regulations of the Board to regulate fund management activities.

- Other **exemptions** include family trusts, employee welfare trusts or gratuity trusts.
- Categories of AIFs:
 - Category-I AIFs:
 - These funds are invested in businesses that have the potential to grow financially such as StartUps, Small and Medium Enterprises.
 - The government encourages investments in these ventures as they have a positive impact on the economy with regards to high output and job creation.
 - Examples include Infrastructure Funds, Angel Funds, Venture Capital Funds and Social Venture Funds.
 - Category-II AIFs:
 - Under this category, funds that are invested in equity securities and debt securities are included. Those funds not already under Category I and III respectively are also included. No concession is given by the government for any investment made for Category II AIFS.
 - Examples include Real Estate Funds, Debt Fund, Private Equity Funds.
 - Category-III AIFs:
 - Category-III AIFs are those funds which give returns under a short period of time. These funds use complex and diverse trading strategies to achieve their goals. There is no known concession or incentive given towards these funds specifically by the government.
 - Examples include Hedge Funds, Private Investment in Public Equity Funds, etc.

National Programme on Advanced Chemistry Cell Battery Storage

Why in News

The Union Cabinet has approved a **Rs. 18,100-crore Production Linked Incentive (PLI) scheme** for manufacturers of **Advanced Chemistry Cell (ACC)** battery storage, to reduce imports. The scheme is called the National Programme on Advanced Chemistry Cell Battery Storage (NPACC). It is under the Ministry of Heavy Industries & Public Enterprises.

Key Points

- > PLI Scheme:
 - It aims to give companies incentives on incremental sales from products manufactured in domestic units.
 - It invites foreign companies to set units in India, however, it also aims to encourage local companies to set up or expand existing manufacturing units.
 - The PLI Scheme has also been approved for sectors such as automobiles, pharmaceuticals, IT hardware including laptops, mobile phones & telecom equipment, white goods, chemical cells and textiles, etc.
- > Advanced Chemistry Cell (ACC):
 - ACCs are the new generation of advanced storage technologies that can store electric energy either as electrochemical or as chemical energy and convert it back to electric energy as and when required.
 - Such battery storages will cater not only to electric vehicles but also to the consumer electronics industry and electricity grids.
- > About NPACC Scheme:
 - The plan is to set up 50 gigawatt hour (GWh) manufacturing capacity for ACC batteries by attracting investments totaling Rs. 45,000 crore.
 - Requires each selected ACC battery Storage manufacturer to set-up an ACC manufacturing facility of minimum 5 GWh capacity, achieve a domestic value addition of at least 25% and incur the mandatory investment Rs.225 crore /GWh within 2 Years.
 - Furthermore, the beneficiary firms need to ensure a minimum 60% domestic value addition at the Project level within five years.
 - The incentive will be disbursed over a period of five years. It will be paid out on the basis of sales, energy efficiency, battery life cycle, and localization levels.
- > Expected Benefits from NPACC Scheme:
 - Facilitate **demand creation for battery storage** in India.



- $\sigma~$ Facilitate Make-in-India and Atmanirbhar Bharat.
- Facilitate **demand for Electric Vehicles (EVs)**, which are proven to be significantly less polluting.
 - A key contributing factor to reduce India's GreenHouse Gas (GHG) emissions.
- Import substitution of around Rs. 20,000 crore every year.
- Impetus to Research & Development to achieve higher specific energy density and cycles in ACC.
- o Promote newer and niche cell technologies.

Infrastructure Status for Convention Centres

Why in News

The Finance Ministry has granted 'Infrastructure' status for exhibition and convention centres.

In 2020, the government had added affordable rental housing projects to the list of sectors recognised as infrastructure.

Key Points

- Infrastructure Status to Exhibition-cum-Convention Centre:
 - Exhibition-cum-Convention Centre has been included in the Harmonised Master List of Infrastructure sub-sectors by insertion of a new item in the category of Social and Commercial Infrastructure.
 - However, the benefits available as 'infrastructure' projects would only be available for projects with a minimum built-up floor area of 1,00,000 square metres of exclusive exhibition space or convention space or both combined.
 - This **includes primary facilities** such as exhibition centres, convention halls, auditoriums, plenary halls, business centres, meeting halls etc.
 - This move will enable more such projects to come up across India's tourist destinations.
- > Need for the Infrastructure Status:
 - India doesn't have large convention centres or single halls with capacities to hold 7,000 to 10,000 people, unlike countries like Thailand that is a major global MICE destination.

- Becoming a MICE (Meetings, Incentives, Conferences and Exhibitions) destination can generate significant revenue with several global companies active in India.
- > Harmonised Master List of Infrastructure sub-sectors:
 - The list is **notified by the Ministry of Finance** and includes following **categories**:
 - Transport and Logistics: Roads and bridges, Inland waterways, Airport, etc.
 - Energy: Electricity Generation, Electricity Transmission, etc.
 - Water and Sanitation: Solid Waste Management, Water treatment plants, etc.
 - **Communication:** Telecommunication, etc.
 - Social and Commercial Infrastructure: Education Institutions (capital stock), Sports Infrastructure, Hospitals (capital stock), Tourism infrastructure, etc.
 - Inclusion in the list implies access to concessional funds, promotion of projects and continuity of construction for the specified sub-sectors.
 - However, the infrastructure tag **now does not include vital tax breaks**.

Subsidy on DAPIncreased

Why in News

Recently, the government has **increased the subsidy to 140% on Di-Ammonium Phosphate (DAP) fertiliser** in order to retain the selling price for farmers at the current level.

Recently, the international prices of phosphoric acid, ammonia etc. used in DAP have gone up by 60% to 70%.

Key Points

- > About Di-Ammonium Phosphate (DAP):
 - DAP is the second most commonly used fertiliser in India after urea.
 - Farmers normally apply this fertiliser just before or at the beginning of sowing, as it is high in phosphorus (P) that stimulates root development.
 - DAP (46% P, 18% Nitrogen) is the preferred source of Phosphorus for farmers. This is similar to urea, which is their preferred nitrogenous fertiliser containing 46% N.



Note:

www.drishtilAS.com

www.drishti<mark>IAS</mark>.com

- > About Subsidy Scheme for Fertilisers:
 - Under the current scheme, the MRP of Urea is fixed but the subsidy can vary while MRP of DAP is decontrolled (i.e subsidy is fixed but the MRP can vary).
 - All Non-Urea based fertilisers are regulated under Nutrient Based Subsidy Scheme.
- > About Nutrient-Based Subsidy (NBS) Regime:
 - Under the NBS regime fertilizers are provided to the farmers at the subsidized rates based on the nutrients (N, P, K & S) contained in these fertilizers.
 - Also, the fertilizers which are fortified with secondary and micronutrients such as molybdenum (Mo) and zinc are given additional subsidy.
 - The subsidy on Phosphatic and Potassic (P&K) fertilizers is announced by the Government on an annual basis for each nutrient on a per kg basis

 which are determined taking into account the international and domestic prices of P&K fertilizers, exchange rate, inventory level in the country etc.
 - NBS policy intends to increase the consumption of P&K fertilizers so that optimum balance (N:P:K= 4:2:1) of NPK fertilization is achieved.
 - This would improve soil health and as a result the yield from the crops would increase, resulting in enhanced income to the farmers.
 - Also, as the government expects rational use of fertilizers, this would also ease off the burden of fertilizer subsidy.
 - It is being implemented from April 2010 by the Department of Fertilizers, Ministry of Chemicals & Fertilizers.
- > Issues Related to NBS:
 - Imbalance in Price of Fertilisers:
 - Urea is left-out in the scheme and hence it remains under price control as NBS has been implemented only in other fertilizers.
 - There is an imbalance as the price of fertilizers (other than urea) — which were decontrolled have gone up from 2.5 to four times during the 2010-2020 decade.
 - However, since 2010, the price of urea has increased only by 11%. This has led to farmers using more urea than before, which has further worsened fertilizer imbalance.
 - Costs on Economy and Environment:

- Fertilizer subsidy is the **second-biggest subsidy after food subsidy**, the NBS policy is not only damaging the fiscal health of the economy but also proving detrimental to the soil health of the country.
- Black Marketing: Subsidised urea is getting diverted to bulk buyers/traders or even non-agricultural users such as plywood and animal feed makers.
 - It is being **smuggled** to neighbouring countries like **Bangladesh and Nepal**.
- > Implications of Increasing the Subsidy on DAP :
 - As farmers will start sowing operations for Kharif Crops, it is highly important for them to get the fertilisers at subsidised rate so as to keep inflation at check.
 - Politically, too, to turn down the farmer protests, during the time of the Covid's second wave, is the last thing the government would want.

Competition Commission Of India

Why in News

The **12th Annual Day** of the **Competition Commission** of India (CCI) was observed on **20th May**.

Key Points

- > About:
 - Statutory Body:
 - CCl is a statutory body responsible for enforcing the objectives of the Competition Act, 2002.
 - CCI was established by the Central Government with effect from 14th October 2003, but it became fully functional on 20th May, 2009.
 - Composition:
 - A Chairperson and 6 Members appointed by the Central Government.
- Formation of CCI:
 - The CCI was established under the provisions of the **Competition Act 2002**:
 - The Competition Act, 2007, was enacted after amending Competition Act, 2002, that led to the establishment of the CCI and the Competition Appellate Tribunal.



- The government replaced the Competition Appellate Tribunal (COMPAT) with the National Company Law Appellate Tribunal (NCLAT) in 2017.
- > Functions and Role of CCI:
 - **To eliminate practices** having adverse effects on competition, promote and sustain competition, protect the interests of consumers and ensure freedom of trade in the markets of India.
 - It takes the **following measures** to achieve its objectives:
 - **Consumer welfare** to make the markets work for the benefit and welfare of consumers.
 - Ensure fair and healthy competition in economic activities in the country for faster and inclusive growth and development of the economy.
 - Implement competition policies with an aim to effectuate the most efficient utilization of economic resources.
 - Develop and nurture effective relations and interactions with sectoral regulators to ensure smooth alignment of sectoral regulatory laws in tandem with the competition law.
 - Effectively carry out competition advocacy and spread the information on benefits of competition among all stakeholders to establish and nurture competition culture in Indian economy.

> Need of CCI:

- **Promote free enterprise:** Competition is important for the preservation of economic freedom and our free enterprise system.
- Protect against market distortions: The need for competition law arises because markets can suffer from failures and distortions, and various players can resort to anti- competitive activities such as cartels, abuse of dominance etc. which adversely impact economic efficiency and consumer welfare.
- Promotes domestic industries: During the era in which the economies are moving from closed economies to open economies, an effective competition commission is essential to ensure the continued viability of domestic industries, carefully balanced with attaining the benefits of foreign investment increased competition.

MCA 21 Version 3.0: Digital Corporate Compliance Portal

Why in News

Recently, the government launched the first phase of the latest update to its **digital corporate compliance portal**, **Ministry of Corporate Affairs (MCA) 21 Version 3.0.**

It will help in improving Ease of Doing Business in India. India ranked 63rd out of 190 countries in Ease Doing Business 2020: World Bank Report.

Key Points

- > About:
 - It will **leverage the use of latest technologies** to further **streamline the Corporate Compliance** and stakeholders experience.
 - MCA 21 has been part of Mission Mode projects of the Government of India.
 - MCA21 Version 3.0 is part of the 2021 Budget announcement.
 - MCA21 is the online portal of the Ministry of Corporate Affairs (MCA) that has made all company related information accessible to various stakeholders and the general public. It was launched in 2006.
 - The entire project is proposed to be launched within the **Financial Year** 2021-22 and will be data analytics and **machine learning** driven.
 - The MCA21 V3.0 in its entirety will not only improve the existing services and modules, but will also create new functionalities like e-adjudication, compliance management system, advanced helpdesk, feedback services, user dashboards, self-reporting tools and revamped master data services.
 - It comprises a revamped website, new email services for MCA Officers and two new modules, namely, e. Book and e. Consultation.
- > Objective:
 - It is designed to fully automate all processes related to the proactive enforcement and compliance of the legal requirements under the Companies Act, 1956, New Companies Act, 2013 and Limited Liability Partnership Act, 2008. This will help the business community to meet their statutory obligations.


CURRENT AFFAIRS MAY 2021 33

Benefits:

- Easy access to the updated legislations along with a tracking mechanism for historical changes in law.
- It will give new meaning to corporate compliance culture and will further enhance the trust and confidence in the Corporate regulatory and governance system.
- Other Measures taken to Improve Ease of Doing Business:
 - **o** Integrated Incorporation Form:
 - Simplified Proforma for Incorporating Company Electronically (SPICe) was introduced which extends 8 services from three Ministries through a single form.
 - RUN Reserve Unique Name:
 - It is a web service used for reserving a name for a new company or for changing its existing name. The web service helps verify whether the name chosen for the company is unique.
 - **o** Insolvency and Bankruptcy Code:
 - The Insolvency and Bankruptcy Code of 2016 has introduced new dimensions in resolving insolvency in India. It is India's first comprehensive legislation of corporate insolvency.

Semiconductor Chips Shortage in Vehicle Manufacturing

Why in News

Recently, an unusual **shortage of inputs, especially semiconductor chips**, has made **India-based vehicle manufactures** (car manufactures and premium bikes) curtail production across categories.

Key Points

- > Semiconductor Chips:
 - Semiconductors are materials which have a conductivity between conductors (generally metals) and nonconductors or insulators (such as most ceramics). Semiconductors can be pure elements, such as silicon or germanium, or compounds such as gallium arsenide or cadmium selenide.
 - **Conductivity** is the measure of the ease at which an electric charge or heat can pass through a material.

S.No	Conductors	Semiconductors	Insulators	
Easily conducts the electrical current.		Conducts the electric current less than conductor and greater than insulator.	Does not conduct any current.	
2	Has only one valence electron in its outermost orbit.	Has four valence electron in its outermost orbit.	Has eight valence electron in its outermost orbit.	
3	Conductor formed using metallic bonding.	Semiconductors are formed due to covalent bonding.	Insulators are formed due to ionic bonding.	
4	Valence and conduction bands are overlapped.	Valence and conduction bands are separated by forbidden energy gap of 1.1eV.	Valence and conduction bands are separated by forbidder energy gap of 6 to 10eV.	
5	Resistance is very small	Resistance is high	Resistance is very high	
6		It has negative temperature coefficient	It has negative temperature coefficient	
		Ex: silicon, germanium, etc	Ex: Mica, Paper, etc	

- A semiconductor chip is an electric circuit with many components such as transistors and wiring formed on a semiconductor wafer. An electronic device comprising numerous of these components is called Integrated Circuit (IC), and can be found in electronic devices such as computers, smartphones, appliances, gaming hardware and medical equipment.
 - These devices find widespread use in almost all industries, especially in the automobile industry.
- Electronic parts and components today account for 40% of the cost of a new internal combustion engine car, up from less than 20% two decades ago.
 - Semiconductor Chips account for a bulk of this increase.
- > Reason for Shortage:
 - Covid and Lockdowns:
 - The **Covid-19 pandemic** and the subsequent **lockdowns** across the world that forced shut crucial chip-making facilities in countries including Japan, South Korea, China and the US.
 - Its shortage causes **cascading effects**, given that the first one creates pent-up demand that becomes the cause for the follow-up famine.
 - Increased Consumption:
 - The number of transistors mounted in IC chips has doubled every two years. Notably, the increase in chip consumption over the last decade is also partly attributable to the rising contribution of electronic components in a car's bill of materials.



- > Impact:
 - Reduced Supply:
 - Consumers of semiconductor chips, which are mainly car manufacturers and consumer electronics manufactures, have not been receiving enough of this crucial input to continue production.
 - Chip shortage is measured in chip lead time, which is the gap between when a chip is ordered and when it is delivered.
 - Reduced Production of Automobiles:
 - With just-in-time deliveries, carmakers typically kept low inventory holdings and relied on an electronics industry supply chain to feed production lines as per demand.
 - Delayed Supply and Reduced Features:
 - It has caused delaying vehicle deliveries, some companies have reportedly started discarding features and high-end electronic capabilities on a temporary basis to deal with the chip shortage.

Currency Swap Facility

Why in News

Recently, Bangladesh cleared a USD 200 million currency swap facility for Sri Lanka, to help boost its economy.

Key Points

> About:

- The word swap means exchange. A currency swap between the two countries is an agreement or contract to exchange currencies with predetermined terms and conditions.
- In the present context, a currency swap is effectively a loan that Bangladesh will give to Sri Lanka in dollars, with an agreement that the debt will be repaid with interest in Sri Lankan rupees.
- Central banks and Governments engage in currency swaps with foreign counterparts to meet short term foreign exchange liquidity requirements or to ensure adequate foreign currency to avoid Balance of Payments (BOP) crisis till longer arrangements can be made.
 - For Sri Lanka, this is cheaper than borrowing from the market, and a lifeline as it struggles

to maintain adequate forex reserves even as repayment of its external debts looms.

- These swap operations carry **no exchange rate or other market risks** as transaction terms are set in advance.
 - Exchange rate risk, also known as currency risk, is the financial risk arising from fluctuations in the value of a base currency against a foreign currency in which a company or individual has assets or obligations.
- > Unusual for Bangladesh:
 - Bangladesh has not been viewed so far as a provider of financial assistance to other countries. It has been among the most impoverished countries of the world, and still receives billions of dollars in financial aid.
 - But over the last two decades, it has managed to elevate its economy itself majorly, and in 2020, was the fastest growing in South Asia.
 - The country has managed to pull millions out of poverty. Its per capita income just overtook India's.
 - This may be the first time that Bangladesh is extending a helping hand to another country, so this is a landmark of sorts.
- > Sri Lanka's Approach to India:
 - In 2020, the President of Sri Lanka requested India for a USD 1 billion credit swap, and separately, a moratorium on debts that the country has to repay to India.
 - But India-Sri Lanka relations have been tense over Colombo's decision to cancel a valued container terminal project at Colombo Port, which made India put off the decision.
 - Earlier, in July 2020, the Reserve Bank of India (RBI) extended a USD 400 million credit swap facility to Sri Lanka, which the Central Bank of Sri Lanka settled in February. The arrangement was not extended.
- > RBI's Framework for Swap Facilities for SAARC:
 - The SAARC currency swap facility came into operation on 15th November, 2012.
 - The **revised framework** is valid from 14th November, 2019 to 13th November, 2022.
 - The **RBI can offer a swap arrangement within the** overall corpus of USD 2 billion.



www.drishti<mark>IAS</mark>.com

- The swap drawals can be made in US dollar, euro or Indian rupee. The framework provides certain concessions for swap drawals in Indian rupee.
- The facility will be **available to all SAARC member countries**, subject to their signing the bilateral swap agreements.
- The presumption was that only India, as the regional group's largest economy, could do this. The Bangladesh-Sri Lanka arrangement shows that is no longer valid.

Balance of Payment

- > Definition:
 - Balance of Payment (BoP) of a country can be defined as a systematic statement of all economic transactions of a country with the rest of the world during a specific period usually one year.
 - Overall the BoP account can be a surplus or a deficit.
 - If there is a deficit then it can be bridged by taking money from the Foreign Exchange (Forex) Account.
 - If the reserves in the forex account are falling short then this scenario is referred to as **BoP** crisis.

Components of BOP:

- Current Account: It shows export and import of visibles and invisibles (includes goods and services).
- Capital Account: It shows a capital expenditure and income for a country. It gives a summary of the net flow of both private and public investment into an economy.
- Errors and Omissions: Sometimes the balance of payment does not balance. This imbalance is shown in the BoP as errors and omissions.

Foreign Exchange Reserves

- Foreign exchange reserves are assets denominated in a foreign currency that are held by a central bank.
- These may include foreign currencies, bonds, treasury bills, and other government securities.
- These reserves are used to back liabilities and influence monetary policy.

43rd GST Council Meeting

Why in News

Recently, the 43rd Goods and Services Tax (GST) Council meeting was held.

This was the first meeting of the GST Council in the financial year 2021-22. The council's last meeting was held in October 2020.

GST Council

- It is a constitutional body (Article 279A) for making recommendations to the Union and State Government on issues related to Goods and Services Tax.
- The GST Council is chaired by the Union Finance Minister and other members are the Union State Minister of Revenue or Finance and Ministers incharge of Finance or Taxation of all the States.
- It is considered as a federal body where both the centre and the states get due representation.

Key Points

- > Ad Hoc Exemptions for Covid-Related Equipment:
 - The GST Council decided to exempt the import of many such items.
 - The exemption has been extended to August 2021.
 - Exemptions will be granted **to the import of relief items** even if they have been purchased as long as they are meant for donations to state governments.
 - Earlier, Integrated Goods & Services Tax (IGST) exemption was granted only free of cost imports.
 - With the rising cases of Black Fungus, a particular medicine required for it — amphotericin-B — has also been included in the exemption list (for taxfree imports).
 - It also proposed to set-up a Group of Ministers (GoM) committee to look into further exemptions that can be provided on account of the Covid-19 relief measure.
- > GST Amnesty Scheme:
 - It has been recommended for reducing late fees. Taxpayers can file pending returns, avail benefits of the scheme, with reduced late fees.
 - It will provide relief to small taxpayers who constitute 89% of GST payers.



- Late fees have also been rationalised. The maximum amount of late fee has been reduced and it will come into effect from future tax periods.
 - This will provide long-term relief for small GST taxpayers.

> GST Compensation Cess (States' Dues):

- Same formula as in 2020 will be adopted this year too. The rough estimate is that the Centre will have to borrow Rs 1.58 lakh crore, which will be passed on to states as back-to-back loans.
- A special session of the GST Council will be held to discuss **extending paying compensation to states beyond 2022.**

> Advance Payment to Vaccine Manufacturers:

- Rs.4,500 crore rupees were paid to two vaccine manufacturers as advance payment.
- The country is engaging with suppliers and manufacturers including from Japan, and Europe for vaccines.

> Annual Return Filing:

• Annual return filing has been **simplified**. The Council has **recommended amending the Central Goods**

& Services Tax (CGST) Act 2017 to allow for selfcertification of reconciliation statements, instead of getting it certified by Chartered Accountants.

 The Annual Return filing will continue to be optional for 2020-21 for small taxpayers, having a turnover of less than two crore rupees while reconciliation statements for 2020-21 will be furnished only by those taxpayers whose turnover is five crore rupees or more.

GST Compensation Cess

drishti

- GST Compensation Cess is levied by the GST Act 2017. The object of levying this cess is to compensate the states for the loss of revenue arising due to the implementation of GST on 1st July 2017 for a period of five years or such period as recommended by the GST Council.
- Compensation cess is levied over and above the amount of GST charged in relation to a particular supply. The calculation is similar to that of GST – the prescribed rate is applied to the transaction value given under section 15 of the CGST Act 2017 to arrive at the cess liability.

International Relations

Highlights

- Non Aligned Movement: Health Ministers' Meet
- India Israel Agreement on Agriculture Cooperation
- BRICS Astronomy Working Group (BAWG) Meeting
- Cultural Exchange Programme between India and Mongolia
- Farzad-B Gas Field: Iran
- China's New Strategic Highway

Non Aligned Movement: Health Ministers' Meet

Why in News

Recently, the Union Minister for Health and Family Welfare virtually participated in a meeting with Ministers of Health of the NAM (Non-Aligned Movement) Countries.

Key Points

- > India's Stand at the Meeting:
 - Vaccine Maitri Initiative:
 - Despite its own needs, during the Covid-19 pandemic, India ensured supply of medicines to 123 partner countries including 59 NAM nations.
 - Efforts to 'Universal Health Coverage':
 - Universal health coverage is defined as ensuring that all people have access to needed health services (including prevention, promotion, treatment, rehabilitation and palliation) of sufficient quality to be effective while also ensuring that the use of these services does not expose the user to financial hardship.
 - Ayushman Bharat aims at providing free health assurance to over 500 million underprivileged people, making it the world's largest health assurance scheme.
 - It adopts a two-pronged approach:
 - 1. Firstly, the creation of health and wellness centres to bring health care closer to homes.

- India, Oman MoU
- Lithuania Quits China's 17+1
- Call for Permanent Commission for Israel and Palestinian Areas
- EU Imposes Sanctions Against Belarus
- EAM's Visit to US
 - 2. Secondly, the formulation of a Pradhan Mantri Jan Arogya Yojana (PMJAY) to protect poor and vulnerable families against financial risk arising out of catastrophic health episodes.
 - Full immunization coverage is increasing at a rapid pace with a greater emphasis on village-based micro-plans that is aimed at enhancing coverage to 90% in a year.

About Non-Aligned Movement:

- Background:
 - It was formed during the Cold War (1945-1991) as an organisation of States that did not seek to formally align themselves with either the USA (Capitalism) or the Soviet Union (Socialism) but sought to remain independent or neutral.
- Foundation:
 - Six years after the Bandung Conference in 1955, the Movement of Non-Aligned Countries was founded on a wider geographical basis at the First Summit Conference of Belgrade, which was held in September 1961.
 - It was held under the leadership of Josip Broz Tito of Yugoslavia, Gamal Abdel Nasser of Egypt, Jawaharlal Nehru of India, Kwame Nkrumah of Ghana, and Sukarno of Indonesia.
- Purpose:
 - The purpose of the organisation was enumerated in the Havana Declaration of 1979 to ensure "the national independence, sovereignty, territorial integrity and security of non-aligned countries" in their struggle against imperialism, colonialism, neo-colonialism, racism, and all forms of foreign subjugation.



- Members and Observers:
 - It had 120 members as of April 2018 comprising 53 countries from Africa, 39 from Asia, 26 from Latin America and the Caribbean and 2 from Europe.
 - There are **17 countries** and **10 international** organisations that are Observers at NAM.
- Headquarters:
 - NAM does not have a **formal constitution** or **permanent secretariat**, and its administration is non-hierarchical and rotational.
 - Decisions are made by consensus, which requires substantial agreement, but not unanimity.
- Last Summit:
 - In 2020, the meeting was convened at the initiative of President Ilham Aliyev (present chairman until 2022) of Azerbaijan, in his capacity as chair of the Non Aligned Movement.

India - Israel Agreement on Agriculture Cooperation

Why in News

India and Israel have signed "a three-year work program agreement" for development in agriculture cooperation.

Key Points

- > Three-year Work Program:
 - The programme aims to grow existing Centres of Excellence, establish new centers, increase CoE's value chain, bring the Centres of Excellence into the self-sufficient mode, and encourage private sector companies and collaboration.
 - Both countries are implementing the "INDO-ISRAEL Agricultural Project Centres of Excellence" and "INDO-ISRAEL Villages of Excellence".
- > Indo-Israeli Agriculture Project:
 - Indo-Israeli Agricultural Cooperation Project started in 2008 following the signing of a three-year Action Plan based on a Government to Government Agreement.
 - Both started an agricultural fund worth \$50 million that focused on dairy, farming technology and micro-irrigation.



- **By March 2014, 10 centres of excellence operated** throughout India offering free training sessions for farmers on efficient agricultural techniques using Israeli technological expertise. Vertical farming, drip irrigation and soil solarization are taught at the centres.
- INDO-ISRAEL Villages of Excellence (IIVOE):
- This is a new concept aimed at creating a model ecosystem in agriculture across eight states, alongside 13 Centers of Excellence within 75 villages.
- The program will promote the increase of net income and better the livelihood of the individual farmer, transforming traditional farms into modernintensive farms based on Indo-Israel Agriculture Action Plan (IIAP) standards.
- Large-scale and complete value chain approach with economic sustainability, embedded with Israeli novel technologies and methodologies will be tailored to local conditions.
- The IIVOE program will focus on: (1) Modern Agriculture infrastructure, (2) Capacity Building, (3) Market linkage.

Indo-Israel Bilateral Cooperation

Historical Ties:



- The strategic cooperation between the two countries began during the Sino-India War of 1962.
- In 1965, Israel supplied M-58 160-mm mortar ammunition to India in the war against Pakistan.
- It was one of the few countries that chose not to condemn India's Pokhran nuclear tests in 1998.

> Economic Cooperation:

- From US\$ 200 million in 1992 (comprising primarily trade in diamonds), bilateral merchandise trade stood at US\$ 5.65 billion (excluding defence) in 2018-19, with the balance of trade being in India's favour by US\$ 1.8 billion.
 - Trade in diamonds constitutes close to 40% of bilateral trade.
- o India is Israel's third largest trade partner in Asia.
- Israeli companies have invested in India in energy, renewable energy, telecom, real estate, water technologies, and are focusing on setting up R&D centers or production units in India.
- The first recipients of grants from the Israel-India Industrial R&D and Technological Innovation Fund (I4F) were announced in July 2018, including companies working to better the lives of Indians and Israelis through efficient water use, improving communications infrastructure, solar energy use, and life-changing surgeries.
 - The fund aims to help Israeli entrepreneurs enter the Indian market.

> Defence Cooperation:

- Israel has been among the top four arms suppliers to India for almost two decades now, notching military sales worth around USD 1 billion every year.
- The Indian armed forces have inducted a wide array of Israeli weapon systems over the years, which range from Phalcon AWACS (airborne warning and control systems) and Heron, Searcher-II and Harop drones to Barak anti-missile defence systems and Spyder quick-reaction anti-aircraft missile systems.
- The acquisitions also include a host of Israeli missiles and precision-guided munitions, from Python and Derby air-to-air missiles to Crystal Maze and Spice-2000 bombs.
- > Covid-19 Response:

In 2020, an Israeli team arrived in India with a multi-pronged mission, codenamed **Operation Breathing Space** to work with Indian authorities on the Covid-19 response.

BRICS Astronomy Working Group (BAWG) Meeting

Why in News

Recently, India virtually hosted the **7th meeting** of the **BRICS Astronomy Working Group** (BAWG) under the **Science, Technology, and Innovation track of the BRICS 2021.**

The Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, and Department of Science and Technology (DST) coordinated the meeting.

Key Points

- > BRICS:
 - BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China and South Africa.
 - In **2001,** the **British Economist Jim O'Neill** coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
 - The grouping was **formalised** during the first meeting of BRIC Foreign Ministers' in **2006**.
 - South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.
 - India has assumed the BRICS Presidency from January 2021.
- Structure:
 - BRICS does not exist in the form of organization, but it is an annual summit between the supreme leaders of five nations.
 - The **Chairmanship** of the forum is **rotated annually** among the members, in accordance with the acronym B-R-I-C-S.
- Cooperation Mechanism: Cooperation among members is achieved through:
 - **Track I:** Formal diplomatic engagement between the national governments.



- **Track II:** Engagement through government-affiliated institutions, e.g. state-owned enterprises and business councils.
- Track III: Civil society and People-to-People engagement.

> Areas of Cooperation:

• Economic Cooperation:

• Agreements have been concluded in the areas of Economic and Trade Cooperation; Innovation Cooperation, Customs Cooperation; strategic cooperation between the BRICS Business Council, Contingent Reserve Agreement and the **New Development Bank.**

• People-to-People Exchange:

- This seeks to forge new friendships; deepen relations and mutual understanding between BRICS peoples in the spirit of openness, inclusiveness, diversity and mutual learning.
- Such People to people exchanges include the Young Diplomats Forum, Parliamentarian Forum, Trade Union Forum, Civil BRICS as well as the Media Forum.

Political and Security Cooperation:

- This is aimed at achieving peace, security, development and cooperation for a more equitable and fair world.
- BRICS is utilised as a driver for South Africa's foreign policy priorities including the pursuit of the African Agenda and South-South Cooperation.

> About BRICS Astronomy Working Group:

- It provides a platform for BRICS member countries to collaborate in the field of astronomy, recommending that the focal points in each country should present the scientific results of the work being carried out in each country.
- This will **help seek funding support** to realize the flagship project whenever funding opportunities are announced by BRICS funding agencies.
- At the meeting, the members indicated future directions of research in this area such as building network of intelligent telescope and data network, study of transient astronomical phenomena in universe, big data, artificial intelligence, machine learning application to process the voluminous data generated now a days due to enhance multiwavelength telescope observatory.

Cultural Exchange Programme between India and Mongolia

Why in News

Recently, the Minister of State for Culture discussed various issues under the **Cultural Exchange Programme** with his Mongolian counterpart.

Key Points

- > Highlights of the Meet:
 - Strengthening the **strategic partnership** established in 2015.
 - The Cultural Exchange Program between India and Mongolia stands renewed until 2023.
 - 10 dedicated ICCR scholarships for studying 'Tibetan Buddhism' have been allocated for Mongolians to study in specialized institutes of CIBS, Leh and CUTS, Varanasi, starting from 2020-2021.
 - The Indian Council for Cultural Relations (ICCR) is an autonomous organisation of the Government of India, involved in India's external cultural relations (cultural diplomacy), through cultural exchange with other countries and their peoples.
 - Tibetan Buddhism combines the essential teachings of Mahayana Buddhism with Tantric and Shamanic, and material from an ancient Tibetan religion called Bon.
 - India reiterated its commitment for digitization of Buddhist manuscripts in Gandan monastery and would consider Mongolia's request for assistance in setting up a museum-cum-library there.
 - The Ministry of Culture is likely to complete reprinting of about 100 sets of sacred Mongolian Kanjur by 2022 for distribution in the main centers of Buddhism in Mongolia.
 - Mongolian Kanjur is a Buddhist canonical text in 108 volumes and is considered to be the most important religious text in Mongolia. It has been translated from Tibetan and is written in classical mongolian.
 - In the Mongolian language 'Kanjur' means 'Concise Orders'- the words of Lord Buddha in particular.



www.drishti<mark>IAS</mark>.com



- Highlighted steps taken to facilitate the visa and travel of Buddhist monks from Mongolia within India.
- > India-Mongolia Relations:
 - Historical Relations:
 - India and Mongolia have interacted through **Buddhism** throughout history.
 - Diplomatic Relations:
 - India was the first country outside the former Soviet bloc of nations to open diplomatic relations with Mongolia in 1955.
 - In 2015, Mongolia witnessed the first ever visit by the Prime Minister of India (a part of India's Act East policy).
 - International Cooperation:
 - Mongolia has publicly reiterated its support for India's membership to the permanent seat of the expanded United Nations Security Council (UNSC).
 - India has played an important role in getting Mongolia membership to key international forums, including the United Nations (UN), despite strong opposition from China and Taiwan. India also championed the inclusion of Mongolia in the Non-Aligned Movement.
 - In a reciprocal gesture, Mongolia cosponsored a 1972 UN resolution with India and Bhutan for the recognition of the newly liberated Bangladesh.
 - Other Forums of which both the countries are members: Asia-Europe Meeting (ASEM), World Trade Organisation (WTO).
 - India is a member whereas Mongolia is an observer state at the Shanghai Cooperation Organisation (SCO).

- Economic Cooperation:
 - India Mongolia bilateral trade was USD 35.3 million in 2020, down from USD 38.3 million in 2019.
 - India has undertaken the 'Mongol refinery project' under its Lines of Credit (LoC) programme.
- Cultural Cooperation:
 - The India-Mongolian Agreement on Cultural Cooperation, signed in 1961, has governed the Cultural Exchange Programme (CEP) between the two countries.
 - The Agreement envisages co-operation in the fields of education by way of scholarships, exchange of experts, participation in conferences, etc.
- Defence Cooperation:
 - Joint defence exercises code-named Nomadic Elephant.
 - India is also an active participant in an annual week-long joint training exercise called the **Khaan Quest**, hosted by Mongolia.
- Cooperation over Environmental Issues:
 - Part of the Bishkek Declaration (snow leopard).

Farzad-B Gas Field: Iran

Why in News

Recently, Iran gave the **Farzad-B Gas Field** to Petropars, a domestic gas producer.

This is a setback for India's energy ties with Iran as ONGC Videsh Ltd (OVL) had discovered the gas field in 2008 and has been part of the ongoing cooperation on that front.

Key Points

- Farzad-B Gas Field:
 - o It is located in **Persian Gulf** (Iran).
 - The contract for exploration of the field was signed in 2002 by Indian consortium comprising ONGC Videsh, Indian Oil Corporation and Oil India.
 - The **contract expired in 2009** after declaration of commerciality of the field, based on the gas discovery.
 - It has gas reserves of more than **19 trillion** cubic feet.



42 CURRENT AFFAIRS MAY 2021



- ONGC has invested approximately USD 100 million.
- Since then, the consortium has been trying to secure the contract for development of the field.
 - The major dispute between India and Iran was over setting up of two pipelines, and also over money to be quoted on the development plan.
 - Around 75% of the deal was finalised by May 2018, when the US unilaterally withdrew from the nuclear deal and announced sanctions on Iran.
- In January 2020, India was informed that in the immediate future, Iran would develop the field on its own and would like to involve India appropriately at a later stage.
- > Other Recent Developments:
 - Indian merchants have almost entirely stopped signing new export contracts with Iranian buyers due to caution about Iran's falling rupee reserves with Indian banks.
 - Iran in 2020 dropped India's USD 2-billion offer and decided to build the Chabahar railway link (Chabahar-Zahedan Railway Line) on its own.
- > Concerns for India:
 - Growing Influence of China:
 - In April 2021, China and Iran signed a **25-year** "strategic cooperation pact" which includes political, economic and strategic components.
 - China is also concluding a security and military partnership with Iran.

- The China Iran strategic partnership may be an impediment for Indian entry routes into Afghanistan through Chabahar and further connectivity to International North South Transportation Corridor (INSTC), although Iran has not given any signals of disruption of these projects.
 - Further, Iran seems to be sceptical of India's diplomatic ties with the US.
- India's Energy Security:
 - India has stopped purchasing Iranian oil, which accounts for around 90% of its imports from the Islamic nation.
 - India was Iran's leading oil client after China until mid-2018.
 - India needs gas and Iran remains one of the best options as geographically, Iran is closest to India of all the countries in the Persian gulf region.
 - Further, the Farzad-B Gas Field could have improved India-Iran ties as the crude oil import from Iran remains impacted due to the US sanctions.
- India's Role in the Region:
 - Maintaining ties with Iran even as it forges a new relationship with Saudi Arabia and Israel is critical for India's balancing policy in West Asia.
- Connectivity to Central Asia:
 - Chabahar is not only a key to maritime relations between both the countries, but also provides an opportunity to India to reach Russia and Central Asia.
 - Further, it allows India to bypass Pakistan which had blocked Indian aid to Afghanistan and all trade over land.
- Peaceful Afghanistan:
 - India, having made significant investments in Afghanistan, will always hope for an Afghan elected, Afghan led, Afghan owned peace and reconciliation process and a popular democratic government in Afghanistan.
 - However, India has to be watchful of Iran
 Pakistan China axis developing in the neighbourhood of Afghanistan, with tentacles in the form of terror groups inside it.



www.drishti<mark>IAS</mark>.com

China's New Strategic Highway

Why in News

Recently, China has completed construction of a **strategically significant highway** enabling greater **access to remote areas along the disputed border** with Arunachal Pradesh in India.



Key Points

- > About:
 - The construction began in 2014 and is **part of a** wider infrastructure push in border areas in Tibet.
 - The highway passes through the **Grand Canyon of the Brahmaputra river** (Yarlung Zangbo in Tibet).
 - The Brahmaputra is the longest river in Tibet and its valley is the world's deepest with a 7,000-metre drop from the highest mountain peak to the lowest basin.
 - It connects Pad Township in the city of Nyingchi and Medog County.
 - Nyingchi and Medog County both are located in **Tibet Autonomous Region (TAR), China.**
 - Medog is the last county in Tibet, which is located close to the Arunachal Pradesh border.
 - China claims Arunachal Pradesh as part of South Tibet, which is firmly rejected by India. The India-China border dispute covers the 3,488-km-long Line of Actual Control (LAC).
 - The Highway will shorten **the road length** connecting the city proper of Nyingchi and Medog County and will reduce the **travel time by eight hours**.

- > Other Strategic Constructions by China:
 - Railway Line:
 - In 2020, China had begun work on a strategically significant railway line that will link Sichuan province with Nyingchi in Tibet, which lies close to Arunachal Pradesh border.
 - It is the second major rail link to Tibet after the Qinghai-Tibet railway that opened in 2006.
 - New Villages:
 - In January 2021, there were reports of Chinese construction of three villages in Arunachal Pradesh 5 kilometres from the Bum La pass.
 - In 2020, satellite images emerged showing a new village called Pangda built 2-3 km into what Bhutan sees as its land.
 - In 2017, the TAR government launched a plan to build moderately well-off villages in border areas.
 - Under this plan 628 first line and second line villages — referring to those right on the border and others in remote areas slightly further within — would be developed in the prefectures of Ngari, Shigatse, Shannan and Nyingchi, along China's borders with India, Bhutan and Nepal.
- Concerns for India:
 - The highway is also expected to play a key role in the surveying of and planning for the mega Yarlung Zangbo hydro-power project that China is planning to build at the canyon in the same Medog county, triggering unease among downstream countries like India.
 - A highway connecting the border will **largely improve the efficiency and convenience of military personnel and material transportation** and logistical supplies in the border area.
- Steps Taken by India:
 - India will spend 10% funds of the **Border Area Development Programme (BADP)** only to improve the infrastructure along the China border.
 - The **Border Roads Organisation (BRO)** constructed the **Daporijo bridge** over Subansiri river in Arunachal Pradesh.
 - It links roads leading upto the LAC between India and China.
 - Foundation of a tunnel at Nechiphu in West Kameng district of Arunachal Pradesh has been



laid down which will shorten travel time for troops till the LAC through Tawang, which China claims to be its territory.

- A tunnel is being constructed under the Se La pass in Arunachal Pradesh which connects Tawang to the rest of Arunachal and Guwahati.
- The state government of Arunachal Pradesh has advocated selection of 10 census towns along the India-China border as pilot projects for infrastructure development in order to stop people living along its international borders, specifically with China, from migrating to faraway urban centres in the State.
- Sisseri River Bridge, located at lower Dibang Valley in Arunachal Pradesh, connects Dibang Valley and Siang.
- In 2019, the Indian Air Force inaugurated resurfaced runway at India's easternmost Village-Vijaynagar (Changlang district) in Arunachal Pradesh.
- In 2019, the Indian Army conducted **exercise 'HimVijay'** in Arunachal Pradesh and Assam with its newly **created Integrated Battle Groups (IBG)**.
- **Bogibeel bridge**, which is India's longest road-rail bridge connecting Dibrugarh in Assam to Pasighat in Arunachal Pradesh was inaugurated in 2018.
 - It will facilitate quicker movement of troops and equipment to areas near the India-China border.

India, Oman MoU

Why in News

Recently, **India and Oman** renewed the Memoranda of Understanding (MoUs) on **military cooperation** as well as on **maritime security**.

Key Points

- > India-Oman Relationship:
 - The Sultanate of Oman is a strategic partner of India and an important speaker at the Gulf Cooperation Council (GCC), Arab League and Indian Ocean Rim Association (IORA) fora.
 - India is a member of IORA but not a member of GCC and Arab League.
 - India and Oman are linked by geography, history and culture and enjoy warm and cordial relations, which are attributed to historical maritime



trade linkages, intimacy of the Royal family with India and the seminal role played by Indian expatriate community in building Oman, which is acknowledged by the Omani Government.

- Institutional mechanisms like Joint Commission Meeting (JCM) and Joint Business Council (JBC)
 oversee economic cooperation between the two.
- Key bilateral agreements/MoUs cover cooperation in Defence; peaceful uses of Outer Space; Extradition; Legal and judicial cooperation in civil and commercial matters; Agriculture; Civil Aviation; Avoidance of Double Taxation; Maritime issues; etc.
- Defence Cooperation:
 - In West-Asia, **Oman is one of India's oldest defence** partners and an ally in anti-piracy campaigns.
 - India has supplied rifles to Oman. Also, India is considering setting up a defence production unit in Oman.
 - India and Oman conduct regular biennial bilateral exercises between all three services.
 - Army exercise: Al Najah
 - Air Force exercise: Eastern Bridge
 - Naval Exercise: Naseem Al Bahr
- Maritime Cooperation:
 - Oman is at the gateway of **Strait of Hormuz** through which India imports one-fifth of its oil imports.
 - The **berth rights given by Oman to Indian vessels** is important for the Indian Navy to carry out antipiracy operations in the Gulf of Aden.
 - India signed a pact with the country in 2018 to access the Duqm port of Oman.
 - India is working closely with Oman to enhance strategic depth in the region and add heft to its Indo-Pacific vision in the Western and Southern Part of Indian Ocean.



- o India needs its support to counter the growing Chinese foothold in the region.
 - India is concerned with China's acquisition of strategic assets in the region including setting its base at Port of Doraleh in Djibouti.

Lithuania Quits China's 17+1

Why in News

Recently, Lithuania quit China's 17+1 cooperation forum with central and eastern Europe, by calling it "divisive", now it is 16+1.

> Lithuania (Baltic Country) urged other EU (European Union) members to pursue "a much more effective 27+1 approach and communication with China."

Key Points

- > About 17+1:
 - Formation:
 - The 17+1 (China and Central and Eastern Europe Countries) initiative is a China-led format founded in 2012 in Budapest with an aim to expand cooperation between Beijing and the CEE (Central and Eastern Europe) member countries, with investments and trade for the development of the CEE region.
 - Member Countries:
 - The initiative includes **twelve EU** member states and five Balkan states — Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia.
 - Aim and Objectives:
 - The framework focuses on infrastructure projects such as bridges, motorways, railway lines and modernisation of ports in the member states.
 - The platform is largely seen as an extension of China's flagship Belt and Road initiative (BRI).
 - India has consistently opposed BRI as a key part of it passes through Pakistan-occupied Kashmir (PoK).
- \geq **Background of Declining Relations:**
 - China's Narrative towards 17+1 Initiative:
 - China's narrative towards the 17+1 initiative is about improving its relations with the European

CURRENT AFFAIRS MAY 2021 45

countries that are less developed as compared to the Western European states.

- Trade relations between China and the CEE countries remained modest, leading to an increasing trade deficit since its inception.
- Growing Distance:
 - Czech Republic President's decision to skip the ninth summit of the 17+1 initiative citing lack of actual investments, had showcased the differences between Beijing and Prague.
 - Some CEE countries refused to attend the BRI event in 2020.
- The Huawei Equation:
 - Some CEE countries signed a declaration with the US to ban China's 5G network expansion.

Baltic Countries

Baltic states, the northeastern region of Europe, \geq includes the countries of Estonia, Latvia, and Lithuania, on the eastern shores of the Baltic Sea.



- The Baltic states are bounded on the west and north by the Baltic Sea, which gives the region its name, on the east by Russia, on the southeast by Belarus, and on the southwest by Poland and an exclave of Russia.
- \succ The Baltic region is **not rich in natural resources.** Though Estonia is an important producer of oil shale, a large share of mineral and energy resources is imported.



www.drishti<mark>IAS</mark>.com

India and Baltic countries have historical connection and common linguistic roots. The cutting edge technology and innovation ecosystems of the Baltic countries complement India's huge market and appetite for these technologies.

Balkan Countries

The geographic term is used for ten sovereign states: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Kosovo, Macedonia, Montenegro, Romania, Serbia, and Slovenia.



- The region takes its name from the Balkan Mountain, and Balkan Countries are found in Southern Europe.
- It is a unique territory inhabited by South Slavs who form the majority of the population in Balkan Region.
- Region has a very diverse ethno-linguistic scenario. The Bulgarians, Macedonians, and Slovenes speak their own Slavic languages, while the Slavs of Serbia, Croatia, Bosnia and Herzegovina, and Montenegro all speak dialects of Serbo-Croatian.

Call for Permanent Commission for Israel and Palestinian Areas

Why in News

Member states of the Organization of Islamic Cooperation (OIC) are calling on the UN Human Rights Council (UNHRC) to set up a permanent commission to report on human rights violations in Israel, Gaza and the West Bank. The move comes in the wake of the latest surge in violence in the Israel-Palestine conflict.

Key Points

- > About the Proposed Permanent Commission:
 - It will be an independent, international commission of inquiry appointed by the UNHRC president to investigate violations of international humanitarian and human rights law in Israel and Palestinian areas.
 - A commission of inquiry (COI) is the highest level of scrutiny that the council can authorize.
 - Another COI, for example, has been regularly reporting on Syria's war nearly since its inception a decade ago – partially in hopes of collecting evidence that could be used in court one day.
 - The commission **would also investigate** all underlying root causes of recurrent tensions, instability and protraction of conflict including discrimination and repression.
 - Israel, backed at times by the United States, accuses the council of anti-Israel bias and has generally refused to cooperate with its investigators.
 - Organisation of Islamic Cooperation:
 - OIC is the second-largest intergovernmental organization after the United Nations with a membership of 57 states.
 - India is not a member of the OIC. However, India was invited as a guest of honour at the 46th Session of the Council of Foreign Ministers in 2019.
 - It represents the collective voice of the Muslim world. It works for the protection of the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.
 - It was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco, in 1969.
 - o Headquarters: Jeddah, Saudi Arabia.
- > UN Human Rights Council:
 - An **inter-governmental body within the United Nations system** responsible for strengthening the promotion and protection of **human rights** around the world.
 - The Council was created by the United Nations General Assembly (UNGA) in 2006. It replaced the former United Nations Commission on Human Rights.



- The Office of the High Commissioner for Human Rights (OHCHR) serves as the Secretariat of the Human Rights Council.
 - OHCHR is headquartered in Geneva, Switzerland.
- It is made up of 47 United Nations Member States which are elected by the UNGA on the principle of equitable geographical distribution.
 - Members of the Council **serve for a period of three years** and are not eligible for immediate re-election after serving two consecutive terms.
 - India was elected to the Council for a period of three years beginning 1st January 2019.
- o Mechanisms:
 - Universal Periodic Review: UPR serves to assess the human rights situations in all United Nations Member States.
 - UN Special Procedures: These are made up of special rapporteurs, special representatives, independent experts and working groups that monitor, examine, advise and publicly report on thematic issues or human rights situations in specific countries.
- Recent Developments:
 - The United States has announced that it would rejoin the UNHRC that it left in 2018.
 - The Council has adopted a resolution to scrutinise the gross violations of human rights in Sri Lanka.

EU Imposes Sanctions Against Belarus

Why in News

Recently, the **European Union (EU)** imposed **sanctions against Belarus**, including banning its airlines from using the airspace and airports of the **27-nation bloc EU**.

Key Points

- > Background of Belarus' Polity:
 - Europe's longest-serving ruler, President of Belarus Lukashenko took office in 1994 amid the chaos caused by the collapse of the Soviet Union in 1991.
 - Often described as **Europe's "last dictator"**, he has tried to preserve elements of **Soviet communism**.



- He has been in power for **26 years**, keeping much of the **economy in state hands**, and using censorship and police crackdowns against opponents.
- In 2020, after Lukashenko was announced as the winner in elections, protests broke out in the capital, Minsk which was met with a violent security crackdown.
 - There has been widespread anger against the government over a stagnant economy and doubts about the fairness of the election.
- Previous Sanctions:
 - In response to the violent crackdown, the EU and the United States (US) imposed several rounds of financial sanctions against Belarus in 2020.
 - The US also imposed travel restrictions and targeted financial sanctions on nine state-owned entities and 16 individuals, including President Lukashenko. First imposed in 2006, these were tightened in 2008.
 - The EU first introduced **restrictive measures against Belarus in 2004,** following the disappearance of two opposition politicians, a journalist and a businessman several years earlier.
- > Reason for Recent Sanctions:
 - Belarus forcely diverted a passenger jet and scrambled a warplane to arrest an opposition journalist in an act denounced by Western powers as "state piracy" (an act of piracy where the state is involved).



- > Steps Taken by EU:
 - Restrictions on Airspace:
 - Called for Belarusian airlines to be banned from the 27-nation bloc's airspace and urged EU-based carriers to avoid flying over the former Soviet republic.
 - Investigation into Forced Plane Diversion:
 - Agreed to widen the list of Belarusian individuals they already sanction and called on the **International Civil Aviation Organization (ICAO)** to urgently investigate Belarus forcing a Ryanair plane to land in Minsk on a Greece-Lithuania flight.
 - It also called for the release of the journalist who was detained.
 - Sanctions on Individuals and Businesses:
 - Since October 2020, the EU has progressively been restricting more and more key political figures with measures like travel bans and asset freezes.
 - With the recent incident, the bloc decided to add even more targets to its sanction list of 88 individuals and seven entities.
 - Billion-Euro Economic Package:
 - The EU had a 3 billion Euro investment package ready for Belarus that it will now freeze until the country turns democratic.
- Implications:
 - Belarus lies on the flight path of routes within Europe and between Europe and Asia. Skirting Belarus would slow flights down and cost airlines money.
 - Belarus receives income from airlines that enter its airspace of up to 70,000 Euro each day, losing this amount of money would be an inconvenience but not have a significant impact on the economy of Belarus.

International Civil Aviation Organisation

> About:

- It is a United Nations (UN) specialized agency, established in 1944, which laid the foundation for the standards and procedures for peaceful global air navigation.
 - The **Convention on International Civil Aviation** was signed in December 1944 in Chicago.

• It **established the core principles** permitting international transport by air, and also led to the creation of the ICAO.

> Objective:

- To foster the **planning and development of international air transport** so as to ensure the safe and orderly growth of international civil aviation throughout the world.
- > Members:
 - o India is among its **193 members.**
- > Headquarter:
 - o Montreal, Canada.

EAM's Visit to US

Why in News

Recently, India's External Affairs Minister (EAM) on his visit to the US met American lawmakers, National Security Advisor, Defense Secretary, U.S. Trade Representative (USTR) and representatives from the private sector.

- Earlier, the Prime Minister of India and US President had a conversation on issues related to supply chains for vaccines for Covid-19.
- India also participated in the Leaders' Summit on Climate which was convened by the US President virtually.

Key Points

- Major Discussions:
 - Regional (Indo-Pacific) or global issues, Afghanistan and on further developing the India-US strategic and defence partnership.
 - Vaccine cooperation, contemporary security challenges, support for efficient and robust supply chains, among others.
 - The U.S. India Business Council (USIBC) meeting included a discussion on how the private sector, working via a consortium of 40 companies called the 'Global Task Force for Pandemic Response', could "support India's health infrastructure and further ways to continue relief efforts.
 - The USBIC was formed in 1975 as a business advocacy organization to enlighten and encourage the private sectors of both India and the US to enhance investment flows.



> India's Stand:

- The US military has played a key role in the US's efforts to assist India as it battles a devastating wave of Covid-19.
- Trade, technology & business cooperation are at the core of strategic partnership which must be enhanced further for post-Covid economic recovery.
- Welcomed US's positive stance on Intellectual property rights (IPR) issues & support for efficient & robust supply chains.

> US' Stand:

 Both are united in confronting Covid-19 together, in dealing with the challenge posed by climate change, to partner together directly, through QUAD (Quadrilateral Framework) and other institutions in the United Nations in dealing with many of the challenges of the region and around the world.

Mutual Stand:

- People-to-people ties and shared values are the foundation of the U.S.-India strategic partnership that is helping to end the pandemic, supporting a free and open Indo-Pacific, and providing global leadership on climate change.
- Welcomed cooperation that has resulted in the delivery of over USD 500 million in relief materials (state, federal and private sector sources) from the U.S. to India.

Current State of India-US Ties

- > Defence:
 - India and US inked important defence pacts in the last few years and also formalised the four nation alliance of QUAD.

- The alliance is seen as an **important counter** to China in the Indo-Pacific.
- The Malabar exercise in November 2020 portrayed a high point in Indo-US strategic ties, it was the first time in 13 years that all four countries of QUAD came together sending a fir message to China.
- India now has access to american bases from Djibouti in Africa to Guam in the Pacific. It can also access advanced communication technology used in US defence.

> Trade:

- The previous US government ended India's special trade status and also imposed several bans, India also retaliated with bans on 28 US products.
- Current US government has allowed all the bans by the previous government to expire.
- Indian Diaspora:
 - There is a growing presence of Indian diaspora in all spheres in the US. For example the current Vice-President (Kamala Harris) of the US has a strong Indian connection.
 - There are several Indian origin people holding strong leadership positions in the current US administration.

Covid-Cooperation:

- When the US was reeling under a deadly Covid wave last year, India rushed important medical supplies and eased export restrictions to help the country.
- Initially the US showed hesitancy in returning the favour when India needed it, however the US quickly changed its stance and **rushed supplies to India.**

drishti

Science and Technology

Highlights

- Launching Baby Squids and Tardigrades into Space
- WHO BioHub Initiative
- Kyasanur Forest Disease
- White Fungus
- Tianwen-1: China's Mars Mission

Launching Baby Squids and Tardigrades into Space

Why in News

NASA will send baby squids and tardigrades (also called water bears) to the International Space Station for conducting various scientific studies.

Key Points

- The Study: These animals are part of two separate scientific studies.
 - Behavior of Tardigrades (water bears) in a spaceflight environment.
 - Tardigrades can adapt to extreme conditions on Earth, including high pressure, temperature and radiation.
 - Impact of microgravity conditions on the relationship between bobtail squids and beneficial microbes.
 - The squids are a part of the UMAMI (Understanding of Microgravity on Animal-Microbe Interactions) study which examines the effects of spaceflight on interactions between beneficial microbes and their animal hosts.

> Importance of the Studies:

- Host-microbe Relationship:
 - On Earth, it will help to find ways to protect and even enhance the complex relationship between animals and beneficial microbes, ensuring better human health and well being.
 - In space, the findings will help space agencies

- Coviself: Self Testing Kit
- Havana Syndrome
- National Award for Recycling Carbon Technology
- Yellow Fungus

develop better measures to protect astronauts from adverse host-microbe alterations on longduration missions.

- o Longer Spacefights:
 - The study on Tardigrades will allow researchers to study their hardiness close up, and possibly identify the genes that allow them to become so resilient. This will help in safer and longer spaceflights.
 - Similarly, a recent research in zebrafish has demonstrated how induced hibernation (torpor) may protect humans from the elements of space, especially radiation, during space flight.

International Space Station

- ISS is a habitable artificial satellite the single largest man-made structure in low earth orbit. Its first component was launched into orbit in 1998.
- It circles the Earth in roughly 92 minutes and completes 15.5 orbits per day.
- The ISS programme is a joint project between five participating space agencies: NASA (United States), Roscosmos (Russia), JAXA (Japan), ESA (Europe), and CSA (Canada) but its ownership and use has been established by intergovernmental treaties and agreements.
- It serves as a microgravity and space environment research laboratory in which crew members conduct experiments in biology, human biology, physics, astronomy, meteorology, and other fields.
- Continuous presence at ISS has resulted in the longest continuous human presence in low earth orbit.
- > It is expected to operate until 2030.



- Recently, China launched an unmanned module of its permanent space station that it plans to complete by the end of 2022.
 - The module, named "Tianhe", or "Harmony of the Heavens", was launched on the Long March 5B, China's largest carrier rocket.
- India has also set its eye on building its own space station in low earth orbit to conduct microgravity experiments in space in 5 to 7 years.

WHO BioHub Initiative

Why in News

The World Health Organization (WHO) and Switzerland have launched a BioHub facility that will allow pathogens sharing between laboratories and facilitate "analysis and preparedness" against them.

Key Points

- > About BioHub Facility:
 - The facility will help in safe reception, sequencing, storage and preparation of biological materials for distribution to other laboratories, so as to facilitate global preparedness against these pathogens.
 - It will enable member states to share biological materials with and via the BioHub under preagreed conditions, including biosafety, biosecurity, and other applicable regulations.
 - In parallel, WHO will broaden its BioHub System for the use of biological materials by qualified entities – such as manufacturers – for the development of medical by-products for fair allocation to countries.

Significance:

- The Covid-19 pandemic and other outbreaks and epidemics have underscored the importance of rapidly sharing pathogens to help the global scientific community assess the risk and develop countermeasures such as diagnostics, therapeutics and vaccines.
 - Pathogens have been shared bilaterally between countries: A process that can be sluggish and deny the benefits to some.
- This will ensure the **timely sharing of epidemiological** and clinical data as well as biological materials.

• The move will help **contribute to the establishment of an international exchange system** for novel coronavirus SARS-CoV-2 and other emerging pathogens.

Pathogens

- > Definition:
 - A pathogen is a biological agent that causes disease or illness. Zoonotic pathogen refers to pat.
 - hogens naturally transmitted between animals and humans.
- > Types of Pathogens:
 - o Virus:
 - Viruses are made up of a piece of genetic code, such as DNA or RNA, and protected by a coating of protein. Viruses invade host cells within the body. They then use the components of the host cell to replicate, producing more viruses.
 - Examples of diseases caused by viruses: Chickenpox, Flu (influenza), Covid-19, Human immunodeficiency virus (HIV/AIDS), Mumps, measles and rubella.
 - o Bacteria:
 - Bacteria are microorganisms made of a single cell. They are very diverse, have a variety of shapes and features, and have the ability to live in just about any environment, including in and on the body.
 - Examples of diseases caused by bacteria: Cholera, Leprosy, Tuberculosis, Plague, Syphilis, Anthrax etc.
 - o Fungi:
 - Fungi can be found just about everywhere in the environment, including indoors, outdoors, and on human skin. They cause infection when they overgrow.
 - Examples of Fungal Infection: Mucormycosis, White Fungus, Yellow Fungus.
 - Parasites:
 - Parasites are organisms that behave like tiny animals, living in or on a host and feeding from or at the expense of the host. Though parasitic infections are more common in tropical and subtropical regions, they can occur anywhere.



• Diseases caused by Parasite: Malaria, African trypanosomiasis, babesiosis, leishmaniasis, and toxoplasmosis etc.

Antimicrobial Resistance:

 It is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.

Kyasanur Forest Disease

Why in News

A new point-of-care test has been found to be highly sensitive in the rapid diagnosis of Kyasanur Forest Disease (KFD).

> This disease is also known as **monkey fever.**

Key Points

- > Point-of-care Test:
 - o About:
 - It is developed by Indian Council of Medical Research (ICMR)-National Institute of Virology.
 - It includes a battery-operated Polymerase Chain Reaction (PCR) analyser, which is a portable, lightweight and universal cartridge-based sample pre-treatment kit and nucleic acid extraction device that aid in sample processing at the point of care.
 - Benefits:
 - It would be beneficial for the **diagnosis of KFD** as the outbreaks mainly happen in remote areas, where there is lack of well-equipped sample handling and laboratory testing facilities.
 - It would be useful in quick patient management and controlling further spread of the virus.
- Kyasanur Forest Disease:
 - About:
 - It is caused by Kyasanur Forest disease Virus (KFDV), which primarily affects humans and monkeys.

- It was first identified in 1957 in a sick monkey from the Kyasanur Forest in Karnataka. Since then, between 400-500 human cases per year have been reported.
- Eventually, KFD emerged as a grave public health problem spreading through the entire Western Ghats.
- Transmission:
 - In nature, the virus is maintained mainly in hard ticks (Haemaphysalis spinigera), monkeys, rodents and birds.
 - To humans, it may occur after a tick bite or contact with an infected animal (a sick or recently dead monkey).
- Symptoms:
 - Characterised by chills, frontal headache, body ache, and high fever for five to 12 days with a case fatality rate of 3 to 5%.
- Diagnosis:
 - Diagnosis can be made in the early stage of illness by molecular detection by PCR or virus isolation from blood.
 - Later, serologic testing using Enzyme-linked Immunosorbent Serologic Assay (ELISA) can be performed.
- Treatment and Prevention:
 - There is **no specific treatment** for monkey fever.
 - A vaccine (Formalin inactivated KFDV vaccine) does exist for KFD and is used in endemic areas of India.

Kyasanur Forest Disease (KFD) Virus Ecology

The hard tick Haemaphysalis spinagera is the reservoir and vector of Kyasanur Forest Disease Virus (KFDV). Once infected, ticks remain so for life and are able to pass KFDV to

offspring via the egg.

Transmission of KEDV to humans may occur after a tick bite or contact with an infected animal, most commonly a sick or recently dead monkey. No person-to-person transmission has been described.

South India.

Human cases occur more frequently in driv

months (Nov-June) and in So





 However, it is found that vaccines are not effective once the person is infected with fever.

White Fungus

Why in News

As the central government asks states to notify **black fungus or mucormycosis** an **epidemic**, an infection called white fungus or Candidiasis has also been found to affect some people.

- Covid-19 patients are more prone to white fungus as it affects the lungs and similar symptoms are created like that of coronavirus.
- Black fungus is a serious but rare fungal infection caused by a group of molds called mucormycetes, which is abundant in the environment.

Key Points

- > About:
 - White Fungus or Candidiasis is a fungal infection caused by a yeast (a type of fungus) called Candida.
 - Candida normally lives on the skin and inside the body, in places such as the mouth, throat, gut, and vagina, without causing any problems.
 - Candida can cause infections if it grows out of control or if it enters deep into the body (for example, the bloodstream or internal organs like the kidney, heart, or brain).
 - The most common species that causes infection is **Candida albicans.**
- > Cause:
 - This infection **can be caused due to low immunity**, or if people come in **contact with** things that contain these **moulds** like water, etc.
 - Children and women are more at risk of contracting the fungal infection.
 - Like the black fungus, white fungus is also more likely to afflict people with compromised immune systems, pre-existing medical conditions, AIDS, a recent kidney transplant or diabetes.
- > Symptoms:
 - People **experience symptoms similar to Covid** if it reaches the lungs such as chest infection, despite testing negative for the virus.

• White fungus affects the lungs as well as other parts of the body including the nails, skin, stomach,

> Diagnosis and Treatment:

• CT scans or X-Rays can reveal the condition.

kidney, brain, private parts and mouth.

- Patients with the white fungus are currently being treated with known **anti-fungal medication.**
- > Prevention:
 - Special caution is required of moulds in water that can lead to infection.
 - Proper sanitation is very important.

Tianwen-1: China's Mars Mission

Why in News

Recently, China's spacecraft **Tianwen-1** landed on Mars carrying its **first Mars rover** named **Zhurong**.

- It became the third country to land on Mars after the US and Soviet Union.
- C hina's previous 'Yinghuo-1' Mars mission, which was supported by a Russian spacecraft, had failed after it did not leave the earth's orbit and disintegrated over the Pacific Ocean in 2012.

Key Points

- About the Tianwen-1 Mission:
 - Launch:
 - The Tianwen-1 Spacecraft was lifted off on a Long March 5 rocket, from the Wenchang launch center in July 2020.
 - Three Parts:
 - The Spacecraft consists of three parts the orbiter, the lander and the rover which separated in Mars orbit.
 - The orbiter will remain in the orbit for scientific operations and to relay signals while the lander-rover combination has made an autonomous descent and landing.
 - The lander from Tianwen-1 has touched down on Utopia Planitia, a large plain in the northern hemisphere of Mars.
 - Objectives:



Note:

CURRENT AFFAIRS MAY 2021 53

CURRENT AFFAIRS MAY 2021

- To conduct scientific investigations into the planet's soil, geological structure, environment, atmosphere and water.
 - The mission will be the first to place a groundpenetrating radar on the Martian surface, which will be able to study local geology, as well as rock, ice, and dirt distribution.
- China's Other Space Programmes:
 - Chang'e-5 (Moon)
 - **Tianhe** (Permanent Space Station)
- > Other Mars Missions:
 - **O** NASA's Perseverance Rover
 - o UAE's Hope Mars Mission (UAE's first-ever interplanetary mission)
 - India's Mars Orbiter Mission (MOM) or Mangalyaan:
 - It was launched from the Satish Dhawan Space Centre in Andhra Pradesh by Indian Space Research Organisation in November 2013.
 - It was launched on board a PSLV C25 rocket with the aim of studying Martian surface and mineral

Mars

- > Size and Distance:
 - o It is the **fourth planet from the Sun** and the second-smallest planet in the Solar System.
 - Mars is about half the size of Earth.
- Similarity to the Earth (Orbit and Rotation):
 - As Mars orbits the Sun, it completes one rotation every 24.6 hours, which is very similar to one day on Earth (23.9 hours).
 - Mars' axis of rotation is **tilted 25 degrees** with respect to the plane of its orbit around the Sun. This is similar to Earth, which has an axial tilt of 23.4 degrees.
 - o Mars has distinct seasons like Earth, but they last longer than seasons on Earth.
 - Martian days are called sols—short for 'solar day'.
- Other Features:
- The **reason** Mars **looks reddish** is due to oxidation \geq or rusting of iron in the rocks, and dust of Mars. Hence it is also called the Red Planet.
- It has the largest volcano in the solar system i.e. \geq Olympus Mons.
- It has two small moons, Phobos and Deimos.

composition as well as scan its atmosphere for methane (an indicator of life on Mars).

www.drishtilAS.com

Coviself: Self Testing Kit

Why in News

Recently, the Indian Council of Medical Research (ICMR) approved India's first self-use Rapid Antigen Test (RAT) for Covid-19 named as CoviSelf.

- > It is developed by MyLab Discovery Solutions, a Pune-based molecular company.
- > ICMR is the apex body in India for the formulation, coordination and promotion of biomedical research, and is one of the oldest medical research bodies in the world.

Key Points

- \geq About:
 - It uses a RAT and gives results within 15 minutes. This test is synced with a mobile app, CoviSelf, which will help directly feed the positive case's report on the ICMR portal.
 - ICMR has advised this test only for those who have symptoms or are high-risk contacts of positive patients and need to conduct a test at home.
 - This test is not advised for general screening in public places of hawkers, show owners, or commuters.

Rapid Antigen Test

- It is a test on swabbed nasal samples that detects antigens (foreign substances that induce an immune response in the body) that are found on or within the SARS-CoV-2 virus.
- It is a **point-of-care test**, performed outside the \triangleright conventional laboratory setting, and is used to quickly obtain a diagnostic result.
- Like RT-PCR (Reverse Transcription Polymerase Chain ≻ Reaction), the RAT too seeks to detect the virus rather than the antibodies produced by the body.
 - While the **mechanism is different**, the most significant difference between the two is time.
 - o In an RT-PCR test, RNA (Ribonucleic acid) is extracted from the swab collected from the patient. It is then converted into DNA (Deoxyribonucleic acid), which is then amplified.



- RT-PCR test takes a minimum of 2-5 hours whereas the maximum duration for interpreting a positive or negative test in RAT is 30 minutes.
- > Benefits of Self Testing:
 - Cost Effective:
 - Swab collection in this case is fairly simple and quick, and reduces overall testing expenditure and the stress of booking appointments in labs.
 - It is cheaper than RT-PCR and a RAT in the laboratory.
 - Reduced Risk of Transmission:
 - A person testing himself at home rather than visiting a hospital or lab, or calling a technician at home, reduces the risk of transmission to others.
 - Reliable self-collection and self-testing will reduce population movement, reduce Covid-19 exposure risk.
 - Reduced Burden:
 - Self-testing will reduce the burden on laboratories that are currently working 24 hours up to full capacity with manpower that is already saturated.
 - Mass Surveillance:
 - Cheap rapid tests can help in accomplishing the aim of mass surveillance even if their sensitivity to capture accurate results are inferior to other tests.
- > Concerns:
 - Reliability:
 - The reliability of results remains a major concern. The likelihood of the sample not being collected correctly, or the swab stick getting contaminated, is high.
 - False Sense of Security:
 - RAT comes with a high chance of false negatives. If a Covid-infected person is asymptomatic and tests negative, the test may give a false sense of security.
 - Challenge to Response Measures:
 - Shifting the responsibility of reporting test results from health professionals and laboratories to individuals could lead to underreporting, and make response measures such as contract tracing and quarantine of contacts even more challenging.

Havana Syndrome

Why in News

Recently, two US officials have shown symptoms of a **mystery illness** that is linked to **Havana Syndrome.**

- In 2020, a report by the National Academies of Sciences (NAS), US found directed microwave radiation to be the plausible cause of the Havana syndrome.
- Increasing number of cases is being considered a mass psychogenic illness.

Mass Psychogenic Illness

Mass psychogenic illness is when people in a group start feeling sick at the same time even though there is no physical or environmental reason for them to be sick. They could think they've been exposed to something dangerous, like a germ or a toxin (poison).

National Academy of Sciences

- It is a non-profit, Government Organisation in the United States of America.
- NAS was founded in 1863 as a result of an Act of Congress, which was approved by Abraham Lincoln.
- > The organisation offers its reports to the Government with regard to the Science and Technology projects.

Key Points

- > About:
 - In late 2016, a few diplomats from the USA and their employees had reported certain usual symptoms during their stay in Havana, Cuba.
 - They experienced some odd physical sensations and heard peculiar sounds, after which they started feeling sick.
 - The US had even accused Cuba of carrying out sonic attacks. But Cuba denied the accusations of the sonic attacks and refused awareness of any such illness or syndrome.
 - Ever since **many bodies and institutions** have been researching the cause of the **Havana syndrome** and many plausible factors have been discovered till date.
 - The **symptoms of the syndrome** include Nausea, Severe headaches, Fatigue, Dizziness, Sleep problems, Hearing loss.



• A few of those who had been affected more faced chronic issues like vestibular processing and cognitive problems.

> Microwave Weapons:

- Direct Energy Weapon (DEW):
 - They are a type of **direct energy weapons**, which aim **highly focused energy** in the form of **sonic**, **laser**, or microwaves, at a target.
 - They release **electromagnetic radiation** which causes sensations in the human body.
 - Electromagnetic radiation heating the water in the human body makes a person feel dizziness and nausea.

o Countries with Microwave Weapons:

- A number of countries are thought to have developed these weapons to target both humans and electronic systems.
- China had first put on display its microwave weapon, called Poly WB-1, at an air show in 2014.
- The US has also developed a prototype microwave-style weapon, which it calls the "Active Denial System", which is the first nonlethal, directed-energy, counter-personnel system with an extended range greater than currently fielded non-lethal weapons.

• India's Plans for Directed Energy Weapons:

- Recently, the Defence Research and Development Organisation (DRDO) has announced its plans to develop (DEWs) using high-energy lasers and microwaves.
- **Development of DEWs** is seen as particularly important in the context of India's worsening security environment, especially its ties with China.

o Concerns:

- These weapons are a cause of concern as they can affect both machines and human beings.
- They can cause long-term damages without leaving a single mark on the human body.

National Award for Recycling Carbon Technology

Why in News

A Bangalore based **startup** has received the **National** Award 2021 from Technology Development Board (TDB) for developing a commercial solution for conversion of carbon dioxide (CO₂) to chemicals and fuels.

The startup has received funding under the Nano Mission.

Key Points

- > About:
 - The startup developed efficient catalysts and methodologies for the conversion of carbon dioxide (CO₂) to methanol and other chemicals.
 - It has led to improvisation of process engineering to enhance the production of chemicals and fuels from anthropogenic CO₂ generated from various sources including coal and natural gas power generation sectors, steel industry, cement industry, and chemical industries.
 - It has integrated multiple components involved in the CCUS (Carbon Capture, Utilization, and Sequestration) to develop a complete solution for the environmental issues due to global warming.
 - The Recycling Carbon Technology will be transferred to Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), an autonomous institute of the Department of Science and Technology.

Technology Development Board

- TDB is a statutory body established by the Technology Development Board Act, 1995.
- It was established in 1996 and functions under the Department of Science of Technology.
- It provides financial assistance to companies working for commercialization of indigenous technologies and adaptation of imported technologies for domestic applications.
- As part of National Technology Day (11th May), the TDB presents the National Awards, to industrial concerns who have successfully commercialized an indigenous technology.

Nano Mission

- The Government of India launched the Nano Mission in 2007 as an "umbrella capacity-building programme".
- It is being implemented by the Department of Science and Technology (DST) under the Ministry of Science and Technology.



- > Carbon Capture, Utilization and Sequestration (CCUS):
 - It is a process that **captures carbon dioxide emissions from sources** like coal-fired power plants and **either reuses or stores it** so it will **not enter the atmosphere.**
 - Carbon dioxide storage in geologic formations includes oil and gas reservoirs, unmineable coal seams and deep saline reservoirs - structures that have stored crude oil, natural gas, brine and carbon dioxide over millions of years.

Yellow Fungus

Why in News

After black and white fungus, the recent case of yellow fungus has become a cause for concern.

Key Points

- > About:
 - Yellow fungus, **also called mucor septic**, initially **develops by the presence of moulds** (a type of fungi) in the environment.
 - It **may be present** with unnecessary fatigue, rashes, burning sensation **on skin** etc.
 - Humidity levels below 30-40% can promote the growth of fungus.
 - It may not start from the lungs but it invades internal organs of the body and affects the entire functioning.
- > Potential Causes:

- Prolonged use of steroids, contaminated environment, uncontrolled diabetes, unhygienic habits, lesser immunity, comorbidities.
- The treatment for Covid-19 includes steroids and immunosuppressants that leave the body with weak immunity.

Symptoms:

- Weight loss, reduced appetite, lethargy are the **common symptoms** of yellow fungus infection.
- If not detected in time, symptoms can become more severe including pus leakage, sunken eyes, organ failure, slow healing of wounds and necrosis (cells in the living tissues die prematurely).
- > Treatment:
 - Till now the only known treatment for yellow fungus is Amphotericin B injection, which is an antifungal drug also being used to treat black fungus.
- > Prevention:
 - Maintaining hygiene, not consuming stale food, keeping the humidity in the room in check, etc.

Black Fungus

Mucormycosis, previously known as zygomycosis and sometimes termed as black fungus, is generally spread by breathing in, eating food contaminated by, or getting spores of molds of the Mucorales type in an open wound.

White Fungus

White Fungus or Candidiasis is a fungal infection caused by a yeast (a type of fungus) called Candida.



58 CURRENT AFFAIRS MAY 2021

Environment and Ecology

Highlights

- Jayanti: New Species of Cricket
- Blackbuck Population Increased in Odisha
- Rights of Van Gujjars
- Death of 186 Elephants in 10 Years
- International Day for Biological Diversity
- Sunderlal Bahuguna: Chipko Movement
- Zebrafish and its Importance in Human Spaceflights

- COP 28
- Net Zero by 2050: IEA
- Whiteflies: Threat to Agriculture
- Protected Planet Report 2020
- National Mission on use of Biomass in Coal Based Thermal Power Plants
- The Climate Breakthroughs Summit

Jayanti: New Species of Cricket

Why in News

Recently, a new species of Cricket named 'Indimimus jayanti' was found in the Kurra caves of Chhattisgarh.

The new species was named after Professor Jayant Biswas, one of the leading cave explorers in the country.

Key Points

- > About the New Spider Cricket:
 - The new species of cricket has been identified under the **genus Arachnomimus Saussure, 1897.**
 - o Jayanti has led to the new subgenus 'Indimimus'.
 - Males of the new Jayanti subgenus cannot produce sound and their females don't have ears.
- > About the New Subgenus:
 - The newly discovered subgenus, Indimimus, is different from the two subgenera, Arachnomimus and Euarachnomimus, because of the male genitalia structure.
 - Insects have a lock-and-key model genitalia structure which is unique to each subgenus.
- > Arachnomimus Saussure, 1897:
 - Arachnomimus is the genus name given by Swiss Entomologist Henri Louis Frédéric de Saussure in 1878 to crickets that resembled spiders.
 - Crickets of this group are commonly called spider crickets because of their smaller body size and long legs.



> Significance of the Discovery:

- It can help in designing hearing aids for humans.
 - The new species may be communicating by beating their abdomen or any other body part on the cave walls.
 - Vibrational communication is one of the softest but fastest modes of signal transmission.
 - Vibrational communication can be regarded as an interaction between the physical properties of the environment and insect's anatomy and physiology and resulting behavior.
 - Further studies on their skills of vibrational communication may help in designing hearing aids for humans which can capture quietest signals and amplify to an audible hearing range.
- With the discovery of Jayanti from India, the genus Arachnomimus is now known from 12 species. Distribution of these species is very wide, ranging from Brazil to Malaysia.
- In India, the diversity of spider crickets is still unexplored. Given India is home to four **biodiversity**



> About Crickets:

- Cricket, any of approximately 2,400 species of leaping insects that are worldwide in distribution and known for the musical chirping of the male.
- They have mainly cylindrical bodies, round heads, and long antennae. Behind the head is a smooth, robust pronotum.
- Crickets are noticeable for their loud calls, especially at night. Male crickets produce this sound by rubbing their wings against each other to attract females.
- The females listen to these calls using ears located on their legs and approach the males for mating and reproduction.

Blackbuck Population Increased in Odisha

Why in News

Recently, a **census** carried out by the Odisha State Forest Department revealed that **Odisha's blackbuck population has doubled** in the last six years.

Key Points

- > About Blackbuck:
 - The Blackbuck (Antilope cervicapra), or the Indian Antelope, is a species of antelope native to India and Nepal.
 - It is widespread in Rajasthan, Gujarat, Madhya Pradesh, Tamil Nadu, Odisha, and other areas throughout peninsular India.



- It is considered as the epitome of grassland.
- It is considered to be the fastest animal in the world next to Cheetah.
- The blackbuck is a **diurnal antelope (active mainly during the day)**.
- It has been **declared as the State Animal** of Punjab, Haryana, and Andhra Pradesh.
- Cultural Importance: It is a symbol of purity for Hinduism as its skin and horns are regarded as a sacred object. For Buddhism, it is a symbol of good luck.
- Protection Status:
 - o Wildlife Protection Act 1972: Schedule I
 - o IUCN Status: Least Concern
 - CITES: Appendix III
- > Threats:
 - Habitat Fragmentation, Deforestation, Natural Calamities, Illegal Hunting.
- Related Protected Areas:
 - Velavadar Blackbuck Sanctuary Gujarat
 - Point Calimere Wildlife Sanctuary Tamil Nadu
 - In 2017, the Uttar Pradesh State Government approved the plan of setting up the Blackbuck Conservation Reserve in the trans-Yamuna belt near Prayagraj. It would be the first conservation reserve dedicated to the blackbuck.
- Blackbuck in Odisha:
- The blackbuck is known in Odisha as Krushnasara Mruga.
- Blackbucks are confined to Balukhand-Konark coastal plain / wildlife sanctuary in Puri District; Balipadar-Bhetnoi and adjacent areas in Ganjam District.
- As per the latest census, the antelopes numbered 7,358, compared to 2,194 in 2011.
- Improvement of habitats, protection given by the local people and forest staff were some of the **reasons for the increase of the population.**
- > Other Antelopes Found in India:
 - Barasingha/Swamp Deer, Chital/Spotted Deer, Sambar Deer, Sangai/Brow-Antlered Deer, Himalayan Serow, Barking Deer/Indian Muntjac, Nilgiri Tahr/Nilgiri Ibex, Tibetan Antelope, Himalayan Tahr, Nilgai/Blue Bull, Chinkara/Indian Gazelle.



Rights of Van Gujjars

Why in News

The Uttarakhand High Court has reprimanded the State government for stopping some Van Gujjar families on the way to Govind Pashu Vihar National Park and said their right to life is being violated by the authorities.

Key Points

- Background:
 - The Van Gujjars pursue seasonal migration from the Terai-Bhabar and Siwalik region of Uttarakhand to the higher bugyals in the Western Himalayas in summer and vice versa in winter.
 - This **phenomenon of transhumance** pursued by the community is among the few climateadaptive and resilience strategies that ensures their pastoral livelihood remains viable and sustainable.
 - The Van Gujjars possess legitimate permits across their summer (Govind Pashu Vihar National Park) and winter homesteads. However, they are not permitted by authorities to enter the Park.
- Rights of Pastoralists under Forests Rights Act 2006:
 - It has ensured that even pastoralists possess rights to access grazing pastures in lieu of the Community Forest Resource right they are eligible for.
 - Section 2 (a) prescribes for the rights of pastoral communities on customary common forest land within the traditional or customary boundaries of a village.
 - It also prescribes the seasonal use of a landscape in case of pastoral communities, including in unclassed forests, reserve forests, un-demarcated forests, deemed forests, protected forests, sanctuaries and national parks.
- > High Court's Order:
 - Upholds the right of Van Gujjars to migrate to their summer homesteads in the bugyals (Himalayan alpine meadows) located within the Govind Pashu Vihar National Park.
 - The court relied on Article 21 (Protection of Life and Personal Liberty) of the constitution.

Article 21 of the Constitution

- It declares that no person shall be deprived of his life or personal liberty except according to procedure established by law.
- > This right is **available to both citizens and non-citizens.**
- The right to life is not merely confined to animal existence or survival but also includes the right to live with human dignity and all those aspects of life which go to make a man's life meaningful, complete and worth living.
- > About Van Gujjars:
 - Van Gujjars are the forest-dwelling nomadic community inhabiting the foothills of Himalayan States such as Uttarakhand, Himachal Pradesh and Jammu and Kashmir.
 - Usually, they migrate to the bugyals (grasslands) located in the upper Himalayas with their buffaloes and return only at the end of monsoons to their makeshift huts, deras, in the foothills.
 - They traditionally practice buffalo husbandry; a family owns up to 25 heads of buffaloes. They rely on buffaloes for milk, which gets them a good price in Uttarakhand and Uttar Pradesh markets.

Govind Pashu Vihar National Park

- > Location:
 - It is located in the **Uttarkashi district** of the state of **Uttarakhand**. The park lies in the higher reaches of the **Garhwal Himalayas**.
- > Establishment:
 - The park was established as a Wildlife Sanctuary in the year of 1955. It was declared as a National Park in the year of 1990.
- Flora and Fauna:
 - Fauna includes the Snow Leopard, Brown Bear, Musk Deer, Western Tragopan etc.
 - Some of the noteworthy trees present in the sanctuary include deodar cedar, chir pine, silver fir, blue pine and several deciduous species.
- > Other Features:
 - Within the park is the Har-ki-dun valley which is a known spot for trekking, while the Ruinsara high altitude lake is also popular as a tourist destination.
 - The park creates an upper water catchment of **River Tons.**



• Tons river is a significant tributary of Yamuna River and reaches the upper stretches of Garhwal.

Other Protected Areas in Uttarakhand

- Jim Corbett National Park (first National Park of India).
- Valley of Flowers National Park and Nanda Devi National Park which together are a UNESCO World Heritage Site.
- Rajaji National Park.
- > Gangotri National Park.
- > Nandhaur Wildlife Sanctuary.

Death of 186 Elephants in 10 Years

Why in News

According to the Ministry of Environment, Forest and Climate Change (MoEFCC), a total of 186 elephants were killed after being hit by trains across India between 2009-10 and 2020-21.

Key Points

- > Data Analysis:
 - Assam accounted for the highest number of elephant casualties on railway tracks (62), followed by West Bengal (57), and Odisha (27).
 - Uttar Pradesh saw a single death.

> Measures Taken:

- A **Permanent Coordination Committee** has been constituted between the **Ministry of Railways** and the **MoEFCC** for preventing elephant deaths in train accidents.
- Clearing vegetation along railway tracks to enable clear view for loco pilots, construction of underpass/ overpass for safe passage of elephants, regular patrolling of vulnerable stretches of railway tracks, warning sign boards, etc.
- The **MoEFCC** has released **Rs. 212.49** crore to elephant range States under the **Project Elephant** between 2011-12 and 2020-21.
- Elephant was declared a 'national heritage animal' in 2010, considering the valuable ecological services rendered by the species.

- Elephants are architects of the forest and woodland ecosystem (keystone species).
- Considered nature's 'gardener', they are key in shaping the landscape, in pollination, germination of seeds and improving the fertility of forest soil with heaps of dung.

> Project Elephant:

- About:
 - It was **launched in 1992** to provide financial and technical support to wildlife management efforts by states for their free ranging populations of wild **Asian Elephants.**
 - It is a Centrally Sponsored Scheme (CSS).

• Objectives:

- To protect elephants, their habitat & corridors.
- To address issues of man-animal conflict.
- Welfare of captive elephants.
- Implementation:
 - The Project is being **mainly implemented in 16 States / UTs**, viz. Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Jharkhand, Karnataka, Kerala, Maharashtra, Meghalaya, Nagaland, Orissa, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal.
- Elephant Census:
 - Elephant census is conducted **once in 5 years** under the aegis of Project Elephant. Last Elephant Census was conducted **in 2017.**
 - According to the Elephant Census 2017, India's Asian elephant population is 27,312.
 - The numbers are lower than from the last census estimate in 2012 (between 29,391 and 30,711).
 - Karnataka has the highest number of elephants, followed by Assam and Kerala.
 - Elephant Reserves:
 - There are around 32 Elephant Reserves in India. The very first elephant reserve was the Singhbhum Elephant Reserve of Jharkhand.
- > Protection Status of Asian Elephants:
 - o IUCN Red List: Endangered.
 - o CITES: Appendix I
 - o India's Wildlife (Protection) Act, 1972: Schedule I.
- Related Global Initiative:



• The Monitoring the Illegal Killing of Elephants (MIKE) programme, launched in 2003, is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

Recent Developments:

- o Seed Bombs:
 - Recently Odisha's Athagarh Forest Division has started casting seed balls (or bombs) inside different reserve forest areas to enrich food stock for wild elephants to prevent manelephant conflict.
- Right of Passage of the Animals:
 - Recently, the Supreme Court (SC) upheld the 2011 order of the Madras High Court (HC) on the Nilgiris elephant corridor, affirming the right of passage of the animals and the closure of resorts in the area.

International Day for Biological Diversity

Why in News

The International Day for Biological Diversity (IDB) (International Biodiversity day) is observed on **22nd May** every year.

Key Points

> About:

- The United Nations General Assembly (UNGA) in 1993 proclaimed 22nd May as IDB to increase understanding and awareness of biodiversity issues.
 - The UNGA also declared the period 2011-2020 as the United Nations (UN) Decade on Biodiversity to promote the implementation of a strategic plan on biodiversity and its overall vision of living in harmony with nature.
 - It also declared 2021-2030 as the UN Decade of Ocean Science for Sustainable Development and the UN Decade on Ecosystem Restoration.
- > 2021 Theme:
 - This year's theme is **"We're part of the solution"** which is a continuation of **2020 theme- Our solutions are in nature**.

- This serves as a reminder that biodiversity remains the answer to several sustainable development challenges.
- > Some Global Initiatives to Save Biodiversity:
 - Convention on Biological Diversity:
 - It is a legally binding treaty to conserve biodiversity that has been in force since 1993.
 - India is a party to the convention.
 - Convention on International Trade in Endangered Species of Wild Fauna and Flora:
 - It provides public, private and **non-governmental** organisations with the knowledge and tools that enable human progress, economic development and nature conservation to take place together.
 - India is a member of the convention.

Biodiversity

- > About:
 - It is a term used to describe the enormous variety of life on Earth. It can be used more specifically to refer to all of the species in one region or ecosystem. Biodiversity refers to every living thing, including plants, bacteria, animals, and humans.
 - It is often understood in terms of the wide variety of plants, animals and microorganisms, but it also includes genetic differences within each species.
 - Concerns:
 - World Wide Fund for Nature in its flagship Living Planet Report 2020 warned that global biodiversity is in steep decline.
 - It has revealed a global species loss of 68% in less than 50 years, a catastrophic decline never seen before.
- Need for Conservation:
 - It boosts ecosystem productivity where each species, no matter how small, all have an important role to play.
 - A larger number of plant species means a greater variety of crops. Greater species diversity ensures natural sustainability for all life forms.
 - The world should conserve it so as to maintain the food chain. The disturbance in the food chain may affect the whole ecosystem.
- Some Indian Initiatives For Conservation of Biodiversity:



Note:

www.drishtilAS.com

- National Plan for Conservation of Aquatic Ecosystems.
- Wetland (Conservation and Management) Rules 2017.
- The Biological Diversity Act, 2002.
- o Wild Life (Protection) Act, 1972.

Other Important Initiatives

- 5th June: World Environment Day
- > 22nd March: World Water Day
- 22nd April: Earth Day
- > Last Saturday of March: Earth Hour

Sunderlal Bahuguna: Chipko Movement

Why in News

Recently, **Sunderlal Bahuguna**, the Gandhian who was the driving force behind the **Chipko movement** died due to **Covid-19**.

Key Points

- > Chipko Movement:
 - It was a non-violent agitation which originated in Uttar Pradesh's Chamoli district (now Uttarakhand) in 1973.
 - The name of the movement 'chipko' comes from the word 'embrace', as the villagers hugged the trees and encircled them to prevent being hacked.
 - It is best remembered for the collective mobilisation of women for the cause of preserving forests, which also brought about a change in attitude regarding their own status in society.
 - Its biggest victory was making people aware of their rights to forests, and how grassroots activism can influence policy-making regarding ecology and shared natural resources.
 - It led to a ban on commercial felling of trees above 30 degrees slope and above 1,000 msl (mean sea level) in 1981.



• Initiated the chipko movement to guard the trees on the Himalayan slopes.

CURRENT AFFAIRS MAY 2021 63

- Known for coining the Chipko slogan 'ecology is permanent economy'
 - After the Chipko movement in the 1970s, he gave the message across the globe that ecology and ecosystem are more important. He was of the opinion that ecology and economy should go together.
- Campaigned against the Tehri Dam on River Bhagirathi, a mega-project with devastating consequences. Undertook one of India's longest fasts after Independence, over 56 days.
- Took 4,800 km Kashmir to Kohima padayatra (foot march) in the early 1980s to bring attention to the entire Himalayan region.

Major Environmental Movements in India

[Name	Year	Place	Leaders	Details
	Bishnoi Movement	1700	Khejarli, Marwar region, in Rajasthan	Amrita Devi	
	Chipko Movement	1973	Uttarakhand	Sunderlal Bahuguna Chandi Prasad Bhatt	Used to hug trees to stop their felling The main objective was to protect the trees on the Himalayan slopes from the axes of contractors of the forest.
	Silent River Valley Project	1978	Kantipuza river in Kerala	Kerala Sastra Sahitya Parishad Sughathakumari	To protect the Silent Valley, the moist evergreen forest from being destroyed by a hydroelectric project. In November 1983 the Silent Valley Hydroelectric Project was called off. In 1985, Prime Minister Rajiv Gandhi formally inaugurated the Silent Valley National Park.
	Jangal Bachao Aandolan	1982	Singbhum district of Bihar	Tribals of Singhbum	Against governments decision to replace the natural sal forest with Teak.
	Appiko Movement	1983	Kamataka	Lakshmi Narasimha Yuvak Mandali Pandering Hegde.	To stop felling of natural trees. Against commercial forestry of teak and eucalyptus trees
	Tehri dam	1980s to 1990s	Bhagirathi and Bhilangama rivers at Tehri in Uttaranchal	Tehri Badh Virodhi Sangarshan Committee Sunderlal Bahuguna and Veera Dutt Saklani	
	Narmada Bachao Aandolan	1980s to present	Gujarat Madhya Pradesh and Maharastra Total 33 dams Two main are Sardar Sarovar Dam and the Indira Sagar Project	Medha Patkar Arundhati Roy Sundarlal Bahuguna Baba Amte Arundhati Roy	

Recent Movements

Name	Year	Place	Leaders	Details
Climate Action Strike	2019	Students in metro cities of Delhi, Mumbai, Bengaluru, Kolkata and Chennai	Greta Thunberg, Bittu KR	
Right to Breathe Protest	Nov 5, 2019	New Delhi India Gate.	Leonardo Di Caprio posted about this movement	New Delhi has been the world's most polluted city for the past 2 years. Its Air Quality Index (AQI) plummeted to 494
Save Dehing- Patkai	April 2020	Tinsukia district of Assam	Rohit Chaudhary Adil Hussain, Randeep Hooda, and Joi Barua. Jadav Payeng, known as the Forest Man of India, All Assam Students' Union (AASU) and All Assam Matak Youth Students' Union	This movement began as a protest against the April 2020 decision by the National Board of Wildlife (NBWL) to allow North-Eastern Coal Field (NEC) to do opencast mining in 98.59 hectares of Dehing-Patkai Wildlife Sanctuary. Known as the 'Amazon of the East,'
Save Aarey	2019-20	Aarey National Park in Mumbai		Against the felling of the Aarey Colony for the Mumbai Metro Rail Corporation Limited's (MMRLC) metro 3 car-shed.
Save the Sundarbans	May 2020	The Sundarbans are the largest mangrove forest in the world. They are located in the delta region of Ganga and Brahmaputra rivers	A campaign emerged online to #SavetheSundarbans.	The recent cyclone Amphan in May 2020, the worst cyclone since 1737, left a trail of misery in the Sundarbans.

• Supported **women-led movements** against the liquor mafia in the hills, and for the **Beej Bachao**



Andolan, a movement to save Himalayan agricultural biodiversity from being wiped out by the unsustainable, **chemical-intensive Green Revolution**.

• Awarded the **Padma Vibhushan in 2009.**

Zebrafish and its Importance in Human Spaceflights

Why in News

A new research in **zebrafish** has demonstrated how **induced hibernation (torpor)** may protect humans from the elements of space, especially radiation, during space flight.

Key Points

- > About the Study:
 - The researchers **exposed zebrafish to radiation** like what would be experienced on a six-month journey to Mars.
 - They observed signs of oxidative stress (imbalance between antioxidants and free radicals), DNA damage, stress hormone signaling and changes to the cell-division cycle.
 - The researchers then induced torpor in a second group of zebrafish which were then exposed to the same dose of radiation.
 - The results showed that **torpor lowered the metabolic rate within the zebrafish and created a radioprotective effect**, protecting against the harmful effects of radiation.
 - Torpor, a form of hibernation, is a brief spell of suspended animation. It usually lasts less than a day. When in torpor, an animal's metabolism, heartbeat, breathing, and body temperature are greatly reduced.
- > Need of the Study:
 - Recent technological advancements might have made space travel more accessible. However, long-term space travel is incredibly detrimental to human health.
- > Significance:
 - The study could help in understanding how a form of hibernation, known as induced torpor (a state of reduced metabolic activity) may provide radioprotective effects.

Zebrafish

- > Scientific Name: Danio rerio
- > Habitat:
 - It is a small (2-3 cm long) freshwater fish found in the tropical and subtropical regions. The fish is native to South Asia's Indo-Gangetic plains, where they are mostly found in the paddy fields and even in stagnant water and streams.
 - They are classified as a **species of least concern** on the **IUCN's Red List of Threatened Species.**

> Organism for Biomedical Research:

- They have been used to study vertebrate development, evolution, genetics, and disease due to its adequate regeneration capacity of almost all its organs, including the brain, heart, eye, spinal cord.
- Zebrafish have a **similar genetic structure** (around 70%) to humans.
- As a vertebrate, the zebrafish has the same major organs and tissues as humans. Their muscle, blood, kidney and eyes share many features with human systems.
 - Hibernation is a physiological condition found in many species.
 - It protects them against harsh conditions, such as food scarcity and low environmental temperatures.
- Replicating hibernation may therefore protect astronauts against the harsh conditions of space flight, which include challenges such as radiation exposure, bone and muscle wastage, advanced ageing and vascular problems.
- The European Space Agency (ESA) is also conducting research into the impacts of hibernating astronauts not just for health reasons, but because it could reduce the amount of consumables required for a space journey and allow the mass of a spacecraft to be reduced by a third.

Challenges of Space Travel

- > Radiation:
 - Any space flight is outside **Earth's protective magnetic field**, where radiation is much higher as compared to International space stations. (International space station is just within the earth's protective atmosphere; even then radiation is 10 times higher when compared to earth.)



- Radiation exposure increases cancer risk, damages the central nervous system, can alter cognitive function, reduce motor function and prompt behavioural changes.
- > Isolation and Confinement:
 - Behavioural issues among astronauts crammed in a small space over a long period of time, are inevitable.
 - Sleep loss, circadian desynchronization, and work overload compound this issue and may lead to performance decrements, adverse health outcomes.

Distance from Earth:

 As distance of space flight increases from earth, communication delay increases. For example, there will be a communication delay of 20 minute in space travel to Mars.

> Gravity:

- Different planets have different gravitational pull, for example astronauts would need to live and work in three-eighths of Earth's gravitational pull on Mars. Additionally, explorers will experience total weightlessness during the course of travel.
- To further complicate the problem, when astronauts transition from one gravity field to another, it's usually quite an intense experience.
- Blasting off from the surface of a planet or a descent through an atmosphere is many times the force of gravity.

> Hostile/Closed Environments:

 NASA has learned that the ecosystem inside the spacecraft plays a big role in everyday astronaut life. Microbes can change characteristics in space, and microorganisms that naturally live on your body are transferred more easily from person to person in closed habitats like the space station.

COP 28

Why in News

Recently, the **United Arab Emirates** announced an **offer to host** the **28**th **session** of **Conference of Parties** (COP 28) to the **UNFCCC** in **Abu Dhabi in 2023.**

COP 26 was postponed in 2020 and will take place in Glasgow, UK in November 2021.

Key Points

- > About UNFCCC:
 - The United Nations Framework Convention on Climate Change (UNFCCC), signed in 1992 at the United Nations Conference on Environment and Development also known as the Earth Summit, the Rio Summit or the Rio Conference.
 - India is among the select few countries to have hosted the COP of all three Rio conventions on climate change (UNFCCC), biodiversity (Convention on Biological Diversity) and land (United Nations Convention to Combat Desertification).
 - The UNFCCC entered into force on 21st March 1994, and has been ratified by 197 countries.
 - It is the parent treaty of the 2015 Paris Agreement.
 It is also the parent treaty of the 1997 Kyoto Protocol.
 - The UNFCCC secretariat (UN Climate Change) is the United Nations entity tasked with supporting the global response to the threat of climate change. It is located in Bonn, Germany.

Objective:

 To achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous repercussions within a time frame so as to allow ecosystems to adapt naturally and enable sustainable development.

The Conference of the Parties (COP):

- COP is the **apex decision-making authority** of UNFCCC.
- The COP **meets every year**, unless the Parties decide otherwise. The first COP meeting was held in Berlin, Germany in March, 1995.
- The COP **meets in Bonn**, the seat of the secretariat, unless a Party offers to host the session.
- The office of the COP President normally rotates among the five United Nations regional groups which are - Africa, Asia, Latin America and the Caribbean, Central and Eastern Europe and Western Europe and Others.
- The President is usually the environment minister of his or her home country. S/he is elected by acclamation immediately after the opening of a COP session.



COP's with Significant Outcomes

> 1995: COP1 (Berlin, Germany)

> 1997: COP 3 (Kyoto Protocol)

- It legally binds developed countries to emission reduction targets.
- > 2002: COP 8 (New Delhi, India) Delhi Declaration.
 - Focuses on the development needs of the poorest countries and the need for technology transfer for mitigating climate change.

2007: COP13 (Bali, Indonesia)

 Parties agreed on the Bali Road Map and Bali action plan, which charted the way towards a post-2012 outcome. The Plan has five main categories: shared vision, mitigation, adaptation, technology and financing.

> 2010: COP 16 (Cancun)

- Resulted in the Cancun Agreements, a comprehensive package by governments to assist developing nations in dealing with climate change.
- The Green Climate Fund, the Technology Mechanism and the Cancun Adaptation Framework were established.

2011: COP 17 (Durban)

 Governments commit to a new universal climate change agreement by 2015 for the period beyond 2020 (Resulted in the Paris Agreement of 2015).

> 2015: COP21 (Paris)

- To keep global temperature well **below 2.0C** above pre-industrial times and endeavor them to limit them even **more to 1.5C.**
- It requires rich nations to maintain **USD 100bn** a year funding pledge **beyond** the year **2020**.

> 2016: COP22 (Marrakech)

- To move forward on writing the rule book of the Paris Agreement.
- Launched the Marrakech Partnership for Climate Action.

> 2017: COP23, Bonn (Germany)

- Countries continued to negotiate the finer details of how the agreement will work from 2020 onwards.
- First set of negotiations since the US, under the presidency of Donald Trump, announced its intention earlier this year to withdraw from the Paris deal.

 It was the first COP to be hosted by a small-island developing state with Fiji taking up the presidency, even though it was being held in Bonn.

> 2018: COP 24, Katowice (Poland)

- It finalized a "rulebook" to operationalise the 2015 Paris Agreement.
- The rulebook covers climate financing facilities and the actions to be taken as per Nationally Determined Contributions(NDC).

> 2019: COP25, Madrid (Spain)

- It was held in Madrid (Spain).
- There were no concrete plans regarding the growing climatic urgency.

Net Zero by 2050: IEA

Why in News

Recently, the International Energy Agency's (IEA) released its Net Zero Emissions (NZE) Roadmap - named 'Net Zero by 2050'.

- It is the World's first comprehensive energy roadmap which comes ahead of the United Nations Conference of the Parties (COP) 26 climate change convention in Glasgow, Scotland in November 2021.
- 'Net zero emissions' refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere.

Key Points

- > Need:
 - Climate pledges by governments till date even if fully achieved would fall well short of what is required to bring global energy-related carbon dioxide (CO₂) emissions to net zero by 2050 and give the world an even chance of limiting the global temperature rise to 1.5 °C.

> Aim of the Roadmap:

- Examine Impact:
 - To examine the impacts of announced NZE pledges and what they might mean for the energy sector.
- New Energy Pathway:
 - To develop a new energy-sector pathway towards achieving NZE globally by 2050.



• Recommend Governments:

• To set out key policy recommendations for governments to act upon in the near-term, and a long-term agenda for change to achieve net-zero goals, including with a view to reaching other Sustainable Development Goals.

> Principles to be Followed:

• Technology Neutrality:

- Technology neutrality, with **adoption driven by costs, technological readiness**, country and market conditions and trade-offs with wider societal goals.
 - Technology Neutrality is generally described as the freedom of individuals and organizations to choose the most appropriate and suitable technology to their needs and requirements for development, acquisition, use or commercialisation, without dependencies on knowledge involved as information or data.
- Universal Cooperation:
 - Universal international cooperation, in which all countries contribute to net zero, with an eye to a 'just transition' and where advanced economies lead.
- Minimizing Volatility:
 - An orderly transition that seeks to minimise stranded assets where possible, while ensuring energy security and minimising volatility in energy markets.
- Milestones Set by the Roadmap: More than 400 milestones to guide the global journey to net zero by 2050 which include:
 - o Fossil Fuels:
 - No investment in new fossil fuel supply projects, and no further final investment decisions for new unabated coal plants.
 - Vehicle sale:
 - No sales of new internal combustion engine passenger cars by 2035.
 - Electricity Generation:
 - The global electricity sector should reach netzero emissions by 2040.
 - It calls for annual additions of solar power to reach 630 gigawatts by 2030, and those of wind power to reach 390 gigawatts.

- Together, this is four times the record level set in 2020.
- It suggests the following on global electricity generation towards 2050:
 - 714% more renewables.
 - 104% more nuclear.
 - 93% less coal (and all remaining coal with Carbon Capture and Storage (CCS).
 - 85% less natural gas (with 73% of that with CCS).
- Significance:
 - It is supposed to provide a pathway to bridge the current gap between rhetoric and reality in reducing GreenHouse Gas (GHG) emissions from the energy and industry sectors.
- > Criticism:
 - o Ignorance:
 - IEA did not consider historical emitters, ignoring the principle of 'climate justice'.
 - Developed countries benefited from the Industrial Revolution at the cost of emitting GHGs, leading to climate change.

International Energy Agency

- IEA is an autonomous Intergovernmental
 Organisation established in 1974 in Paris, France.
- IEA mainly focuses on its energy policies which include economic development, energy security and environmental protection. These policies are also known as the 3 E's of IEA.
- India became an Associate member of IEA in March 2017 but it was in engagement with IEA long before its association with the organization.
 - Recently, India has inked a Strategic Partnership Agreement with the IEA to strengthen cooperation in global energy security, stability and sustainability.
- The World Energy Outlook Report is released by the IEA annually.
 - Recently, it has released the India Energy Outlook 2021 Report.
- IEA Clean Coal Centre is dedicated to providing independent information and analysis on how coal can become a cleaner source of energy, compatible with the UN Sustainable Development Goals.



- Hence, they have the economies to decarbonise, allowing space for poor and developing countries to get financing and innovation organised to switch to cleaner energy options.
- Regulations Needed:
 - There is potentially an over-reliance on behavioral change to consume less energy.
 - **Regulations will be essential** to positively motivate constructive social change in economies.

Whiteflies: Threat to Agriculture

Why in News

According to a recent study, **exotic invasive whiteflies** in India are causing **direct and indirect yield losses in agriculture, horticulture and forestry crop plants.**

Whiteflies are tiny, sap-sucking insects that may become abundant in vegetable and ornamental plantings, especially during warm weather. They excrete sticky honeydew and cause yellowing or death of leaves.

Key Points

- Spread of Whiteflies:
 - The first reported invasive spiralling whitefly (*Aleurodicus dispersus*) is now distributed throughout India except Jammu & Kashmir.
 - Similarly, the rugose spiralling whitefly (Aleurodicus rugioperculatus) which was reported in Pollachi, Tamil Nadu in 2016 has now spread throughout the country including the islands of Andaman Nicobar and Lakshadweep.
 - Aleurodicus dispersus and Aleurodicus rugioperculatus have been reported on over 320 and 40 plant species, respectively.
 - Most of the whitefly species are **native to the Caribbean islands or Central America.**
- Reasons for Spread:
 - The host range of all of the invasive whiteflies has been increasing due to their **polyphagous nature** (ability to feed on various kinds of food) and **prolific breeding.**
 - The increasing import of plants and increasing globalization and movement of people has

aided the spread of different varieties and their subsequent growth into invasive species.

- > Concerns:
 - Damage to Crops:
 - Whiteflies reduce the production yield and also damage crops. Approximately 1.35 lakh hectares of coconut and oil palm in India are affected by the rugose spiralling whitefly.
 - Other invasive whiteflies were also found to expand their host range on valuable plant species, especially coconut, banana, mango, sapota, guava, cashew, oil palm, and ornamental plants such as bottle palm, false bird of paradise, butterfly palm and important medicinal plants.
 - Ineffectiveness of Insecticides:
 - Whiteflies have been difficult to control by using available synthetic insecticides.
- Controlling Whiteflies:
 - Biological Control Methods:
 - They are currently being controlled by naturally occurring **insect predators**, **parasitoids** (natural enemies of pests, provide biological control of pests in greenhouses and crop fields) and **entomopathogenic fungi** (fungi that can kill insects).
 - Entomopathogenic fungi specific to whiteflies are isolated, purified, grown in the lab or mass-produced and applied into the whitefly infested field in combination with the release of lab-reared potential predators and parasitoids.
 - They are not just **environmentally friendly** but also **economically feasible.**

Other Pests/Insects Attacking Crops

- > Fall Armyworm (FAW) Attack:
 - It is a dangerous transboundary insect with a high potential to spread rapidly due to its natural distribution capacity and opportunities presented by international trade.
 - In 2020, the Directorate of Agriculture reported an armyworm attack on the standing crops in the northeastern Dhemaji district of Assam and the Food and Agriculture Organisation (FAO) has launched a Global Action for FAW Control as a response to the international threat posed by the armyworms.


Locust Invasion:

- A locust (Migratory insect also known as tiddi) is a large, mainly tropical grasshopper with strong powers of flight. They differ from ordinary grasshoppers in their ability to change behaviour (gregarize) and form swarms that can migrate over large distances.
- Locust adults can eat their own weight every day, i.e. about two grams of fresh vegetation per day. A very small swarm eats as much in one day as about 35,000 people, posing a devastating threat to crops and food security.
- Pink Bollworm (PBW):
 - It (*Pectinophora gossypiella*), is an insect known for being a pest in **cotton farming.**
 - The pink bollworm is native to Asia, but has become an invasive species in most of the world's cotton-growing regions.

Protected Planet Report 2020

Why in News

The report, titled **Protected Planet Report 2020**, underlined the progress the world has made toward the **ambitious goals agreed by countries in 2010** at the **United Nations Convention on Biological Diversity**.

Convention on Biological Diversity

- It is a legally binding treaty to conserve biodiversity that has been in force since 1993.
- Nearly all countries including India have ratified it (notably, the US has signed but not ratified).
- The CBD Secretariat is based in Montreal, Canada and it operates under the United Nations Environment Programme.
- A supplementary agreement to the Convention known as the Cartagena Protocol on Biosafety (adopted at COP5, 2000) seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology.
- The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) was adopted in Nagoya, Japan at COP10.
- The COP-10 also adopted a ten-year framework for action by all countries to save biodiversity.

 Officially known as "Strategic Plan for Biodiversity 2011-2020", it provided a set of 20 targets, collectively known as the Aichi Targets for biodiversity.

Key Points

- > About the Protected Planet Reports:
 - The reports are released by the United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (UNEP-WCMC) and the International Union for the Conservation of Nature (IUCN) with support from the National Geographic Society, a global non-profit.
 - These are **biennial landmark publications** that assess the state of protected and conserved areas around the world.
 - The report is the first in the series to include data on Other Effective Area-based Conservation Measures (OECM) in addition to protected areas.
 - **OECM** are a conservation designation for areas that are achieving the effective in-situ conservation of biodiversity outside of protected areas.
 - The 2020 edition provides the final report on the status of **Aichi Biodiversity Target 11**, and looks to the future as the world prepares to adopt a new post-2020 global biodiversity framework.
 - Aichi Biodiversity Target 11 aimed to conserve 17% of land and inland water ecosystems and 10% of its coastal waters and oceans by 2020.

> Findings of the Report:

- Increase in Protected Area:
 - As many as 82% of countries and territories have increased their share of protected area and coverage of Other Effective Area-based Conservation Measures (OECM) since 2010.
 - Protected areas covering almost 21 million km² have been added to the global network.
- Increase in OECMs:
 - Since OECMs were first recorded in 2019, these areas have added a further 1.6 million km² to the global network.
 - Despite being limited to only five countries and territories, the available data on OECMs show that they make a significant contribution to coverage and connectivity.



- Key Biodiversity Areas (KBAs):
 - KBAs are sites that contribute significantly to the global persistence of biodiversity, in terrestrial, freshwater and marine ecosystems.
 - On an average, 62.6% of KBA either fully or partially overlap with protected areas and OECMs.
 - The average percentage of each KBA within protected areas and OECMs is 43.2% for terrestrial; 42.2% for inland water and 44.2% for marine (within national waters).
 - There was an increase of 5 percentage points or less in each case since 2010, the greatest growth in marine and coastal areas.
- > Challenges:
 - Management effectiveness assessments have been conducted across only 18.29% of the area covered by protected areas, and it is likely that many do not meet the standards for full effectiveness.
 - Integrating protected areas and OECMs across landscapes and seascapes, and in development sectors, remains a crucial challenge for ensuring the persistence of biodiversity.
 - Measurable targets for integrated land-use and marine spatial planning are needed to facilitate progress.
 - Governance is a key contributor to effective conservation. Both protected areas and OECMs can have a variety of governance regimes: government, private, governance by indigenous peoples and local communities, or any combination of these.
 - Data are still poor on governance diversity and quality for protected areas and OECMs.
 - New guidance and better reporting can provide new opportunities to better recognise and support the conservation efforts of diverse groups, including indigenous peoples, local communities, and private actors.

Protected Area in India

Protected areas are regions or zones of land or sea which are given certain levels of protection for conservation of biodiversity and socio-environmental values. In these areas, human intervention and exploitation of resources is limited.

- India has a network of 903 Protected Areas covering about 5% of its total geographic area.
- India has the following kinds of protected areas, in the sense of the word designated by IUCN:
 - National Parks, Wildlife sanctuaries, Biosphere reserves, Reserved and protected forests, Conservation reserves and community reserves, Private protected areas.

National Mission on use of Biomass in Coal Based Thermal Power Plants

Why in News

Recently, the **Ministry of Power** has decided to set up a **National Mission on use of Biomass in coal based** thermal power plants.

Key Points

- > About:
 - The proposed National Mission on biomass will also contribute to the National Clean Air Programme (NCAP).
 - It would further support the energy transition in the country and our targets to move towards cleaner energy sources.
- > Aim:
 - To address the issue of air pollution due to farm stubble burning and to reduce carbon footprints of thermal power generation.
- > Objective:
 - Increase the level of biomass co-firing from present 5% to higher levels to have a larger share of carbon neutral power generation from the thermal power plants.
 - Biomass co-firing stands for adding biomass as a partial substitute fuel in high efficiency coal boilers.
 - Take up R&D (Research & Development) activity in boiler design to handle the higher amount of silica, alkalis in the biomass pellets.
 - Facilitate overcoming the constraints in supply chain of biomass pellets and agro- residue and its transport upto to the power plants.



• Consider regulatory issues in biomass co-firing.

Proposed Structure:

- The Mission would have a Steering Committee headed by the Secretary (Ministry of Power) comprising all stakeholders including representatives from the Ministry of Petroleum & Natural Gas, Ministry of New & Renewable Energy etc.
- National Thermal Power Corporation Limited will play a larger role in providing logistics and infrastructure support.

> Duration:

- The duration of the proposed National Mission would be a **minimum 5 years.**
- > Initiatives to Reduce Pollution from Coal Power Plants:
 - **Stringent emission standards** for coal based thermal power plants have been notified.
 - Compulsory adoption of emissions standards for installing Flue Gas Desulphurization (FGD) units that cut emissions of toxic sulphur dioxide.
 - Approved automatic transfer of coal linkage from inefficient power plants to new supercritical plants subject to certain conditions to promote setting up of supercritical units in place of old ones.
 - Thermal power plants within 50 km of sewage treatment facilities will mandatorily use treated sewage water.
- > Other Initiatives to Reduce Air Pollution:
 - Bharat Stage-VI (BS-VI) emission norms.
 - o UJALA scheme.
 - International Solar Alliance.
 - $\circ~$ National Action Plan on Climate Change (NAPCC).

Biomass

- > About:
 - Biomass is plant or animal material used as fuel to produce electricity or heat. Examples are wood, energy crops and waste from forests, yards, or farms.
 - Biomass has always been an important energy source for the country considering the benefits it offers.
- Benefits:
 - It is renewable, widely available, carbon-neutral and has the potential to provide significant employment in the rural areas.

- It is also capable of providing firm energy. About
 32% of the total primary energy use in the country is still derived from biomass and more than 70% of the country's population depends upon it for its energy needs.
- Biomass power & cogeneration programme:
 - About:
 - Initiated by the **Ministry of New and Renew**able Energy.
 - For efficient utilization of biomass, **bagasse based cogeneration in sugar mills and biomass power generation** have been taken up under the programme.
 - Biomass materials used for power generation include Rice husk, straw, cotton stalk, coconut shells, soya husk, de-oiled cakes, coffee waste, jute wastes, groundnut shells, saw dust etc.
 - Objective:
 - **Promoting technologies for optimum use** of the country's biomass resources for grid power generation.

The Climate Breakthroughs Summit

Why in News

Recently, world leaders convened at the **Climate Breakthroughs Summit** to demonstrate progress in critical sectors of the global economy, including steel, shipping, green hydrogen and nature.

Key Points

- > About:
 - This is a collaboration between the World Economic Forum, Mission Possible Partnership, the United Nations Climate Champions, and the United Kingdom (COP 26 Presidency).
 - It **aims to** demonstrate the need for systemic change to accelerate the global transition to a **zero-carbon economy.**
 - The "Zero carbon economy" refers to the green ecological economy based on low energy consumption and low pollution, where emissions are compensated by absorption and removal of greenhouse gases (net-zero).



One of its key campaigns is the 'Race to Zero' campaign that mobilises support of 708 cities, 24 regions, 2,360 businesses, 163 investors, and 624 higher education institutions to move towards zero-carbon recovery for a sustainable future.

> Highlights of the Summit:

- The United Nations made a call for coordinated action to secure global net-zero emissions and fulfill its goal of limiting global warming to 1.5 degrees Celsius compared to pre-industrial levels by 2050.
- Maersk, the world's largest container shipping line and vessel operator, joined Race to Zero with the commitment to halving the emission by 2030.
- As many as 40 health care institutions worldwide have committed to halving emissions by 2030 and reaching net zero by 2050.
 - These 40 institutions represent more than 3,000 health care facilities in 18 countries.
- The transitions of individual companies and institutions such as these are being supported by sector-wide plans, reflected in the revised Climate Action Pathways, launched with the Marrakech Partnership for Global Climate Action.
 - The pathways set out sectoral visions for achieving a 1.5°C resilient world in 2050, providing a roadmap to help countries and non-State actors alike to identify actions needed by 2021, 2025, 2030 and 2040 to deliver a zero-carbon world in time.

Significance:

Decarbonizing both heavy industry (aluminium, concrete and cement, chemicals, metals and mining, plastics and steel) and light industry (consumer goods, fashion, ICT and mobile, and retail) is technically and economically feasible.

 This can be done through reducing materials and energy use; increasing their productivity; and decarbonising production processes while implementing transitional solutions such as natural climate solutions where direct emissions reduction cannot be achieved.

Marrakech Partnership for Global Climate Action

- It supports implementation of the Paris Agreement by enabling collaboration between governments and the cities, regions, businesses and investors that must act on climate change.
- The focus is on environmental, economic and social system transformation, promoting higher ambition of all stakeholders to collectively strive for the 1.5 °C temperature goal and a climate-neutral and resilient world.

Race to Zero Campaign

- Race to Zero is the UN-backed global campaign rallying non-state actors – including companies, cities, regions, financial and educational institutions – to take rigorous and immediate action to halve global emissions by 2030 and deliver a healthier, fairer, zero-carbon world in time.
- Race To Zero mobilizes actors outside of national governments to join the Climate Ambition Alliance.

Climate Ambition Alliance

- The CAA currently includes 120 nations and several other private players that have committed to achieving zero net greenhouse gas emissions by 2050.
- Signatories are responsible for 23% of current greenhouse-gas emissions worldwide and 53% of global GDP.
- > India is not part of this Alliance.







Highlights

Veer Savarkar Jayanti

Veer Savarkar Jayanti

Why in News

On **28th May**, India paid tribute to the freedom fighter, **Vinayak Damodar Savarkar (Veer Savarkar)** on his **birth anniversary**.

- He was an Indian independence activist, politician, lawyer and writer.
- > He is also known as **Swatantryaveer Savarkar**.

Key Points

- Birth: Born on 28th May,1883 in Bhagur, a village near Nashik in Maharashtra.
- > Related Organisations and Work:
 - Founded a secret society called Abhinav Bharat Society.
 - Went to the United Kingdom and was involved with organizations such as India House and the Free India Society.
 - He was the president of Hindu Mahasabha from 1937 to 1943.
 - Savarkar wrote a book titled 'The History of the War of Indian Independence' in which he wrote about the guerilla warfare tricks used in 1857 Sepoy Mutiny.
 - He also wrote the book 'Hindutva: who is hindu?'.
- > Trial and Sentences:
 - Arrested in 1909 on charges of plotting an armed revolt against the Morley-Minto reform (Indian Councils Act 1909).
 - Arrested in 1910 for his connections with the revolutionary group India House.
 - One of the charges on Savarkar was abetment to murder of Nashik Collector Jackson and the second was waging a conspiracy under Indian Penal Code 121-A against the King emperor.

- Following the two trials, Savarkar was convicted and sentenced to 50-years imprisonment also known as Kala Pani and transported in 1911 to the Cellular Jail in the Andaman and Nicobar Islands.
- Death: He died on 26th February 1966 due to fasting on his own wish of death.

Abhinav Bharat Society (Young India Society)

- It was a secret society founded by Vinayak Damodar Savarkar and his brother Ganesh Damodar Savarkar in 1904.
- Initially founded at Nasik as Mitra Mela, the society was associated with several revolutionaries and political activists with branches in various parts of India and London.

India House

- It was founded by Shyamji Kishan Verma in 1905 in London.
- It was opened to promote nationalist views among Indian students in London.

Free India Society

Savarkar went to London in 1906. He soon founded the Free India Society, based on the thoughts of the Italian nationalist Giuseppe Mazzini (Savarkar had written a biography of Mazzini).

Hindu Mahasabha

- Akhil Bharat Hindu Mahasabha is one of the oldest organizations of India as it was formed in 1907.
 Eminent leaders extended this Organization in 1915 on ALL India basis.
- The Eminent personalities who founded this Organisation and who presided over the ALL INDIA Sessions held include Pandit Madan Mohan Malaviya, Lal Lajpat Rai, Veer Vinayak Damodar Savarkar, etc.



Geography

Highlights

- Total Lunar Eclipse and Supermoon
- A-76: World's Largest Iceberg

- Cyclone Tauktae
- Cyclone Yaas

Total Lunar Eclipse and Supermoon

Why in News

Two celestial events - **Total Lunar Eclipse and Supermoon** - together coincide on 26th May 2021.

Key Points

> Supermoon:

- A supermoon occurs when the Moon's orbit is closest to the Earth at the same time that the Moon is full.
 - As the Moon orbits the Earth, there is a point of time when the distance between the two is the least (called the perigee) and a point of time when the distance is the most (called the apogee).
- Since a full Moon appears at the point of least distance from earth, not only does it appear to be brighter but it is also larger than a regular full moon.
- According to NASA, the term supermoon was coined by astrologer Richard Nolle in 1979. In a typical year, there may be two to four full supermoons and two to four new supermoons in a row.

Lunar Eclipse:

- o About:
 - Lunar eclipse takes place when the Moon moves into the Earth's shadow. The Earth has to be directly between the Sun and the Moon, and a lunar eclipse can only take place during a full Moon.
 - First, the Moon moves into the **penumbra** the part of the Earth's shadow where not all of the



light from the Sun is blocked out. Part of the Moon's disc will look dimmer than a regular full Moon.

- And then the Moon moves into the Earth's **umbra**, where direct light from the Sun is totally blocked out by the Earth. This means the only light reflecting off the Moon's disc has already been refracted, or bent, by the Earth's atmosphere.
- Total Lunar Eclipse:
 - During this, the whole of the **lunar disc** enters the **Earth's umbra**, so the **Moon appears reddish (Blood Moon)**. This won't last forever, though.
 - After about 14 minutes, the Moon will move out of Earth's umbra and back into its penumbra. In total, the lunar eclipse will last a few hours.
 - Red light has a longer wavelength than blue light, which gives the lunar eclipse its characteristic reddish colour.
 - On Earth, we see the same effect during sunrises and sunsets, when the sky has a more reddish glow than during the day.





Total Solar Eclipse

- Total solar eclipses occur when the New Moon comes between the Sun and Earth and casts the darkest part of its shadow, the umbra, on Earth. A full solar eclipse, known as totality, is almost as dark as night.
- During a total eclipse of the Sun, the Moon covers the entire disk of the Sun. In partial and annular solar eclipses, the Moon blocks only part of the Sun.
- When the Moon completely covers the disk of the Sun, only the Sun's corona is visible.
- It is called Total eclipse because at the maximum point of the eclipse (midpoint of time of totality), the sky goes dark and temperatures can fall.



A-76: World's Largest Iceberg

Why in News

An enormous iceberg 'A-76' has calved from the western side of the Ronne Ice Shelf, lying in the Weddell Sea, in Antarctica.

It measures around 4320 sq km in size – currently making it the largest berg in the world.



Key Points

About A-76:

- The newly calved berg 'A-76' was spotted in recent satellite images captured by the Copernicus Sentinel-1 mission.
 - Sentinel-1 is one of the missions of the European Space Agency (ESA) under Copernicus initiative (an earth observation programme).
- It has surpassed the now second-place A-23A, about 3,380 sq km in size and also floating in the Weddell Sea.
- Iceberg:
 - An iceberg is ice that broke off from glaciers or shelf ice and is floating in open water.
 - Icebergs travel with ocean currents and either get caught up in shallow waters or ground themselves.
 - The US National Ice Center (USNIC) is the only organisation that names and tracks Antarctic Icebergs.
 - Icebergs are named according to the Antarctic quadrant in which they are spotted.
- Ice Shelves:
 - An ice shelf is a floating extension of land ice. The Antarctic continent is surrounded by ice shelves.
 - The **Ronne Ice Shelf** on the flank of the Antarctic Peninsula is **one of the largest of several enormous**



floating sheets of ice that connect to the continent's landmass and extend out into the surrounding seas.

> Iceberg Calving:

- Meaning:
 - Calving is the glaciological term for the mechanical loss (or simply, breaking off) of ice from a glacier margin.
 - Calving is most common when a glacier flows into water (i.e. lakes or the ocean) but can also occur on dry land, where it is known as **dry calving.**
- Recent Cases of Calving:
 - Up to the end of the 20th century, the Larsen Ice Shelf (on the West Antarctic Peninsula) had been stable for more than 10,000 years.
 - In 1995, however, a huge chunk broke off, followed by another in 2002.
 - This was followed by the breakup of the nearby Wilkins Ice Shelf in 2008 and 2009, and A68a in 2017.



- > Concerns:
 - Periodic calving off of large chunks of those shelves is part of a **natural cycle**, but the process has been **accelerated by climate change.**
 - Average sea levels have risen about nine inches since 1880, and about a quarter of that increase comes from ice melting in the Greenland and Antarctica ice sheets, along with land-based glaciers elsewhere.
 - According to a recent study, more ambitious national goals to cut greenhouse gas emissions and slow down climate change set recently are not enough to stop sea levels from rising.

• In fact, melting glaciers and ice sheets will raise sea levels twice as fast as they would if countries fulfilled their earlier pledges under the **Paris Agreement.**

Cyclone Tauktae

Why in News

Recently, Cyclone Tauktae made landfall in Gujarat.

The cyclone has left a trail of destruction as it swept through the coastal states of Kerala, Karnataka, Goa and Maharashtra.

Key Points

- > About:
 - Named by:
 - It is a tropical cyclone, named by Myanmar. It means 'gecko', a highly vocal lizard, in the Burmese language.
 - Typically, **tropical cyclones** in the North Indian Ocean region (**Bay of Bengal and Arabian Sea**) develop during the **pre-monsoon** (April to June) and **post-monsoon** (October to December) periods.
 - May-June and October-November are known to produce cyclones of severe intensity that affect the Indian coasts.
 - Classification:
 - It has weakened into a "very severe cyclonic storm" from the "extremely severe cyclonic storm".
 - The India Meteorological Department (IMD) classifies cyclones on the basis of the maximum sustained surface wind speed (MSW) they generate.
 - The cyclones are classified as severe (MSW of 48-63 knots), very severe (MSW of 64-89 knots), extremely severe (MSW of 90-119 knots) and super cyclonic storm (MSW of 120 knots or more). One knot is equal to 1.8 kmph (kilometers per hour).
 - Developed in Arabian Sea:
 - Tauktae is the fourth cyclone in consecutive years to have developed in the Arabian Sea, that too in the pre-monsoon period (April to June).



- After Cyclone Mekanu in 2018, which struck Oman, Cyclone Vayu in 2019 struck Gujarat, followed by Cyclone Nisarga in 2020 that struck Maharashtra.
- All these cyclones since 2018 have been categorised either 'Severe Cyclone' or above.
- > Arabian Sea becoming Hotbed of Cyclones:
 - Annually, five cyclones on average form in the Bay of Bengal and the Arabian Sea combined. Of these, four develop in the Bay of Bengal, which is warmer than the Arabian Sea.
 - In 2018, while the Bay of Bengal maintained its average of four cyclones a year, the Arabian Sea produced three cyclonic storms. In 2019, the Arabian Sea overtook the Bay of Bengal with five cyclones to three.
 - In **2020**, the **Bay of Bengal** produced **three cyclonic storms** while the **Arabian Sea** generated **two**.
 - In recent years, meteorologists have observed that the Arabian Sea, too, has been warming. This is a phenomenon associated with global warming.
 - It has been observed that the sea surface temperature in the Arabian Sea has been rising for about 40 years. The increase in temperature is in the zone of 1.2-1.4 degree Celsius.

> Tropical Cyclone:

- A tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A **characteristic feature** of tropical cyclones is the **eye**, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called hurricanes in the North Atlantic and eastern Pacific and typhoons in SouthEast Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in northwestern Australia.
- Storms rotate counterclockwise in the northern hemisphere and clockwise in the southern hemisphere.
- The conditions favourable for the formation and intensification of tropical storms are:
 - Large sea surface with temperature higher than 27 °C.

- Presence of the **Coriolis force.**
- Small variations in the vertical wind speed.
- A pre-existing weak **low- pressure area** or **lowlevel-cyclonic circulation.**
- Upper divergence above the sea level system.
- > Naming of Tropical Cyclones:
 - According to WMO (World Meteorological Organization) guidelines, countries in every region are supposed to give names for cyclones.
 - The North Indian Ocean Region covers tropical cyclones formed over Bay of Bengal and Arabian Sea.
 - The 13 members, which come under the region, are Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, Thailand, Iran, Qatar, Saudi Arabia, the UAE and Yemen.
 - India Meteorological Department (IMD), one of the six Regional Specialised Meteorological Centres (RSMC) in the world, is mandated to issue advisories and name tropical cyclones in the north Indian Ocean Region.
 - It is an agency of the Ministry of Earth Sciences.

Cyclone Yaas

Why in News

Recently, cyclone Yaas made landfall south of Balasore in Odisha.

Earlier, another cyclonic storm named 'Cyclone Tauktae' had affected the Indian states of Kerala, Gujarat, Maharashtra, Goa and Karnataka, along with two Union Territories: Daman & Diu and Lakshadweep.

Key Points

- > About:
 - The cyclone has been **named Yaas by Oman**. The word Yaas has originated from the Persian language and means **'Jasmin'** in English.
 - Typically, tropical cyclones in the North Indian Ocean region (Bay of Bengal and Arabian Sea) develop during the pre-monsoon (April to June) and post-monsoon (October to December) periods.
 - May-June and October-November are known to produce cyclones of severe intensity that affect the Indian coasts.
- Classification:



Note:

CURRENT AFFAIRS MAY 2021 77



- o It has been classified as a very severe cyclone.
- The India Meteorological Department (IMD) classifies cyclones on the basis of the maximum sustained surface wind speed (MSW) they generate.
 - The cyclones are classified as severe (MSW of 48-63 knots), very severe (MSW of 64-89 knots), extremely severe (MSW of 90-119 knots) and super cyclonic storm (MSW of 120 knots or more).

> Areas Affected:

- It affected the bordering regions of West Bengal and Odisha and weakened into a cyclonic storm, leaving behind a trail of destruction on the eastern coast.
- > Bay of Bengal Getting Warmer:
 - The Bay of Bengal, where cyclone Yaas has formed, is at least **two degrees warmer than what is normal for this time of the year**.
 - The north Bay of Bengal is exceptionally warm with temperatures up to 32 degrees.

> Tropical Cyclones:

 A tropical cyclone is an intense circular storm that originates over warm tropical oceans and is characterized by low atmospheric pressure, high winds, and heavy rain.

- A characteristic feature of tropical cyclones is the eye, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called hurricanes in the North Atlantic and eastern Pacific and typhoons in SouthEast Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in northwestern Australia.
- Storms rotate counterclockwise in the northern hemisphere and clockwise in the southern hemisphere.
- The **conditions favourable** for the formation and intensification of tropical storms are:
 - Large sea surface with temperature higher than 27 °C.
 - Presence of the Coriolis force.
 - Small variations in the vertical wind speed.
 - A pre-existing **weak low- pressure area** or lowlevel-cyclonic circulation.
 - Upper **divergence** above the sea level system.
- > Naming of Tropical Cyclones:
 - According to WMO (World Meteorological Organization) guidelines, countries in every region are supposed to give names for cyclones.



Bay of Bengal vs Arabian Sea (Cyclones) > Bay of Bengal:

• As it is concave or shallow where when strong winds push water, it gets concentrated as a storm.



- It is shaped like a trough that makes it more hospitable for storms to gain force. Moreover, the high sea surface temperature makes matters more worse in the Bay triggering the intensity of the storms.
- Additionally, it gets more rainfall with sluggish winds and warm air currents around it that keep temperatures relatively high all year. The constant inflow of fresh warm water from the perennial rivers like Brahmaputra, Ganga makes it further impossible to mix with the cooler water below.

- Lack of landmass between the Pacific Ocean and the Bay of Bengal tend cyclonic winds to move into the coastal areas causing heavy rainfall.
- The absence of air movements from northwestern India towards the Bay in the postmonsoon phase is also another reason for the chances of cyclones in the Bay of Bengal.
- > Arabian Sea:
 - It is much calmer as the stronger winds help dissipate the heat and lack of constant fresh water helps the warm water to mix with the cool water underneath, reducing the surface temperature.
 - The Arabian Sea enjoys the locational advantage as the winds from the Pacific Ocean encounter the Western Ghats and the Himalayas cutting down on its intensity and sometimes never reaching the Arabian Sea.
 - The North Indian Ocean Region covers tropical cyclones formed over Bay of Bengal and Arabian Sea.
 - The 13 members, which come under the region, are Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka, Thailand, Iran, Qatar, Saudi Arabia, the UAE and Yemen.
 - IMD, one of the six Regional Specialised Meteorological Centres (RSMC) in the world, is mandated to issue advisories and name tropical cyclones in the north Indian Ocean Region.
 - It is an agency of the Ministry of Earth Sciences.



Social Issues

Highlights

- NGT Upholds Rights of Pastoralists in Banni Grasslands
- Immediate Subsistence Assistance to Transgender
- Initiative for Digital Transformation of Tribal Schools

NGT Upholds Rights of Pastoralists in Banni Grasslands

Why in News

The National Green Tribunal (NGT) ordered all encroachments to be removed from Gujarat's Banni grasslands within six months.

The court also said the Maldharis (Pastoralists) will continue to hold the right to conserve the community forests in the area, granted to them as per the provisions in Section 3 of Forest Rights Act (FRA), 2006.

National Green Tribunal

- It is a specialised body set up under the National Green Tribunal Act (2010) for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- NGT is mandated to make disposal of applications or appeals finally within 6 months of filing the same.
- The NGT has five places of sittings, New Delhi is the Principal place of sitting and Bhopal, Pune, Kolkata and Chennai are the other four.
- Being a statutory adjudicatory body like Courts, apart from original jurisdiction on filing of an application, NGT also has appellate jurisdiction to hear appeal as a Court (Tribunal).

Key Points

- > About Banni Grassland:
 - $\circ\,$ Location:
 - Banni is the largest grassland of Asia situated near the Great Rann of Kutch in Gujarat.

- Covid leaves Orphaned Children Vulnerable to Trafficking
- January 30: World Neglected Tropical Diseases Day
 - It is spread over 2,618 kilometres and accounts for almost 45% of the pastures in Gujarat.
 - Ecosystem and Vegetation:
 - Two ecosystems, wetlands and grasslands, are mixed side by side in Banni.
 - Vegetation in Banni is sparse and highly dependent on rainfall.
 - Banni grasslands, traditionally, were managed following a system of rotational grazing.
 - Banni is dominated by low-growing plants, forbs and graminoids, many of which are halophiles (salt tolerant), as well as scattered tree cover and scrub.
 - The area is **rich in flora and fauna**, with 192 species of plants, 262 species of birds, several species of mammals, reptiles and amphibians.
 - Reserve Forest:
 - In 1955, the court notified that the grassland will be a reserve forest (the most restricted forests classified according to Indian Forest Act 1927).
 - In 2019, the **tribunal ordered** to demarcate the boundaries of the Banni grassland and restricted non-forest activities.
 - Wildlife Institute of India (WII) has identified this grassland reserve as one of the last remaining habitats of the cheetah in India and a possible reintroduction site for the species.
- About Maldharis:
 - Maldharis are a tribal herdsmen community inhabiting Banni.
 - Originally nomads, they came to be known as Maldharis after settling in Junagarh (mainly Gir Forest).





- The literal meaning of Maldhari **is keeper (dhari)** of the animal stock (mal).
 - The livestock include sheep, goats, cows, buffalo, and camels.
- The **Gir Forest National Park** is home to around 8,400 Maldharis.
- Provisions of the Forest Rights Act 2006:
 - Under the provisions of the Act, forest dwellers cannot be displaced unless the rights settlement process has been completed.
 - Moreover, the Act has a special provision for setting up 'Critical Wildlife Habitats (CWH)', for the conservation of the species.
 - It strengthens the conservation regime of the forests while ensuring livelihood and food security of the FDST (Forest Dwelling Scheduled Tribes) and OTFD (Other Traditional Forest Dwellers).
 - o The Act identifies four **types of rights:**
 - **Title rights:** It gives FDST and OTFD the right to ownership to land farmed by tribals or forest dwellers subject to a maximum of 4 hectares.
 - Use rights: The rights of the dwellers extend to extracting Minor Forest Produce, grazing areas etc.
 - **Relief and development rights:** To rehabilitate in case of illegal eviction or forced displacement and to basic amenities, subject to restrictions for forest protection.
 - Forest management rights: It includes the right to protect, regenerate or conserve or manage any community forest resource which they have been traditionally protecting.

Immediate Subsistence Assistance to Transgender

Why in News

In view of **Covid-19** pandemic, the **Ministry of Social** Justice and Empowerment will give transgender persons a one-time financial assistance of Rs. 1,500.

Key Points

- About the Assistance:
 - Immediate subsistence assistance to trans persons would be given through Direct Benefit Transfer (DBT), for which beneficiaries can register with the National Institute of Social Defence.
- National Institute of Social Defence (NISD):
 - NISD is an Autonomous Body and is registered under Societies Act XXI of 1860 with the Government of National Capital Territory (NCT), Delhi.
 - It is a central advisory body for the Ministry of Social Justice and Empowerment.
 - It is the **nodal training and research institute** in the field of **social defence.**
 - It currently focuses on human resource development in the areas of drug abuse prevention, welfare of senior citizens, beggary prevention, transgender and other social defence issues.

Major Initiatives Related to Transgender:

- Judgements of the Supreme Court:
 - National Legal Services Authority (NALSA)
 v. Union of India, 2014: The SC declared transgender people to be a 'third gender'.
 - Read down the Provisions of Section 377 of the Indian Penal Code (2018): The SC decriminalised same-sex relationships.
- Transgender Persons (Protection of Rights) Act, 2019:
 - A transgender person is one whose gender does not match the gender assigned at birth. It includes transmen and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.
 - Establishes Natonal Council for Transgender persons.



- Gives right to obtain Certificate of Identity.
- Provides the **right of residence** with parents and immediate family members.
- Prohibits discrimination against a transgender person in various sectors such as education, employment, and healthcare etc.
- Offences against transgender persons will attract imprisonment between six months and two years, in addition to a fine.
- Transgender Persons (Protection of Rights) Rules, 2020, National Portal for Transgender Persons and the Scheme of 'Shelter Home for Transgender Persons'.

Initiative for Digital Transformation of Tribal Schools

Why in News

Recently, the **Ministry of Tribal Affairs (MTA)** inked a Memorandum of Understanding (MoU) with **Microsoft** to support the digital transformation of schools such as **Eklavya Model Residential Schools (EMRS)** and **Ashram Schools**, among others under the Ministry.

It is aimed at building an inclusive, skills-based economy.

Key Points

- About the MoU:
 - Artificial Intelligence curriculum will be made available to tribal students in both English and Hindi at all EMRS schools to skill educators and students in next-generation technologies.
 - In the first phase, 250 EMRS schools have been adopted by Microsoft, out of which 50 EMRS schools will be given intensive training and 500 master trainers would be trained in the first phase.
 - **Teachers across states in India will be trained in a phased manner** for using productivity technologies like Office 365 and AI applications in teaching.
 - The program will also offer opportunities for **teachers to earn professional e-badges and e-certificates** from the Microsoft Education Centre.
 - Students from schools under the Ministry will be mentored on projects that involve AI applications

for societal good and the UN's Sustainable Development Goals (SDGs).

- > Expected Benefits:
 - This program will ensure that tribal students get a chance to change their future, their environment, their village, and overall community.
 - The initiative will also enable the **professional development of educators, enabling them to use technology in classrooms.**
 - It will help in the success of **digital India Mission**.
 - It will be able to bridge the gap between the tribal students and others.
- > Other Educational Schemes for Tribals:
 - Rajiv Gandhi National Fellowship Scheme (RGNF): RGNF was introduced in the year 2005-2006 with the objective to encourage the students belonging to the ST community to pursue higher education.
 - Vocational Training Center in Tribal Areas: The aim of this scheme is to develop the skill of ST students depending on their qualification and present market trends.
 - National Overseas Scholarship Scheme: It provides financial assistance to 20 students selected for pursuing higher studies abroad for PhD and postdoctoral studies.
 - Pre and Post Matric Scholarship Schemes.

Eklavya Model Residential Schools

- EMRS started in the year 1997-98 to impart quality education to Schedule Tribes children in remote areas.
- The schools focus not only on academic education but on the all-round development of the students.
- The objective of EMRS is to provide quality middle and high level education to ST students in remote areas, not only to enable them to avail of reservation in high and professional educational courses and as jobs in government and public and private sectors but also to have access to the best opportunities in education at par with the non ST population.
- Each school has a capacity of 480 students, catering to students from Class VI to XII.
- These are being set up by grants provided under Article 275(1) of the Constitution.
- > These are **funded by the Ministry of Tribal Affairs.**



- In order to give further impetus to EMRS, it has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS.
- Eklavya schools are on par with Navodaya Vidyalaya and have special facilities for preserving local art and culture besides providing training in sports and skill development.
 - Navodaya Vidyalaya Samiti (NVS) scheme envisages setting up of one Navodaya Vidyalaya in each district of the country. It is under the Ministry of Education.
 - These residential schools impart good quality modern education to rural talented children irrespective of their socio-economic background including ST children.

Ashram Schools

- Ashram schools are residential schools, in which free boarding and lodging along with other facilities and incentives are provided to the students.
- Apart from formal education, there is emphasis put upon physical activities, meditation, sight-seeing, play, sports, games, and other.
- The Ministry of Tribal Affairs provides construction costs and the State Government is responsible for running and overall maintenance of these Ashram schools including selection of medium of instruction.
- So far, the Ministry has funded 1,205 Ashram Schools across the country for quality education of ST children.

Covid leaves Orphaned Children Vulnerable to Trafficking

Why in News

As India battles a raging **second wave**, cases of children losing their parents to **Covid-19** are also mounting.

Further, the apprehension of child trafficking in the garb of adoption has increased.

Key Points

- > About:
 - Various social media posts are getting circulated with details of children who have lost either both

their parents or the only living parent to the disease and pleading for them to be adopted.

- Sharing such posts are illegal under Section 80 and 81 of the Juvenile Justice (JJ) Act, 2015, which prohibit offering or receiving children outside the processes laid down under the Act as well as their sale and purchase.
 - Such acts are punishable with three to five years in jail or Rs. 1 lakh in fine.
- Child Marriages have also increased in the Covid-19 induced lockdown.
- > Provisions for Protection of Orphan Children:
 - There is a process as per the JJ Act which needs to be followed with children who have been orphaned.
 - If someone has information about a child in need of care, then they must contact one of the four agencies: Childline 1098, or the district
 Child Welfare Committee (CWC), District Child Protection Officer (DCPO) or the helpline of the State Commission for Protection of Child Rights.
 - Following this, the CWC will assess the child and place him or her in the immediate care of a Specialised Adoption Agency.
 - The State thus takes care of all such children who are in need of care and protection, till they turn 18 years.
 - Once a child is declared legally free for adoption by the CWC, adoption can be done either by Indian prospective adoptive parents or non-resident Indians or foreigners, in that order.
 - India has ratified Hague Convention on Intercountry Adoptions, 1993.
 - The Central Adoption Resource Authority (CARA), a statutory body of the Ministry of Women and Child Development, is the nodal agency for adoption.
 - It regulates the adoption of orphaned, abandoned and surrendered children through its associated or recognised agencies.

• Recent Initiative (SAMVEDNA):

 With an objective of providing psychological and emotional support to children affected during Covid-19 Pandemic, National Commission for Protection of Child Rights (NCPCR) is providing Tele-Counselling to children through SAMVEDNA (Sensitizing Action on Mental Health Vulnerability through Emotional Development and Necessary Acceptance).



CURRENT AFFAIRS MAY 2021 83

- o Data Analysis:
 - National Crime Records Bureau (NCRB) 2018 report highlights that 51% of all trafficking victims were children, of which more than 80% were girls.
 - The most affected state presently is West Bengal followed by Chhattisgarh, Jharkhand and Assam.
 - The trafficking of children for forced labour, for all kinds of domestic work and trafficking of women for sexual exploitation is the heaviest in these areas.
- Constitutional Protection:
 - Article 21: The Supreme Court has held that the right to live is not merely a physical right but includes within its ambit the right to live with human dignity.
 - Article 23: Prohibition of traffic in human beings and forced labour.
 - Article 24: No child below the age of fourteen years shall be employed to work in any factory or mine or engaged in any other hazardous employment.
 - Article 39: It provides certain principles of policy to be followed by the State towards securing:
 - (e) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength;
 - (f) that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment.
 - Article 45: Duty of state to provide early childhood care, 0-6 age group
- Legal Protection:
 - The Immoral Traffic (Prevention) Act, 1986 (ITPA).
 - Bonded Labour System (Abolition) Act 1976, Child Labour (Prohibition and Abolition) Act 1986, and Juvenile Justice Act.
 - Sections 366 (A) and 372 of the Indian Penal Code.
 - The Factories Act, 1948.

- Other Initiatives Taken:
 - India has ratified the United Nations Convention on Transnational Organised Crime (UNCTOC) which among others has a Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children (Palermo protocols).
 - India has ratified the South Asian Association for Regional Cooperation (SAARC) Convention on Preventing and Combating Trafficking in Women and Children for Prostitution.
 - The National Commission for Protection of Child Rights (NCPCR) was set up in 2007 under the Commission for Protection of Child Rights Act, 2005.
 - India has ratified the UN Convention on the Rights of the Child (UNCRC).

January 30: World Neglected Tropical Diseases Day

Why in News

The 74th World Health Assembly declared 30th January as 'World Neglected Tropical Diseases (NTD) Day.

- The proposal to recognise the day was floated by the United Arab Emirates. It was adopted unanimously by the delegates. The first World NTD Day was celebrated informally in 2020.
- The World Health Assembly is the decision-making body of the World Health Organization (WHO).

Key Points

- > Neglected Tropical Diseases (NTD):
 - NTDs are a group of infections that are most common among marginalised communities in the developing regions of Africa, Asia and the Americas. They are caused by a variety of pathogens such as viruses, bacteria, protozoa and parasitic worms.
 - NTDs are especially common in tropical areas where people do not have access to clean water or safe ways to dispose of human waste.
 - These diseases generally receive less funding for research and treatment than malaises like tuberculosis, HIV-AIDS and malaria.



- > London Declaration on NTDs:
 - It was adopted on **30**th January, **2012** to recognise the global burden of NTDs.
 - Officials from the World Health Organization (WHO), the World Bank, the Bill and Melinda Gates Foundation, representatives from leading global pharmaceutical companies as well as representatives of several national governments met at London's Royal College of physicians to pledge to end the diseases.
- > WHO's New Roadmap for 2021-2030:
 - From measuring process to measuring impact.
 - From disease-specific planning and programming to collaborative work across sectors.
 - From externally driven agendas reliant to programmes that are country-owned and country-financed.
- > NTD Scenario:
 - NTDs affect more than a billion people globally.
 - They are preventable and treatable. However,

drishti

- these diseases and their intricate interrelationships with poverty and ecological systems - continue to cause devastating health, social and economic consequences.
- There are **20 NTDs** that impact over **1.7 billion** people worldwide.
- India carries the largest burden of at least 11 of these diseases, with parasitic illnesses like kalaazar and lymphatic filariasis affecting millions of people throughout the country – often the poorest and most vulnerable.
- > Indian Initiatives to Eliminate NTDs:
 - The Accelerated Plan for Elimination of Lymphatic Filariasis (APELF) was launched in 2018, as part of intensifying efforts towards the elimination of NTDs.
 - A WHO-supported regional alliance established by the governments of India, Bangladesh, and Nepal in 2005 to expedite early diagnosis and treatment of the most vulnerable populations and improve disease surveillance and control of sandfly populations (Kala-azar).
 - India has already eliminated several other NTDs, including guinea worm, trachoma, and yaws.



Art & Culture

Highlights

Six Sites in Tentative List of World Heritage Sites

Begum Sultan Jahan

Vesak Celebration

Six Sites in Tentative List of World Heritage Sites

Why in News

Recently, **six Indian places** have been **added to the tentative list of UNESCO's (**United Nations Educational, Scientific and Cultural Organization**) world heritage sites.**

The submissions were made by Archaeological Survey of India, which is responsible for the conservation and preservation of Indian monuments.

Key Points

- > Tentative List:
 - As per Operational Guidelines, 2019 of UNESCO, it is mandatory to put any monument/site on the Tentative List (TL) for one year before it is considered for the final nomination dossier.
 - Once the **nomination** is done, it is sent to the **World Heritage Centre (WHC).**
 - o India has **48 sites** in the **TL** as of now.
- > World Heritage Site:
 - Any of various areas or objects inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage List.
 - The sites are designated as having "outstanding universal value" under the Convention Concerning the Protection of the World Cultural and Natural Heritage 1972.
 - The World Heritage Centre is the Secretariat to the 1972 Convention.
 - It provides a framework for international cooperation in preserving and protecting cultural treasures and natural areas throughout the world.
 - There are three types of sites: Cultural, Natural, and Mixed.

- Cultural heritage sites include hundreds of historic buildings and town sites, important archaeological sites, and works of monumental sculpture or painting.
- Natural heritage sites are restricted to those natural areas that have excellent ecological and evolutionary processes, unique natural phenomena, habitats of rare or endangered species etc.
- **Mixed heritage sites** contain elements of both natural and cultural significance.
- India has 38 world heritage sites, including 30 cultural properties, 7 natural properties and 1 mixed site. The latest one included is Jaipur city, Rajasthan.
- About New Six Places in TL:
 - Satpura Tiger Reserve (Madhya Pradesh):
 - Home to 26 species of the Himalayan region including reptiles, and 42 species of Nilgiri areas. It is the largest tiger-occupied forest and also has the largest tiger population.



- Ghats of Varanasi (Uttar Pradesh):
 - The ghats date back to the 14th century but most were rebuilt, along with Varanasi, in the 18th century by Maratha rulers.



• They have special significance in Hindu mythology, and are primarily used for bathing and Hindu religious rituals.



- Megalithic Site of Hire Benkal (Karnataka):
 - This 2,800-years-old megalithic site is one of the largest prehistoric megalithic settlements where some funerary monuments are still intact.
 - The granite structures are **burial monuments** that may also have served many **ritual purposes**. Due to the **extremely valuable collection** of **Neolithic monuments**, the site was proposed for recognition.



- Maratha Military Architecture in Maharashtra:
 - There are 12 forts in Maharashtra dating back to the era of the 17th-century Maratha king Chhatrapati Shivaji. They are Shivneri, Raigad, Torna, Rajgad, Salher-Mulher, Panhala, Pratapgad, Lohagad, Sindhudurg, Padmadurga, Vijaydurg and Kolaba.
 - These forts offer new insight in various forms of architecture including rock cut features, construction of perimeter walls in layers on hill tops and slopes, temples, palaces, markets,

residential areas, and almost every form of medieval architecture.



- Bhedaghat-Lametaghat in Narmada Valley- Jabalpur (Madhya Pradesh):
 - Bhedaghat, referred to as the Grand Canyon of India, is a town in the Jabalpur district.
 - It is known for its **marble rocks** and their various **morphological forms** on either side of the Narmada river which flows through the gorge.
 - Several **dinosaur fossils** have been found in the **Narmada valley,** particularly in the Bhedaghat-Lameta Ghat area of Jabalpur.
 - River Narmada narrows down on its way through marble rocks and plunges in a waterfall giving out the appearance of a smoke cascade.



- Temples of Kanchipuram (Tamil Nadu):
 - Kanchipuram is known for its spirituality, serenity, and silk.
 - It is situated on the banks of River Vegavathi.
 - This historical city once had 1,000 temples, of which only 126 (108 Shaiva and 18 Vaishnava) now remain.



 Its rich legacy has been the endowment of the Pallava dynasty, which made the region its capital between the 6th and 7th centuries and lavished upon its architectural gems that are a fine example of Dravidian styles.



Vesak Celebration

Why in News

The Prime Minister addressed "Virtual Vesak Global Celebrations" on Buddha Purnima.

The event is being organised by the Ministry of Culture in collaboration with the International Buddhist Confederation (IBC) and will witness the participation of all the supreme heads of the Buddhist Sanghas from around the world.

Key Points

- Buddha Purnima:
 - It is celebrated to mark the **birth of Gautam Buddha**, the founder of **Buddhism**.
 - It is also **known as Vesak.** In **1999**, it became a **UN-designated day**, to acknowledge the contribution of Buddhism to society.
 - It is considered a 'triple-blessed day' as Tathagata Gautam Buddha's birth, enlightenment, and Maha Parnirvana.
 - Buddha Purnima falls on a full moon night, usually between April and May, and it is a gazetted holiday in India.
 - Many devotees visit Mahabodhi Temple, a UNESCO World Heritage Site, located in Bodh Gaya, Bihar, on this occasion.
 - Bodhi Temple is the location where Lord Buddha is said to have attained enlightenment.

- International Buddhist Confederation (IBC):
 - IBC is the **biggest religious Buddhist confederation**.

www.drishtilAS.com

- The purpose of this body is to create a role for Buddhism on the global stage so as to help to preserve heritage, share knowledge, and promote values and to represent a united front for Buddhism to enjoy meaningful participation in the global discourse.
- In November 2011, New Delhi was host to Global Buddhist Congregation (GBC), where the attendees unanimously adopted a resolution to form an international umbrella body – the International Buddhist Confederation (IBC).
- HQ: Delhi, India.
- About Gautam Buddha:
 - He was born as Siddhartha Gautama in circa
 563 BCE, in Lumbini and belonged to the Sakya clan.
 - Gautam attained Bodhi (enlightenment) under a pipal tree at Bodhgaya, Bihar.
 - Buddha gave his first sermon in the village of Sarnath, near Varanasi in Uttar Pradesh. This event is known as Dharma Chakra Pravartana (turning of the wheel of law).
 - He died at the age of 80 in 483 BCE at Kushinagara, Uttar Pradesh. The event is known as Mahaparinibban or Mahaparinirvana.
 - He is believed to be the eighth of the ten incarnations of Lord Vishnu (Dashavatar).

Buddhism

- > About:
 - o **Buddhism** started in India over 2,600 years ago.
 - The main teachings of Buddhism are encapsulated in the basic concept of four noble truths or ariya-sachchani and eight-fold path or ashtangika marg.
 - Dukkha (Sufferings) and its extinction are central to the Buddha's doctrine.
 - The essence of Buddhism is the attainment of enlightenment or nirvana which was not a place but an experience and could be attained in this life.
 - o There is **no supreme god or deity** in Buddhism.
- Buddhist Councils:



CURRENT	AFFAIRS	MAY 2021	89

Buddhist Council	Patron	Venue	Chairman	Year
First	Ajatashatru	Rajgriha	Mahakashyapa	483 BC
Second	Kalashoka	Vaishali	Sabbakami	383 BC
Third	Ashoka	Patliputra	Mogaliputra	250 BC
Fourth	Kanishka	Kundalban (Kashmir)	Vasumitra	72 AD

> Schools of Buddhism:

- Mahayana (Idol Worship), Hinayana, Theravada, Vajrayana (Tantric buddhism), Zen.
- > Buddhism Texts (Tipitaka):
 - Vinaya Pitaka (rules applicable to monastic life), Sutta Pitaka (main teaching or Dhamma of Buddha), Abhidhamma Pitaka (a philosophical analysis and systematization of the teaching).
- > Contribution of Buddhism to Indian Culture:
 - The concept of ahimsa was its chief contribution. Later, it became one of the cherished values of our nation.
 - Its contribution to the art and architecture of India was notable. The stupas at Sanchi, Bharhut, and Gaya are wonderful pieces of architecture.
 - It promoted education through residential universities like those at Taxila, Nalanda, and Vikramasila.
 - The language of Pali and other local languages developed through the teachings of Buddhism.
 - It had also promoted the spread of Indian culture to other parts of Asia.
- > UNESCO's Heritage Sites Related to Buddhism:
 - Archaeological Site of Nalanda Mahavihara at Nalanda, Bihar
 - o Buddhist Monuments at Sanchi, MP
 - o Mahabodhi Temple Complex at Bodh Gaya, Bihar
 - o Ajanta Caves Aurangabad, Maharashtra.

Begum Sultan Jahan

Why in News

Recently, the death anniversary of Begum Sultan Jahan was observed.

She was a Philanthropist, Prolific writer, Feminist, Symbol of Women Empowerment, First female Chancellor of Aligarh Muslim University.



Key Points

- > Birth: In 1858 (Bhopal).
- Ruler of Bhopal:
 - She was the last Begum of Bhopal. Ruled from 1909 to 1926 after which she was succeeded by her son.
 - Fourth female ruler of Bhopal.
 - Set up the municipality system, introduced municipal elections and constructed a walled city and a palace for herself.
 - Took steps for improving public health, sanitation, and water supply in the walled city and implemented widespread vaccination drives for its residents.

Feminist Icon:

 \geq

- Her progressive policies for women, at a time when they were shackled by the forces of patriarchy, have made her a feminist icon even today.
- Constructed a Meeting Hall for Ladies in Lahore in 1913.
- Organised an exhibition called 'Numaish Masunuaat e Hind' in Bhopal to encourage women and promote handicrafts.

> Philanthropist:

- Established the **Sultan Jahan Endowment Trust** with a corpus of Rs three lakhs for helping needy students.
- Funded a Madrasa in Deoband (UP), Nadwatul Uloom in Lucknow and even Madarsa Sultania in Mecca, Saudi Arabia.
- Institutions such as Lady Hardinge Medical College, Delhi and some renowned colleges in Bombay and Calcutta received generous grants from her.
- Educationist:
 - Authored 41 books, translated a number of English books into Urdu.



- Authored a book, Dars-e-Hayat, about the education and parenting of young girls.
- **Revamped the syllabus** and added subjects such as English, Urdu, Arithmetic, Home Science and crafts of the Sultania School she started.
- Started a nursing school called Lady Minto Nursing School.
- She was the first women chancellor of AMU (Aligarh Muslim University).
 - During AMU's centenary celebrations in December 2020, the Prime paid tribute to Begum Jahan and her contribution to the historic institution.
- Death: 12th May 1930.

drishti





<u>Highlights</u>

OPV Sajag

OPV Sajag

Why in News

Recently, the **Offshore Patrol Vessel (OPV) Sajag** got commissioned into the **Indian Coast Guard (ICG).**



Key Points

- > About Sajag:
 - It is third out of five OPV indigenously designed and built by the Goa Shipyard Limited. It is built under the Make in India policy.
 - Other four OPVs are Indian Coast Guard Ship (ICGS) Saksham, ICGS Sachet, ICGS Sujeet, and ICGS Sarthak.
 - It is **fitted with advanced technology equipment**, **weapons and sensors** capable of carrying a twin engine helicopter and four high speed boats.
 - OPVs are long-range surface ships capable of coastal and offshore patrolling, policing maritime zones, control & surveillance, anti-smuggling & anti-piracy operations with limited wartime roles.
 - It will help to manage greater responsibilities in the years to come and will strengthen ICGs concurrent multiple operations' capability towards ensuring safe, secure and clean seas as also

responding promptly to maritime emergencies in neighbourhood.

- > Indian Coast Guard:
 - o About:
 - It is an Armed Force, Search and Rescue and Maritime Law Enforcement agency under the Ministry of Defence.
 - It has a wide range of task capabilities for both surface and air operations. It is one of the largest coast guards in the world.
 - Establishment:
 - It was established on **18th August 1978** by the Coast Guard Act, 1978. It performs non-military functions.
 - The concept of forming ICG came into being after the **1971 war** the blueprint for a multidimensional Coast Guard was **conceived by the visionary Rustamji Committee.**
 - Head and Headquarter:
 - The organization is headed by the **Director General Indian Coast Guard (DGICG)** exercising his overall command and superintendence from the **Coast Guard Headquarters** (CGHQ) located at **New Delhi.**
 - o Jurisdiction:
 - It has jurisdiction over the territorial waters of India including contiguous zone and exclusive economic zone.
 - Function:
 - Responsible for **marine environment protection** in maritime zones of India.
 - Acts as a **coordinating authority for responding to oil spills** in Indian waters.
 - Protects India's maritime interests and enforces its maritime law.



Miscellaneous

Highlights

- Sun Halo/Kaleidoscope Effect
- International Museums Day

- Kharif Strategy for Oilseeds
- Statehood Day of Goa

Sun Halo/ Kaleidoscope Effect

Why in News

Recently, the **people of Bangalore witnessed a bright rainbow ring around the sun** for a few moments - a rare optical and atmospheric phenomenon called "22 degree circular Halo".

Key Point

The phenomenon popularly known as the 22 degree circular halo of the sun or occasionally the Moon (also called a moon ring or winter halo), occurs when the sun's or moon's rays get deflected/refracted through the hexagonal



ice crystals present in cirrus clouds.

- This is also called the Kaleidoscopic Effect.
- These halos are called 22-degree halos, as the halo or ring has an apparent radius of 22 degrees around the sun/moon.
- Circular halos specifically are produced by cirrus clouds, which are thin, detached, hair-like clouds. These clouds are formed very high up in the atmosphere, at a height of over 20,000 feet.
- Just like a rainbow, a halo is visible when viewed from the right angle — sometimes appearing just white but often with colours of the spectrum also clearly present.
 - The halo is the **brightest at the inner edge** of the circular disk, with no light inside the disk as no light is refracted at smaller angles.

 Red light is refracted less than other colours of light, so the halo's inner edge is reddish. Other shades typically tend to overlap and wash out.

International Museums Day

Why in News

International Museum Day is observed on **18th May** every year to raise awareness among people about the museums.

2021 Theme: The Future of Museums: Recover and Reimagine.

Key Points

- History: The Day was instituted in 1977 by the International Council of Museums (ICOM).
- International Council of Museum (ICOM):
 - ICOM is a membership association and a nongovernmental organisation which establishes professional and ethical standards for museum activities. It is the only global organisation in the museum field.
 - It was created in 1946 and is headquartered in Paris, France.
 - It serves as a network of museum professionals (more than 40,000 members in over 138 countries).
 - The **ICOM Red Lists of Cultural Objects at Risk** are practical tools to curb the illegal traffic of cultural objects.
 - **Red Lists** present the categories of cultural objects that can be subjected to theft and traffic.
- > Administration of Museums in India:
 - Multiple ministries hold charges of various Museums.



- Not all Museums are administered by the Ministry of Culture.
- Some are run without government support by a handful of people under a Board of Trustees.
- Related Constitutional Provision:
 - Article 49: Protect monuments, places and objects of artistic or historic interest which are declared to be of national importance.
- > Initiatives Related to Museums:
 - Museum Grant Scheme:
 - The **Ministry of Culture** provides financial assistance under the Scheme to the State Governments and Societies, Autonomous bodies, Local Bodies and Trusts registered under the Societies Act, for setting up new Museums.
 - It also aims to strengthen and modernize the existing museums at the Regional, State and District level.
 - The National Portal and Digital Repository for Indian Museums (under the Ministry of Culture) have been launched for digitisation of the collections of the Museums.

Notable Museums in India

- National Museum, New Delhi (Subordinate Office under the Ministry of Culture).
- > National Gallery of Modern Art, New Delhi
- Salar Jung Museum, Hyderabad
- Indian Museum, Kolkata
- > Archaeological Survey of India site Museum, Goa
- National Museum of Natural History (NMNH), New Delhi

Kharif Strategy for Oilseeds

Why in News

The Ministry of Agriculture & Farmers Welfare has formulated Kharif Strategy 2021 to achieve self-sufficiency in edible oils.

Key Points

- > About the Kharif Strategy 2021:
 - An ambitious plan for the **free distribution of high yielding varieties of seeds** to the farmers for the Kharif season 2021 in the form of mini-kits.

Kharif Season

- Crops are sown from June to July and Harvesting is done in between September-October.
- Crops are: Rice, maize, jowar, bajra, tur, moong, urad, cotton, jute, groundnut, soyabean etc.
- States are: Assam, West Bengal, coastal regions of Odisha, Andhra Pradesh, Telangana, Tamil Nadu, Kerala and Maharashtra.
 - Strategy for both area and productivity enhancement has been formulated for soybean and groundnut under the National Food Security Mission (Oil Seeds and Oil Palm).
 - It will bring an additional 6.37 lakh hectare area under oilseeds and is likely to produce 120.26 lakh quintals of oilseeds and edible oil amounting to 24.36 lakh quintals.

Basic Information Related to Oilseeds:

- Oilseed crops are the second most important determinant of the agricultural economy, next only to cereals within the segment of field crops.
 - The self-sufficiency in oilseeds attained through the "Yellow Revolution" during early 1990's, could not be sustained beyond a short period.
- Oilseed crops are **primarily grown for the purpose** of obtaining vegetable oils from them. Oil content in them varies from 20% in soybeans to 40% in sunflowers and canola (rapeseed).
- India is able to produce a huge amount of oilseeds because of the favourable environmental conditions.
 - Castor seed, sesamum, rapeseed, groundnut, mustard, soyabean, linseed, niger seed, sunflower and safflower are **some of the important oilseeds India is known to produce.**
- Despite being the fifth largest oilseed crop producing country in the world, India is also one of the largest importers of vegetable oils today.
 - India buys more than two-thirds of its total edible oil imports as **palm oil.**
- India has a marked position in the world in the production of a large amount of oilseeds.
 - After China, India is the second largest producer of groundnut and is third in position in the production of Rapeseed after China and Canada.
- Major Oilseeds Producing Areas in India are: Rajasthan, Gujarat, Tamil Nadu, Madhya Pradesh, Haryana, Maharashtra, Karnataka, Andhra Pradesh.



- National Food Security Mission (Oil Seeds and Oil Palm):
 - Objective:
 - To augment the availability of edible oils and reduce the import of edible oils by increasing the production and productivity of oilseeds and oil palm.
 - Merger of NMOOP under NFSM:
 - National Mission on Oilseeds & Oil Palm (NMOOP) was launched in 2014-15 and continued upto 2017-18.
 - From 2018-19 onwards, the NMOOP is being implemented under NFSM as NFSM-Oilseeds & Oil palm comprising the sub components NFSM- Oilseeds, NFSM-Oil Palm and NFSM-Tree Borne Oilseeds (TBOs).
 - Multi-Pronged Strategy:
 - Increasing Seed Replacement Ratio (SRR) with focus on varietal replacement.
 - SRR is the percentage of area sown out of total area of crop planted in the season by using certified/quality seeds other than the farm saved seed.
 - Productivity improvement by adoption of proven and climatic resilient technologies like water saving devices (sprinklers/rain gun), zero tillage, inter-cropping, relay cropping, strategic application of micronutrient and soil ameliorants.
 - Area expansion through diversification of low yielding food grains.
 - Capacity building.
 - Supporting cluster demonstrations for the adoption of good agricultural practices.
 - Creation of 36 oilseed hubs with a focus on regional approach for larger availability of quality seeds.
 - Post-harvest management at farm and village level.
 - Formation of Farmer Producer Organisations.
 - Funding Pattern:
 - The cost sharing pattern between Central and State Governments, is in the ratio of 60:40 for general category of States and 90:10 for North Eastern and Himalayan States.
 - For few interventions, like purchase of breeder seeds by both State and Central seed producing

agencies, supply of seed mini-kits to the farmers, **100% funding is provided by Government of India**.

Statehood Day of Goa

Why in News

On the Statehood Day of Goa (30th May), the Prime Minister greeted the people of the state.

Key Points

- > About:
 - Goa is located on the southwestern coast of India within the region known as the Konkan, and geographically separated from the Deccan highlands by the Western Ghats.
 - Capital:
 - o Panji.
- Official Language:
 - Konkani which is one of the 22 languages from the Eight Schedule.





•••••

Borders:

 It is surrounded by Maharashtra to the north and Karnataka to the east and south, with the Arabian Sea forming its western coast.

> History:

- As India gained independence on 15th August, 1947, it requested the Portugese to cede their territories. However, Portuguese refused.
- In 1961, Indian Government launched Operation
 Vijay and annexed Daman and Diu islands and Goa
 with the Indian mainland.
 - Goa Liberation Day is observed on 19th December every year in India.
 - It can be noted that the Portuguese were the first Europeans to come to India (1498) and were also the last to leave this land (1961).

CURRENT AFFAIRS MAY 2021 95

> Geography:

- $\sigma~$ The highest point of Goa is Sonsogor.
- Goa's seven major rivers are the Zuari, Mandovi, Terekhol, Chapora, Galgibag, Kumbarjua canal, Talpona and the Sal.
- Most of Goa's soil cover is made up of laterites.
- Wildlife Sanctuaries and National Parks:
- o Dr. Salim Ali Bird Sanctuary
- Mhadei Wildlife Sanctuary
- Netravali Wildlife Sanctuary
- Cotigao Wildlife Sanctuary
- o Bhagwan Mahaveer Sanctuary
- Mollem National Park

drishti



Key Points	Details
	I

Summary

Key Points	Details

Summary