

CIVIL SERVICES MONTHLY DECEMBER 2020



ONE STOP SOLUTION FOR CIVIL SERVICES

Havana Syndrome

World AIDS Day

Passage Exercise

India Mobile Congress 2020

Asia Pacific Broadcasting Union (ABU) International Migrants Day

India International Science Festival 2020

First downstream hydropower project

Tharu tribals

U.P. religious conversion ordinance Organization of Islamic

Cooperation on Kashmir Smuggling in India Report 2019-20

Honey FPO Programme

3RF Framework

Public Wi-Fi Access Network Interface (PM-WANI)

Green Rating for Integrated Habitat Assessment (GRIHA) Summit



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Current Affairs

DECEMBER 2020

Prelims Oriented

Havana Syndrome

In News

Recently, in a report by the National Academies of Sciences (NAS), USA has found directed microwave radiation to be the plausible cause of the Havana syndrome.

Havana Syndrome

- In late 2016, USA diplomats and other employees stationed in Havana (capital of Cuba) reported feeling ill after hearing strange sounds and experiencing odd physical sensations.
- The symptoms included nausea, severe headaches, fatigue, dizziness, sleep problems, and hearing loss, which have since come to be known as the Havana Syndrome.
- The more chronic problems suffered by Havana personnel included mainly vestibular processing and cognitive problems as well as insomnia and headache.
- While the symptoms have resolved for some of the affected employees, for others, the effects have lingered and posed a significant obstacle to their work and affected the normal functioning of lives.

Key Findings

- Directed pulsed microwave radiation energy appears to be the most plausible mechanism in explaining the cases of Havana syndrome among those that the committee considered.
- By calling it “directed” and “pulsed” energy, the report leaves no room for confusion that the victims’ exposure was targeted and not due to common sources of microwave energy.
- The immediate symptoms that patients reported, including sensations of pain and buzzing sound, apparently emanated from a particular direction, or occurred in a specific spot in a room.
- It warns about the possibility of future episodes and recommends establishing a

response mechanism for similar incidents, adding that future incidents might be more dispersed in time and place, and even more difficult to recognise quickly.

- However, the committee cannot rule out other possible mechanisms and considers it likely that a multiplicity of factors explains some cases and the differences between others.
- It also does not mention the source and if the energy was delivered intentionally, even though it conducted significant research on microwave weapons.

Microwave Weapons

- “Microwave weapons” are supposed to be a type of direct energy weapons, which aim highly focused energy in the form of sonic, laser, or microwaves, at a target.
- People exposed to high-intensity microwave pulses have reported a clicking or buzzing sound, as if seeming to be coming from within your head. It can have both acute and long-term effects — without leaving signs of physical damage.

Cannabis Removed from Dangerous Substances

In News

The United Nations passed a resolution to remove cannabis and cannabis resin from the category of 'most dangerous substances'.

- India votes in favour to remove cannabis from 'most dangerous drugs' list in UN.
- Total 27 member states, including India, the US and EU countries, supported the vote, while 25 nations including China, Pakistan and Russia voted "no".
- The UN Commission on Narcotic Drugs approved a recommendation from the World Health Organization to remove cannabis and cannabis resin from its Schedule IV classification under the 1961 Single Convention on Narcotic Drugs. That designation put cannabis and one of its derivatives in a category alongside heroin and other opioids.

- Substances classified as Schedule IV are a subset of Schedule I drugs. That means not only are they considered to be "highly addictive and highly liable for abuse," they're also labeled as "particularly harmful and of extremely limited medical or therapeutic value."

Cannabis

- Cannabis, also known as marijuana among other names, is a psychoactive drug from the Cannabis plant used primarily for medical or recreational purposes.
- Cannabis can be used by smoking, vaporizing, within food, or as an extract.
- Cannabis has various mental and physical effects, which include euphoria, altered states of mind and sense of time, difficulty concentrating, impaired short-term memory and body movement, relaxation, and an increase in appetite.
- At high doses, mental effects can include anxiety, delusions (including ideas of reference), hallucinations, panic, paranoia, and psychosis.

UN Commission on Narcotic Drugs (CND)

- CND is one of the functional commissions of the United Nations Economic and Social Council (ECOSOC) and is the central drug policy-making body within the United Nations system and has important functions under the international drug control conventions.
- The mandate of the CND was to assist ECOSOC in supervising the application of international conventions and agreements dealing with narcotic drugs.
- The CND was additionally assigned the role of the governing body of the United Nations International Drug Control Programme, which is administered by the United Nations Office on Drugs and Crime.

Defence Geo Informatics Research

In News

The Defence Research Development Organization created new lab for focused research along China, Pakistan borders.

- The two new labs merged by the government are the Manali-headquartered Snow and Avalanche Studies Establishment (SASE) and the other is the Delhi-based Defence Terrain Research Establishment.
- This new lab will focus on researching terrain and avalanches along the borders with China from Ladakh to Arunachal Pradesh and Pakistan.

Snow and Avalanche Studies Establishment (SASE)

SASE is a laboratory of the Defence Research & Development Organization. Located near Manali, Himachal Pradesh its primary function is research in the field of snow and avalanches to provide avalanche control measures and forecasting support to Indian Armed Forces.

Defence Terrain Research Establishment

- It was established in 1954. The primary function of the laboratory was to evaluate the deadlines and assess mobility potential of inaccessible areas.
- It developed reliable systems that predicted current characteristics various types of triangles based on modern techniques.
- Also the laboratory developed infrastructure with the latest techniques related and Research.
- The mission of the laboratory was to create and update Terrain intelligence reports and thematic maps for the users.

BNT162b2

In News

Britain becomes first country to approve Pfizer-BioNTech Covid-19 vaccine for use and said that it will be rolled out from early next week.

- The joint vaccine, produced by American pharmaceutical giant Pfizer and German biotech firm BioNTech, had recently claimed trials suggested it works well in people of all ages, races and ethnicities.

BNT162b2

- BNT162b2 is a COVID-19 vaccine candidate developed by BioNTech and Pfizer and given by intramuscular injection.
- It is an RNA vaccine composed of nucleoside-modified mRNA encoding a mutated form of the spike protein of SARS-CoV-2, and is encapsulated in lipid nanoparticles.

Details

- The British regulator, the Medicines and Healthcare products Regulatory Agency (MHRA), says the jab, which claims to offer up to 95 per cent protection against Covid-19 illness, is safe for roll out.
- The vaccines require two doses 21 days apart, with strong immunity response kicking in after seven days of the second dose.
- The NHS [National Health Service] has decades of experience in delivering large scale vaccination programmes and will begin putting their extensive preparations into action to provide care and support to all those eligible for vaccination.

Vaccine priority group

- The UK's Joint Committee on Vaccinations and Immunisations (JCVI) has published its advice for the priority groups to receive the vaccine, including care home residents, health and care staff, the elderly and the clinically extremely vulnerable.
- Elderly people in care homes and care home staff are top of the priority list, followed by over-80s and health and care staff.

About Vaccine

- The Pfizer/BioNTech formula is an mRNA vaccine that uses a tiny fragment of genetic code from the pandemic virus to teach the body how to fight Covid-19 and build immunity.
- An mRNA vaccine has never been approved for use in humans before, with people only receiving them in clinical trials so far.
- The vaccine must be stored at around -70C and will be transported in special boxes, packed in dry ice. Once delivered, it can be kept for up to five days in a fridge.
- Pfizer and BioNTech had reported final trial results that showed its vaccine was 95 per cent effective in preventing Covid-19.
- The vaccine is being manufactured in BioNTech's German sites, as well as Pfizer's manufacturing site in Belgium.

Medicines and Healthcare products Regulatory Agency (MHRA)

- MHRA is an executive agency of the Department of Health and Social Care in the United Kingdom which is responsible for ensuring that medicines and medical devices work and are acceptably safe.
- The MHRA was formed in 2003 with the merger of the Medicines Control Agency (MCA) and the Medical Devices Agency (MDA).
- In April 2013, it merged with the National Institute for Biological Standards and Control (NIBSC) and was rebranded, with the MHRA identity being used solely for the regulatory centre within the group.

Aadi Mahotsav

In News

The 10-day-long Aadi Mahotsav, a festival of tribes was launched by the Union Ministry for Tribal Affairs.

- The main focus of this year is on the tribal craft and culture of Madhya Pradesh.
- Due to Covid-19, the TRIFED has decided to organise its annual event Aadi Mahotsav-2020 in an online mode.

Aadi Mahotsav

- The Aadi Mahotsav is a unique celebration of the spirit of tribal culture, crafts, cuisine and commerce. It was commenced in 2017.
- The festival is an attempt to familiarize the people with the rich and diverse craft and culture of the tribal communities across the country, in one place.

‘PM Modi and his Government's Special Relationship with Sikhs’ Book

In News

Housing and Urban Affairs Ministry released a Book titled Prime Minister Narendra Modi and his Government's Special Relationship with Sikhs on the occasion of Gurupurab.

- The book, published by Ministry of Information and Broadcasting, was released in English, Hindi and Punjabi languages.
- The book is based on the messages of Guru Nanak Dev.
- The book is a compilation of many steps taken for welfare of Sikh community in India by the Narendra Modi government.

BSF Raising Day

In News

The Border Security Force (BSF) is India's Primary border guarding organisation on its border with Pakistan and Bangladesh.

- It is one of the three Border Guarding Forces (BGF) of India, and was raised in the wake of the 1965 War on 1 December 1965, "for ensuring the security of the borders of India and for matters connected there with".

Details

- It is a border guarding force charged with guarding India's land border with Pakistan and Bangladesh.
- The BSF takes its officers from IPS at command and leadership levels, also, its head, designated as a Director-General (DG).
- It currently stands as the world's largest border guarding force.
- BSF has been termed as the First Line of Defence of Indian Territories.

Wild ‘Kiwi’

In News

The kiwis that grow wild in Arunachal Pradesh's Ziro Valley are the only certified organic fruit of their kind in the country.

- Arunachal Pradesh accounting for as much as 50 per cent of the total production of the rare Kiwi fruit in the country.
- Kiwis of Ziro Valley — located in Lower Subansiri district — were certified as organic following a standard three-year-process.

Details

- The organic certification to the Kiwi fruit grown from this region was given in the month of October by the Mission Organic Value Chain Development for the North-East Region (MOVCD-NER).
- MOVCD-NER is a special scheme run by the Union Ministry of Agriculture and Farmers' Welfare for the development and promotion of agriculture allied activities in the North-East region of the country.
- Certification of a product as organic signifies that no fertilisers, pesticides and other kinds of chemicals were used in the production of the crop.
- Certification helps producers and handlers, they receive premium prices for the products, and have access to fast-growing, local, regional and international markets.
- It also boosts the local economy.
- Kiwi is one of the most important future commercial fruit.

Zebrafish

In News

Scientists at Pune-based Agharkar Research Institute have used the Zebrafish as a research model and identified genes that can promote heart regeneration. Scientists have sought to decode the heart regeneration processes using this animal model.



Zebrafish

- Zebrafish – a tiny freshwater fish barely 2-3 cm long can efficiently regenerate its damaged heart within a short time period.
- Zebrafish is 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.
- It is a popular aquarium fish, frequently sold under the trade name Danio.
- The fish become adults at three months and survive 2-3 years in a laboratory condition.
- This fish's unique characteristics lie in its transparency during its embryonic stages, allowing observing all organs, including beating heart and blood circulation.
- A zebrafish attracts developmental biologists due to its adequate regeneration capacity of almost all its organs, including brain, heart, eye, spinal cord.

Mount Semeru

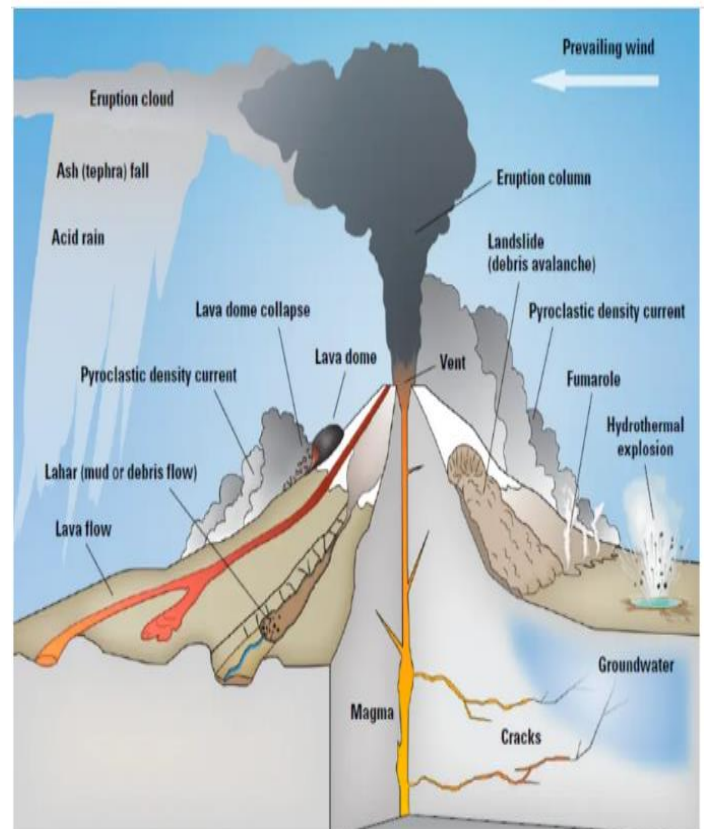
In News

Mount Semeru is an active volcano located in East Java, Indonesia.

- The volcano is located in the subduction zone where the Indo-Australia plate subducts under the Eurasia plate.
- The Mount Semeru is a stratovolcano. Since 1818, around 55 eruptions have been recorded in Mt Semeru.

Stratovolcano

The stratovolcano is also called a conical volcano. It is built by many layers of hardened lava. The lava of stratovolcano is highly viscous. It cools and hardens before spreading far. Also, the stratovolcano has periodic effusive eruptions. The lava from stratovolcano are is not of significant threat to humans as they are highly viscous. On the other hand, the Nyiragongo is the only dangerous stratovolcano in the world as its magma are unusually low in silica which makes the lava quite fluid. This increases the flow rate of the lava.



CoVID-19 can enter into brain

In News

The novel coronavirus may enter the brain of people through the nose.

Findings

- The research, noted that SARS-CoV-2 not only affects the respiratory tract but also impacts the central nervous system (CNS), resulting in neurological symptoms such as loss of smell, taste, headache, fatigue and nausea.
- The researchers from Germany examined the nasopharynx (upper part of the throat that connects to the nasal cavity), a likely first site of viral infection and replication, and the brains of 33 patients (22 males + 11 females) who died with CoVID-19.
- The researchers found the presence of SARS-CoV-2 RNA, the genetic material of the virus, and protein in the brain and nasopharynx.
- The team also found SARS-CoV-2 spike protein in certain types of cells within the olfactory mucous layer, where it may exploit the proximity of endothelial and nervous tissue to gain entry to the brain.
- In some patients, SARS-CoV-2 spike protein was found in cells expressing markers of neurons, suggesting that olfactory sensory neurons may be infected, as well as in the brain areas that receive smell and taste signals.
- SARS-CoV-2 was also found in other areas of the nervous system, including the medulla oblongata (the primary respiratory and cardiovascular control centre of the brain).

National Pollution Prevention Day

In News

Every year, the National Pollution Prevention Day is observed on December 2 in remembrance of the unfortunate incident of Bhopal Gas Tragedy occurred in the year 1984 on the night of 2-3 December.

- Many people died due to poisonous gas **Methyl Isocyanate** also known as MIC.

- The day is observed to create awareness about the adverse effects of pollution on human beings and its hazardous effects on our ecosystem.

Objectives of the day

- To spread awareness on managing and controlling industrial disasters
- To prevent the pollution produced by industrial processes or human negligence
- To make people and industries aware about the importance of pollution control acts

Preventive methods taken by the Indian Legislation

- Water (Prevention and Control of Pollution) Act of 1974
- Water (Prevention and Control of Pollution) Cess Act of 1977
- Air (Prevention and Control of Pollution) Act of 1981
- Environment (Protection) Act of 1986
- Environment (Protection) Rules of 1986
- Manufacture, Storage and Import of Hazardous Chemical Rules of 1989
- Manufacture, Storage, Import, Export & Storage of Hazardous Micro- Organisms Genetically Engineered Organisms or Cells Rules of 1989
- Chemical Accidents (Emergency, Planning, Preparedness and Response) Rules of 1996
- Bio-Medical Waste (Management & Handling) Rules of 1998
- Recycled Plastics Manufacture and Usage Rules of 1999
- Ozone Depleting Substances (Regulation) Rules of 2000
- Noise Pollution (Regulation and Control) Rules of 2000
- Municipal Solid Waste (Management & Handling) Rules of 2000
- Batteries (Management and Handling) Rules of 2001
- Environment Impact Assessment Notification of 2006
- The National Green Tribunal Act, 2010
- Solid Waste Management Rules, 2016
- Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
- Bio-Medical Waste Management Rules, 2016
- Plastic Waste Management Rules, 2016
- E-Waste (Management) Rules, 2016

- Construction and Demolition Waste Management Rules, 2016

Central Pollution Control Board (CPCB)

The Central Pollution Control Board (CPCB) was constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974. Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It provides technical guidance to the Ministry of Environment, Forests & Climate Change, Government of India.

Functions of CPCB

- To promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution, and
- To improve the quality of air and to prevent, control or abate air pollution in the country.

Air Pollution facts

- Nine out of ten people worldwide do not breath safe air.
- **Air pollution kills 7 million people every year globally**, 4 million of whom die from indoor air pollution.
- **A microscopic pollutant (PM 2.5)** is so tiny that it can pass through mucus membrane and other protective barriers to damage lungs, heart, and brain.
- The key pollutants include **particulate matter**, a mix of solid and liquid droplets arising from fuel combustion, **nitrogen dioxide** from road traffic; **ozone** at ground level, caused by the reaction of sunlight with pollutants from industrial facilities and vehicle emissions; and **sulphur dioxide**, and invisible gas from burning fossil fuels like coal.
- Children and old persons are highly affected by air pollution.
- Air pollution is also responsible for climate change

World AIDS Day

In News

World AIDS Day is celebrated every year on December 1, to raise awareness about the **Acquired Immuno Deficiency Syndrome (AIDS) disease**.

- This disease is caused by the pandemic disease known as **Human Immunodeficiency Virus (HIV)**. Due to this disease, people get exposed to vulnerable infections and diseases.
- The day is an opportunity for public and private partners to spread awareness about the status of the pandemic and encourage progress in HIV/AIDS prevention, treatment and care around the world.

Theme

- This year's theme for World AIDS Day is **'Ending the HIV/AIDS epidemic: Resilience and Impact.'**
- This theme is also a reminder that people can achieve a thing, if they make a joint effort to deliver high-quality services for treatment and prevention of HIV, to the ones who are in need.

HIV

- This pandemic disease HIV is found in the tissues and that is transmitted through blood, semen, breast milk, etc.
- This disease is a sexually transmitted disease and it can also transmit through blood transmission and other things.
- There are several symptoms of HIV and some of them include joint pain, fever, muscle ache, sore throat, weight loss, weakness, among others.

History of the Day

- World AIDS Day was first celebrated in 1987 by James W. Bunn and Thomas Netter, they were public information officers for the Global Programme on AIDS at the World Health Organization in Geneva, Switzerland and they took their idea to Dr. Jonathan Mann, Director of the Global Programme on AIDS.
- After listening to this, Dr. Mann was impressed with the idea and he approved it and thus after that, World AIDS Day started celebrating on December 1.

International Day of Persons with Disabilities

In News

3 December is observed as the International Day of Persons with Disabilities (IDPD).

- Realizing the rights of persons with disabilities is crucial to fulfilling the core promise of the 2030 Agenda: to leave no one behind.



International
Day of
Persons with
Disabilities

3 DECEMBER

Theme

- In 2020, the UN's theme was **“Building Back Better: toward a disability-inclusive, accessible and sustainable post COVID-19 World”**.
- WHO supported this theme by underlining the importance of fostering an inclusive culture and responding to the urgent needs of people with disability in all aspects of society, especially during the COVID-19 pandemic.

History

International Day of Persons with Disabilities (IDPD) was proclaimed in 1992 by a United Nations General Assembly resolution to "promote the rights and well-being of persons with disabilities in all spheres of society"

International Financial Services Centres Authority (IFSCA)

In News

The International Financial Services Centres Authority (IFSCA) obtained membership of International Association of Insurance Supervisors (IAIS).

Key Details

- With this membership IFSCA would have access to IAIS's global network and would be able to exchange ideas and information with other global regulators.
- This would help in developing a vibrant global Insurance hub in IFSC at GIFT City.
- Currently, 17 leading Insurance entities are operating from GIFT IFSC undertaking offshore Insurance and Reinsurance business.
- This membership would go a long way in connecting IFSC with global insurance institutions and would facilitate IFSCA in joint development of global insurance business with other global centres.

International Association of Insurance Supervisors (IAIS)

- Established in 1994, the IAIS headquartered in Switzerland is a voluntary membership organization of insurance supervisors and regulators from more than 200 jurisdictions, constituting 97% of the world's insurance premiums.
- It is the international standard-setting body responsible for developing and assisting in the implementation of principles, standards and other supporting material for the supervision of the insurance sector.
- In recognition of its collective expertise, the IAIS is routinely called upon by the G20 leaders and other international standard setting bodies.

- Some of the leading members of IAIS are United Kingdom- Financial Conduct Authority (FCA), USA- National Association of Insurance Commissioners (NAIC), USA- Federal Insurance Office of the Insurance of the United States Department of Treasury (FIO), Singapore- Monetary Authority of Singapore (MAS), India- Insurance Regulatory and Development Authority of India (IRDAI).

Green Charcoal Hackathon

In News

NVVN (NTPC Vidyut Vyapar Nigam), a wholly-owned subsidiary of NTPC Ltd (National Thermal Power Corporation Limited) launched the **Green Charcoal Hackathon**.

Highlights

- This is a technical challenge **that aims to quickly promote the technological development of NVVN and EESL (Energy Efficiency Services Co., Ltd.-a 100% state-owned energy service company)**.
- The purpose of this event is to use innovative Indian thinking to bridge the technology gap. Its main goals are:
 - Clean the air by eliminating farm fires and generate renewable energy from agricultural residues.
 - Promote local entrepreneurship.
 - Increase farmers' income.
- The ultimate goal is to reduce the country's carbon footprint.**
- At the end of the hackathon, the organizers hope to propose an economically and commercially viable machine that can convert agricultural residues into charcoal without emissions. This is expected to benefit farmers and the environment.

Diem

In News

Facebook-backed **cryptocurrency Libra has been rebranded as “Diem”** to gain regulatory approval by emphasising that the project has “organisational independence”.

- Diem is a Latin term meaning “day”. **Diem is a stable coin.**

Details

- The independent organisation, Libra Association, which runs the Libra project will also be renamed as the Diem Association.
- Libra received criticism because of the possibility of it threatening the traditional government-run financial systems, which may result in upending of financial stability and threatening of privacy.
- Unlike other cryptocurrencies, Diem is to use Permissioned blockchain. Majority of the other cryptocurrencies use Permissionless blockchain.

Response on Diem

- The European Union has not yet begun to allow stable coins to operate within its territory. According to the EU, it might be a threat to monetary sovereignty of states.
- The US wants to stop Facebook from launching the currency as the cryptocurrency market is lacking a clear regulatory framework.

Stable Coin

- Stable coins are cryptocurrencies.** The only difference in stable coins is that these cryptocurrencies are backed by a reserve asset. Their market value is dependent on some external reference.
- For instance, it may be pegged to the value of gold or to that of US dollars or to the asset held by the launcher.
- The stable coins receive their price stability through algorithm mechanism of buying and selling of the reference asset.

Indian Navy Day

In News

Every year the Indian Navy Day is celebrated on **December 4**. This year the Indian Navy Day is celebrated on the following theme "**Indian Navy Combat Ready, Credible and Cohesive**".

History

- Indian Navy Day is celebrated every year to commemorate the attack on the Karachi harbour during the **India-Pakistan war in 1971**. On this day, the Indian Navy's attack on Karachi harbour contributed to the ultimate victory of the Indian Armed Forces over Pakistan.
- Following Pakistani attack on Indian air bases on the evening of December 3, 1971, the 25th Missile Vessel Squadron was ordered to dispatch three missile boats - Nirghat, Veer and Nipat at maximum speed towards Karachi.
- Just before midnight of December 4, the Navy's missile boats carried out successful attacks resulting in sinking of Pakistani Destroyer Khaiber, Minesweeper Muhafiz and MV Venus Challenger as well as destruction of Kiamari oil fields.
- Karachi was attacked again on December 7 and 8 from the West. INS Vinash fired four missiles, which damaged MV Gulf Star, MV Harmatton and PN Tanker Dacca.

Operation Trident

- The Operation Trident was launched in the night of December 4. During the attack Indian Navy ravaged the fuel Storage tankers at Pakistan Naval headquarters located in Karachi.
- The Indian Navy also sank 4 of the Pakistani boats and killed 500 Pakistani Naval personal. This included minesweepers and destroy us as well.
- For the first time India deployed and anti-ship missile during the India Pakistan war of 1971. The operation Trident was followed by operation Python.

Operation Python

- After the first attack during operation Trident, the Pakistan Navy attempted to outsmart the Indian Navy by mingling with merchant ships. The operation Python was launched to counter this move of the Pakistan Navy.

Important Information

Earlier during the British rule, Indian Navy Day was celebrated in the month of October coinciding with the Royal Navy's Trafalgar Day. **The Trafalgar Day falls on October 21.**

Malayan Giant Squirrel

In News

A large tree squirrel that is considered to be a "forest health indicator species" is disappearing and may by the middle of this century no be longer found in the forests of India's Northeast to which it is native.



Details

- Zoological Survey of India has projected that numbers of the **Malayan Giant Squirrel (Ratufa bicolor)** could decline by 90 per cent in India by 2050, and if urgent steps are not taken, the species could be extinct in the country in subsequent decades.
- The **Malayan Giant Squirrel, one of the world's largest squirrel species** that has a dark upper body, pale under parts, and a long, bushy tail, is currently found in parts of West Bengal, Sikkim, Assam,

Arunachal Pradesh, Meghalaya, and Nagaland.

- **India is home to three giant squirrel species;** the other two – **Indian Giant Squirrel and Grizzled Giant Squirrel** – are found in peninsular India.
- Unlike the nocturnal flying squirrels, giant squirrels are diurnal, but arboreal (tree-dwelling) and herbivorous like the flying squirrels.
- The Malayan Giant Squirrel is also distributed through Southern China, Thailand, Laos, Vietnam, Burma, the Malayan Peninsula, Sumatra, and Java.
- It is found mostly in evergreen and semi-evergreen forests, from plains to hills at elevations of 50 m to 1,500 m above sea level.
- In India, some 20% of the population of the species is found at elevations between 1,500 m and 2,700 m; the rest live in the plains and up to 1,500 m.
- Of the roughly 1.84 lakh sq km of the squirrel's range in Asia, about 8.5 per cent (15,635 sq km) is in India. **The species is listed as Near Threatened on IUCN's 2016 list, and it is protected under India's Wildlife Protection Act.**
- The population of the squirrel in India declined by 30 per cent over the last two decades.
- While the forest area in the Northeast increased by 7,172 sq km from 1987 to 2013, the region lost 628 sq km of forests over the two years that followed.

Threat

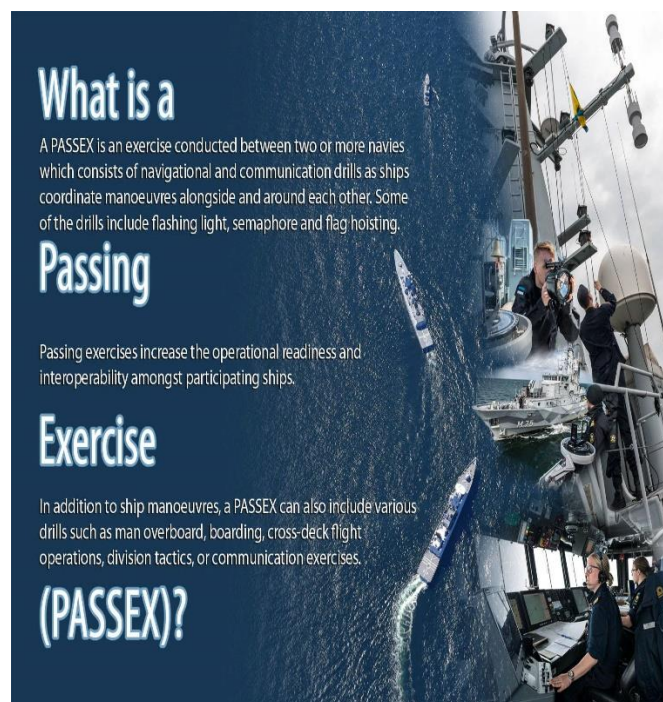
The Malayan Giant Squirrel and its habitat are under threat from deforestation, fragmentation of forests, crop cultivation and over-harvesting of food, illegal trade in wildlife, and hunting for consumption. Slash-and-burn jhum cultivation in many areas of the Northeast contribute to destruction of its habitat.

Passage Exercise (PASSEX)

In News

The Indian Navy (IN) undertook a Passage Exercise (PASSEX) with Russian Federation Navy (RuFN) in the Eastern Indian Ocean Region (IOR) from 4 to 5 December 2020.

- The exercise is aimed at enhancing interoperability, improving understanding and imbibing best practices between both the friendly navies, and would involve advanced surface and anti-submarine warfare exercises, weapon firings, seamanship exercises and helicopter operations.



Details

- The exercise involves participation of RuFN guided missile cruiser Varyag, large anti-submarine ship and medium ocean tanker Pechenga.
- IN is being represented by indigenously constructed guided missile frigate Shivalik and anti-submarine corvette Kadmat along with integral helicopters.
- PASSEXs are conducted regularly by IN with units of friendly foreign navies, whilst visiting each other's ports or during a rendezvous at sea.

- This exercise is being conducted on the occasion of 'Navy Day' of the IN on 4th December. This PASSEX would be another step towards strengthening Indo-Russian defence relations.
- The two navies have built a robust relationship through regular exercises such as INDRA Navy conducted biennially, with the last edition held in the Northern Indian Ocean Region from 4 to 5 September 2020.

Arecibo Telescope

In News

Puerto Rico's giant Arecibo telescope, famous for its stellar contributions to astronomy, has collapsed.

- The National Science Foundation of the US-owned the Arecibo telescope.
- The 305m telescope's instrument platform in Puerto Rico's Arecibo Observatory has fallen.



Arecibo telescope

- Arecibo was first constructed in 1963. The telescope is the second-largest single-dish telescope in the entire world.
- Arecibo contributed to planets and asteroids observation for several years.
- In 1967, Arecibo helped find out that the planet Mercury rotates in 59 days. Earlier it was thought that the planet Mercury rotates in 88 days.
- Through the Arecibo telescope, giant asteroids approaching the earth were observed. The telescope became a hub for searching for extraterrestrial life.

- Scientists Russell Hulse and Joseph Taylor were awarded the Nobel Prize in 1993 for their work on the Arecibo telescope observatory.
- The telescope featured in James Bond film 'GoldenEye' and 'Contact'.

Armed Forces Flag Day

In News

The Armed Forces Flag Day or the Flag Day of India is a day dedicated to India towards collection of funds from people of India for the welfare of the Indian Armed Forces personnel.

- It has been observed annually in India on December 7 since 1949.
- Over the years, it has become a tradition to commemorate this day as an honour to the soldiers, sailors and airmen of India.

Significance and purpose

The Flag day is mainly observed to serve three basic purposes

- Rehabilitation of battle casualties
- Welfare of serving personnel and their families
- Resettlement and welfare of ex-servicemen and their families.

The Armed Forces Flag Day commemoration and the collection of funds through distribution of flags. It is a time for Indians to express its gratitude and appreciation to the current and veteran military personnel of India and to acknowledge those who died in service to the country.

Flag Day Fund

The original Flag Day Fund was set up in 1949, by the Defence Minister's Committee. In 1993, the Defence Ministry of India consolidated related welfare funds into a single Armed Forces Flag Day fund. Those funds include:

- Amalgamated Special Fund for War Bereaved, War Disabled and other ex-Servicemen/Serving Personnel
- Flag Day Fund
- St Dunstan's (India) and Kendriya Sainik Board Fund
- Indian Gorkha Ex-Servicemen's Welfare Fund.

Export Promotion Council for Ayush products

In News

Commerce, Industry and AYUSH ministries have decided to work together to set up an Export Promotion Council to boost AYUSH exports.

AYUSH: The Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy is purposed with developing education, research and propagation of indigenous alternative medicine systems in India.

Objective

Trade and commerce in the AYUSH sector needed to upscale quickly in order to meet the growing demands from India and abroad, and to serve the larger number of people who are now looking up to these systems for maintaining their health.

Details

- The proposed AEPC can be housed at Ministry of AYUSH.
- Standardization of HS Code for AYUSH will be expedited and the Ministry of AYUSH will work in collaboration with Bureau of Indian Standards to develop international standards for AYUSH products as well as services.
- The ministry of AYUSH and AYUSH industry will identify best practice and promote them among the public.
- The AYUSH industry will work on ensuring quality and standards of AYUSH products as well as to become price competitive and AYUSH will figure out brand India activities.
- AYUSH based solutions for disease resistance and treatment during the difficult times of the CoVID-19 pandemic and called for upscaling trade and commerce in AYUSH sector in order to meet the growing demands from India and abroad
- AYUSH immunity protocols and the National Clinical Management Protocol for CoVID-19 for Ayurveda and Yoga were timely interventions which provided relief to large sections of the population.

Cyclone Nivar

In News

Cyclone Nivar hits Tamil Nadu and Puducherry.

Cyclone

- In meteorology, a cyclone is a large scale air mass that rotates around a strong center of low atmospheric pressure.
- Cyclones are characterized by inward spiraling winds that rotate about a zone of low pressure.
- The largest low-pressure systems are polar vortices and extratropical cyclones of the largest scale.

Cyclone Nivar

- Very Severe Cyclonic Storm Nivar was a tropical cyclone which brought severe impacts to portions of Tamil Nadu and Andhra Pradesh.
- The eighth depression and fourth named storm of the 2020 North Indian Ocean cyclone season, Nivar originated from a disturbance in **the Intertropical Convergence Zone**.

Intertropical Convergence Zone

The Intertropical Convergence Zone (ITCZ), known by sailors as the doldrums or the calms because of its monotonous, windless weather, is the area where the northeast and southeast trade winds converge. It encircles Earth near the thermal equator, though its specific position varies seasonally. When it lies near the geographic Equator, it is called the near-equatorial trough. Where the ITCZ is drawn into and merges with a monsoonal circulation, it is sometimes referred to as a monsoon trough, a usage more common in Australia and parts of Asia.

United Nations Investment Promotion Award, 2020

In News

The United Nations Conference on Trade and Development (UNCTAD) has declared 'Invest India' as winner of the United Nations Investment Promotion Award 2020.

Highlights

- The award ceremony took place on at the UNCTAD headquarters in Geneva.
- The award recognises and celebrates the outstanding achievements of the world's investment promotion agencies.
- The evaluation was based on UNCTAD's assessment of work undertaken by 180 national investment promotion agencies across the world.
- UNCTAD highlighted good practices followed by 'Invest India' such as the Business Immunity Platform, Exclusive Investment Forum webinar series, its social media engagement and focus COVID-19 response teams.
- National investment promotion and facilitation agency Invest India has also shared long-term strategies and practices being followed for investment promotion, facilitation and retention at UNCTAD's high-level brainstorming sessions.
- The award is testament to Prime Minister's vision of making India a preferred investment destination with a focus on both ease of living and ease of doing business. It bears testimony to his focus on bringing excellence within the government.
- UNCTAD is the central agency that monitors performance of investment promotion agencies and identifies global best practices. Germany, South Korea and Singapore have been some of the past winners of the award.

Global Teacher Prize 2020

In News

Ranjitsinh Disale from India was announced as the winner of **the Global Teacher Prize 2020**. The award was established by the London-based **Varkey Foundation** and is given in partnership with **UNESCO**.

Highlights

- Indian village teacher Ranjitsinh Disale, who transformed the life chances of young girls at the Zilla Parishad Primary School, Paritewadi, Solapur, Maharashtra, India, has been named the winner of the Global Teacher Prize 2020, in partnership with UNESCO.
- Mr Disale was selected from over 12,000 nominations and applications from over 140 countries around the world.
- The Global Teacher Prize was set up to recognize one exceptional teacher who has made an outstanding contribution to the profession as well as to shine a spotlight on the important role teachers play in society.
- In the past, Disale had been named as the Innovative Researcher of the Year 2016 and has featured in the Satya Nadella's book 'Hit Refresh'.
- Disale learned the local language of the village in order to translate class textbooks into his pupils' mother tongue.
- He also created **unique QR codes on** the textbooks to give students access to audio poems, video lectures, stories and assignments, greatly improving school attendance. His QR technology is now being rolled out more widely across India.

India Mobile Congress 2020

In News

Prime Minister delivered the inaugural address at the virtual India Mobile Congress (IMC) 2020.

- IMC 2020 was organised by the Department of Telecommunications, Government of India and the Cellular Operators Association of India (COAI).

Aim

- The aim of IMC 2020 is to promote 'Aatmanirbhar Bharat', 'Digital Inclusivity', 'Sustainable Development', entrepreneurship and innovation.
- It also aims to drive foreign and local investments, encourage R&D in the telecom and emerging technology sectors.

Details

- IMC 2020 will see the participation from various ministries, the telecom CEOs, global CEOs, and domain experts in 5G, Artificial Intelligence (AI), Internet of Things (IoT), data analytics, cloud and edge computing, blockchain, cyber-security, smart cities and automation.
- IMC is the largest digital technologies forum in India and South Asia.
- The event is envisioned to be the "leading platform for India's start-up and technology ecosystem."

Cellular Operators Association of India

- COAI is a registered, non-governmental society, constituted in 1995 for the advancement of modern communication and successful proliferation of mobile networks throughout India.
- COAI is now the official voice of the India telecom industry and aims to present an industry consensus to the Government on crucial issues related to the Indian telecom industry.

The core members of the COAI are:

- Bharti Airtel
- Vodafone Idea Limited
- Reliance Jio Infocomm

Red Sea turtles

In News

Turtle populations in the Red Sea could be turning overwhelmingly female because of a rise in sea temperatures caused due to anthropogenic climate change.

- A Team of researchers from the Saudi Arabia King Abdullah University of Science and Technology collected data for every fifteen minutes for five months.

Findings

- The Red Sea is home to five out of seven species of sea turtles.
- According to the researchers, to maintain 50:50 ratio of males and females population, temperature of 29.2 degrees Celsius is required. Above this temperature, the turtle hatchlings will predominantly be female.
- The researchers during the study found that the sand temperature at four out of the selected five sites exceeded 29.2 degrees Celsius.

Conservation of Turtles

- Different turtles are classified differently by IUCN.
- The Loggerhead and Green Sea Turtles are classified as "Endangered".
- Leatherback Turtles and Oliver Ridley Turtles have been classified as "Vulnerable".
- Leatherback Turtle in Northwest Atlantic has been classified as "Endangered".
- Green Turtle, Kemp's Ridley Turtle and Hawksbill turtle have been classified as "Critically endangered". According to IUCN, 80% of these turtles were lost in the last 10 years.

Conservation of Turtles in India

- In India, the Green Turtle and Hawksbill turtles are listed under Schedule I of the Wildlife Protection Act, 1972.
- Turtles are also protected under the Biodiversity Conservation and Ganga Rejuvenation programme.

- India has five species of turtles. They are Olive Ridley, Loggerhead, Leatherback, Green Turtle, Hawksbill.
- Every year World Turtle Day is celebrated on May 23.

UNESCO World Heritage Cities

In News

Orchha and Gwalior cities of Madhya Pradesh have been included in the list of UNESCO World Heritage Cities.

- The United Nations Educational, Scientific and Cultural Organization (UNESCO), an agency of the United Nations, aims at promoting world peace and security through international cooperation in education, the sciences, and culture.

Orchha

- The city is famous for its palaces and temples and was the capital of Bundela Kingdom in the 16th century.
- The famous places in the city are Jahangir Mahal, Raj Mahal, Rai Praveen Mahal, Ram Raja temple and Lakshmi Narayan Mandir.
- After the city is included in the world heritage City list, the historic spots such as Gujri Mahal, Mansingh palace and Sahastra Bahu Temple will be treated chemically. This is to be done to make the art inscribed in these places more visible.
- Also, guards are to be posted in these spots to welcome the tourists according to the Indian traditions.

Gwalior

- The city of Gwalior is known for its temples and palaces.
- The Gwalior Fort is accessed via a winding road lined with sacred Jain statues and occupies a sandstone plateau.
- It is now an archaeological museum with high walls of 15th century.
- The city of Gwalior was established in the 9th century and was ruled by Rajvansh, Baghel Kachvaho, Tomar and Scindias.

World Heritage site

- A World Heritage Site is a landmark or area with legal protection by an international convention administered by the United Nations Educational, Scientific and Cultural Organization (UNESCO).
- World Heritage Sites are designated by UNESCO for having cultural, historical, scientific or other form of significance.
- The sites are judged to contain "cultural and natural heritage around the world considered to be of outstanding value to humanity".
- To be selected, a World Heritage Site must be a somehow unique landmark which is geographically and historically identifiable and has special cultural or physical significance.
- For example, World Heritage Sites might be ancient ruins or historical structures, buildings, cities, deserts, forests, islands, lakes, monuments, mountains, or wilderness areas.

Eco-Bridges

In News

Ramnagar Forest Division in Nainital district, Uttarakhand, recently built its first eco-bridge for reptiles and smaller mammals.

Why Eco-bridges matter?

Eco-ducts or eco-bridges aim to enhance wildlife connectivity that can be disrupted because of highways or logging. These include canopy bridges (usually for monkeys, squirrels and other arboreal species); concrete underpasses or overpass tunnels or viaducts (usually for larger animals); and amphibian tunnels or culverts. Usually, these bridges are overlaid with planting from the area to give it a contiguous look with the landscape.

First Five Animal Bridges in India

- The bridges have been planned to avoid disturbances in Ranthambore Wildlife Corridor. The first five animal bridges are planned on the Delhi-Mumbai Expressway.
- These animal bridges will help avoid man-animal conflict.

- The Ranthambore National Park is located in Rajasthan. It was declared as the Project Tiger Reserve in 1973.

Need

- According to the Wildlife Institute of India, around 50,000 kilometres of road projects have been constructed in India in five to six years. Also, several highways have been upgraded to four lanes.
- According to the National Tiger Conservation Authority, major animal corridors are cut by the National Highways. They are the State Highway 33 through Nagarhole Tiger Reserve in Karnataka, National Highway 37 through the Kaziranga-Karbi Anglong landscape in Assam.
- Therefore, it is essential to build these animal pathways to prevent from disrupting their natural co-habitation.

About Eco-Bridges

- The two main aspects considered in building the eco bridges are size and location. These bridges should be built based on the animal movement patterns.
- Scientist Divya Mudappa of Nature Conservation Foundation built canopy bridges for Nilgri Langurs and lion-tailed Macaques. The IUCN Red List of threatened species lists Lion Tailed Macaque and Nilgri Langur as "Endangered". Around six bridges were built across three kilo metres of stretch.

Human Rights Day

In News

Human Rights Day is observed every year on 10 December.

- Human rights are moral principles or norms that describe certain standards of human behaviour and are regularly protected in municipal and international law.
- The UN encourages nations "to create equal opportunities for all" and address the issues of inequality, exclusion and discrimination.

Theme

- "Recover Better - Stand Up For Human Rights" is the theme for Human Rights Day this year.
- The aim is to engage with all the stakeholders and partners and also involve the people to push for transformative action.

Details

- Human Rights Day came into effect in 1948 when the United Nations General Assembly adopted the Universal Declaration of Human Rights.
- In December 1948, UNESCO was the first United Nations agency to place the Universal Declaration.

Why is Human Rights Day celebrated?

It is celebrated all over the world to achieve real rights for human beings. It aims to improve socio-cultural and physical well-being of the people throughout the world. The day is celebrated for the following reasons

- To create awareness about human rights among people in the world
- To improve the efforts of the United Nations General Assembly
- To interact and discuss crucial issues of human rights.
- To motivate minorities, women, poor and disabled person to participate in the event.

International Anti-Corruption Day

In News

The International Anti-Corruption Day is observed globally on December 9 to raise awareness of corruption and of the role of the Convention in combating and preventing it.

Corruption

Corruption can be defined as an act of bribery or misuse of public position or power for the fulfilment of selfish motives or to gain personal gratifications.

Theme

- International Anti-corruption day 2020 theme is 'United Against Corruption.'
- The theme focuses on corruption as one of the biggest obstacles to achieving the Sustainable Development Goals (SDGs). The 2020 theme would continue to support the 2030 Agenda, the theme targets to have more youth component in their campaign.

History

- The United Nations General Assembly adopted the United Nations Convention against Corruption on October 31, 2003.
- The Assembly also designated December 9 as World Anti-Corruption Day to raise awareness about corruption and of the role of the Convention in battling and preventing it.
- The Convention came into force in December 2005.

Mount Everest

In News

The Foreign Ministers of Nepal and China jointly certified the elevation of Mount Everest at 8,848.86 metres above sea level. It is 86 cm higher than what was recognised since 1954.

Issue

- Two countries have their long-standing difference on opinion about the mountain's height.
- The mountain's height — 29,017 feet (8,844 m) claimed by China and 29,028 ft (8,848 m) by Nepal.
- In feet, the new elevation is about 29,031 ft, or about 3 ft higher than Nepal's previous claim.
- Over the years, there have been debates on issues like whether it should be "rock height", or whether the snow cladding it.

Earlier measurement

- This was determined by the Survey of India in 1954, using instruments like theodolites and chains, with GPS.
- The elevation of 8,848 m came to be accepted in all references worldwide — except by China. Mount Everest rises from the border between Nepal and China.

- In 1999, a US team put the elevation at 29,035 feet (nearly 8,850 m). This survey was sponsored by the National Geographic Society, US.

New measurement

- Until the devastating earthquake of April 2015, Nepal's Survey Department had perhaps never considered the idea of measuring Mt Everest.
- But the earthquake triggered a debate among scientists on whether it had affected the height of the mountain.
- The government subsequently declared that it would measure the mountain on its own, instead of continuing to follow the Survey of India findings of 1954.
- New Zealand, which shares a bond with Nepal over the mountain, provided technical assistance.
- In May 2019, the New Zealand government provided Nepal's Survey Department (Napi Bibhag) with a Global Navigation Satellite, and trained technicians.

"Go for Zero" policy

In News

The "Go for Zero" policy of Australia helped the country to bring down its COVID-19 cases.

Details

- The Go for zero policy of Australia was proposed by a non-profit think tank Grattan Institute that advises the government.
- Under the policy besides expanding the testing of covid-19, Australia also increased contact tracing and mandatory isolation.
- The government had introduced a QR code-based system to tackle the issue of travellers breaking quarantines. This system helped to track the related person.
- Certain states of Australia such as Victoria even deployed police to carry out spot checks of people instructed to be in isolation.
- Hot hotels or health hotels were established. These hotels set up for symptomatic travellers. This prevented emergence of clusters.
- Australia under the policy also supported workers and businesses.

- Subsidies are provided to farms to keep people employed and also increased unemployment benefits.
- As the cases of covid-19 began to decrease in the month of September, Australia lifted the lockdown in a tiered manner.

Lakshadweep declared 100% Organic

In News

The Union Territory of Lakshadweep has been declared as Organic Agricultural Area by the Ministry of Agriculture and Farmer's welfare. The UT is second after Sikkim to achieve the status of 100% organic region.

Details

- The proposal was approved October 26, 2020 after receiving required certifications and declarations under Centre's **Paramparagat Krishi Vikas Yojana (organic farming improvement programme)**.
- Lakshadweep is physically cut off from the mainland; for the last 15 years, no chemical has been shipped into this territory, except medicines and some cosmetics.
- This has made Lakshadweep 100 per cent organic.
- Lakshadweep administration formally declared that its entire farming community was practicing organic agriculture and using organic inputs such as compost, poultry manure, green leaf manure.
- The UT was following organic or biological methods for plant protection as well.
- Synthetic chemicals for agriculture were reduced in a phased manner and stopped completely by 2005.

Organic Farming

- Organic farming is a method of crop and livestock production that involves much more than choosing not to use pesticides, fertilizers, genetically modified organisms, antibiotics and growth hormones.
- Organic farming promotes the use of crop rotations and cover crops, and encourages balanced host/predator relationships.

Organic residues and nutrients produced on the farm are recycled back to the soil. Cover crops and composted manure are used to maintain soil organic matter and fertility. The general principles of organic production, from the Canadian Organic Standards (2006), include the following:

- protect the environment, minimize soil degradation and erosion, decrease pollution, optimize biological productivity and promote a sound state of health
- maintain long-term soil fertility by optimizing conditions for biological activity within the soil
- maintain biological diversity within the system
- recycle materials and resources to the greatest extent possible within the enterprise
- provide attentive care that promotes the health and meets the behavioural needs of livestock
- prepare organic products, emphasizing careful processing, and handling methods in order to maintain the organic integrity and vital qualities of the products at all stages of production
- rely on renewable resources in locally organized agricultural systems

Lakshadweep

- Lakshadweep consists of 36 islands and is India's smallest UT.
- It is a uni-district UT and comprises 12 atolls, three reefs, five submerged banks and 10 inhabited islands.
- All islands are 220-440 km away from Kochi.

Important Information

- Uttarakhand was the first state to launch Organic Farming Policy in 2000.
- Sikkim was the first state to become 100% organic.

1000 Khelo India centre

In News

Government to start 1000 Khelo India small centres to encourage sports culture in country. Ministry has taken up various initiatives to encourage and support sportspersons and the sporting community even after they retire.

Details

- Addressing the 10th Global Sports Summit, TURF 2020, organized by FICCI, sport minister announced the 1000 Khelo India small centres across the country.
- These centers will help retired sports persons get employment or some role in shaping the sports culture of the country.
- The Khelo India and the Fit India movements are going on strongly.
- These centres would either be run by a past champion on their own or co-opt them as coaches.

The shortlisted former players have been divided into four categories:

- Those who have represented India at recognised international competitions under a recognised NSF or association;
- Medallists at Khelo India Games/National Championships of a recognised NSF
- Medallists at University Games
- Participants at KIG/Nationals
- NIS-certified coaches from Jammu & Kashmir, Andaman & Nicobar Islands and Ladakh would also be eligible.
- Financial grant would include remunerations, purchase of equipment, sports kits, consumables and participation in competitions in archery, athletics, boxing, badminton, cycling, fencing, hockey, judo, rowing, shooting, swimming, table tennis, weightlifting, wrestling, football and traditional sports.

Khelo India

- The Khelo India programme has been introduced to revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country and establish India as a great sporting nation.



- Talented players identified in priority sports disciplines at various levels by the High-Powered Committee will be provided annual financial assistance of INR 5 lakh per annum for 8 years.

Sustainable Mountain Development Summit (SMDS)

In News

The ninth edition of the Sustainable Mountain Development Summit (SMDS) was held in Dehradun.

- The summit focus on the overall objective of building pathways toward a resilient and sustainable mountain economy in the context of a post COVID-19 scenario and Climate Change.

Theme

The theme for this year was 'Emerging pathways for building a resilient post-Covid-19 mountain economy: Adaptation, innovation and acceleration', and it will focus on the overall objective of building pathways towards a resilient and sustainable mountain economy in the Indian Himalayan region.

Details

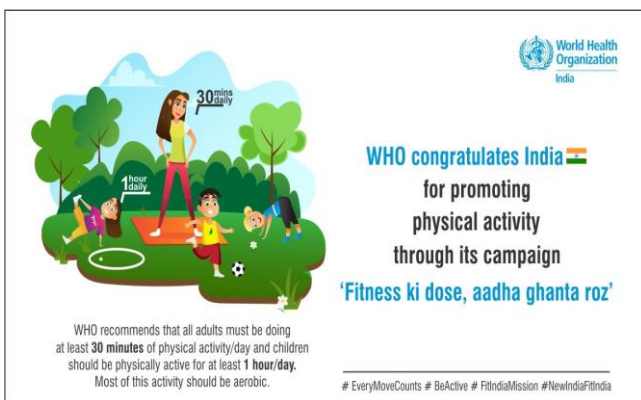
- Organised by Indian Mountain Initiative (IMI), the four-day-long summit seeks to deliberate on issues such as migration, water security, climate resilience and innovative solutions for the farm sector, and disaster risk reduction in the Indian Himalayas.

- Every year 3-5 salient themes engaging the immediate attention of and relevant to the mountains and hills are taken up for threadbare discussion and debate. Conclusions and recommendations emerging from this exercise are pursued by IMI subsequently for actionable output.
- The first edition was organized in 2011 in Nainital.

Fitness Ka Dose Aadha Ghanta Roz campaign.

In News

World Health Organisation applauds India for Fitness Ka Dose Aadha Ghanta Roz campaign.



Details

- The campaign was launched as part of the nation-wide Fit India Movement by Union Minister of Youth Affairs and Sports Shri Kiren Rijiju on December 1.
- The campaign has gained the support of celebrities from different fields - Bollywood, sportspersons, writers, doctors, fitness influencers, among others, who have enthusiastically urged Indians to follow the basic mantra of 30 minutes of fitness every day.

International Mountain Day

In News

Mountain biodiversity is the theme of this year's International Mountain Day, which was observed on December 11.

- The day aims to encourage sustainable development in mountains.
- The day was announced by the United Nations General Assembly in 2003.
- The day is observed to create awareness about the importance of mountains to life, to highlight the opportunities and constraints in mountain development and to build alliances that will bring positive change to mountain peoples and environments around the world.
- The theme of International Mountain Day 2020 is Mountain Biodiversity. It aims to celebrate the rich biodiversity of the mountains and also address the threats they face.

Importance of mountains

- About 15 per cent of the world's population live on mountains.
- Half of the world's biodiversity hotspots are on mountains.
- They are the source of freshwater for everyday life to half of the human population.
- Their conservation is a key factor for sustainable development and is part of Goal 15 of the Sustainable Development Goals.

Quantum Key Distribution (QKD) technology

In News

DRDO developed Quantum Key Distribution (QKD) technology underwent trials in Hyderabad between two DRDO labs, DRDL and RCI, to show secure communication.

- Secure communications are vital for defence and strategic agencies world over and distribution of encryption keys from time to time is an important requirement in this context.

About QKD technology

- The technology is developed by CAIR, Bengaluru and DYSL-QT, Mumbai.
- Quantum Communication using time-bin Quantum Key Distribution (QKD) scheme was performed under realistic conditions.
- Quantum based security against eavesdropping was validated for the deployed system at over 12kms range and 10dB attenuation over fibre optic channel.
- Continuous wave laser source was used to generate photons without depolarization effect.
- The timing accuracy employed in the setup was of the order of picoseconds.
- The Single photon avalanche detector (SPAD) recorded arrival of photons and key rate was achieved in the range of kbps with low Quantum bit error rate.
- Software was developed for data acquisition, time synchronization, post-processing, determining Quantum bit error rate and extracting other important parameters.

Significance

- The work being done at DRDO will be used to enable start-ups and SMEs in the domain of Quantum information technologies.
- It will also serve to define standards and crypto policies that can leverage the QKD system in a unified Cipher Policy Committee (CPC) framework for more secure and pragmatic key management for current and future military cryptographic systems.

Association of Buddhist Tour Operator (ABTO) International Convention

In News

The Union Minister of state for tourism and culture inaugurated the Association of Buddhist tour operators International Convention in New Delhi. The convention is to be held in partnership with Ministry of Tourism.

Tourism in India

- The Swadesh Darshan scheme and PRASAD Yojana was launched to develop the tourism industry in the country.
- Signages in Sinhali language at Sanchi monument in Madhya Pradesh and Signages in Chinese language at Sravasti and Sarnath have also been installed.
- The Archaeological Survey of India (ASI) re-listing the Monuments and in the coming days, the number of the Monuments may increase significantly.
- The Ministry of Tourism is planning to register accommodation units under the National Integrated database of hospitality industry (NIDHI), a portal that operates under Ministry of Tourism. So far more than 32000 accommodation units have been registered under the postal.

International Universal Health Coverage Day

In News

International Universal Health Coverage Day was observed on 12 December.

- In view of the global pandemic, the theme of this year is Health For All - Protect Everyone.
- This Day is observe to raise awareness of the need for strong and resilient health systems and universal health coverage with multi-stakeholder partners.
- The United Nations General Assembly endorsed a resolution urging countries to accelerate progress toward universal health coverage (UHC) – the idea that everyone, everywhere should have access to quality, affordable health care - as an essential priority for international development.
- On 12 December 2017, the United Nations proclaimed 12 December as International Universal Health Coverage Day (UHC Day) by resolution 72/138.

HD106906 b

In News

A strange exoplanet, orbiting a double-star 336 light years away, has caught the interest of astronomers. The oddball behaviour of the planet, HD106906 b, provide clues about our own mysterious Planet Nine-if it exists.

What is Planet Nine?

- Planet Nine is an elusive, distant planet in our own Solar System.
- Although it has not been found yet, it has been predicted by a series of studies over the last few years, and has been described by astronomers as “hiding in plain sight”.
- If it exists, Planet Nine is 10 times as massive as Earth.

Why is the new exoplanet being compared with Planet Nine?

- Both planets (assuming Planet Nine is real) reside far out in their respective stellar systems. Both orbit their respective stars at an extreme tilt. And both are massive enough to influence the behaviour of other objects in their respective regions.
- The authors of a recent research paper investigated how HD106906 b could have reached such a distance from its star, and raised the question whether something similar happened with Planet Nine.

Handicraft and GI Toys exempted from Quality Control Order

In News

Centre has exempted Handicraft and Geographical Indications toys from Quality Control Order.

- Department for Promotion of Industry and Internal Trade mentioned this exemption in Toys (Quality Control) Second Amendment Order, 2020.
- Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry has devised a comprehensive action plan to boost production and sale of indigenous toys across the country.

- Quality Control order has been issued by the Department for standardization and quality adherence of Toys. The order will come into effect from 1st January next year.
- This order aims to bring forward the synergized efforts of the centre, states and the stakeholders to promote ‘Team up for toys’ vision keeping quality standards of the indigenous toys as the priority.

GI

- A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.

Vallabhbhai Jhaverbhai Patel

In News

Nation pays homage to Sardar Vallabh Bhai Patel on his 70th death anniversary on 15th December.

Vallabhbhai Patel

- Vallabhbhai Jhaverbhai Patel (31 October 1875 – 15 December 1950), popularly known as Sardar Patel, was an Indian politician.
- He served as the first Deputy Prime Minister of India.
- He was an Indian barrister, and a senior leader of the Indian National Congress who played a leading role in the country's struggle for independence.
- He acted as Home Minister during the political integration of India and the Indo-Pakistani War of 1947.
- Patel was born in Nadiad District Kheda and raised in the countryside of the state of Gujarat. He was a successful lawyer.
- He subsequently organised peasants from Kheda, Borsad, and Bardoli in Gujarat in non-violent civil disobedience against the British Raj, becoming one of the most influential leaders in Gujarat.
- He was appointed as the 49th President of Indian National Congress, organising the party for elections in 1934 and 1937 while promoting the Quit India Movement.

- His commitment to national integration in the newly independent country was total and uncompromising, earning him the sobriquet "Iron Man of India".
- He is also remembered as the "patron saint of India's civil servants" for having established the modern all-India services system.
- He is also called the "Unifier of India".
- The Statue of Unity, the world's tallest statue, was dedicated to him on 31 October 2018 which is approximately 182 metres (597 ft) in height.

Myristica Swamp Treefrog

In News

Myristica swamp treefrog, a rare arboreal species endemic to the Western Ghats has been recorded for the first time north of the Shencottah gap in the Vazhachal Reserve Forest in Kerala's Thrissur district.

- Scientific name: *Mercurana myristicapalustris*.



Arboreal

- In biological context, arboreal is a descriptive term used to associate with trees.
- Examples of arboreal animals are squirrels, koalas, primates, sloths, spider monkeys, leopards, chameleons, geckos, bats, tree frogs, snakes, birds, lizards, and tree snails.

Details

- The frog was first spotted in 2013 in the Myristica swamps of Arippa, near the Kulathupuzha Reserve Forest, in the western foothills of Agasthyamalai, in Kollam district.
- These frogs are rare and elusive for the reason that they are arboreal and active only for a few weeks during their breeding season.
- During this season, there is a large aggregation of males that descend from the high canopy of the trees. The males vocalise in groups from the low perches in the swamps.
- They exhibit unique breeding behaviour. The breeding season, unlike for other frogs, starts in the pre-monsoon season (May) and ends before the monsoon becomes fully active in June.

National Energy Conservation Day 2020

In News

Every year on 14 December, the Bureau of Energy Efficiency, under the Ministry of Power, celebrates Energy Conservation Day in a bid to raise awareness on the importance of energy conservation for the present as well as future generations.

- The day is organised annually to showcase India's achievements in energy efficiency and conservation, while working towards climate change mitigation.

History

- In 1978, a government body called Petroleum Conservation Research Association (PCRA) was created which works to promote energy efficiency and conservation.
- The PCRA has carried out several campaigns through mass media like print, television, radio and digital means.
- In 2001, the Bureau of Energy Efficiency, a constitutional body, was created to assist in developing strategies to regulate the framework of the Energy Conservation Act, 2001.

- The primary objective of the organization is to reduce energy intensity of the Indian economy.
- It is responsible for promoting and advocating energy efficiency and conservation.

Significance of the Day

Using energy in an efficient manner is necessary to save it for the future generations. The pace with the non-replenishable sources of energy are depleting is a major cause of concern around the world. Hence, National Energy Conservation Day is recognized to promote using the energy resources judiciously, preventing wastage of energy and increase energy efficiency.

The Bureau of Energy Efficiency (BEE) works in this direction to meet the sustainable development goals. Some of its major functions include:

- Creating awareness and disseminating information on energy efficiency and conservation
- Promoting research and development in the energy usage
- Promoting energy efficient processes, equipment, devices and systems
- Preparing educational curriculum on efficient use of energy and importance of its conservation

Nazi Enigma Machine

In News

German divers who recently fished an Enigma encryption machine out of the Baltic Sea, used by the Nazis to send coded messages during World War II.

- The divers discovered the machine while searching the seabed with sonar devices for abandoned fishing nets that might harm the sea life.

Enigma

- Enigma is an encryption device that was used by the German Nazis during the 2nd World War to encode secret messages.
- It was recently discovered by divers in the Baltic Sea.
- The machine was invented by Arthur Scherbius near the end of the 1st World War.

- The use of these machines made it very hard for the Allied Forces to intercept and decode the German's coded messages.
- Near the end of the 2nd World War, the Germans destroyed most of these machines to prevent the Allied powers from accessing them.

How was Enigma Cipher cracked?

- In 1932, the Polish cryptanalysts decoded the Enigma ciphers that was written with earlier version of Enigma.
- They built electro-mechanical machines to search for solutions. The Polish decodings were the base for the English mathematicians to develop the “Bombe” machine.
- The Bombe machine used known parts of the message as starting point to break the code created by Enigma.

Prime Minister's Special Scholarship Scheme (PMSSS)

In News

AICTE has decided to release the installment of Rs 20,000 per month as maintenance allowance under Prime Minister's Special Scholarship Scheme (PMSSS) for the students of Jammu and Kashmir and Ladakh. The decision has been taken to support and empower students for completing their online studies.

Background

An Expert Group was constituted by the Prime Minister for enhancing employment opportunity among youths of J&K and Ladakh and formulate job opportunities in public and private sectors. Subsequently, Prime Minister's Special Scholarship Scheme (PMSSS) is being implemented by the All India Council for Technical Education (AICTE).

PMSSS Scheme

- Under the PMSSS Scheme, the youths of Jammu and Kashmir and Ladakh are supported by way of scholarship in two parts namely the academic fee and maintenance allowance.

- The Scheme aims to build the capacities of the youths of J&K and Ladakh by Educating, Enabling and Empowering them to compete in the normal course.
- The academic fee is paid to the institution where the student is provided admission after on-line counselling process conducted by the AICTE.
- The academic fee covers tuition fee and other components as per the ceiling fixed for various professional, medical and other under-graduate courses.
- In order to meet expenditure towards hostel accommodation, mess expenses, books & stationery etc., a fixed amount of Rs.1.00 Lakh is provided to the beneficiary and is paid in instalments @ Rs. 10,000/- per month directly into student's account.

Asia Pacific Broadcasting Union (ABU)

In News

Prasar Bharati CEO Shashi Sekhar Vempati elected as Vice President of Asia-Pacific Broadcasting Union.



Asia Pacific Broadcasting Union (ABU)

- ABU, formed in 1964, is a non-profit, professional association of broadcasting organisations.
- ABU is one of the largest broadcasting associations in the world.
- The ABU's role is to help the development of broadcasting in the Asia-Pacific region and

to promote the collective interests of its members.

- One of the ABU's activities is Asiavision, a daily exchange of news feeds by satellite among television stations in 20 countries in Asia.
- The ABU provides a forum for promoting the collective interests of television and radio broadcasters, and encourages regional and international co-operation between broadcasters.
- The ABU Secretariat is located in Angkasapuri, Kuala Lumpur, Malaysia.

Kingdom of Eswatini

In News

PM Modi expressed grief over the demise of Ambrose Mandvulo Dlamini, Prime Minister of the Kingdom of Eswatini.



- Although officially renamed Eswatini in 2018, the landlocked country in southern Africa, is more well-known in India by its former name Swaziland.
- Eswatini means 'land of the Swazis' in Swazi language.

Eswatini has the world's highest prevalence rate for HIV/Aids with low life expectancy for both men and women.

Why did Swaziland change its name to Eswatini?

- In April 2018, King Mswati III of Swaziland announced that he was renaming the country 'the Kingdom of eSwatini'. The name is sometimes also spelled as 'Eswatini'.
- The announcement for the name change occurred during celebrations for 50 years of Swazi independence from British rule, that coincided with those for the king's 50th birthday.
- The most prominent use of this name occurred when the King referred to the country as 'Eswatini' during his address at the UN General Assembly in 2017.



Country's name changes

In modern history, following the decolonization of Africa, several countries decided to rename themselves. For instance,

- Nyasaland in central Africa was renamed Malawi
- Bechuanaland became the Republic of Botswana in 1966
- The Republic of Upper Volta was renamed Burkina Faso
- Gold Coast became Ghana

In 1989, Burma's name was changed to Myanmar by the country's military junta, in a move that was justified as an attempt to align the country's name with one in the Burmese language, simultaneously divesting it of its colonial legacy.

National Hydrology Project

In News

Review of the National Hydrology Project (World Bank supported initiative of Ministry of Jal Shakti) was carried out by Ministry of Jal Shakti.

National Hydrology Project (NHP)

- NHP was started in the year 2016 as a Central Sector Scheme with 100% grant to Implementing agencies on pan India basis.
- The project aims at improving the extent, reliability and accessibility of water resources information and to strengthen the capacity of targeted water resource management institutions in India.
- NHP is facilitating acquisition of reliable information efficiently which would pave the way for an effective water resource development and management.
- The Project has made significant progress in the fields of Water resource monitoring system, water resource information system (WRIS), water resource operation and planning systems and institutional capacity enhancement.
- Under the NHP, a nationwide repository of water resources data- NWIC has been established. NHP is focusing on establishment of real time data acquisition system (RTDAS) on pan India basis.
- The Real time data acquisition system, the near real time data acquisition system and the manual data acquisition stations would complement each other and would lay a strong foundation for informed decision making for better water resources management. All such data would be available through web enabled India WRIS which is being upscale under the NHP.

Russian S-400 Air defence system

In News

The United States has imposed sanctions on Turkey over Ankara's acquisition of Russian S-400 air defence systems.

Background

- Ankara acquired the Russian S-400 ground-to-air defenses in mid-2019 and says they pose no threat to NATO allies.
- Washington has long been threatening sanctions on Turkey and had removed the country from an F-35 jet program last year.
- India set to get the consignment of the S-400 air defence system early next year.

S-400

- The S-400 Triumf, (NATO calls it SA-21 Growler), is a mobile, surface-to-air missile system (SAM) designed by Russia.
- It is the most dangerous operationally deployed modern long-range SAM (MLR SAM) in the world, considered much ahead of the US-developed Terminal High Altitude Area Defense system (THAAD).
- The system can engage all types of aerial targets including aircraft, unmanned aerial vehicles (UAV and ballistic and cruise missiles within the range of 400 km, at an altitude of up to 30km.
- The system can track 100 airborne targets and engage six of them simultaneously.
- It represents the fourth generation of long-range Russian SAMs, and the successor to the S-200 and S-300.
- The S-400's mission set and capabilities are roughly comparable to the famed US Patriot system.
- The S-400 Triumf air defence system integrates a multifunction radar, autonomous detection and targeting systems, anti-aircraft missile systems, launchers, and command and control centre.
- It is capable of firing three types of missiles to create a layered defence.
- The S-400 is two-times more effective than previous Russian air defence systems and can be deployed within five minutes.

- It can also be integrated into the existing and future air defence units of the Air Force, Army, and the Navy.
- The first S-400 systems became operational in 2007 and is responsible for defending Moscow.
- It has been deployed in Syria in 2015, to guard Russian and Syrian naval and air assets. Russia has also stationed S-400 units in Crimea to strengthen Russia's position on the recently annexed peninsula.
- From India's point of view, China is also buying the system. In 2015, Beijing signed an agreement with Russia to purchase six battalions of the system. Its delivery began in January 2018.

Hunar Haat

In News

Micro, Small and Medium Enterprises Minister will inaugurate the 23rd Hunar Haat of indigenous master artisans in Rampur, Uttar Pradesh.

Details

- The master artisans and craftsmen from Rajasthan, Nagaland, Madhya Pradesh, Manipur, Bihar, Andhra Pradesh, Jharkhand, Goa, Punjab, Ladakh, Karnataka, Gujarat, Haryana, Jammu-Kashmir, West Bengal, Maharashtra, Kerala and other places of the country have brought their indigenous products made with wood, brass, bamboo, glass, cloth, paper and clay.
- Hunar Haat is proved to be an effective platform to provide large scale employment and employment opportunities to master artisans and craftsmen from every corner of the country.
- Hunar Haat has become an effective mission of the Government to provide Backup to Brilliance and Encouragement to Expertise.

Hunar Haat

- Hunar Haat is an exhibition of handicrafts and traditional products made by artisans from the minority communities.
- These are organised by the Ministry of Minority Affairs under USTTAD (Upgrading the Skills & Training in Traditional Arts/Crafts for Development) scheme.
- The USTTAD scheme aims to promote and preserve the rich heritage of the traditional arts & crafts of the minority communities.
- These Haat aim to provide market exposure and employment opportunities to artisans, craftsmen and traditional culinary experts.
- It envisages boosting the skills of craftsmen, weavers and artisans who are already engaged in the traditional ancestral work.
- 'Hunar Haat' has proved to be "Empowerment Exchange" for master artisans and craftsmen.

International Migrants Day

In News

Every year, the International Migrants Day is celebrated on December 18 by the United Nations and several other international organizations.

- This year, the International Migrants Day is celebrated under the theme: Reimagining Human Mobility.
- December 18 was chosen because on this date, the International Convention on the Protection of the Rights of All Migrant Workers and Members of their families was adopted.

History

- The resolution to celebrate International Migrants Day was adopted in 1990 during the International Convention on the Protection of the Rights of All Migrant Workers and Members of their families.
- The day is celebrated by the United Nations to highlight the contributions made by the migrants.
- According to UN, there are roughly around 272 million migrants in the world. This includes 41 million internally displaced persons.

Guru Tegh Bahadur

In News

Prime Minister paid tributes to Guru Tegh Bahadur on his 'Shaheedi Diwas' i.e. December 19. Guru Tegh Bahadur, the ninth guru, was born in 1621 and was martyred in 1675 in Delhi.

Guru Tegh Bahadur

- Guru Tegh Bahadur (1 April 1621 – 19 December 1675) was the ninth of ten Gurus of the Sikh religion.
- He was enlightened in the world at Amritsar in 1621 and was the youngest son of Guru Hargobind sahib.
- His term as Guru ran from 1665 to 1675.
- One hundred and fifteen of his hymns are in Guru Granth Sahib.
- There are several accounts explaining the motive behind the assassination of Guru Tegh Bahadur on Aurangzeb's orders.
- The Guru sahib stood up for the rights of Kashmiri Pandits who approached him against religious persecution by Aurangzeb.
- Aurangzeb wanted the whole world should have one religion (Islam) so that there shouldn't be any more conflict between religions.
- He was publicly killed in 1675 on the orders of Mughal emperor Aurangzeb in Delhi for himself refusing Mughal rulers and defying them.
- Gurudwara Sis Ganj Sahib and Gurudwara Rakab Ganj Sahib in Delhi mark the places of execution and cremation of his body.

E20 fuel

In News

The government has invited public comments for introducing adoption of E20 fuel to promote green fuel like ethanol. E20 fuel means blending of 20 per cent of ethanol with gasoline as an automotive fuel.

Significance

- Promoting green fuel like ethanol helps in reducing Rs.8 lakh crore crude import dependence.

- The move will help reduce the oil import bill, thereby saving foreign exchange and boosting energy security.
- It will also help in reducing emissions of carbon dioxide, hydrocarbons, etc.

Details

The compatibility of the vehicle to the percentage of ethanol in the blend of ethanol and gasoline shall be defined by the vehicle manufacturer and the same shall be displayed on the vehicle by putting a clearly visible sticker.

Way forward

The government aspires to take the ethanol economy to Rs 2 lakh crore in the next five years from Rs 22,000 crore at present.

Green Fuels

Green fuel, known as biofuel, is a type of fuel distilled from plants and animal materials, more environmentally friendly than the widely-used fossil fuels that power most of the world. In creating basic forms of biofuel, crops are broken down into two types: sugar producing and oil producing.

Sugar and starch producing crops, such as sugar cane or corn, are put through a fermentation process to create ethanol. Oil producing plants, like those used in vegetable oils, can be used much like fossil sources of oil; they create diesel that can be burned by cars or further processed to become biodiesel.

Technological innovations have created the fields of advanced biofuels, which focus on non-food sources and waste renewal as energy. By converting landfill material, as well as wood and inedible plant parts, into green fuel, we not only cut down on the use of fossil fuels but also effectively recycle enormous amounts of waste.

A new form of fuel can literally be called green, as it derives from green algae. Algae, often seen growing on bodies of water, is a tiny plant with a rapid growth rate. Its usefulness as fuel derives from the fact that it has an extremely high oil content that can be processed like other oil-producing crops.

Chang'e 5

In News

China's Chang'e 5 lunar mission returned to Earth carrying around 2 kilograms of first fresh rock samples from the moon in 44 years.

- The spacecraft landed in Siziwang Banner, north China's Inner Mongolia Autonomous Region.
- Chang'e-5 is a three-week operation underlined China's growing prowess and ambition in space. It was China's most successful mission to date.

Highlights

- The retrieved re-entry capsule of Chang'e-5 will be airlifted to Beijing, where the capsule will be opened and the samples will be ready for analysis and study.
- The probe, named after the ancient Chinese goddess of the moon, first took off from the Wenchang Spacecraft Launch Site in Hainan on November 24th.
- Two of the Chang'e 5's four modules landed on the moon on 1st Dec. and collected about 2 kilograms (4.4 pounds) of samples by scooping them from the surface and drilling 2 meters into the moon's crust.
- The samples were deposited in a sealed container that was carried back to the return module by an ascent vehicle.
- The samples were retrieved from a previously unvisited area of the moon, and are also the first samples to be collected by any country after Russia in 1976.
- The latest samples come from a part of the moon known as the Oceanus Procellarum, or Ocean of Storms, near a site called the Mons Rumker that was believed to have been volcanic in ancient times.
- Mons Rumker, never sampled before, is geologically younger than the sampling areas of the U.S. and the Soviet missions.
- Scientists believe these young lunar samples could help fill an important gap and widen the spectrum of their analysis to understand moon's volcanic activity and evolution.

Important Facts

- China became the third country after the United States and the Soviet Union, to collect lunar samples.
- In the Apollo programme, which first put men on the moon, the United States landed 12 astronauts over six flights from 1969 to 1972, bringing back 382 kg (842 pounds) of rocks and soil.
- China has also joined the effort to explore Mars. In July 2020, it launched the Tianwen 1 probe, which was carrying a lander and a robot rover to search for water. It is expected to enter the Mars orbit around mid-February in 2021.
- The US, Russia, the European Union besides India have so far succeeded in sending missions to Mars which is regarded as the most complex space mission.
- India became the first Asian country to have successfully launched its Mars orbiter mission, Mangalyaan, which entered the orbit of the red planet in 2014, that too, in its first attempt.

Koothambalam of Guruvayur Temple

In News

The renovated Koothambalam of the Sreekrishna temple, Guruvayur in Kerala's Thrissur district, has won the UNESCO Asia-Pacific Award for cultural heritage conservation. Koothambalam is the area of a temple where ritualistic art forms are staged.

Guruvayur Temple

- It is a Hindu temple dedicated to the Hindu lord, Guruvayurappan (a four-armed form of the Lord Vishnu), located in the town of Guruvayur in Kerala.
- It is one of the most important places of worship for Hindus in Kerala and is often referred to as Bhuloka Vaikunta (Holy Abode of Vishnu on Earth).

Details

- The Koothambalam at Guruvayur temple was renovated utilizing the most modern construction techniques, but has retained the traditional architecture.

- The copper leaves on the roof and woodwork in the interiors were earlier coated with enamel paint. This was removed and a fresh coat of eco-friendly paint given.
- In addition, maintenance was carried out on the granite sections of the Koothambalam as well as on the flooring.
- The woodwork on the structure too was repaired. Another improvement was related to the lighting arrangements, which were refurbished scientifically.

Its' construction

- It is constructed within the cloister of the Temple; more precisely within the pancaprakaras of the temple. The prescribe location is between the prakaras of bahyahara and maryada.
- In Kerala tradition, it is considered as one among the panchaprasadas of a temple complex.
- Its dimension varies from temple to temple.
- A square platform with a separate pyramidal roof supported by pillars in the centre called natyamandapam is constructed as a separate structure within the large hall of Koothampalam.
- The floor of the hall is divided into two equal halves and one part is for performance (including stage, instruments, green room etc.) and another half for seating audience.

Christmas Star

In News

After nearly 400 years, on December 21, Saturn and Jupiter – the two largest planets in our solar system – were brought closest in the night sky by an astronomical event called the “great conjunction” and popularly referred to as the “Christmas Star”.

- The event will coincide with the winter solstice (shortest day of the year in terms of hours of sunlight received) in the Northern Hemisphere and summer solstice in the Southern Hemisphere.

Great Conjunction

- A conjunction is the name given to any event where planets or asteroids appear to be very close together in the sky when viewed from the Earth.
- In June 2005, as a result of the “spectacular” conjunction, Mercury, Venus and Saturn appeared so close together in the sky that the patch of sky where the three planets were could be covered by a thumb.
- Astronomers use the word “great” for the conjunction of Jupiter and Saturn because of the planets’ sizes.
- The “Great Conjunction” happens once in about 20 years because of the time each of the planets take to orbit around the Sun.
- Jupiter takes roughly 12 years to complete one lap around the Sun and Saturn takes 30 years (Saturn has a larger orbit and moves more slowly because it is not as strongly influenced by the Sun’s gravitational force as planets that are closer to the Sun).
- As the two planets move along their orbits, every two decades, Jupiter catches up with Saturn resulting in the great conjunction.

Why makes the conjunction rare this year?

This year, the event is rare because the planets will come the closest to each other in nearly four centuries. Astronomer Henry Throop described it as a result of a “rare alignment” of the planets.

- Jupiter and Saturn have been moving along on their orbits all throughout this year, since the beginning of December Jupiter has been moving closer to Saturn and on December 21, it will take over Saturn as it orbits around the Sun.
- Jupiter and Saturn are bright planets and can be typically seen with the naked eye even from cities. But during a conjunction, they appear to be close to each other, which is what makes the event noteworthy.



Monkey Rescue, Rehabilitation and Sterilisation Centre

In News

Minister for Forest and Environment inaugurated a Monkey Rescue, Rehabilitation and Sterilisation Centre near Chincholi village in Nirmal district in Telangana.

Aim

The project is aimed at the species’ conservation by enabling them to breed in a new habitat and then re-introducing them in forest areas.

Issue

Monkeys were causing problems as they would enter human habitations and damage crops, and the new centre was going to prevent these issues.

Highlights

- The centre is the first-of-its-kind in South India.
- With the help of gram panchayat officials, monkeys were transported to the centre in a phased manner.
- Doctors then sterilised the monkeys after which they were put in cages for observation, and after they recovered, they were left in a forest area.

Mouse deer

- The mouse deer, called Mushika Jinka in Telugu, is a small-sized deer and they are being reintroduced in Harithavanam, where currently there aren't any such deer.
- The mouse deer released in Harithavanam were transported from the Nehru zoological park in Hyderabad, and have been kept in an enclosure.



Gastrodia agnicellus

In News

Gastrodia agnicellus, a newly discovered orchid has been named “the ugliest orchid in the world.”

Details

- It is found in a forest in Madagascar.
- The orchid depends on fungi for nutrition and has no leaves or any other photosynthetic tissue.
- Although assessed as a threatened species, the plants have some protection because they are located in a national park.
- Madagascar is an island country in the Indian Ocean, approximately 400 kilometres off the coast of East Africa. Madagascar is the world's second-largest island country.



Webcap toadstool mushrooms

Among the other discoveries officially named this year were six new species of webcap toadstool mushrooms in the United Kingdom and a strange shrub encountered in southern Namibia in 2010.



Tiganophyton

The shrub has bizarre scaly leaves and grows in extremely hot natural salt pans, hence its name Tiganophyton, derived from the Greek ‘Tigani’, or ‘frying pan’, and ‘Phyton’, or ‘plant’.



Draft of Indian Ports Bill 2020

In News

Ministry of Ports, Shipping and Waterways has circulated draft of Indian Ports Bill 2020 for public consultation which will repeal and replace the Indian Ports Act, 1908.

Features of the bill

- The bill seeks to enable the structured growth and sustainable development of ports for optimum utilisation of the Indian Coastline by effective administration and management of ports
- It will provide measures to facilitate conservation of ports. Taking into account the prevalent situation with respect to the high number of non-operational ports.
- In the Indian maritime and ports sector through the creation of improved, comprehensive regulatory frameworks for the creation of new ports and management of existing ports.
- The Bill also seeks to create an enabling environment for the growth and sustained development of the ports sector in India through the following broad methods:
 - Constitution of Maritime Port Regulatory Authority
 - Formulation of the National Port policy and National Port plan in consultation with Coastal State Governments, State Maritime Boards and other stakeholders.
 - Formulation of specialised Adjudicatory Tribunals namely Maritime Ports Tribunal and Maritime Ports Appellate Tribunal to curb any anti-competitive practises in the port sector and act as a speedy and affordable grievance redressal mechanism.

Srinivasa Ramanujan

In News

Vice President paid tributes to eminent mathematician, Srinivasa Ramanujan on his birth anniversary.

- The day is also celebrated as National Mathematics Day (December 22).

About Srinivasa Ramanujan

- Srinivasa Ramanujan born Srinivasa Ramanujan Aiyangar (22 December 1887 – 26 April 1920) was an Indian mathematician who lived during the British Rule in India.
- He made substantial contributions to mathematical analysis, number theory, infinite series, and continued fractions, including solutions to mathematical problems then considered unsolvable.
- During his short life, Ramanujan independently compiled nearly 3,900 results (mostly identities and equations).

National Mathematics Day 2020

- National Mathematics Day is celebrated to commemorate the birth anniversary of India's mathematical genius Srinivasa Ramanujan.
- This was announced by Prime Minister Manmohan Singh on 26 February 2012 at Madras University, to mark the 125th anniversary of the birth of the Indian mathematical genius Srinivasa Ramanujan.

India International Science Festival 2020

In News

Prime Minister delivered the inaugural address at the India International Science Festival (IISF) 2020 through video conferencing.

- The aim is to engage the public with science.
- The goal of the IISF 2020 is to help youth develop 21st century skills, with a focus on scientific knowledge, creativity, critical thinking, problem-solving, and teamwork.



Background

Ministry of Science and Technology and Ministry of Earth Sciences and the Ministry of Health and Family Welfare in association with Vijnana Bharati (VIBHA), has created a unique platform of India International Science Festival.

- Started in 2015, the India International Science Festival is an annual event held across many cities in the country.
- The first and second IISF were held in New Delhi, the third in Chennai, the fourth in Lucknow, and the fifth IISF was held in Kolkata.
- ALL these IISFs had generated immense response from people within India and from abroad.

Objective

- IISF 2020 is an integral part of India's long-term vision in developing the spectrum of scientific temper in India and abroad.
- To engage public with science and celebrate the joy of science .
- One long-term objective is to encourage students to study and work in scientific fields.

- Also, show the ways how Science, Technology, Engineering and Mathematics (STEM) provide us with the solutions to improve our lives.

The event is being supported by:

- Vigyan Prasar
- All India Council for Technical Education (AICTE)
- Council for Scientific and Industrial Research (CSIR)
- Indian Council of Agricultural Research (ICAR)
- Indian Space Research Organisation (ISRO)
- Defence Research and Development Organisation (DRDO) and the
- Indian Council of Medical Research (ICMR).

National Farmers Day/ Kisan Diwas

In News

National Farmer's day is observed to raise awareness about farmers and their role in the economy.

- The day is observed on December 23, the birth anniversary of Chaudhary Charan Singh, the fifth prime minister of India.
- Charan Singh worked on bringing small and marginal farmer issues to the forefront.
- To spread awareness about farmer's issues in the country, Charan Singh founded the Kisan Trust on December 23, 1978.

Choudhary Charan Singh

- He was born in Meerut in 1902. He was from a peasant family.
- He believed in the Slogan "Jai Jawan, Jai Kisan" that was given by the former PM Lal Bahadur Shastri.
- He served as the Prime Minister for a very short period between 1979 and 1980. During his term as the PM of the country he brought in several farmer friendly initiatives.
- He was an active participant of Arya Samaj and Indian National Congress during the independence struggle. He was jailed twice during British rule.

- In 1939, he introduced the Debt Redemption Bill. It gives relief to the farmers from the money lenders.
- In 1952, as an Agricultural Minister he worked hard to abolish the Zamindari System in India.
- In 1953, he got the Consolidation of Holdings Act passed. Under the act, the fragmented land holdings of the farmers were pooled and re-allotted to farmers in such a way that each farmer got a single farm.
- For his contributions towards the welfare of the farmers, his memorial in New Delhi was named as Kisan Ghat.

Breakdancing

In News

Breakdancing became an official Olympic sport.

- The International Olympic Committee's pursuit of urban events to lure a younger audience saw street dance battles officially added to the medal events program at the 2024 Paris Games.
- Also confirmed for Paris by the IOC executive board were skateboarding, sport climbing, and surfing.
- Breakdancing was proposed by Paris organizers almost two years ago after positive trials at the 2018 Youth Olympics in Buenos Aires.

F/A-18 Super Hornet fighter jets

In News

Boeing announced the successful demonstration of the compatibility of its F/A-18 Super Hornet fighter jets with the Indian Navy's aircraft carriers as part of its pitch for the Navy's fighter procurement.

Details

- The demonstrations were held in coordination with U.S. Navy on a shore-based facility at the Naval Air Station Patuxent river in Maryland, U.S.
- The demonstrations show that the F-18 Super Hornet would do well with the Indian Navy's Short Take-off but Arrested Recovery (STOBAR) system and validate earlier

simulation studies done over the last two years.

- As a part of Boeing's proposed "By India, for India" sustainment program, the Block III Super Hornets could be serviced in partnership with the Indian Navy as well as India and U.S. based partners throughout the life cycle of the aircraft.

Significance

- The F/A-18 Block III Super Hornet would not only provide superior war-fighting capability to the Indian Navy but also create opportunities for cooperation in naval aviation between the U.S. and India.
- F/A-18 can also interface with the Navy's P-8I as a "force multiplier" and also with other platforms under induction.

STOBAR

- STOBAR ("Short Take-Off But Arrested Recovery" or "Short Take-Off, Barrier Arrested Recovery") is a system used for the launch and recovery of aircraft from the deck of an aircraft carrier, combining elements of "short take-off and vertical landing" (STOVL) with "catapult-assisted take-off but arrested recovery" (CATOBAR).
- The Navy's sole carrier in service INS Vikramaditya and the under-construction indigenous Aircraft Carrier (IAC)-I Vikrant both have a ski-jump with a STOBAR mechanism.

Best Performing Civic Body

In News

The Ministry of Housing and Urban Affairs has selected Greater Vishakhapatnam Municipal Corporation (GVMC) as the best performing civic body.

- The GVMC has been chosen under the annual awards for excellence instituted by the Union Ministry of Housing and Urban Affairs to recognise the outstanding contribution of Pradhan Mantri Awas Yojana-Urban in 2019.

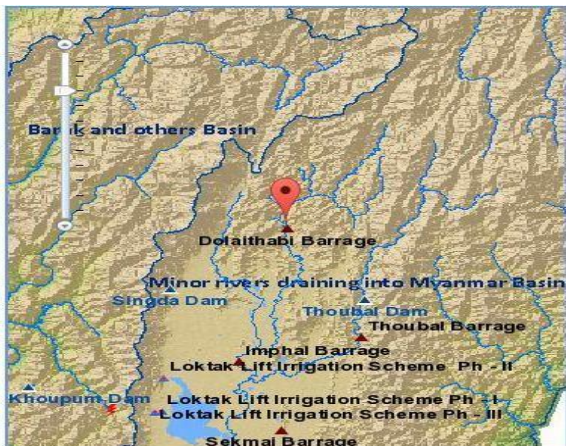
Details

- The award will be presented by the Union MOS for housing and urban affairs on January 1, 2021.
- Andhra Pradesh has secured the third position in the best performing State category. Similarly, the State has also bagged the special category award in project monitoring tools and innovative construction technology.
- Mirzapur won the best performing Municipal body. Nagar Panchayat Malihabad Lucknow was selected for the first place and Hariharpur was selected for the second place.
- The Ministry has decided to include awards for “Best Performances for utilisation of technology and transparency in selection of housing beneficiaries in urban areas”. A total of five awards are presented. They are as follows:
 - Best Performing States
 - Best Performing Municipal Corporation
 - Best Performing Municipality
 - Best House Construction
 - Special Awards to recognise best practices

Thoubal Multipurpose Project

In News

Thoubal Multipurpose Project inaugurated by Home Minister in Manipur. Thoubal Multipurpose Project scheme was launched in 2004 during Atal Bihari Vajpayee. This project that will irrigate 35,104 hectares is on the verge of completion.



- He inaugurated the e-office and Thoubal Multipurpose Project (Thoubal Dam) in Imphal through virtual mode.
- He also laid the foundation stone of projects, including the Churachandpur Medical College, IT-SEZ at Mantripukhri, Manipur Bhawan in New Delhi and the Integrated Command and Control Center at Imphal.
- The State Police Headquarters and Smart City Integrated Center at Imphal will help in advancing smart governance.
- After the creation of IT-SEZ, the GDP of Manipur will increase by ₹4,600 crore annually and there will be employment generation for 44,000 people.

‘Green propulsion’ technology

In News

Indian Space Research Organisation (ISRO) was developing "green propulsion" technology, believed to be less harmful to the environment, for its human spaceflight missions.

Propulsion

- Propulsion means push forward or drive an object forward.
- The term is derived from two Latin words: pro, meaning before or forward; and pellere, meaning to drive. A propulsion system consists of a source of mechanical power, and a propulsor.
- In rockets and airplanes, the propulsion is generated through the application of Newton’s third law, “for every action, there is an equal and opposite reaction”.

Green Propulsion Technology

- ISRO began the journey of developing Green Propulsion Technology in 2018. ISRO developed an eco-friendly solid propellant Glycidyl Azide polymer GAP as fuel and Ammonium Di-Nitramide as oxidiser in 2018.
- ISRO had been carrying out technology demonstration projects involving green propellant combinations such as kerosene, Hydrogen Peroxide, Liquid Oxygen, AND-Glycerol-water, AND-Methanol-water.

- ISRO has begun the testing of Liquid Oxygen, Liquid Hydrogen based propulsion systems for launch vehicles.
- ISRO has already using Green Propulsion Technologies in its mission. However, the technologies are used only in part of the mission. For instance, Liquid Oxygen, Liquid Hydrogen combination of propulsion is used in the Cryogenic upper states of GSLV Mk-III launch vehicle.
- ISRO has developed ISORENE. ISORENE is rocket grade version of kerosene. It is an alternative to conventional Hydrazine rocket fuel.
- ISRO successfully demonstrated the Electric Propulsion system in its South Asia Satellite that was launched in May 2017.

Umba Village in Ladakh

In News

Five Mohallas in Umba village received electricity connection.

- The village which is 60 KM away from district headquarter Kargil, is situated in toughest terrain at 13,000 thousand feet height and remains cut off for five months during winters.
- Umba village had no electricity till today.
- Under the guidance of Kargil Renewable Energy Development Authority (KREDA), the Global Himalayan Expedition (GHE) in partnership with the CSR project of Royal Enfield has installed a 17.5kW Solar Electricity system in Umba.
- During the freezing minus 25 degrees temperatures, a team worked round the clock to set up 103 Solar Grids.
- A total of 97 Households and 7 Masjids with more than 500 LED Lights, along with street lighting for the community.
- Each solar grid was provided with a battery back-up that will enable 4 days of continuous grid running even in cloudy conditions.
- GHE has come up with an innovative Solar Micro Grid solution using energy efficient LED lights and DC appliances that has changed the electrification scenario in the region.
- Over 100 remote villages, monasteries and hamlets of Leh, Kargil and Zaskar have

been provided electricity in the last 5 years by GHE.

The Theremin

In News

The Theremin musical instrument has turned hundred years old in 2020. It is considered as the world's first electronic instrument.

- It generates sound by modulation of electromagnetic waves and this is done without the player having to even touch the instrument. It has a vertical antenna for controlling the tone and a looped antenna for controlling the volume.

History

- When radio waves were still a new phenomenon in technology, a scientist noted that the apparatus made strange sounds if he moved his hands around it.
- Lev Sergeyevich Termen- who later became famous by the name Leon Theremin- was also a classical musician, trained in the cello, and the strange observations piqued his interest.
- He 'played' with the sounds for a while and concluded that he had created a new musical equipment, one that was played without touching.
- It was the world's first electronic instrument, called the Theremin.

Theremin

- The Theremin has a vertical antenna and a looped antenna, and players modulate the electromagnetic fields by moving their hands and fingers around there in space.
- If you move around the vertical antenna, you could increase or decrease the tone. The looped antenna controls the volume.

Mains Oriented Current Affairs

General Studies-I Indian Heritage and Culture, History and Geography of the World and Society

First downstream hydropower project

In News

Chinese authorities have given the go ahead for a Chinese hydropower company to construct the first downstream hydropower project on the lower reaches of the river Brahmaputra (known as Yarlung Zangbo in Tibet).

- The project was put forward in the proposals for formulating the country's 14th Five-Year Plan (2021-25).
- The 14th Five-Year Plan (2021-2025) and National Economic and Social Development and the Long-Range Objectives Through the Year 2035 were adopted by Plenum - a key policy body of the CPC.
- This will be the first time the downstream sections of the river will be tapped. However, the location of the planned project has not been mentioned anywhere.

River Brahmaputra

- It originates under the name of Siang or Dihang, from the Chemayungdung glacier of the Kailash range near the Mansarovar lake. It enters India west of Sadiya town in Arunachal Pradesh.
- Tributaries: Dibang, Lohit, Siang, Burhi Dihing, Tista, and Dhansari.
- It is a perennial river and has several peculiar characteristics due to its geography and prevailing climatic conditions.
- It is flooded twice annually. One flood is caused by the melting of the Himalayan snow in summer and the other due to the monsoon flows.

Concerns for India

- India has been expressing concerns on Brahmaputra since 2015 when China operationalised its project at Zangmu.
- A dam at the Great Bend, if approved, would raise fresh concerns considering its location downstream and just across the border from Arunachal Pradesh.
- India is concerned about the Chinese activities affecting the quality of water, ecological balance and the flood management.
- India and China do not have a water sharing agreement. Both nations share hydrological data so it becomes important to share genuine data and have continuous dialogue on issues like warning of droughts, floods and high-water discharges.

Cyclonic Storm 'Burevi' In News

Cyclone "Burevi" hit Tamil Nadu on December 4. Before that, a very severe cyclonic storm, **Nivar**, had battered the southern state.

- It first hit Sri Lanka on December 2 and then Tamil Nadu on December 4.
- The Cyclone Warning Division of the IMD said a deep depression intensified into **cyclonic storm** "Burevi".

Cyclone

- Cyclone, any large system of winds that circulates about a centre of low atmospheric pressure in a counterclockwise direction north of the Equator and in a clockwise direction to the south.
- Cyclonic winds move across nearly all regions of the Earth except the equatorial belt and are generally associated with rain or snow.

Types of Cyclone

There are various types of cyclones depending on the type of prevailing low-pressure system.

- Tropical cyclone
- Extratropical cyclone
- Tornadoes

Cyclones are also spotted on other planets like Mars, Jupiter, and Neptune. The **Great Red Spot** is the hurricane on Jupiter which is going on from 340 years. **Great Black Spot** was spotted in the Southern Hemisphere of Neptune.

Different Names

- Hurricanes – In the Atlantic and Eastern Pacific.
- Typhoons – In Southeast Asia
- Cyclone – In the Indian Ocean and Western Pacific around Australia.

Lists and names of Cyclones are maintained and updated by an international committee of the **World Meteorological Organisation (WMO)**.

Cyclone Formation

Tropical cyclones are formed over warm ocean water near the equator. Warm moist air near the surface of the ocean rises upwards. This creates a low-pressure area near the surface. This results in the movement of cooler air from surrounding areas into the low-pressure area. Now even this cool air becomes warm and moist and rises up. The above cycle keeps continuing. The warm moist air which rises up, cools the water in the air, resulting in the formation of clouds. This whole system of clouds and winds spins and grows. This entire cycle continues resulting in a cyclone. When the winds reach a speed of 63 mph, it is called a tropical storm, when the winds reach a speed of 119 kmph it is called a tropical cyclone or hurricane.

Annapurna idol

In News

The Varanasi Annapurna idol is being brought back to India after a century from Canada. It was stolen from a Varanasi temple about a century ago. The goddess is represented as holding a bowl of kheer and a spoon in her hands.



Annapurna

Annapurna, also called 'Annapoorna' is known as the goddess of food and nourishment. She is also known as the manifestation of the goddess Parvati, partner to Lord Shiva.

How the stolen 'Annapurna' idol was traced in Canada?

- The 18-century idol built following the Benaras style of art had so long been an exhibit at the MacKenzie Art Gallery, an art museum in Canada that showcases the private collection of the Regina University.
- Divya Mehra, a Winnipeg based artist was invited to stage an exhibition at the MacKenzie art gallery. While she was researching the collection, she found that the Annapurna Idol was stolen from an inactive temple in the banks of Varanasi in 1913. It was acquired by MacKenzie.

When will the idol reach India?

- Sources from the Archeological Survey of India, who are the conservator of all repatriated artefacts informed that the idol will return by mid-December.
- The idol will go back to its original home in Kashi.

Other repatriated objects

- Union Culture Minister recently handed over the custody of a bronze idol of Lord Rama, Lakshman and Goddess Sita to the Tamil Nadu government after bringing it back from the UK.
- In the last six years, the government was able to trace back 40 antiquities from

various countries that were stolen in between 1977 and 2014.

- According to ASI records, 13 of them were brought back to India.

Mahaparinirvan Diwas

In News

Nation pays homage to Bharat Ratna Baba Saheb Dr. B.R. Ambedkar on his 64th Mahaparinirvan Diwas or death anniversary on 6 December. Dr BR Ambedkar was the chief architect of the Indian Constitution, social reformer, economist, thinker, politician and the first Law Minister of Independent India.



Mahaparinirvan Diwas

- The term 'parinirvan' has a deep meaning in Buddhist traditions and refers to someone who has attained nirvana in his lifetime and after death.
- December 6 is observed to commemorate his unfathomable contribution to society and his achievements. Millions of people and followers assemble at the Chaitya Bhoomi, on this day.
- His relentless effort in shaping the Directive Principles, the formulation of the Reservation system for the upliftment of the backward sections of the society, the voicing of the equal right of the Dalits Buddhist have earned him an irreplaceable position in Indian political history.
- The historic Poona Pact of 1932 was signed by him which gave the Dalits a place in the general electoral list.

Dr.B.R.Ambedkar

- Born on April 14, 1891, in Madhya Pradesh, Ambedkar, had done his education at Elphinstone College under Bombay University, Columbia University and then completed his Bar course from London School of Economics.
- A revolutionary freedom fighter, Ambedkar had led from the front along with Jawaharlal Nehru and Gandhi and played a pivotal role in the upliftment of the poor and backward classes of the society.
- Ambedkar led the Dalit Buddhist campaign from the front and worked relentlessly for their equal human rights and betterment.
- Thus, it becomes inevitable that such an enigmatic personality be paid the highest tribute on his death anniversary.
- In 1956 he published his book Annihilation of Caste which vehemently criticised the then practice and laws regarding the untouchables and Dalits.
- Dr BR Ambedkar was awarded the Bharat Ratna, the highest civilian honour of India, posthumously in 1990.

Tharu tribals

In News

The Uttar Pradesh government has embarked upon a scheme to take the unique culture of its ethnic Tharu tribe across the world.

- The intention is to put Tharu villages on the tourism map, and to create jobs and bring economic independence to the tribal population.

Tharus

- The community belongs to the Terai lowlands, amid the Shivaliks of lower Himalayas. Most of them are forest dwellers and some practised agriculture.
- The word Tharu is believed to be derived from there, meaning followers of Theravada Buddhism.
- The Tharus live in both India and Nepal. In the Indian Terai, they live mostly in Uttarakhand, Uttar Pradesh, and Bihar.
- According to the 2011 census, the Scheduled Tribe population in Uttar Pradesh was more than 11 lakh; this number is estimated to have crossed 20 lakh now.

- The biggest chunk of this tribal population is made up of Tharus.
- Members of the tribe survive on wheat, corn and vegetables are grown close to their homes. A majority still lives off the forest.
- Tharus worship Lord Shiva as Mahadev, and call their supreme being “Narayan”, who they believe is the provider of sunshine, rain, and harvests.
- Tharu women have stronger property rights than is allowed to women in mainstream North Indian Hindu custom.

About scheme

- The state government is working to connect Tharu villages in the districts of Balrampur, Bahraich, Lakhimpur and Pilibhit bordering Nepal, with the home stay scheme of the UP Forest Department.
- The idea is to offer tourists an experience of living in the natural Tharu habitat, in traditional huts made of grass collected mainly from the forests.
- Tharu homeowners will be able to charge tourists directly for the accommodation and home-cooked meals.
- The government expects both domestic and international tourists to avail of the opportunity to obtain a taste of the special Tharu culture by staying with them, observing their lifestyle, food habits, and attire.

Council on Energy, Environment and Water (CEEW)

In News

According to a recent study on the report “Preparing India for Extreme Climate Events: Mapping Hotspots and Response Mechanisms” released by the Council on Energy, Environment and Water (CEEW), over 75% of districts in India are hotspots of extreme climate events such as cyclones, floods, droughts, heat waves and cold waves.

- In India, over 97 million people were currently being exposed to extreme floods, 258 districts have been affected by cyclones during the past decade and the yearly

average of drought-affected districts have risen 13 times since 2005.

Why climate is changing quickly?

Changing land-use patterns, unsustainable urbanisation, the encroachment of the natural ecosystem have led to a turn in the climatic pattern in India, is causing extreme weather and environmental events.

Findings of the report

- The report highlights that the frequency of associated flood events such as landslides, heavy rainfall, hailstorms, thunderstorms, and cloudbursts surged by over 20 times between 1970 and 2019.
- Bihar has been one of the worst-affected states by the onset of a wave of floods in the last few years.
- Areas of Cuttack, Guntur, Kurnool, Mahbubnagar, Nalgonda, Paschim Champaran, and Srikakulam have become drought-prone in recent years.
- Coastal southern Indian states such as Andhra Pradesh, Tamil Nadu, and Karnataka have also been increasingly witnessing more droughts driven by local climate change.
- During the past 50 years, the frequency of floods increased almost eight times.
- In 2019, India had 16 extreme flood events that affected 151 districts.

Correlation between floods and cyclones

- The change in land-use pattern with increasing construction activity and deforestation has induced a warmer micro-climate in several parts of the country.
- This microclimatic change leads to temperature rises and warm air gets trapped in the atmosphere, leading to extreme cloudbursts in several non-coastal regions and triggering flash floods.
- When the same warm air gets pulled towards colder regions, it triggers depressions ending into storm surges and cyclones.
- The depression also leads to unpredicted heavy rainfalls along the eastern coastline.

Climate resilience

- Currently the core requirements is developing a renewed strategy to counter and subdue the effects of these extreme events. There is a need for developing a localised risk assessment strategy to formulate a climate risk atlas for India.
- There is a need for developing an integrated emergency surveillance system to facilitate a systematic and sustained response to emergencies.
- Another crucial requirement is providing budgetary cushion to the disaster management authorities at the district and state level to be better prepared with improved infrastructure and strategy.
- For naturally occurring cyclones we need a participatory partners to come together and develop an adaptive strategy so that these phenomena can be tackled.

The Council on Energy, Environment and Water

- The CEEW, is a Delhi-based not-for-profit policy research institution.
- Some of CEEW's research areas include resource efficiency and security; water resources; renewable energy; sustainability finance; energy-trade-climate linkages; integrated energy, environment and water plans; and climate geoengineering governance.
- The CEEW was founded in 2010.

Microclimatic zones shifting

- Microclimatic zones, or areas where the weather is different from surrounding areas, are shifting across various districts of India.
- A shift in microclimate zones may lead to severe disruptions across sectors.
- Every 2 degrees Celsius rise in annual mean temperature will reduce agricultural productivity by 15-20%.
- Some reasons identified behind this shift in microclimatic zones is change in land-use patterns, deforestation, encroachments upon mangroves, disappearing wetlands and natural ecosystems by encroachment, and urban heat islands that trap heat locally.

India Water Impact Summit

In News

The National Mission for Clean Ganga (NMCG) and the centre for Ganga River Basin Management and studies (cGanga) organised the 5th India Water Impact Summit during 10-15 December 2020.

- This year the Summit is being held under the following theme: Comprehensive analysis and Holistic management of rivers and water bodies with a focus on Arth Ganga.

Namami Gange

- It is also called the National Mission for Clean Ganga.
- It was launched in 2014 to achieve abatement of pollution in conservation and rejuvenation of Ganga.
- It is being implemented by National Ganga Council which replaced the National Ganga River Basin authority in 2016.
- The main pillars of the programme are biodiversity and afforestation, public awareness, sewage treatment infrastructure and industrial effluent monitoring and riverfront development and river surface cleaning.

Arth Ganga

- The Namami Gange evolves around “Arth Ganga”.
- In simple terms it implies a development model that focuses on economic activities related to the Ganges.
- Under this process, the farmers will be encouraged to engage in sustainable agricultural practices, building plant nurseries, include zero budget farming and plant fruit trees on the banks of river Ganga.
- Arth Ganga will also include creation of infrastructure for water sports, walking tracks, development of camp sites, cycling, etc.
- Ultimately it aims to tap hybrid tourism potential, that is both religious and adventure tourism.

About summit

The Summit will disseminate and discuss the need for modalities of embracing Ganga. Also, it will act as a common platform for the investors and stakeholders in the water sector. The Summit will promote International cooperation between India and several other foreign countries for river management.

Monpa Handmade Paper

In News

The 1000-year old heritage art– the Monpa Handmade Paper of Arunachal Pradesh– which was driven to the extinction, has come to life once again, with the committed efforts of Khadi and Village Industries Commission (KVIC).

Details

- Once produced in every household in Tawang, this handmade paper was a major source of livelihood for the locals.
- Gradually the art became an integral part of local custom and culture in Tawang in Arunachal Pradesh.
- The fine-textured handmade paper, which is called Mon Shugu in the local dialect, is integral to the vibrant culture of the local tribes in Tawang.
- The paper has great historic and religious significance as it is the paper used for writing Buddhist scriptures and hymns in monasteries.
- The Monpa handmade paper, will be made from the bark of a local tree called Shugu Sheng, which has medicinal values too.
- Back then, Monpas used to sell these papers to countries like Tibet, Bhutan, Thailand and Japan as no paper making industry existed in these countries at that time.
- However, the local industry gradually began declining and the indigenous handmade paper was taken over by inferior Chinese paper.

Khadi and Village Industries

Commission

- The KVIC is a statutory body formed in April 1957 by the Government of India, under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.
- It is an apex organisation under the Ministry of Micro, Small and Medium Enterprises, with regard to khadi and village industries within India, which seeks to - "plan, promote, facilitate, organise and assist in the establishment and development of khadi and village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary."

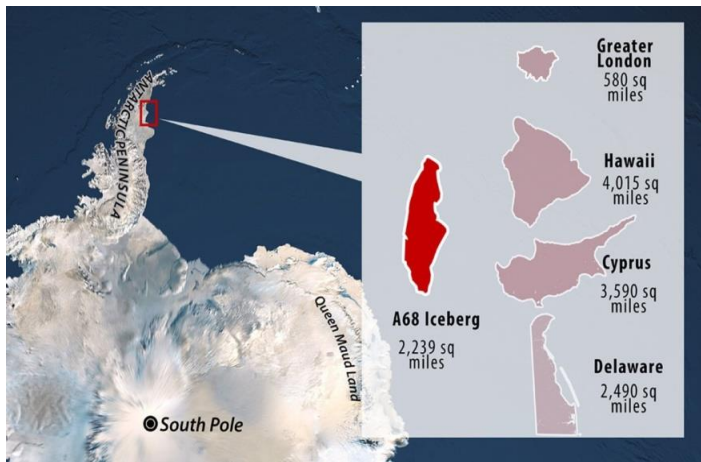
Khadi

- Khadi refers to hand-spun and hand-woven cloth. The raw materials may be cotton, silk, or wool, which are spun into threads on a charkha.
- Khadi was launched in 1920 as a political weapon in the Swadeshi movement of Mahatma Gandhi.
- Khadi is sourced from different parts of India, depending upon its raw materials - While the silk variety is sourced from West Bengal, Bihar, Odisha and North Eastern states, the cotton variety comes from Andhra Pradesh, Uttar Pradesh, Bihar and West Bengal.
- Khadi poly is spun in Gujarat and Rajasthan while Haryana, Himachal Pradesh and Jammu and Kashmir, Karnataka are known for the woolen variety.
- There are a wide range of Khadi personal care products manufactured in Uttarakhand
Khadi Products - Handmade and Natural.

Iceberg A68

In News

The giant iceberg A68 has been drifting in the Atlantic Ocean since 2017. This year, due to an ocean current, the iceberg was propelled into the South Atlantic Ocean and since then it has been drifting towards the remote sub-Antarctic island of South Georgia, which is a **British Overseas Territory (BOT)**. The impact the iceberg could have on the island's abundant wildlife.



South Georgia

South Georgia is an island in the southern Atlantic Ocean that is part of the British Overseas Territory of **South Georgia and the South Sandwich Islands (SGSSI)**. The main settlement is Grytviken.

Details

- Iceberg A68 is the biggest block of free-floating ice from Antarctica with an area of about 5,800 sq. km.
- Icebergs travel with ocean currents and either get caught up in shallow waters or ground themselves.
- **US National Ice Center (USNIC)** confirmed that two new icebergs calved from A68a and were large enough to be named and tracked. They are called A68E and A68F.
- The US National Ice Center (USNIC) is responsible for naming icebergs, which are named according to the Antarctic quadrant in which they are spotted.

Impact

- As per ecologists, if the iceberg gets stuck near the island, it could mean that penguins and seals will have to travel farther in search of food, and for some this might mean that they don't get back in time to prevent their offspring from starving to death.
- On the other hand, there are some positives of an iceberg being stuck in the open ocean, since icebergs carry dust which fertilises ocean plankton, which draws up carbon dioxide from the atmosphere.

General Studies-II Governance, Constitution, Polity, Social Justice and International Relations

U.P. religious conversion ordinance

In News

The Uttar Pradesh ordinance criminalising religious conversion via marriage breaks away from a series of Supreme Court judgments.

According to the ordinance

- **A marriage will be declared “null and void” if the conversion of a woman is solely for that purpose** and those wishing to change their religion after marriage need to apply to the district magistrate.
- It also has a provision under which if someone returns to their original religion, it shall not be deemed a conversion.
- While the onus to prove that the conversion has not been done forcibly will lie on the person accused of the act and the convert.
- In case of contravention of the law, the ordinance says that the court shall grant appropriate compensation payable by the accused to the victim of conversion which may extend to a maximum of Rs 5 lakh in addition to the fine.
- No person shall convert, either directly or indirectly from one religion to another by use or practice of misrepresentation, force,

undue influence, coercion, allurements or by any fraudulent means or by marriage nor shall any person abet, convince or conspire such conversion.

- An aggrieved person, his/her parents, brother, sister, or any other person who is related to him/her by blood, marriage or adoption may lodge an FIR about such conversion.
- In cases of mass religious conversion, the registration of the social organisations will be cancelled, and strong action will be initiated against them.
- If those previously convicted under the ordinance are caught again for the same offence, they shall be subjected to double punishment.
- Notwithstanding anything contained in the Code of Criminal Procedure, 1973, all the offences under this ordinance shall be cognisable and non-bailable and triable by the sessions court.

Supreme Court on Marriage and Conversion

- Supreme Court in its judgment has held that faith, the State and courts have **no jurisdiction over an adult's absolute right to choose a life partner**.
- India is a "free and democratic country" and any interference by the State in an adult's right to love and marry has a "**chilling effect**" on freedoms.
- Intimacies of marriage lie within a core zone of privacy, which is inviolable and the choice of a life partner, whether by marriage or outside it, is part of an individual's "personhood and identity".

'Chilling effect' on freedoms

- Any interference by the State in an adult's right to love and marry has a "chilling effect" on freedoms.
- The absolute right of an individual to choose a life partner is not in the least affected by matters of faith.

Hadiya case judgment, 2017

Justice D.Y. Chandrachud wrote, matters of dress and of food, of ideas and ideologies, of love and partnership are within the central aspects of identity. Neither the State nor the law can dictate a

choice of partners or limit the free ability of every person to decide on these matters.

K.S. Puttuswamy or 'privacy' judgment, 2017

The Constitution Bench said, autonomy of the individual was the ability to make decisions in vital matters of concern to life.

Lata Singh case, 1994

- The apex court held that India is going through a "crucial transformational period" and the "Constitution will remain strong only if we accept the plurality and diversity of our culture".
- Relatives disgruntled by the inter-religious marriage of a loved one could opt to "cut off social relations" rather than resort to violence or harassment.

Soni Gerry case, 2018

The SC warned judges from playing "super-guardians", succumbing to "any kind of sentiment of the mother or the egotism of the father".

Salamat Ansari-Priyanka Kharwar case of Allahabad High Court, 2020

- The right to choose a partner or live with a person of choice was part of a citizen's fundamental right to life and liberty (Article 21).
- It also held that earlier court rulings upholding the idea of religious conversion for marriage as unacceptable are not good in law.

IS Need for such law?

1. NO : Because many other recent 'laws' — on slaughter of cattle, marriage, and religious conversions — which taken together, target Muslims, both by denying them shared social spaces and their rights as equal citizens of the republic.
2. YES: However, it still allowed intrusion by the state, unlike under personal laws, by demanding notices to be put up in advance. The state of UP is witnessing rising incidents of forced religious

conversions or conversions through fraudulent ways. And against allegedly lured and honey-trapped.

CONCLUSION:

1. The anti-conversion ordinance in UP has disastrous consequences for the hard-won freedoms of young women and men.
2. Inter-religious marriages may be less than 2.5% of all marriages they put state power and the law itself behind majoritarian communal biases which empower regressive social mores governing marriage and fellowship.
3. Unfairly treating all women in the same way and Reconversion to a person's previous religion is not illegal. It may increase communal violence.

Agriculture Bill

In News

- There is currently widespread farmer protest happening against the three reforms — Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, and the Essential Commodities (Amendment) Act.

Background

The President gave his assent on September 27 to the three contentious agriculture Bills that were earlier passed by the Parliament.

About the bills

- These reforms will accelerate growth in the sector through private sector investment in building infrastructure and supply chains for farm produce in national and global markets.
- They are intended to help small farmers who don't have means to either bargain for their produce to get a better price or invest in technology to improve the productivity of farms.
- The bill on Agri market seeks to allow farmers to sell their produce outside APMC 'mandis' to whoever they want.

- Farmers will get better prices through competition and cost-cutting on transportation.
- The legislation on contract farming will allow farmers to enter into a contract with agri-business firms or large retailers on pre-agreed prices of their produce.
- The Essential Commodities (Amendment) Bill, 2020, seeks to remove commodities like cereals, pulses, oilseeds, edible oils, onion and potatoes from the list of essential commodities. This will end the imposition of stock-holding limits except under extraordinary circumstances.

Organization of Islamic Cooperation on Kashmir

In News

India has 'strongly' rejected the Organisation of Islamic Cooperation (OIC) for making factually incorrect and unwarranted references to Jammu and Kashmir.

- The 47th session of the OIC Council of Foreign Ministers, held at Niamey (Niger), had made a reference to India over its policies on Jammu and Kashmir.

Organisation of Islamic Cooperation

- The Organisation of Islamic Cooperation (OIC) is the second largest organization after the United Nations with a membership of 57 states spread over four continents.
- The Organization is the collective voice of the Muslim world. It endeavors to safeguard and protect the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world.
- The Organization was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco on 12th Rajab 1389 Hijra (25 September 1969) following the criminal arson of Al-Aqsa Mosque in occupied Jerusalem.
- In 1970 the first ever meeting of Islamic Conference of Foreign Minister (ICFM) was held in Jeddah which decided to establish a permanent secretariat in Jeddah.

- The OIC has permanent delegations to the United Nations and the European Union. The official languages of the OIC are Arabic, English, and French.
- OIC has reserved membership for Muslim-majority countries. Russia, Thailand, and a couple of other small countries have Observer status.

India and OIC

- At the 45th session of Foreign Ministers' summit 2018 in Bangladesh, suggested that India should be given Observer status.
- In 1969, India was dis-invited from the conference of Islamic countries in Rabat, Morocco.
- In 2019, India made its maiden appearance at the OIC Foreign Ministers' meeting as a 'guest of honour'.

OIC's stand on Kashmir

- It said that the decision of the Indian government to repeal special status (in 2019) was aimed towards changing the demographic and geographic composition of the territory.
- The continuous blockade and restrictions together have led to human rights abuses.
- The statement acknowledged the support that Pakistan has been providing to keep the Kashmir issue on the agenda of the organisation.
- In 2018, OIC secretariat had expressed strong condemnation of the killing of innocent Kashmiris by India forces in Indian-occupied Kashmir, described the direct shooting at demonstrators as a terrorist act.
- In 2017 session of the OIC Foreign ministers had adopted a resolution reaffirming the unwavering support for the Kashmiri people in their just cause, and expressing deep concern on atrocious human rights violations being committed by the Indian occupation forces since 1947.

India's Response

India has always maintained that OIC has no locus standi in matters strictly internal to India including that of Union Territory of Jammu and Kashmir which is an integral and inalienable part of India.

Significance of India's latest statement

- India believes to bust the double standard of OIC, where it supports the agenda of Pakistan in the name of human rights.
- India now sees the duality of the OIC unjustifiable, since many of the member countries of the OIC have good bilateral ties and convey to India to ignore OIC statements but sign off on the joint statements which are largely drafted by Pakistan.
- India also wants to challenge this issue because of the possibility of the Joe Biden administration in the US which may have a strong view on human rights in Kashmir and may issue statements that may complicate India's image at the global stage.
- With India preparing to take over a non-permanent member's seat at the UN Security Council, it wants to use its diplomatic clout and goodwill to bury this issue at the global body in the next two years and bring up the Pakistan-sponsored cross-border terrorism high on agenda.

Attorney General In News

Attorney General KK Venugopal has given **consent to initiate proceedings** against artist Rachita Taneja for her tweets over Supreme Court's ruling in Arnab Goswami's abetment to suicide case.

Issue

- Cartoonist Rachita Taneja (on twitter) had posted a series of illustrations against the apex court that were seen as **an "audacious assault and insult to the institution"**.
- Taneja's illustration depicted Arnab Goswami with the ruling Bharatiya Janata Party and Supreme Court by his side, with Goswami portrayed as saying "Tu jaanta nahi mera baap kaun hain", as if implicating that the Supreme Court is biased towards the ruling party and that "BJP is somehow interested in protecting Arnab Goswami".

Attorney General of India

- The Attorney General for India is the Indian government's chief legal advisor, and is **primary lawyer in the Supreme Court of India**.
- He is a part of the Union Executive.
- He is appointed by the President of India under **Article 76 (1)** of the Constitution and holds office during the pleasure of the President.
 - He must be a person qualified to be appointed as a Judge of the Supreme Court.
 - He should be an Indian Citizen.
 - He must have either completed 5 years in High Court of any Indian state as a judge or 10 years in High Court as an advocate.
 - He may be an eminent jurist too, in the eye of the President.

Powers and Functions

- The Attorney General is necessary for giving advice to the Government of India in legal matters referred to him. He also performs other legal duties assigned to him by the President.
- The Attorney General has the right of audience in all Courts in India as well as the right to participate in the proceedings of the Parliament, though not to vote.
- The Attorney General appears on behalf of Government of India in all cases (including suits, appeals and other proceedings) in the Supreme Court in which Government of India is concerned.
- He also represents the Government of India in any reference made by the President to the Supreme Court under Article 143 of the Constitution.
- The Attorney General can accept briefs but cannot appear against the Government.
- He cannot defend an accused in the criminal proceedings and accept the directorship of a company without the permission of the Government.
- The Attorney General is assisted by two Solicitor General and four Additional Solicitor Generals.

What is the case for prior approval in Contempt Cases?

The prior consent in writing of the Attorney General is required for the Supreme Court to initiate criminal contempt action in a case a/c to the Contempt of Court Act, 1971.

Procedure for bringing a criminal contempt of court case?

- **The contempt of courts act, 1971**, lays down the law on contempt of court. Section 15 of the legislation describes the procedure on how a case for contempt of court can be initiated.
- In the case of the supreme court, the Attorney General or the Solicitor General, and in the case of High Courts, the Advocate General, may bring in a motion before the court for initiating a case of criminal contempt.

Why does the Attorney General have to grant consent?

- The procedure in cases of criminal contempt of court, which means the publication of material that scandalizes or lowers the dignity of the court or prejudices or interferes with the proceedings of the court, the consent of the AG is required under the law. **The objective behind requiring the consent of the AG before taking cognizance of a complaint is to save the time of the court.**
- The AG's consent is meant to be a safeguard against frivolous petitions, as it is deemed that the AG, as an officer of the court, will independently ascertain whether the complaint is indeed valid.

Annual Ranking of Police Stations

In News

The central government announced India's top 10 best-performing police stations from across the country for the year 2020. Government selects police stations to incentivise more effective functioning and bring healthy competition.

Selection Procedure

- The selection is done in accordance with the directions of Prime Minister, along with the directions of the Directors General of Police during the **2015 Conference in Kutch, Gujarat**.
- The Prime Minister had directed that parameters should be laid down for grading police stations and assessing their performance based on feedback.
- The ranking process commenced with shortlisting of the best performing Police Stations, in each State on the basis of addressing:
 - **Property offence**
 - **Crime against women**
 - **Crime against weaker sections**
 - **Missing persons, unidentified found person and unidentified dead bodies**
 - The last parameter has been introduced this year.

Top 10 Police stations

1. Manipur, Thoubal, NongpokSekmai
2. Tamil Nadu, Salem City, AWPS-Suramangalam
3. Arunachal Pradesh, Changlang, Kharsang
4. Chhattisgarh, Surajpur, Jhilmili (Bhaiya Thana)
5. Goa, South Goa, Sanguem
6. Andaman & Nicobar Islands, North & Middle Andaman, Kalighat
7. Sikkim, East District, Pakyong
8. Uttar Pradesh, Moradabad, Kanth
9. Dadra & Nagar Haveli, Dadra & Nagar Haveli, Khanvel
10. Telangana, Karimnagar, Jammikunta Town PS

Issues with the functioning of Police:

- The sanctioned police strength is 181 police per lakh persons. However, this was 137 in 2016. This overburdens the police force.
- **Currently in India there is a requirement of 5.5 lakh police personnel.** This means that around 24% of sanctioned police strength is vacant.
- On the other hand, the United Nations recommended standard is 222 police

per lakh persons. This clearly says that an average police man in India has enormous workload that negatively affects his efficiency and performance.

- According to the CAG reports there are **shortages in weaponry with state police forces.** The report says that West Bengal and Rajasthan had shortages of 71% and 75% weaponry respectively.
- Also, the funds allocated to modernization of infrastructure in police stations are not utilised to the fullest.

Swasthya Sathi Health Insurance Scheme

In News

West Bengal Chief Minister extended the Swasthya Sathi health insurance scheme to cover the entire population of the state, starting December 1, 2020.

- The scheme was launched in 2016 and is quite popular among rural and economically deprived sections of the state's population.
- It is a basic health cover for secondary and tertiary care up to Rs five lakh per annum per family.

The highlights of the Swasthya Sathi scheme

- Every family, every citizen irrespective of age group will be included in this scheme
- This is a basic health cover for secondary and tertiary care up to Rs 5 lakh per annum per family
- The scheme is completely funded by the state government
- To cover the entire population of the state, each and every family will be given one smart card to avail the benefits under this scheme, where they will get cashless treatment
- All state-run and private hospitals are going to come under the Swasthya Sathi
- The card will be issued to the female guardians of families
- The enrollment procedure will start once the state government representatives start visiting every household following the Duarey Duarey Pashchimbongo Sarkar

initiative, ie West Bengal Government at every doorstep

- The annual expense which the state is going to bear for this scheme will be approximately Rs 2,000 crore. Currently, this is Rs 925 crore
- Those who are not enrolled under any other health scheme will be eligible to come under the Swasthya Sathi scheme

Background

The West Bengal Government has not implemented the Ayushman Bharat Health Scheme launched by the central government. The state of West Bengal is to go for elections in 2021. The State Government has been lately launching several schemes and expanding the existing schemes in the lime light of assembly elections.

Advisory on Advertisements

In News

Information and Broadcasting Ministry has issued an advisory on Advertisements on Online gaming, fantasy sports and others. The guidelines became effective from 15 December.

As per the guidelines

- No gaming advertisement may depict any person under the age of 18 years or who appears to be under the age of 18 engaged in playing a game of Online Gaming for Real Money Winnings or suggest that such person can play these games.
- Every such gaming advertisement must carry the disclaimer that this game involves an element of financial risk and may be addictive, so please play responsibly and at your own risk.
- Such a disclaimer should occupy no less than 20 per cent of the space in the advertisement.
- The advertisement should not present as an income opportunity or an alternative employment option.
- The advertisement should also not suggest that a person engaged in gaming activity is in any way more successful as compared to others.

Advertising Standards Council of India

- The Advertising Standards Council of India, established in 1985, is a self-regulatory voluntary organization of the advertising industry in India.
- It is a non-Government body.
- ASCI is committed to the cause of self-regulation in advertising ensuring the protection of the interest of consumers.
- ASCI seeks to ensure that advertisements conform to its Code for Self-Regulation, which requires advertisements to be legal, decent, honest and truthful and not hazardous or harmful while observing fairness in competition.
- ASCI looks into complaints across ALL MEDIA such as Print, TV, Radio, hoardings, SMS, Emailers, Internet / web-site, product packaging, brochures, promotional material and point of sale material etc.

6th India-CLMV Business Conclave 2020

In News

Union Minister for Commerce participated in the opening ceremony of the 6th India-CLMV Business Conclave 2020 jointly held virtually by the Ministry of Commerce and Industry of India and Confederation of India Industry.

- The Conclave was held under the theme **“Building Bridges for Constructive Development yesterday”**.

CLMV Countries

- The CLMV countries are Cambodia, Laos, Myanmar, and Vietnam.
- This country association within the Association of Southeast Asian Nations (ASEAN) comprises its newest, lowest income, and formerly closed-economy members.
- One of the ways in which the association operates is through CLMV Economic Ministers' Meetings.
- The countries act as a gateway for the market access to European Union and China and also other markets due to various trade agreements.

- The four countries hold rich natural resources such as copper, oil, natural gas, gemstones and teak.
- They are the third largest economy in the world.
- In the last decade, India's trade with these countries has grown from 1.5 billion USD to 10 billion USD.

Key Highlights

- During the conclave, India invited the CLMV countries to join International Solar Alliance and the Resilient Supply Chain Initiative.
- During the conclave, India mentioned that it is ready to share COVID-19 vaccine with the CLMV countries.
- There would be a virtual exhibition for over 15 days with enterprises from India and the CLMV countries showcasing their products and services across sectors such as
 - Agriculture (Agri & food processing, farm inputs, and allied services)
 - Manufacturing
 - Light industry (automobiles, textile, and machine tools)
 - Power and clean energy
 - Infrastructure, transport & logistics
 - Healthcare & pharmaceuticals
 - IT, skills and education

Preferential Trade Agreement (PTA)

In News

Bangladesh signed its first Preferential Trade Agreement (PTA) with Bhutan allowing duty free access to a range of goods between the two countries. **This is the first PTA Bangladesh has signed with any country in the world.**

Details

- The agreement was signed on the occasion marking the 50 years of diplomatic ties between the two countries.
- Under the PTA 100 Bangladeshi products will get duty free access to Bhutan.
- 34 items from Bhutan will get duty free access into Bangladesh.
- Goods like Jute and Jute products, baby clothes and accessories, men's trousers,

jackets and blazers are among the 100 items from Bangladesh which will get duty free access to Bhutan.

- On the other hand fruit juice, natural honey, wheat flour jams, jellies and lime stone, quartzite etc. from Bhutan will have duty free access to Bangladesh.
- The trade volume between the two countries is approximately 50 million dollars with 7.56 million of export and 42.09 million import into Bangladesh.
- Bangladesh is expected to sign 11 more PTAs and Free Trade Agreements (FTAs) with countries like Indonesia and Nepal by June next year.

Preferential Trade Agreement (PTA)

- Preferential trade area or Preferential trade agreement (PTA) is called the first stage of economic integration among countries.
- In PTA, the participating countries give preferential access to certain products among themselves. So, the tariff barriers are reduced and non-tariff barriers are made less stringent.

Free Trade Agreement (FTA)

- Whenever some countries sit together and decide to eliminate tariffs, import quotas, and preferences on most (if not all) goods and services traded between them, they are creating a FTA.
- The aim of a free-trade area is to reduce barriers to exchange so that trade can grow as a result of specialization, division of labor, and most importantly via comparative advantage.
- A Free trade agreement can be an agreement between two countries (bilateral) or many countries (multilateral).
- FTA does not mean everything is free.

Smuggling in India Report 2019-20

In News

Finance Minister inaugurated the 63rd Founding Day Celebrations of the Directorate of Revenue Intelligence (DRI) on 4th December.

- On the occasion, Finance Ministry released the Smuggling in India Report 2019-20 which analyses organised smuggling trends on Gold and Foreign Currency, Narcotic Drugs, Security, Environment and Commercial Frauds.

Details

- The Directorate of Revenue Intelligence has so far detected 412 cases of smuggling that resulted in the seizure of 1,949 crores of rupees in the year 2019-20.
- The Directorate of Revenue Intelligence has arrested 837 economic offenders.
- It has unearthed 761 Complex cases of customs duty evasion. This amounted to 2,183 crores of rupees.

Gold

- According to the report, around 120 tonnes of gold were smuggled into India in 2019-20. This is 15% to 17% of the annual demand of the country according to the World Gold Council.
- The gold smuggling through the land borders has risen manifold in the recent years.
- The porous International borders of India with other countries such as Myanmar, Nepal and Bangladesh help the gold smugglers.
- There is a 16 kilometre of a free movement Regime between India and Myanmar. This allows the people to travel without visa restrictions. This region if used by the gold smugglers and is also a part of the China Myanmar smuggling network.

Narcotics Drug

- In April 2019, the Directorate of Revenue Intelligence along with the support of Assam Rifles conducted a secret operation in the fall of Manipur. During the operation around 1 lakh methamphetamine tablets

were seized. These tablets are commonly known as YaBa tablets.

- The Directorate Revenue of Intelligence did a total of 72 seizures under the Narcotic Drugs and Psychotropic Substances act in the year 2019-20. The highest number of seizures was reported in Uttar Pradesh followed by Maharashtra, Telangana, Tamil Nadu.

Cigarette and tobacco products

According to the report, India has become the fourth largest illegal cigarette market in the world. In 2019-20, the Directorate of Revenue Intelligence has seized Rs 76.95 crores of cigarettes.

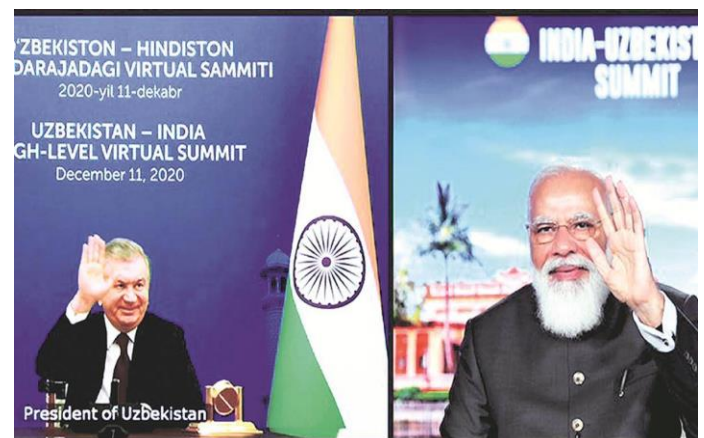
On the occasion, the DRI Utkrisht Seva Samman, 2020 was awarded to Sankaran, an officer of the 1961 batch of the Indian Revenue Service.

India-Uzbekistan sign Agreements

In News

India and Uzbekistan signed nine agreements to further broadbase cooperation in several areas and vowed to combat the threat of terrorism by “destroying” terrorist safe-havens, networks and funding channels.

- Both the nations deliberated on expanding bilateral ties, and agreed to step up efforts for early conclusion of a bilateral investment treaty.
- The agreements signed are aimed at expanding cooperation in a range of areas, including new and renewable energy, digital technologies, cyber security and sharing of information.



India-Uzbekistan

- India and Uzbekistan have set an annual trade target of 1 billion USD. India is also trying to increase its relations with the country where China has already made inroads with the country taking advantage of its geographical contiguity.
- India has offered a line of credit of 40 million USD for procurement of goods and services by Uzbekistan from India.
- India and Uzbekistan signed three Memorandum of Understandings in the field of Defence in 2019 to enhance cooperation in military medicine and military education.
- In January 2019, India and Uzbekistan signed a nuclear deal for long term of supply of Uranium to India. Uzbekistan is the seventh largest exporter of Uranium in the world. After Kazakhstan, Uzbekistan is the second central Asian country to export Uranium to India.

Dustlik 2019

It is the joint military exercise held between India and Uzbekistan. The first Dustlik military exercise was held in 2019.

ASEAN Defence Ministers' Meeting Plus In News

India's defence minister attended the 14th ASEAN Defence Ministers' Meeting (ADMM) Plus organized online at Hanoi, Vietnam. It marked the 10th anniversary of ADMM Plus.

About ADMM-Plus

- The ADMM-Plus is a platform for ASEAN (The Association of Southeast Asian Nations) and its eight Dialogue Partners to strengthen security and defence cooperation for peace, stability, and development in the region.
- The ADMM-Plus countries include ten ASEAN Member States and eight Plus countries, namely Australia, China, India, Japan, New Zealand, Republic of Korea, Russian Federation, and the United States.
- The chairmanship of the ADMM-Plus follows the chairmanship of the ADMM. This year it was chaired by Vietnam.

- It aims to promote mutual trust and confidence between defence establishments through greater dialogue and transparency.
- The 2nd ASEAN Defence Ministers' Meeting (ADMM) in 2007 at Singapore adopted a resolution to establish the ADMM-Plus.
- The first ADMM-Plus was convened at Hanoi, Vietnam in 2010.



Key highlights during meeting

- The meet comes at the time when India and China remain engaged in a military standoff along the Line of Actual Control in Ladakh, and tensions continue to mount in the South China Sea.
- India in meeting said that the future of the South East Asian Countries will be defined by their ability to collectively respond to challenges in the region, based on the fundamentals of freedom, inclusivity and openness.

Challenges

- Threats to the rules-based order, maritime security, cyber-related crimes and terrorism.
- Challenges are becoming increasingly trans-boundary in character which requires closer military-to-military interactions and cooperation amongst the ADMM-Plus countries.

ASEAN

- Regional organization which was established to promote political and social stability amid rising tensions among the Asia-Pacific's post-colonial states.
- The intergovernmental organization comprising ten countries in Southeast Asia, which promotes intergovernmental

cooperation and facilitates economic, political, security, military, educational, and sociocultural integration among its members and other countries in Asia.

- ASEAN primarily objective was to accelerate economic growth and through that social progress and cultural development.

France Law against Islamism

In News

The French Cabinet presented a draft law that targets “Radical Islamism”. Although the word “Islamist” is not part of the text.

- The Bill comes in the wake of a series of terror attacks in recent years.
- It is being seen as a response to the October beheading of school teacher Samuel Paty. It has raised concerns that it could stigmatise France’s Muslim community, the largest in Europe.

Features of the bill

- The law aims to envisage range of measures that includes school education reforms to make sure Muslim children do not drop out of school.
- It aims to provide strict controls on preachers and mosques.
- The law will provide rules against hate campaigns online.
- When the law comes into force, the French mosques will see increased surveillance on their activities, especially financing.
- The French Government under the law will be empowered with greater powers to shut down places of worship. These places of worship are those that receive public subsidies. They will be shut down if they go against the republican principles such as gender equality.
- The Community leaders being targeted by extremist PUTSCH will receive protection under the law. PUTSCH is a violent attempt to overthrow a government.
- The law will severely suppress the home-schooling of children over three years. This is because through this, the parents enrol them in underground Islamic structures.
- The law will punish doctors issuing virginity certificates.

- The law will ban the officials from granting residency permits to polygamous applicants.
- The law allows to interview couples separately prior to their weddings to find out if they are forced in to marriage.

Asia Pacific Vaccine Access Facility (APVAX) In News

The Asian Development Bank recently launched Asia Pacific Vaccine Access Facility to provide equitable support to the developing countries as they procure and deliver vaccines.

About the facility

It will support developing countries in Asia and will put in efforts to procure vaccines against deadly virus. If a country has to obtain finances under APVAX, then it should fulfil the following criteria:

- It must be procured through COVAX.
- It should be prequalified by World Health Organization
- It should be authorised by a stringent regulatory authority.

Financial Assistance

- The bank has allocated 9 billion USD for the APVAX scheme.
- Earlier, the Asian Development Bank earlier approved the 500 million USD vaccine import facility as a part of the trade and supply chain finance programme of the bank
- The bank allocated 1 billion USD to co-finance with the private sectors in importing COVID-19 vaccines.
- In April 2020, ADB approved 20 billion USD to support developing countries to address the impacts of COVID-19 pandemic and deliver quick assistance.
- The bank committed to 14.9 billion USD of loans to support the COVID-19 Pandemic Response Option.
- In November 2020, ADB announced 20.3 million USD of technical assistance to establish systems that will enable efficient and equitable distribution of vaccines.

COVAX

- COVAX is one of the three pillars of the ACT Accelerator launched by World Health Organization.
- The COVAX facility aims to make sure that all the people in the world will get equal access to COVID-19 vaccine.
- The initial aim of the facility is to ensure that two billion doses are available by the end of 2021.
- It is co-led by GAVI (Global Alliance for Vaccines and Immunisation) and Coalition for Epidemic Preparedness Innovations (CEPI).

ACT Accelerator

It is a framework of collaboration that aims to accelerate production, development and equitable access to COVID-19 vaccine. The ACT Accelerator was launched by WHO, France and European Commission. It is built on three main pillars namely Therapeutics, Vaccines (COVAX) and Diagnostics.

Motor Annual Report

In News

Nearly 57 per cent of the total vehicles on the road were uninsured as of March 2019, according to the Insurance Information Bureau of India's annual report. The Insurance Information Bureau (IIB), set up by insurance regulator IRDAI, is yet to finalise its March 2020 report.

Details

- India is one of the largest auto markets in the world with over 20 million vehicles sold annually.
- India is also among the countries with the highest number of road accidents and fatalities.
- According to IIB, of the over 23.12 crore vehicles on the road in India as of March 31, 2019, nearly 57 per cent were uninsured; in 2017-18, 54 per cent of the nearly 21.11 crore vehicles on the road were uninsured.
- The uninsured vehicles largely comprise two-wheelers.
- Cars are largely insured, with the uninsured numbers quite low at around 10 per cent.

- About 52 per cent vehicles don't renew their insurance after the first year – mostly two-wheelers fall out of the insurance net at the time of the first renewal of the insurance policy.
- The total number of third party claims reported was around 3.25 lakh for the current FY.
- Overall, Tamil Nadu, Kerala, Karnataka, Maharashtra, Madhya Pradesh, Rajasthan and Uttar Pradesh together contributed two-third of the total third party claims in FY 2018-19.
- In Kerala, nearly 86 per cent of the total third party claims was for injuries, whereas in Bihar, nearly 80 per cent was for deaths.
- The highest average for death claims was in Kerala, and the lowest in Bihar.
- The Union Territories and the southern states have a high average as compared to others.

Motor Vehicles Act, 2019

- According to the Motor Vehicles Act, 2019, it is mandatory for all vehicles to be insured with third-party vehicle insurance policy.
- Third-party or liability insurance covers the legal liability arising due to death or disability of third party loss or damage to their property.
- When an uninsured vehicle meets with an accident, the injured or relatives of dead people don't get any compensation. There is no compensation for damaged vehicles.

Motor Insurance in India

- Motor was the biggest line of business in the general insurance industry with nearly 40 per cent share of the gross underwritten premium.
- Six states – Maharashtra, Tamil Nadu, Uttar Pradesh, Karnataka, Gujarat and Delhi – contributed nearly 50 per cent of the total policies and claims.

IRDAI

- The Insurance Regulatory and Development Authority of India (IRDAI) is an autonomous, statutory body tasked with regulating and promoting the insurance and re-insurance industries in India.
- It was constituted by the Insurance Regulatory and Development Authority Act, 1999, an Act of Parliament passed by the Government of India.
- The agency's headquarters are in Hyderabad, Telangana, where it moved from Delhi in 2001.
- IRDAI is a 10-member body including the chairman, five full-time and four part-time members appointed by the government of India.

Brasilia Declaration on Road Safety:

The Brasilia Declaration encourages WHO and partners to facilitate the development of targets to reduce road traffic crashes and fatalities, and support the definition and use of indicators linked to the SDG targets related to road safety.

1st Trilateral Working Group

In News

The first Trilateral Working Group Meeting between India, Iran and Uzbekistan on the joint use of Chabahar Port was held virtually.

Details

- During the meeting, the participants discussed joint use of Chabahar Port for trade and transit purposes and enhanced regional connectivity.
- All sides also noted the significant role played by Chabahar port for the region to deliver humanitarian assistance during the COVID pandemic.
- All sides welcomed India's proposal to hold "Chabahar Day" on the sidelines of the International Maritime Summit scheduled to be hosted by India in January 2021.

Chabahar Port

- Chabahar Port is a seaport in Chabahar located in southeastern Iran, on the Gulf of Oman.
- In December 2018, India took over the operations of the Port.
- India began building a railway line between Chabahar port and Zahedan as part of the North-South Transport Corridor.
- Chabahar port is about 170 km away from Gwadar Port built in Pakistan by China.

Why is Chabahar Port Important to India?

- Boost trade ties, diplomatic ties, and military ties with Iran.
- Provides India with better connectivity to Afghanistan bypassing Pakistan.
- It will be the gateway to the International North-South Transport Corridor which is a combination of road, rail, and sea routes connecting Russia, Europe, Central Asia, Iran, and India.
- India can carry out humanitarian operations from this port if the need arises.
- This port is just 170 km away from Gwadar port operated by China in Pakistan, hence this port would be of strategic importance to the Indian Navy and defense establishment.

San Isidro Movement

In News

San Isidro Movement (MSI) is the ongoing protest against the authoritarian regime in Cuba.

Cuba's San Isidro Movement (MSI)

- The San Isidro Movement started in 2018 in response to the state's censorship of artistic works via the Decree 349.
- The decree enables the culture ministry to censure any cultural activity that it doesn't approve of.

- To protest against the decree, artists, poets, journalists and activists gathered in San Isidro, a Black-majority locality that is among Havana's poorest yet most culturally active wards, and which also forms part of the Old Havana UNESCO World Heritage Site.

How did the movement grow?

- In 2015, Cuba signed an agreement with the USA which gave the MSI protestors more internet freedom.
- The protestors managed to amplify and connect their messages over the internet.
- The Government in Cuba controls all modes of communication and no political opposition is permitted.
- Thus, the internet freedom helped the movement to reach different regions.

Current Scenario

The Cuban Government continues to criticise MSI calling it "Yankee Imperialism" despite of the popularity of the movement all over the world.

Havana

It is the capital city of Cuba. Also, it is the largest province, major port and a leading commercial centre in the country. It is the fourth largest metropolitan city in the Caribbean region.

Human Development Index

In News

India dropped two ranks in the United Nations' Human Development Index this year, standing at 131 out of 189 countries.

Key Highlights

The United Nations Development Programme (UNDP) for the first time, introduced a new metric to reflect the impact caused by each country's per-capita carbon emissions and its material footprint, which measures the amount of fossil fuels, metals and other resources used to make the goods and services it consumes.

Miles to go

Though India improved its absolute value of the Human Development Index (0.645 in 2019 from 0.642 the previous year), it dropped a place in the overall ranking

Country	HDI rank (2019)	Change from 2018
Russia	52	-3
Sri Lanka	72	1
Brazil	84	0
China	85	2
South Africa	114	1
India	131	-2
Bangladesh	133	1
Nepal	142	1
Pakistan	154	0

Key Findings of the HDI

- Norway topped the index, followed by Ireland and Switzerland. Hong Kong and Iceland complete the top five.
- India, Bhutan, Bangladesh, Myanmar, Nepal, Cambodia, Kenya, and Pakistan were ranked under countries with medium human development with a rank in between 120 and 156 among the 189-countries.
- In the BRICS grouping, Russia was 52 in the human development index, Brazil 84, and China 85.
- India's gross national income (GNI) per capita on the basis of purchasing power parity (PPP), too, fell from \$6,829 in 2018 to \$6,681 in 2019, it said.
- India's HDI value for 2019 is 0.645, which put the country in the medium human development category, positioning it at 131 out of 189 countries and territories.
- Between 1990 and 2019, India's HDI value increased from 0.429 to 0.645, an increase of 50.3%.
- Between 1990 and 2019, India's life expectancy at birth increased by 11.8 years, mean years of schooling increased by 3.5 years, and expected years of schooling increased by 4.5 years. India's GNI per capita increased by about 273.9% between 1990 and 2019.

- Under the Paris Agreement, India pledged to reduce the emission intensity of its GDP from the 2005 level by 33-35% by 2030 and to obtain 40% of electric power capacity from non-fossil fuel sources by 2030.

Purchasing power parity

Purchasing power parity (PPP) is a measurement of prices in different countries that uses the prices of specific goods to compare the absolute purchasing power of the countries' currencies.

Human Development Index

- The Human Development Index (HDI) is a statistic composite index of life expectancy, education (Literacy Rate, Gross Enrollment Ratio at different levels and Net Attendance Ratio), and per capita income indicators, which are used to rank countries into four tiers of human development.
- The origins of the HDI are found in the annual Human Development Reports produced by the Human Development Report Office of the United Nations Development Programme (UNDP).
- These were devised and launched by Pakistani economist Mahbub ul Haq in 1990, and had the explicit purpose to shift the focus of development economics from national income accounting to people-centered policies.

UNESCO's 2020 State of Education for India Report

In News

The 'State of the Education Report for India 2020: Technical and Vocational Education and Training (TVET)', was launched virtually by UNESCO New Delhi.

- The strategy is in alignment with the Sustainable Development Goal and Education 2030 Framework for Action.
- The second edition of the State of Education Report focuses on technical and vocational education and training (TVET).

Aim

Report aims to serve as a reference tool for enhancing and influencing the policies and programs related to skills development in India.

Recommendations

1. Place learners and their aspirations at the centre of vocational education and training programmes
2. Create an appropriate ecosystem for teachers, trainers and assessors
3. Focus on upskilling, re-skilling and lifelong learning
4. Ensure inclusive access to TVET for women, differently abled and disadvantaged learners
5. Massively expand the digitalization of vocational education and training
6. Support local communities to generate livelihoods by engaging in the preservation of tangible and intangible cultural heritage
7. Align better with the 2030 Agenda for Sustainable Development
8. Deploy innovative models of financing TVET
9. Expand evidence-based research for better planning and monitoring
10. Establish a robust coordinating mechanism for inter-ministerial cooperation

About the Report

- The substance of the Report has been developed by an experienced team of researchers from the Tata Institute of Social Sciences, Mumbai, under the guidance of UNESCO New Delhi.
- The technical and financial partner - American India Foundation (AIF), is a leading not-for-profit organization committed to improving the lives of India's underprivileged, with a special focus on women, children, and youth.

UNESCO

- UNESCO is the United Nations Educational, Scientific and Cultural Organization.
- It seeks to build peace through international cooperation in Education, the Sciences and Culture.
- UNESCO's programmes contribute to the achievement of the Sustainable Development Goals defined in Agenda

2030, adopted by the UN General Assembly in 2015.

- In this spirit, UNESCO develops educational tools to help people live as global citizens free of hate and intolerance. UNESCO works so that each child and citizen has access to quality education.

Constitutional breakdown in Andhra Pradesh

In News

The apex court stayed an Andhra Pradesh High Court order intending to embark on a judicial enquiry into whether there is a constitutional breakdown in the State machinery, requiring a declaration of President's rule.

- The “**unprecedented**” order of the High Court, came while deciding habeas corpus petitions filed by relatives of persons remanded in judicial custody or on bail.
- The High Court had **suo motu** summoned the State counsel to assist it in deciding “whether in circumstances prevailing in the State of Andhra Pradesh, the court can record a finding that there is constitutional breakdown in the State or not”.
- The apex court found the enquiry highly disturbing. Hence it decided to stay the order.
- The government said the High Court's observation violated the **Basic Structure doctrine of the Constitution**.

A Suo Moto cognizance is a Latin term which means an action taken by a government agency, court or other central authority on their own apprehension.

Bone of contention

■ On October 1, the Andhra Pradesh High Court passed an interim order which said “on the next date, the learned senior counsel appearing on behalf of the State may come prepared to assist the court as to whether in circumstances, which are prevailing in the State of Andhra Pradesh, the court can record a finding that there is constitutional breakdown in the State or not”. The order was passed in *habeas corpus* petitions

What the State argued

- The order was “replicated” in 14 writ petitions of *habeas corpus* or allegations against the police interfering in civil disputes
- Judiciary has no role in deciding whether there is a constitutional breakdown in a State, necessitating President's rule. This power is vested in the executive under Article 356 of the Constitution
- HC order is a “serious encroachment” on the powers of the executive as enumerated under the Constitution and is thus violative of the doctrine of separation of powers



Andhra government response

- The government said that the High Court's observation violated the Basic Structure doctrine of the Constitution.
- **Under the constitutional framework, it is not for the courts to decide as to whether there is a constitutional breakdown in a State.**
- The said power has been specifically conferred upon a different constitutional authority – and rightly so.
- It is needless to mention that the constitutional courts do not have any judicially discoverable and manageable standards to determine if there has been a constitutional breakdown,” the petition contended.

Article 356

- Article 356 of the Constitution of India empowers the President to withdraw from the Union the executive and legislative powers of any state "if he is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution".
- The determination of the breakdown of constitutional machinery may be done by the President at any time, either upon receipt of a report from the Governor, or suo motu.
- If approved by both the houses, the President's Rule, as it is most-commonly called, can continue for 6 months. It can be extended for a maximum of 3 months with the approval of the Parliament.

The Basic structure doctrine

- The Constitution has a basic structure of principles and values that cannot be altered by any Act of the legislature of the executive.
- The basic features of the Constitution have not been explicitly defined by the Judiciary.
- The doctrine thus forms the basis of a power of the Supreme Court to review and strike down constitutional amendments and acts enacted by the Parliament.
- Parliament can amend the Constitution but cannot destroy its "basic structure".

Key among these "basic features" are following

- Fundamental rights
- The Preamble
- The supremacy of the constitution.
- A republican and democratic form of government.
- The secular character of the Constitution.
- Maintenance of the separation of powers.
- The federal character of the Constitution.
- The mandate to build a welfare state contained in the Directive Principles of State Policy.
- Maintenance of the unity and integrity of India.
- The sovereignty of the country.
- The sovereignty of India.
- The democratic character of the polity.
- The unity of the country.
- Essential features of individual freedoms.
- The mandate to build a welfare state.

- A sovereign democratic republic.
- The provision of social, economic and political justice.
- Liberty of thought, expression, belief, faith and worship.
- Equality of status and opportunity.

Stopgap Funding Bill

In News

The US President signed the Stopgap Funding Bill. The bill provides the law makers two more days to sort out few issues in the ongoing negotiations about the 900 billion USD aid package.

Details

- A stopgap funding bill is used by the US Government to ensure that it does not run out of funds for running federal programme after the deadline of an Appropriation Act.
- In a fiscal year, the US Congress passes 12 Appropriation Acts which gives budgetary authority to spend from the US Treasury for specific purposes.
- These Acts have a deadline and the funds cannot be used to address new obligations after it. When the Congress fails to fund the government, a government shutdown is declared and all non-essential services are stopped.

How does the Federal Funding expire?

- The Fiscal year in US begins on October 1. During a fiscal year, the Congress passes twelve annual appropriation acts that provide the budget authority to expend funds from US Treasury for specific purposes.
- The funds cannot be used to address new obligations. In other words, the funds expire after specified deadline.

What is called Government Shutdown?

- The Government Shutdown occurs when the Congress fails to fund the government.
- In such scenario, the US Government stops all the non-essential services. On the other hand, the essential services such as police departments, armed forces, etc continue of function.

Impacts on the Public

The Government Shutdowns in the United States have resulted in furloughs for several hundred thousand Government Employees. The reduction in Government activities affected various sectors of the economy.

Electricity (Rights of Consumers) Rules, 2020

In News

The Union power ministry has notified rules to ensure the rights of consumers and to mandate standards of service such as round-the-clock electricity supply.

- The rules also provide for penalties for power distribution firms in case they do not maintain mandated standards of services.

Background

The ministry in September published a set of draft rights for electricity consumers under the Electricity Act, 2003, which has a consumer charter. The latest rules empower consumers and introduce new supply rights for them.

Details

- Implementation of the rules shall ensure that new electricity connections, refunds, and other services are given in a time-bound manner.
- Rules are aimed to benefit about 300 million existing and prospective consumers.
- The policy proposes suspension of licences in case of non-availability of adequate power supply arrangements.
- Imposition of penalties in case of disruptions in supply to consumers, except

due to force majeure condition or technical faults.

Highlights of the bill

- The Electricity (Rights of Consumers) Rules, 2020, seek timely and simplified procedure for connections, expedited modification of the existing ones, 2% to 5% rebate on serving bills with a delay of 60 days or more.
- It allows payment of all bills worth Rs 1,000 or more online.

Prosumers

- A new category of Prosumers has been identified under the new rule.
- Prosumers are those consumers who have the right to produce electricity for self-use and inject excess to the grid.
- They are also consumer who have set up rooftop units or solarised irrigation pumps. The excess power is fed into the grid using the same point of connection.
- The limits to inject into the grid is set by SERC.

Consumer Grievance Redressal Forum

A Consumer Grievance Redressal Forum is to be established. The forum will have representatives of consumers at various levels. It includes sub-division for ease of consumer grievance redressal.

Dharma Swatantrya (Religious Freedom) Bill 2020

In News

Madhya Pradesh cabinet approved the Dharma Swatantrya (Religious Freedom) Bill 2020. The ordinance outlaws marriages with an aim of religious conversions.

Background

This approval comes after Uttar Pradesh's governor's assent to the UP Prohibition of Unlawful Conversion of Religion Ordinance, 2020, against forcible or fraudulent religious conversions.

Bills highlights

- If the bill passed, No one will be able to convert anyone from one religion to another through marriage or “any other fraudulent means by seducing or intimidating anyone”.
- Under the new Bill, forcing religious conversion on someone will attract 1-5 years of imprisonment and a minimum Rs 25,000 fine.
- Attempt to hide one's religion will be punishable by imprisonment of three to 10 years and a fine of at least Rs 50,000.
- If a minor or a woman from Scheduled Tribe and Scheduled Caste categories is forced into conversion, the perpetrator will be imprisoned for two to 10 years and fined up to Rs 50,000. Blood relatives of victims of such religious conversion can file a complaint.
- Provision for the imprisonment of five to 10 years and fine of at least Rs 100,000 is being made for attempting mass religious conversion (of two or more persons).

Freedom of religion in India

- Freedom of religion in India is a fundamental right guaranteed by Article 25-28 of the Constitution of India.
- Every citizen of India has a right to practice and promote their religion peacefully.
- India is one of the most diverse nations in terms of religion, it being the birthplace of four major world religions: Jainism, Hinduism, Buddhism and Sikhism.

- Even though Hindus form close to 80 percent of the population, India also has region-specific religious practices: Jammu and Kashmir has a Muslim majority, Punjab has a Sikh majority, Nagaland, Meghalaya and Mizoram have Christian majorities and the Indian Himalayan States such as Sikkim and Ladakh, Arunachal Pradesh and the state of Maharashtra and the Darjeeling District of West Bengal have large concentrations of Buddhist population.
- The country has significant Muslim, Sikh, Christian, Buddhist, Jain and Zoroastrian populations.
- Islam is the largest minority religion in India, and the Indian Muslims form the third largest Muslim population in the world, accounting for over 14 percent of the nation's population.

General Studies-III Technology, Economic Development, Bio-diversity, Environment, Security and Disaster Management

Honey FPO Programme

In News

The Minister of Agriculture and Farmers' Welfare has virtually inaugurated the Honey Farmer Producer Organisation (FPO) Programme of the National Agricultural Cooperative Marketing Federation of India Limited (NAFED).

- A Producer Organisation (PO) is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen, etc.
- FPO is one type of PO where the members are farmers.

Details

- Beekeeping in India is highly predominant in the unorganized sector among the rural and tribal population. Despite having a huge potential of honey production in the country, the beekeeping industry is still underdeveloped.
- NAFED will address these issues by acting as an intermediary and filling up the gaps between the elements of the beekeeping supply chain and also ensure price remuneration to the beekeeping farmers.
- Through these Honey FPOs, NAFED will also work for promotion of beekeeping as an occupation for unemployed women and tribal populations and uplift their livelihood.

Key Highlights

- The programme has been launched under the Formation and Promotion of FPOs.
- It is a new Central Sector Scheme for the promotion of 10,000 new FPOs.
- Under it, National Level Project Management Advisory and Fund Sanctioning Committee (N-PMAFSC) had allocated clusters for 2020-21 to all implementing agencies. Implementing

Agencies had also identified the block wise clusters.

- FPOs will be developed by specialist 'Cluster Based Business Organizations (CBBOs)' engaged by Implementing Agencies.

NAFED

- National Agricultural Cooperative Marketing Federation of India Limited (NAFED) has been appointed as the 4th National Implementing Agency other than SFAC, NABARD and NCDC for the creation of 10,000 FPOs by the Department of Agriculture, Cooperation & Farmers' Welfare (DAC&FW).
- NAFED has recently taken over the national level Federation of Indian FPOs and Aggregators (FIFA) with the aim of creating sustainable small holder institutions to enhance collective capacities, shortening of agri produce value chains for equitable returns to all stakeholders and leveraging technology for enhanced transparency, scale and seamless agriculture produce trading.
- NAFED, through its empanelled Cluster Based Business Organisation (CBBO) Indian Society of Agribusiness Professionals (ISAP) has initiated the formation and promotion of FPOs of beekeepers and honey collectors in 5 States of India.
- The areas covered under the programme are Sundarbans in West Bengal, East Champaran in Bihar, Mathura in Uttar Pradesh, Morena in Madhya Pradesh and Bharatpur in Rajasthan.
- National Agricultural Cooperative Marketing Federation of India Ltd
- It is an apex organization of marketing cooperatives for agricultural produce in India. It was founded on 2nd October 1958.
- It is registered under the Multi-State Co-operative Societies Act, 2002.
- NAFED is now one of the largest procurement as well as marketing agencies for agricultural products in India.
- Its objective is to organize, promote and develop marketing, processing and storage of agricultural, horticultural and forest produce.
- Another objective includes the distribution of agricultural machinery, implements and other inputs, undertake inter-state, import and export trade, wholesale or retail as the case may be.

National Education Policy 2020

In News

The National Education Policy 2020 upholds the **Reservation Policy** enshrined in the Constitution of India.

Reservation Policy

- Reservation Policy in India is a process of reserving certain **percentage of seats (maximum 50%)** for a certain class such as **Scheduled Castes, Scheduled Tribes, Backward classes**, etc. in Government educational institutions, government jobs, etc.
- The reservation policy is an **age-old policy** being practiced in India.
- Its origin has its roots scattered from the ancient times when the practice of 'untouchability', caste system and Varna system was dominant in the society.
- Reservation enshrined in **Articles 15 and 16 of the Indian Constitution**, allows the Indian government to set quotas to ensure any "socially and educationally backward classes of citizens" is properly represented in public life.
- Reservation is primarily given to all 4 groups: Scheduled Castes, Scheduled Tribes, Other Backward Classes.
- Originally reservation was only given to SCs and STs but was later extended to **OBCs in 1987 after the implementation of the Mandal Commission report**.

Mandal Commission

- In exercise of the powers conferred by Article 340 of the Constitution, the President appointed a backward class commission in December 1978 under the chairmanship of B. P. Mandal.
- The commission was formed to determine the criteria for defining India's "socially and educationally backward classes" and to recommend steps to be taken for the advancement of those classes.
- The Mandal Commission concluded that India's population consisted of approximately 52 percent OBCs, therefore 27% government jobs should be reserved for them.
- The commission has developed eleven indicators of social, educational, and economic backwardness.
- Apart from identifying backward classes among Hindus, the Commission has also identified backward classes among non-Hindus (e.g., Muslims, Sikhs, Christians, and Buddhists).
- It has generated an all-India other backward classes (OBC) list of 3,743 castes and a more underprivileged "depressed backward classes" list of 2,108 castes.

National Education Policy 2020

• Schooling to begin from the age of 3 years
The policy expands the age group of mandatory **schooling from 6-14 years to 3-18 years**. This new system will include 12 years of schooling with three years of Anganwadi/ pre-schooling. The existing 10+2 structure of **school curriculum will be replaced by a 5+3+3+4** curricular structure corresponding to **ages 3-8, 8-11, 11-14, and 14-18** years respectively.

- Mother tongue to be instated as medium of instruction

The National education policy 2020 has directed focus on students' mother tongue as the medium of instruction even as it sticks to the **'three language formula'** but also mandates that no language would be imposed on anyone. The policy indicates that wherever it is possible, the medium of instruction till at least Grade 5, but preferably up till Grade 8 and beyond, will be the mother tongue/local language/ regional language, both public and private schools, are to follow this norm.

- A Single Overarching Body of Higher Education

The Higher Education Commission of India (HECI) will now set up a single overarching umbrella body for entire higher education, excluding medical and legal education. The same set of norms for regulation, accreditation, and academic standards, to be applied to both public and private higher education institutions. The Government aims to phase out the affiliation of colleges in 15 years and a stage-wise mechanism is to be established for granting graded autonomy to colleges.

- Separation between subject streams to be blurred

As per NEP 2020, the rigid separations between subjects' stream will be done away with. Students will have the liberty to choose subjects they would like to study across streams. Vocational education to be introduced in schools from Class 6 and will include internships as well.

- The Return of the FYUP Programme and No More Dropouts

The duration of the undergraduate degree will be either 3 or 4 years. Students will also be given multiple exit options within this period. Colleges will have to grant a certificate to a student if they would like to leave after completing 1 year in a discipline or field including vocational and professional areas, a diploma after 2 years of study, or a Bachelor's degree after completing a three-year programme. **An Academic Bank of Credit** will be established by the Government for digitally storing academic credits earned from different Higher Educational Institutions so that these can be transferred and counted towards the final degree earned.

World Malaria Report, 2020

In News

The World Malaria Report, 2020 was released by the World Health Organisation. World Malaria Day is celebrated on **April 25**.

Malaria

- Malaria is a life-threatening disease.
- It's typically transmitted through the bite of an infected **Anopheles mosquito**. Infected mosquitoes carry the Plasmodium parasite.
- When this mosquito bites you, the parasite is released into your bloodstream.
- Once the parasites are inside your body, they travel to the liver, where they mature. After several days, the mature parasites enter the bloodstream and begin to infect **red blood cells**.

Note: An infected mother can also pass the disease to her baby at birth. This is known as **congenital malaria**.

About Report

- The **World malaria report, published annually**, provides a comprehensive update on global and regional malaria data and trends.
- The report tracks investments in malaria programmes and research as well as progress across all intervention areas: prevention, diagnosis, treatment and surveillance.
- It also includes dedicated chapters on malaria elimination and on key threats in the fight against malaria.
- The report is based on information received from national malaria control programmes and other partners in endemic countries.

Key Findings of report

- India recorded the largest reduction in malaria cases in South East Asia.
- The case count has reduced from 20 million in 2000 to around 5.6 million in 2019.
- The report also stated that the global malaria case count has remained unchanged for the past four years. In 2019, the number was around 229 million.

- According to the world Malaria report, 2020 prepared by the World Health Organisation, India was one among the 11 highest Malaria burden countries in the world.
- India is the largest contributor of Malaria cases in the south-east Asia region. Around 88% of Malaria cases in the region are from India.
- India has reduced the Malaria cases by 21% between 2018 and 2019.
- India has also reduced the malarial deaths in the past two years. In 2019, the number of deaths due to malaria in India was 409,000. It was 411,000 in 2018. This has made India one of the largest contributors to drop in malaria cases in the south-east Asia region.
- The highest Malaria burden countries were Cameroon, Democratic Republic of Congo, Burkina Faso, Mozambique, Mali, Ghana, India, Nigeria and United Republic of Tanzania. These countries accounted to 70% of global estimated Malaria burden.
- African region accounted to more than 90% of overall malarial disease burden. However, since 2000 the number of Malaria deaths in the continent has reduced by 44%.
- The progress against malaria has not increased according to the WHO report.
- This is mainly due to the gaps in access to life saving tools and covid-19 pandemic. This is also due to shortfall in funding at both National and international levels.
- The malarial funding in 2019 reached 3 billion USD as against the target of 5.6 billion USD.



Details

- IIT Kanpur have demonstrated how with the use of a micro-structured hour-glass shaped metastructure in the lattice unit, one can get a wider variation of propagation and stop bands.
- The hour-glasses are developed in the Smart Materials Laboratory of IIT Kanpur using additive manufacturing.
- Lattice based meta-structures have shown tremendous application in electro-magnetic and sonic wave absorption which could in principle create 'invisibility' of an object either in optical or in acoustic domain.
- Existing lattice and crystal based phononic materials have however, practical limitations in terms of customizability and hence, they can be generally used in a narrow band of frequency.
- Inspiration of the lattice they developed has come from a two-headed drum called 'Dambaru' or 'Damaru' which is used in ancient Hinduism and Tibetan Buddhism.

Key Findings

- IIT Kanpur researchers have shown the nature of stiffness of a vibrating medium could be altered drastically by controlling the lattice micro-structure from regular honeycomb to auxetic honeycomb structure.
- This has wide applications in the field of vibration isolation in high speed trains, stealth submarines and helicopter rotors.
- Researchers also showed that for dynamic systems, we can control the propagation and band-gaps very effectively which can usher in the development of new ultrasonic devices with capacity of sub-wave length imaging empowering the medical

'Damaru' Inspired Lattice

In News

IIT Kanpur Researchers have developed 'Damaru' Inspired Lattice that finds applications in stealth submarines and high-speed trains.

practitioners and the health management industry.

- This work is sponsored by a SPARC project of MHRD.
- The work is published in the scientific report on 1st December, 2020 with the title “Exploring the dynamics of hourglass shaped lattice Metastructures”.

Lattice (order)

- A lattice is an abstract structure studied in the mathematical subdisciplines of order theory and abstract algebra.
- It consists of a partially ordered set in which every two elements have a unique supremum (also called a least upper bound or join) and a unique infimum (also called a greatest lower bound or meet).
- An example is given by the natural numbers, partially ordered by divisibility, for which the unique supremum is the least common multiple and the unique infimum is the greatest common divisor.

Scheme for Promotion of Academic and Research Collaboration (SPARC)

- The Scheme for Promotion of Academic and Research Collaboration (SPARC) aims at improving the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world from 28 selected nations to jointly solve problems of national and/or international relevance.
- Under this Scheme, 600 joint research proposals will be awarded for 2 years to facilitate research collaboration between Indian research groups with the best in class faculty and renowned research groups in the leading universities of the world, in areas that are at the cutting edge of science or with direct social relevance to the mankind, specifically India.
- A set of 5 Thrust Areas which are Fundamental Research, Emergent Areas of Impact, Convergence, Action-Oriented Research, and Innovation-Driven and sub-theme areas in each thrust area has been identified.

The 1.5 times formula

In News

The 1.5 times formula is used to determine the minimum support price (MSP) for crops. This was introduced during the Union Budget 2018-19.

Formula

- According to this formula, the MSP is fixed at 1.5 times the production cost for crops as a ‘pre-determined principle’.
- Under this formula, the Commission for Agricultural Costs & Prices (the commission that determines the MSP) only has to determine the production cost for a season and apply the formula.

Issue

- The talks between the Government of India and the farmer unions failed to reach resolution on December 1, 2020.
- The farmers refused to budge their demand of repeal of Electricity Amendment Bill 2020 and the three recent farm laws.
- The main disagreement in the talks is around the minimum support price.
- The farmers fear that the new laws will do away with the minimum support price being offered by the central government.

How is the minimum support prices of crops fixed?

- Every year the Commission for Agricultural Costs and Prices operating under the Ministry of Agriculture will recommend minimum support prices for 23 crops. This includes 14 crops that are grown during the post monsoon or kharif season and six crops grown in winter or Rabi season.
- While fixing the prices the Commission for Agricultural Costs and Prices considers several factors such as market price Trends, supply and demand of the commodity, inflation, terms of trade between non-agricultural sectors and agricultural sectors, environment (soil and water) and cost of cultivation.

- During the 2018-19 Union budget, it was announced that the minimum support prices will henceforth be fixed at one and a half times of the production costs for the crops.
- In simple words now the only job of the Commission for Agricultural Costs and Prices is to estimate production cost of the crops for the season and apply the 1.5 times formula and recommend the minimum support price.

How is the production cost arrived?

- The Commission for Agricultural Costs and Prices does not do any field-based cost estimates.
- It simply makes projections using crop specific and state specific production cost estimates. This data is provided by the Directorate of economics and Statistics operating under Ministry of Agriculture. However, this data has a 3-year lag and is not updated frequently.
- The Commission for Agricultural Costs and Prices also projects three other kinds of production cost for every crop. They are A2, C2 and A2+FL.
- A2 covers all the costs incurred by the farmer. This includes fertilizers, seeds, pesticides, least inland, higher labour, irrigation.
- The A2+FL includes all the cost incurred under A2 and the value of unpaid family labour.
- C2 is a comprehensive cost that includes rental, interest foregone on own land and fixed capital assets along with the A2+FL cost.

Minimum Support Price (MSP)

- Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.
- The minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- MSP is price fixed by Government of India to protect the producer - farmers - against

excessive fall in price during bumper production years.

- The minimum support prices are a guarantee price for their produce from the Government.
- The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price.

HSN code

In News

The government has made it mandatory to **mention 8-digit HSN (Harmonised System of Nomenclature) or tariff code for 49 chemical-based products** while issuing Goods and Services Tax. Currently, businesses mention up to 4-digit tariff code while issuing invoices.

Details

- In trade parlance, every product is categorised under an HSN Code. It helps in systematic classification of goods across the globe.
- This is the first notification of its kind whereby a specific category of suppliers are pushed to use 8 digit HSN Code on every invoice irrespective of the aggregate turnover.

HSN code

- The Harmonized System is an international nomenclature for the classification of products. It allows participating **countries to classify traded goods on a common basis for customs purposes.**
- At the international level, the Harmonized System (HS) for classifying goods is a **six-digit code system. The first two digits in the code denote the HS chapter, the next two digits are the HS heading and the last two digits are the HS subheading.**

- The HS is “Harmonised System” was developed by the World Customs Organization. It is a multipurpose International product nomenclature. The code is called the universal economic language for goods. The code comprises of more than 5000 commodity groups.

In India

- **In India the code uses 8 digits.** The HSN code consists of 21 sections, 99 chapters, 1,244 headings and 5,224 subheadings.
- For instance, **HSN of onion is 07031010.** The ‘07’ denotes the chapter of “Edible Vegetables”, ‘03’ denotes headings in the chapter such as onions, garlic, shallots, leeks. The rest denote the subheading. Here the subheading is fresh or chilled.

Why is the HSN code important?

- The HSN code is mainly used for taxation purpose. It helps to identify the rate of tax applicable to a product in the country.
- The codes are used by statistical Agencies, customs authorities and other government regulatory bodies to control the import and export of commodities.
- The code mainly finds its application in custom tariff, collection of internet access, collection of International Trade statistics, transport tariffs and Statistics, areas of custom control and procedures, monitoring of controlled goods such as narcotics, Chemical Weapons, endangered species, Ozone layer depleting substances and wildlife trade.
- Around 200 countries use the system for gathering international trade statistics, custom tariffs and to monitor goods and make trade policies.
- Therefore, the system helps to harmonized trade procedures and ultimately reduces costs in international trade.

Fisheries management

In News

India has submitted a new proposal at the World Trade Organisation’s (WTO) on-going **negotiations on prohibiting harmful fisheries subsidies.**

Attempts are being made at the negotiating committee to avoid an apparent deadlock over **special & differential treatment (S&DT)** for developing countries and push forward the talks towards conclusion. Members are seeking to reach an agreement on prohibiting ‘harmful’ fisheries subsidies estimated at \$14- 20.5 billion annually that lead to over-fishing and depletion of fish stocks worldwide.

India's New Proposal

- Under its proposal to the WTO, India has suggested that the role of the dispute settlement panel in fisheries management of coastal areas should be limited.
- India has also suggested that a member should be allowed to retain its sovereignty in the matter.
- According to India the WTO needs to prevail by the determinants of Regional Fisheries Management Organizations.

India's earlier Proposal and Issues

- India's earlier proposal of exempting countries from subsidy reduction commitments based on national incomes, has been retained by the chair of the negotiating committee for further refinement.
- At the negotiating group meet, many countries pointed out that India’s S&DT proposal on exempting developing countries with gross national incomes below \$5,000 per annum (for three consecutive years) and fishing volumes below a certain level from fishery subsidy cuts, lacked consensus.

Importance of proposals for India

- India is playing a key role in the WTO fisheries negotiations which is important as an agreement to limit subsidies will have a deep impact on the livelihoods of Indian fishers, many of them small and artisanal.
- The two proposals made by the country are key to ensuring protection of vulnerable fishers and guard the nation's sovereignty.
- The threshold level proposed by India is important for the country as it would lead to the exclusion of China, the country with the highest fisheries subsidy, from the waiver.

Way ahead

The WTO has been looking at a year-end deadline for concluding the fisheries talks but it is now likely to spill over to 2021.

Important Information

- The World Trade Organisation launched the negotiations on “fisheries subsidies” in the year **2001 during the Ministerial Conference at Doha**. The negotiation was launched with an objective to improve and clarify the extant WTO guidelines on subsidies given in fisheries.
- The scope of Fisheries Negotiation was further widened during the **Hong Kong Ministerial Conference in 2005**, wherein some forms of fishing subsidies that leads to over fishing were prohibited.
- At the Ministerial Conference held at **Buenos Aires in 2017**, a Sustainable Development Goal with respect to Fisheries was adopted.
- The Sustainable Development Goal 14.6 states that by 2020, certain forms of fisheries subsidies which contribute to overcapacity and overfishing should be eliminated.

World Trade Organization

- The WTO is an intergovernmental organization that is concerned with the regulation of international trade between nations.
- The WTO officially commenced on 1 January 1995 under the Marrakesh Agreement, signed by 123 nations on 15 April 1994, replacing the General

Agreement on Tariffs and Trade (GATT), which commenced in 1948.

- It is the largest international economic organization in the world.
- The WTO deals with regulation of trade in goods, services and intellectual property between participating countries by providing a framework for negotiating trade agreements and a dispute resolution process aimed at enforcing participants' adherence to WTO agreements, which are signed by representatives of member governments and ratified by their parliaments.

3RF Framework In News

3RF stands for Reform, Recovery and Reconstruction Framework. The framework was prepared by United Nations, World Bank and European Union.

- It was launched by the United Nations to revitalise Beirut. On August 4, 2020, a deadly blast at Beirut, the capital of Lebanon killed more than 200 people. It left a million homeless.

Background

- Lebanon is currently under high financial bankruptcy.
- The current poverty rate of Lebanon is 55%. It was 28% twelve months ago.
- In spite of the scenario, the necessary reforms remain blocked due to political instability.

3RF

The 3RF aims to achieve three central goals:

1. A people-centered recovery that addresses people's basic needs, restores their livelihoods, improves social justice for all and ensures participatory decision-making.
2. The reconstruction of critical assets, services, and infrastructure that provides equal access to quality basic services for all and enables sustainable economic recovery.
3. The implementation of reforms as an essential requirement to restore trust, support reconstruction and improve governance.

The 3RF pursues two parallel tracks

1. A socio-economic recovery track ("track 1"), that addresses the urgent needs of the most vulnerable populations and small businesses affected by the explosion.
2. A reform and reconstruction track ("track 2"), focusing on critical reforms to address governance and recovery challenges in Lebanon, which are prerequisites for mobilizing international support for reconstruction beyond the recovery track.

Funds and their management

- The revitalisation plan is to be supported by the Multi-Donor Trust Fund established by World Bank, European Union and United Nations.
- The funds are to be utilised for prioritised areas. The 3F Plan has prioritised health, good governance, education, housing, social protection, culture and heritage. The plan will pay immediate attention to the needs of small and medium sized enterprises.
- The port facilities of the city are to be reconstructed with the key words "manage better, rebuild better and decide in a transparent manner".

Liquidity Adjustment Facility

In News

The Reserve Bank of India (RBI) has decided to facilitate a more efficient liquidity management in **Regional Rural Banks (RRBs)**.

- RBI has decided to extend the LAF and **MSF (Marginal Standing Facility)** to RRBs.
- It has also decided to permit the RRBs to participate in the Call/Notice money market, both as borrowers and lenders.
- RRBs are currently not permitted to access the liquidity windows of the Reserve Bank as well as the call/notice money market.
- The **Monetary Policy Committee (MPC)** of the Reserve Bank kept the repo rate unchanged at 4 percent and maintained an 'accommodative' stance.

Liquidity adjustment facility (LAF)

- The facility was introduced in RBI in 1998 based on the recommendations of Narasimham Committee on Banking Sector Reforms.
- LAF is a monetary policy tool used in India by the Reserve Bank of India or RBI.
- LAF's help the RBI manage liquidity and provide economic stability by offering banks the opportunity to borrow money through repurchase agreements or repos or to make loans to the RBI via reverse repo agreements.
- LAF's can manage inflation in the economy by increasing and reducing the money supply.

Other tools used by RBI to control liquidity

RBI uses four tools to control the flow of liquidity in the country. They are:

- Cash Reserve Ratio (CRR)
- Liquidity Adjustment Facilities (includes repo rate and reverse repo rate)
- Statutory Liquidity Ratio
- Open Market Operations

Narasimham Committee

The Narasimham Committee basically recommended changes in the working of banking and financial systems. The committee made the following recommendations

- To reduce the higher proportion of Cash Reserve Ratio and Statutory Liquidity Ratio.
- The committee recommended to reduce the number of public sector banks and develop three to four big banks in the country to international bank.
- It recommended the establishment of Asset Reconstruction Fund. This is to help banks get rid of their bad debts.
- To set up new agency to set up supervise financial institutions such as mutual funds, merchant banks, leasing companies, factor companies, etc.

Regional Rural Bank

- RRBs are Indian Scheduled Commercial Banks (Government Banks) operating at regional level in different States of India.
- They have been created with a view of serving primarily the rural areas of India with basic banking and financial services.
- RRBs may have branches set up for urban operations and their area of operation may include urban areas too.

RRBs perform various functions in following heads:

- Providing banking facilities to rural and semi-urban areas.
- Carrying out government operations like disbursement of wages of MGNREGA workers, distribution of pensions etc.
- Providing Para-Banking facilities like locker facilities, debit and credit cards, mobile banking, internet banking, UPI etc.
- Small financial banks.

Marginal Standing Facility (MSF)

- Marginal Standing Facility is an overnight liquidity support provided by RBI to commercial banks with a higher interest rate over the repo rate.
- MSF can be used by a bank after it exhausts its eligible security holdings for borrowing under other options like the LAF repo.
- Usually, when banks need short term loans from the RBI, they pledge their security holdings that are above the SLR holdings with the RBI to get one day loans under repo.
- Under MSF, a bank can borrow one-day loans from the RBI, even if it doesn't have any eligible securities excess of its SLR requirement (maintains only the SLR).
- The MSF was introduced by the RBI in its monetary policy for 2011-12.

GST Compensation

In News

Jharkhand has become the latest state to go for Option-1 to meet the revenue shortfall arising out of the GST implementation.

Option-1

- Under the terms of Option-1, besides getting the facility of a special window for borrowings to meet the revenue shortfall, states are also entitled to get unconditional permission to borrow the final installment of 0.50 per cent of Gross State Domestic Product (GSDP) out of the 2 per cent additional borrowings permitted by the Centre.
- This is over and above the special window of Rs 1.1 lakh crore.

Details

- All 28 states and 3 union territories have accepted the Centre's borrowing plan to meet the shortfall in tax collection.
- The states & UTs who choose Option-1 are getting the amount of shortfall arising out of GST implementation through a special borrowing window put in place by the Centre.
- Under the borrowing plan (Option-1), the Centre would borrow from market Rs 1.10 lakh crore which is the revenue shortfall on account of GST implementation.
- The second option given by the Centre was that the states borrow the entire Rs 1.83 lakh crore collection shortfall.

Background

On GST compensation, Centre gives states 2 options. On 1st of September, the Centre detailed the borrowing options proposed to states for meeting current year's compensation shortfall of Rs 2.35 lakh crore under the indirect tax regime.

- Option 1 has a special window for states, coordinated by the Finance Ministry, to borrow the projected shortfall only on account of GST implementation — and not the Covid-19 pandemic — and this amount can be fully repaid from the compensation cess fund, without being counted as states' debt.

- Option 2 takes into account the impact of the pandemic, proposing states to borrow the entire Rs 2.35 lakh crore and bearing the interest burden though principal will be repaid from the cess proceeds. The GST shortfall amount will not be counted as states' debt, while the rest of the amount will be counted in the books of the states.

Goods and Services Tax

- Goods and Services Tax is an indirect tax used in India on the supply of goods and services.
- It is a comprehensive, multistage, destination-based tax: comprehensive because it has subsumed almost all the indirect taxes except a few state taxes.

Gross State Domestic Product (GSDP)

- GSDP is the sum total of value added by different economic sectors (Agriculture, Industry & Services) produced within the boundaries of the state calculated without duplication during a year. It is one of the measures of economic growth for a state's economy.
- From Gross State Domestic Product (GSDP), the Consumption of Fixed Capitals (CFC) is deducted to arrive at NSDP i.e. $NSDP = GSDP - CFC$
- Consumption of Fixed Capital (CFC) is the value of fixed capital which is consumed during the process of production. It is calculated on the basis of life span of the fixed asset.

HAL-IISc Skill Development Centre

In News

Hindustan Aeronautics Limited (HAL) formally launched the **first training programme** being organised under the **HAL- Indian Institute of Science (IISc) Skill Development Centre (SDC) at Challakere**, Chitradurga – a workshop on **IoT and Embedded Applications**.

- The Centre's activities will start with **five courses** planned to be offered in the first cohort in the virtual mode during December 2020 to February 2021.

Internet of things (IoT)

- The Internet of things (IoT) describes the network of physical objects-“things”-that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the Internet.
- The definition of the Internet of things has evolved due to the convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems.
- Traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and others all contribute to enabling the Internet of things.

Embedded application

- An embedded application is software that is placed permanently inside some kind of device to perform a very specific set of functions.
- Some small embedded applications like those in a microwave oven do not need an operating system (OS) to control them.

About course

- The programmes offered are in the niche **engineering areas of aerospace, mechanical, electrical and electronic sectors**, and in line with the “Make in India” mission.
- The experienced engineers, supervisors and faculty members of various technical institutes will be trained in the Centre.
- Faculty members will be selected from Indian Institute of Science and other leading organisations including HAL.

Advantages

- The HAL-IISc skill development programme is ambitious and meets the needs of the country by training the trainers, therefore having a multiplier effect.
- The training will cover both skill upgradation as well as developing new skills.
- The uniqueness lies in their emphasis on learning by doing. Trainees will spend more

than 50% of the course duration in labs, conducting experiments.

About centre

- Defence Minister had formally inaugurated the Skill Development Centre in Challakere on August 13th 2020.
- It was set up as a partnership between HAL and IISc to impart high-end skills related to the aerospace domain and manufacturing-related sectors, in line with the goals of the Atmanirbhar initiative.
- The Centre is located in IISc's new 1500 acre campus in Challakere, projected as a Science and Technology city. The Skill Development Centre spread over 75000 sq.feet.
- It is well equipped with modern labs, class rooms, auditorium and residential accommodation for 250 trainees and faculty members.
- IISc's neighbours here include the Defence Research and Development Organisation (DRDO), the Bhabha Atomic Research Centre (BARC) and the India Space Research Organisation (ISRO).
- IISc had envisioned establishing a centre to create a large pool of trained personnel in order to address vital skill development gaps in the nation. In 2016, IISc approached HAL to partner in this unique project.

Hindustan Aeronautics Limited

HAL is an Indian state-owned aerospace and defence company headquartered in Bangalore, India. It is governed under the management of the Indian Ministry of Defence.

Draft Guidelines for Floating Jetties

In News

Ministry of Ports, Shipping and Waterways issued draft guidelines for technical specifications of floating structures, with a vision to set up and deploy **world-class floating infrastructure** all along the coastline and issued the same for public consultation.

- The draft guidelines along with proposed **Specifications / Schedule of Technical Requirements** (SOTR) are issued for

seeking the feedback and suggestions from the public.

- The Ministry has entrusted **IIT Chennai** to work out the technical specifications of sustainable floating structures like floating jetties, water-aerodromes, floating marinas, fish landing facilities etc so that precise and stringent technical specifications are established.



Benefits of floating jetties

There are many benefits of floating jetties over the conventional quay and fixed concrete structures such as:

- Cost effectiveness
- Much cheaper than conventional structures
- Setting up of floating structures is much faster as compared to conventional jetties
- Floating structures can be built in six to eight months as compared to 24 months for conventional structures
- Environmental impact is minimal
- Expansions are easily feasible due to modular construction techniques
- Easily transportable in case of reconfiguring of the port
- Provides constant freeboard between jetties and boats

Advantages

- The deployment of floating jetties, especially in locations having a large tidal range, where conventional quay poses problems during low tide periods, is convenient.
- Floating jetties, at such locations, provide constant freeboard, ease embarkation of ship's stores and straightforward unloading of the fishermen's catch.
- It consequently leads to increased productivity as well as safety of the fishermen in the long run.

Other Information

The shipping ministry has successfully implemented a few pilot projects in the recent past by following the international guiding principles. These include:

- Setting up of passenger floating jetties in Goa
- Water-aerodromes at Sabarmati River and at Sardar Sarovar Dam (for the seaplane services)

Elephant Corridors

In News

The National Green Tribunal (NGT) has given three-month time to the state government to submit an action plan on report of **Asia Nature Conservation Foundation (ANCF)** on elephant corridors in Odisha.

Key Findings of the report

- The ANCF report had graded the 14 elephant corridors in the state according to their functional existence and ecological feasibility along with proposals and suggestions on the method by which the corridors could be strengthened.
- The ANCF report said there is an urgent need to protect and augment the traditional movement paths to neutralise the increasing trend of elephant-human conflicts, whenever feasible.

Background

- NGT in 2017 had issued a prohibition order directing that all such activities which are not permissible to be carried out in a highly Eco Sensitive Zone (ESZ), should not be undertaken.
- The NGT also directed authorities to expedite demarcation of the corridors within a specific time frame.

Odisha government's Stand

The Odisha government had proposed 14 corridors stretching over a total area of 870.61 sq.km. having a length of 420.8 km. Even after several years, no tangible progress had been made on the government's proposal.

Elephant Corridors

- They are narrow strips of land that connect two large habitats of elephants.
- They are crucial to reduce animal fatalities due to accidents and other reasons.
- Fragmentation of forests makes it all the more important to preserve migratory corridors.
- This movement of Elephants helps in enhancing the species survival and birth rate.
- 88 elephant corridors have been identified by the wildlife trust of India under the National elephant Corridor project.

Concern

The all-round development like human settlements, roads, railway line, electric lines, canal and mining are the main cause of corridor fragmentation.

Reasons for Protecting the Corridors

- The movement of elephants is essential to ensure that their populations are genetically viable. It also helps to regenerate forests on which other species, including tigers, depend.
- Nearly 40% of elephant reserves are vulnerable, as they are not within protected parks and sanctuaries. Also, migration corridors have no specific legal protection.
- Forests that have turned into farms and unchecked tourism are blocking animal paths. Animals are thus forced to seek alternative routes resulting in increased elephant-human conflict.
- Weak regulation of ecotourism is severely impacting important habitats. It particularly affects animals that have large home ranges, like elephants.

Asia Nature Conservation Foundation (ANCF)

- The National Green Tribunal Act, 2010 is an Act of the Parliament of India which enables creation of a special tribunal to handle the expeditious disposal of the cases pertaining to environmental issues.
- It draws inspiration from the India's constitutional provision of (Constitution of India/Part III) Article 21 Protection of life and personal liberty, which assures the citizens of India the right to a healthy environment.
- Delhi Pollution Control Committee (DPCC) is a department to control pollution in Delhi.

Public Wi-Fi Access Network Interface (PM-WANI)

In News

The Cabinet approved the proposal of the Department of Telecommunications for setting up of public Wi-Fi networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi service through Public Data Offices (PDOs) across the country.

- This public Wi-Fi access network interface will be known as PM-WANI and there will be no licence fee for providing broadband Internet through these public Wi-Fi networks.

Details:

- Public data centres will be opened across the country. There will be no licence, fee or registration for it.
- The proliferation of public Wi-Fi will not only create employment but also enhance disposable incomes in the hands of small and medium entrepreneurs and boost the GDP (gross domestic product) of the country.
- Public Data Office (PDO) will establish, maintain, and operate only WANI compliant Wi-Fi access points and deliver broadband services to subscribers, Public Data Office Aggregator (PDOA) will be an aggregator of PDOs and perform the

functions relating to authorisation and accounting.

- PM-WANI will be operated by different players in different regions.
- The private app providers are likely to develop apps to register users and discover WANI compliant Wi-Fi hotspots in the nearby area and display the same within the app for accessing the internet service and the Central Registry will maintain the details of app providers, PDOAs, and PDOs.
- Initially the Central Registry will be maintained by C-DoT.

The proposal will promote:

- The growth of public Wi-Fi networks in the country
- Help in proliferation of broadband Internet
- Enhancement of income and employment
- Empowerment of people

Another announcement

The Union Cabinet has also approved the provision of submarine optical fibre cable connectivity between the mainland (Kochi) and Lakshadweep Islands.

Optical Fibre Cable

- A fiber-optic cable is a high-speed network cable, made up of strands of glass fibers.
- Fiber-optics use pulses of light, generated by small lasers or light-emitting diodes to carry their communication signals, or data, from one point to another at an extremely high transfer rate.
- Fiber connectivity is the process of using technology to connect devices and ultimately to the internet.

Harvest Water from Air In News

The research team from IIT-Guwahati has used the concept of chemically patterned SLIPS for the first time, to effectively harvest water from moist air.

Details

- Such water-harvesting techniques use the concept of hydrophobicity or water-repelling nature of some materials.
- The concept of hydrophobicity can be understood by looking at the lotus leaf.

Method

- The Researchers have used the action of the insect-eating pitcher plant whose slippery surface makes insects landing on it to fall into itself to be digested.
- They used 'Slippery liquid-infused porous surface' (SLIPS) to effectively harvest water from foggy air.
- The SLIPS are capable of harvesting water from air without the use of an external cooling arrangement.
- Conventionally, the Atmospheric water generator (AWG) that extracts water from humid ambient air, uses condensation, exposing to desiccants or pressurizing water.

Concept of chemically patterned SLIPS

- A patterned hydrophilic SLIP was produced by spraying a sponge-like porous polymeric material on top of a simple A4 printer paper.
- Further, chemically modulated hydrophilic spots were associated on the coating, prior to lubricating with two distinct types of oils.
- This surface could harvest water from foggy/water vapour laden air without the need for any cooling arrangement.

Need of the hour

With increasing water scarcity throughout the world, there have been attempts to collect and conserve water through non-traditional means and the IIT-Guwahati scientists have turned to nature to design ways of water harvesting.

Water Scarcity in India

- India is currently facing one of the biggest water crisis in the world.
- More than 50% of Indian population has no safe access to drinking water.
- More than 200,000 people die of lack of access to safe water.
- More than 82% of households are without piped water supply.
- The Composite Water Management Index, 2018 noted that India will lose 6% of its economic GDP by 2050.

Data Sonification

In News

The National Aeronautics and Space Administration (NASA) shared a sonification video of crab Nebula.

- The video shows Nebula being transformed into music based on its different colours.
- The blue shades were translated into bass and white shades into to wood winds.
- Nebula is an interstellar cloud of hydrogen, dust, Helium and ionized gases.

According to NASA, the Crab Nebula is a result of a supernova and was discovered back in 1054 A.D. It is situated in the constellation of Taurus, over 6,500 light-years away from Earth

Data Sonification

Data sonification is the use of sound to represent data. It is the auditory version of data visualisations. The project helps the users to hear several astronomical phenomena such as birth of a star, black hole, birth of a cloud or dust.

Astronomical images translated into sounds

- The space telescopes of NASA collect huge digital data before converting them into images.
- This digital data is a representation of light and radiation of different wavelength in space.
- They cannot be seen by human eye.
- The Chandra project of NASA translated these digital data into sound.
- The recent release of creation of Nebula was under Chandra project and the Sonification Project of NASA. The Chandra project has so far released sounds of Galactic centre, Pillars of Creation and Cassiopeia.

Galactic centre

- The Galactic centre is the rotational centre of Milky Way galaxy.
- It consists of neutron stars, dwarf stars, clouds of dust and gas and a super massive black hole called Sagittarius A.
- The Galactic Centre weighs 4 million times as that of the sun.

Cassiopeia

- It is a constellation that is located around 11,000 light years away from the Earth. It is the remnant of a once massive star.
- The massive star was destroyed by a supernova explosion around 325 years ago.
- The image of the constellation shows a ball of different coloured filaments. Each colour in the constellation represents a particular element such as Red for silicone, purple denotes iron, yellow for Sulphur, green for calcium.
- The digital data of the wavelength received from these filaments are converted into sound by the Sonification Project.

Plasmodium ovale **Malaria**

In News

A rare type of malaria, *Plasmodium ovale*, was identified in a soldier in Kannur district of the Kerala, nearly a year after he arrived from Sudan where he was posted as part of the Indian peacekeeping operations.

- *Plasmodium ovale* malaria is endemic to tropical Western Africa.
- In contrast, the common types of malaria reported in India are the ones with more severe consequences such as *Plasmodium falciparum* and *Plasmodium vivax*.

Malaria

- Malaria is caused by the bite of the female *Anopheles* mosquito, if the mosquito itself is infected with a malarial parasite.
- There are five kinds of malarial parasites — *Plasmodium falciparum*, *Plasmodium vivax* (the commonest ones), *Plasmodium malariae*, *Plasmodium ovale* and *Plasmodium knowlesi*.

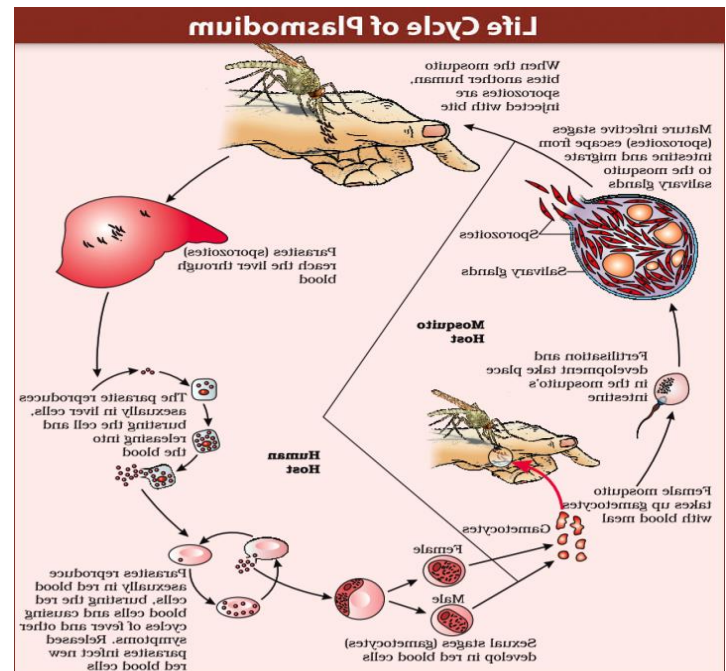
Malaria in India

- In India, out of 1.57 lakh malaria cases in the high-burden states of Odisha, Chhattisgarh, Jharkhand, Meghalaya and Madhya Pradesh in 2019, 1.1 lakh cases (70%) were cases of *falciparum* malaria.

- In 2018, the National Vector-borne Disease Control Programme (NVBDCP) estimated that approximately 5 lakh people suffered from malaria (63% were of *Plasmodium falciparum*).
- The recent World Malaria Report 2020 said cases in India dropped from about 20 million in 2000 to about 5.6 million in 2019.

Plasmodium ovale

- *P ovale* rarely causes severe illness and there is no need for panic.
- *Ovale* is very similar to *P vivax*, which is not a killer form.
- Symptoms include fever for 48 hours, headache and nausea, and the treatment modality is the same as it is for a person infected with *P vivax*.
- *P ovale* is no more dangerous than getting a viral infection.
- It is termed *ovale* as about 20% of the parasitised cells are oval in shape.



Malaria in Africa and elsewhere

- *P ovale* malaria is endemic to tropical Western Africa.
- *P ovale* is relatively unusual outside of Africa. It has also been detected in the Philippines, Indonesia and Papua New Guinea, but is still relatively rare in these areas.

- In a 2016 study on the China-Myanmar border, it was found that P ovale and P malariae occurred at very low prevalence, but were often misidentified.

Climate Ambition Summit 2020

In News

The United Nations, United Kingdom and France co-hosted the Climate Ambition Summit 2020, held virtually, on December 12. The Climate Ambition Summit marked the five years of the adoption of the Paris Agreement on Climate Change.

Details

- The commitments made in Paris in 2015 were “far from enough” to limit temperature rises to 1.5 degrees Celsius, the UN secretary-general said in his opening address to the summit.
- India is not only on track to achieve its Paris Agreement targets, but to exceed them beyond expectations.
- India has reduced emission intensity by 21% over 2005 levels.
- India's solar capacity has grown from 2.63 GigaWatts in 2014 to 36 GigaWatts in 2020. Renewable energy capacity is the fourth largest in the world.
- It will reach 175 GigaWatts before 2022. India has set an even more ambitious target now - 450 GigaWatts of renewable energy capacity by 2030.
- India also succeeded in expanding forest cover and safeguarding our biodiversity.
- And, on the world stage, India has pioneered two major initiatives:
 - The International Solar Alliance
 - Coalition for Disaster Resilient Infrastructure.

Concern

The world is likely to be headed for a catastrophic temperature rise of more than 3.0 degrees this century, if suitable measures or steps are not taken.

Way forward

The summit sought to convene leaders ready to come forward with new, more ambitious Nationally Determined Contributions (NDCs), long-term strategies to net zero, post-2020 climate finance pledges and adaptation plans.

Paris Agreement

- The Paris Agreement is a legally binding international treaty on climate change.
- It was adopted by 196 Parties at COP 21 in Paris on December 12, 2015 and entered into force on November 4, 2016.

Lancet Citizens' Commission

In News

The long-standing need for universal health coverage (UHC) in India has been brought into sharp focus by the pandemic. A step towards this goal was taken, with the launch of the Lancet Citizens' Commission on Reimagining India's Health System. This is an initiative to develop a citizen's roadmap to achieving UHC.

Background

The commission was initiated in the shadow of the Covid-19 pandemic, which has laid bare the need for a resilient health system that offers comprehensive and affordable quality healthcare to all citizens.

Universal Health Coverage

- Universal healthcare is a health care system in which all residents of a particular country or region are assured access to health care.
- It is generally organized around providing either all residents or only those who cannot afford on their own, with either health services or the means to acquire them, with the end goal of improving health outcomes.

Objective of the commission

The Commission's primary mission will be to lay out the path to guarantee access to quality and affordable healthcare services to every Indian.

Composition of commission

- The Commission will be led by four health and business leaders.
- Thirteen experts from academia, the scientific community, civil society, and the private healthcare sector will also serve with them on the Commission.

Working of commission

- This Commission will base its recommendations on a consultative and participatory effort that brings together key stakeholders across India's healthcare landscape.
- A final report of its findings and recommendations will be published in the next two years.
- Over the coming year, the Commission will gather insights from across India through grassroots surveys, public consultations and online discussions.
- It will also build partnerships and work closely with academic institutions, civil society and other stakeholders to catalyse dialogue and knowledge sharing across fields.
- It will continue to engage with the government, which it sees as a critically important steward to realising universal health coverage.

Principles of the commission

The Commission will be guided by four principles which are:

1. UHC covers all health concerns.
2. Prevention and long-term care are key.
3. The concern is financial protection for all health costs.
4. Aspiring for a health system that can be accessed by all who enjoy the same quality.

Way Forward

For a sustainable UHC model, maintaining a balanced trade-off between cost, quality and access to healthcare services is critical. A collaborative approach aligning patients, payers and providers,

along with innovative partnerships, will hasten efforts to mitigate risks, drive impact, forge stronger social returns and achieve sustainable UHC targets.

Unified Development Control and Promotion Regulations

In News

The Unified Development Control and Promotion Regulations (UDCPR) was unveiled by the Maharashtra government to strengthen real estate development in the state.

Details

- The new set of rules will be applicable to the entire state except Mumbai civic body, NAINA, MIDC, Jawaharlal Nehru Port Trust and other such authorities for special planning zones with their own set of development control regulations (DCR).
- Thane, Navi Mumbai, Pune, Aurangabad, Nashik, Nagpur, Solapur and Kolhapur would come under the ambit of the new rules.
- The new rules are likely to bring uniformity in width of roads, size of rooms, etc. Height of buildings will vary, depending on the plot size and its floor space index (FSI) potential.
- The new regulation will also help developers manage their finances better.
- The new regulations will allow a maximum floor space index of 4 for roads width of 18 meter and above.
- It also stipulates a minimum 4,000 sq meter plot area for development and redevelopment of staff quarters for government departments, statutory bodies and planning authorities.
- As per the rules, residential zone R1 includes residential plots adjacent to roads below 9 meter width in congested areas shown on the development plan and on roads below 12 meter in width in outside congested areas.

Key Features of the Regulations

- The regulations prohibit the construction in the areas between the blue flood line and river bank within 100 metres of high flood line of natural lakes. The Blue flood line marks once in twenty-five years of flood line. On the hand, the red flood line marks once in hundred years of flood line. Flood line is the maximum level to be reached by the flood waters.
- The regulations state that 10% of any layout should be earmarked for recreational purposes.
- The regulations also state that 5% of layout up to 10,000 square metres and 10% of layout above 10,000 square metres shall be reserved for amenities.
- The construction of jogging, pathways and cycling tracks are allowed only at distance of 15 metres away from river banks.
- The minimum road width along buildings that are more than 24 metres tall should be 12 metres. It should be 15 metres if the buildings are 50 metres tall.
- High Floor Space Index (FSI) has been proposed for certain uses in congested and non-congested areas. FSI base of 1.10 for roads less than nine metres wide has been proposed and 1.20 for roads more than 30 metres wide has been proposed.
- The regulations also apply to other provisions such as slum rehabilitation, heritage conservation, transfer of development rights, etc. The rules will help the highly congested Mumbai city and other upcoming metros in the state.

Key Highlights

- Its purpose is to serve as a platform to deliberate on innovative technologies and solutions which shall help in creating robust mechanisms for developing sustainable and resilient solutions for the benefit of the entire community.
- Vice President launched the **SHASHWAT magazine** and the **book '30 Stories Beyond Buildings'** during the event, documenting the extensive collaboration between GRIHA Council and the Public Works Department, Government of Maharashtra.

GRIHA

- GRIHA is an acronym for Green Rating for Integrated Habitat Assessment.
- GRIHA is a **Sanskrit word meaning – 'Abode'**. Human Habitats (buildings) interact with the environment in various ways.
- Throughout their life cycles, from construction to operation and then demolition, they consume resources in the form of energy, water, materials, etc. and emit wastes either directly in the form of municipal wastes or indirectly as emissions from electricity generation.
- GRIHA attempts to minimize a building's resource consumption, waste generation, and overall ecological impact to within certain nationally acceptable limits / benchmarks.
- GRIHA attempts to quantify aspects such as energy consumption, waste generation, renewable energy adoption, etc. so as to manage, control and reduce the same to the best possible extent.

GRIHA Council

- Green Rating for Integrated Habitat Assessment (GRIHA) Council is an independent, not-for-profit society jointly setup by The Energy and Resources Institute (TERI) and the Ministry of New and Renewable Energy (MNRE), Government of India to promote and administer green buildings in India.
- GRIHA was adopted as the National Rating System for Green Buildings in India by MNRE in 2007.

Green Rating for Integrated Habitat Assessment (GRIHA) Summit

In News

Recently, the inaugural session of the 12th Green Rating for Integrated Habitat Assessment (GRIHA) Summit was organised virtually. The theme of the 12th GRIHA Virtual Summit is '**Rejuvenating Resilient Habitats**'.

- GRIHA evaluates the environmental performance of a building holistically over its entire life cycle, based on quantitative and qualitative criteria, thereby providing a definitive standard for green buildings and sustainable habitats.
- It seeks to minimise resource consumption, waste generation and overall ecological/environmental impact of buildings and habitat.

Other Initiatives by Government

- The Ministry of Housing and Urban Affairs had organised **Global Housing Technology Challenge India (GHTC-India)** in January 2019 which aimed to identify and mainstream best available and proven construction technologies that are sustainable, green and disaster-resilient to enable a paradigm shift in housing construction”.
- The **Affordable Sustainable Housing Accelerators – India (ASHA-India) initiative**, five Incubation Centers have been set up for identifying innovative materials, processes and technology for resource-efficient, resilient and sustainable construction.

CMS-01

In News

The Indian Space Research Organisation, has successfully launched the country's new communication satellite CMS-01 in the intended orbit in space.

- The workhorse rocket PSLV-C50 carrying the satellite lifted off from the Satish Dhawan Space Centre, Sriharikota.
- The satellite was injected into the geosynchronous transfer orbit.

Details

- More maneuvers are coming in the next few days to raise the satellite's orbit slightly and to move it into its correct position in geosynchronous orbit, so that it is above India.
- Once the satellite is ready, it will provide C-band communications for the Indian mainland and the Andaman-Nicobar and

Lakshadweep islands for at least seven years.

- CMS-01 will replace and enhance the services of GSAT-12, which was launched in 2011 with an expected mission life of eight years.

Communications satellite

- A communications satellite is an artificial satellite that relays and amplifies radio telecommunications signals via a transponder; it creates a communication channel between a source transmitter and a receiver at different locations on Earth.
- Communications satellites are used for television, telephone, radio, internet, and military applications.
- Many are in geostationary orbit 22,236 miles (35,785 km) above the equator, so that the satellite appears stationary at the same point in the sky, so the satellite dish antennas of ground stations can be aimed permanently at that spot and do not have to move to track it.
- The high frequency radio waves used for telecommunications links travel by line of sight and so are obstructed by the curve of the Earth.
- The purpose of communications satellites is to relay the signal around the curve of the Earth allowing communication between widely separated geographical points.
- Communications satellites use a wide range of radio and microwave frequencies.
- To avoid signal interference, international organizations have regulations for which frequency ranges or "bands" certain organizations are allowed to use. This allocation of bands minimizes the risk of signal interference.

Upcoming projects

- In early 2021, India expects to launch the Geo Imaging Satellite GISAT-1 (delayed from March) and PSLV-C51, which will send three private satellites into space – including one from a startup called Pixxel India. The satellite, named Anand, will form part of a group of Earth observation satellites.
- The first crewed mission of Gaganyaan expected to fly in early 2022.

Organisation of Pharmaceutical Producers of India (OPPI)

In News

Union Chemicals and Fertilizers Minister inaugurated the two-day Annual Summit of the Organisation of Pharmaceutical Producers of India, OPPI in New Delhi.

Details

- The Minister Conferred the lifetime achievement and Special Recognition awards during the summit.
- The contribution of Indian pharmaceutical sector has been reinforced during this pandemic year when the companies, global and Indian, stepped in and stepped up their efforts in service of the country.
- India is often referred to as the pharmacy of the world and it has been proven completely true during the ongoing COVID-19 pandemic when India continued to produce and export critical life-saving medicines to the rest of the world.

OPPI

- The Organisation of Pharmaceutical Producers of India (OPPI) was established in 1965 and represents the research-based pharmaceutical companies in India.
- OPPI remains committed to supporting the nation's healthcare objectives and collaborating with all stakeholders to find sustainable solutions.
- A holistic approach is needed to expand healthcare in India and OPPI believes the pharmaceutical industry can form part of the solution.
- OPPI's stringent Code of Pharmaceuticals Practices binds all our member companies. OPPI has constituted an Ethics & Business Integrity Work Group.

OPPI is an organisation of research and innovation driven pharmaceutical companies committed to addressing India's healthcare needs by:

- Facilitating greater access to quality healthcare solutions
- Encouraging research and innovation

- Disseminating knowledge and sharing best practices
- Contributing meaningfully in policy dialogues

Gas production in KG Basin

In News

Reliance Industries Ltd. and British Petroleum (BP) have announced the start of gas production from the R cluster of the KG Basin, the deepest off-shore gas field in Asia.

- RIL has a participating interest of 66.7% in the KG-D6 block and BP has a participating interest of 33.3% in the block.
- The field is the first of three deepwater gas projects in the KGD6 block.

Importance of KG-basin

- The R cluster, along with the Satellite Cluster and MJ gas fields in the Krishna Godavari Basin are expected to produce around 30 MMSCMD (Million standard cubic metres per day) of natural gas or about 15% of India's projected demand for natural gas by 2023.
- The R cluster field alone is expected to have a peak production of 12.9 MMSCMSD or about 10% of India's current natural gas output.

India's energy security efforts

- The three projects are a key part of the plan to boost domestic production of natural gas to increase the share of natural gas in India's energy basket from 6.2% now to 15% by 2030.
- Increased domestic production of natural gas is an important aspect in reducing India's dependence on imports and improve energy security.
- This will be beneficial to City Gas Distribution (CGD) companies and also help achieve the government's goal focus of boosting the share of natural gas in India's primary energy mix.



About three fields

- RIL and BP are jointly set to invest a total of Rs 40,000 crore on these three fields.
- Production of gas from the R cluster was expected to start in May 2020 but was delayed due to the impact of the Covid-19 pandemic.
- The satellite cluster is expected to start production in the next fiscal.
- The field (R cluster) is located about 60 kilometers from the existing KG D6 Control & Riser Platform (CRP) off the Kakinada coast and comprises a subsea production system tied back to CRP via a subsea pipeline.

Gas tariff boost

- Recent changes in the formula for gas transport tariffs are likely to benefit Reliance and BP's investments in these three fields.
- The regulations move away from the existing system which charges consumers based on the distance from the source of gas and the number of pipelines used to a unified gas tariff system through with one tariff for gas transported within 300 kms and another tariff for gas transported beyond 300 kms from the source of the natural gas.
- The move which is aimed at making natural gas more affordable to customers in the hinterland will likely benefit Reliance as most of the customers for the gas from the

fields in the KG-D6 basin would be well beyond 300 km away.

- Lower transport tariffs will boost Reliance's ability to charge for gas.

Coastal radar network

In News

As part of India's efforts to further expand the coastal radar chain network meant to enable real-time monitoring of the high seas for threats, efforts are in advanced stages to set up coastal radar stations in the Indian Ocean littoral states of Maldives, Myanmar and Bangladesh.

Coastal Radar Chain Network

- The aim is to create a network of information and maritime domain awareness in the strategic Indian Ocean Region.
- This will also help in expanding India's assistance for capacity building to Indian Ocean littoral states.
- The assistance to these countries comes under India's programme called SAGAR - Security and Growth for All in the Region.

Highlights

- Mauritius, Seychelles and Sri Lanka have already been integrated into the country's coastal radar chain network.
- Under Phase-I of the coastal radar chain network, 46 coastal radar stations have been set up across the country's coastline.
- Under Phase-II of the project, which is currently under way, 38 static radar stations and four mobile radar stations are being set up by the Coast Guard and is in advanced stage of completion.
- The Indian Navy's Information Management and Analysis Centre (IMAC) located in Gurugram which was set up after the 26/11 Mumbai terror attacks is the nodal agency for maritime data fusion.
- As part of information exchange regarding traffic on the high seas, the Navy has been authorised by the government to conclude white shipping agreements with 36 countries and three multilateral constructs.
- So far agreements have been concluded with 22 countries and one multilateral construct.

Information Fusion Centre for the Indian Ocean Region:

- The IFC has been established at Gurugram and is collocated with the Information Management and Analysis Centre which is jointly administered by the Indian Navy and Indian Coast Guard.
- The Indian Navy's Information Management and Analysis Centre (IMAC), set up after the 26/11 Mumbai terror attacks, is the nodal agency for maritime data fusion.
- It will soon become a National Maritime Domain Awareness (NDMA) centre.

Health care in India

In News

It is 70% private and 30% public in a country where 80% people do not have any protection for health and the out-of-pocket expense is as high as 62%.

- With public spending at 1.13% of GDP, there is a huge shortage of health-care workers particularly nurses and midwives.

Issues with the private sector and insurance combination

- Private sector health care is driven by return on capital.
- The insurance backup incentivises hospitals to expand the bill but the patients do not get attended to in their best interests.
- The government, on the other hand, have an incentive for driving down the price of procedures; as a result, hospitals selectively offer some services and procedures (while denying some).
- But the ceiling level of the insurance gets claimed regardless in the interest of the hospital.
- When the government adjudicates the claim without having the capacity to do so under a trust model, the system will unravel sooner rather than later.
- In such case, the doctor and patient are not constrained by the ability to pay and while the marginal private cost is zero, the social cost can be high.

Impact of insurance-private sector combination

- Pervasive demand inducement has an impact in terms of increases in health expenditure.
- This results in an upward bias in insurance premium which in turn creates a fiscal externality in the long term.
- In any case, insurance of secondary and tertiary care pushes out long-term investment by the state and people and leads to the continued neglect of primary health care.
- This is reflected in the fact that out of 12 crore card holders under Ayushman Bharat, only 1.27 crore people have taken advantage of the scheme.
- Finally, a social insurance scheme of such type with our demographic profile only prospers at the cost of neglecting public hospitals.

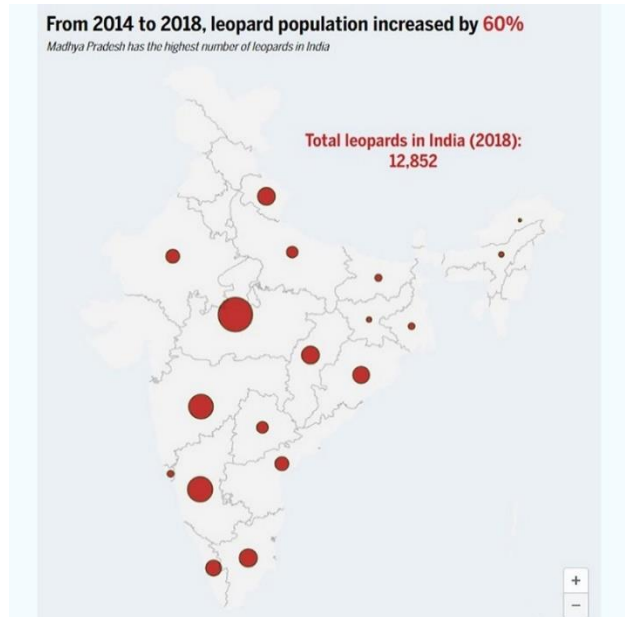
Way forward

- Increase the number of doctors with counterpart obligation to serve in rural areas.
- There is need to revive the Licentiate Medical Practitioner as we had before Independence in the rural areas. This requires starting it de novo with the attendant resistance.
- Empowering graduates of BSc (Nursing) to be nursing practitioners — as prevalent in many countries could be helpful.
- From the gender perspective too, this is preferable from the angle of maternal and child health.
- Primary health care should receive three times more allocation in the budget and doctor and paramedic strength should be doubled merely on the basis of population increase.
- States should be incentivised to carry out the appointments of health workers and doctors.
- India has a ratio of 0.6 nurses per doctor while the World Health Organization specification is three nurses per doctor.

The 'Status of Leopard in India 2018' report

In News

The 'Status of Leopard in India 2018' report was released by Union environment ministry.



Highlights

- The population of leopard in India has increased by 60 percent. India now has 12,852 leopards.
- States of Madhya Pradesh (3,421), Karnataka (1783) and Maharashtra (1690) who have recorded the highest leopard estimates.
- Leopards are among the most adaptable carnivores, and are known to exist very close to human habitations.
- A study earlier had found four distinct sub-populations of leopards in India with high genetic variations- leopards of the Western Ghats, the Deccan Plateau semi-arid region, the Shivalik mountains, and the Terai region in North India.
- Recent meta-analyses of leopard status and distribution suggest 48–67% range loss for the species in Africa and 83–87% in Asia.
- In India, leopards have experienced a possibly human-induced 75-90% population decline in the last ~120-200 years.
- In Indian subcontinent poaching, habitat loss, depletion of natural prey and conflict are major threats to leopard populations. All these have resulted in changing the species

status from 'Near Threatened' to 'Vulnerable' by the International Union for Conservation of Nature (IUCN).

Indian Leopard

- The Indian leopard (*Panthera pardus fusca*) is a leopard subspecies widely distributed on the Indian subcontinent.
- The species *Panthera pardus* is listed as Vulnerable on the IUCN Red List because populations have declined following habitat loss and fragmentation, poaching for the illegal trade of skins and body parts, and persecution due to conflict situations.
- The Indian leopard is one of the big cats occurring on the Indian subcontinent, apart from the Asiatic lion, Bengal tiger, snow leopard and clouded leopard.

B.1.1.7 Lineage

In News

UK witnessed a new variant of SARS-CoV-2 that “spreading & growing rapidly” there.

Details

- The new SARS-CoV-2 variant was revealed to be the reason behind the rapid surge in Covid-19 cases in South and East England.
- It is being referred to as VUI (Variant Under Investigation) 202012/01, or the B.1.1.7 lineage.

What is the variant like?

- The variant was identified in genomic surveillance by COVID-19 Genomics UK (COG-UK), a consortium that analyses genome sequencing data from the UK. COG-UK is the largest contributor to the global Covid-19 database GISAID.
- The variant is the result of multiple mutations in the spike protein of the novel coronavirus SARS-CoV-2, as well as mutations in other genomic regions of the RNA virus.
- Preliminary analysis suggests that it is more transmissible than previously circulating variants.
- COG-UK identified one of these mutations as “N501Y”, in an area of the spike protein that binds to a key protein in the human

cell, the ACE2 receptor. This was an indication that the alterations may, theoretically, result in the virus becoming more infectious.

IUCN Findings

In News

The International Union for Conservation of Nature recently found that Sharks, Rays and Chimeras are facing high risk of extinction.

Key Findings

- The Shark Specialist Group held an assessment in the Exclusive Economic Zone and found that out of 170 species of Sharks found across the oceans of the country, 19 are facing extinction.
- Around 11% of species in the oceans of India are facing extinction.
- Out of the 170 species in the oceans of India, 30 have been classified as Endangered according to the IUCN Red List for threatened species.
- In the last assessment that was held in 2014, only 3% of the sharks, rays and Chimeras were listed as Critically Endangered. However, this has increased to 11% in 2020.
- The number of species in endangered category has increased from 5% in 2014 to 18% in 2020.
- The recent IUCN Red List Update marked the Indian Swell Shark as critically endangered for the first time due to limited Geographic range and population decline. The Indian Swell Shark is a small deep water cat shark. It is found in the coasts of Kerala, Sri Lanka, Kollam. They occur on the continental slope at depths of 100-500 metres.
- The Oceanic White tip shark that was classified as endangered has now been listed critically endangered. The White Tip Shark has high amounts of Squalene in its liver. Squalene is a natural organic compound that is found in shark liver oil and is widely used in pharmaceutical industry.
- Due to Target fishing and by-catch, the rays and shark numbers have fallen drastically. Target Fishing is when a particular type of fish is targeted. On the other hand, by-catch fish is the other fish gets caught alongside.
- According to the IUCN Assessment, 38 of the sharks have been classified as

Vulnerable, 23 as Least Concern, 27 as Near-threatened.

International Union for Conservation of Nature

- IUCN is an international organization working in the field of nature conservation and sustainable use of natural resources.
- It is involved in data gathering and analysis, research, field projects, advocacy, and education.
- IUCN's mission is to "influence, encourage and assist societies throughout the world to conserve nature and to ensure that any use of natural resources is equitable and ecologically sustainable".
- IUCN has widened its focus beyond conservation ecology and now incorporates issues related to sustainable development in its projects.
- The organization is best known to the wider public for compiling and publishing the IUCN Red List of Threatened Species, which assesses the conservation status of species worldwide.
- Its headquarters are in Gland, Switzerland.

Companies (Auditor's Report) Order, 2020 (CARO)

In News

The Ministry of Corporate Affairs has announced the notification of Companies (Auditor's Report) Order, 2020 (CARO). CARO 2020 would come into effect from financial years commencing on or after April 1, 2021.

Background

- Earlier, CARO 2020 was to come into force from financial year starting on or after April 1, 2020.
- The new reporting regime of CARO 2020—which was introduced by MCA in consultation with National Financial Reporting Authority in February this year—had superseded CARO 2016.

About New order

- Under the new regime, an auditor was required to report/certify several details which was so far not required to be certified.
- As many as 21 items required detailing in the new CARO-2020.

Details

- The CARO requires companies to comply with disclosure on various issues, including whistle blower complaints and default in repayment of borrowings.
- Disclosure of details of proceedings against company for holding Benami property.
- The auditor should provide details of investments made by the company.
- Fraud committed by the company or on the company should be reported.
- The cash losses in the financial year and the preceding financial year should be reported.
- The report should hold details of loan repayment period and amount to be repaid.

Significance

The CARO 2020 enhances the information available to both investors and financial institutions. It is a major step for transparency in accounts.

Positive Pay System

In News

The Reserve Bank of India introduced “Positive Pay System” from January 1, 2021 for cheque transactions above Rs 50,000.

Positive Pay System for cheque transactions

- The concept of Positive Pay involves a process of reconfirming key details of large-value cheques.
- Under this process, the issuer of the cheque submits electronically, through channels like SMS, mobile app, Internet banking and ATM, certain minimum details of that cheque (like date, name of the beneficiary, or payee and amount) to the drawee bank, details of which are cross-checked with the presented cheque by Cheque Truncation System (CTS).

- Any discrepancy is flagged by CTS to the drawee bank and presenting bank, who then take redressal measures.

Dispute Redressal Mechanism

Only the cheques that are compliant with the new system are accepted under the Dispute Redressal mechanism. The member banks shall implement similar arrangements for cheques collected outside the Cheque Truncation System as well.

What type of cheques will come under Positive Pay?

- Banks will enable the new system for all account holders issuing cheques for amounts of Rs 50,000 and above.
- While availing of this facility is at the discretion of the account holder, banks may consider making it mandatory in case of cheques for amounts of Rs 5,00,000 and above.
- The National Payments Corporation of India (NPCI) will develop the facility of Positive Pay in CTS, and make it available to participant banks.

Share of Positive Pay system

The Cheque Truncation System is currently available all over India. It presently covers 2% of the retail payment in terms of volume and 15% of the retail payment in terms of value.

Current Scenario

Currently, the CTS-2010 standard that specifies minimum security features on cheque leaves act as deterrent against cheque frauds. On the other hand, the standardisation of field placements on cheque forms enable straight through processing by use of image character or optical character recognition technology.

National Payments Corporation of India

- It is an umbrella organisation for operating retail payments and settlement systems in India.
- Founded in 2008, the NPCI is a not-for-profit organisation registered under Section 8 of the Companies Act 2013, established by the Reserve Bank of India and Indian Banks' Association.



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