

Current Affairs Update (May 1-7)

National

Operation Samudra Setu II

The Indian Navy recently launched Operation Samudra Setu II. The operation will aid in fulfilling oxygen requirements of the country. Under the operation, warships have been deployed to carry liquid oxygen filled cryogenic containers.

- Two ships **INS Talwar** and **INS Kolkata** have been diverted for this operation.
- INS Talwar will transport 40 million tonnes of oxygen from Manama to Mumbai.
- INS Kolkata is to proceed to Doha to get medical supplies and then to Kuwait to get liquid oxygen tanks.
- **INS Airavat** is to enter Singapore to embark liquid oxygen tanks.
- The other ships deployed in Trikand, Kochi and Tabar will also be diverted to join the national effort. The INS Shardul from the Southern Naval Command has been readied to join the operation.
- This operation will augment the **Oxygen Express mission** that is already operating under Indian Railways.

Operation Samudra Setu I was launched in May 2020. It was launched to repatriate Indian citizens from abroad during COVID-19. It successfully brought back 3,992 Indians to home safely.

Maratha quota unconstitutional, says SC

A five-judge Constitution Bench of the Supreme Court has struck down **the Maharashtra law granting reservation to the Maratha community in admissions and government jobs in the state.**

Background: In November 2018, the Maratha community was given the reservation under the Maharashtra State Socially and Educational Backward Act. The Maratha reservation of 12 and 13 per cent (in education and jobs) had increased the overall reservation ceiling to 64 per cent and 65 per cent, respectively.

1992 Indira Sawhney Judgment: In 1992 landmark ruling in Indra Sawhney v Union of India, in which **the Mandal Commission report** was upheld, the Court laid down two important precedents.

1. First, it said that the criteria for a group to qualify for reservation is “social and educational backwardness”.
2. Second, it reiterated the 50% limit to vertical quotas reasoning that it was needed to ensure “efficiency” in administration. However, the court said that this 50% limit will apply unless in “exceptional circumstances.”

Why was the Maratha Quota law it struck down?

- The Maratha quota exceeded the 50% ceiling.
- The Court held that a separate reservation for the Maratha community violated Articles 14 (right to equality) and 21 (due process of law).

The court held that there is no need to revisit the case. The court said that the 50% ceiling, although an arbitrary determination by the court in 1992, is now constitutionally recognised. The Marathas are dominant forward class and are in the main stream of National life. Hence, the court observed that the above situation is not an extra-ordinary.

What has the court said on 102nd Amendment?

The **Constitution (One Hundred and Second Amendment) Act, 2018** gives constitutional status to **the National Backward Classes Commission**. The Amendment also gives **the President powers to notify backward classes**.

The Bench unanimously upheld the constitutional validity of the 102nd Amendment. The majority opinion also said that while the identification of SEBCs will be done centrally, state governments retain power to determine the extent of reservation and make specific policy in the spirit of “cooperative federalism”.

UDID

UDID (Universal Disability ID) is Unique ID for Persons with Disabilities Project. The project aims to provide a Universal ID and disability certificates for persons with disabilities.

The UDID project is under implementation since 2016. The **Department of Empowerment of Persons with Disabilities** recently made it mandatory for all states and Union Territories to issue a certificate of disability only using UDID portal. This is to come into force from June 1, 2021

Objective: The project aims to achieve the following:

- A centralised web application for online availability of data of person with disabilities across the country.
- Online filling and submission of application form for disability certificate

- Fast tracking the process of calculating the percentage of disability by the hospitals
- Online updating and renewal of information about the persons with disabilities

Disabilities included in the project

The persons with disabilities included in the project are based on **Disabilities Act, 1995**. The following disabilities are included in the project:

- Cerebral Palsy
- Blindness
- Low Vision
- Locomotor Disability
- Leprosy-cured
- Mental retardation
- Mental Illness
- Hearing Impairment

P-8I patrol aircraft

- U.S. clears sale of six P-8I patrol aircraft to India.
- P-8I is a long-range, multi-mission maritime patrol aircraft manufactured by Boeing for the Indian Navy. The P-8I aircraft is designed to protect the vast coastline and territorial waters of India.
- It can conduct anti-submarine warfare, intelligence, maritime patrol, and surveillance and reconnaissance missions.

International

Karen National Union (KNU)

The KNU is the dominant political organisation representing **ethnic minority** Karen communities in Karen, or **Kayin, State**, bordering Thailand. Its aim is self-determination for the Karen people in a region of about 1.6 million people, roughly the size of Belgium, where they are the ethnic majority in the state.

Marginalised in then Burma's post-independence political process, the KNU started a rebellion in 1949, which it waged for nearly 70 years. One of its key grievances was the majority Bamar community's

dominance of Myanmar's state and military. The conflict has been described as one of the world's "longest running civil wars".

Karen nationalists have been fighting for an independent state known as **Kawthoolei** since 1949.

Why in news? Myanmar's military has launched air strikes on a village and outpost near **the Thai border**, after **ethnic minority Karen insurgents** attacked a Myanmar army post in some of the worst clashes since a Feb. 1 coup.

UK becomes first country to announce regulation of use of self-driving vehicles

The UK has become the first country to announce regulation of the use of self-driving vehicles at slow speeds on motorways.

The government will start with **Automated Lane Keeping Systems (ALKS)** – which use sensors and software to keep cars within a lane, allowing them to accelerate and brake without driver input.

The use of ALKS would be restricted to motorways, at speeds under 60 km per hour.

Global Forest Goals Report, 2021

The United Nations recently released the Global Forest Goals Report, 2021. The Report has been prepared by **the Department of Economic and Social Affairs of the United Nations**. According to the report, the COVID-19 has increased the challenges faced by countries in managing their forests.

According to the report, Around 1.6 billion people rely on forests. This is 25% of global population. Of the rural areas in the world, more than 40% live in Savannah and forests. This is 20% of the global population.

Key goals as identified by the report: India to add 200,000 hectares of tree and forest cover per year

The report provides an overview of the six Global Forest Goals out of the twenty-six targets of National Strategic Plan for Forests. The six goals are as follows:

- Reverse Forest Cover Loss
- Improve Forest Benefits and Livelihoods
- Protect Forests and use sustainable forest products
- Mobilise resources
- Promote inclusive forest governance
- Cooperate and work across the sectors

DEFENDER-Europe 21

The North Atlantic Treaty Organisation recently launched the joint military exercises in Albania called the “DEFENDER-Europe 21”. Thousands of military forces from the US are participating in the exercise.

Science-Tech & Environment

Net Zero Producers’ Forum

Qatar, the US, Saudi Arabia, Canada and Norway have come together to form a cooperative forum that will develop pragmatic net zero emission strategies. These countries are collectively responsible for 40% of global oil and gas production.

The Net Zero Producers’ Forum will consider strategies and technologies which include “methane abatement, advancing the circular carbon economy approach, development and deployment of clean-energy and carbon capture and storage technologies, diversification from reliance on hydrocarbon revenues, and other measures in line with each country’s national circumstances.”

Net-zero, which is also referred to as carbon-neutrality, does not mean that a country would bring down its emissions to zero. Rather, **net-zero is a state in which a country’s emissions are compensated by absorption and removal of greenhouse gases from the atmosphere.**

Tianhe module

It is the first module of **China’s planned space station**. The core module, currently the largest spacecraft developed by China, was launched into low earth orbit by a Long **March-5B rocket**, marking the first step of China’s efforts to build its own station in two years.

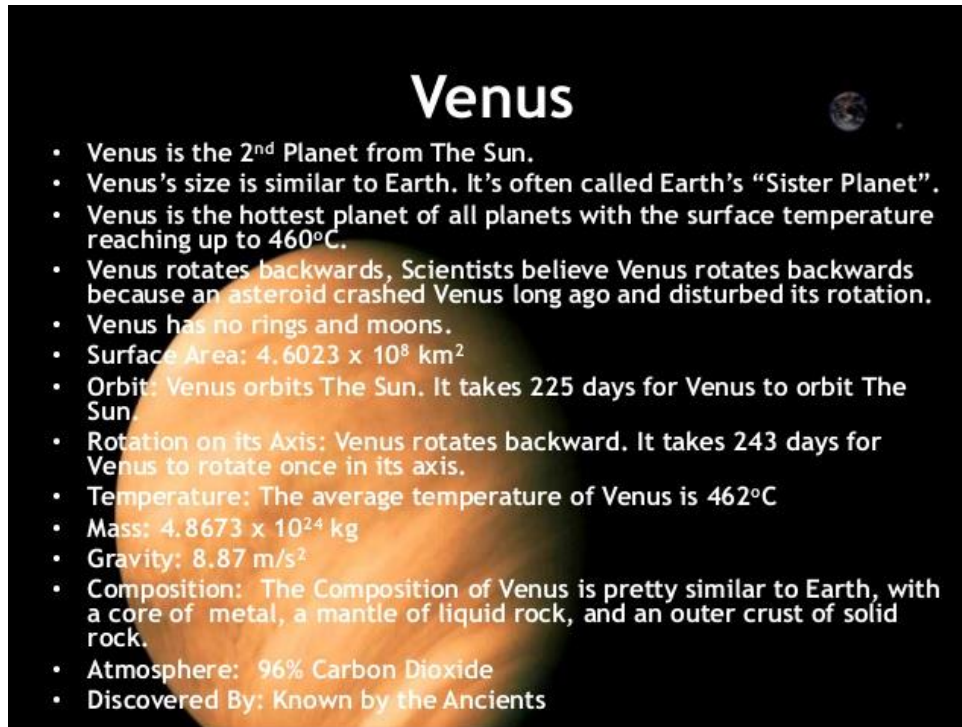
New findings about Venus

Scientists have obtained new data about Venus by bouncing radio waves off Venus. The researchers transmitted radio waves toward Venus 21 times from 2006 to 2020 from **NASA’s Goldstone Antenna in the Mojave Desert of California** and studied the radio echo, which provided information on certain planetary traits.

Highlights:

- The study measured the tilt of the Venusian axis and size of the planet’s core. The study calculated the Venusian tilt at about 2.64 degrees. Earth’s is about 23.5 degrees.
- A single Venusian rotation takes 243.0226 Earth days. That means a day lasts longer than a year on Venus, which makes a complete orbit around the sun in 225 Earth days.
- The Venusian planetary core has a diameter of about 4,360 miles (7,000 km), comparable to Earth’s core.

- Above its foreboding landscape is a thick and toxic atmosphere that consists primarily of carbon dioxide, with clouds of sulfuric acid droplets. With a runaway greenhouse effect, its surface temperatures reach 880 degrees Fahrenheit (471 degrees Celsius), hot enough to melt lead.
- **Venus is one of just two planets that rotate from east to west.** Only Venus and Uranus have this “backwards” rotation.



Genetically Modified mosquitos

A Biotech firm in the United States, Oxitech, recently launched the most controversial field test of Genetically Modified mosquitos in Florida.

The *Aedes aegypti* mosquitos make up only 4% of total mosquito population in Florida. However, they are responsible for all diseases transmitted by mosquitos such as zika, chikungunya, dengue and yellow fever.

Naturally, the male *Aedes aegypti* mosquitos do not bite. Only the females bite and spread diseases. The researchers have now bioengineered the male *Aedes aegypti* mosquitos. The bioengineered male *Aedes aegypti* carries a gene that passes to their offsprings and kills the female progeny alone in early larval stages. The male offspring will not die and will become the carriers of the gene and will pass on to the future generations. As more and more female offspring dies, the population should dwindle.

Hoolock Gibbons

Hoolock Gibbons are lesser apes. They are the second largest of the Gibbons after Siamang. Earlier it was said that India (North East India) is home to two species namely Eastern Hoolock Gibbon and Western Hoolock Gibbon.

However, a recent study by Centre for Cellular and Molecular Biology has found that only western Hoolock Gibbon is found in India.

The Western and Eastern Hoolock Gibbons were kept separately in zoos and were not allowed to breed. Now they can be put together in the same cage and allowed to breed.



WESTERN HOOLOCK GIBBON

Hoolock hoolock

CONSERVATION STATUS: ENDANGERED

- Also called white-browed gibbons and Hoolock gibbons
- They thrive in dense forests from India into Bangladesh and Myanmar, and possibly Tibet
- They are the only apes native to the Indian subcontinent
- They live in small family groups of up to 6, and sing duets that last up to 20 minutes and can be heard miles away
- Threatened by habitat loss; 70% of their forest is already gone



MACS 1407

- It is a high-yielding and pest-resistant variety of soybean developed by Indian Scientists. The new variety has been developed by scientists from MACS – Agharkar Research Institute (ARI), Pune.
- It is suitable for cultivation in the states of Assam, West Bengal, Jharkhand, Chhattisgarh and North-Eastern states.
- The variety was developed using the conventional cross breeding technique.
- Its thick stem, higher pod insertion (7 cm) from ground, and resistance to pod shattering make it suitable even for mechanical harvesting. It is suitable for rain-fed conditions of north-east India.

Glyphosate

- The Glyphosate is a controversial herbicide usually use to kill weeds in cotton farms.

- The usage of Glyphosate is banned because it is carcinogenic. Also, it is being banned to control the illegal cultivation of HTBt cotton.
- Glyphosate is absorbed through foliage (plant leaves). It is minimally absorbed by roots.
- In 2015, World Health Organisation classified Glyphosate under Category 2A, that is, a “Probably Carcinogenic in Humans”.
- The Telangana Government recently imposed a total ban on Glyphosate

Economics

Network for Greening Financial System

The Reserve Bank of India (RBI) has joined the Central Banks and Supervisors **Network for Greening the Financial System (NGFS)** as a member.

About NGFS: Launched at the Paris One Planet Summit on December 12, 2017. It is a group of central banks and supervisors willing **to share best practices and contribute to the development of environment and climate risk management in the financial sector.** It also seeks to mobilise mainstream finance to support the transition towards a sustainable economy.

Composition: Includes central banks and financial supervisors.

Secretariat is hosted by the Banque de France.

Significant Economic Presence principle

India recently notified Digital Tax threshold of two crore rupees and 300,00 users under the Significant Economic Presence principle. This threshold was notified for non-resident technology firms such as Netflix, Facebook, Google, to pay tax in India. The principle was first introduced in the Finance Bill 2018-19.

It was adopted to address the challenges of tax profits made by the digital companies.

Significant Economic Presence: It means that a transaction in goods or services or property carried out by a Non-Resident in India. This includes download of software or data. It was basically introduced to tax the income of non-residents. These incomes are those related to goods and services or property in India.

Current Affairs Update (May 8-15)

National

Tauktae Cyclone

Tauktae Cyclone is the first cyclone in 2021 in India. The Kerala Government has issued “Red Alert”.

Conditions for Cyclone Formation:

- The Surface Sea Temperature increases to 27° C and higher.
- Presence of Coriolis force
- Differences in Vertical wind speed
- Upper divergence above the sea level system
- Low pressure area
- Favourable Madden Julian Oscillation
- Ocean heat potential

Jal Jeevan Mission (JJM)

- The Union Territory of Puducherry has become the fourth State/UT after Goa, Telangana and Andaman & Nicobar Islands to provide assured tap water supply to every rural home under **Jal Jeevan Mission (JJM)**.
- JJM envisages supply of **55 litres of water per person per day to every rural household** through **Functional Household Tap Connections (FHTC) by 2024**.
- It is under **the Ministry of Jal Shakti**.

World Food Prize

- **Dr Shakuntala Haraksingh Thilsted**, a global nutrition expert of Indian descent has won the prestigious 2021 World Food Prize for her groundbreaking research in developing holistic, nutrition-sensitive approaches to aquaculture and food systems.
- It is presented by **the World Food Prize Foundation**
- **Norman E. Borlaug**, winner of the Nobel Peace Prize in 1970 for his work in global agriculture, conceived the Prize. He is also known as **the Father of the Green Revolution**.
- The World Food Prize was **created in 1986 with sponsorship by General Foods Corporation**. It is also known as **the “Nobel Prize for Food and Agriculture”**.

- **M.S. Swaminathan**, the father of India's green revolution, was **the first recipient of this award in 1987**.

Whitley Awards

- Whitley Awards are called "**Green Oscar**". In 2021, the Whitley Award was won by Nuklu Phom of Nagaland. He is the **only Indian to receive the award**.
- Whitley Awards are presented annually by the Whitley Fund for Nature. It is presented to recognise grass root level conservation leaders.
- The Whitley Fund for Nature was established by **Edward Whitley in 1994**.
- **Nuklu Phom** is creating "**Biodiversity Peace Corridors**". The main objective of the extend the "Yaongyimchen Community Biodiversity Area".
- Nuklu Phom is popularly known as the "**Amur Falcon Man of Nagaland**".
- Nagaland is called the "Falcon Capital of the World".

International

Arctic Science Ministerial

India is participating in the 3rd Arctic Science Ministerial (ASM3) – the global platform for discussing research and cooperation in the Arctic region.

Key facts: The first two meetings—ASM1 and ASM2—were held in the USA in 2016 and Germany in 2018, respectively. ASM3, jointly organised by Iceland and Japan, is the first Ministerial meeting being held in Asia.

The theme for this year is 'Knowledge for a Sustainable Arctic'.

Need for international collaboration and cooperation in maintaining the Arctic region:

Arctic warming and its ice melt are global concerns as they play a pivotal role in regulating climate, sea levels, and maintaining biodiversity. Moreover, there is growing evidence of connection between the Arctic and the Indian Ocean (which modulates the Indian monsoon).

Hence, improving the understanding of physical processes and quantifying the impact of Arctic ice melt on the Indian summer monsoon is very important.

India and the Arctic:

- 2013, **India enjoys 'Observer' status in the Arctic Council** with twelve other countries (Japan, China, France, Germany, UK, Italy, Switzerland, Poland, Spain, Netherlands, Singapore, and South Korea).

- India's engagement with the Arctic dates back to 1920 with the signing of **the Svalbard Treaty in Paris**.
- Since July 2008, India has a **permanent research station in the Arctic called Himadari at NyAlesund, Svalbard Area in Norway**.
- It has also deployed a multi-sensor moored observatory called **IndARC in the Kongsfjorden fjord since July 2014**.
- The research in the Arctic region from India is coordinated, conducted, and promoted by **the National Centre for Polar and Ocean Research (NCPOR), Goa, under the Ministry of Earth Sciences, Government of India**.

China rocket debris falls in Indian Ocean near Maldives

Debris from the last stage of **China's Long March rocket** that had last month carried a key component of its under-construction space station fell into the waters of the Indian Ocean west of the Maldives recently.

Key facts:

- The **Long March-5B Y2 rocket** was carrying **the Tianhe, or Heavenly Harmony**, module, which is the first of three key components for the construction of China's space station, which will be completed by the end of next year.
- Tianhe will act "the management and control hub of the space station" which is called Tiangong, or Heavenly Palace.
- The space station, which will be only the second after the International Space Station (ISS), has been designed with a lifespan of 10 years but could last 15 years, or until 2037.

Mount Sinabung

Located in Indonesia. The volcano has been active since 2010 when it erupted after nearly 400 years of inactivity.

Why in News? Because of the recent eruption.

Background: Indonesia is home to many active volcanoes owing to its location in the "Ring of Fire" or the Circum-Pacific Belt — an area along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.

China threatens Bangladesh, says ties will be hit if it joins Quad

China has bluntly threatened Bangladesh with reprisals if it considered any sort of participation in the Quad, warning that this will lead to a degrading of bilateral ties. Beijing sees the Quad as an anti-China grouping.

Quad grouping: The quadrilateral security dialogue includes Japan, India, United States and Australia.

Science-Tech & Environment

Lumpy Skin Disease

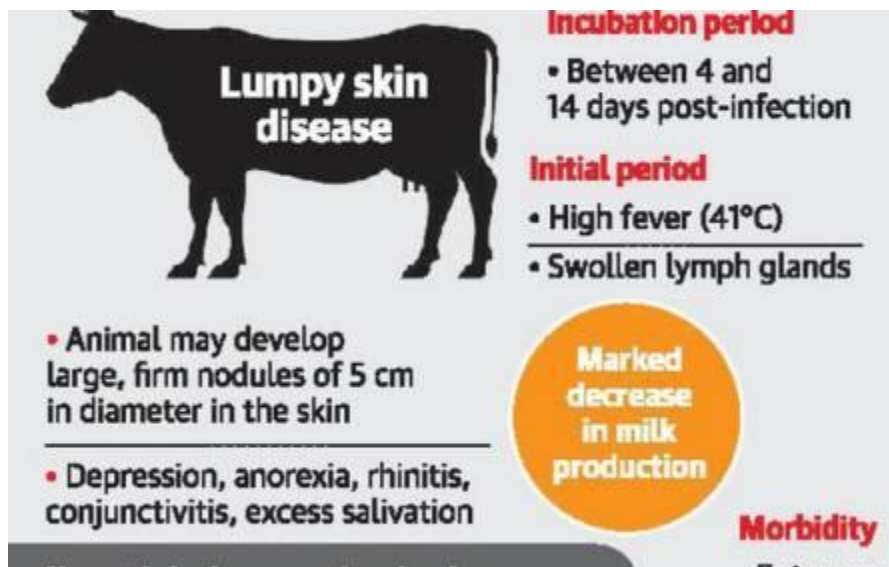
Lumpy Skin Disease is a **viral illness that causes prolonged morbidity in cattle and buffaloes**. Caused by the **poxvirus Lumpy skin disease virus (LSDV)**.

Spread: It spreads through mosquitoes, flies and ticks and also through saliva and contaminated water and food.

Affected Countries: LSD is endemic to Africa and parts of West Asia, where it was first discovered in 1929. In Southeast Asia the first case of LSD was reported in Bangladesh in July 2019. In India it was first reported from Mayurbhanj, Odisha in August 2019.

Treatment: There is no treatment for the virus, so prevention by vaccination is the most effective means of control.

Concerns: In India, which has the world's highest 303 million heads of cattle, the disease has spread to 15 states within just 16 months. This might have a devastating impact on the country, where most dairy farmers are either landless or marginal landholders and milk is among the cheapest protein sources.



Mucormycosis

Black Fungus or **Mucormycosis**, previously called **zygomycosis**, is a serious but rare fungal infection caused by a group of molds called mucormycetes which exist in the environment. It is caused by exposure to mucor mould which is commonly found in soil, plants, manure, and decaying fruits and

vegetables. Mucormycosis mainly affects people who have health problems or take medicines that lower the body's ability to fight germs and sickness.

Doctors believe mucormycosis, which has an overall **mortality rate of 50%**, may be being triggered by the use of steroids, a life-saving treatment for severe and critically ill Covid-19 patients.

While the infection can occur in any part of the body, it most commonly affects the lungs or the sinuses on inhaling fungal spores from the air.

Importantly, mucormycosis is **not a contagious** infection and cannot spread from one person to another. Quick diagnosis and early treatment are important factors in survival.

Treatment may include antifungal medicines (amphotericin B) and surgery.

OSIRIS-REx

On May 11, **NASA's Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer (OSIRIS-REx)** spacecraft will depart asteroid **Bennu**, and start its two-year long journey back to Earth.

OSIRIS-REx is NASA's first mission to visit a near-Earth asteroid, survey its surface and collect a sample from it.

The mission was launched in 2016. In October 2020, the spacecraft briefly touched asteroid Bennu, from where it collected samples of dust and pebbles.

Green panel allows Great Nicobar plan to advance

The **Environment Appraisal Committee (EAC) – Infrastructure I** of the Ministry of Environment, Forest and Climate Change (MoEFCC) has flagged serious concerns about **NITI Aayog's ambitious project for Great Nicobar Island**.

The committee has, however, "recommended" it "for grant of terms of reference (TOR)" for Environmental Impact Assessment (EIA) studies, which in the first instance will include baseline studies over three months.

About the project for Great Nicobar Island:

The proposal includes an international container transshipment terminal, a greenfield international airport, a power plant and a township complex spread over 166 sq. km. (mainly pristine coastal systems and tropical forests), and is estimated to cost ₹75,000 crore.

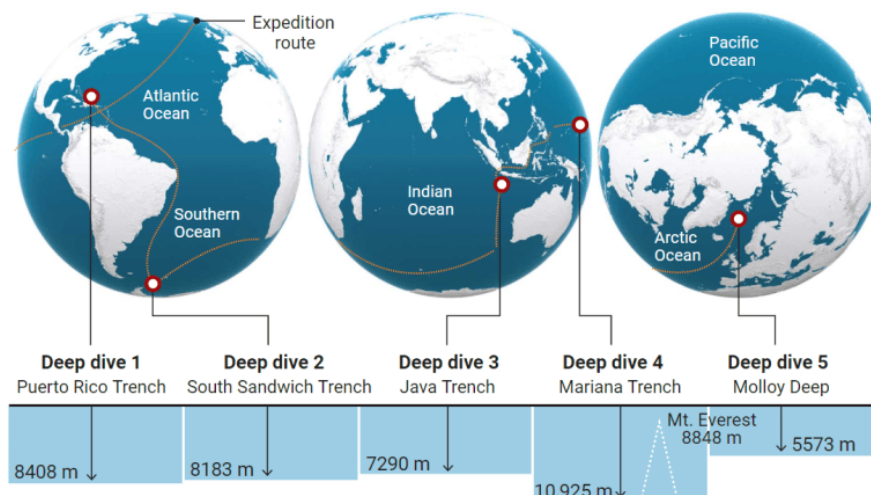
Main concerns:

- The plan document has no information about a note on seismic and tsunami hazards, freshwater requirement details and details of the impact on **the Giant Leatherback turtle**.
- Besides, there were no details of the trees to be felled — a number that could run into millions since 130 sq. km. of the project area has some of the finest **tropical forests in India**.
- The committee raised a number of additional issues, including about **Galathea Bay**, the site of the port and the centrepiece of the NITI Aayog proposal. Galathea Bay is an iconic nesting site in India of the enigmatic **Giant Leatherback, the world's largest marine turtle**.

Five Deeps Expedition

The Five Deeps Expedition has provided data on the deepest points of five oceans in the world. They are the Pacific, Atlantic, Indian, Arctic and the Southern Oceans.

- **Java Trench** is the deepest point in Indian Ocean.
- **Factorian Trench** is the deepest point in Southern Ocean. Southern Ocean is also called the Antarctic Ocean.
- **Puerto Rico Trench** is the deepest in Atlantic Ocean.
- **Molloy Hole** is the deepest point in Arctic Ocean.
- The second deepest trench in the world is the Horizon Deep in the Tonga Trench. This is after the Challenger Deep located in **Mariana Trench**.
- The expedition has found that some major animals can survive in great depths. Jelly fish at 10,000 metres; Squid at 6,500 metres; Octopus at 2,000 metres



(MAP) A. CUADRA/SCIENCE; (DATA) FIVE DEEPS EXHIBITION

Significance of Five Deeps Expedition: Such projects are important as 80% of world oceans are still unexplored. And countries are aggressively competing with each other to take hold of unexplored resources. China is one amongst them who is aggressively exploring South China Sea defying International Sea laws.

Iron Dome

- Deployed in 2011, it is a short-range, ground-to-air, air defence system that includes a radar and Tamir interceptor missiles that track and neutralise any rockets or missiles aimed at Israeli targets.
- It is used for countering rockets, artillery & mortars (C-RAM) as well as aircraft, helicopters and unmanned aerial vehicles.
- Its success rate is over 90%.
- In the conflict between Israel and Palestine, both sides have taken to air strikes and rocket attacks. Recently, rockets fired from Gaza were intercepted by the Israeli Iron Dome air defence system. It appeared that the rockets were hitting an invisible shield.

National Technology Day

Every year, India celebrates National Technology Day on May 11. This year, the National Technology Day is being celebrated under the theme: **Science and Technology for a Sustainable Future**

The National Technology Day is celebrated in India for two reasons namely:

- To mark the anniversary of Pokhran Nuclear tests that were conducted in 1998
- To highlight the importance of technological advancements for the country

Economics

Foreign Contribution (Regulation) Amendment, 2020

- It seeks to prohibit 'public servants' from receiving any foreign funding.
- It proposes to reduce the use of foreign funds to meet administrative costs by NGOs from the existing 50 per cent to 20 per cent.
- It seeks to "prohibit any transfer of foreign contribution to any association/person".
- It proposes to make Aadhaar cards a mandatory identification document for all office-bearers, directors and other key functionaries of NGOs or associations eligible to receive foreign donations.

- It seeks to allow for the central government to hold a summary inquiry to direct bodies with FCRA approval to “not utilise the unutilised foreign contribution or receive the remaining portion of foreign contribution”.
- And to limit the use of foreign funds for administrative purposes. This would impact research and advocacy organisations which use the funding to meet their administrative costs.

‘Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat’ Report

NITI Aayog and Mastercard have released a report titled ‘Connected Commerce: Creating a Roadmap for a Digitally Inclusive Bharat’. The report identifies challenges in accelerating digital financial inclusion in India and provides recommendations for making digital services accessible to its 1.3 billion citizens.

Challenges in accelerating digital financial inclusion:

1. Digital Exclusions.
2. Unfamiliarity With DBT.
3. Breeding of Corruption.
4. Inadequate Rural Banking.
5. Unsuccessful Banking Correspondent Model.
6. Accountability Issue.

Key recommendations:

- Strengthening the payment infrastructure to promote a level playing field for NBFCs and banks.
- Digitizing registration and compliance processes and diversifying credit sources to enable growth opportunities for MSMEs.
- Building information sharing systems, including a ‘fraud repository’, and ensuring that online digital commerce platforms carry warnings to alert consumers to the risk of frauds.
- Enabling agricultural NBFCs to access low-cost capital and deploy a ‘phygital’ (physical + digital) model for achieving better long-term digital outcomes. Digitizing land records will also provide a major boost to the sector.
- To make city transit seamlessly accessible to all with minimal crowding and queues, leveraging existing smartphones and contactless cards, and aim for an inclusive, interoperable, and fully open system such as that of the London ‘Tube’.

Monkey Census

The Wildlife Institute of India recently conducted a “Monkey Census” in the state of Haryana. The “Monkey Census” was a part of the “Wildlife Census of Haryana-2021”.

The Human-Monkey conflicts in the state of Haryana have increased. Thus, the census was conducted to shed some light into the issue. The conflicts have mainly increased in the cities of Ambala, Gurgaon, Bhiwani, Faridabad, Yamnua Nagar.

This species of monkeys that are frequently indulged in Human-Monkey Conflict are protected under Schedule II of Wildlife Protection Act, 1972.

Current Affairs Update (May 16-22)

National

Cyclone 'Tauktae'

The word **Tauktae** has been suggested by Myanmar, which means 'gecko', a distinctively vocal lizard, in the Burmese language.

The name is **the fourth from a new list of 169 names released by the IMD last year.**

The World Meteorological Organisation (WMO) maintains rotating lists of names.

How are cyclones named?

- A WMO/ESCAP (World Meteorological Organisation/United Nations Economic and Social Commission for Asia and the Pacific) Panel on Tropical Cyclones agreed in principle to assign names to the tropical cyclones in the Bay of Bengal and the Arabian Sea during its 27th session held in Muscat, Sultanate of Oman, in 2000.
- The naming of the tropical cyclones over the north Indian Ocean commenced from September 2004, with names provided by eight members, starting with Bangladesh, followed by India. Since then, another five countries have joined the Panel.
- The Regional Specialised Meteorological Centre (RSMC), New Delhi is responsible for naming the cyclonic storms formed over the Bay of Bengal and the Arabian Sea when they reach the relevant intensity.
- There are six RSMCs in the world, including the IMD and five Tropical Cyclone Warning Centres.

Zeolite cargo flights

National carrier Air India has begun the first of its "**zeolite cargo flights**" with the government of India having commenced the process of importing zeolite from across the world for use in medical oxygen plants.

The government has appointed **the Defence Research and Development Organisation (DRDO) as the charterer for these consignments.** Under **the Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM CARES) Fund**, the DRDO is to set up these medical oxygen plants.

Use of Zeolite in medical oxygen plants:

The technology being developed by the DRDO uses **the pressure swing adsorption process** and **molecular sieve zeolite** in oxygen generation. Zeolites are used as adsorbent material.

An oxygen concentrator uses Zeolites to adsorb atmospheric nitrogen and then vents out the nitrogen. This leaves oxygen gas remaining to be used for patients.

Pressure Swing Adsorption: Pressure swing adsorption (PSA) is a technology used to separate some gas species from a mixture of gases under pressure. PSA operates at near-ambient temperatures.

Specific adsorbent materials (e.g., zeolites, activated carbon, molecular sieves, etc.) are used as a trap, preferentially adsorbing the target gas species at high pressure.

Zeolites: Zeolites are microporous, three dimensional crystalline solid of aluminium silicate. Zeolites have small openings of fixed size in them which allow small molecules to pass through them easily but larger molecules cannot pass through them; that is why they are sometimes called molecular sieve. Zeolites are either formed naturally or can be synthesized.

Properties Of Zeolites:

- Zeolites are very stable solid under different environmental conditions. The melting point of zeolite is very high, i.e.1000oC.
- They are insoluble in water or other inorganic solvents.
- They do not undergo oxidation in the presence of air.
- Zeolites which are rich in alumina are attracted to polar molecules like water whereas zeolite rich in silica are attracted towards nonpolar molecules.
- Since zeolites are not reactive and are obtained from naturally occurring minerals, therefore, they do not have any harmful environmental effects; although skin contact or inhalation may have a carcinogenic effect.

SAMVEDNA

- SAMVEDNA is Sensitizing Action on Mental Health Vulnerability through Emotional Development and Necessary Acceptance. It a toll-free helpline through which children affected during COVID-19 pandemic are provided counselling.
- The tele-counselling is provided by the National Commission of Child Rights working under Ministry of Women and Child Development.
- Psychologists, counselors and experts from NIMHANS, National Institute of Mental Health and Neurosciences.
- The Toll-Free Number is 1800-121-2830
- The service is only to children.

West Bengal government to set up a Legislative Council

The West Bengal government will set up a Legislative Council (Vidhan Parishad), as per a decision taken up at the recent Cabinet meeting. For setting up the Council, a Bill has to be introduced in the Assembly and then a nod from the Governor is required. The Upper House existed till 1969.

How is a legislative council created?

Under **Article 169 of the constitution, Parliament may by law create or abolish the second chamber in a state** if the Legislative Assembly of that state passes a resolution to that effect by a special majority.

Strength of the house: As per **article 171 clause (1) of the Indian Constitution**, the total number of members in the legislative council of a state **shall not exceed one third of the total number of the members in the legislative Assembly** of that state and **the total number of members in the legislative council of a state shall in no case be less than 40.**

UNESCO world heritage sites

Six sites have been added to India's tentative list of UNESCO world heritage sites. These include:

1. Maratha military architecture in Maharashtra.
2. Hire Benkal megalithic site in Karnataka.
3. Bhedaghat-Lametaghat of Narmada Valley in Madhya Pradesh.
4. Ganga ghats in Varanasi.
5. Temples of Kancheepuram.
6. Satpura Tiger Reserve in Madhya Pradesh

PM Swasthya Suraksha Yojana

The Central government has approved setting up 22 new All India Institute of Medical Sciences (AIIMS) so far under **Pradhan Mantri Swasthya Suraksha Yojana (PMSSY)** out of which six are already fully functional.

PMSSY was **announced in 2003** with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.

The PMSSY is **implemented by the Ministry of Health and Family Welfare.**

It has two components:

- Setting up new AIIMS (All India Institute of Medical Sciences).
- Upgradation of government medical colleges in various states.

International

U.S. against militarisation of the Arctic

On the eve of an **Arctic Council meeting** of Foreign Ministers, the US has expressed concerns about increased military activities in the Arctic. This comes after Russia defended its military activities in the strategic region.

Background: President Vladimir Putin has in recent years made Russia's Arctic region a strategic priority and ordered investment in military infrastructure and mineral extraction, exacerbating tensions with Arctic Council members.

The concerns: Increased military activities in the Arctic increase the dangers or prospects of accidents and undermines the shared goal of a peaceful and sustainable future for the region.

About Arctic council:

- It is an **Intergovernmental forum** which addresses issues faced by the Arctic governments and people living in the Arctic region.
- It is **Not a treaty-based international organization** but rather an international forum that operates on the basis of consensus.
- Its **mandate explicitly excludes military security**.

The 1996 **Ottawa Declaration** lists the following countries as Members of the Arctic Council: Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States.

China-Russia to begin the biggest Nuclear Power Project

In 2018, Russia and China signed an agreement on Nuclear Energy Cooperation Project. Under the agreement, the countries agreed to build Unit three and Unit Four of the Xudapu Nuclear Power Plant and Unit 7 and Unit 8 of the Tianwan Nuclear Power Plant.

The contract value of the project is twenty billion USD. The nuclear reactors to be used in the project are third generation VVER-1200 reactors. After completion, the reactors will generate 37.6 billion kilo watt hours of electricity. Also, they will reduce 30.68 million tonnes of carbon dioxide and will also reduce the use of fossil fuels.

As of April 2021, there are forty-nine nuclear power plants in China. This puts the country in the third position amongst the nuclear powers. The Chinese have set a target of achieving 200 GW of Nuclear capacity by 2035.

Winchcombe

It is a **meteorite**. A piece of the Winchcombe meteorite had touched down in the town of Winchcombe in Gloucestershire in the UK in February 2021.

It will be displayed at the National History Museum beginning next week.

The difference between a meteor, meteorite and meteoroid is nothing but where the object is:

- **Meteoroids** are objects in space that range in size from dust grains to small asteroids.
- But when meteoroids enter the Earth's atmosphere they are called **meteors**.
- But if a meteoroid enters the Earth's atmosphere and hits the ground, it is called a **meteorite**.

Doomsday Surfing

Doomsday Surfing refers to the tendency to continue to surf or scroll through bad news, even though that news is saddening or depressing.

Miss Universe, 2020

Andrea Meza of Mexico was crowned the Miss Universe, 2020. The 69th edition of Miss Universe was held on May 16, 2021 in Florida, United States. It was cancelled for the first time in 2020 due to COVID-19 pandemic. Miss India **Adline Castelino** made it to the top four.

A-76

An Iceberg recently calved off from the continent of Antarctica. This iceberg is now the largest iceberg in the world. It has been named as A-76. The Ice Berg is 170 kilometres long and 25 kilometres wide. The ice berg was spotted by a European Space Agency satellite called Copernicus Sentinel.

Science-Tech & Environment

Notified Diseases

The Black Fungus disease has been declared as notified disease in Haryana & Rajasthan. This means that the Government Authorities have to be informed about each case of Black Fungus Disease.

What happens when a disease is put under "Notified" Category?

- The doctors have to report about the occurrence of disease in their patients to the Chief Medical Officer of the district.
- It will help authorities to collect information of the spread of the disease, monitor the disease and set off early warnings.

What is a notified disease?

Notified diseases are also called Notifiable diseases. It is any disease whose occurrence has to be reported to the Government by law.

WHO on Notifiable Diseases

The WHO International Health Regulations, 1969 has made disease reporting mandatory. This will help WHO in its global surveillance and advisory role. Currently the list is limited only to three main disease namely yellow fever, cholera and plague. And also COVID-19.

White fungus

Current outbreak: Patna, Bihar

Spread: Inhalation of spores

System affected: Can affect not just the lungs but also other parts of the body including nails, skin, stomach, kidney, brain, private parts and mouth.

Symptoms: cough, shortness of breath, chest pain, and fever

Risk group: Those who have weak immunity like diabetes, cancer patients, and those who are taking steroids for a long period & coronavirus patients who are on oxygen support

Diagnosis: CT-Scan or X-ray

Treatment: anti-fungal medicines

China's 'Zhurong' rover

China's **uncrewed 'Tianwen-1' spacecraft** recently landed safely on the surface of **Mars**. The spacecraft landed on a large plain located in the northern hemisphere of Mars, known as **Utopia Planitia**.

Significance: This makes China **the second country in the world to send a rover to explore the mysterious Red Planet**.

The Tianwen-1, China's Mars mission: Launched in **July 2020**, the mission **consists of an orbiter, a lander and a golf cart-sized rover called 'Zhurong'**. The spacecraft arrived in Mars' orbit in February this year. Onboard the lander was **the 'Zhurong' rover**, which will soon be deployed **to study the Martian atmosphere and geology**.

WWF Report on Snow Leopard

The World Wildlife Fund recently claimed that more than 70% of snow Leopard habitats are unexplored. The organisation recently released its report "A spatially explicit review of the state of knowledge in the snow leopard range".

Most of the snow leopard researches have been conducted by Nepal, India and China followed by Mongolia and Pakistan. There could be only four thousand snow leopards left in the world. They are facing continuous threats due to increased habitat loss and degradation, conflict with communities and poaching.

- IUCN: Vulnerable
- Wildlife (Protection) Act, 1972: Schedule I
- CITES: Appendix I

Conservation of Snow Leopard

GSLEP: GSLEP is Global Snow Leopard and Ecosystem Protection Programme. It was launched by twelve snow leopard range countries such as India, Nepal, China, Bhutan, Mongolia, Pakistan, Uzbekistan, Tajikistan, Kazakhstan, Kyrgyzstan, Afghanistan and Russia.

SECURE Himalaya: It is a Global Environment Facility-United Nations Development Programme (UNDP) funded project.

Simorgh supercomputer

- Iran recently launched its supercomputer called Simorgh. This supercomputer is hundred times more powerful than the previous Iranian supercomputers
- The Supercomputer has been named after the phoenix like bird called the Simorgh. The Simorgh Supercomputer was developed by the Amirkabir University of Technology in Tehran, the capital of Iran.
- The performance capacity of the simorgh Supercomputer is 0.56 petaflops.
- The Supercomputer is to be used for image processing, artificial intelligence work load, traffic and weather data.

2-DG

- The 2-DG was developed by the Defence Research Development Organisation for Emergency Use.
- 2-DG is 2-Deoxy – D – Glucose.
- The drug ensures faster recovery of hospitalised patients and will reduce supplemental oxygen dependence during clinical trials.
- It accumulates in infected cells and stops viral synthesis. This **accumulation makes the drug unique.**

State GK

Punjab gets its 23rd district, Malerkotla

Getting Malerkotla declared as an independent district was a long pending demand of the Muslim community and the residents of the town. The town has a predominant Muslim population.

The power to create new districts or alter or abolish existing districts rests with the State governments. The **Centre has no role to play in the alteration of districts or creation of new ones.** States are free to decide. The **Home Ministry comes into the picture when a State wants to change the name of a district or a railway station.**

Current Affairs Update (May 23-30)

National

Cyclone Yaas

Cyclone Yaas is likely to affect the coastal parts of Odisha and West Bengal on May 26, 2021. This name has been given by Oman and refers to a tree with good fragrance and in English, the word is similar to Jasmine. The next cyclone—after Yaas—is likely to be named Gulab, suggested by Pakistan.

Recent cyclones in Bay of Bengal: Amphan was a super cyclone that ravaged West Bengal in March last year. It was **the strongest storm that hit India's eastern coast since the super cyclone of 1999**, that struck Paradip, Odisha. Before Amphan, **Fani** in 2019 also hit Odisha, causing immense damage that lasted weeks.

Why Bay of Bengal experience frequent cyclones?

Bay of Bengal is warmer than the Arabian Sea. This provides sufficient and continuous heat energy which is required to create and sustain a low-pressure system. Higher sea surface temperatures and humidity is directly related with the chances of formation of cyclone. Apart from that, Bay of Bengal receives higher rainfall and experience constant influx of fresh water from Ganga and Brahmaputra rivers. As a result, surface water keeps on getting refreshed. Thus, it is almost impossible for warm water to mix with cooler water beneath. It is an ideal situation for the formation of depression.

What happens when a cyclone hits the land?

Cyclone dissipates when it hits the land as the warm water that rises and creates space for cool water is no longer available on land. Also, the moist air that rises up forms clouds leading to rains that accompany gusting winds during cyclones.

What is a supermoon?

A supermoon **occurs when the Moon's orbit is closest to the Earth at the same time that the Moon is full**. In a typical year, **there may be two to four full supermoons**.

Significantly, a supermoon and a total lunar eclipse have not occurred together in nearly six years.

The Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021

New IT rules to regulate digital content, featuring a **code of ethics and a three-tier grievance redressal framework**, have come into force (May 26).

On February 25, the Centre framed **the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021**, in the exercise of powers under **section 87 (2) of the Information Technology Act, 2000**.

Social media companies with more than 50 lakh registered users will be considered 'significant social media intermediaries', as per the new norms.

Highlights:

- It mandates a **grievance redressal system** for over the top (OTT) and digital portals in the country. This is necessary for the users of social media to raise their grievance against the misuse of social media.
- **Significant social media firms** have to appoint a **chief compliance officer** and have a **nodal contact person** who can be in touch with law enforcement agencies 24/7.
- **A grievance officer:** Social media platforms will also have to name a **grievance officer** who shall register the grievance within 24 hours and dispose of it in 15 days.
- **Removal of content:** If there are complaints against the dignity of users, particularly women – about exposed private parts of individuals or nudity or sexual act or impersonation etc – social media platforms will be required to remove that within 24 hours after a complaint is made.
- **A monthly report:** They also will have to publish a monthly report about the number of complaints received and the status of redressal.
- There will be **three levels of regulation for news publishers** – self-regulation, a self-regulatory body, headed by a retired judge or an eminent person, and oversight from the Information and Broadcasting Ministry, including codes of practices and a grievance committee.

What happens in case of non compliance?

Social media giants such as Facebook, Twitter, Instagram and WhatsApp messenger **could face a ban** if they do not comply with the new Information Technology rules. They also run the risk of losing their status as **"intermediaries"** and may become liable for criminal action if they do not comply with the revised regulations.

The Concerns:

- Various industry bodies have written to the government **for up to a one-year compliance window, particularly in view of the pandemic**.
- Concerns have also been expressed over potential **unavailability of 'safe harbour' protection** given to intermediaries under **Section 79 of the IT Act**, under the new rules.
- They have requested a re-think over a clause in the new rules which can lead to **imposition of criminal liability upon the employees for non-compliance by intermediaries**, asking for it to be dropped in the interest of ease of doing business.

- **Originator traceability mandate in end-to-end encrypted platforms** could end up weakening the security architecture of the platform. This could render the entire citizenry susceptible to cyberattacks by hostile actors.
- Additionally, the extant data retention mandate entailed **risking privacy of users in India and abroad** in addition to security risks and technical complexities which requires a lot of time for development and testing before integration with the existing ecosystem.

India Biodiversity Award 2021

Shaji .N.M., fondly called as **'Tuber Man'** of Kerala has been awarded **the India Biodiversity Award 2021** in the individual category of 'Conservation of domesticated species'. Shaji conserves a wide array of around 200 tuber crops including greater yam, lesser yam, elephant foot yam, arrowroot, colocasia, sweet potato, cassava and Chinese potato.

Princess of Asturias Award

Indian economist and Nobel Laureate, Amartya Kumar Sen, was conferred with "Princess of Asturias Award" in social sciences category which is Spain's top prize. Amartya Sen was selected for his best-known work- "Poverty and Famines".

Bao-dhaan

- It is iron-rich rice variety grown in Brahmaputra valley of Assam, without the use of any chemical fertilizer.
- The first consignment of this 'red rice' variety was sent to the US from Assam recently.

International

Lithuania quits China's 17+1 cooperation forum

Lithuania has quit China's **17+1 cooperation forum** with central and eastern European states that includes other EU members. Lithuania has called it "divisive". It has also urged fellow EU members to pursue "a much more effective 27+1 approach and communication with China."

What is the "17+1" initiative?

The 17+1 initiative is a China-led format **founded in 2012 in Budapest** with an aim to expand cooperation between Beijing and the Central and Eastern European (CEE) member countries, with **investments and trade for the development of the CEE region.**

The framework also focuses on infrastructure projects such as bridges, motorways, railway lines and modernisation of ports in the member states. The platform is largely seen as an extension of China's flagship **Belt and Road initiative (BRI).**

China's narrative towards the 17+1 initiative is about **improving its relations with the European countries that are less developed as compared to the Western European states.**

Composition: The initiative includes twelve EU member states and five Balkan states — Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia and Slovenia.

Congo's Mount Nyiragongo

Congo's Mount Nyiragongo volcano erupted at night and sent thousands fleeing in panic. Mount Nyiragongo is an active stratovolcano with an elevation of 3,470 m in **the Virunga Mountains** associated with **the Albertine Rift.**

It is located inside **Virunga National Park**, in the Democratic Republic of the Congo.

Science-Tech & Environment

Yellow fungus

Other name: Mucor septic, Mucormycosis

Causative agent: Mucormycetes

Nomenclature: Because of the yellow colour pus that is formed in the area wounded by the fungus

Current outbreak: Ghaziabad, UP

Why is it considered more dangerous than black fungus? Yellow fungus is even more dangerous as it originates internally, which makes it more difficult to identify and treat the disease.

Systems affected: Brain, digestive system, respiratory organs, kidneys and even private parts.

Symptoms: Weight loss, reduced appetite, lethargy, pus leakage, sunken eyes, organ failure, slow healing of wounds and necrosis

Conditions favoring growth: Humidity levels below 30-40 per cent, poor hygiene and stale food

Treatment: Amphotericin B injection

WHO panel to investigate rise in zoonotic diseases and build action plan

The World Health Organization (WHO) has formed a high-level expert panel '**One Health**' to study the emergence and spread of zoonotic diseases like H5N1, avian influenza, MERS, Ebola, Zika and possibly the novel coronavirus disease (COVID-19).

Terms of reference:

1. The panel will advise global agencies on how future outbreaks, especially due to zoonotic diseases, can be averted.
2. It will also develop a surveillance framework and global action plan for the same.

Zoonotic diseases — pathogenic infections that transmit from animals to humans — have triggered pandemics in past as well. Three of every four infectious diseases are caused by zoonosis. Scientists across the world suspect COVID-19 is also a zoonosis.

OneHealth concept: One Health is the collaborative efforts of multiple disciplines working locally, nationally, and globally, to attain optimal health for people, animals and our environment, as defined by the One Health Initiative Task Force. One Health model facilitates interdisciplinary approach in disease control so as to control emerging and existing zoonotic threats.

What are zoonotic diseases?

The word ‘Zoonosis’ (Pleural: Zoonoses) was introduced by **Rudolf Virchow** in 1880 to include collectively the diseases shared in nature by man and animals.

Later WHO in 1959 defined that Zoonoses are those diseases and infections which are naturally transmitted between vertebrate animals and man. Zoonoses may be bacterial, viral, or parasitic, or may involve unconventional agents.

NGT upholds rights of pastoralists in Banni grasslands

The National Green Tribunal (NGT) ordered all encroachments to be removed from **Gujarat’s Banni grasslands** within six months and directed a joint committee to prepare an action plan in a month. The court also said the **Maldharis** will continue to hold the right to conserve the community forests in the area, granted to them as per the provisions in **Section 3 of Forest Rights Act, 2006**.

Background: The Maldhari community had filed a case against the rampant encroachment in the ecologically-sensitive grassland in May, 2018.

Maldharis: Maldharis are a tribal herdsmen community in Gujarat, India. Maldhari community breeds Banni Buffaloes, a species endemic to the region. The buffaloes are adaptive to Kutch’s hot weather conditions.

Banni Grasslands: Banni grassland is spread over 2,618 kilometres and accounts for almost 45 per cent of the pastures in Gujarat. It comprises 48 hamlets / villages organised into 19 panchayats, with a population of about 40,000. Two ecosystems, **wetlands and grasslands, are juxtaposed in Banni**.

Kyasanur forest disease

Recently, researchers found a new point-of-care test to be highly sensitive for rapid diagnosis of Kyasanur forest disease (KFD) which is emerging as a new public health problem & challenge in India.

The disease is tick-borne viral haemorrhagic fever which is endemic to South-western part of India. It is caused by a virus from family Flaviviridae. Virus is transmitted to humans through bite of infected hard ticks, acting as a reservoir of KFD Virus.

The point-of-care tests has been developed by ICMR-National Institute of Virology. It will be beneficial to diagnose KFD which is also called as monkey fever. This fever usually outbreaks in remote areas which lacks in well-equipped sample handling and laboratory testing facilities. Thus, point-of-care test will quickly manage the patient and control further spread of virus.

Dipcovan

The Defence Institute of Physiology and Allied Sciences (DIPAS), a laboratory of Defence Research and Development Organisation (DRDO), has developed a **Covid-19 antibody detection kit called 'Dipcovan'**.

About Dipcovan:

- The Dipcovan kit can detect both spike as well as nucleocapsid (S&N) proteins of SARS-CoV-2 virus with a high sensitivity of 97 % and specificity of 99%.
- The kit has a shelf life of 18 months.
- It has been developed in association with Vanguard Diagnostics Pvt Ltd.
- The antibody detection kit is approved by the Indian Council of Medical Research (ICMR) in April 2021.

State GK

Haryana Recovery of Damages to Property Act

Governor of Haryana, S N Arya, approved the Haryana Recovery of Damages to Property Bill. According to the bill (now act), any damage created to people's shops, houses, vendor carts, government offices, buses, vehicles and other such public property will be recovered from protestors.

Key provisions of the act

- Recovery of damages to properties will be made by the person causing disturbances to public order by any assembly, lawful or unlawful such as riots and violent disorder.
- Act also ensures compensation to victims.

- Recovery will also be made from people, leaders, organisers etc leading the protest and involved in its planning.
- It will establish a Claims Tribunal to determine liability and to assess damages caused award.
- Any person aggrieved by award passed by Claims Tribunal can go to High Court of Punjab and Haryana. No civil court will have jurisdiction to entertain question related to claim compensation

Economics

IMF warns for 'Ricochet Impact'

According to International Monetary Fund (IMF), Emerging-market nations' struggle to move out of covid-19 pandemic-induced economic crisis can hurt developed nations. It said, crisis has "Ricochet impact" on the developed and advanced economies.

Ricochet means rebound, bounce, or skip off from surface, particularly in projectile cases.

IMF suggests that, developed nations should doing all to ensure better & equitable access to vaccines and equitable recovery. Poorer nations are facing the risk of increasing interest rates even though, their economies aren't growing.