

Current Affairs Update (Aug 1-7)

National

India assumes UNSC presidency

India has assumed **the rotating Presidency of the United Nations Security Council** for the month of August. This is **India's tenth tenure**.

This is also **India's first presidency in the UNSC during its 2021-22 tenure as a non-permanent member of the UNSC**.

About Security Council Presidency:

- The presidency of the Council is **held by each of the members in turn for one month**, following the English alphabetical order of the Member States names.
- It **rotates among the 15 member-states** of the council monthly.
- **The head of the country's delegation is known as the President of the United Nations Security Council.**

India, China establish hotline in north Sikkim

- The hotline has been established between the Indian Army at **Kongra La in north Sikkim** and the People's Liberation Army (PLA) at **Khamba Dzong in the Tibet Autonomous Region** to further the spirit of trust and cordial relations along the border.
- At present, **India and China have two military hotlines** in eastern Ladakh, among others at **Chushul and Daulat Beg Oldi**.
- A hotline is a **direct phone line** set up for a specific purpose, especially for use in emergencies or for communication between heads of government.

The Juvenile Justice (Care and Protection of Children) Amendment Bill, 2021

The **Juvenile Justice (Care and Protection of Children) Amendment Bill, 2021**, which seeks to amend **the Juvenile Justice Act, 2015**, was recently passed in Rajya Sabha.

Highlights:

- **The District Magistrates** have been further empowered under the Act **to ensure its smooth implementation, as well as garner synergized efforts in favour of children in distress conditions.**

- It means that DMs and ADMs will **monitor the functioning of various agencies under the JJ Act in every district**- including the Child Welfare Committees, the Juvenile Justice Boards, the District Child Protection Units and the Special Juvenile Protection Units.
- The DM will also carry out **background checks of CWC members**, who are usually social welfare activists, including educational qualifications, as there is no such provision currently.
- The DMs are also to check possible criminal backgrounds to ensure that no cases of child abuse or child sexual abuse are found against any member before they are appointed.
- **Serious offences will also include** offences for which maximum punishment is imprisonment of more than seven years, and minimum punishment is not prescribed or is less than seven years.
- Instead of the court, the District Magistrate (including Additional District Magistrate) will now issue adoption orders.

Essential Defence Services Bill 2021

The Bill was recently passed by **the Lok Sabha**.

Objective: The Bill aims to prevent the staff of the government-owned ordnance factories from going on a strike.

Background: In June the government announced the **corporatisation of the Ordnance Factory Board**. The government has claimed that the move is aimed at improving the efficiency and accountability of these factories. However, fearing job loss, many federations announced the launch of indefinite strikes. This was countered by the Essential Defence Services Ordinance which was promulgated on June 30. The Bill will replace this ordinance.

Highlights of the Bill:

1. It is meant to “provide for the maintenance of essential defence services.
2. The Bill defines **Essential Defence Services**: It includes any service in any establishment or undertaking dealing with production of goods or equipment required for defence related purposes or any establishment of the armed forces or connected with them or defence.
3. The Bill also empowers **the government to declare services mentioned in it as essential defence services**.
4. It **prohibits strike and lockouts in “any industrial establishment or unit engaged in essential defence services”**.
5. The Bill amends the **Industrial Disputes Act, 1947** to include essential defence services under public utility services.
6. Besides, the bill has also defined strikes and punishments for violations.

Tribunals Reforms (Rationalisation and Conditions of Service) Bill, 2021

The Bill was recently passed in Lok Sabha by voice vote. The Bill replaces a similar Ordinance promulgated in April 2021. The Bill seeks to provide for **uniform terms and conditions of the various members of the Tribunal** and abolish certain tribunals, as a part of its bid to rationalize the tribunals.

Key changes:

- It seeks to **dissolve certain existing appellate bodies and transfer their functions to other existing judicial bodies.**
- It seeks to **empower the Central Government** to make rules for qualifications, appointment, term of office, salaries and allowances, resignation, removal and other terms and conditions of service of Members of Tribunals.
- It provides that **the Chairperson and Members of the Tribunals will be appointed by the Central Government** on the recommendation of a **Search-cum-Selection Committee.**
- It also provides **the composition of the Committee**, to be headed by the Chief Justice of India or a Judge of Supreme Court nominated by him.
- **For state tribunals**, there will be a separate search committee.
- The Union government has to **'preferably' decide on the recommendations of the search-cum selection committee within 3 months of the date of the recommendation.**
- **Tenure:** Chairperson of a Tribunal shall hold office for a term of 4 years or till he attains the age of 70 years, whichever is earlier. Other Members of a Tribunal shall hold office for a term of 4 years or till he attains the age of 67 years, whichever is earlier.

World's Highest Motorable Road at Umling La

Recently, the Border Roads Organisation (BRO) has constructed and completed black topping the world's highest motorable road at Umling La pass in Eastern Ladakh, located at an altitude of 19,300 ft. The strategic road built under **'Project Himank'** passes through the Umling La Top and **connects Chisumle and Demchok villages.**

Project Himank: Project Himank, is a project of the BRO being implemented in the Ladakh region of Jammu & Kashmir. This project started in 1985. Under this project, BRO is responsible for the construction and maintenance of roads and related infrastructure including the world's highest motorable roads.

Dr. Dhriti Banerjee

- 1st woman Director of Zoological Survey of India (ZSI). Dhriti Banerjee is a prolific scientist. She had been conducting research in zoogeography, taxonomy, morphology and molecular systematics.
- Zoological Survey of India was founded in July 1916. It is headquartered in Kolkata. It comprises of 16 regional centres and works under the ministry of environment, forests and climate change. It was set up as premier Indian organisation in zoological research. It studies and promote survey, explore & research of fauna in India.

White Collar Crime vs Blue Collar Crime

- **White Collar Crime:** The term "white collar crime" refers to financially motivated, nonviolent crime committed by individuals, businesses and government professionals. These crimes are characterized by deceit, concealment, or violation of trust.
- Examples of white-collar crimes include securities fraud, corporate fraud, and money laundering, Ponzi and pyramid schemes, etc.
- White-collar crime has been associated with the educated and affluent. The term was first coined in 1949 by sociologist Edwin Sutherland.
- **Blue Collar Crime:** These crimes are primarily small scale, for immediate beneficial gain to the individual or group involved in them. This can also include personal related crimes that can be driven by immediate reaction, such as during fights or confrontations. These crimes may include Narcotic production or distribution, sexual assault, theft, burglary, assault or murder.

International

Arctic Science Ministerial

- It was **jointly organised by Iceland and Japan and is the first Ministerial meeting held in Asia.**
- **The theme for this year** is 'Knowledge for a Sustainable Arctic'.
- The first two meetings—ASM1 and ASM2—were held in the USA in 2016 and Germany in 2018, respectively.
- The meetings are designed to provide opportunities to various stakeholders to enhance collective understanding of the Arctic region, emphasize and engage in constant monitoring, and strengthen observations.

India and the Arctic:

- India's engagement with the Arctic dates back to 1920 with the signing of **the Svalbard Treaty in Paris.**

- Since July 2008, India has had a **permanent research station in the Arctic called Himadri at Svalbard Area in Norway.**
- It has also deployed a multi-sensor moored observatory called **IndARC in the Kongsfjorden fjord since July 2014.**

UNSC against restoration of Islamic Emirate in Afghanistan

United Nations Security Council (UNSC) has declared that it is against the restoration of Islamic emirate in Afghanistan. UNSC expressed its deep concern over high levels of violence in war-torn Afghanistan following the Taliban stepping up its military offensive.

War in Afghanistan: It is an ongoing war that started after United States invasion of Afghanistan, when United States & its allies successfully drove Taliban from power and denied al-Qaeda a safe base of operations in Afghanistan. After completion of initial objectives, a coalition of over 40 countries formed a security mission in Afghanistan which is called as International Security Assistance Force. US has code-named the war as **Operation Enduring Freedom** (2001–2014) and **Operation Freedom’s Sentinel** (2015–present).

Diego Garcia

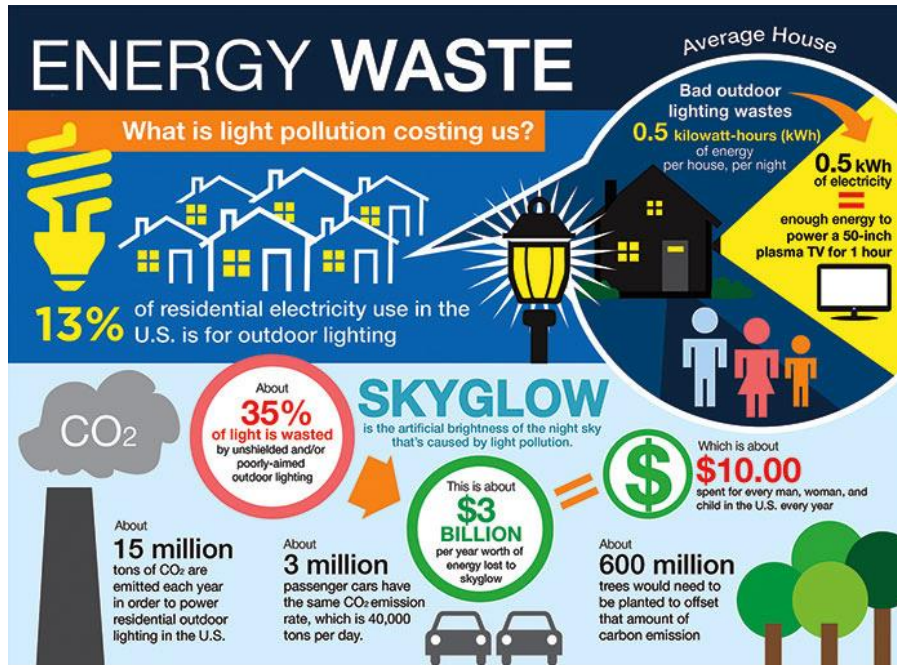
- It is an island of the British Indian Ocean Territory, an overseas territory of the United Kingdom.
- It is the largest of 60 small islands comprising the Chagos Archipelago.
- The Portuguese were the first Europeans to find it and it was then settled by the French in the 1790s and transferred to British rule after the Napoleonic Wars.
- In 1965, Britain separated the Chagos Islands from Mauritius and set up a joint military base with the United States on Diego Garcia.
- Britain insists the islands belong to London and has renewed a lease agreement with the United States to use Diego Garcia until 2036.

Science-Tech & Environment

Skyglow

- The Skyglow, is an omnipresent sheet of light across the night sky in and around cities that can block all but the very brightest stars from view.
- The brightening of the night sky over inhabited areas because of streetlights, security floodlights and outdoor ornamental lights cause the Skyglow.
- This light floods directly into the eyes of the Nocturnal (active at night) and also into the skies and misleads their path.
- 'Skyglow' is one of the components of light pollution.

- The **inappropriate or excessive use of artificial light** – known as Light Pollution (LP) – can have serious environmental consequences for humans, wildlife, and our climate.



Animalai flying frog

- **Other names:** false Malabar gliding frog and false Malabar tree frog.
- It is a **critically endangered frog species**.
- **Endemic to the southern part of the Western Ghats**, the numbers of these frogs have declined rapidly due to the loss of habitat.
- This species is known from at least two protected areas, **Indira Gandhi National Park and Parambikulam Tiger Reserve**.

India's push for Sugar-Fuelled Cars

India is pushing for cars to run on ethanol made from sugar. This move of Indian government is increasing the risks of higher cost of sweetener worldwide. Indian government will fast-track an ethanol program. This programme will divert about 6 million tons of sugar toward fuel production annually by 2025.

Challenges that India will face

- Major challenge associated with the target would be to create the kind of capacity needed in about three to four years.

- Prices of ethanol is increasing since 2017 amid a supply crunch. Prices have increased partly due to wild weather in Brazil. Further surge will increase the food inflation risks.

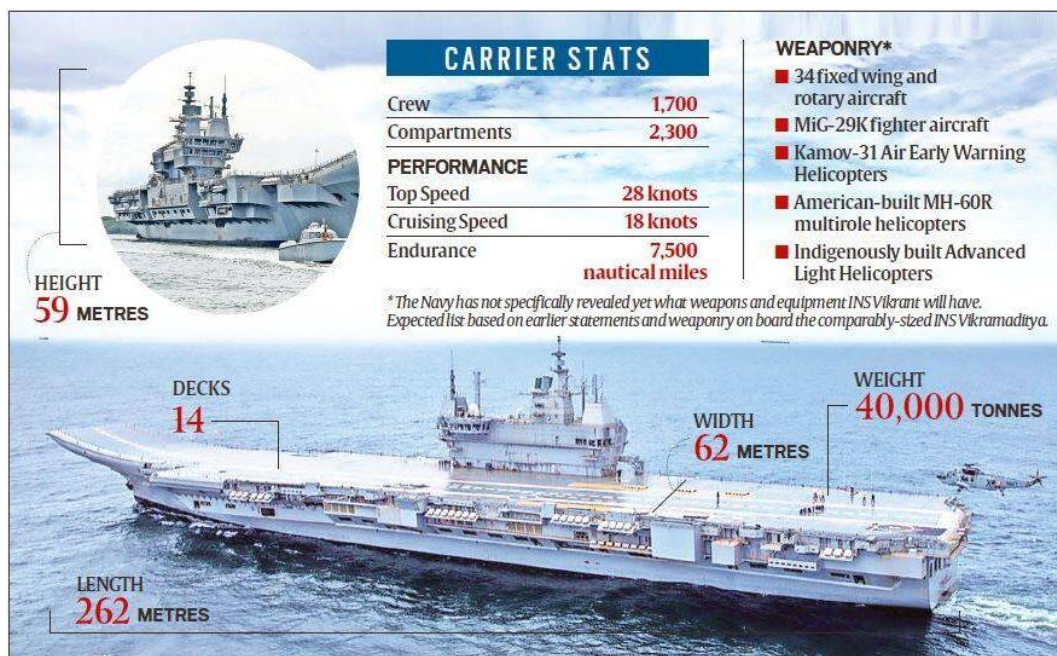
Advantages of ethanol blending

1. Ethanol blending will reduce air pollution.
2. It will cut India's oil import bills.
3. It will also help in soaking up domestic sugar glut and increase investment across rural areas.

India's first indigenous aircraft carrier

India's first indigenous aircraft carrier, **INS Vikrant**, conducted its maiden sea trials on August 4, 2021. INS Vikrant is a 44000-tonne carrier, built at the cost of Rs 23,000 crore. It has been built at state-owned Cochin Shipyard in Kochi, Kerala. About 550 Indian firms including 100 MSMEs are providing services to construct this warship. It is the largest and most complex warship that has been designed and built in India for the first time. It is **likely to be commissioned in 2022**. At present, **India has only one aircraft carrier**, the Russian-origin **INS Vikramaditya**.

Nomenclature: The vessel, to be named **Vikrant** after the decommissioned maiden carrier of the Navy. India acquired the **Vikrant** from the **United Kingdom** in **1961**, and the carrier played a stellar role in the **1971 war** with Pakistan that led to the birth of Bangladesh.



Thailand bans Coral-Damaging Sunscreens

- Thailand has banned sunscreens comprising of chemicals that damage coral from all of its marine national parks.
- Sun protection used by tourists is harming slow-growing corals in the Island nation.
- Banned lotions comprises of **oxybenzone, octinoxate, 4-methylbenzylidene camphor or butylparaben.**
- Similar bans have been put by **Pacific Island of Palau** and the US state of **Hawaii.**

Economics

The General Insurance Business (Nationalisation) Amendment Bill, 2021

The Bill introduced in Lok Sabha would pave the way for **the government to divest its stake in general insurance firms.**

Key Provisions:

1. It proposes amending **the General Insurance Business (Nationalisation) Act, 1972 to remove the requirement for the Centre to hold at least 51 percent of equity in an insurer.**
2. Another provision ensures that **the 1972 Act stops applying to insurers on** and from the date the Centre ceases to have control over them.
3. The Bill also makes a director, who is not a whole-time director, liable only for acts of omission or commission committed with his knowledge and connivance by the insurer.

Rationale behind these changes:

While India's insurance sector has been growing dynamically in recent years, its share in the global insurance market remains abysmally low. The Bill aims to provide for greater private participation in the public sector insurance companies.

Criticisms/concerns:

1. This may lead to total privatisation of general insurance companies.
2. With this, the government will also lose money by way of dividend in the proportion of shares being offered.

Challenges in the Insurance sector:

1. Low penetration and density rates.

2. Inadequate investment in insurance products.
3. The dominant position and deteriorating financial health of public-sector players.

e-RUPI

- e-RUPI is a person and purpose-specific cashless digital payment solution.
- It is a **contactless instrument for digital payment**.
- It is based on a **QR code or SMS string-based e-voucher**, which is delivered to the mobile of the beneficiaries.
- The system will eliminate the need for any physical interface, mobile banking, debit, or credit cards by simply and directly allowing the beneficiary to avail the benefits by redeeming the codes at specific centers.
- **It has been developed by** the National Payments Corporation of India (NPCI), the Department of Financial Services, the Ministry of Health and Family Welfare, and the National Health Authority.

Working: It is basically a prepaid voucher that can be issued directly to citizens after verifying mobile number and identity. The e-RUPI voucher will be delivered in the form of a QR code or SMS string-based e-voucher to the beneficiary's mobile number. The beneficiary can redeem the voucher without a card, digital payments app, or internet banking access, at the service provider.

Current Affairs Update (Aug 8-19)

National

Bill to Restore States' rights to specify OBC groups

The **Constitution 127th Amendment Bill, 2021** was passed with unanimous support in Lok Sabha, recently. The Bill amends the Constitution to allow states and union territories to prepare their own list of socially and educationally backward classes.

On May 5, while scrapping a separate quota for the Maratha community in Maharashtra, the Supreme Court had ruled that **after a 2018 amendment in the Constitution (102nd constitutional amendment), only the central government could notify socially and educationally backward classes (SEBCs) – not the states.**

The 102nd constitutional amendment (Inserted Articles 338B and 342 A after Article 342) was related to giving constitutional status to **the National Commission of Backward Classes** and interpretation of this constitutional amendment effectively **struck a blow to the authority of state governments** in identifying backward classes and provide them with reservation benefits.

Ujjwala 2.0 scheme

The government has launched **the second phase of the Ujjwala gas connection scheme** for the poor.

Pradhan Mantri Ujjwala Yojana:

Launched in **May 2016**.

Aim: To provide **LPG (liquefied petroleum gas)** connections to poor households.

Key features: A deposit-free LPG connection is given to the eligible household with financial assistance of Rs 1,600 per connection by the Centre.

Target: The scheme gained traction with its ambit being expanded to include 80 million poor families from the earlier target of 50 million families with an additional allocation of Rs 4,800 crore.

Under Ujjwala 2.0:

- Migrant workers would no longer have to struggle to get address proof documents to get the gas connections.

They workers would only be required to submit a self-declaration of their residential address to get the gas connection.

National Mission on Edible Oil-Oil Palm (NMEO-OP)

Aims and Objectives of the scheme:

1. Achieve self-reliance in edible oil.
2. Harness domestic edible oil prices that are dictated by expensive palm oil imports.
3. To raise the domestic production of palm oil by three times to 11 lakh MT by 2025-26.

Key features of the scheme:

- The special emphasis of the scheme will be in India's north-eastern states and the Andaman and Nicobar Islands due to the conducive weather conditions in the regions.
- Under the scheme, oil palm farmers will be provided financial assistance and will get remuneration under a price and viability formula.

Need for such schemes: India is the largest consumer of vegetable oil in the world. Of this, palm oil imports are almost 60% of its total vegetable oil imports.

Palm oil is currently the world's most consumed vegetable oil. It is used extensively in the production of detergents, plastics, cosmetics, and biofuels.

Top consumers of the commodity are India, China, and the European Union (EU).

Pensilungpa Glacier

- The Pensilungpa Glacier is located in Zaskar, Ladakh.
- It is retreating due to an increase in the temperature and decrease in precipitation during winters.
- The Zaskar Range is a mountain range in the union territory of Ladakh that separates Zaskar from Ladakh.
- Geologically, **the Zaskar Range** is part of the Tethys Himalaya.
- **Marbal Pass** and many other passes which connect Ladakh with Kashmir are in this area. 13000 feet high **Zojila Pass** is in the extreme northwest of Zaskar range.

Abanindranath Tagore

Abanindranath Tagore, **the nephew of Rabindranath Tagore**, was one of the most prominent artists of **Bengal school of art in India**. He was **the first major supporter of swadeshi values in Indian art**. He first created the 'Indian Society of Oriental Art' and later went on to establish Bengal school of art.

Famous paintings are: Bharat Mata, The Passing of Shah Jahan (1900), My Mother (1912–13), Fairyland illustration (1913), Journey's End (circa 1913).

Why in news? Abanindranath Tagore's 150th birth anniversary- 7th August.

Khel Ratna named after Dhyan Chand

The Rajiv Gandhi Khel Ratna stands renamed as the "Major Dhyan Chand Khel Ratna" in honour of the hockey wizard.

Dhyan Chand, a three-time Olympic gold medallist, is considered India's greatest hockey player. His birthday, on **August 29, marks the National Sports Day**, when the National Sports Awards are presented each year.

Khel Ratna Award is the highest sporting award given by the Ministry of Youth Affairs and Sports for the spectacular and most outstanding performance in the field of sports by a sports person over a period of four years.

Ladakh removes need for Inner Line Permit for Indian nationals

Ladakh Administration has removed the need of an Inner Line Permit (ILP) for all Indian nationals who seeks to visit protected areas of union territory.

Inner Line Permit: ILP is a document required by non- natives to visit or stay in states which are protected under ILP system. Presently, four North-eastern states Arunachal Pradesh, Manipur, Mizoram and Nagaland are covered under this system. Duration of stay and areas allowed to be accessed for any non-native are decided by ILP. It is issued by concerned state government and can be availed by applying online or in person.

ILP is an extension of Bengal Eastern Frontier Regulation Act 1873 under which Britishers framed regulations to restrict entry in certain designated areas. This was done to protect interest of the Crown in some states by preventing Indians (British Subjects) from trading within these regions.

International

India's 5-point agenda to enhance maritime cooperation

Prime Minister Narendra Modi recently presided over a **UN Security Council (UNSC)** Open Debate on the topic- **Enhancing Maritime Security**.

Five-point agenda laid down by PM to increase maritime cooperation:

1. Removal of barriers to legitimate maritime trade.
2. Resolution of maritime disputes peacefully in accordance with international law.

3. Fight threats from natural disasters, non-state actors.
4. Conservation of marine resources.
5. Promoting responsible maritime connectivity.

Coalition for Disaster Resilient Infrastructure

Coalition for Disaster Resilient Infrastructure (CDRI) has been joined in by 25 countries and seven international organisations as member till date. Bangladesh is the new entrant to CDRI.

CDRI was launched by Prime Minister Narendra Modi in 2019. It was set up with the objective of promoting resilience of new and existing infrastructure systems to climate and disaster risks to support sustainable development. Prime minister launched the CDRI on September 23, 2019 during his speech at the UN Climate Action Summit.

Taliban

The Islamic force called Taliban was founded in southern Afghanistan. Mullah Mohammad Omar was the founder of the group. He was a member of the Pashtun tribe who became a mujahideen commander. He helped in pushing Soviets out of the country in 1989. Later in 1994, Mullah Omar formed the group in Kandahar comprising of 50 followers. They captured Kandahar & seized Kabul in 1996 and imposed strict Islamic rules. These rules banned television & music, stopped girls from going to school and forced women to wear burqas.

Taliban had ruled Afghanistan from 1996 until 2001 when US troops toppled. This group had sheltered Osama bin Laden as he planned the 9/11 attack of 2001.

Why in news? On August 15, 2021, the Taliban entered Kabul after gaining control over much of the country following the withdrawal of US troops. Taliban's control over Afghanistan now poses a new threat to entire political and social order of the US as well as its allies.

How do they fund themselves?

The Taliban makes money by Afghanistan's illegal drug trade. They impose taxes on poppy growers and heroin producers in the areas of Afghanistan it controls. They also impose taxes on businesses and operate illegal mines. Besides, it receives funding from supporters in Pakistan and the Gulf.

UN slams child marriages

The UN has condemned **underage forced marriages in Zimbabwe** following the death of a 14-year-old girl reportedly during childbirth.

UN and other international efforts towards ending child marriages:

1. 1979 Convention on the Elimination of Discrimination Against Women provides that the betrothal and marriage of a child shall have no legal effect.
2. The 1964 Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages says that States Parties to the present Convention shall take legislative action to specify a minimum age for marriage.
3. The right to 'free and full' consent to marriage is recognized in the Universal Declaration of Human Rights.
4. Although marriage is not mentioned directly in the Convention on the Rights of the Child, child marriage is linked to other rights – such as the right to freedom of expression, the right to protection from all forms of abuse, and the right to be protected from harmful traditional practices.
5. In 2016, UNICEF, together with UNFPA, launched the Global Programme to End Child Marriage.
6. The elimination of child, early and forced marriage is now part of the Sustainable Development Goals under Target 5 – achieving gender equality and empowering all women and girls.

What are the concerns associated with child marriages?

1. Marriage before the age of 18 is a fundamental violation of human rights.
2. While the practice is more common among girls than boys, it is a violation of rights regardless of sex.
3. Child marriage often compromises a girl's development by resulting in early pregnancy and social isolation, interrupting her schooling and limiting her opportunities for career and vocational advancement.
4. Child marriage robs girls of their childhood and threatens their lives and health. Girls who marry before 18 are more likely to experience domestic violence and less likely to remain in school.
5. Child brides often become pregnant during adolescence, when the risk of complications during pregnancy and childbirth increases – for themselves and their infants.
6. Because child marriage impacts a girl's health, future and family, it imposes substantial economic costs at the national level, too, with major implications for development and prosperity.
7. Without further acceleration, more than 120 million additional girls will marry before their 18th birthday by 2030.

What is the Atlantic Meridional Overturning Circulation (AMOC)?

The Atlantic Meridional Overturning Circulation (AMOC) is a **large system of ocean currents** that carry warm water from the tropics northwards into the North Atlantic.

How does the AMOC work?

1. The AMOC is a large system of ocean currents, like a conveyor belt, driven by differences in temperature and salt content – the water's density.
2. As warm water flows northwards it cools and some evaporation occurs, which increases the amount of salt.
3. Low temperature and a high salt content make the water denser, and this dense water sinks deep into the ocean.
4. The cold, dense water slowly spreads southwards, several kilometres below the surface.
5. Eventually, it gets pulled back to the surface and warms in a process called "upwelling" and the circulation is complete.

What if the AMOC collapsed?

If the AMOC collapsed, it would increase cooling of the Northern Hemisphere, sea level rise in the Atlantic, an overall fall in precipitation over Europe and North America and a shift in monsoons in South America and Africa.

Global Youth Development Index 2020

- **Commonwealth Secretariat** released this triennial ranking of youth development. The index measures the status of young people among 181 countries across the world.
- **Top performers:** Singapore was ranked at the top for the first time. It is followed by Slovenia, Norway, Malta and Denmark.
- **Bottom countries** in the index include- Chad, Central African Republic, South Sudan, Afghanistan and Niger.
- **India's performance:** India was ranked at 122nd position among 181 countries in Global Youth Development Index, 2020.

UNITE AWARE

UNITE AWARE is a mobile tech platform developed by India to provide terrain-related information to the UN peacekeepers so as to ensure their safety. It is being developed in partnership with the UN Department of Peacekeeping Operations and the Department of Operational Support. India has spent 1.64 million USD for this project.

Why in news? External Affairs Minister, S. Jaishankar has announced the rollout of a technological platform in partnership with **the UN — ‘UNITE Aware’** — to help enhance the safety of **UN peacekeepers**.

UN peacekeepers: UN peacekeepers (often referred to as **Blue Berets or Blue Helmets** because of their light blue berets or helmets) can include soldiers, police officers, and civilian personnel. Peacekeeping forces are contributed by member states on a voluntary basis. Civilian staff of peace operations are international civil servants, recruited and deployed by the UN Secretariat.

How are UN Peacekeeping operations funded?

- While **decisions about establishing, maintaining or expanding a peacekeeping operation are taken by the Security Council**, the **financing of UN Peacekeeping operations is the collective responsibility of all UN Member States**.
- **Every Member State is legally obligated to pay their respective share** towards peacekeeping. This is in accordance with the provisions of **Article 17 of the Charter of the United Nations**.

The top 5 providers of assessed contributions to United Nations Peacekeeping operations for 2020-2021 are:

1. United States (27.89%).
2. China (15.21%).
3. Japan (8.56%).
4. Germany (6.09%).
5. United Kingdom (5.79%).

Maki Kaji

The Godfather of Sudoku, Maki Kaji, passed away at the age of 69, due to bile duct cancer. Maki Kaji was the president of Nikoli Co. Ltd. It is a Japanese puzzle manufacturer. He was popularly called as “the father of Sudoku” as he played a key role in popularizing this number game. He also invented other puzzle games including Masyu.

Science-Tech & Environment

GSLV-F10 mission

Launch site: Satish Dhawan Space Centre (SDSC), Sriharikota

Launch vehicle: GSLV

Satellite to be launched: Earth Observation Satellite (EOS-03)

Application: EOS-03 will be capable of obtaining vital information for application in different sectors including agriculture, forestry, water bodies as well as for disaster warning, cyclone monitoring, cloudburst, or thunderstorm monitoring. It also said that earth observation satellite would provide real time images of the country and borders and also able to quick monitor of natural disasters.

Glitch faced: Cryogenic Upper Stage ignition did not happen due to technical anomaly.

Nomenclature of satellites: Earlier, the satellites were named according to the specific purpose they were supposed to serve, even though they all were earth observation satellites. ISRO launched a series comprising Cartosa, Risat, Oceansat and the like. All such satellites are being named EOS.

Four more Indian sites get Ramsar recognition

1. **Sultanpur National Park, Haryana:** More than 10 globally threatened, including the critically endangered sociable lapwing, and the endangered Egyptian Vulture, Saker Falcon, Pallas's Fish Eagle and Black-bellied Tern birds are found here.
2. **Bhindawas Wildlife Sanctuary, Haryana:** It is a human-made freshwater wetland. It is also the largest in Haryana.
3. **Thol, Gujarat:** It is a Wildlife Sanctuary in Gujarat lies on the Central Asian Flyway and more than 320 bird species can be found here. It supports more than 30 threatened waterbird species, such as the critically endangered White-rumped Vulture and Sociable Lapwing, and the vulnerable Sarus Crane, Common Pochard and Lesser White-fronted Goose.
4. **Wadhvana, Gujarat:** It is internationally important for its birdlife as it provides wintering ground to migratory waterbirds, including over 80 species that migrate on the Central Asian Flyway. Pallas's fish-Eagle, the vulnerable Common Pochard, and the near-threatened Dalmatian Pelican, Grey-headed Fish-eagle and Ferruginous Duck are some birds found here.

World's second-largest refurbished gene bank

The world's second-largest refurbished state-of-the-art National Gene Bank was inaugurated recently at the National Bureau of Plant Genetic Resources (NBPGR), Pusa, New Delhi.

Significance:

1. Researchers or farmers can withdraw samples from these "gene" banks to help rebuild populations of rare plant varieties and animal breeds or to help increase genetic diversity within species.

2. Gene banks also preserve cells or organisms that host unusual gene variants — genes with special traits. Those genes might later prove useful when some disease epidemic strikes, when the climate changes or when other factors threaten the survival of plants or animals.
3. Farmers could use the banked deposits — stored cells or tissues — to restore genetic diversity or to introduce traits from other breeds or varieties.

About the National Gene Bank:

- Established in 1996 to preserve the seeds of Plant Genetic Resources (PGR) for future generations.
- It has the capacity to preserve about one million germplasm in the form of seeds.
- It stores different crop groups such as cereals, millets, medicinal and aromatic plants and narcotics, etc.
- Presently, the National Gene Bank has been protecting 4.52 lakh accessions, of which 2.7 lakh are the Indian germplasm while the rest have been imported from other countries.

NGB has four kinds of facilities to cater to long-term as well as medium-term conservation namely:

1. Seed Gene bank (- 18°C).
2. Cryo gene bank (-170°C to -196°C).
3. In-vitro Gene bank (25°C).
4. Field Gene bank.

Common survey to count elephants and tigers

India is planning to adopt the new population estimation protocol in the all-India elephant and tiger population survey in 2022. Given that 90% of the area occupied by elephants and tigers is common, and once estimation methods are standardised, having a common survey can significantly save costs.

Currently, the tiger survey is usually held once in four years and elephants are counted once in five years. According to the most recent 2018-19 survey, there were 2,967 tigers in India. According to the last count in 2017, there were 29,964 elephants in India.

IPCC's Sixth Assessment report

Recently, **IPCC released its Sixth Assessment Report "Climate Change 2021: The Physical Science"**.

The Sixth Assessment Report (AR6) of the **United Nations Intergovernmental Panel on Climate Change (IPCC)** is the sixth in a series of reports intended to assess scientific, technical, and socio-economic

information concerning climate change. **This report evaluates** the physical science of climate change – looking at the past, present, and future climate. It reveals **how human-caused emissions are altering our planet** and what that means for our collective future.

Highlights of Report:

- **Weather and climate events** – such as extreme heat, heavy rainfall, fire conditions, and droughts – are becoming more severe and frequent because of climate change.
- The report finds we are already edging **closer to a 1.5 degrees Celsius warmer world**, and every day emissions rise the prospects for averting the worst impacts of climate change become dimmer.
- **Carbon dioxide** has been and will continue to be the dominant cause of global warming under all greenhouse gas emissions scenarios.
- It says, if greenhouse gas emissions are halved by 2030 and net zero by 2050, global warming can be stopped.
- Also, IPCC report vindicates India’s position that historical cumulative emissions are the source of the climate crisis that the World faces today.

Plastic Waste Management Amendment Rules, 2021

The **Environment Ministry** has notified **the Plastic Waste Management Amendment Rules, 2021**, which prohibit specific **single-use plastic** items which have “low utility and high littering potential” by 2022.

Highlights:

- The manufacture, import, stocking, distribution, sale and use of the identified **single-use plastic** will be prohibited with effect from the 1st July, 2022.
- **The permitted thickness of the plastic bags**, currently 50 microns, will be increased to 75 microns from 30th September, 2021, and to 120 microns from the 31st December, 2022.
- **The Central Pollution Control Board, along with state pollution bodies**, will monitor the ban, identify violations, and impose penalties already prescribed under **the Environmental Protection Act, 1986**.
- **The plastic packaging waste**, which is not covered under the phase out of identified single use plastic items, shall be collected and managed in an environmentally sustainable way through **the Extended Producer Responsibility (EPR)** of the Producer, importer and Brand owner (PIBO), as per **Plastic Waste Management Rules, 2016**.

Rice fortification plan to tackle malnutrition

Prime Minister Narendra Modi has announced the fortification of rice distributed under various government schemes, including **the Public Distribution System (PDS) and mid-day meals in schools, by 2024**. India ranks 94 out of 107 countries and is in the ‘serious hunger’ category on **the Global Hunger Index (GHI)**.

According to **FSSAI** norms, 1 kg fortified rice will contain iron (28 mg-42.5 mg), folic acid (75-125 microgram) and Vitamin B-12 (0.75-1.25 microgram). In addition, rice may also be fortified with micronutrients, singly or in combination, with zinc(10 mg-15 mg), Vitamin A (500-750 microgram RE), Vitamin B1 (1 mg-1.5 mg), Vitamin B2 (1.25 mg-1.75 mg), Vitamin B3 (12.5 mg-20 mg) and Vitamin B6 (1.5 mg-2.5 mg) per kg.

India target to become ‘Energy Independent’ by 2047

Prime Minister Narendra Modi while addressing the nation on August 15, highlighted India’s target to become ‘energy independent’ by 2047, when India will be celebrating 100th year of Independence.

Roadmap for India to become energy independent include:

1. Increasing usage of natural gas in the economy
2. Setting up a network of CNG and piped natural gas network throughout India
3. Blending 20 per cent ethanol in petrol and electric mobility.

Presently, India has achieved the target of 100 gigawatts of renewable energy capacity much before the set the target.

India targets to become energy independent through a mix of electric mobility, gas-based economy and mixing ethanol in petrol. Currently, India spends more Rs 12 lakh crore on energy imports per year.

South Africa grants patent to an artificial intelligence system

Recently, **South Africa, first time in the world**, has granted a patent to an ‘**artificial intelligence system**’ relating to a “**food container based on fractal geometry**” innovation. The innovation involves interlocking food containers that are **easy for robots to grasp and stack**.

The patent has been given to an artificial intelligence (AI) system (called DABUS); not a human being.

What is the DABUS?

- DABUS stands for “device for the autonomous bootstrapping of unified sentience”.
- It is an **AI system created by Stephen Thaler**, a pioneer in the field of AI and programming.

- The system simulates human brainstorming and creates new inventions.
- DABUS is a **particular type of AI, often referred to as “creativity machines”** because they are capable of independent and complex functioning.

“AL-MOHED AL-HINDI 2021”

India and Saudi Arabia is all set to conduct their first ever naval exercise called “AL-MOHED AL-HINDI 2021”. To participate in the exercise, India’s guided-missile destroyer INS Kochi reached Saudi Arabia.

Economics

The Vehicle Scrappage Policy

1. Old vehicles will have to pass a **fitness test** before re-registration and as per the policy **government commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped.**
2. As a disincentive, **increased re-registration fees** would be applicable for vehicles 15 years or older from the initial date registration.
3. The state governments may be advised to **offer a road-tax rebate of up to 25% for personal vehicles and up to 15% for commercial vehicles** to provide incentive to owners of old vehicles to scrap old and unfit vehicles.

Import of crushed genetically modified (GM) soybean allowed

The Union government has decided to allow the import of **crushed genetically modified (GM) soybean**, which is a major ingredient of poultry feed. India allows the import of GM soybean and canola oil. Import of GM soya bean seeds was so far not approved in India.

Concerns/criticisms:

1. Environmental activists have raised concerns about the permission given for something derived from a genetically modified plant to enter the human food chain, given that India’s regulatory system has yet to approve GM foods.
2. Besides, the 1989 rules of the Environment Protection Act applied not just to GM organisms, but also products and substances thereof.

SonChiraiya

The ‘SonChiraiya’ brand and logo was launched by the Ministry of Housing and Urban Affairs for marketing urban Self-Help Group (SHG) products. This initiative will prove as a step in the right direction towards increased visibility and global access for the products made by urban SHG women.

Bill on cryptocurrency

It prohibits all private cryptocurrencies and provides for an **official digital currency** to be issued by the Reserve Bank of India.

The purpose of the law has been described as:

1. To create a facilitative framework for an official digital currency issued by the RBI.
2. To “prohibit all private cryptocurrencies in India”.

Why the govt wants to ban cryptocurrencies?

1. **Sovereign guarantee:** Cryptocurrencies pose risks to consumers. They do not have any sovereign guarantee and hence are not legal tender.
2. **Market volatility:** Their speculative nature also makes them highly volatile. For instance, the value of Bitcoin fell from USD 20,000 in December 2017 to USD 3,800 in November 2018.
3. **Risk in security:** A user loses access to their cryptocurrency if they lose their private key (unlike traditional digital banking accounts, this password cannot be reset).
4. **Malware threats:** In some cases, these private keys are stored by technical service providers (cryptocurrency exchanges or wallets), which are prone to malware or hacking.
5. Money laundering.

RBI unveils financial inclusion index

The Reserve Bank of India (RBI) has announced the formation of a composite Financial Inclusion Index (FI-Index) to capture the extent of financial inclusion across the country.

Highlights:

- The annual FI-Index will be published in July every year.
- The index incorporates details of banking, investments, insurance, postal as well as the pension sector in consultation with the government and respective sectoral regulators.
- The index captures information on various aspects of financial inclusion in a single value ranging between 0 and 100, where 0 represents complete financial exclusion and 100 indicates full financial inclusion.
- The FI-Index comprises three broad parameters, including access, usage and quality with each of these consisting of various dimensions computed on the basis of on several indicators.
- It has been constructed without any ‘base year’.

Current Affairs Update (Aug 20-27)

National

SC sets aside Haryana order creating a sub-category of creamy layer

Supreme Court has quashed Haryana government's notification. It said economic criterion can't be sole basis to decide '**creamy layer**'. The apex court held that the Haryana's notifications have violated the law declared in **the Indra Sawhney judgment** by identifying creamy layer only on the basis of income.

Apart from the economic criterion, social, educational and other factors must also be taken into account before defining a "creamy layer" among the backward classes.

Constitutional and legal backing related to reservation:

- **Article 14:** Equality before the law or the equal protection of the laws within the territory of India.
- **Articles 15(1) and 15(2):** Prohibit the state from discriminating against any citizen on grounds of religion, race, caste, sex, place of birth.

But **clauses (3) to (5) of Article 15** empower the state to provide for positive discrimination in favour of the grossly underrepresented and neglected sections of the society in order to promote substantive equality or better to say EQUITY.

Article 16: Equality of opportunity in matters of public employment.

- **Article 16 clause (4)** Nothing in this article shall prevent the State from making any provision for the reservation of appointments or posts in favour of any backward class of citizens which, in the opinion of the State, is not adequately represented in the services under the State.

What is the creamy layer?

It is a concept that sets a threshold within which OBC reservation benefits are applicable. While there is a **27% quota for OBCs in government jobs and higher educational institutions**, those falling within the "creamy layer" cannot get the benefits of this quota.

- Based on the recommendation of **the Second Backward Classes Commission (Mandal Commission)**, the government on August 13, 1990 had notified 27% reservation for Socially and Educationally Backward Classes (SEBCs) in vacancies in civil posts and services that are to be filled on direct recruitment.

- After this was challenged, the Supreme Court on November 16, 1992 (**Indira Sawhney case**) upheld 27% reservation for OBCs, subject to exclusion of the creamy layer.

Few categories defined under Creamy Layer:

Income beyond 8 lakh: For those not in government services, the current threshold is an income of Rs 8 lakh per year.

Parents' rank: For children of government employees, the threshold is based on their parents' rank and not income.

Chakmas and Hajongs

- **Chakmas and Hajongs** were originally residents of **Chittagong Hill Tracts** in the erstwhile East Pakistan. They left their homeland when it was submerged by **the Kaptai dam project** in the 1960s.
- **The Chakmas, who are Buddhists, and the Hajongs, who are Hindus,** also allegedly faced religious persecution and entered India through the then **Lushai Hills district of Assam** (now Mizoram). The Centre moved the majority of them to **the North East Frontier Agency (NEFA)**, which is now Arunachal Pradesh.
- Their numbers have gone up from about 5,000 in 1964-69 to one lakh. **At present, they don't have citizenship and land rights but are provided basic amenities by the state government.**

Yuktdhara

- It is a Geospatial Planning Portal for facilitating Gram Panchayat level planning of MGNREGA. It is a new portal under '**Bhuvan**'.
- Launched by the Ministry of Rural Development and Panchayati Raj.
- The platform will serve as a repository of assets (Geotags) created under various national rural development programmes i.e. MGNREGA, Integrated Watershed Management Programme, Per Drop More Crop and Rashtriya Krishi Vikas Yojana, etc.

'SUJALAM' Campaign

The **Ministry of Jal Shakti** has begun (From 25th August) '**SUJALAM**', a '**100 days campaign**' as part of the 'Azadi Ka Amrit Mahotsav'.

The objective is to create more and more **ODF Plus villages** by undertaking waste water management at village level. This is done particularly through **creation of 1 million Soak-pits and also other Grey water management activities.**

What is ODF tag?



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The original ODF protocol, issued in March 2016, said, “A city/ward is notified as ODF city/ward if, at any point of the day, not a single person is found defecating in the open.”

What is ODF+, ODF++?

ODF+ and ODF++ were launched in August 2018 to further scale up and sustain the work undertaken by the cities after achieving **the ODF status under Phase I of the Swachh Bharat Mission — Urban (SBM-Urban)**.

Eligibility: Cities that had been certified ODF at least once, on the basis of the ODF protocols, are eligible to declare themselves as SBM-ODF+ & SBM-ODF++.

What is ODF+?

A city, ward or work circle could be declared ODF+ if, “at any point of the day, not a single person is found defecating and/or urinating in the open, and all community and public toilets are functional and well-maintained.”

What is ODF++?

The ODF++ protocol adds the condition that “faecal sludge/septage and sewage is safely managed and treated, with no discharging and/or dumping of untreated faecal sludge/septage and sewage in drains, water bodies or open areas.”

International

What was Oslo I Accord?

Oslo Accords are a series of **agreements between Israel and the Palestinians signed in the 1990s**.

Oslo I (1993) is formally known as the Declaration of Principles (DOP). The accord was the result of secret negotiations facilitated by then-US president Bill Clinton, and later followed up in 1995 by the Oslo II Accord.

Oslo Accords were heralded by many as the closest to ever truly solving the Israeli-Palestinian conflict. However, the Accords in reality had served as **an interim agreement between Israel and the PLO that provided a framework by which both sides could operate together in the West Bank and Gaza**, in lieu of Palestinian statehood.

It saw the transformation of the PLO into the Palestinian Authority, which was now seen as the legitimate governing body of the Palestinians. The agreement also mandated that Israel recognize the



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PLO's new role as the representative of the Palestinian people, as well as mandating the Palestinian recognition of Israel's right to exist.

It created the most substantive changes to the West Bank and Gaza since Israel won control of the territory during **the 1967 Six Day War**.

About Oslo II:

Oslo II, officially called **the Israeli-Palestinian Interim Agreement on the West Bank and Gaza**, expanded on Oslo I. It included provisions for the complete withdrawal of Israeli troops from six West Bank cities and about 450 towns. Additionally, the pact set a timetable for elections for the Palestinian Legislative Council.

What is Havana Syndrome?

This syndrome is a series of unexplained medical symptoms that were first experienced by U.S. State Department personnel who were based in Cuba in 2016. State department also reported such cases in 2018 in China.

What are the symptoms?

Symptoms associated with the syndrome includes headache, dizziness, fatigue, anxiety, nausea, cognitive difficulties and memory loss of varying severity.

What causes the syndrome?

Initially, it was believed that the syndrome is the result of an attack by a sonic or acoustic weapon. But later a comprehensive analysis by a U.S. scientific panel pointed that exposure to a type of directed energy is the main culprit. A different medical assessment conducted in 2018 noted that exposure to microwaves is the main cause.

What is UNAMA?

UNAMA was established on 28 March 2002 by **United Nations Security Council** Resolution 1401. It was basically established **to assist the state and the people of Afghanistan in laying the foundations for sustainable peace and development**.

Its original mandate was to support the implementation of **the Bonn Agreement** (December 2001). Reviewed annually, this mandate has been altered over time to reflect the needs of the country.

Why in news? World leaders are planning to meet to discuss the renewal of the mandate of **the UN Assistance Mission in Afghanistan (UNAMA)**, which expires on September 17.

What is Operation Devi Shakti?

Operation Devi Shakti name has been given by India to its operation of evacuating its citizens from war-torn Afghanistan.

Ain Dubai: World's largest and tallest observation wheel

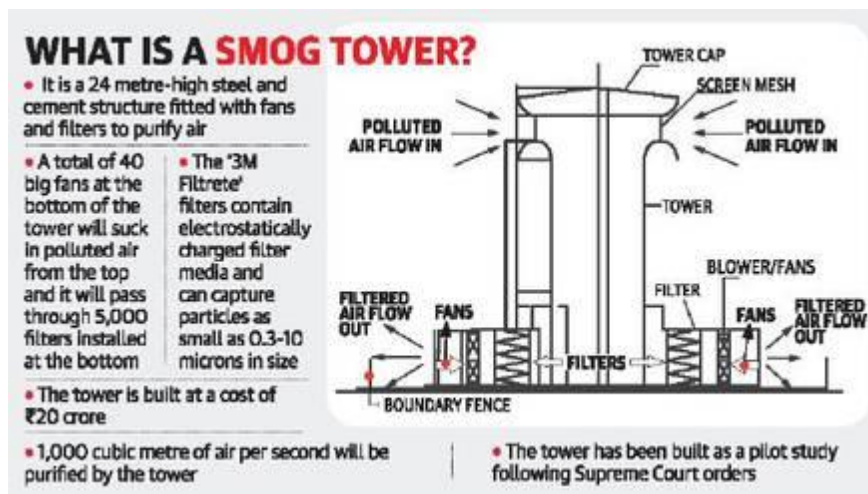
World's largest and tallest observation wheel, called Ain Dubai, will be opened in the UAE on October 21, 2021. Ain Dubai is about 42.5m taller than the London Eye. It will take visitors to the height of 250 metres in order for them to enjoy the majestic view of Dubai's picturesque skyline.

Science-Tech & Environment

What is a smog tower?

The **smog towers** are being installed in Delhi on the lines of China, which has experimented with this technology in its capital Beijing and other cities. The Delhi government will study the impact of smog towers on pollution and could add more such structures across the national capital.

Smog towers are structures designed to work as large-scale air purifiers. They are fitted with multiple layers of air filters and fans at the base to suck the air. After the polluted air enters the smog tower, it is purified by the multiple layers before being re-circulated into the atmosphere.



A 'mermaid' species of algae discovered on Andaman and Nicobar islands

- After nearly four decades, a new species of algae has been discovered on the islands. Researchers have named the species **Acetabularia jalakanyakae**.
- The plant consists of a **single gigantic cell with a nucleus**, which is its main characteristic.
- The species is **the first of the genus Acetabularia to be discovered in India**.
- Another feature of Acetabularia is **their regenerative potential**.

Kigali Amendment to the 1989 Montreal Protocol

India has decided to ratify **Kigali Amendment, a key amendment to the Montreal Protocol.**

Significance: It is estimated that a complete phase-out of HFCs by 2050 would prevent about 0.5 degree Celsius rise in global temperatures by the end of this century. India, a critical global stakeholder in charting a low carbon future, greatly exemplified its climate leadership by approving the ratification.

What is Kigali Amendment?

The Kigali Amendment, named after the Rwandan capital where it was negotiated in October 2016, enables the phase-out of hydrofluorocarbons, a set of chemicals notorious for their capacity to warm the planet.

The amendment has already come into force from the start of 2019.

It enables the gradual phase-down of **hydrofluorocarbons, or HFCs**, a family of chemicals used extensively in the air-conditioning, refrigeration and furnishing foam industry.

Why phasing out HFCs is necessary?

The Montreal Protocol led to the replacement of CFCs with HFCs which do not destroy the Ozone layer. But they were later found to be extremely potent in causing global warming. HFCs are on average several thousand times more potent than carbon dioxide in causing global warming.

Goals under Kigali Amendment:

- Before the middle of this century, current HFC use has to be curtailed by at least 85 per cent. Countries have different timelines to do this.
- India has to achieve this target by 2047 while the developed countries have to do it by 2036. China and some other countries have a target of 2045.
- While the reductions for the rich countries have to begin immediately, India, and some other countries, have to begin cutting their HFC use only from 2031.

DEAL TO CURB USE OF HFCs

WHY IT WAS NEEDED

- HFCs, climate-damaging refrigerants, are used in air-conditioning, refrigeration, foams and aerosols as replacement for many ozone-depleting substances (ODS)
- ODS are being phased out under the Montreal Protocol (MP) of 1987
- Phasing out ODS is important to protect the stratospheric ozone layer
- Stratospheric ozone layer filters out harmful ultraviolet radiation, which is associated with increased prevalence of skin cancer and cataracts
- HFC is not ODS, but its global warming potential is thousands of times that of carbon dioxide
- So, the global community wanted the use of HFCs also to be curbed under MP
- Agreement in Kigali is meant to amend the MP to bring the HFCs' phase-down within its ambit

197 Parties (196 countries plus EU) agreed to the deal in Kigali, Rwanda

WHAT IS AGREED

- Agreed to an amendment to include HFCs' phase-down under MP (Unlike Paris Agreement, MP is legally binding)
- It entered into force from Jan 1, 2019
- Creates three categories of countries with different schedules and timetables for reduction

1 Developed countries led by the US, Japan and West European nations.

2 Developing countries like China, South Africa, Brazil among others.

3 Developing countries like India, Iran, Iraq, Pakistan among others.

HFCs' PHASE DOWN SCHEDULES

Category	Baseline	Freezing	Max % reduction
1	2011-13	2019	85% by 2036
2	2020-22	2024	80% by 2045
3	2024-26	2028	85% by 2047

- Freezing year is the year when use of HFCs will peak before being rapidly scaled down and finally phased out altogether
- Baseline years are the years for which the average production/consumption quantity of HFCs is taken as the upper limit—so it serves as a level

NTPC commissions India's largest floating solar project

India's largest floating solar photo voltaic (PV) project of 25 mega watt (MW) has been commissioned on the reservoir of its Simhadri thermal station in Visakhapatnam, Andhra Pradesh. **This is also the first solar project to be set up under the Flexibilisation Scheme**, notified by the Government of India in 2018.

Once operational it is expected to minimize 46,000 tons of CO₂ annually. It is also believed to conserve 1,364 million liters of water per annum.

Stop TB Partnership

This partnership was established in the year 2000 in a bid to eliminate tuberculosis (TB) as a public health problem. It comprises of 1500 partner organizations including international organizations, nongovernmental & governmental organizations as well as patient groups. Its secretariat is located in Geneva, Switzerland.

Amsterdam Declaration: Stop TB Partnership came up with the Amsterdam Declaration in March 2000 in order to Stop TB. The declaration called for action from ministerial delegations of 20 countries, having the highest burden of TB. In 2000 itself, World Health Assembly endorsed for the establishment of a Global Partnership to Stop TB.

Why in news? Union Minister for Health and Family Welfare, Shri **Mansukh Mandaviya**, took charge as the Chairperson of Stop TB Partnership Board on August 26, 2021 and hold the position until 2024.

KAZIND-21

5th edition of **Indo-Kazakhstan** Joint Training Exercise called KAZIND-21 is to be conducted from August 30 to September 11, 2021. This joint training exercise will be conducted as a part of military diplomacy. Training exercise will be conducted at **Aisha Bibi** in Kazakhstan.

Economics

Ubharte Sitaare Fund

Finance minister has launched Rs 250 crore worth **Alternative Investment Fund for export-oriented micro, small and medium enterprises (MSMEs)**.

Objective of the fund: To Identify Indian **enterprises with potential advantages by way of technology, products or processes along with export potential**, but which are currently underperforming or unable to tap their latent potential to grow.

The main purpose is **to encourage MSMEs** as they are vital to the economy in terms of creating jobs, fostering innovations and reviving the economy.

What is an Alternative Investment Fund (AIF)?

Alternative Investment Fund comprises pooled investment funds which invest in venture capital, private equity, hedge funds, managed futures etc. In simpler terms, an AIF refers to an investment which differs from conventional investment avenues such as stocks, debt securities, etc. **the alternative investment funds have to register with SEBI.**

Key features of the scheme:

- The Fund has been set up by **Exim Bank and SIDBI (Small Industries Development Bank of India)**.
- The fund is **a mix of structured support, both financial and advisory services.**
- It will also have a **Greenshoe Option** of Rs 250 crore.

- The Fund covers potential companies, across various sectors such as pharma, auto components, engineering solutions, agriculture, and software etc.

National Monetisation Pipeline(NMP)

The Centre launched **the National Monetisation pipeline (NMP)** in an effort to list out the government's infrastructure assets to be sold over the next four-years.

Objective of the programme:

1. To unlock the value of investments in brownfield public sector assets by tapping institutional and long-term capital, which can thereafter be leveraged for public investments.
2. To enable '**Infrastructure Creation through Monetisation**' wherein the public and private sector collaborate, each excelling in their core areas of competence, so as to deliver socio-economic growth.

Key features:

- The four-year National Monetisation Pipeline (NMP) will unlock value in brownfield projects by engaging the private sector, transferring to them the rights **but not the ownership in projects**.
- **Components:** Roads, railways and power sector assets will comprise over 66 per cent of the total estimated value of the assets to be monetised, with the balance coming from sectors including telecom, mining, aviation, ports, natural gas and petroleum product pipelines, warehouses and stadiums.

Sugar Pricing Policy

Prices of sugar are market driven & depend on demand & supply of sugar. However, with a view to protect the interests of farmers, the concept of **Minimum Selling Price (MSP)** of sugar was introduced in 2018 so that industry may get at least the minimum cost of production of sugar, so as to enable them to clear cane price dues of farmers.

In exercise of the powers conferred under **the Essential Commodities Act, 1955**, Government has notified Sugar Price (Control) Order, 2018. Under the provisions of said order, the Government will fix the Minimum Selling Price (MSP).

MSP of sugar has been fixed taking into account the components of **Fair & Remunerative Price (FRP)** of sugarcane and minimum conversion cost of the most efficient mills.

Current Affairs Update (Aug 28-Sep 4)

National

Appointment of Supreme Court Judges

- **Nine new Supreme Court judges** were administered their oaths of office by Chief Justice NV Ramana. **It is for the first time in the history of Supreme Court that nine judges took oath of office at one go.**
- With the swearing-in of the nine new judges, **the strength of the Supreme Court has now increased to 33**, including the CJI, out of the sanctioned strength of 34.
- Three of them were women judges. One of them, Justice B.V. Nagarathna, is slated to be Chief Justice of India in 2027. With this addition, the apex court will have four women judges for the first time.
- It was the first time the **Supreme Court allowed a live telecast of the ceremony.**

Related Constitutional Provision:

Article 124(2) of the Indian Constitution provides that the Judges of the Supreme Court are appointed by the President after consultation with such a number of the Judges of the Supreme Court and of the High Courts in the States as the President may deem necessary for the purpose.

Renovated Jallianwala Bagh Complex

Prime Minister Narendra Modi virtually inaugurated the renovated Jallianwala Bagh complex in Amritsar on August 28, 2021.

History: The monument was first opened by then President Dr Rajendra Prasad on April 13, 1961, as a tribute to the victims of the massacre on April 13, 1919. The central government set up the **Jallianwala Bagh National Memorial Trust** on May 1, 1951. The Prime Minister is the chairman, and permanent members include the president of Indian National Congress, Chief Minister of Punjab, Governor of Punjab, Union Minister in charge of Culture, and Leader of Opposition in the Lok Sabha.

Controversy regarding the latest revamp:

- The **Jallianwala Bagh has undergone several repairs and touch-up** over the years. But the narrow passage leading to the Bagh, had remained untouched for almost 100 years. While many other things changed, the thin entrance made of **Nanakshahi bricks** through which Dyer's soldiers marched into the Bagh, continued to evoke the horrors of that day. In July 2020, it was rebuilt into a gallery with murals, leaving no trace of the old passage.

- The famous ‘**Shahidi Khu’ or Martyrs Well**, into which people jumped to escape the hail of bullets, is now enclosed in a glass shield — the decision has been criticised since it is perceived to restrict the view.

Avani, Sumit lead India’s gold hunt at Tokyo Paralympics

- Debutant Sumit Antil smashed his own world record multiple times for the F64 class gold, while veteran Devendra Jhajharia’s F46 category silver cemented his status of being India’s greatest para-athlete as javelin throwers led the country’s track-and-field medal rush at the Paralympic
- Another javelin thrower Sundar Singh Gurjar picked up bronze in Jhajharia’s event
- Avani Lekhara became the first woman to win gold for India in shooting in the 10m rifle competition

Bharat series (BH-series)

Government of India has introduced a new registration mark under the Bharat Series (BH-Series) for new vehicles. New registration mark was launched in order to facilitate seamless transfer of vehicles.

Ministry of Road Transport and Highways launched the BH-series to facilitate seamless transfer of vehicles. Vehicle with this registration mark will not require assignment of any new registration mark when owner of the vehicle shifts from one state to other.

Need: Government as well as private sector employees undergo station relocation. Such movements create unease for the employees with respect to the transfer of registration from parent state to another state. This is so because, section 47 of the Motor Vehicles Act, 1988 provides that a person cannot keep the vehicle for more than 12 months in any state other than the state where vehicle is registered. Instead, a new registration can be made with the new state- registering authority within 12 months. Considering this difficulty, new BH-series were launched.

MP: Second State to implement NEP 2020

Madhya Pradesh government implemented the National Education Policy-2020 (NEP-2020) in the state on August 26, 2021. MP became the second state in India to implement NEP-2020 following Karnataka.

International

Resolution 2593 of the United Nations Security Council (UNSC)

- The United Nations Security Council, under the current Presidency of India, on August 30, 2021, adopted a **resolution on the situation in Afghanistan, demanding that the war-torn country not be used to threaten or attack any nation or shelter terrorists.**

- The resolution was put forward by the US, the UK, France. It was adopted after 13 Council members voted in favour, while permanent members Russia and China abstained from the voting.

To contain food prices, Sri Lanka declares economic emergency

President of Sri Lanka declared an economic emergency on account to contain inflation which saw a huge spike after a steep fall in valuation of its currency caused a spike in food prices

What precipitated this unprecedented move?

- Since November 2019, the value of Sri Lankan rupee has eroded by about 20%.
- High global market price due to the pandemic has escalated the prices of essential items
- Hoarding by traders has also contributed to Sri Lanka taking this emergency route to combat the crisis
- Tourism which happens to be one of the main businesses of Sri Lanka has suffered due to the travel restrictions placed owing to the pandemic. Sri Lanka's economy shrank by a record 3.6% last year.

Ramon Magsaysay award

- Bangladeshi vaccine scientist and a microfinance pioneer from Pakistan were among the five recipients of this year's Ramon Magsaysay Award — regarded as the Asian version of the Nobel Prize
- Apart from **Firdausi Qadri** from Bangladesh and **Muhammad Amjad Saqib** from Pakistan, the other winners are Filipino fisher and community environmentalist **Roberto Ballon**, American **Steven Muncy** for humanitarian work and refugee assistance and Indonesian torch bearer for investigative journalism, **Watchdoc**.
- The **Ramon Magsaysay Award** is an annual award established to perpetuate **former Philippine President Ramon Magsaysay's** example of **integrity in governance, courageous service to the people, and pragmatic idealism within a democratic society**
- **Vinoba Bhave** was the 1st Magsaysay Award winner when the award was instituted in 1958

What are hurricanes and how do they form?

- Tropical cyclones or hurricanes **use warm, moist air as fuel**, and therefore **form over warm ocean waters near the equator**.
- As NASA describes it, when the warm, moist air rises upward from the surface of the ocean, it creates an area of low air pressure below.
- Air from the surrounding areas rushes to fill this place, eventually rising when it becomes warm and moist too.

- When **the warm air rises and cools off, the moisture forms clouds**. This system of clouds and winds continues to grow and spin, fuelled by the ocean's heat and the water that evaporates from its surface.
- As such storm systems rotate faster and faster, **an eye forms in the centre**.
- Storms that form towards the north of the equator rotate **counterclockwise**, while those that form to the south spin **clockwise** because of the rotation of the Earth.

Why in news? Hurricane Ida made landfall in Louisiana on Sunday. It is an extremely dangerous Category 4 storm, forcing those who did not flee to brace themselves for the toughest

Algeria cuts Diplomatic Ties with Morocco

Algeria has cut its diplomatic ties with Morocco due to hostile actions after months of resurgent tensions between both the countries. Both the countries have been accusing one another of supporting opposition movements as proxies.

Western Sahara conflict: It is the conflict between Polisario Front and Kingdom of Morocco. Polisario Front is the national liberation movement of Sahrawi tribe who seek to end the Moroccan presence in Western Sahara. Under the Madrid Accords of 1975 with Mauritania & Morocco, Spain left the region in 1976. Until its exit, Spanish Governor-General administer the territory, with the help of two Mauritanian and Moroccan Deputy Governors. But Polisario Front opposed these agreements. Thus, Mauritania and Morocco sent their troops to claim the Western Sahara region.

Science-Tech & Environment

Degradation of Assam's Deepor Beel due to anthropogenic forces

Deepor Beel is a **Ramsar site** and a part of it is also wildlife sanctuary (Rani Reserve forest) in Guwahati, Assam. Deepor Beel is a permanent freshwater lake, in an earlier channel of the **Brahmaputra River**, to the south of the main river.

Human activities which have caused this destruction– dumping of garbage, construction of roads and railways, construction of warehouses, tourism activities. This degradation has caused death of **elephants in railway accidents**, fewer elephants visiting the wetland due to deteriorating quality of water due garbage dumping, reduction in the number of fishes available for fishermen etc

Raptors MOU

- The CMS **Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia** (Raptors MOU) aims to promote internationally coordinated actions to

achieve the favourable conservation status of migratory birds of prey throughout their range in the African-Eurasian region, and to reverse their decline when and where appropriate.

- The Raptors MOU is one of several instruments **operating under the Convention on the Conservation of Migratory Species of Wild Animals (CMS)**.
- The MoU seeks willingness of the signatory range states for working for conservation of the raptor species and their habitats.
- **India signed Raptor MOU in 2016.**
- Raptor MoU is also in conformity with the provisions of the existing Wild Life (Protection) Act, 1972

Concern area: Around 30 per cent of the 557 raptor species around the world are threatened by extinction to some degree, according to a new study. The Philippine eagle, the hooded vulture and the Annobonscops-owl were among the 166 species facing some degree of threat, the study found.

The new **analysis by International Union for the Conservation of Nature (IUCN) and BirdLife International**, a global initiative to protect birds and wildlife by non-profits, was published in the journal Proceedings of the National Academy of Sciences.

Ladakh adopts State animal and bird

- Ladakh adopted two endangered species, **snow leopard and black-necked crane**, as State animal and State bird
- Black-necked cranes are only found in **Ladakh's Changthang region**. The bird is classified as **Near-Threatened**, as per the IUCN classification; whereas Snow leopard has been classified as 'vulnerable'

100years of BCG vaccine

- **Bacillus Calmette–Guérin (BCG) vaccine** is a vaccine **primarily used against tuberculosis (TB)**.
- BCG was developed by **modifying a strain of Mycobacterium bovis** (that causes TB in cattle). It was first used in humans in 1921.
- Currently, **BCG is the only licensed vaccine available for the prevention of TB**. It is the world's most widely used vaccine with about 120 million doses every year and has an excellent safety record.
- In India, BCG was first introduced in a limited scale in 1948 and became a part of the **National TB Control Programme** in 1962.
- In children, BCG provides strong protection against severe forms of TB. This protective effect is far more variable in adolescents and adults, ranging from 0–80%.

Leaded petrol eradicated, says UNEP

- The use of leaded petrol has been eradicated from the globe as per the observation made by **UNEP**

- Achieving of this milestone will prevent more than 1.2 million premature deaths and save world economies over \$2.4 trillion annually
- Algeria — the last country to use the fuel — exhausted its supplies last month.
- India banned leaded petrol in **March 2000**

Harmful effects of leaded petrol: Lead exposure can have serious consequences for the health of children. At high levels of exposure, lead attacks the brain and central nervous system to cause coma, convulsions and even death. Children who survive severe lead poisoning may be left with mental retardation and behavioral disorders.

Merger of three jumbo black holes spotted

- A rare merging of three supermassive **black holes** has been spotted by a team of astrophysicists in India. All three merging black holes were part of galaxies in the Toucan constellation.
- The discovery was made using data from **the Ultraviolet Imaging Telescope (UVIT)** onboard the first Indian space observatory **ASTROSAT**, the European integral field optical telescope called **MUSE** mounted on **the Very Large Telescope (VLT)** in Chile and **infrared images from the optical telescope (IRSF)** in South Africa.

Important learning from this discovery: Presence of third black hole solves the final parsec problem. If two galaxies collide, their black hole will also come closer by transferring the kinetic energy to the surrounding gas. The distance between the blackholes decreases with time until the separation is around a parsec (3.26 light-years). The two black holes are then unable to lose any further kinetic energy to get even closer and merge. This is known as **the final parsec problem**.

The Malabar Exercise 2021

Navies of the four member nations of the Quadrilateral Security Dialogue, or the **Quad — India, the United States, Japan, and Australia** — are participating in **the 25th edition of the Malabar Exercise**, which began off the coast of Guam in the Pacific Ocean on August 26.

New COVID variant 'Mu'

Mu Variant' of the coronavirus was first identified in **Colombia** in January 2021. Now, the World Health Organization (WHO) is monitoring this **variant of interest**. Mu variant is also known as lineage B.1.621 or VUI-21JUL-1. Cases of the Mu variant were reported in South America and Europe.

What is scrub typhus?

Scrub typhus is a re-emerging Rickettsial infection. This vector-borne disease has been earlier reported in India and other South Asian countries. This disease is marked by fever and rashes. It also affects the central nervous system, cardiovascular system, respiratory system, renal system and gastrointestinal systems.

Nomenclature: This disease has been named “scrub” after the type of vegetation that harbours the vector. Typhus is a Greek word with meaning “fever with stupor” or smoke.

History: This disease took the form of an epidemic during World War II in some countries while during the Second World War, it emerged as the most dreaded disease among soldiers of the Far East. In India, this fever out in an epidemic form during Second World War in Assam and West Bengal.

Causative agent: Scrub typhus fever is caused by a bacterium called *Orientia tsutsugamushi*. The name of the bacterium is of Japanese origin. The word “tsutsuga” means illness and “mushi” means insect. This disease spreads through bites of infected chiggers or larval mites

Why in news? Scrub typhus was reported mainly from Firozabad, Agra, Mainpuri, Etah and Kasganj districts of Uttar Pradesh.

QSim- India’s first Quantum Computer Simulator Toolkit

- Ministry of Electronics and Information Technology (MeitY) has launched the India’s first ‘Quantum Computer Simulator (QSim) Toolkit’.
- It meant to be a vital tool of learning and understanding the practical aspects of programming with the help of Quantum Computers. It will thus bring about a new era of Quantum Computing research in India.
- This toolkit has been developed jointly by scientists of IIT Roorkee, C-DAC and IISc Bangalore.

Economics

What is a core sector?

The Eight Core Industries **comprise 40.27 per cent of the weight of items included in the Index of Industrial Production (IIP)**. The eight core industries are: Coal, Crude oil, Natural Gas, Refinery products, fertilizers, steel, cement and electricity.

IIP: The Index of Industrial Production (IIP) is an index which details out the growth of various sectors in an economy such as mining, electricity and manufacturing. The all India IIP is a composite indicator that measures the **short-term changes** in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period. It is compiled and published **monthly by the Central Statistical Organisation (CSO)** six weeks after the reference month ends.

Why in news? Output from India’s eight **core sectors** grew by 9.4% in July.

What is National Mission on Edible Oil-Oil Palm?

Prime Minister Narendra Modi has announced this new national initiative on palm oil production to help increase farm incomes. The scheme involves investment of over Rs 11,000 crore.

Aims and Objectives of the scheme:

- Achieve self-reliance in edible oil.
- Harness domestic edible oil prices that are dictated by expensive palm oil imports.
- To raise the domestic production of palm oil by three times to 11 lakh MT by 2025-26.

Key features of the scheme:

- The special emphasis of the scheme will be in India's north-eastern states and the Andaman and Nicobar Islands due to the conducive weather conditions in the regions.
- Under the scheme, oil palm farmers will be provided financial assistance and will get remuneration under a price and viability formula.

Concerns about scheme:

- The concerns are primarily expressed on the ground that **promotion of oil palm cultivation will further result in environmental degradation (oil palm is an invasive species) of the pristine ecosystem** already threatened by various other threats
- **Other concerns expressed include**– impact on community ownership of tribal lands, oil palm cultivation is a water-intensive task, monoculture cropping with a long gestation period will be unsuitable for small farmers, endangering wildlife etc

CBDC Scheme

- Central banks in Australia, Singapore, Malaysia and South Africa launched a Central Bank Digital Currencies (CBDC) Scheme.
- CBDC scheme is a cross border payments trial that uses different central bank digital currencies (CBDC) in order to assess if this allows transactions to be settled in a cheap and easy manner.
- Many governments and central banks across the world are exploring the use of CBDCs.
- CBDCs are digital forms of existing currencies.