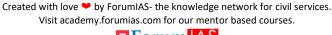


Factly Compilation

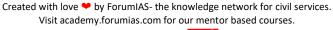
31st July to 5th August, 2023

- 1. Two Indian military aircraft visit Australia's strategic Cocos Islands
- 2. PM hails fight against drugs, says a record 10 lakh kg destroyed
- 3. GOBARdhan Initiative Begins Reaping Good Results & Dimulating Investments In Biogas Sector in India
- 4. Room-temperature superconductor: Is the Holy Grail within grasp?
- 5. What is Sam Altman's biometric project?
- 6. Bill to amend Forest (Conservation) Act clears Lok Sabha: objections, concerns around it
- 7. Education Minister launches the mobile application of ULLAS
- 8. BSIP scientists discover new species of flower from Sikkim
- 9. What is a stapled visa, and why does China issue these to Indians from Arunachal and J and K?
- 10. Draft National Deep Tech Startup Policy (NDTSP) Released for Public Consultation
- 11. Cell-free DNA promises to transform how we find diseases
- 12. ISRO successfully conducts TransLunar Injection of Chandrayaan-3
- 13. What is the Akira ransomware, and why has the government issued a warning against it?
- 14. DGT collaborates with Amazon Web Services India to offer skilling programs on emerging technologies
- 15. Measures to curtail Urban Flooding
- 16. New catalytic process of producing hydrogen offers sustainable method of manufacturing the green fuel
- 17. ISRO rocket debris on Australian shore: rules governing space junk
- 18. Pakistan and China ink six agreements to expedite cooperation under CPEC
- 19. WHO report on tobacco control: Key findings, how India fares
- 20. Panel submits report on sub-categorisation of OBCs after 6 years
- 21. Tamil Nadu's Jaderi 'namakatti', chedibutta saree and Kanniyakumari Matti banana get GI
- 22. Government introduces Delhi services Bill in the Lok Sabha amid vociferous protests
- 23. World's Largest Food/ Grain Storage Plan
- 24. What can the amended Forest (Conservation) Act change?
- 25. The holocene climate anomalies
- 26. Roadmap to making India a \$5 trillion economy
- 27. Nearly 50 MMT per annum of CO2 emissions can be averted through Green Hydrogen: New & Renewable Energy Minister
- 28. Single pill strategy to beat cardiovascular diseases
- 29. Adopt WHO-standard good manufacturing practices: Govt sets deadline for pharmas
- 30. Govt. kicks off contractual dispute settlement scheme
- 31. Under the Startup India initiative, 'Action Plan' for Startups unveiled to create a vibrant startup ecosystem in the country
- 32. Narco-terror nexus examined case-wise, Centre informs RS
- 33. Government introduces a new category of Ayush visa for foreign nationals seeking treatment under Indian systems of medicine
- 34. Rescued Himalayan vultures script India's first captive breeding success story in Assam Zoo
- 35. India's telemedicine service eSanjeevani completes over 14 crore consultations: Center
- 36. Centre forms expert panel to revise anti-discrimination guidelines on campuses
- 37. Centre restricts laptop, PC and tablet imports; calls for license
- 38. Amid row, Data Protection Bill tabled
- 39. Ministry of Education launches Study In India portal for international students





- 40. <u>Union Minister says</u>, <u>NIDHI program has various components to support innovations</u>, startups and startup incubation ecosystem in the country
- 41. Endangered Himalayan vulture, bred in captivity for the first time in India
- 42. Rajya Sabha passes Mediation Bill, 2021
- 43. NHAI Launches 'Rajmargyatra' a Unified Mobile Application for National Highway Users
- 44. Net zero emissions target
- 45. House clears tweaked law to set off undersea mineral hunt
- 46. House panel proposes reducing minimum age to contest polls
- 47. Govt. allows Indian companies to list on foreign exchanges through IFSC
- 48. <u>Rare 'Einstein cross' warps light from one of the universe's brightest objects in this stunning</u> image
- 49. <u>National Health Authority (NHA) extends its incentive scheme under Ayushman Bharat Digital Mission (ABDM)</u>
- 50. Gamechanger for India's vultures: Experts laud Centre's move to ban aceclofenac, ketoprofen
- 51. Assam's Manas Tiger Reserve 63% short of sanctioned staff, Environment Minister told
- 52. <u>Union Minister introduces a Bill to establish the Anusandhan National Research Foundation in the Lok Sabha</u>
- 53. Cabinet okays draft telecom, postal bills
- 54. Remove wheat import duty till Feb for food security: FCI
- 55. Lok Sabha passes Inter-Services Organisation (Command, Control & Discipline) Bill 2023
- 56. A Rare Ureilite Meteorite Possibly Created Madhya Pradesh's Famous Dhala Impact Crater, New Study Suggests





1. Two Indian military aircraft visit Australia's strategic Cocos Islands

Source: The post is based on the article "Two Indian military aircraft visit Australia's strategic Cocos Islands" published in The Hindu on 31st July 2023.

What is the News?

Indian Navy Dornier maritime patrol aircraft and an Indian Air Force (IAF) C-130 transport aircraft have visited Australia's Cocos (Keeling) Islands (CKI) in the Southern Indian Ocean.



Source: Wiki

Cocos Islands also called Keeling Islands is an external territory of Australia in the Indian Ocean.

It comprises a small archipelago approximately midway between Australia and Sri Lanka and relatively close to the Indonesian island of Sumatra.



The islands were discovered in 1609 by the British sea captain William Keeling, but no settlement occurred until the early 19th century

The island consists of two atolls made up of 27 coral islands, of which only two – West Island and Home Island – are inhabited.

What is the strategic significance of Cocos (Keeling) Islands for India?

Cocos can be an important base for refuelling and operational turnaround for the Indian military, especially once the runway there is expanded to accommodate large aircraft like the P-8 long range maritime patrol aircraft.

Apart from military cooperation, Cocos Islands had been a point of cooperation between the space agencies of the two countries for India's Gaganyaan human space flight mission.

Australia is in discussion with India on the establishment of a temporary ground station at Cocos (Keeling) Islands for the Gaganyaan missions.

2. PM hails fight against drugs, says a record 10 lakh kg destroyed

Source: The post is based on the article "PM hails fight against drugs, says a record 10 lakh kg destroyed" published in The Hindu on 31st July 2023.

What is the News?

During Man ki Baat, Prime Minister has said that India had created a unique record of destroying 10 lakh kg of drugs worth ₹12,000 crore in the past year.

He also talked about the **Nasha Mukt Bharat Abhiyan**, which had so far reached more than 11 crore people.

What is Nasha Mukt Bharat Abhiyan (NMBA)?

Launched on: 15th August 2020

Nodal Ministry: Ministry of Social Justice & Empowerment

Aim: To create awareness about ill effects of substance abuse among the youth, women, children with special focus on higher education institutes, university campuses, schools and reaching out into the community and garnering community involvement and ownership of the Abhiyaan.

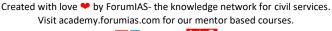
Implementation: The initiative is implemented in 372 identified vulnerable districts identified based on the findings of the first Comprehensive National Survey and inputs from the Narcotics Control Bureau (NCB).

Significance: The abhiyaan has targeted and involved stakeholders that might be directly or indirectly affected by substance abuse and those who are vulnerable to it.

- The major stakeholders and beneficiaries of NMBA are Youth, Women, Children, Educational Institutions, Civil Society and Community at large.
- Hence, there has been a shift from an earlier approach of organizational involvement to community involvement in the issue of substance abuse.

What is the example given by the Prime Minister on the successful fight against substance abuse?

About 25 years ago, Bichharpur village in Shahdol district of Madhya Pradesh was infamous for illicit liquor.





Despite limited resources, Raees Ahmed, a former national player and coach, started teaching football to the local youth. Within a few years, football became popular in the village, now known as "Mini Brazil".

More than 40 national and State-level players have emerged from Bicharpur village.

3. GOBARdhan Initiative Begins Reaping Good Results & Stimulating Investments In Biogas Sector in India

Source: The post is based on the article "GOBARdhan Initiative Begins Reaping Good Results & Stimulating Investments In Biogas Sector in India" published in PIB on 29th July 2023.

What is the News?

Union Minister for Jal Shakti has launched the Unified Registration Portal for GOBARdhan.

What is the GOBARdhan Initiative?

Launched in: 2018

Full Form: Galvanizing Organic Bio-Agro Resources Dhan (GOBARdhan)

Aim: To convert waste to wealth with the aim of promoting a circular economy.

Nodal Ministry: Department of Drinking Water and Sanitation, Ministry of Jal Shakti

Part of: Gobardhan is an integral part of Swachh Bharat Mission (Gramin) Phase II under Solid Waste Management.

Objectives: To support villages safely manage their cattle and agricultural waste, and make the villages clean.

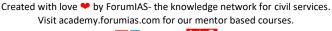
- To support communities in converting cattle and organic waste into wealth using treatment systems.
- To convert organic waste, especially cattle waste, to biogas and organic manure for use in rural areas.
- To promote environmental sanitation and curb vector-borne diseases through effective disposal of waste in rural areas.
- To promote rural employment and income generation opportunities by involving entrepreneurs, SHGs and youth groups in setting up, operating and managing GOBARdhan units.

Financial incentive: For every district, the Government of India provides technical assistance as well as financial support of up to 50 lakhs to achieve the safe disposal of cattle and organic waste.

What has Budget 2023-24 announced for the GOBARdhan scheme?

As per Budget Announcement 2023-24, 500 new 'waste to wealth' plants under GOBARdhan scheme will be established for promoting the circular economy.

These will include 200 compressed biogas (CBG) plants, including 75 plants in urban areas, and 300 community or cluster-based plants. These plants will be established primarily by the private sector with support from stakeholder Ministries/Departments.





What are the benefits of the GOBARdhan scheme?

3. Benefits of GOBARdhan

GOBARdhan is central to the attainment of Swachh Bharat Mission Grameen objectives.



Manages waste

Helps manage the major solid waste in villages, i.e, cattle dung, and promotes environmental sanitation



Increases employment

Promotes employment and income generation opportunities for SHGs/ farmers groups





Generates organic manure

Helps generate organic manure, which boosts agriculture and farm productivity

Source: PIB



Protects health

Substantially reduces the incidence of vector-borne diseases and promotes public health



Improves savings

Promotes household income and savings as the use of biogas as fuel will cut down the LPG cost

4. Room-temperature superconductor: Is the Holy Grail within grasp?

Source: The post is based on the article "Room-temperature superconductor: Is the Holy Grail within grasp?" published in Livemint on 31st July 2023.

What is the News?

Korean researchers have claimed to have developed a superconductor that can operate at room temperature and ambient pressure.

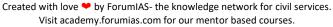
What is a Superconductor?

A superconductor is a material that achieves superconductivity, which is a state of matter that has no electrical resistance and does not allow magnetic fields to penetrate. An electric current in a superconductor can persist indefinitely.

Superconductors have important applicability in our daily lives, too. In 1933, Walther Meissner and Robert Ochsenfeld discovered that superconductors are also perfect diamagnets (they repel magnetic fields, known as the Meissner effect), making them ideal for magnetic resonance imaging (MRI).

However, superconductivity can only typically be achieved at very cold temperatures.

Researchers are now trying to find and develop superconductors that could operate at room temperature.





How will the room temperature superconductors help?

The temperature of a superconductor known as the critical temperature, is typically below 10 Kelvin (-263 degrees Celsius). Room temperature is 20-22°C.

Hence, superconductors at room temperature can cut the cost of electricity grids, computer chips, magnets for maglev trains, energy-storage devices and fusion reactors by saving electricity and money on coolants.

What have the researchers developed?

Researchers have claimed to have developed a superconductor called **LK-99**, that works at room temperature and ambient pressure.

LK-99 is a mix of powdered compounds of lead, oxygen, sulphur and phosphorus. When heated at very high temperatures, it forms a dark grey solid.

If these results can be replicated in other labs, it could be a monumental discovery.

However, other researchers are skeptical as this research is not peer-reviewed and the results need to be replicated by others.

How can computing get benefitted from this research?

Computers process information with bits—ones and zeroes. But two bits can only represent one of four possible states at one time.

Superconductors are the building blocks of quantum computers that use quantum bits, or qubits, to process ones and zeroes at the same time — it's like running four computers in one. The physical qubits are typically super-cooled to avoid errors.

This research could get them to work at room temperature and ambient pressure without the need for elaborate cooling systems.

5. What is Sam Altman's biometric project?

Source: The post is based on the article "What is Sam Altman's biometric project?" published in The Hindu on 31st July 2023.

What is the News?

OpenAI CEO Sam Altman has formally re-introduced the Worldcoin Project.

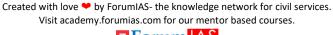
What is the Worldcoin Project?

Worldcoin is an iris biometric cryptocurrency project developed by Tools for Humanity. This organization was founded in 2019 by OpenAI chief executive Sam Altman, Max Novendstern, and Alex Blania.

Purpose: It is an initiative to create a digital network in which everyone can claim some kind of stake, and join the digital economy.

Working of the project: The Worldcoin project uses a straightforward model: Worldcoin volunteers known as "Orb operators" scan a person's iris pattern with a device called "Orb" to collect their biometric data and issue them with a World ID through the World app.

- With the World app, the members can claim the World Coin(WLD) crypto, which they may use for transactions or hold on to the asset in the hope that its price might rise.
- In return for signing up more people to the Worldcoin network, Orb operators get WLD, which is a token based on the Ethereum blockchain.





Has Worldcoin come to India?

Worldcoin has deployed Orb operators in various locations, particularly in Delhi, Noida, and Bangalore, where people's irises are scanned to join the network.

Why does Worldcoin scan irises?

Worldcoin explained that it wanted to include everyone in its network and that using biometric information to avoid duplication was a valid method for this.

The company claimed that it ensures privacy of users through zero-knowledge proofs (ZKPs) and claims full compliance with Europe's General Data Protection Regulation (GDPR).

Why is the Worldcoin Project facing criticism?

Experts have questioned the necessity of using the iris as a digital identifier, as it is a sensitive and unalterable biometric data that could be used for malicious or discriminatory purposes.

Additionally, concerns have been raised about Worldcoin storing user data on a centralized server, which could potentially facilitate unauthorized access or data leaks.

6. Bill to amend Forest (Conservation) Act clears Lok Sabha: objections, concerns around it

Source: The post is based on the article "Bill to amend Forest (Conservation) Act clears Lok Sabha: objections, concerns around it" published in Livemint on 31st July 2023.

What is the News?

Lok Sabha has passed the Forest (Conservation) Amendment Bill, 2023.

What is the Forest (Conservation) Amendment Bill, 2023?

Click Here to read

What are the objections raised against the Forest (Conservation) Amendment Bill, 2023?

States objections: The Bill aims to expedite projects of strategic importance, national security, and public utility within 100 km of international borders and in Left Wing Extremism affected areas.

- Himachal Pradesh and Chhattisgarh sought clarity on defining 'National importance and National Security' and specifying security-related infrastructure and user agencies.
- Mizoram expressed concerns that any linear project could be labeled as of national importance or security, potentially impacting activities in states with international borders.
- Sikkim objected to the 100 km exemption range, fearing it would affect the entire state and pristine forest areas suggesting a reduction to 2 km.
- The BRO and Arunachal Pradesh wanted the exemption range extended to 150 km to reduce infrastructure differences with China.

Restricting applicability: The Forest (Conservation) Act, 1980 provides for the conservation of forests by putting certain restrictions on the use of forest land.

- The Bill amends the Act to cover specific forest lands, and exclude certain forest lands. Land that will be covered under the Act is: (i) land declared/notified as a forest under the Indian Forest Act, 1927 or under any other law; (ii) land recorded as a forest in a government record on or after October 25, 1980.
- This implies that any land that was recorded as a forest before this date, but not notified as one by the state government, will be excluded from the purview of the Act.





Created with love ♥ by ForumIAS- the knowledge network for civil services.

- The Bill also exempts from its purview forest land that was changed to non-forest purpose on or before December 12, 1996 by any state/UT authority.
- These exclusions may be going against a Supreme Court judgment in **T.N. Godavarman Thirumulpad vs. Union of India** and others, 1996, on the prevention of deforestation.

Focus on Plantations: The Government had earlier agreed that natural forests, lost from the diversion, cannot be replaced with the plantation. But the proposed Bill encourages plantations in private lands to enhance the carbon sink.

7. Education Minister launches the mobile application of ULLAS

Source: The post is based on the article "Education Minister launches the mobile application of ULLAS" published in PIB on 30th July 2023.

What is the News?

The Union Minister of Education has launched the mobile application of ULLAS: Nav Bharat Saksharta Karyakram on the occasion of three years of National Education Policy (NEP) 2020.

What is the ULLAS Initiative?

ULLAS stands for Understanding Lifelong Learning for All in Society.

Aim: To revolutionize education and literacy across India by fostering a learning ecosystem that reaches every individual, bridging the gaps in basic literacy and critical life skills.

- To impart basic education, digital and financial literacy and critical life skills to citizens aged 15 and above who lost the opportunity to go to school.

Focus areas: It will focus on promoting functional literacy, vocational skills, and many important life skills like financial literacy, legal literacy, digital literacy, and empowerment of citizens to involve in nation-building of the country.

Implementation: The initiative operates through volunteerism. It encourages volunteers to participate as DUTY or Kartavya Bodh towards nation-building.

- Student volunteers will be incentivised with credits in school/university and appreciation through certificates, letters of appreciation, felicitation, among other means.

Significance: According to government data, as many as 12.5 lakh students are out of school in the year 2022-23 with the number of boys greater than girls.

- The ULLAS initiative has the potential to bring these students back to learning by providing them with an open source learning platform.

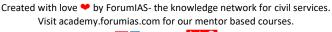
8. BSIP scientists discover new species of flower from Sikkim

Source: The post is based on the article "BSIP scientists discover new species of flower from Sikkim" published in The Times of India on 28th July 2023.

What is the News?

Scientists from the Botanical Survey of India (BSI) Prayagraj Centre have discovered a new plant species in the state of Sikkim named Pedicularis Revealiana.

Note: Sikkim is renowned for its remarkable biodiversity. This state alone accounts for 45 percent of the total plant diversity in the Indian Himalayan region.





What is Pedicularis Revealiana?

Pedicularis Revealiana is a plant belonging to the Pedicularis species group. It is commonly known as a perennial herb.

This plant thrives in remote forests, which remain snow-covered for most of the year.

It is a hemi-parasitic species meaning it is partially parasitic, setting it apart from all other known Pedicularis species.

This plant not only produces its own food but also demonstrates the remarkable ability to draw nutrients from the roots of neighboring trees and plants.

9. What is a stapled visa, and why does China issue these to Indians from Arunachal and J and K?

Source: The post is based on the article "What is a stapled visa, and why does China issue these to Indians from Arunachal and J&K?" published in Indian Express on 28th July 2023.

What is the News?

India has withdrawn its eight-athlete wushu contingent from the Summer World University Games beginning in China after China issued stapled visas to three athletes from the team who belong to Arunachal Pradesh.

What are Stapled Visas?

A stapled visa is simply an unstamped piece of paper that is attached by a pin or staples to a page of the passport and can be torn off or detached at will.

This is different from a regular visa that is affixed to the passport by the issuing authority and stamped.

The Chinese government began issuing 'stapled visas' to Indian citizens from Arunachal Pradesh in 2009. It says the visas are valid documents but the Government of India has consistently refused to accept this position.

Why does China issue Stapled Visa?

Passports and visas reinforce the concept of a nation-state's sovereignty. It ensures that its citizens can travel with legal protection across borders.

China disputes India's unequivocal and internationally accepted sovereignty over Arunachal Pradesh. It challenges the legal status of the McMahon Line, the boundary between Tibet and British India that was agreed at the Convention Between Great Britain, China, and Tibet at the Simla Convention of 1914.

Hence, in this context, China makes periodic efforts to assert its unilateral claim over Indian territory and undermine the sovereignty of India over its territory by taking steps such as issuing stapled visas,





10. Draft National Deep Tech Startup Policy (NDTSP) Released for Public Consultation

Source: The post is based on the article "Draft National Deep Tech Startup Policy (NDTSP) Released for Public Consultation" published in PIB on 31st July 2023.

What is the News?

The National Consortium and Working Group set up by the Prime Minister's Science, Technology, and Innovation Advisory Council has released the Draft National Deep Tech Startup Policy (NDTSP) for public consultation.

What is Deep Technology?

Deep Technology refers to innovations founded on advanced scientific and technological breakthroughs. Due to their disruptive nature, they have the potential to solve India's most pressing societal issues.

What is the Draft National Deep Tech Startup Policy (NDTSP)?

Draft National Deep Tech Startup Policy (NDTSP) is strategically formulated to stimulate innovation, spur economic growth and promote societal development through the effective utilization of deep tech research-driven innovations.

Aim of the policy: To address the challenges confronting deep tech startups through definitive policy interventions to create a conducive ecosystem.

Prepared by: National Consortium and Working Group set up by the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC),

Key Features of the policy:

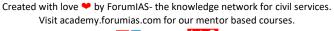
Firstly, the policy suggests necessary changes in nine policy areas such as: 1) Nurturing Research, Development & Innovation 2) Strengthening the Intellectual Property Regime 3) Facilitating Access to Funding 4) Enabling Shared Infrastructure and Resource Sharing 5) Creating Conducive Regulations, Standards, and Certifications 6) Attracting Human Resources & Initiating Capacity Building 7) Promoting Procurement & Adoption 8) Ensuring Policy & Program Interlinkages and 9) Sustaining Deep Tech Startups.

Secondly, the policy restates the government's disappointment with international agreements that it argues have left India on the backfoot in terms of manufacturing and development power.

Thirdly, the policy calls for a more multi-pronged approach to protect Indian interests. The need of the hour is a coordinated, comprehensive push to optimally engage with international partners and multilateral institutions to push the Indian Deep Tech Ecosystem.

Fourthly, the policy also suggests resource-intensive policy approaches to attract global talent, such as offering networking opportunities to international deep tech startups and experts interested in relocating and contributing to the local ecosystem.

Significance of the policy: This policy complements and adds value to the existing *Startup India* policies, programmes and initiatives, by fostering a conducive ecosystem for deep tech startups to thrive and address their unique and complex challenges.





11. Cell-free DNA promises to transform how we find diseases

Source: The post is based on the article "Cell-free DNA promises to transform how we find diseases" published in The Hindu on 31st July 2023.

What is the News?

Scientists have been aware of cell-free DNA (cfDNA) since 1948.But only in the last two decades, since genome sequencing started to become more accessible, have they really figured out what to do with that knowledge.

What is cell-free DNA (cfDNA)?

In the human body, most of the DNA in a genome is neatly packed inside cells with the help of specific proteins, protecting it from being degraded.

In a variety of scenarios, some fragments of DNA are 'released' from their containers and are present outside the cell, in body fluids. These small fragments of nucleic acids are widely known as cell-free DNA (cfDNA).

How are cell-free DNA (cfDNA) produced?

Cell-free DNA can be produced and released from a cell in various situations, such as during cell death when nucleic acids degrade.

The degradation is influenced by multiple processes causing variations in the amount, size, and origin of cfDNA.

The release of cfDNA could occur together with a variety of processes, including those required for normal development, those related to the development of certain cancers and those associated with several other diseases.

What are the applications of cell-free DNA (cfDNA)?

One of the most widely used applications of cfDNA has been in screening foetuses for specific chromosomal abnormalities, an application known as non-invasive prenatal testing.

Another emerging application of cfDNA is in the early detection, diagnosis and treatment of cancers.

It is also useful in understanding why a body is rejecting a transplanted organ.

Further, cfDNA could also be used as a biomarker for neurological disorders like Alzheimer's disease, neuronal tumours, stroke, traumatic brain injury.

12. ISRO successfully conducts TransLunar Injection of Chandrayaan-3

Source: The post is based on the article "ISRO successfully conducts TransLunar Injection of Chandrayaan-3" published in The Hindu on 1st August 2023.

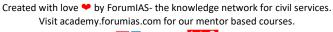
What is the News?

The Indian Space Research Organisation (ISRO) has successfully performed the TransLunar Injection (TLI) to slingshot Chandrayaan-3 towards the moon.

Note: TLI has been performed successfully on many missions to the Moon, including the Apollo missions, the Chang'e missions and the Artemis missions.

What is Trans Lunar Injection(TLI)?

The Trans Lunar Injection(TLI) manoeuvre is a vital space travel technique used to launch a spacecraft from Earth's orbit and place it on a track beyond the Moon.





The TLI is performed when the spacecraft is at a specific point in its orbit known as the 'perigee' or the closest point to Earth.

By firing its engines at this strategic moment, the spacecraft gains enough speed to break free from Earth's gravitational pull and embark on its journey toward the moon.

What happens after Trans Lunar Injection(TLI)?

Once the TLI is successfully completed, the spacecraft is put on a lunar trajectory, and it will continue its journey to the Moon without further propulsion from Earth.

The spacecraft typically enters a transfer orbit, which is an elliptical path that intersects with the Moon's orbit. It continues to travel in its highly eccentric orbit until it reaches the Moon's surface.

As the spacecraft approaches the Moon, it may perform additional manoeuvres, such as lunar orbit insertion (LOI), to enter into lunar orbit or land on the lunar surface, depending on the mission's goals.

13. What is the Akira ransomware, and why has the government issued a warning against it?

Source: The post is based on the article "What is the Akira ransomware, and why has the government issued a warning against it?" published in The Hindu on 1st August 2023.

What is the News?

The Computer Emergency Response Team of India has issued an alert for ransomware called "Akira."

What is Akira?

Akira is a type of ransomware. It is found to target both Windows and Linux devices.

It gets its name due to its ability to modify filenames of all encrypted files by appending them with the ".akira" extension.

How does Akira infect devices?

Ransomware typically spreads through spear phishing emails that contain malicious attachments in the form of archived content (zip/rar) files.

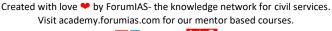
Other methods used to infect devices include drive-by-download, a cyber-attack that unintentionally downloads malicious code onto a device and specially crafted web links in emails, clicking on which downloads malicious code.

What does Akira do after infecting devices?

Once it infects the device, Akira ransomware deletes Windows Shadow Volume copies. These files are instrumental in ensuring that organizations can back up data used in their applications for day-to-day functioning.

It then steals the sensitive data and leaves a note (akira_readme.txt) with attack details and a link to the negotiation site.

The attackers then demand a ransom, threatening to publish the data on their dark web blog if the demands are not met.





14. <u>DGT collaborates with Amazon Web Services India to offer skilling programs on emerging technologies</u>

Source: The post is based on the article "DGT collaborates with Amazon Web Services India to offer skilling programs on emerging technologies" published in PIB on 31st July 2023.

What is the News?

The Directorate General of Training (DGT) is collaborating with Amazon Web Services (AWS) India to upskill students in emerging technologies.

What is the collaboration between DGT and Amazon Web Services(AWS)?

Directorate General of Training (DGT) works under the aegis of the Ministry of Skill Development and Entrepreneurship (MSDE).

DGT is collaborating with Amazon Web Services (AWS) India to provide individuals with self-paced online learning programs in emerging technologies such as cloud computing, data annotation, artificial intelligence (AI), and machine learning (ML) at no cost.

This learning content will be offered on Bharat Skills platform.

What is Bharat Skills platform?

Launched in: 2019

Launched by: Directorate General of Training(DGT) in the Ministry of Skill Development and Entrepreneurship(MSDE)

Purpose: It is a Central Digital Repository of updated curriculum, course content, digitally blended content, question banks and learning videos of all courses under the Craftsmen Training Scheme (CTS) and Crafts Instructor Training Scheme (CITS).

15. Measures to curtail Urban Flooding

Source: The post is based on the article "Measures to curtail Urban Flooding" published in PIB on 31st July 2023.

What is the News?

The Ministry of Jal Shakti has informed Lok Sabha about the steps the government is taking to tackle urban flooding.

What are Urban Floods?

Click Here to read

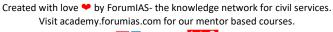
Main cause of Urban Flooding: The increased incidence of high intensity rainfall of short duration is mainly responsible for urban floods, which is further compounded by unplanned growth, encroachment of natural water bodies and poor drainage system.

Deaths due to floods: Over 17,000 people died in floods and heavy rains between 2012 and 2021 in India.

Management of urban flooding falls under purview of the State Governments and the Urban Local Bodies / Urban Development Authorities who are responsible for maintaining the drainage and sewerage system.

What are the steps taken to tackle urban flooding?

Master Plan for Artificial Recharge to Groundwater - 2020: It has been prepared by the Central Ground Water Board (CGWB) in collaboration with States/UTs. The plan aims to





construct about 1.42 crore rain water harvesting and artificial recharge structures in the country to harness 185 Billion Cubic Meter (BCM) of water.

The Government of India is implementing **Jal Shakti Abhiyan (JSA)** in the country in which special emphasis is being given for rainwater harvesting/groundwater recharge.

The **Amrit Sarovar Mission** has been launched with an aim of developing and rejuvenating 75 water bodies in each district of the country.

Atal Bhujal Yojana

Under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0 Scheme, provisions have been made for harvesting the rainwater through storm water drains into the water body (which is not receiving sewage/effluent) & creation/ strengthening of storm water drains around the water body.

Model Building Bye Laws (MBBL), 2016: It has been formulated by the Ministry of Housing & Urban Affairs (MoHUA) for the States/UTs.As per MBBL, all buildings having a plot size of 100 sq.m. or, more shall mandatorily include the complete proposal of rainwater harvesting. 35 States/ UTs have adopted the features of the Bye Laws.

National Water Policy (2012) advocates that the conservation of rivers, river corridors, water bodies and infrastructure should be undertaken in a scientifically planned manner through community participation.

16. New catalytic process of producing hydrogen offers sustainable method of manufacturing the green fuel

Source: The post is based on the article "New catalytic process of producing hydrogen offers sustainable method of manufacturing the green fuel" published in PIB on 31st July 2023.

What is the News?

Researchers have developed a new process of producing hydrogen from methanol through a catalytic reaction under ambient conditions.

About Hydrogen as a clean source of energy:

Hydrogen is considered one of the cleanest sources of energy that can be easily obtained from indigestible biomass or bio-derived alcohols.

Various methods can generate hydrogen but the cost of hydrogen depends on how environmentally friendly and energy efficient the production process is.

For instance, Water and methane are the main sources of hydrogen on Earth but extracting pure hydrogen from them consumes a lot of energy through techniques such as natural gas reforming electrolysis and water-splitting reactions.

Notably, **Methanol** can serve as a potential candidate for obtaining hydrogen due to its gravimetric hydrogen content of 12.6% and its effective conversion to H2 and CO2 as final products.

What have researchers developed?

Researchers have developed a new process of producing hydrogen from methanol through a catalytic reaction under ambient conditions.

This method offers a sustainable and green method of manufacturing the much-needed Hydrogen fuel.





17. ISRO rocket debris on Australian shore: rules governing space junk

Source: The post is based on the article "ISRO rocket debris on Australian shore: rules governing space junk" published in Indian Express on 1st August 2023.

What is the News?

A large object found on the shores of western Australia has been confirmed to be the debris of an Indian Space Research Organisation (ISRO) rocket.

What has ISRO said on this?

As per ISRO, the object was most likely an unburned part of the Polar Satellite Launch Vehicle (PSLV) rocket that launched a navigation satellite for the Indian Regional Navigation Satellite System (IRNSS) constellation two months ago.

That satellite was launched in the southward direction.

It is possible that one of the parts of the rocket did not burn completely while dropping back into the atmosphere, and fell into the ocean. It could later have been swept towards the Australian shore.

What are the previous instances of space objects falling to the earth

Junk from space objects falling to the earth are not unheard of. Most such incidents involve relatively small fragments from rockets that survive the friction of the atmosphere.

Most recently, in November 2022, large fragments of China's Long March 5B rocket plunged uncontrolled into the south-central Pacific Ocean.

These fragments were stages of the rocket used to deliver the third and final module of the Tiangong space station.

What are the threats of space objects to the earth?

Falling space junk poses a significant threat to life and property. Even when landing in the oceans (which is more likely due to the Earth's surface being 70% ocean), large objects can harm marine life and cause pollution.

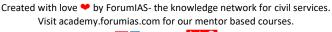
So far, there have been no recorded incidents of significant damage to inhabited areas from falling space junk. However, the lack of a controlled system to ensure designated landing is concerning.

What happens if these objects cause damage?

There are international regulations governing space debris which include junk falling back on the earth such as:

Convention on International Liability for Damage Caused by Space Objects: This convention is one of the several international agreements that complement the Outer Space Treaty, the overarching framework guiding the behavior of countries in space.

- The Convention deals mainly with damage caused by space objects to other space assets, but it also applies to damage caused by falling objects on earth.
- The Convention makes the launching country "absolutely liable" to pay compensation for any damage caused by its space object on the earth or to a flight in air. The country where the junk falls can stake a claim for compensation if it has been damaged by the falling object.
- This provision of the Convention has resulted in compensation payment only once so far when Canada sought damages from the then Soviet Union for a satellite with radioactive substance that fell into an uninhabited region in its northern territory in 1978. The Soviet Union is reported to have paid 3 million Canadian dollars.





18. Pakistan and China ink six agreements to expedite cooperation under CPEC

Source: The post is based on the article "Pakistan and China ink six agreements to expedite cooperation under CPEC" published in The Hindu on 1st August 2023.

What is the News?

Pakistan and China have signed six important documents to expand and expedite cooperation under the ambitious multi-billion dollar China-Pakistan Economic Corridor (CPEC) project.

What is the China-Pakistan Economic Corridor (CPEC)?

CPEC is a bilateral project between Pakistan and China.

Its stated objective is to enhance connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by other infrastructure development projects.

It connects Gwadar Port in Pakistan's Balochistan with China's Xinjiang province.

CPEC is a component of the Belt and Road Initiative (BRI) initiative of China.

It is opposed by India as it is being laid through Pakistan-occupied Kashmir.

What is the Belt and Road Initiative (BRI)?

The Belt and Road Initiative (BRI) was launched by Chinese President Xi in 2013.

It aims to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes.

The BRI is seen as an attempt by China to further its influence abroad with infrastructure projects funded by Chinese investments all over the world.

The initiative has led to allegations of smaller countries reeling under mounting Chinese debt after Sri Lanka gave its Hambantota port in a debt swap to China in 2017 on a 99-year lease.

India has opposed the BRI. It cited issues of sovereignty, transparency and unilateral decision making.

WHO report on tobacco control: Key findings, how India fares

Source: The post is based on the article "WHO report on tobacco control: Key findings, how India fares" published in Indian Express on 2nd August 2023

What is the News?

The World Health Organisation (WHO) has recently released a report on tobacco control measures.

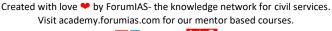
This was the ninth WHO report on the global tobacco epidemic. It tracks the progress made by countries in tobacco control since 2008.

What are MPOWER measures?

In line with the WHO Framework Convention on Tobacco Control (WHO FCTC), WHO had introduced the MPOWER measures in 2008.

MPOWER are a set of six cost-effective and high impact measures that help countries reduce demand for tobacco.

These measures include: 1) Monitoring tobacco use and prevention policies 2) Protecting people from tobacco smoke 3) Offering help to quit tobacco use 4) Warning about the dangers of tobacco 5) Enforcing bans on tobacco advertising, promotion and sponsorship and 6) Raising taxes on tobacco.





What are the key findings of the WHO report on tobacco control?

MPOWER: In the 15 years since the MPOWER measures were first introduced, 5.6 billion people in the world – or 71% of the entire population – remain protected by at least one of the measures. This has increased from just 5% of the population in 2008.

Countries implementing MPOWER measures: The number of countries implementing at least one MPOWER measure has increased from 44 countries in 2008 to 151 in 2022.

However, there are at least 44 countries in the world that still do not implement any MPOWER measure.

Harmful effects of e-cigarettes: E-cigarettes are harmful to both the people using them and those around them, especially when used indoors.

The tobacco industry is aggressively promoting E-cigarettes as a safer alternative to cigarettes. This is undermining the progress made on tobacco control.

Controlling second-hand smoking: The report focuses on controlling second-hand smoking (being in the presence of someone who is smoking).

It talks of creating smoke-free public areas and also de-normalising the act of smoking in the society.

Of the estimated 8.7 million tobacco-related deaths each year, 1.3 million are of non-smokers exposed to second-hand smoke.

Moreover, severe asthma, respiratory tract infections, and sudden infant death syndrome are more common among children exposed to second-hand smoke.

What does the WHO report say about India?

India has the highest level of achievement when it comes to putting health warning labels on tobacco products and providing tobacco dependence treatment.

With 85% of cigarette packs carrying health warnings both on the front and back, India figures among the top 10 countries in terms of the size of health warnings. The cigarette packets in the country also carry a toll-free number for a quit-line.

India has also banned the sale of e-cigarettes, and banned smoking in healthcare facilities and educational institutions.

India is also implementing warnings on OTT platform content when actors are seen using tobacco products. This would make India the first country in the world to do so.

19. Panel submits report on sub-categorisation of OBCs after 6 years

Source: The post is based on the article "Panel submits report on sub-categorisation of OBCs after 6 years" published in The Hindu on 2nd August 2023

What is the News?

The report of a Rohini Commission set up to examine the sub-categorisation of Other Backward Classes (OBCs) has been submitted to the President.

However, the contents of the report have not been made public as yet.

What is the need for sub-categorisation of OBCs?

OBCs get 27% reservation in central government jobs and admission to educational institutions.





There are more than 2,600 entries in the Central List of OBCs but over the years only a few affluent communities among them have benefited from the quota.

Therefore, there is an argument that a "sub-categorisation" of OBCs — quotas within the 27% quota — is needed in order to ensure "equitable distribution" of the benefits of reservation.

What were the terms of reference of the Rohini Commission?

Examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of OBCs with reference to such classes included in the Central List.

Work out the mechanism, criteria, norms and parameters in a scientific approach for subcategorisation within such OBCs and

Take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of OBCs and classifying them into their respective sub-categories.

How did the work of the commission proceed till now?

In 2018, the commission analyzed the data of 1.3 lakh central government jobs under the OBC quota over the preceding five years, and OBC admissions to central higher education institutions, including universities, IITs, NITs, IIMs and AIIMS, over the preceding three years.

The analysis showed 97% of all jobs and education seats have gone to 25% of OBC castes and 24.95% of these jobs and seats have gone to just 10 OBC communities.

As many as 983 OBC communities — 37% of the total — were found to have zero representation in jobs and educational institutions and 994 OBC sub-castes had a representation of only 2.68% in recruitments and admissions.

However, this analysis suffered from limitations due to the absence of updated population data.

20. <u>Tamil Nadu's Jaderi 'namakatti', chedibutta saree and Kanniyakumari Matti banana get GI</u> tag

Source: The post is based on the article "Tamil Nadu's Jaderi 'namakatti', chedibutta saree and Kanniyakumari Matti banana get GI tag" published in The Hindu on 31st July 2023.

What is the News?

The Geographical Indications Registry has granted the GI tag to three famous products from Tamil Nadu.

What are the products from Tamil Nadu which got GI Tag?

Jaderi namakatti: These are clay sticks that are white in colour. They are usually available in finger-like shape with a smooth texture.

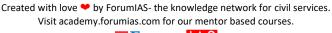
They are used to adorn the foreheads of idols, men and temple elephants.

The namakatti is made up of the rich deposit of hydrous silicate minerals that form fine grain particles of clay The clay is processed and shaped in a finger-like structure.

The production of namakatti depends on the climatic condition as it needs a lot of sunlight to dry.

Kanniyakumari Matti banana: Matti banana is a traditional table banana cultivar of medicinal value.

The fruit is highly fragrant, sweet with sub-acid flavour, firm texture and powdery nature.





The Matti banana fruit looks like the mouth of a crocodile hence it is also called *'Crocodile Finger Banana'*.

Chedibutta Saree: It is a handloom saree which depicts the Chedibutta design in art silk and cotton mix fabric.

The name 'Chedibutta' is a combination of two Tamil words- 'Chedi' (plant) and 'Butta' (repeated motif or design).

The iconic 'plant and flower' motif is woven on the border and pallu (edge of the saree).

The Sowrashtra community are the primary weavers.

What are the other products that got the GI Tag?

The seven other products from across India were also given GI tags. These products are: 1) Agra leather footwear 2) Rajasthan's Nathdwara Pichhwai Painting 3) Kashmir's Mushqbudji rice 4) Bihar's Marcha Rice 5) Jammu Kashmir's Rajouri Chikri Wood Craft 6) Agsechi Vayingim (Agassaim Brinjal) of Goa and 7) Sat Shiro Bheno (Sat Shirancho Bhendo) also known as Okra, vegetable crop of Goa.

21. Government introduces Delhi services Bill in the Lok Sabha amid vociferous protests

Source: The post is based on the article "Government introduces Delhi services Bill in the Lok Sabha amid vociferous protests" published in The Hindu on 2nd August 2023

What is the News?

The Government has introduced the Government of National Capital Territory of Delhi (Amendment) Bill, 2023 in Lok Sabha.

What is the Government of National Capital Territory of Delhi (Amendment) Bill, 2023?

The Bill establishes the **National Capital Civil Services Authority(NCCSA)** which consists of the Chief Minister, Chief Secretary of Delhi, Principal Home Secretary of Delhi.

The Authority will make recommendations to the Lieutenant Governor(LG) regarding transfers and postings of officials and disciplinary matters.

The Bill empowers the LG to exercise his sole discretion on several matters including those recommended by the National Capital Civil Services Authority and the summoning, prorogation and dissolution of the Delhi Legislative Assembly.

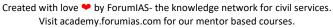
It authorizes department secretaries to bring to the notice of the LG, the Chief Minister and the Chief Secretary any matter that may bring Delhi Government into controversy with the Central Government.

What are the issues with the National Capital Territory of Delhi (Amendment) Bill, 2023?

Firstly, conferring powers over the transfer and posting of officers to the Authority may break the triple chain of accountability that links the civil services, ministers, the legislature and citizens. This may violate the principle of parliamentary democracy, which is a part of the basic structure doctrine.

Secondly, the LG has been granted sole discretion in several matters including when the Legislative Assembly will convene. This implies that the Chief Minister may be unable to convene a session needed for essential government business.

Thirdly, department secretaries will bring certain matters directly to the LG, Chief Minister and the Chief Secretary, without consulting the concerned minister. This may go against the collective responsibility of the Cabinet, as the concerned ministers cannot provide his inputs.





World's Largest Food/ Grain Storage Plan

Source: The post is based on the article "World's Largest Food/ Grain Storage Plan" published in PIB on 1st August 2023.

What is the News?

The Minister of Cooperation has informed Lok Sabha about the "World's Largest Grain Storage Plan in the Cooperative Sector".

What is the World's Largest Grain Storage Plan in the Cooperative Sector?

Aim: To create various agri infrastructure at Primary Agricultural Credit Societies (PACS) level, including warehouses, custom hiring center, processing units, Fair Price Shops, etc. by leveraging the 'whole-of-Government' approach.

Funding: The plan will be implemented by the convergence of 8 schemes:

- Ministry of Agriculture and Farmers Welfare: Agriculture Infrastructure Fund (AIF), Agricultural Marketing Infrastructure Scheme (AMI), Mission for Integrated Development of Horticulture (MIDH) and Sub Mission on Agricultural Mechanisation (SMAM).
- Ministry of Food Processing Industries: Pradhan Mantri Formalisation of Micro Food Processing Enterprises Scheme (PMFME) and Pradhan Mantri Kisan Sampada Yojana (PMKSY).
- Ministry of Consumer Affairs, Food and Public Distribution: Allocation of food grains under the National Food Security Act (NFSA) and Procurement operations at Minimum Support Price (MSP).

Monitoring body: Ministry of Cooperation has constituted an Inter-Ministerial Committee (IMC) with Minister of Cooperation as its chairman and Ministers and Secretaries of Ministries concerned as its members for smooth and effective implementation of the Plan.

Implementing agency: National Cooperative Development Corporation (NCDC) with the support of NABARD, Central Warehousing Corporation (CWC), Food Corporation of India (FCI) etc is implementing the Pilot Project in 24 PACS of 24 different States / UTs.

Expected Benefits of the Project: The creation of decentralized storage capacity ranging from 500 MT to 2000 MT at PACS level would reduce food grain wastage by creating sufficient storage capacity, strengthen food security of the country, prevent distress sale of crops and enable farmers to realize better prices for their crops.

22. What can the amended Forest (Conservation) Act change?

Source: The post is based on the article "What can the amended Forest (Conservation) Act change?" published in The Hindu on 2nd August 2023.

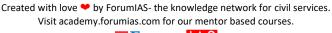
What is the News?

Lok Sabha has passed the Forest (Conservation) Amendment Bill 2023.

How does the Bill restrict the scope of the Act?

The Bill stipulates that only those lands that were notified as 'forest' under the Indian Forest Act 1927, any other relevant law or were recorded as 'forests' in government records will be acknowledged as 'forests' under this Act as well.

This revision stands in stark contrast to the wide applicability of the extant Act at present.





A Supreme Court judgment in 1996 had reiterated such a broad application. It said that a 'forest' includes all land recorded as such in government records regardless of ownership as well as "deemed forests", which are not officially classified as 'forests' but satisfy the dictionary meaning of the word: any large area with significant tree cover and undergrowth.

What is the exemption for border Infrastructure provided in the bill?

The Bill seeks to exempt linear infrastructure projects like roads and highways from seeking forest clearance permissions if they are located within 100 km of the national border.

Experts have raised concerns because "strategic linear projects of national importance" is an undefined term and can thus be misused to push through infrastructure projects that are devastating for the local ecology.

Did the Joint Parliamentary Committee(JPC) raise any concerns with the Bill?

The JPC did not propose a single change to the Bill in its report despite receiving objections from tribal groups, conservationists, environmental lawyers, activists, and citizen groups.

The Ministry of Tribal Affairs also raised concerns about the amendment's implications on community rights enshrined in the Forest Rights Act 2006.

23. The holocene climate anomalies

Source: The post is based on the article "The holocene climate anomalies" published in The Hindu on 2nd August 2023.

What is the News?

Recently, a study has claimed that a particular day in July was the warmest in more than 100,000 years. However, it is scientifically impossible to make such a claim.

Why is it scientifically impossible to claim that a particular day was the warmest in more than 100,000 years?

Temperature estimates from before thermometers existed rely on "palaeo proxies," which have limitations in accuracy and timescale.

The "paleo proxies" can provide insights into temperature anomalies over longer timescales such as centuries or thousands of years.

However, they cannot accurately determine daily temperatures due to mixing processes in oceans and lakes.

Hence, making such alarmist claims without scientific basis damages trust in climate action initiatives and scientists' credibility.

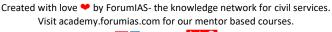
What is Paleoclimatology?

Paleoclimatology is the study of past climates. Since it is not possible to go back in time to see what climates were like, scientists use imprints created during past climates, known as proxies, to interpret paleoclimate.

Organisms, such as diatoms, forams, and coral serve as useful climate proxies. Other proxies include ice cores, tree rings, and sediment cores

What is the Holocene epoch?

The Holocene is the name given to the last 11,700 years of the Earth's history — the time since the end of the last major glacial epoch or "ice age."





Since then, there have been small-scale climate shifts — notably the "Little Ice Age" between about 1200 and 1700 A.D. — but in general, the Holocene has been a relatively warm period in between ice ages.

24. Roadmap to making India a \$5 trillion economy

Source: The post is based on the article "Roadmap to making India a \$5 trillion economy" published in PIB on 1st August 2023.

What is the News?

Government has informed the Lok Sabha about the steps taken to make India a \$5 trillion economy.

What is the roadmap of the government to make India a \$5 trillion economy?

Government's roadmap to achieve a \$5 trillion economy involves focusing on macro-level growth while ensuring comprehensive welfare at the micro level.

The roadmap also includes promoting digital economy and fintech, technology-enabled development, energy transition, climate action, and relying on a virtuous cycle of investment and growth.

What are the major steps taken by the government to make India a \$5 trillion economy?

Reforms undertaken: The major reforms include Goods and Services Tax (GST), Insolvency and Bankruptcy Code (IBC), a significant reduction in the corporate tax rate, Make in India and Start-up India strategies and Production Linked Incentive Schemes.

Increase in Capital Investment: Government has focused on a capex-led growth strategy to support economic growth and attract investment from the private sector by increasing its capital investment outlay substantially during the last three years.

– The Central Government's capital expenditure has increased from 2.15% of GDP in 2020-21 to 2.7% of GDP in 2022-23.

Union Budget 2023-24: It has taken steps to sustain the high growth of India's economy. These include a substantial increase in capital investment outlay for the third year in a row by 33% to ₹10 lakh crore (3.3% of GDP). Direct capital investment by the Centre is also complemented by Grants-in-Aid to States for the creation of capital assets.

25. Nearly 50 MMT per annum of CO2 emissions can be averted through Green Hydrogen: New & Renewable Energy Minister

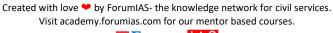
Source: The post is based on the article "Nearly 50 MMT per annum of CO2 emissions can be averted through Green Hydrogen: New & Renewable Energy Minister" published in PIB on 1st August 2023.

What is the News?

The Union Minister for New & Renewable Energy has informed Rajya Sabha about the Green Hydrogen.

What are the steps taken by the Government to promote Green Hydrogen?

G20 Energy Transitions Ministers Meeting under India's G20 Presidency: At this meeting, the members discussed the importance of building a sustainable and equitable global hydrogen ecosystem that benefits all nations, and affirmed High level Voluntary Principles on Hydrogen.





- These principles include promotion of free and fair trade of hydrogen produced from zero and low emission technologies and its derivatives.

National Green Hydrogen Mission

- Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme: It is a major financial measure under **National Green Hydrogen Mission**. The programme consists of two distinct financial incentive mechanisms to support domestic manufacturing of electrolysers and production of Green Hydrogen.

Benefits of National Green Hydrogen Mission: The mission is expected to lead to development of 5 MMT Green Hydrogen production capacity per annum by 2030.

- It is estimated that nearly 50 MMT per annum of CO2 emissions can be averted through production and use of the targeted quantum of Green Hydrogen.

26. Single pill strategy to beat cardiovascular diseases

Source: The post is based on the article "Single pill strategy to beat cardiovascular diseases" published in The Hindu on 2nd August 2023.

What is the News?

The World Health Organization has included three fixed dose combinations of cardiovascular medicines or **Polypills** on its revised Model Lists of Essential Medicines 2023 for use in cardiovascular diseases.

What are Polypills?

A polypill is a type of drug combination consisting of a single drug product in pill form and thus combines multiple medications.

The prefix "poly" means "multiple", referring to the multiplicity of distinct drugs in a given "pill".

About Polypill strategy to treat cardiovascular diseases:

Polypills are a safe and effective strategy to reduce the risk of heart attacks and strokes.

For instance, a 2000 research has shown that a polypill which combined two or more blood pressure lowering drugs plus a statin and aspirin could significantly reduce the risk of future heart attacks and strokes.

They demonstrated that the polypill reduced the risk of future heart attacks and strokes by about 40% to 50%.

27. Adopt WHO-standard good manufacturing practices: Govt sets deadline for pharmas

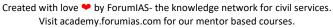
Source: The post is based on the article "Adopt WHO-standard good manufacturing practices: Govt sets deadline for pharmas" published in Indian Express on 3rd August 2023

What is the News?

Government of India has set a deadline for mandatory implementation of the Good Manufacturing Practices (GMP) in India pharmaceutical industries.

What are Good Manufacturing Practices (GMP)?

Good Manufacturing Practices (GMP) is the aspect of quality assurance that ensures that medicinal products are consistently produced and controlled to the quality standards appropriate to their intended use and as required by the product specification.





In India, GMP was revised in 2018, bringing them on par with World Health Organisation (WHO) standards.

Why has the government made it mandatory for Indian pharmaceutical industries to follow GMP?

The Indian pharma industry is facing a credibility crisis. In 2022, the WHO had said that the deaths of dozens of children in Gambia and Uzbekistan were due to contaminated cough syrups manufactured by Indian drugmakers.

In February 2023, blindness, severe eye infections and a death in the US were linked to Indiamade eye drops.

In this context, making GMP mandatory would help restore India's image as the pharmacy of the world.

Which Pharma companies need to follow GMP?

Companies with a turnover of over Rs 250 crore will have to implement the revised GMP within six months.

However, medium and small-scale enterprises with turnover of less than Rs 250 crore will have to implement it within a year.

The companies will also have to introduce a GMP-related computerized system. These computer programmes will be designed to automatically record all the steps followed and checks done, which will ensure all the processes are followed.

Those who do not comply with these directions will face suspension of license and/or penalty.

What is the significance of these directions?

Currently, only 2,000 of the 10,500 manufacturing units in the country have been found to be compliant with the global WHO-GMP standards.

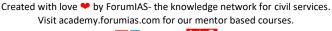
Now, all will have to implement the revised GMP, ensuring quality medicines for the domestic market and abroad.

28. Govt. kicks off contractual dispute settlement scheme

Source: The post is based on the article "Govt. kicks off contractual dispute settlement scheme" published in The Hindu on 3rd August 2023

What is the News?

Government of India has launched the Vivad se Vishwas-II scheme for settling contractual disputes involving the government and government undertakings.





What is the Vivad se Vishwas-II Scheme?

Smooth settlement

The Centre launches a scheme to end disputes with suppliers by offering them a voluntary settlement amount



- FM Nirmala Sitharaman had promised in this year's Budget to introduce a settlement scheme
- The scheme applies to all domestic contractual disputes where the government is a party
- Govt. to offer contractors settlement amounts of up to 85% of net amount awarded by the court

Source: The Hindu

Vivad se Vishwas-II Scheme was announced in the Union Budget 2023-24.

Aim: To resolve the government's contractual disputes with private parties, clear the backlog of litigation and improve the ease of doing business.

Applicability: The scheme will apply to all domestic contractual disputes where one of the parties is either the Government of India or an organization operating under its control.

Cases covered: The scheme will cover cases where the **court order** was passed by 30 April 2023, and the **arbitral order** given by 30 January 2023.

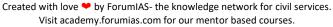
Under the scheme, for court orders passed on or before 30 April 2023, the settlement amount offered to the contractor will be up to 85 per cent of the net amount awarded or upheld by the court.

- For arbitral orders passed on or before 1 January 2023, the settlement amount offered is up to 65 percent of the net amount awarded.

Claims processed through: Eligible claims will be processed only through the government e-marketplace.

29. <u>Under the Startup India initiative</u>, 'Action Plan' for Startups unveiled to create a vibrant startup ecosystem in the country

Source: The post is based on the article "Under the Startup India initiative, 'Action Plan' for Startups unveiled to create a vibrant startup ecosystem in the country" published in PIB on 2nd August 2023.





What is the News?

The Union Minister of State for Commerce and Industry has informed Lok Sabha about the various programs undertaken by the Government to promote startups across the country.

What are the programs launched by the Government to promote startups across the country?

Startup India Action Plan: It was unveiled in 2016. The Action Plan comprises 19 action items spanning across areas such as "Simplification and handholding", "Funding support and incentives" and "Industry-academia partnership and incubation".

Fund of Funds for Startups (FFS) Scheme: It was established with a corpus of Rs. 10,000 crore, to meet the funding needs of startups. DPIIT is the monitoring agency and Small Industries Development Bank of India (SIDBI) is the operating agency for FFS.

Credit Guarantee Scheme for Startups (CGSS): It is aimed at providing credit guarantee up to a specified limit against loans extended by Member Institutions (MIs) to finance DPIIT recognised startups.

Support for Intellectual Property Protection: It facilitates the startups to file applications for patents, designs and trademarks through registered facilitators in appropriate IP offices by paying only the statutory fees. Startups are provided with an 80% rebate in filing of patents and 50% rebate in filing of trademark vis-a-vis other companies.

International Market Access to Indian Startups: It aims to help connect Indian startup ecosystems to global startup ecosystems through various engagement models.

Start-ups Intellectual Property Protection(SIPP) Scheme: It facilitates the startups to file applications for patents, designs and trademarks through registered facilitators in appropriate IP offices by paying only the statutory fees.

– The Government bears the entire fees of the facilitators for any number of patents, trademarks or designs, and startups only bear the cost of the statutory fees payable. Startups are provided with an 80% rebate in filing of patents and 50% rebate in filing of trademark vis-a-vis other companies.

Income Tax Exemption for 3 years: Startups incorporated on or after 1st April 2016 can apply for income tax exemption. The recognized startups that are granted an Inter-Ministerial Board Certificate are exempted from income-tax for a period of 3 consecutive years out of 10 years since incorporation.

Faster Exit for Startups: The Government has notified Startups as 'fast track firms' enabling them to wind up operations within 90 days vis-a-vis 180 days for other companies.

Startup India Hub: The Government launched a Startup India Online Hub in 2017 which is one of its kind online platforms for all stakeholders of the entrepreneurial ecosystem in India to discover, connect and engage with each other.

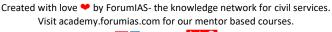
National Startup Advisory Council

Startup India Seed Fund Scheme (SISFS): The Scheme aims to provide financial assistance to startups for proof of concept, prototype development, product trials, market entry and commercialization.

National Startup Awards(NSA)

National Mentorship Portal(MAARG)

Startup20 Engagement Group: It is a new engagement group initiated under India's G20 presidency. It aims to create a global narrative for supporting startups and enabling synergies





between startups, corporates, investors, innovation agencies and other key ecosystem stakeholders.

30. Narco-terror nexus examined case-wise, Centre informs RS

Source: The post is based on the article "Narco-terror nexus examined case-wise, Centre informs RS" published in The Hindu on 3rd August 2023.

What is the News?

The Union Home Ministry has informed the Rajya Sabha that the nexus between illegal trade in narcotics and terrorist activities is examined case-wise.

India's Vulnerability to drug trafficking:

Traditionally, India has been seen as sandwiched between the Golden Crescent (Afghanistan, Iran and Pakistan) and Golden Triangle (Lao People's Democratic Republic, Myanmar and Thailand).

India is being flooded with drugs, especially heroin and methamphetamine, from these two regions by drug lords indirectly supported by intelligence setups.

Nearly 90% of the world's demand for these drugs is being met from these two regions. India is both a big market and a transit route for other countries.

Is there a nexus between narcotics business and terrorist activities?

The Home Ministry said that the nexus between illegal trade in narcotics and terrorist activities is examined case-wise.

For instance, in Manipur, since 2018, four cases have been reported to the Narcotics Control Bureau (NCB), in which five "Indians" were arrested with narcotic substances along with arms and ammunition.

What are the steps taken by the government of India to tackle illegal drug trafficking?

The Government of India has entered into bilateral agreements with 27 countries, Memorandum of Understanding (MoU) with 16 countries and two agreements on security cooperation for preventing illicit trafficking in narcotic drugs, psychotropic substances and precursor chemicals.

The Government of India has introduced the Narco Coordination Centre (NCORD) mechanism in 2016 to have effective coordination of actions among various ministries, departments, Central and State law enforcement agencies dealing with narcotics.

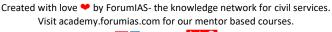
A Special Task Force on Darknet and Crypto Currency has been constituted to monitor suspicious transactions related to drugs on Darknet.

31. Government introduces a new category of Ayush visa for foreign nationals seeking treatment under Indian systems of medicine

Source: The post is based on the article "Government introduces a new category of Ayush visa for foreign nationals seeking treatment under Indian systems of medicine" published in PIB on 2nd August 2023.

What is the News?

The Ministry of Home Affairs, Government of India has notified the creation of a new category of Ayush (AY) visa for foreign nationals for treatment under Ayush systems/Indian systems of medicine.





Ayush Visa for Foreign Nationals:

In 2022, the Prime Minister had announced the creation of a special Ayush Visa category to facilitate foreign nationals' travel to India for Ayush therapy.

This move is also part of the **Heal in India initiative** aimed at promoting India as a medical value travel destination.

The Ministry of Ayush and the Ministry of Health & Family Welfare are working together to develop a one-stop Heal in India portal for promoting India as a world-class medical tourism destination.

Medical Tourism in India:

Medical Value Travel(MVT) has seen significant growth in India in recent years.

According to the report 'The Global Wellness Economy: Looking beyond COVID' by the Global Wellness Institute (GWI), the Global Wellness economy will grow at 9.9% annually. Ayush based healthcare & Wellness economy is estimated to grow to \$70 billion by 2025.

India is clearly poised for a greater share of the MVT pie. In the MTA's Medical Tourism Index (MIT) India is ranked 10th out of the 46 global destinations, 12th in 20 wellness tourism markets, and 5th in the wellness tourism market in Asia Pacific.

According to the data from the Indian Institute of Public Administration (IIPA), approximately 6,97,453 medical tourists visited India in 2019 alone for medical treatment and by 2023, India is expected to account for 6% of the global MVT market share.

32. Rescued Himalayan vultures script India's first captive breeding success story in Assam Zoo

Source: The post is based on the article "Rescued Himalayan vultures script India's first captive breeding success story in Assam Zoo" published in Deccan Herald on 1st August 2023.

What is the News?

In 2011-2012, Himalayan vultures were rescued from poisoning incidents in Assam. Despite initial skepticism from veterinarians about their survival in the hot and humid weather, most of them not only survived but also contributed to India's first captive breeding success story of Himalayan vultures at Assam State Zoo in Guwahati.

What is Himalayan Vulture?

Himalayan Griffon vulture or Himalayan Vulture inhabits the higher regions of the Himalayas and the Tibetan Plateau.

This species is distributed from western China, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Afghanistan and Pakistan, east through the Himalayan mountain range in India, Nepal and Bhutan, to central China and Mongolia.

They can fly at an elevation of up to 5,500 metre with help of their wide and powerful wings.

IUCN Status: Near Threatened

Vultures Found in India:

In India, a total of nine species of vultures are found. Out of these six species are resident (white-rumped vulture, Indian vulture, slender-billed vulture, red-headed vulture, bearded vulture and Egyptian vulture) and three species are migratory (cinereous vulture, griffon vulture and Himalayan vulture).





33. India's telemedicine service eSanjeevani completes over 14 crore consultations: Center

Source: The post is based on the article "India's telemedicine service eSanjeevani completes over 14 crore consultations: Center" published in The New Indian Express on 1st August 2023.

What is the News?

India's telemedicine application eSanjeevani has completed 14 crore consultations.

What is eSanjeevani?

eSanjeevani is a cloud-based integrated telemedicine solution of the Ministry of Health and Family Welfare, Govt. of India.

It is a telemedicine app that provides both doctor-to-doctor and doctor-to-patient telecommunication.

It is being designed, developed, deployed and maintained by The Centre for Development and Advanced Computing (C-DAC), Mohal

eSanjeevani service is available in two variants:

- The first one is eSanjeevani Ayushman Bharat-Health and Wellness Centre (AB-HWC): It is the Doctor-to-Doctor telemedicine service through which the beneficiaries visiting a HWC can virtually connect to doctors/ specialists in the Hub that could be at tertiary healthcare facility/hospital/medical college.
- This enables the government to provide general and specialized health services in rural areas and isolated communities.
- The second variant is eSanjeevani OPD: It is serving patients across the country, connecting them directly to doctors from the comforts of their homes.

34. Centre forms expert panel to revise anti-discrimination guidelines on campuses

Source: The post is based on the article "Centre forms expert panel to revise anti-discrimination guidelines on campuses" published in The Hindu on 3rd August 2023.

What is the News?

The Union Education Ministry has constituted an expert committee to revisit its regulations and guidelines on anti-discrimination guidelines in higher educational institutions.

About anti-discrimination guidelines in higher educational institutions:

University Grants Commission (UGC) had in 2012 issued the UGC (Promotion of Equity in Higher Educational Institutes) Regulations, 2012.

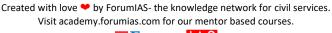
This covered all forms of discrimination, provided for liaison officers to check reservation fulfillment and gave mandates for strict grievance redressal cells to address concerns of discrimination.

However, these guidelines have not been fully implemented in several higher educational institutions, including a lot of the Indian Institutes of Technology.

The IIT-Delhi in fact got the mandate for its SC/ST Cell passed only in 2023, providing for a liaison officer and anti-discrimination officers.

Why has the government decided to revisit the anti-discrimination guidelines?

In the last six months, at least half a dozen students from marginalised backgrounds have died of suicide on campuses of IIT-Madras, IIT-Bombay, and IIT-Delhi.





After this, the Supreme Court had then asked the UGC to detail the steps it had taken to address caste discrimination on campuses.

After this, the government formed an expert committee to revisit the UGC regulations/schemes concerning the SC/ST/OBC/PwD and minority communities in Higher Educational Institutions [HEIs] and suggest further remedial measures if required.

35. Centre restricts laptop, PC and tablet imports; calls for license

Source: The post is based on the article "Centre restricts laptop, PC and tablet imports; calls for license" published in The Hindu on 5th August 2023.

What is the News?

The Government of India has imposed restrictions on imports of laptops, all-in-one personal computers and tablets.

The restrictions have been imposed under HSN Code 8471 on seven categories of electronic gadgets.

What does the HSN Code 8471 say?

The Harmonised System of Nomenclature (HSN) code is a classification system used to identify products for taxation purposes.

HSN code 8471 is used to identify devices that are designed to perform data processing tasks.

What are the exemptions provided under this order?

People who travel abroad can bring along one laptop, tablet, all-in-one personal computer, or ultra-small form factor computer in their baggage without import restrictions when returning to India. The exemption applies to items bought from e-commerce platforms and shipped via post or courier.

An exemption is also provided for up to 20 items per shipment, particularly for research, testing, evaluation, repair, re-export, and product development. The imports are permitted under the condition that they are used solely for their stated purposes and not sold.

Why has the government imposed these restrictions?

Dragon's iron grip

In FY22 and FY23, India imported \$9,446 million worth of laptops from China. Hong Kong was a distant second



SOURCE: COMMERCE MINISTRY

Source: The Hindu

Created with love ♥ by ForumIAS- the knowledge network for civil services. Visit academy.forumias.com for our mentor based courses.



Strengthen local manufacturing: With the curbing imports of these devices, the government aims to reduce reliance on foreign markets and encourage the growth of local manufacturing capabilities.

To boost PLI Scheme: This move will give a direct boost to the Center's production-linked incentive (PLI) scheme for IT hardware.

Reduce Reliance on China: The highest share of imports is in the category of personal computers including laptops, and palmtops, under which imports from China stood at \$558.36 million in April-May this year as against \$618.26 million in the year-ago period. China accounts for roughly 70-80 per cent of the share of India's imports of personal computers, laptops.

What is its potential impact?

This announcement is expected to impact companies that import bulk of their products from outside India. Tech giants like Apple will have to either start manufacturing their laptops in India or stop importing their gadgets to India.

36. Amid row, Data Protection Bill tabled

Source: The post is based on the article "Amid row, Data Protection Bill tabled" published in The Hindu on 4th August 2023

What is the News?

Digital Personal Data Protection Bill, 2023 has been introduced in the Lok Sabha. The Bill seeks to provide for the protection of personal data and the privacy of individuals.

What are the key provisions of the Digital Personal Data Protection Bill, 2023?

Safety net

A look at salient features of the Digital Personal Data Protection Bill, 2023

- The law will require companies to clearly mention to users what data are being collected and what they are being used for
- Users will get the right to delete or modify their personal data
- Entities failing to protect user data may face penalty of up to ₹250 crore per violation
- The Bill proposes creation of Data
 Protection Board of India
- It strikes off Section 43A of the IT Act, 2000 that requires companies which mishandle user data to compensate users
- Many facets of implementation will be prescribed via Gazette notifications at a later stage

The Bill provides a wide range of exemptions for the "State and its instrumentalities". For instance, personal data can be processed "in the interest of sovereignty and integrity of India or security of the State" for "fulfilling any obligation under law"

■ While the law requires firms to disclose to users the identity of other firms to which their data would be entrusted for processing, they are explicitly exempted from disclosing sharing of such data in the case of lawful interception of data



Source: The Hindu

Applicability: The bill will apply to processing of digital personal data within India and to data processing outside the country if it is done for offering goods or services, or for profiling individuals in India.

Created with love ♥ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.



Obligations of data principals: Companies are required to protect digital data taken from individuals (the former termed 'data fiduciaries' and the latter 'data principals') by clearly mentioning to them what data are being collected and what they are being used for, appointing and giving contact information of a data protection officer and giving users the right to delete or modify their personal data.

Data protection board: It proposes to set up a data protection board that will adjudicate on matters related to violations of the provisions including data breaches. The Union government will notify the appointment of its members.

The Bill strikes off Section 43A of the Information Technology Act, 2000 that requires companies which mishandle user data to compensate users.

Data Localisation: The Bill permits relaxed data localisation requirements and permits cross-border data flow to certain countries and territories as may be notified by the central government.

Exemptions: The Bill provides a wide range of exemptions for the "state and its instrumentalities". For instance, personal data can be processed "in the interest of sovereignty and integrity of India or security of the state" for "fulfilling any obligation under law".

Fines: The bill proposes fines ranging from ₹50 crore to ₹250 crore for companies that fail to protect user data or default on disclosure requirements. These fines can be compounded, that is separate fines can be imposed on the same data fiduciary for each violation.

37. Ministry of Education launches Study In India portal for international students

Source: The post is based on the article "Ministry of Education launches Study In India portal for international students" published in PIB on 3rd August 2023.

What is the News?

The Union Minister of Education and Union External Affairs Minister have jointly launched Study in India Portal.

What is Study in India Portal?

Study in India (SII) portal is a one-stop platform that will simplify international students' academic journey in India.

The portal will provide information about higher education institutions (HEIs) in India. It will showcase the academic programmes in the HEIs covering undergraduate, postgraduate, doctoral programmes as well courses in Indian Knowledge System (IKS) such as Yoga, Ayurveda, classical arts and more.

The portal will have information about the academic facilities, research support and related information available in the institutes.

Students will be able to apply to more than one institute/course of their choice.

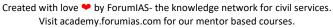
The portal will also be a one-stop spot for student registration, visa application process, choosing the desired courses and receiving offer letters from the institute.

What is the Study in India Programme?

Launched by: Ministry of Education

Aim: To increase the number of international students in India and promote India as the preferred study destination, providing affordable and quality education as per global standards.

Partnership with Premier Education Institutes: The programme involves partnership with educational institutes fulfilling one of the following criteria:





- National Institutional Ranking Framework (NIRF) ranking (<=100)
- National Assessment and Accreditation Council (NAAC) accreditation score (>=3.01)
- Institutes of National Importance (INI)

Significance: India being one of the largest higher education systems in the world, our universities offer a diverse range of courses catering to the evolving needs of the global workforce. The programme seeks to facilitate international students' access to these courses and showcase the country's academic excellence.

38. <u>Union Minister says</u>, <u>NIDHI program has various components to support innovations</u>, startups and startup incubation ecosystem in the country

Source: The post is based on the article "Union Minister says, NIDHI program has various components to support innovations, startups and startup incubation ecosystem in the country" published in PIB on 3rd August 2023.

What is the News?

The Union Minister of Science & Technology (DST) has informed Lok Sabha about the NIDHI Program.

What is the NIDHI Program?

Nodal Department: Department of Science & Technology(DST)

Launched in: 2016

Aim: 1) To promote S&T based entrepreneurship and startup ecosystem across the county and 2) To nurture start-ups through scouting, supporting and scaling of innovations.

Key Components of NIDHI: The components of NIDHI are designed to support ideators and innovators since their early startup journey and link them to the entire market value chain.

- **NIDHI-Entrepreneur in Residence (EIR):** Inspiring graduating students to take entrepreneurship by providing fellowship
- NIDHI-Promotion and Acceleration of Young and Aspiring Technology Entrepreneurs (PRAYAS): Supports innovators and startups technically and financially from Idea to Prototype stage.
- NIDHI Inclusive-Technology Business Incubator (iTBI): Program has been rolled out to increase outreach of incubation programs in terms of geographies, gender etc.
- **NIDHI-Technology Business Incubator (TBI):** Support and nurture knowledge driven innovative start-ups into successful enterprises.
- **NIDHI-Seed Support Program (SSP):** Provides early-stage funding to potential start-ups with promising ideas / innovations to help them graduate to the next level.
- NIDHI-Center of Excellence (CoE): To create a world class facility to help startups go global.
- **NIDHI-Accelerator:** Fast tracking a startup through focused intervention.





39. Endangered Himalayan vulture, bred in captivity for the first time in India

Source: The post is based on the article "Endangered Himalayan vulture, bred in captivity for the first time in India" published in The Hindu on 4th August 2023.

What is the News?

Researchers have recorded the first instance of captive breeding of the Himalayan vulture (*Gyps himalayensis*) in India at the Assam State Zoo, Guwahati.

What is Captive breeding?

Captive breeding is the process of breeding animals outside of their natural environment in restricted conditions in farms, zoos or other closed facilities.

The choice of individual animals that are to be part of a captive breeding population, and the mating partners within that population, are controlled by humans.





Source: wiki

Himalayan Griffon vulture or Himalayan Vulture inhabits the higher regions of the Himalayas and the Tibetan Plateau.

They can fly at an elevation of up to 5,500 metre with help of their wide and powerful wings.

They generally feed on dead carcasses and would sometimes wait for a few days before eating the dead animal.

IUCN Status: Near Threatened



About Vulture Conservation Breeding Centres(VCBC):

Vulture Conservation Breeding Centres(VCBC) have been established by Bombay Natural History Society (BNHS) at Pinjore in Haryana, Bhopal in Madhya Pradesh, Rani in Assam and Rajabhatkhawa in West Bengal.

These centres are involved in conservation breeding of the white-rumped vulture (*Gyps bengalensis*), slender-billed vulture (*Gyps tenuirostris*), and the Indian vulture (*Gyps indicus*).

40. Rajya Sabha passes Mediation Bill, 2021

Source: The post is based on the article "Rajya Sabha passes Mediation Bill, 2021" published in The Economic Times on 1st August 2023.

What is the News?

Rajya Sabha has passed the Mediation Bill 2021.

What is Mediation?

Mediation is a type of ADR (alternative dispute resolution), where a dispute is referred to a neutral person, who engages with the warring parties and tries to find a solution agreeable to both.

Courts have regularly been ordering mediation to settle civil, commercial, and family disputes among others.

What are the key provisions of the Mediation Bill 2021?

Firstly, persons can try to settle civil or commercial disputes through mediation before approaching any court or tribunal. However, the pre-litigation mediation is voluntary and not mandatory.

Secondly, a party may withdraw from mediation after two mediation sessions.

Thirdly, the mediation process must be completed within 180 days, which may be extended by another 180 days by the parties.

Fourthly, the Mediation Council of India will be set up. Its functions include registering mediators, and recognising mediation service providers and mediation institutes (which train and certify mediators).

Fifthly, currently, mediations are ordered by the courts and when a dispute is thus settled, the settlement agreement is converted into a decree by the court, thus making it binding on the parties. However, the Mediation bill puts a mediated settlement agreement on par with a court judgment without the need for any further court sanction.

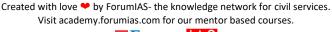
Lastly, Mediation agreements can only be challenged on grounds of: (i) fraud, (ii) corruption, (iii) impersonation, or (iv) relating to disputes not fit for mediation.

41. NHAI Launches 'Rajmargyatra' a Unified Mobile Application for National Highway Users

Source: The post is based on the article "NHAI Launches 'Rajmargyatra' a Unified Mobile Application for National Highway Users" published in PIB on 3rd August 2023.

What is the News?

The National Highways Authority of India (NHAI) has launched the 'Rajmargyatra' app.





What is Rajmargyatra?

Rajmargyatra is a citizen-centric unified mobile application. It empowers travelers with comprehensive information on Indian National Highways while also offering an efficient complaint redressal system.

Aim: To create a seamless, user-friendly experience for highway users, fostering a safer and more enjoyable journey on Indian National Highways.

Key Features of Rajmargyatra app:

Comprehensive Highway Information: The app serves as a one-stop repository of essential information for National Highway users. Get real-time weather conditions, timely broadcast notifications, and access to details about nearby toll plazas, and other essential services that ensure a seamless and safe journey on National Highways.

Hassle-Free Complaint Redressal: The app comes equipped with an inbuilt complaint redressal and escalation mechanism. Users can easily report highway-related issues, attaching geo-tagged videos or photos for better clarity. Users can also track the status of their grievances for complete transparency.

Seamless FASTag Services: The app integrates its services with various bank portals, making it convenient for users to recharge their FASTags, avail monthly passes, and access other FASTag-related banking services – all within a single platform.

Over-speeding notifications and voice-assistance to encourage responsible and safe driving behavior.

42. Net zero emissions target

Source: The post is based on the article "Net zero emissions target" published in PIB on 3rd August 2023.

What is the News?

Union Minister of State for Environment, Forest and Climate Change has informed Lok Sabha about India's net zero emissions target and the measures it has taken to address the rapidly growing environmental problems in the country.

India's Greenhouse emissions:

India is an emerging economy whose priority is to achieve development and poverty eradication goals. Due to this, Greenhouse emissions are bound to increase.

However, it is to be noted that India's historical cumulative emissions from 1850 to 2019 amount to less than 4 percent of cumulative carbon dioxide emissions of the world from the pre-industrial era, despite being home to 17% of the world's population.

Hence, India's responsibility for global warming thus far has been minimal and even today its annual per capita emissions are only about one-third of the global average.

India's Net Zero Emissions Target:

At COP 26 in November 2021, India has committed to achieving net-zero emissions by 2070.

India's long-term low-carbon development strategy submitted to the UN is guided by principles of equity, climate justice, and the idea of Common but Differentiated Responsibilities and Respective Capabilities.

The strategy rests on seven key transitions to low-carbon development pathways. These include 1) low-carbon development of electricity systems consistent with development 2) develop



an integrated, efficient and inclusive transport system 3) promote adaptation in urban design, energy and material efficiency in buildings 4) promoting economy-wide decoupling of growth from emissions and development of an efficient, innovative low emission industrial system 5) development of carbon dioxide removal and related engineering solutions 6) enhancing forest and vegetation cover and 7) economic and financial needs of low-carbon development.

What are the steps taken by India to address the growing environmental problems in the country? National Clean Air Programme(NCAP)

PRANA Portal

Commission for Air Quality Management in NCR and Adjoining Area(CAQM)

India has moved from **BS-IV to BS-VI norms** for fuel and vehicles from 1stApril, 2020.

Sustainable Alternative Towards Affordable Transportation(SATAT) has been launched as an initiative to set up a Compressed Biogas (CBG) production plant and make CBG available in the market for use in automotive fuels.

India has added ten wetlands to the List of Wetlands of International Importance (also called Ramsar Sites) within the framework of the Ramsar Convention, taking the total number of Ramsar Sites in India to 75, the highest in Asia,

The government has taken a defining step to eliminate single use plastics. A ban has been imposed on identified single use plastic items from 1st July 2022.

Desertification and Land Degradation Atlas of India

Government has initiated the work of Circular Economy. Extended Producer Responsibility (EPR) rules have been notified for 4 categories of waste a) Plastic waste, b) Waste tyre, c) Batteries, and E-Waste.

43. House clears tweaked law to set off undersea mineral hunt

Source: The post is based on the article "House clears tweaked law to set off undersea mineral hunt" published in Times of India on 4th August 2023.

What is the News?

The Rajya Sabha has passed the Offshore Areas Mineral (Development and Regulation) Amendment Bill, 2023.

What is Offshore Areas Mineral (Development and Regulation) Amendment Bill, 2023?

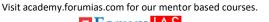
The Bill seeks to make amendments to the Offshore Areas Mineral (Development and Regulation) Act, 2002.

The Act categorizes offshore mining-related activities into: (i) reconnaissance, which involves a preliminary survey to locate mineral resources, (ii) exploration, which includes exploring, proving, or locating mineral deposits, and (iii) production, the commercial activity of the extraction of minerals.

Key Provisions of the bill:

Composite license: The Act provides for following types of concessions: (i) a reconnaissance permit for reconnaissance, (ii) an exploration license for exploration and (iii) a production lease for undertaking mining.

- The Bill introduces a composite license for granting rights for exploration as well as production.





Created with love ♥ by ForumIAS- the knowledge network for civil services.

– Under the composite license, the licensee will be required to complete exploration within three years. This may be extended by two years upon application by the licensee. If mineral resources have been established, the licensee will be granted one or more production leases for the explored area.

Validity of concessions: Under the Act, a production lease is granted for a period of up to 30 years. It may be further renewed for up to 20 years. The Bill instead provides that a production lease, as well as a production lease under a composite license, will be valid for 50 years.

Mining of atomic minerals: The Bill adds that in case of atomic minerals, exploration, production, and composite licenses will be granted only to the government or government companies. Atomic minerals are defined in the Mines and Minerals (Development and Regulation) Act, 1957.

Standard area of blocks: A limit has also been introduced on total area one person can acquire offshore (not more than 45 minutes latitude by 45 minutes longitude) in respect of any mineral or prescribed group of associated minerals under one or more operating rights (taken together).

Offshore Areas Mineral Trust: The Bill sets up the Offshore Areas Mineral Trust. Concession holders will be required to pay an amount to the Trust in addition to any royalty.

- The funds will be used for specified purposes including: (i) exploration in offshore areas, (ii) research and studies about the mitigation of adverse effects of offshore mining on the ecology, and (iii) relief upon the occurrence of a disaster.

44. House panel proposes reducing minimum age to contest polls

Source: The post is based on the article "House panel proposes reducing minimum age to contest polls" published in Business Standard on 5th August 2023.

What is the news?

The parliamentary panel has proposed lowering the minimum age for participating in national elections, especially Assembly elections, from 25 to 18 years.

Why has the committee come up with such a proposal?

Global Practices: The Parliamentary Standing Committee on Personnel, Public Grievances, Law, and Justice **cited examples from the UK, Australia, and Canada**, where the minimum age to run for any elected public office is 18.

Even in most European countries, the minimum age for contesting national general elections is 18.

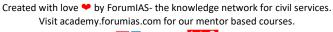
Inadequate Representation: In 2019, a report by PRS Legislative Research revealed that 47 percent of Lok Sabha MPs were over 55 years old. The panel found this troubling considering India's median age was only 27.9 years.

The report also highlighted that only 2.2 percent of Lok Sabha MPs were under 30 years old. Hence, the panel has raised concerns over lack of representation.

Bridging the generation gap: The committee stated that global surveys indicate a significant political awareness among the youth. Hence, having younger candidates could help bridge the generation gap, promote dialogue, and foster cooperation.

What has been the response of the Election Commission for the proposal?

The Election Commission (EC) has said that expecting 18-year-olds to have the required experience and maturity to serve as public representatives was unrealistic.





Hence, it advised the panel not to change the constitutional provision for the age requirement to contest in the Lok Sabha, Rajya Sabha, Legislative Assemblies, and Legislative Councils, unless compelling reasons exist.

45. Govt. allows Indian companies to list on foreign exchanges through IFSC

Source: The post is based on the article "Govt. allows Indian companies to list on foreign exchanges through IFSC" published in The Hindu on 5th August 2023.

What is the news?

The finance minister has said that Indian companies can now directly list their shares on foreign exchanges operating at the International Financial Services Centre (IFSC) in Gujarat's GIFT City.

This move is aimed at enabling Indian companies to access global capital at better valuations.

FM has also inaugurated the Limited Purpose Clearing Corporation (LPCC) mechanism called AMC Repo Clearing Ltd. (ARCL) and the Corporate Debt Market Development Fund (CDMDF) in Mumbai.

About Limited Purpose Clearing Corporation (LPCC)

The LPCC has been established to facilitate clearing and settling corporate bond repo transactions and promote an active repo market. This initiative aims to enhance liquidity in the corporate bond market.

It will also enable market makers to obtain affordable funding for their inventory, assist bondholders in fulfilling their short-term liquidity requirements without selling their assets, and provide entities with short-term surpluses a secure and efficient way to utilize their funds.

About Corporate Debt Market Development Fund (CDMDF)

During market dislocations, the CDMDF will have access to ₹33,000 crore in capital.

It will use this capital to buy and hold eligible corporate debt securities from participating investors, such as specified debt-oriented MF schemes, and subsequently sell these securities as markets recover.





Listing reforms

Indian firms have been permitted to directly list their shares in foreign exchanges operating at the IFSC in GIFT City, Gujarat

- Both listed and unlisted Indian companies will be able to access global capital through the IFSC
- The FM launches a mechanism and a fund to foster an active repo market for corporate bonds in India
- Lack of a central counterparty restricted market for corporate repo transactions, Ms. Sitharaman says



Source: The Hindu

46. Rare 'Einstein cross' warps light from one of the universe's brightest objects in this stunning image

Source: The post is based on the article "Rare 'Einstein cross' warps light from one of the universe's brightest objects in this stunning image" published in LiveScience on 5th August 2023.

What is the news?

Astronomers have discovered a stunning, rare example of an "Einstein cross" splitting and magnifying light from the far depths of the universe.

About the Discovery

A foreground elliptical galaxy located about 6 billion light-years away from Earth has warped and quadrisected a bright beam of light from a background galaxy approximately 11 billion light-years away.

The resulting pattern was first predicted by Albert Einstein in 1915.





Source: LiveScience

It is a rare arrangement that astronomers will study to get a better understanding of the universe.

The background light emitted by a quasar, which is a young galaxy with a supermassive black hole at its center.

It consumes immense amounts of matter and blasts out enough radiation to shine more than a trillion times more brightly than the brightest stars.

What does Einstein's theory of general relativity explain?

Einstein's theory of general relativity describes the way massive objects warp the fabric of the universe, called space-time.

Einstein discovered that gravity is not an unseen force but rather a consequence of space-time curving and distorting in the presence of matter and energy.

Created with love ♥ by ForumIAS- the knowledge network for civil services. Visit academy.forumias.com for our mentor based courses.



Light, though usually traveling in a straight line, bends when passing through highly curved regions of space-time creating a halo-like effect.

In this case, Earth, the lensing galaxy and the quasar have aligned to perfectly duplicate the quasar's light, arranging them along a so-called Einstein ring.

What is the significance of this discovery?

First, these rings magnify and reconstruct light, allowing astronomers to observe distant galaxies with enhanced details.

Second, the degree of light bending in Einstein rings provides a valuable tool for estimating the masses of galaxies and black holes on a cosmic scale.

Third, studying the distant light warping around these rings can help scientists to look at objects that would otherwise be too dark to be seen on their own, such as black holes or wandering exoplanets.

47. <u>National Health Authority (NHA) extends its incentive scheme under Ayushman Bharat Digital Mission (ABDM)</u>

Source: The post is based on the article "National Health Authority (NHA) extends its incentive scheme under Ayushman Bharat Digital Mission (ABDM)" published in PIB on 4th August 2023.

What is the News?

The National Health Authority(NHA) has announced the extension of its Digital Health Incentives Scheme (DHIS) under the Ayushman Bharat Digital Mission (ABDM) till 31st December 2023.

What is the Digital Health Incentives Scheme (DHIS)?

Launched on: 1st January, 2023 as part of the Ayushman Bharat Digital Mission.

Aim: To give a further boost to digital health transactions in the country under the Ayushman Bharat Digital Mission (ABDM).

Under the scheme, the eligible health facilities and digital solutions companies shall be able to earn financial incentives of up to Rs. 4 crores based on the number of digital health records created and linked to ABHA (Ayushman Bharat Health Account) numbers of the patients.

- This incentive can be availed by the health facilities (hospitals, diagnostic labs) and Digital Solution Companies registered with ABDM's Health Facility Registry(HFR).

Significance: This scheme has proven to be a significant catalyst in promoting the adoption of digital health technologies and practices in healthcare delivery across the country.

48. Gamechanger for India's vultures: Experts laud Centre's move to ban aceclofenac, ketoprofen

Source: The post is based on the article "Gamechanger for India's vultures: Experts laud Centre's move to ban aceclofenac, ketoprofen" published in Down To Earth on 3rd August 2023.

What is the News?

Experts who work on vultures have welcomed the Centre's decision to prohibit for animal use the manufacture, sale and distribution of ketoprofen and aceclofenac. They said this move would be a gamechanger for India's vultures.





What are Ketoprofen and Aceclofenac?

Ketoprofen and aceclofenac are both non-steroidal anti-inflammatory drugs (NSAIDs) commonly used to relieve pain, reduce inflammation and manage various conditions.

Why has Ketoprofen and Aceclofenac been banned?

Ketoprofen and aceclofenac have been banned as they are harmful to cattle and can kill vultures too if they eat the carcasses of the animals that were administered with these two drugs.

What are the other steps taken for Vulture conservation?

During 1980's, India had around 4 crore vultures and by the late 1990s, the vulture population started declining.

In 2004, it was found that diclofenac was the cause of vulture deaths and that 97% of the population had been lost till then.

That same year,, the Indian government along with other agencies came up with a Vulture Recovery Plan which recommended banning the veterinary use of diclofenac, finding its substitute and setting up conservation breeding centers for vultures.

In 2006 the Vulture Recovery Plan was incorporated into the Action Plan for Vulture Conservation 2006.

The use of diclofenac as a veterinary drug was banned in 2006. The Centre also restricted the vial size of diclofenac for human use to just three milliliters after it was found that people were using diclofenac meant for humans in cattle.

What are Vultures?

Click Here to read

49. Assam's Manas Tiger Reserve 63% short of sanctioned staff, Environment Minister told

Source: The post is based on the article "Assam's Manas Tiger Reserve 63% short of sanctioned staff, Environment Minister told" published in The Hindu on 5th August 2023.

What is the News?

The All India Tiger Estimation 2022 has indicated that Assam's Manas National Park and Tiger Reserve is moving from a low to high-tiger-density area.

This is bad news for the Manas National Park as it is almost 63% short of staff.

What is Manas National Park?

Manas National Park is located in Assam. It is a UNESCO Natural World Heritage site, a tiger reserve and a biosphere reserve.

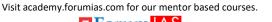
Manas is located at the foothills of the Eastern Himalayas.

Origin of name: The name of the park originated from the Manas River. The Manas river is a major tributary of Brahmaputra River, which passes through the heart of the national park.

It shares a common border with the Royal Manas National Park of Bhutan.

Vegetation: The monsoon forests of Manas lie in the Brahmaputra Valley semi-evergreen forests ecoregion.

- The combination of Sub-Himalayan Bhabar Terai region with riverine succession leading up to the Himalayan subtropical broadleaf forests makes it one of the richest biodiversity areas in the world.





Created with love ♥ by ForumIAS- the knowledge network for civil services.

Fauna: The Park is home to many endangered species like Assam roofed turtle, golden Langur, hispid hare, and pygmy hog. It is also famous for its wild water buffaloes.

Village: There is only one forest village, **Pagrang,** in the core of the national park. Apart from this village 56 more villages surround the park.

Threats: Manas National Park faces threats such as encroachment (for farm activity), impact from upstream hydroelectric projects in Bhutan, improper protection and management of grasslands, invasive plants as well as some amount of poaching.

50. <u>Union Minister introduces a Bill to establish the Anusandhan National Research Foundation</u> in the Lok Sabha

Source: The post is based on the article "Union Minister introduces a Bill to establish the Anusandhan National Research Foundation in the Lok Sabha" published in PIB on 4th August 2023.

What is the News?

The Union Science Minister has tabled the Anusandhan National Research Foundation Bill in the Lok Sabha.

What is the Anusandhan National Research Foundation Bill?

The Bill proposes to establish the National Research Foundation(NRF). It will replace the Science and Engineering Research Board (SERB).

Purpose: NRF will be an apex body to provide high-level strategic direction of scientific research in the country as per recommendations of the National Education Policy (NEP).

Functions: NRF will forge collaborations among the industry, academia, and government departments and research institutions and create an interface mechanism for participation and contribution of industries and State governments in addition to the scientific and line ministries.

- It will also focus on creating a policy framework and putting in place regulatory processes that can encourage collaboration and increased spending by the industry on R&D.

Governing Board: The Department of Science and Technology (DST) will be the administrative Department of NRF which will be governed by a Governing Board consisting of eminent researchers and professionals across disciplines.

- **Prime Minister** will be the ex-officio President of the Board
- Union Minister of Science & Technology & Union Minister of Education will be the exofficio Vice-Presidents.
- NRF's functioning will be governed by an **Executive Council** chaired by the Principal Scientific Adviser to the Government of India.

Significance of the bill: The bill will give a much-needed boost to the education sector in India.

- It will provide high-level strategic direction for research, innovation, and entrepreneurship in the fields of natural sciences including mathematical sciences, engineering, and technology, environmental and earth sciences, health and agriculture.
- It will also cater to the vast amount of skilled human resources of the country, who otherwise seek opportunities outside the country. It will act as a significant element in strengthening India's competitiveness in the global economy.





51. Cabinet okays draft telecom, postal bills

Source: The post is based on the article "Cabinet okays draft telecom, postal bills" published in PIB on 5th August 2023.

What is the News?

The Union Cabinet has cleared the Draft Indian Telecommunications Bill,2022 and Postal Services Bill,2023.

What is Draft Indian Telecommunications Bill,2022?

Click Here to read

What is the Postal Services Bill, 2023?

The Bill seeks to replace the Indian Post Office Act of 1898, which governs the functioning of post offices in the country.

The bill is aimed at bringing significant reforms in postal services.

The bill seeks to revamp the postal department, especially its parcel services, making them competitive with private players to generate revenue.

It also seeks to enhance financial services in rural areas through the postal system.

Significance of the bill: At a time the postal department is facing several challenges from private players in the areas of dominance, the proposed new postal bill may help in revitalizing the department as well as its officials in scripting new success stories in the days to come.

52. Remove wheat import duty till Feb for food security: FCI

Source: The post is based on the article "Remove wheat import duty till Feb for food security: FCI" published in Livemint on 5th August 2023.

What is the News?

Food Corporation of India(FCI) has recommended the government to remove import duty on wheat till February 2024.

Why has the Food Corporation of India(FCI) asked the government to remove import duty on wheat?

Food prices have been on the rise globally against the backdrop of the Russia-Ukraine war.

But the prices began showing signs of easing, thanks to the Black Sea grain deal under which Russia agreed to allow wheat to be exported from the three ports in the conflict-hit region.

However, prices have resumed the upward trend, with Russia pulling out of the deal last month, stating that the deal was only helping Western countries and not the African nations in need.

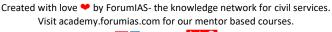
Soon after, India also restricted wheat exports to protect its own food supplies.

However, Inflation in wheat is currently above 12% even as the government has taken multiple steps such as banning exports to conducting open market operations.

Hence, that's why FCI has suggested the government to remove import duty on wheat till February 2024.

This is because Russian wheat is cheaper and can be imported. Harvest season in Russia is currently going on and this is the peak time for exporters to sign contracts.

Note: The current import duty on wheat is 40% and has been at this level since April 2019.





53. Lok Sabha passes Inter-Services Organisation (Command, Control & Discipline) Bill - 2023

Source: The post is based on the article "Lok Sabha passes Inter-Services Organisation (Command, Control & Discipline) Bill – 2023" published in PIB on 4th August 2023.

What is the News?

Lok Sabha has passed the Inter-Services Organisation (Command, Control & Discipline) Bill – 2023.

What is the need of the Inter-Services Organisation (Command, Control & Discipline) Bill - 2023?

Currently, members of the armed forces are governed by three separate laws: the Army Act of 1950, the Air Force Act of 1950 and the Navy Act of 1957. Only officers from the same service have the authority to discipline those who fall under their respective Acts.

This creates challenges in maintaining command, control, and discipline within groups that consist of members from different services.

To fix this problem, this bill is being brought. Its goal is to make things simpler and faster. It aims to maintain discipline and resolve cases more quickly, saving time and money for everyone involved.

Importantly, the bill seeks to achieve these goals without disrupting the unique service conditions or amending the existing service Acts.

What are the key provisions of Inter-Services Organisation (Command, Control & Discipline) Bill – 2023?

Central government will have the power to create new Inter-Services Organizations(ISOs) through official notification.

The head of these organizations will be the commander-in-chief or the officer-in-command. The central government will be responsible for these inter-services organizations and will have the authority to issue directions on matters related to national security or general administration.

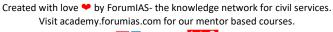
The commander-in-chief, the officer-in-command or any other official explicitly empowered by the central government will have full disciplinary and administrative powers over individuals serving or connected to an existing or prospective inter-services organization.

The personnel serving in or attached to an inter-services organization will continue to be governed by their respective service Acts.

What is the significance of this bill?

The bill has various tangible benefits such as maintenance of effective discipline in inter-services establishments by the Heads of ISOs, no requirement of reverting personnel under disciplinary proceedings to their parent Service units, expeditious disposal of cases of misdemeanour or indiscipline and saving of public money & time by avoiding multiple proceedings.

The Bill would also pave the way for much greater integration and jointness amongst the three Services. It will also lay a strong foundation for creation of Joint Structures in times to come and further improve the functioning of the Armed Forces.





54. <u>A Rare Ureilite Meteorite Possibly Created Madhya Pradesh's Famous Dhala Impact Crater,</u> New Study Suggests

Source: The post is based on the article "A Rare Ureilite Meteorite Possibly Created Madhya Pradesh's Famous Dhala Impact Crater, New Study Suggests" published in Hindustan Times on 23rd July 2023

What is the News?

A team of scientists have found that the Dhala crater formed when an extraordinarily rare and ancient meteorite known as **Ureilite** crashed into India.

Note: In India, there are three meteor impact craters found. These are 1) Ramgarh in Rajasthan 2) Lonar in Maharashtra and 3) Dhala in MP

What is Dhala Crater?

Dhala crater is located in Madhya Pradesh. It has a diameter of 11 kilometers.

It is Asia's largest and world's seventh-largest impact crater.

What are Ureilites?

Ureilites belong to a scarce class of primitive meteorites, making up only a small fraction of all meteorites found on Earth. Comprising mostly olivine and pyroxene silicate rocks.

Ureilites also contain less than 10% of carbon (either in the form of diamond or graphite), metal sulphides and a few fine-grained silicates.

How was Dhala Crater formed?

Dhala crater was formed from an ancient meteorite known as Ureilite. The Ureilite was approximately one kilometre in diameter and crashed into Earth's atmosphere at an extraordinary speed of 15 km/s about 2500 to 1700 million years ago.

Significance: With these findings, scientists hope to learn more about the rare meteorite crater and its potential role in Earth's early history, including its impact on bringing water to the planet and the development of life.

