

Factly Compilation

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1. Dengue vaccines in India: A look at the ongoing trials and development

Source: The post is based on the article "Dengue vaccines in India: A look at the ongoing trials and development" published in Indian Express on 28th August 2023

What is the News?

Several efforts are ongoing in India to develop an effective vaccine against the Dengue.

What is Dengue?

Click Here to read

Dengue cases in India:

Dengue in India has spread from just eight states and union territories in 2001 to all states by 2022.

There have been 31,464 cases and 36 deaths due to dengue reported across the country till the end of July this year, as per the latest available data.

There are several efforts ongoing within the country to develop an effective vaccine against the mosquito-borne disease that can lead to internal bleeding, circulatory shock, and death.

Challenges in developing dengue vaccine: Dengue virus comes in four varieties known as serotypes.

- Due to this, one of the main challenges of developing a dengue vaccine is antibody-dependent enhancement (ADE) — a person with low levels of antibodies against one serotype of dengue, may end up getting a more severe infection with another serotype of dengue.

What are Dengue vaccines in the Human Trials stage in India?

Panacea Biotec's Vaccine: The vaccine is based on live weakened versions of all four dengue serotypes. It has been developed by the National Institute of Allergy and Infectious Diseases in the United States. It has shown promise in phase I/II trials in adults and is moving toward a larger phase III trial.

Serum Institute of India's Vaccine: It also uses weakened virus strains from the United States. Phase I trials have been completed and plans for phase II and large-scale studies in children are in progress.

Indian Immunologicals Limited's Vaccine: It also uses the same weakened virus technology.It has started phase I clinical trials in adults.

What are the two indigenous dengue vaccines in early development stages?

ICGEB's Vaccine: This vaccine utilizes specific parts of the dengue virus envelope protein to create Virus-Like Particles. It has shown promising results in animal tests and is yet to be tested in humans.

Tata Institute of Fundamental Research's Vaccine: It is a DNA vaccine that incorporates all four serotypes. It is currently undergoing optimization and testing in mice.



2. New specie, genus of snakes discovered in Western Ghats

Source: The post is based on the article "New specie, genus of snakes discovered in Western Ghats" published in Hindustan Times on 25th August 2023

What is the News?

A team of researchers has recently discovered a new genus and species of colubrid snakes in Western Ghats. They have named it 'Sahyadriophis uttaraghati'.

What is Sahyadriophis uttaraghati?

Sahyadriophis uttaraghati is a new genus and species of colubrid snakes.

- Note: The Colubrid is the largest snake family. It contains approximately 2000 species. Many colubrids are technically considered venomous but very few are considered dangerous to humans.

Named after: It has been named Sahyadriophis, a combination of the Sanskrit word for the Western Ghats 'Sahyadri' and the Greek word for snakes 'Ophis'.

Found in: It is found in the northern parts of the Western Ghats.

Features: These snakes are mostly active during monsoons and are often found near streams.

- Their diet primarily consists of frogs and their eggs. They are gentle in nature and rarely bite when handled.

- The juveniles bear a big blotch or a collar mark on the nape, which distempers as the animal grows.

- They can be differentiated from its southern counterpart—Sahyadriophis beddomei (Beddome's Sahyadri keelback)—by a longer tail and higher number of scales on the tail's underside, known as subcaudals.

3. SVAMITVA Scheme of Ministry of Panchayati Raj wins the National Award for e-Governance 2023 (Gold) for Application of Emerging Technologies for Providing Citizen Centric Services

Source: The post is based on the article "SVAMITVA Scheme of Ministry of Panchayati Raj wins the National Award for e-Governance 2023 (Gold) for Application of Emerging Technologies for Providing Citizen Centric Services" published in PIB on 27th August 2023

What is the News?

SVAMITVA Scheme of Ministry of Panchayati Raj has been conferred with the prestigious National Award for e-Governance 2023.

What is the SWAMITVA Scheme?

Nodal Ministry: Ministry of Panchayati Raj

Type: Central Sector Scheme

Aim: To provide the 'Record of Rights' to village household owners possessing houses in inhabited areas (Abadi) in villages.



Objectives of the scheme: To create accurate land records for rural planning and reduce property related disputes.

– To bring financial stability to the citizens in rural India by enabling them to use their property as a financial asset for taking loans and other financial benefits.

- Determination of property tax, which would accrue to the GPs directly in States where it is devolved or else, add to the State exchequer.

- Creation of survey infrastructure and GIS maps that can be leveraged by any department for their use.

- To support the preparation of a better-quality Gram Panchayat Development Plan (GPDP) by making use of GIS maps.

Ministries involved: The scheme is being implemented with the collaborative efforts of the Ministry of Panchayati Raj, Survey of India (SoI), State Revenue Department, State Panchayati Raj Department and National Informatics Centre.

Under the scheme, the land parcels in rural inhabited areas of all the villages are surveyed using drone technology.

Target: The scheme aims to cover 6.62 lakh villages in the country from Financial Year 2020-21 to Financial Year 2024-25.

4. 7th GEF Assembly: Global Biodiversity Framework Fund ratified

Source: The post is based on the article "7th GEF Assembly: Global Biodiversity Framework Fund ratified" published in Down To Earth on 25th August 2023

What is the News?

The Global Biodiversity Framework Fund (GBFF) was finally ratified and launched at the Seventh Assembly of the Global Environment Facility (GEF) in Vancouver, Canada.

What is the Global Biodiversity Framework Fund (GBFF)?

Aim: To directly support global efforts to halt and reverse biodiversity loss by 2030, a goal agreed to by 196 countries as part of the Global Biodiversity Framework established at COP15.

Hosted by: Global Environment Facility (GEF)

Funding: Governments, non-profits, and the private sector can now contribute their funds to GBFF.

Fund allocations: 20% will be allocated to Indigenous Peoples and local communities (IPLCs)

-36% of the fund's resources are aimed to support the most vulnerable people, small island developing states.

- 3% to LDCs (Least Developed Countries)

– About 25% of the fund will be delivered through selected international financial institutions to increase resources through private sector involvement and ensure policies are streamlined.



Note: This is the first time there would be funds channeled to non-state actors like the indigenous communities.

First meeting: The first GBFF Council meeting will be held in January 2024.

What is the Global Environment Facility (GEF)?

Click Here to read

5. Start-up AR4 Tech, Sodium tie up to make sodium ion battery packs

Source: The post is based on the article "Start-up AR4 Tech, Sodium tie up to make sodium ion battery packs" published in The Hindu on 28th August 2023

What is the News?

AR4 Tech, a start-up in Coimbatore, has partnered Sodium Energy of Singapore to make sodium ion battery packs for domestic and export markets

What is a Sodium ion battery?

The sodium-ion battery (NIB or SIB) is a type of rechargeable battery that uses sodium ions (Na+) as its charge carriers.

They have a similar design to their lithium-ion counterparts and can be manufactured using related methods.

Both battery types generate electricity through a chemical reaction and are made up of an anode, cathode, separator and an electrolyte.

But in a sodium-ion battery, lithium ions are replaced with sodium ions in the battery's cathode, and lithium salts swapped for sodium salts in the electrolyte.

What are the advantages of Sodium ion batteries?

Lower Global Warming Potential: SIBs have 45% less global warming potential compared to lithium iron phosphate (LFP) batteries.

Operational Safety: SIBs have higher operational safety than lithium-ion batteries (LIB) with their operable temperature ranging from -30°C-60°C, making their temperature endurance higher than other battery chemistries.

Zero Volt Discharge: They can be discharged to zero volts, reducing transportation costs and accidents.

What are the challenges related to Sodium ion batteries?

SIBs face challenges due to the instability of their cathode materials, especially when exposed to moisture. This lack of stability negatively impacts the electrochemical performance of SIBs.

Why are Sodium ion batteries important for India?

India's abundance of sodium sources makes the Na-ion battery system particularly crucial in the local context, offering a readily available and abundant resource for Na-ion battery production.



6. How a fire prevention zone saved a community from wildfire

Source: The post is based on the article "How a fire prevention zone saved a community from wildfire" published in Indian Express on 26th August 2023

What is the News?

A well-constructed fire prevention zone created by a local Indigenous logging company played an important role in protecting a community from a wildfire in Canada.

What happened in Canada?

A wildfire threatened a Canadian tourist spot in British Columbia with a large population.

The fire advanced for 19 days, consuming a significant area of forest but was slowed down at the suburban fringes by a **Fire prevention zone** created by a local Indigenous logging company.

What is a Fire Prevention Zone?

Fire Prevention Zones are designated areas that have been carefully managed and modified to reduce the risk of wildfires spreading and causing damage.

These zones are typically created in or around communities, especially those located in wildfireprone areas.

The primary goal of Fire Prevention Zones is to create a buffer or barrier that hinders the advance of wildfires, protecting lives, property, and natural ecosystems.

How did the Indigenous logging company in Canada create a Fire Prevention Zone?

Indigenous logging company in Canada named Ntityix Development, created a fire prevention zone using traditional Indigenous forestry practices such as thinning the forest; cleaning up debris on the floor; and burning the debris and ground cover in a controlled way to prevent it from becoming fuel for wildfires.

What is the significance of these measures?

This highlights the importance of proactive measures like fire prevention zones particularly in the face of worsening wildfire seasons driven by climate change. They can play a crucial role in protecting communities from the devastating impact of wildfires.

7. Participation of Indian Air Force in Exercise Bright Star-23 at Cairo, Egypt

Source: The post is based on the article "Participation of Indian Air Force in Exercise Bright Star-23 at Cairo, Egypt" published in PIB on 27th August 2023

What is the News?

Indian Air Force(IAF) is participating in Exercise BRIGHT STAR-23.

What is Exercise BRIGHT STAR-23?

Exercise BRIGHT STAR is a biennial multilateral tri-service exercise being held in Cairo, Egypt.

Aim: To practice joint operations planning and execution, fostering bonds between nations and enhancing strategic relations.

Participating countries: India, United States of America, Saudi Arabia, Greece and Qatar.

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Significance: This is for the first time that the Indian Air Force(IAF) is participating in the exercise.

What are the other exercises between India and Egypt?

Exercise Cyclone-I: It Is a bilateral exercise between the special forces of the Indian Army and the Egyptian Army. The first edition of the exercise was held in Jaisalmer, Rajasthan in January 2023.

8. Government imposes restrictions on export of Basmati rice

Source: The post is based on the article "Government imposes restrictions on export of Basmati rice" published in The Hindu on 28th August 2023

What is the News?

The Indian government has halted the export of Basmati rice valued at less than \$1,200 per tonne.

Why has the government imposed restrictions on export of Basmati rice?

This has been done to prevent the possible "illegal" shipment of plain white rice by wrongly classifying it as Basmati rice.

Note: In July 2023, the export of non-Basmati white rice was prohibited.

Why has India banned the export of non-basmati white rice?

India's reasons were domestic — rising food prices, high inflation and fear of rice shortage due to El Nino disruptions as the country heads into a festive season and elections.

Why is India crucial to the global rice trade?

India accounts for more than 40% of global rice exports, which amounted to 55.4 million metric tons in 2022.

India's rice shipments in 2022 were more than the combined shipments of Thailand, Vietnam, Pakistan and the US, the next four big exporters of the grain.

Over 140 countries are net importers of India non-basmati rice. Benin, Bangladesh, Angola, Cameroon, Djibouti, Guinea, Ivory Coast, Kenya and Nepal, having rice a staple food, are key buyers of non-basmati Indian rice

9. How bees can monitor pollution for us — everything from toxic metals to antimicrobial resistance

Source: The post is based on the article "How bees can monitor pollution for us — everything from toxic metals to antimicrobial resistance" published in Down To Earth on 26th August 2023

What is the News?

Two new studies have used honey bees as biomonitoring tools to track contamination in urban environments.



How can bees be used to track contamination and antimicrobial resistance?

Cities are complex places with multiple activities, making it challenging to monitor the spread of contaminants, which poses health concerns.

There's increasing evidence that many chemicals used in daily life have no "safe" exposure limit, raising concerns about contamination's impact on food, water, and human health.

To measure this contamination, Honey Bees can help us. Honey bees constantly pick up contaminants from their environment while foraging.

Analyzing their chemical composition offers insights into contamination levels in their foraging area.

Moreover, bees can also help in assessing the spread of antimicrobial resistance genes, which can be ingested from water bodies.

What are the several studies where bees were used to track contamination and antimicrobial resistance?

Case in Nouméa: Honey bees were used to map the impact of a local nickel smelter in Nouméa. Bees near the smelter showed elevated levels of metals associated with it, providing a sensitive marker of smelter contamination.

Sydney Study: Bees in Sydney were used to map trace metals and identify factors contributing to metal pollution.

Antimicrobial Resistance (AMR): Bees helped study the spread of antimicrobial resistance (AMR) genes in Sydney.

Hence, using honey bees as biomonitoring tools can help track contamination in urban environments, identify pollution patterns and contribute to more effective responses to environmental health challenges.

10. Chinese navy is testing the most powerful coil gun ever built

Source: The post is based on the article "Chinese navy is testing the most powerful coil gun ever built" published in Business Standard on 26th August 2023

What is the News?

The Chinese navy is reportedly testing the planet's most powerful Coil Gun.

What is a Coil Gun?

Coil guns are also known as Gauss guns or magnetic accelerators.

The weapon features a series of coils arranged along the barrel of the gun, each one constituting a "stage".

Each coil is energized one after another to create a magnetic field that can levitate and propel a projectile forward.

The projectile typically stays suspended in the centre of the coil during launch, which helps to keep it on a straight course and prevent it from touching the wall of the barrel.



It can be fired repeatedly and rapidly without causing wear on components.

The larger a coil gun, the better its ability to fire projectiles similar to those fired by traditional artillery.

Advantages of Coil Guns: The coil gun has a number of advantages over traditional artillery including higher launch speeds, lower launch costs and shorter preparation time.

Applications: Coil guns could have applications in areas such as weapon systems, near-earth satellites and high-speed missile launches.

11. ISRO's Aditya-L1 to be launched on September 2: With feet on the Moon, the space agency eyes the Sun

Source: The post is based on the article "ISRO's Aditya-L1 to be launched on September 2: With feet on the Moon, the space agency eyes the Sun" published in Indian Express on 29th August 2023

What is the News?

ISRO has announced that the Aditya-L1 mission will be launched on September 2 from Sriharikota, Andhra Pradesh.

What is Aditya-L1 Mission?

Aditya-L1 is the first Indian mission dedicated to observe the Sun.It is scheduled to be launched aboard a Polar Satellite Launch Vehicle(PSLV).

Objectives of the Mission: Study of Solar upper atmospheric (chromosphere and corona) dynamics.

- Study of chromospheric and coronal heating, physics of the partially ionized plasma, initiation of the coronal mass ejections and flares

- Observe the in-situ particle and plasma environment providing data for the study of particle dynamics from the Sun.

- Physics of solar corona and its heating mechanism.

- Development, dynamics and origin of coronal mass ejection (CME).

- Magnetic field topology and magnetic field measurements in the solar corona .

Lagrange Point: There are five Lagrange points, L1 to L5, between any two celestial bodies. These points can act as parking spots in space where the gravitational pull of the celestial objects equals the centripetal force required to keep a satellite in orbit.

- This means satellites placed at Lagrange points do not need to expend a lot of fuel to remain in position.

- Aditya L1 shall be placed at L1.A satellite placed in the halo orbit around the L1 point has the major advantage of continuously viewing the Sun without any occultation/eclipses.

- This will provide a greater advantage of observing the solar activities and its effect on space weather in real time.



What are the payloads of Aditya L1 Mission?

The spacecraft carries seven payloads to observe the photosphere, chromosphere and the outermost layers of the Sun (the corona) using electromagnetic and particle and magnetic field detectors.

Туре	81. No.	Payload	Capability
Rends Seraing Payloads	1	Visible Emission Line Coronagraph(VELC)	Corona/Imaging & Spectroscopy
	2	Solar Ultraviolet Imaging Telescope (SUIT)	Photosphere and Chromosphere Imaging-Narrow & Broadband
	з	Solar Low Energy X-ray Spectrometer (SoLEXS)	Soft X-ray spectrometer: Sun-ae- a-star observation
	4	High Energy L1 Orbiting X-ray Spectrometer(HEL1DS)	Hard X-ray spectrometer: Sun-as- a-star observation
In-altu Payloada	5	Aditys Solar wind Particle Experiment(ASPEX)	Solar wind/Particle Analyzer Protons & Heavier ions with directions
	6	Plasma Analysor Package For Aditya (PADA)	Solar windParticle Analyzer Electrons & Heavier Ions with directions
	7	Advanced Tri-axial High Resolution Digital Magnetometers	In-situ magnetic field (Bx, By and Bz).

Source: ISRO

Why should we study the Sun?

Firstly, the Sun is our closest star, allowing for detailed examination. This research not only enhances our knowledge of the Sun but also sheds light on other stars.

Secondly, while the Sun sustains life on Earth, it also produces explosive events that can harm satellites and communication systems. Monitoring the Sun can offer early warnings for such disruptions.

Thirdly, the Sun exhibits extreme thermal and magnetic phenomena that serve as a natural laboratory for scientific exploration. These phenomena can't be adequately studied in a controlled lab environment.

Lastly, it is important to study the Sun from space because the Earth's atmosphere and the magnetic field act as protective shields that block out harmful radiations, such as UV light. This means studying the Sun from the Earth can't provide a complete picture.

12. Govt Warns Citizens About Smishing Scam: How To Protect Against This Online Threat

Source: The post is based on the article "Govt Warns Citizens About Smishing Scam: How To Protect Against This Online Threat" published in Zee News on 27th August 2023

What is the News?

The Indian government has warned people against a new scam called 'Smishing'.

What is Smishing?

"Smishing" is a short form of "SMS" (Short Message Service) and "phishing."

It refers to a type of cyber attack or scam where fraudsters send deceptive text messages to trick individuals into revealing personal information, such as login credentials, credit card numbers, or other sensitive data.



Smishing messages often contain links that lead to fake websites or phone numbers that direct victims to call and provide information.

Common smishing tactics include posing as a trusted organization, like a bank or a government agency, and claiming that urgent action is required or that there's a problem with the recipient's account.

– The goal is to create a sense of urgency and manipulate the recipient into responding with their confidential information.

How to protect yourself against smishing attacks?

To protect yourself from smishing attacks, be cautious when receiving unsolicited text messages, especially if they request personal information or contain suspicious links.

Verify the legitimacy of the sender or organization independently, and never click on links or provide sensitive information in response to unsolicited messages.

Pradhan Mantri Jan Dhan Yojana (PMJDY) – National Mission for Financial Inclusion, completes nine years of successful implementation

Source: The post is based on the article "Pradhan Mantri Jan Dhan Yojana (PMJDY) – National Mission for Financial Inclusion, completes nine years of successful implementation" published in PIB on 28th August 2023

What is the News?

The Pradhan Mantri Jan Dhan Yojana (PMJDY) – the National Mission for Financial Inclusion – has completed nine years of successful implementation.

What is Pradhan Mantri Jan Dhan Yojana(PMJDY)?

Click Here to read

What is the impact of PMJDY?

PMJDY has been the foundation stone for people-centric economic initiatives.Whether it is direct benefit transfers, COVID-19 assistance, PM-KISAN, wages under MGNREGA, the first step of all these initiatives is to provide every adult with a bank account, which PMJDY has nearly completed.

One in 2 accounts opened between March 2014 to March 2020 was a PMJDY account.

Within 10 days of nationwide lockdown more than about 20 crore women PMJDY accounts were credited with financial assistance of Rs 500 per month for three months through DBT in each women PMJDY account.

What are the achievements of PMJDY?

Number of total PMJDY Accounts: 50.09 crore.Of which 55.6% account holders are women and 66.7% accounts are in rural and semi-urban areas.

Deposits: Deposits have increased about 13 times.



Average deposit per account has increased over 3.8 times.Increase in average deposit is another indication of increased usage of accounts and inculcation of saving habits among account holders.

DBT transactions: About 6.26 crore PMJDY account holders receive direct benefit transfer (DBT) from the Government under various schemes.

Digital transactions in India have experienced remarkable growth due to various initiatives:

- The issuance of over 33.98 crore RuPay debit cards through the Pradhan Mantri Jan-Dhan Yojana (PMJDY).

- The installation of 79.61 lakh Point of Sale (PoS) and mobile Point of Sale (mPoS) machines.

- The introduction of mobile-based payment systems like UPI (Unified Payments Interface).

- **Due to these initiatives,** the growth is evident in the total number of digital transactions, which has surged from 1,471 crore in FY 17-18 to 11,394 crore in FY 22-23.

- Specifically, UPI financial transactions have seen substantial growth, increasing from 92 crore in FY 2017-18 to 8,371 crore in FY 2022-23.

– Similarly, the total number of RuPay card transactions at PoS and in e-commerce has risen from 67 crore in FY 2017-18 to 126 crore in FY 2022-23.

What is Jan Dhan Darshak App (JDD App)?

JDD App is a mobile application which provides a citizen centric platform for locating banking touch points such as bank branches, ATMs, Banking Correspondents (BCs), Indian Post Payment Banks etc in the country.

The app is also being used for identification of villages which are yet to be covered by banking outlets within a 5 km radius.

These identified villages are allocated to various banks by concerned SLBCs for opening of banking outlets. The efforts have resulted in a significant decrease in the number of uncovered villages.

13. Somatic genetic variants: A genomic revolution hiding inside our cells

Source: The post is based on the article "Somatic genetic variants: A genomic revolution hiding inside our cells" published in The Hindu on 28th August 2023

What is the News?

Scientists have been aware of **Somatic Genetic Variations** for quite some time but there has been a recent surge in the volume of data related to these variations.

What are Somatic Cells?

Somatic cells are the cells in the body other than sperm and egg cells (which are called germ cells).

In humans, somatic cells are diploid, meaning they contain two sets of chromosomes, one inherited from each parent.

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DNA mutations in somatic cells can affect an individual, but they cannot be passed on to their offspring.

What is Somatic Genetic Mutations?

Humans have **23 pairs of chromosomes,** one from each parent, which carry our genetic information or blueprint.

After fertilization, a single cell with 23 chromosomes begins dividing, ultimately creating nearly a trillion cells in the human body.

During cell division, DNA is accurately copied thanks to error-correcting proteins, but there's still a very low error rate (0.64-0.78 mutations per billion base pairs per division).

An error that occurs in the DNA after birth but during development is called a **Somatic Genetic Mutation**.

This occurrence of mutation is driven by the repeated 'copy-pasting' of the genome – which means there will be more somatic genetic mutations the older an individual is and the higher the turnover of the tissue.Turnover is the replacement of old cells with new ones.

Sometimes, a somatic genetic mutation can render a cell fitter than others, which lead to the formation of tumours. These mutations are called *driver* mutations.

What is the importance of Somatic genetic variants?

Cancer signatures: Somatic genetic variants play an important role in the development of cancers.We now know that somatic changes can cause a cancer to develop and that cancers can accelerate the development of somatic changes.So they can help with early detection, diagnosis, and prognosis.

Development of Genetic Diseases: Many genetic conditions arise from somatic genetic variants. Obviously, these conditions are not inherited from either parent but are due to new genetic variations that have arisen during development. So the severity and distribution of the disease depends on how early or late during development the corresponding mutation occurred.

Beneficial in some cases: In some instances, somatic changes can be beneficial in a genetic disease – by changing a deleterious change to a normal one, a phenomenon known as **revertant mosaicism**.

- For example, around 10% of cases of **Wiskott-Aldrich syndrome**, a rare genetic immunodeficiency, have been found to have revertant mosaicism, as a result alleviating the severity of the disease in many individuals.

What is Somatic Mosaicism across Human Tissues(SMaHT) Network?

Launched by: U.S. National Institutes of Health

Aim: To discover somatic variants, develop tools for study, and improve analysis for biological and clinical insights.

Investment: The U.S. government has invested \$140 million to study somatic variants in postmortem samples.



14. China releases new map showing territorial claims

Source: The post is based on the article "China releases new map showing territorial claims" published in The Hindu on 27th August 2023

What is the News?

The Chinese government has released the "2023 edition of the standard map of China".

What does the "2023 edition of the standard map of China" show?

The map shows Arunachal Pradesh which China claims as South Tibet and Aksai Chin occupied by it in the 1962 war as part of its territory.

The map also incorporates China's claims over the nine-dash line thus laying claim to a large part of the South China Sea.

The map also adds a "tenth dash" east of Taiwan to assert its claims over the island.

Why has China released this 2023 map?

China's release of the 2023 map comes after it announced in April,2023 its intention to standardize the names of 11 places in Arunachal Pradesh, including one near the capital Itanagar.

This was the third such list "renaming" places in Arunachal Pradesh.

This is seen by observers as a response to India holding events in the lead-up to the G-20 summit in Arunachal Pradesh which China had opposed.

15. What Is Magic Rice? What Is Special About This Rice That It Got GI Tag

Source: The post is based on the article "What Is Magic Rice? What Is Special About This Rice That It Got GI Tag" published in TOI on 28th August 2023

What is the News?

Chokuwa rice has received a GI (Geographical Indication) tag due to its exceptional quality and uniqueness.

What is Chokuwa Rice?

Chokuwa rice is also known as Magic rice. It is grown in Assam.

It has a significant role in Assam's culinary history and was a staple food for the Ahom dynasty.

Cultivated in: This healthy rice is mainly cultivated along the Brahmaputra River in places like Tinsukia, Dhemaji, and Dibrugarh.

Characteristics: Chokuwa rice is basically a semi-glutinous winter rice, known as Sali rice. The sticky and glutinous variety is categorized as Bora and Chokuwa based on their amylose concentration.

– The low amylose Chokuwa rice variants are used to make soft rice, which is known as Komal Chaul or soft rice.

- This whole grain can be consumed after soaking the rice in cold or lukewarm water.



- This unique rice variety is consumed with curd, sugar, jaggery, bananas to name a few.
- This rice is also used in making several Assamese delights like Pithe and other local dishes.

16. ISRO-developed device for fishers' safety successfully tested at Neendakara

Source: The post is based on the article "ISRO-developed device for fishers' safety successfully tested at Neendakara" published in The Hindu on 27th August 2023

What is the News?

ISRO-Space Applications Centre (Ahmedabad) has successfully tested a device called 'Nabhmitra'.

What is Nabhmitra?

Nabhmitra is a device developed by ISRO-Space Applications Centre (Ahmedabad) for the safety of fishermen.

This device uses satellite communication to allow two-way messaging between boats and authorities at sea.

The authorities can communicate weather and cyclone warnings with the boats.In turn, the fisherman can also send distress messages to the authorities.

In emergencies like capsizing or fires, fishermen can press a button on the device to contact the control center.

The control center will receive the alert with the boat's location and the boat's crew will receive a response message from the control center.

Apart from providing information about shipping channels and maritime boundaries, the device will also help to identify fishing fields.

17. State of birds report 2023: Most species show dip, Indian Peafowl among those flourishing

Source: The post is based on the article "State of birds: Most species show dip, Indian Peafowl among those flourishing" published in Indian Express on 28th August 2023

What is the News?

The State of India's Birds, 2023 has been released.

What is the State of India's Birds Report, 2023?

State of India's Birds Report is an assessment of the distribution range, trends in abundance and conservation status of 942 of India's 1,200 bird species.

Published by: State of India's Birds Partnership, a group of 13 governments (including SACON, WII, ZSI) and non-governmental organizations.





What are the key findings of the State of India's Birds, 2023?

Source: Hindustan Times

Decline in birds: Of the 338 species that had enough data to assess for long-term trends, 60% of the species showed long-term declines.

- Birds that feed on vertebrates and carrion (including raptors and vultures) have declined greatly, suggesting harmful pollutants in their food resources, a decline in prey availability, or both.

Endemic Birds: Birds endemic to the Western Ghats and Sri Lanka biodiversity hotspots have rapidly declined in India over the past few decades. India is home to 232 endemic species, found nowhere else in the world.

Birds that live in open habitats are severely impacted: Open habitats in India have been severely compromised by the spread of invasive, drought tolerant woody plants, as well as wind turbines and power lines, impacting several bird species. Of particular note is the Great Grey Shrike, which has suffered a worrisome long-term decline of more than 80%.

Three Indian Bustard species face imminent extinction: The three bustard species that breed in India – the Great Indian Bustard, Lesser Florican and Bengal Florican – face imminent extinction.

Migratory birds under greater threat than resident species: Birds face many dangers during migration, from extreme weather events, to predation, starvation, and hunting/illegal killing.

Long-distance migrants have declined the most, by over 50% followed by short-distance migrants.

Some bird species are in abundance: Several species like the Indian Peafowl, Rock Pigeon, Asian Koel, and House Crow are thriving and increasing in both abundance and distribution.

- For instance, there has been a 150% increase in the abundance of peafowl across the country over the past decades.

What are the major threats to birds in India highlighted in the report?

The major threats are: Climate Change, Urbanization, Monocultures, Energy Infrastructure, ecosystem degradation and environmental pollutants.



18. Strategic Initiatives by Coal Ministry increase Availability of Domestic Coking Coal for Steel Production, Reduce Imports

Source: The post is based on the article "Strategic Initiatives by Coal Ministry increase Availability of Domestic Coking Coal for Steel Production, Reduce Imports" published in PIB on 29th August 2023

What is the News?

The Ministry of Steel and the Ministry of Coal are taking up collaborative efforts to enhance domestic Coking Coal availability and minimize import reliance.

What is Coking Coal and why is it imported?

Coking coal also known as metallurgical coal is mainly used in manufacturing of steel through blast furnace route.

Domestic coking coal is high ash coal (mostly between 18% - 49%) and is not suitable for direct use in the blast furnace.

Therefore, coking coal is washed to reduce the ash percentage and is blended with imported coking coal (<9% ash) before utilization in the blast furnace.

About 50 MT coking coal is imported by the country on an annual basis and the value of coking coal imported in FY 2020-21 was Rs. 45435 crore.

Thus, increasing the supply of domestic coking coal would not only help in reducing the coking coal imports but also help in saving the forex and fortifying our foreign exchange reserves.

What is Mission Coking Coal?

Government of India has launched 'Mission Coking Coal' in August, 2021 to suggest a roadmap to augment the production and utilization of domestic coking coal in India by 2030.

The mission envisions significantly reducing Coking Coal imports through a transformative measures under the "Atmanirbhar Bharat" initiative.

These measures encompass exploration, enhanced production, technological adoption, private sector involvement in coking coal blocks, establishment of new washeries, increased R&D activities, and quality enhancement.

What are the measures taken to increase production of Coking Coal?

Auction of Coking Coal Blocks: The Ministry of Coal achieved a significant milestone with the allocation of 16 Coking Coal Blocks.Out of which, 4 blocks were auctioned in 2022-23.This effort is projected to contribute a substantial 1.54 MT to Coking Coal production.

Revitalizing Abandoned Mines: Bharat Coking Coal Limited (BCCL) has opened new avenues by inviting agencies and companies to undertake Coking Coal extraction from abandoned or discontinued BCCL-owned mines.

Strategic Collaboration with SAIL: Steel Authority of India Limited (SAIL) and BCCL have signed an MoU for supply of 1.8 MT of washed Coking Coal to increase the availability of Coking Coal.



Innovative Greenfield Washeries: The Ministry of Coal encourages the establishment of greenfield washeries or refurbishment of existing BCCL washeries to increase Coking Coal availability.

19. Indian Army contingent leaves for exercise BRIGHT STAR

Source: The post is based on the article "Indian Army contingent leaves for exercise BRIGHT STAR" published in PIB on 29th August 2023

What is the News?

Indian Army contingent comprising 137 personnel has departed to Egypt to participate in Exercise BRIGHT STAR- 23.

What is Exercise BRIGHT STAR?

Exercise BRIGHT STAR is a multinational tri-services joint military exercise that will be led by US CENTCOM and the Egyptian Army.

The exercise was **initially started as a bilateral training event between the US and Egypt**, dating back to the Camp David Accord in 1977. The first exercise took place in 1980. Since 1995, other countries have also joined in.

The previous Exercise BRIGHT STAR in 2021 involved the armed forces of 21 countries.

Exercise BRIGHT STAR 2023 will include the participation of 34 countries, making it the largest-ever joint military drill in the Middle East and North Africa region.

This is also the **first time that Indian Armed Forces will be participating** in the exercise.

What is the objective of Exercise BRIGHT STAR 23?

The exercise will consist of a large number of training activities focused on combating emerging unconventional threats and enhancing regional partnerships amongst participating nations aimed at maintaining world peace.

In addition, the exercise will also include a combined arms live firing exercise based on a tactical setting.

Further, a panel discussion on contemporary topics is also planned to be conducted on Cyber Security for which the **Indian Armed Forces are the lead force.**

20. World's first prototype of the BS 6 Stage II 'Electrified Flex fuel vehicle' launched

Source: The post is based on the article "World's first prototype of the BS 6 Stage II 'Electrified Flex fuel vehicle' launched" published in PIB on 29th August 2023

What is the News?

The Union Road Transport Minister has launched the world's first-ever prototype of the BS-VI Stage-II Electrified Flex Fuel Vehicle in New Delhi.



What is an Electrified Flex Fuel Vehicle?

Developed by: Toyota Kirloskar Motor

It is the world's first BS 6 (Stage II) Electrified Flex Fuel vehicle prototype.

The vehicle uses a mixture of fuel to drive the car. It includes ethanol, a biofuel produced from energy crops like sugarcane, maize and rice and an electric power.

What is the significance of Electrified Flex Fuel Vehicle?

Firstly, Electrified Flex Fuel Vehicle has both a Flexi Fuel engine and an electric power train. This gives it the ability to provide dual benefit of higher ethanol use and much higher fuel efficiency as is in case of a Strong Hybrid Electric Vehicle (SHEV), which can provide 30-50% higher Fuel Efficiency as it can run 40-60% in EV mode with engine shut off.

Secondly, it uses minimal advanced chemistry batteries. So, it also guards against possible Geopolitical risks of battery raw material supplies.

What is the status of Ethanol Blending in India?

Currently, India imports over 85% of its oil to fulfill its domestic demand, amounting to nearly Rs 16 lakh crore.

By introducing ethanol blends with higher levels of fossil fuel, the government aims to cut this dependency on imports.

Ethanol blending in India has increased by over 8 times. It has increased from 1.53 % in 2014 to around 11.5 % (March 2023) leading to savings in the import bills and also lowering of carbon emissions.

The central government has set the target to achieve a 20% ethanol blend pan-India by 2025, which is expected to save Rs 35,000 crore annually in the oil import bill.

21. ISRO all set to launch first Sun mission

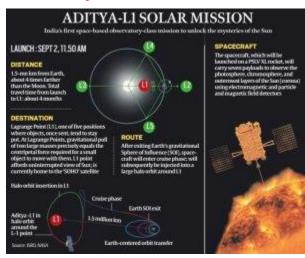
Source: The post is based on the article "ISRO all set to launch first Sun mission" published in PIB on 29th August 2023

What is the News?

The Indian Space Research Organisation (ISRO) has announced that the Aditya-L1 mission, the first space-based Indian observatory to study the Sun, will be launched on September 2 from Sriharikota.



What is Aditya L1 Mission?



Source: Indian Express

Click Here to read

What are the objectives of Aditya L1 Mission?

Dynamics of the Solar Atmosphere: One of the primary goals of the mission is to study the dynamics of the solar atmosphere, including the chromosphere and corona. By observing these regions, scientists hope to gain insights into the processes involved in coronal heating, coronal mass ejections, and solar flares.

Understanding Coronal Heating: The Sun's corona, with its temperature exceeding 1 million degrees Celsius, has long puzzled scientists. Aditya L1 aims to investigate the physics behind coronal heating, shedding light on the mechanisms responsible for this extreme temperature difference between the Sun's lower and upper atmosphere.

Probing the Solar Wind: The solar wind, a stream of charged particles emitted by the Sun, plays a crucial role in space weather and impacts Earth's environment. Aditya L1 will provide in-situ observations of the solar wind, contributing to our understanding of its composition, dynamics, and origin.

Exploring Coronal Mass Ejections (CMEs): Coronal mass ejections are colossal eruptions of plasma and magnetic fields from the Sun's corona. Aditya L1 will investigate the initiation, evolution, and propagation of CMEs, enabling scientists to better predict and understand these powerful solar events.

Magnetic Field Measurements: The mission will focus on studying the magnetic field topology and variations in the solar corona. Accurate measurements of the magnetic field strength and structure are essential for understanding the Sun's influence on space weather and Earth's magnetosphere.

Solar Climate Connection: Aditya L1 will contribute to our knowledge of the Sun's impact on Earth's climate. By studying the Sun's emissions and their effects on Earth's atmosphere, scientists aim to unravel the connection between solar activity and climate variations.

What is the significance of the Aditya L1 Mission?



Advancing Solar Science: By studying the Sun's atmosphere, Aditya L1 will contribute to significant advancements in solar physics and our understanding of stellar dynamics. This will help unravel long-standing mysteries surrounding the Sun's behavior and its impact on space weather.

Enhancing Space Weather Forecasting: Solar activity, such as coronal mass ejections and solar flares, can have a profound impact on Earth's technological infrastructure and space-based assets.

- Aditya L1's observations will enhance our ability to forecast and mitigate the effects of space weather events, safeguarding critical systems like satellites, communication networks, and power grids.

Investigating Climate Connections: The Sun's emissions play a vital role in Earth's climate dynamics. Aditya L1's research into the connection between solar activity and climate variations will contribute to our understanding of long-term climate change and aid in refining climate models.

Indigenous Technological Advancements: The development and execution of the Aditya L1 mission demonstrate India's growing expertise in space technology.

22. Cyclone frequency may rise over Indian coast from the warming of Pacific: study

Source: The post is based on the article "Cyclone frequency may rise over Indian coast from the warming of Pacific: study" published in The Hindu on 30th August 2023

What is the News?

According to a study, the intensity and frequency of tropical cyclones are expected to increase in the north Indian Ocean.

What does the study say about the Tropical Cyclones?

Tropical cyclones do not form easily near the equator. The number of equatorial-origin cyclones was 43% less in the period from 1981 to 2010 compared with 1951 to 1980.

This happened because Pacific Decadal Oscillation(PDO) was in a 'warmer' or positive phase.

However, in 2019, the PDO entered a cooler, negative phase. This could mean more tropical cyclones in the post-monsoon months that originate near the equator.

This means more cyclones will be forming closer to India's Peninsular coast for the North Indian Ocean region.

What is Pacific Decadal Oscillation(PDO)?

The Pacific Decadal Oscillation (PDO) is a long-term climate pattern that affects the temperature of the Pacific Ocean and the weather patterns around it.

The PDO is a naturally occurring phenomenon that shifts between warm and cool phases, with each phase lasting around 20-30 years.



The PDO has positive and negative phases.**El Nino Southern Oscillation (ENSO)** with a positive PDO is generally not good for India but when linked with a negative PDO, it brings more rain to India.

What is the difference between PDO and El Nino Southern Oscillation (ENSO)?

Firstly, the most obvious difference between the PDO and ENSO is the time scale. The El Nino Southern Oscillation (ENSO) phenomenon repeats in the Pacific over two to seven years. But the Pacific Decadal Oscillation (PDO) has a longer cycle as it repeats every 20 to 30 years.

Secondly, El Nino, often corresponds to reduced rainfall over India whereas La Nina, is linked to excessive rainfall over India.

- But unlike an ENSO whose stage can be determined any year, a 'positive' or 'warmer phase' of a PDO can be known only after several years of measuring ocean temperatures and their interaction with the atmosphere.

23. Ministry of Jal Shakti Releases the 6th Census Report On Minor Irrigation (MI) Schemes

Source: The post is based on the article "Ministry of Jal Shakti Releases the 6th Census Report On Minor Irrigation (MI) Schemes" published in PIB on 28th August 2023

What is the News?

The Ministry of Jal Shakti has released the 6th Census Report on Minor Irrigation (MI) Schemes.

What are Minor irrigation(MI) schemes?

Minor irrigation (MI) schemes are defined as those structures either in ground water or in surface water category having Culturable Command Area (CCA) up to 2,000 ha.

Minor irrigation schemes are categorized into six types: (1) Dug wells/dug-cum-bore wells (2) Shallow Tube wells (3) Medium Tube wells and (4) Deep tube wells comes under the category of Ground water schemes whereas (5) Surface flow schemes and (6) Surface lift schemes comes under the category of Surface water schemes.

What is the Census Report on Minor Irrigation (MI) Schemes?

The Government of India has been conducting census of minor irrigation schemes. So far, five censuses have been conducted with reference year 1986-87, 1993-94, 2000-01, 2006-07 and 2013-14 respectively.

The census is conducted under the centrally sponsored scheme "Irrigation Census".

The 6th minor irrigation census with reference year 2017-18 was completed in 32 States/ UTs. For the first time, information about the gender of the owner of the MI scheme was also collected in case of individual ownership.

What are the key findings of the 6th Census Report on Minor Irrigation (MI) Schemes?

Minor irrigation schemes: There are 23.14 million minor irrigation schemes in India spread over 695 districts. Of these 21.93 million (94.8%) are groundwater and 1.21 million (5.2%) are surface water schemes.



- Dug wells have the highest share in MI schemes followed by shallow tube wells, medium tube wells and deep tube wells.

State wise: Uttar Pradesh possesses the largest number of MI schemes in the country (17.2%) followed by Maharashtra (15.4%), Madhya Pradesh (9.9%) and Tamil Nadu (9.1%).

Increase in MI Schemes: There has been an increase of about 1.42 million in MI schemes with their number standing at 23.14 million during 6th MI Census as compared to 21.7 million in 5th Census.

Ownership of minor irrigation schemes: 96.6% of minor irrigation schemes are under private ownership whereas 3.4% are under public ownership. Therefore, most minor irrigation schemes are owned by individuals or groups of farmers.

The most notable finding was that 18.1% of minor irrigation schemes are owned by women.

24. Artistes breathe a new life into Seethakali folk art

Source: The post is based on the article "Artistes breathe a new life into Seethakali folk art" published in The Hindu on 28th August 2023

What is the News?

The Perinad Seethakali Sangham, a group of artists from diverse backgrounds, revived the dying Seethakali folk art form in 2017.

This group is now set to perform outside Kerala for the first time

What is Seethakali folk art?

Seethakali is a traditional folk-dance drama from Desinganad, Kerala.It is primarily performed during the Onam festivities.

Performed by: The performance is carried out by Dalit artists belonging to the Veda and Pulaya communities.

Based on: The art form is based on certain episodes taken from the epic Ramayana.

– The performance portrays the tale of Sita's journey, from vanayatra (exile to the forest) to Sita's andardhanam (descend into the earth).

Key Features: The art form is a blend of songs, storytelling and fast movements. It is accompanied by instruments such as ganjira, manikatta, chiratta and kaimani.

- The costumes and the make-up are loud and eye-catching. The characters of Rama and Laxmana appear in green since the color is used to represent gods and goddesses in Kathakali.

Reason for decline: See thakali songs were orally transmitted from one generation to the next, which led to a pause in the tradition.



25. Global Fund secures deal to slash HIV treatment price; to benefit over 19 million

Source: The post is based on the article "Global Fund secures deal to slash HIV treatment price; to benefit over 19 million" published in The Hindu on 31st August 2023

What is the News?

The Global Fund has reached an agreement with generic drug manufacturers to significantly reduce the price of an advanced HIV medication called TLD.

This deal will make TLD available for under \$45 per person per year, marking a 25% reduction in price.

What is TLD?

TLD is a three-in-one pill consisting of tenofovir disoproxil fumarate, lamivudine and dolutegravir.

It is recommended by the World Health Organization as the preferred first-line HIV treatment for adults and adolescents.

This drug rapidly suppresses the virus that causes AIDS. It also has fewer side effects and is easy to take.

The price reduction of the drug will help resource-limited countries enhance treatment programs, prevention efforts and ultimately save more lives while reducing new infections.

What is a Global Fund?

Established in: 2002

Purpose: It is an international financing and partnership organization that aims to attract, leverage and invest additional resources to end the epidemics of HIV/AIDS, tuberculosis and malaria to support attainment of the Sustainable Development Goals established by the United Nations.

Secretariat: Geneva, Switzerland.

26. WCS-India report flags illegal trade of red sand boa

Source: The post is based on the article "WCS-India report flags illegal trade of red sand boa" published in The Hindu on 31st August 2023

What is the News?

Wildlife Conservation Society (WCS)-India has released a report titled 'Illegal Trade of Red Sand Boa in India 2016-2021'.



What is Red Sand Boa?



Source: TOI

Red Sand Boa commonly called the Indian Sand Boa is a non-venomous snake found throughout the dry parts of the Indian subcontinent.

It is a primarily reddish-brown and thick-set snake that grows to an average length of 75 cm.

Unlike most snakes, the tail is almost as thick as the body and gives the reptile the appearance of being "double-headed".

Important Facts about Red Sand Boa: 1) Largest of the sand boas in the world 2) Non-venomous and 3) Nocturnal and spends the majority of its time under the ground.

Ecologically important: Like other snake species, the Red Sand Boa also plays a significant role in the ecosystem by maintaining a healthy population between prey and predator. It feeds on rodents, lizards, and even other snakes.

IUCN: Near Threatened

Wildlife (Protection) Act, 1972: Schedule IV

CITES: Appendix II

What does the Wildlife Conservation Society (WCS)-India report say on Red Sand Boa?

Red sand boa is now acknowledged as one of the most traded reptile species in the illegal trade market due to its demand in the pet trade, as well as for use in black magic.

Around 172 incidents of illegal red sand boa trade were reported between the years 2016-2021.

The highest number was recorded in Maharashtra often from urban areas.

The report also highlights the role of social media in the illegal trade of the species. For instance, YouTube serves as a buyer-seller-interface for red sand boas in India, and sometimes acts as a gateway to facilitate trade via WhatsApp.

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27. Curtain Raiser: Launch of Y - 12654 (Mahendragiri)

Source: The post is based on the article "Curtain Raiser: Launch of Y – 12654 (Mahendragiri)" published in PIB on 30th August 2023

What is the News?

India's latest warship, Mahendragiri will be launched at the Mazagon Dock Shipbuilders in Mumbai.

What is Mahendragiri?

Mahendragiri is the seventh and last stealth frigate of Project 17A.

Named after: Mahendragiri is named after a mountain peak in Eastern Ghats located in the state of Orissa.

Developed by: Mazagon Dock Shipbuilders Limited

Features: It has been incorporated with improved stealth features, advanced weapons and sensors and platform management systems.

What is Project 17A?

Project 17A is a follow-on of the Project 17 Shivalik-class frigate for the Indian Navy.

A total of seven ships were built under Project 17-A.These are 1) INS Nilgiri 2) INS Himgiri 3) INS Udaygiri 4) INS Dunagiri 5) INS Taragiri 6) INS Vindhyagiri and 7) INS Mahendragiri.

The warships have been designed in-house by Indian Navy's Warship Design Bureau

The four warships were built at Mazagon Dock Shipbuilders Limited. The remaining three were developed at Garden Reach Shipbuilders & Engineers (GRSE).

Around 75% of warship equipment has been ordered from indigenous firms, including Micro, Small, and Medium Enterprises (MSMEs) adhering to Prime Minister's 'Make in India' call.

28. CSIR-CMERI Developed Compact Electric Tractor- CSIR PRIMA ET11

Source: The post is based on the article "CSIR-CMERI Developed Compact Electric Tractor-CSIR PRIMA ET11" published in PIB on 30th August 2023

What is the News?

Central Mechanical Engineering Research Institute (CSIR-CMERI) has developed a compact electric tractor called **CSIR PRIMA ET11.**

Why was there a need to shift to Electric Tractors?

Agriculture is the main livelihood for 55% of India's population, contributing significantly to the GDP and feeding 1.3 billion people.

Tractors are vital for increasing agricultural productivity through mechanization.

CSIR CMERI has a history of designing and developing tractors, starting with SWARAJ in 1965, Sonalika tractor in 2000 and Krishishakti in 2009 for small farmers.



The shift towards electric tractors is crucial due to the environmental impact of traditional diesel tractors, which consume 7.4% of India's annual diesel and emit pollutants.

Electrification of tractors supports India's commitment to reduce carbon emissions and achieve Net Zero emissions by 2070, as announced at COP26.

What is CSIR PRIMA ET11?

CSIR PRIMA ET11 is an indigenously designed and developed Electric Tractor mainly to cater small and marginal farmers of India.

Developed by: Central Mechanical Engineering Research Institute (CSIR-CMERI)

Key Features: Made entirely with indigenous components and technologies.

- Designed for agriculture with a focus on women-friendly features. For eg: All the levers, switches etc have been placed for easy approach to the women.

- Can be charged using a home socket, providing more than 4 hours of field operation.

- Equipped with efficient transmission, robust design, and hydraulic system for various tasks.
- Utilizes state-of-the-art Lithium-ion batteries with deep discharge capability.
- Features a V2L port for using tractor battery power for secondary application.

29. India will host 1st edition of 'Global IndiaAI 2023 ' in October

Source: The post is based on the article "India will host 1st edition of 'Global IndiaAI 2023 ' in October" published in PIB on 30th August 2023

What is the News?

The Ministry of Electronics and Information Technology will be organizing the Global IndiaAI 2023.

What is Global IndiaAI 2023?

Organized by: Ministry of Electronics and Information Technology

Aim: To bring together the best and brightest in AI from India and around the world.

Topics: The conference is poised to cover a wide spectrum of topics including Next Generation Learning and Foundational AI models, AI's applications in healthcare, governance, and next-gen electric vehicles, future AI research trends, AI computing systems, investment opportunities and nurturing AI talent.

- The conference will also serve as a showcase for the vibrant IndiaAI ecosystem that comprises key initiatives such as DI Bhashini, India Datasets Program, IndiaAI Future Design program for startups and IndiaAI FutureSkills program dedicated to nurturing world-class AI.

Significance: The success of the past two editions of the <u>SemiconIndia conference</u> has put India on the global semicon map. This has enabled India to become a catalyst for investments and growth within the semiconductor sector.

- The Global IndiaAI summit will also catalyze India's AI landscape and innovation ecosystem



30. Aatmanirbhar Bharat Rozgar Yojana (ABRY) Surpasses Employment Generation Target

Source: The post is based on the article "Aatmanirbhar Bharat Rozgar Yojana (ABRY) Surpasses Employment Generation Target" published in PIB on 30th August 2023

What is the News?

Aatmanirbhar Bharat Rozgar Yojana(ABRY) has exceeded its initial employment generation goals showcasing its success in fostering job creation and recovery during the COVID-19 pandemic.

What is Aatmanirbhar Bharat Rozgar Yojana(ABRY)?

Launched on: 1st October, 2020

Aim: To incentivize employers for creation of new employment and restoration of loss of employment during Covid-19 pandemic.

Benefits under the scheme: Under the scheme, the government of India for a period of two years, is crediting both the employee' share (12% of wages) and employer's share (12% of wages) of contribution for establishments with up to 1000 employees.

- For establishments with over 1000 employees, only the employee's EPF contributions (12% of wages) were covered in respect of new employees.

Eligibility for benefits: An employee drawing a monthly wage of less than Rs. 15000/- who was not working in any establishment registered with the Employees' Provident Fund Organization (EPFO) before 1st October, 2020.

- The employees who lost their job during Covid-19 pandemic and did not join any EPF covered establishment upto 30.09.2020.

Duration of the scheme: The scheme commenced from 1st October 2020 and registration was open for eligible employers and new employees upto 31st March, 2022.

Achievements of the scheme: The scheme had set a target to benefit approximately 7.18 million employees across India.

- As of July 31, 2023, the ABRY has already achieved an enrolment of over 7.58 million new employees, surpassing its initial employment generation target.

31. In India, 74% can't afford a healthy diet: UN agency report

Source: The post is based on the article "In India, 74% can't afford a healthy diet: UN agency report" published in The Hindu on 31st August 2023

What is the News?

The 'State of Food Security and Nutrition in the World' (SOFI) 2023 report has been released with the **theme** "Urbanization, agrifood systems transformation, and healthy diets across the rural-urban continuum".

What is the State of Food Security and Nutrition in the World(SOFI) Report?

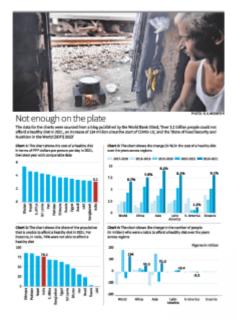
SOFI is an annual flagship report jointly prepared by: Food and Agriculture Organisation of the United Nations (FAO), International Fund for Agricultural Development (IFAD), United



Nations Children's Fund (UNICEF), World Food Programme (WFP) and World Health Organisation (WHO).

Aim: To inform on progress towards ending hunger, achieving food security and improving nutrition and to provide an in-depth analysis of key challenges for achieving this goal in the context of the SDG.

What are the key findings of the SOFI 2023 related to India?



Source: The Hindu

Healthy diet: India has the lowest cost of a healthy diet among BRICS nations and neighboring countries. However, a significant portion of the population can't afford it due to stagnant or decreasing incomes.

- For instance, meal costs in Mumbai increased by 65% in five years, while salaries/wages only grew by 28%-37%.

Healthy diet in terms of Purchasing Power Parity(PPP): In India, a healthy diet costs 3.066 PPP dollars per person per day, the lowest among the countries considered.

– PPP stands for 'Purchasing Power Parity'.In simple terms, 1 PPP dollar in the United States should buy the same amount of goods and services as 1 PPP dollar in, say, India or Brazil.

Share of the population that is unable to afford a healthy diet in 2021: In India, 74% were not able to afford a healthy diet, the fourth highest share among the nations considered.

Change in the cost of a healthy diet over the years across regions: Between 2019 (before the COVID-19 pandemic) and 2021, the expense of maintaining a healthy diet increased by almost 9% in Asia — the highest across regions.

Change in the number of people unable to afford a healthy diet over time across regions: Between 2019 and 2021, Asia and Africa saw the highest growth in the number of people who could not afford a healthy diet.



- In Asia, South Asia had the highest number of people (1.4 billion) and the highest share (72%) who could not afford a healthy diet.

32. What are the changes to the process for sale of SIM cards?

Source: The post is based on the article "What are the changes to the process for sale of SIM cards?" published in The Hindu on 31st August 2023

What is the News?

The Union Minister for Telecommunications has introduced two reforms to tackle the menace of cybercrimes and financial fraud.

These reforms are meant to strengthen the Sanchar Saathi Portal.

What is Sanchar Saathi Portal?

Click Here to read

What are the two reforms introduced to tackle the menace of cybercrimes and financial fraud?

Reform on Point of Sale (PoS):

Franchisees, agents, and distributors of SIM cards (Point of Sale or PoS) must now be registered with telecom network operators.

Operators are responsible for verifying the PoS and conducting mandatory police verification of dealers.

Existing SIM card providers have 12 months to comply with these registration requirements.

If a PoS is involved in illegal activities, their agreement will be terminated, they will be blacklisted for three years, and they will face a penalty of ₹10 lakh.

Bulk SIM Cards Reform:

The reforms replaced the system of 'bulk procurement' of SIM cards (by businesses, corporates or those meant for specific events) with a system of entailing 'business' connections — sizeable procurement by a registered business entity or enterprise.

This means that businesses can procure any number of connections.But it would be subject to completing KYC requirements for all end-users.In other words, the final user— the executive who would be holding the connection — would have to undergo the KYC procedure.

In order to prevent the misuse of printed Aadhaar, the provisions mandate that demographic details would be required by scanning the QR code of the printed Aadhaar.

Further, in case of disconnection of a mobile number, it would not be allocated to any other customer for 90 days.



33. Reroute rail track through gibbon sanctuary

Source: The post is based on the article "Reroute rail track through gibbon sanctuary" published in The Hindu on 31st August 2023

What is the News?

Wildlife Institute of India (WII) has proposed a solution to address the problems caused due to the route of the 1.65-km long railway track in eastern Assam.

This railway track has divided a **Hollongapar Gibbon Sanctuary** into two unequal parts.Due to this, hoolock gibbons are facing habitat fragmentation as the track separated gibbon populations on either side.

Hence, that's why scientists at WII have suggested constructing an artificial canopy bridge to enable the gibbons to move across the railway line. This would help them maintain their genetic diversity.

What is Hollongapar Gibbon Sanctuary?

The Hollongapar Gibbon Sanctuary formerly known as the Gibbon Wildlife Sanctuary or Hollongapar Reserved Forest is an isolated protected area of evergreen forest located in Assam.

The sanctuary was officially constituted and renamed in 1997.

The sanctuary contains India's only gibbons – the hoolock gibbons and North-eastern India's only nocturnal primate – the Bengal slow loris.

What are Hoolock Gibbons?

Click Here to read

34. ASI to launch "Adopt a Heritage 2.0 programme" and Indian Heritage app

Source: The post is based on the article "ASI to launch "Adopt a Heritage 2.0 programme" and Indian Heritage app" published in PIB 1st September 2023

What is the News?

The Archaeological Survey of India(ASI) is set to launch the "Adopt a Heritage 2.0" programme and Indian Heritage app.

What is Adopt a Heritage 2.0 Programme?

The programme is a revamped version of the Adopt a Heritage scheme launched in 2017.

Aim: To safeguard India's diverse cultural heritage by inviting corporate stakeholders to enhance the amenities at over 3,600 monuments spread throughout the country.

- These monuments not only showcase India's rich cultural history but also contribute significantly to economic growth.

Under the programme, corporate stakeholders can utilize their Corporate Social Responsibility (CSR) funds to enhance the amenities at the historical sites.

- This revamped version emphasizes the amenities required for different monuments, as defined by the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act ,1958.



- Interested stakeholders can apply to adopt a monument or specific amenities through a dedicated web portal.

- The process for selection will be carried out after due-diligence and discussions with various stakeholders.

- The selected stakeholders will develop, provide and/or maintain amenities in hygiene, accessibility, safety and knowledge categories.

- The term of the appointment will be for a period of five years initially, which may be further extended up to five years.

What is an Indian Heritage app?

Indian Heritage is a user-friendly mobile app.It will showcase the heritage monuments of India.

The app will feature state-wise details of monuments along with photographs, list of public amenities available, geo-tagged location and feedback mechanism for citizens.

35. Omission of disability-related questions from NFHS-6 shows that disability remains misunderstood

Source: The post is based on the article "Omission of disability-related questions from NFHS-6 shows that disability remains misunderstood" published in Indian Express 1st September 2023

What is the News?

The Government of India has decided to omit disability-related questions from the sixth round of the National Family Health Survey (NFHS-6).

What is the National Family Health Survey(NFHS)?

Click Here to read

When was disability related questions included in the NFHS Survey?

The questions on disability were included for the first time in the NFHS-5 which was carried out during 2019-21.

Based on the NFHS-5 report, it was observed that disability prevalence was only 1% for rural areas and 0.9% for urban areas.

However, National Sample Survey Office (NSSO) estimates for the year 2018 showed 2.3% for rural areas and 2% for urban areas.

Why has NFHS-6 decided to omit disability-related questions?

According to the Ministry of Health, the disability related questions are not included in NFHS-6 as the disability data will not change very fast and there is no reason to collect this data every time.

This decision has been criticized as the persons with disabilities make up around 2.21% of India's population, totaling about 2.68 crore people according to the 2011 Census.



The Census data does not fully represent the current disabled population due to population growth over the past decade and the limited categories of disabilities recognized in the Census.

What are the other issues faced by disabled people in government policy making?

Limited Understanding of Disability: Ministry of Statistics and Programme Implementation) report on 'Persons with Disabilities (Divyangjan) in India — A Statistical Profile: 2021' refers to only eight categories of disabilities.

- It fails to acknowledge and account for the 21 categories of disabilities recognised in law after the enactment of the Rights of Persons with Disabilities Act, 2016 (RPWDA).

Invisible disability not acknowledged: Niti Aayog's visionary blueprint, 'Strategy for New India @ 75', which delineates the government's goals for 2022-23, recognises the challenges posed due to a lack of detailed data in drafting policies for persons with disabilities.

- However, the document lacks measures for those with invisible disabilities such as mental health conditions.

36. Combined Index of Eight Core Industries increases by 8.0% (provisional) in July 2023 as compared to the Index of July 2022

Source: The post is based on the article "Combined Index of Eight Core Industries increases by 8.0% (provisional) in July 2023 as compared to the Index of July 2022" published in PIB 1st September 2023

What is the News?

The combined Index of Eight Core Industries (ICI) has increased by 8.0% (provisional) in July 2023 as compared to the Index of July 2022.

The production of Coal, Steel, Natural Gas, Cement, Electricity, Refinery Products, Fertilizers and Crude Oil increased in July 2023 over the corresponding month of last year.

What is the Index of Eight Core Industries(ICI)?

Index of Eight Core Industries(ICI) measures combined and individual performance of production of eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity.

These Eight Core Industries comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).

What is the Index of Industrial Production (IIP)?

Index of Industrial Production is an index that measures growth of industrial production in India.

This index classifies industries into the mining, manufacturing and electricity sector.

IIP index is currently calculated using 2011-2012 as the base year.

IIP data is compiled and released every month by the Central Statistical Organization (CSO).



37. 40 per cent elephant corridors report increase in use

Source: The post is based on the article "40 per cent elephant corridors report increase in use" published in New Indian Express 31st August 2023

What is the News?

Elephant Corridors of India 2023 report has been released.

The report has been prepared by Project Elephant with technical support from the Wildlife Institute of India.

What are Elephant Corridors?

Elephant corridors are linear, narrow, natural habitat linkages that allow elephants to move between secure habitats without being disturbed by humans.

What are the key findings of the Elephant Corridors of India 2023 report?

150 elephant corridors have been identified in 15 elephant-ranging states.

40% of elephant corridors of India have reported an increase in use by the elephants.

Around 29 corridors – constituting 19% of the total – have recorded a decline in use by the elephants over the years.

These corridors are primarily affected by encroachment, mining activities, development of linear infrastructure such as roads and railway tracks and other human interventions.

Further, around 10% of the elephant corridors have become impaired over the years.

West Bengal has the highest number (26) of identified elephant corridors in India.

There are six transnational corridors between India and Nepal.

Recommendations: The report has recommended following measures to safeguard corridors. These measures are: Habitat enrichment, accurate demarcation, measures to check human interventions, and legal protection under appropriate laws at the state level.

38. Govt panel to study simultaneous polls

Source: The post is based on the article "Govt panel to study simultaneous polls" published in Livemint on 2nd September 2023

What is the News?

The Government of India has constituted a committee headed by former president of India Ram Nath Kovind to explore the possibility of "One nation, One election".



What is 'one nation, one election'?



Source: Hindustan Times

The concept of "one nation, one election" refers to holding simultaneous elections across the country.

It implies that elections for the Lok Sabha and state assemblies across India will be held simultaneously — with voting presumably taking place around the same time.

What is the history of 'one nation, one election'?

Simultaneous elections for the Lok Sabha and state assemblies were a norm in India till 1967. The Lok Sabha and state legislatures went to elections together in 1952 and 1957.

In 1959, this cycle was first broken in Kerala when the government of Jawaharlal Nehru used Article 356 of the Constitution to dismiss the government of Chief Minister E M S Namboodiripad.

In the 1967 elections, the Congress party suffered defeat in many states. But the governments were unstable, and many of these Assemblies were dissolved before their terms were over, resulting in the separation of the election cycles of many states from that of the Lok Sabha.

How has matters moved on One Nation One Election since this government came in power?

Parliamentary Standing committee report: In 2015, the Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice, headed by E M Sudarsana Natchiappan, compiled a report on 'Feasibility of Holding Simultaneous Elections to House of People (Lok Sabha) and State Legislative Assemblies'.

- The committee said that holding simultaneous elections to Lok Sabha and state assemblies would reduce: (i) the massive expenditure that is currently incurred for the conduct of separate

elections; (ii) the policy paralysis that results from the imposition of the Model Code of Conduct during election time; (iii) impact on delivery of essential services and (iv) burden on crucial manpower that is deployed during election time.

What are the arguments against One Nation One Election?

The arguments against One Nation One Election include: complexity of such an exercise, the widely held view that simultaneous polls would benefit the nationally dominant party at the cost



of regional players and the complications that would arise if any of the governments were to collapse before completing its term.

What did the Law Commission say on the One Nation One Election?

In a draft report in 2018, the Law Commission headed by Justice B S Chauhan held that simultaneous elections could not be held within the existing framework of the Constitution.

These could be held together through appropriate amendments to the Constitution, the Representation of the People Act 1951, and the Rules of Procedure of Lok Sabha and state Assemblies.At least 50% of the states may ratify the constitutional amendments.

The Commission recommended that all elections due in a calendar year be conducted together.

Since a no-confidence motion, if passed, may curtail the term of Lok Sabha or an Assembly, the Law Commission recommended replacing the "no-confidence motion" with a "constructive vote of no-confidence" through appropriate amendments — a government may only be removed if there is confidence in an alternative government.

39. PM congratulates RBI Governor for being rated "A+" in the Global Finance Central Banker Report Cards 2023

Source: The post is based on the article "PM congratulates RBI Governor for being rated "A+" in the Global Finance Central Banker Report Cards 2023" published in PIB on 2nd September 2023

What is the News?

The Prime Minister has congratulated RBI Governor Shri Shaktikanta Das for being rated "A+" in the Global Finance Central Banker Report Cards 2023.

What is Global Finance Central Banker Report Cards 2023?

The Central Banker Report Cards has been published annually by Global Finance since 1994.

Purpose: It grades the central bank governors of 101 key countries, territories and districts, including the European Union, the Eastern Caribbean Central Bank, the Bank of Central African States and the Central Bank of West African States.

Parameters: The grades are based on a scale from A to F for success in inflation control, economic growth goals, currency stability, and interest rate management, according to a statement by Global Finance magazine.

- An 'A' represents an excellent performance and an 'F' stands for an outright failure.

Note: Recently, RBI Governor Shaktikanta Das was also awarded the "Governor of the Year" at the Central Banking Awards 2023 in London.

- Central Banking is a London-based international economic research journal.

– Shaktikanta Das is the second RBI governor to receive this award after Raghuram Rajan, who was given the title in 2015.



40. From Magna Carta to Ashtadhyayi: artefacts to grace G-20 corridor

Source: The post is based on the article "From Magna Carta to Ashtadhyayi: artefacts to grace G-20 corridor " published in The Hindu on 2nd September 2023

What is the News?

Several objects of cultural significance will be displayed at the special Culture Corridor which will be set up at the venue of the G-20 summit in New Delhi.

What is a G20 Culture Corridor?

The Ministry of Culture has conceptualized the Culture Corridor – G20 Digital Museum to represent and celebrate the shared heritage of G20 members and invite countries.

This project is based on India's G20 theme Vasudhaiva Kutumbakam' and the Culture Working Group's (CWG) hallmark campaign 'Culture Unites All".

The Culture Corridor will incorporate iconic and notable cultural objects and heritage of the G20 members and 9 invitee countries.

For this, submissions were requested from G-20 countries and nine guest nations under five categories: 1) Object of Cultural Significance (as a physical display) 2) Iconic Cultural Masterpiece (as a digital display) 3) Intangible Cultural Heritage (digital display) 4) Natural Heritage (digital display) and 5) Artefact Related to Democratic Practices (physical or digital display)

What will be displayed at the Culture Corridor being set up at the venue of the G-20 summit in New Delhi?

India: The Rig Veda manuscript will be exhibited with a special emphasis on the shloka that encourages humanity to come together.

- Ancient text Ashtadhyayi authored by Sanskrit philologist and scholar Panini will also be displayed.

- In the intangible heritage category, India will be displaying yoga, the Kumbh Mela, Vedic chanting, the lost wax bronze casting method, and the double ikkat weaving Patan Patola of Gujarat.

- In the natural heritage category, India will display the Himalayas, the Ganges, the Indian Ocean, the Living Root Bridge of Meghalaya and the Royal Bengal Tiger.

Other Countries: 1) 'Mrs Ples'- a 2.5-million-year-old fossil cranium from South Africa **2)** 18th century Fahua lidded porcelain jay of China **3)** copy of the Magna Carta issued by the King of England

4) copy of the Charters of Freedom (Declaration of Independence, Constitution, and Bill of Rights 1776-1791) of the US 5) copy of Declaration of the Rights of Man and of the Citizen National Assembly (France, 1789)
6) poster of the first democratic general election of Republic of Korea held in May 1948 among others.



41. Children from void marriages entitled to parents' share in property, says SC

Source: The post is based on the article "Children from void marriages entitled to parents' share in property, says SC" published in The Hindu on 2nd September 2023

What is the News?

The Supreme Court held that a child born of a void or voidable marriage can inherit their parents' share in a joint Hindu family property governed by the Mitakshara law.

However, the court clarified that such a child would not be entitled to rights in or to the property of any other person in the family.

What is a Voidable Marriage?

A voidable marriage is one that is made invalid by the husband or wife through a decree. A void marriage is invalid at its very inception.

What is Mitakshara law?

There are mainly two schools in Hindu law, the **Mitakshara** & the **Dayabhaga** which concern the law of inheritance.

Mitakshara school is practiced in all of India except in the state of West Bengal and Assam.In this school of inheritance, property is inherited by the successors (coparceners) only if they were born in the family of the property owners.

Dayabhaga is mainly practiced in Assam & West Bengal.In this school of inheritance, the property goes to the successors (coparceners) only when the property owner is dead.

Under the Dayabhaga, a partition of the coparcenary property can be imposed by any adult coparcener whether male or female.

But under the Mitakshara, as it existed before the 2005 amendment of the Hindu Succession Act, a female could not at all be a coparcener and was therefore not entitled to partition.But after the amendment, a woman may also be a coparcener today.

What did the Supreme Court say on inheritance for children born from void marriages?

Section 16 of the Hindu Marriage Act grants legitimacy to children born from void or voidable marriages.

The court said that the intent of granting legitimacy to such children in the Hindu Marriage Act should also be reflected in the Hindu Succession Act, which governs inheritance.

This is because children born from void or voidable marriages come within the ambit of "legitimate kinship" and cannot be regarded as illegitimate by the Hindu Succession Act when it comes to inheritance.

The court also noted that after the enactment of the Hindu Succession (Amendment) Act, 2005, the share of a deceased person in a joint Hindu family governed by Mitakashara law can be devolved to his heirs by testamentary or intestate succession.

Prior to the amendment, the devolution was only through survivorship.Besides, the amendment gave equal rights of succession to women as well as men.



42. PM asks the citizens to participate in Meri Maati Mera Desh campaign

Source: The post is based on the article "PM asks the citizens to participate in Meri Maati Mera Desh campaign" published in PIB on 2nd September 2023

What is the News?

The Prime Minister has asked the citizens to participate in the Meri Mati Mera Desh campaign.

What is the Meri Mati Mera Desh campaign?

The Meri Mati Mera Desh campaign is being organized nationwide as the closing program of Azadi ka Amrit Mahotsav festivities.

The campaign is a tribute to the Veers and Veeranganas who have made the supreme sacrifice for the country.

The campaign comprises of many activities such as:

Dedication of Shilaphalakam (Memorial): A memorial will be built on which the names of the bravehearts shall be inscribed.

- These shall include freedom fighters, defense personnel, personnel of Central Armed Police Forces and State Police who laid down their lives in the line of duty.

- The memorial shall be erected locally within Panchayats/Villages as well as urban sites—likely near Amrit Sarovars or local schools or other prominent locations.

'Panch Pran' Pledge: At the memorial site, people will take a solemn pledge covering Panch Pran affirming their commitment to the country.

- The pledge is: 1) Make India developed and self-reliant by 2047 2) Remove any trace of colonial mindset 3) Celebrate our heritage 4) Strengthen unity and respect those who protect the country and 5) Perform the duties of a citizen.

Vasudha Vandhan: Panchayats/villages/urban local bodies will replenish Mother Earth by planting 75 saplings of indigenous species and develop the 'Amrit Vatika'.

Veeron Ka Vandan: Felicitation ceremonies shall be held for honouring the freedom fighters and the families of deceased freedom fighters.

These ceremonies shall also honour retired personnel from Defence, CAPF and State Police and the families of the bravehearts of these forces who have sacrificed their lives in the line of duty.

Rashtragaan: Hoisting of the National Flag and singing of Rashtragaan shall be undertaken at the sites.

43. NPS withdrawal options set to be eased, says PFRDA

Source: The post is based on the article "NPS withdrawal options set to be eased, says PFRDA" published in The Hindu on 2nd September 2023



What is the News?

Several state governments have opted out of the National Pension System (NPS) and switched back to the Old Pension Scheme which guarantees a monthly pension of 50% of the final salary for their employees. However, still these states continue to contribute to the NPS corpus.

Currently, under NPS, State government employees account for the largest chunk of the savings pool.

What is the National Pension System(NPS)?

National Pension System (NPS) is being administered and regulated by Pension Fund Regulatory and Development Authority (PFRDA) set up under PFRDA Act, 2013.

NPS is a market linked, defined contribution product.Under NPS, a unique Permanent Retirement Account Number (PRAN) is generated and maintained by the Central Recordkeeping Agency (CRA) for individual subscribers.

NPS offers two types of accounts, namely Tier-I and Tier-II: Tier-I account is the pension account having restricted withdrawals.

- Tier-II is a voluntary account which offers liquidity of investments and withdrawals. It is allowed only when there is an active Tier-I account in the name of the subscriber. The contributions accumulate over a period of time till retirement grows with market linked returns.

- On exit/retirement/superannuation, a minimum of 40% of the corpus is mandatorily utilized to procure a pension for life by purchasing an annuity from a life insurance company and the balance corpus is paid as lump sum.

NPS platform offers different models to suit the different segments of users. These include :

The Government model for the Central and State Government Employees: NPS is mandatorily applicable on Central Government employees (except Armed Forces) recruited on or after 01.01.2004. Subsequently, all State Governments except a few states have also adopted NPS for their employees.

- Govt. employees make a monthly contribution at the rate of 10% of their salary and a matching contribution is paid by the Govt.For central Govt. employees, the employer's contribution rate has been enhanced to 14% from 01.04.2019.

The Corporate Model: Companies can adopt NPS for their employees with contribution rates as per the employment conditions.

The All Citizens Model: The All Citizens Model of the NPS allows all citizens of India aged between 18 – 65 years to join NPS on a voluntary basis.

What are the changes PFRDA is planning to bring to NPS?

Presently, on superannuation, members have to purchase an annuity with 40% of their accumulated retirement savings and withdraw the balance.

Now, PFRDA is planning to allow members to opt for a systematic withdrawal plan for 60% of the corpus, by which they can choose to receive a fixed sum from their savings on a monthly, quarterly or half-yearly basis.



Moreover, for the mandatory annuity purchases, members would be able to opt for a mix of schemes rather than a single scheme.

44. Union Minister for Education announces NCERT as Deemed-to-be-University

Source: The post is based on the article "Union Minister for Education announces NCERT as Deemed-to-be-University" published in PIB on 2nd September 2023

What is the News?

The Union Minister for Education has announced that the National Council of Educational Research and Training (NCERT) has been given the status of a Deemed-to-be-University.

What is 'Deemed-to-be-university' status?

The Central Government on the advice of the University Grants Commission (UGC) can declare an Institution of Higher Education other than universities working at a very high standard in a specific area of study as an Institution 'Deemed-to-be-university'.

Institutions that are 'deemed-to-be-university' enjoy the academic status and privileges of a university.

Deemed to be universities like other universities have the autonomy of offering various courses and therefore, preparing students for various examinations and awards.

These institutions can also design their own syllabus and courses to prepare the students to foray into diverse fields after the completion of their study.

What is NCERT?

NCERT is an autonomous organization set up in 1961 by the Government of India to assist and advise the Central and State Governments on policies and programmes for qualitative improvement in school education.

The Executive Committee (EC) is the highest decision-making body of NCERT and is chaired by the Education Minister.

45. Special session of Parliament: How it will work

Source: The post is based on the article "Special session of Parliament: How it will work" published in Indian Express on 2nd September 2023

What is the News?

The Union Minister for Parliamentary Affairs has announced that a "special session" of Parliament would be held from September 18 to 22,2023.

When does Parliament meet?

India's Parliament has no fixed calendar of sittings. The Government determines the date and duration of parliamentary sessions.



The Cabinet Committee on Parliamentary Affairs takes this decision. It currently has ten Ministers, including those for Defence, Home, Finance, Agriculture, Tribal Affairs, Parliamentary Affairs, and Information and Broadcasting.

The Law Minister and the Minister of State for External Affairs are special invitees to the Committee.

The President is informed about the Committee's decision who then summons Members of Parliament to meet for the session.

What does the Constitution say on Parliamentary sessions?

The Constitution specifies that six months should not elapse between two parliamentary sessions.

This provision was borrowed from the Government of India Act of 1935. It allowed the British Governor General to call a session of the central legislature at his discretion, requiring that the gap between two sessions should not be more than 12 months.

The Constituent Assembly reduced the gap between sessions to six months.

What were Constituent Assembly views on Parliamentary sessions?

Some members of the Constituent Assembly wanted Parliament to meet throughout the year with breaks in between.Others wanted Parliament to sit for longer durations and cited the examples of the British and American legislatures meeting for more than 100 days a year.

However, Dr. Ambedkar disagreed with these suggestions.He expressed concerns that if the sessions are too frequent and lengthy, even the legislators themselves might become tired of them.So, he advocated holding regular parliamentary sessions.

How often do Lok Sabha and Rajya Sabha meet?

Before independence, the central assembly met for a little more than 60 days a year. This number increased to 120 days a year in the first 20 years after Independence.Since then, the sitting days of the national legislature have declined.

Between 2002 and 2021, Lok Sabha averaged 67 working days. The situation in state legislatures is much worse. In 2022, 28 state Assemblies met for 21 days on average. In 2023, Parliament has met for 42 days so far.

On multiple occasions, the Conference of presiding officers has recommended that Parliament should meet for more than 100 days. The National Commission to Review the Working of the Constitution set up in 2000 made a similar recommendation.

What is a special session of Parliament?

The Constitution does not use the term "special session". The term sometimes refers to sessions the government has convened for specific occasions like commemorating parliamentary or national milestones.

However, Article 352 (Proclamation of Emergency) of the Constitution does refer to a "special sitting of the House".



Parliament added the part relating to the special sitting through the Constitution (Forty-fourth Amendment) Act, 1978. Its purpose was to add safeguards to the power of proclaiming Emergency in the country.

It specifies that if a Proclamation of Emergency is issued and Parliament is not in session, then one-tenth of Lok Sabha MPs can ask the President to convene a special meeting to disapprove the Emergency.

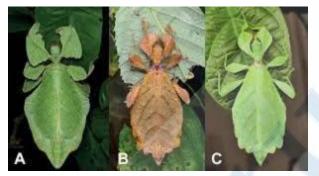
46. Researchers finds seven new species of leaf insects

Source: The post is based on the article "Researchers finds seven new species of leaf insects?" published in The Print on 1st September 2023

What is the News?

An international research team has identified seven previously unknown species of leaf insects, also known as walking leaves.

What are Walking Leaves?



Source: SciTechDaily

Walking leaves are part of the phasmatodea order. They are also referred to as "**phasmids**" or "stick and leaf insects."

They are known for their unusual appearance as they look confusingly **similar to parts of plants** such as twigs, bark or in the case of leaf insects as leaves.

They **feed on plants** and typically inhabit densely vegetated areas.

Range: Their natural range extends from islands in the Indian Ocean, across parts of mainland South Asia and Southeast Asia, to Papua New Guinea and Australia in the western Pacific.

They are also largely nocturnal, resulting in a relative lack of movement during the day that makes locating them quite difficult in the wild.

Significance: There are around 3,500 known species of stick and leaf insects.But there are currently just over 100 described species of leaf insect.

– Hence, they only make up a small fraction of this diverse family of insects but their spectacular and unexpected appearance makes them unique.



47. Court allows stem cell therapy for two autistic kids: What is this treatment? Can it be used to treat autism?

Source: The post is based on the article "Court allows stem cell therapy for two autistic kids: What is this treatment? Can it be used to treat autism?" published in Indian Express on 2nd September 2023

What is the News?

The Delhi High Court has permitted two children with autism spectrum disorder (ASD) to undergo stem cell therapy for treatment of their condition.

What are Stem Cells?

Stem cells are a unique type of cell in the human body that have the remarkable ability to develop into many different cell types with specific functions.

They are characterized by two key properties:

Self-renewal: Stem cells can divide and make exact copies of themselves. This ability allows them to maintain a constant population of stem cells in the body.

Differentiation: Stem cells can also differentiate into specialized cell types with distinct functions. For example, they can become blood cells, nerve cells, muscle cells, or any other type of cell found in the body.

What are the different types of Stem Cells?

Embryonic Stem Cells (ESCs): These stem cells are derived from embryos, typically at the blastocyst stage (a very early stage of embryonic development). Embryonic stem cells have the potential to become any type of cell in the body and are considered pluripotent.

Adult Stem Cells: These stem cells are found in various tissues and organs throughout the body. They play a role in tissue maintenance, repair, and regeneration.

- Adult stem cells are typically multipotent, meaning they can differentiate into a limited range of cell types specific to the tissue or organ where they are located.

Induced Pluripotent Stem Cells (iPSCs): iPSCs are adult cells that have been reprogrammed to return to a pluripotent state similar to embryonic stem cells. This reprogramming is usually achieved through genetic manipulation.

How are stem cells used in medicine?

For several years, stem cells that are used to treat disease are hematopoietic stem cells. These are the blood cell-forming adult stem cells found in bone marrow.

These cells help people with cancer make new blood cells after their own hematopoietic stem cells have been killed by radiation therapy and chemotherapy.

What is autism spectrum disorder(ASD)?

Click Here to read



Can stem cell treatment be used for ASD?

Autism spectrum disorder(ASD) has potential to be a good candidate for stem cell therapy because evidence exists that some types of stem cells, given intravenously, can improve the overall regulation of the immune system and the neural connectivity in the brain.

However, stem cell therapy is not typically used for treating ASD yet as initial clinical trials have shown mixed results.

Currently, the treatment is very much in an experimental stage and there is simply not enough data to make definitive claims.

