



# **Factly Compilation**

**21<sup>st</sup> to 26<sup>th</sup> August, 2023**

## Factly Compilation for the Month of August (Fourth Week) 2023

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### 1. What is RBI's new pilot for frictionless credit?

**Source:** The post is based on the article “**What is RBI's new pilot for frictionless credit?**” published in **The Hindu on 21st August 2023**.

#### What is the News?

The Reserve Bank of India (RBI) has launched a pilot project in the form of a “Public Tech Platform for Frictionless Credit”.

The project seeks to give digital information to lenders to expedite access to credit or loans.

#### What is Frictionless credit?

Frictionless credit is a borrowing approach that seeks to streamline the lending process for consumers.

Unlike the traditional credit systems, where individuals need to go through extensive paperwork, credit checks and lengthy approval procedures, frictionless credit promises a smoother and faster experience.

#### Why Frictionless credit needed?

Before granting a loan, there's a crucial process called **credit appraisal**. This process assesses the borrower's ability to repay the loan and stick to the loan agreement. It's especially important for banks because it affects their interest income and balance sheet.

RBI has noticed that the information needed for this process is scattered among different entities like governments, banks, credit agencies, and digital identity authorities. This separation creates hindrances in frictionless and timely delivery of rule-based lending.

To solve this, a new platform called “**Public Tech Platform for Frictionless Credit**” is being developed by Reserve Bank Innovation Hub, a wholly-owned subsidiary of RBI. This platform aims to make the lending process smooth and quick.

As a step towards this, a **pilot project for digitizing Kisan Credit Card (KCC) loans** under ₹1.6 lakh was started in 2022. It tests a fully digital lending process without paperwork, even allowing loans to be given at people's doorsteps.

#### What are the expected benefits of this platform?

Getting formal loans often involves multiple visits to the bank and lots of paperwork. This adds to the lender's operational expenses, which can then be passed on to borrowers. According to an RBI survey, processing farm loans used to take two to four weeks and cost about 6% of the loan amount.

This platform will help in making this lending process smooth and quick. It will help in reducing costs, speed up the loan process, and make it scalable.

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### 2. Ministry of Tourism launches a wedding tourism campaign to unlock the potential of India's huge wedding industry

**Source:** The post is based on the article “**Ministry of Tourism launches a wedding tourism campaign to unlock the potential of India's huge wedding industry**” published in **PIB on 19th August 2023**.

#### What is the News?

The Ministry of Tourism has launched a **Wedding Tourism Campaign** to showcase India as a premier wedding destination globally. This campaign was launched as part of Incredible India Initiative.

The campaign aims to establish India as the foremost choice for couples seeking an extraordinary wedding experience while bolstering the growth of the wedding industry and overall tourism in India.

#### What is the Incredible India campaign?

Incredible India campaign was launched by the Ministry of Tourism in the year 2002 to promote tourism in India to other countries' populations.

The purpose of the campaign was to make a brand out of India that depicted its history, diversity, religious beliefs, and spirituality, all in all, it showed India as the melting pot of cultures that it was and is to this date.

In 2017, 'Incredible India 2.0' campaign was launched. It marks a shift from generic promotions undertaken across the world to market-specific promotional plans and content creation.

The campaign focuses on digital and social media and the promotion of Niche tourism products, including yoga, wellness, luxury, cuisine and wildlife.

### 3. Gabon announces \$500 million debt-for-nature swap deal for marine conservation

**Source:** The post is based on the article “**Gabon announces \$500 million debt-for-nature swap deal for marine conservation**” published in **Down To Earth on 18th August 2023**.

#### What is the News?

Gabon has announced a \$500 million debt-for-nature swap.

In Africa, it is the largest such deal signed by any country to refinance its debt and conserve marine resources.

#### What is Debt-for-nature swap?

Debt-for-nature swaps allow heavily indebted developing countries to seek help from financial institutions in the developed world with paying off their debt if they agree to spend on conservation of natural resources.

Usually banks in developed countries buy the debts of such countries and replace them with new loans which mature later. These have lower interest rates.

#### How do debt-for-nature swaps work?

A debt-for-nature swap can be **multi-party or bilateral**.

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**The most common form of multi-party debt-for-nature deal** is when a third-party institution – usually an international non-governmental organization such as Conservation International – buys part of a country’s external debt from the institution that had bought it initially often at a discount. That organization then agrees to let the debtor country pay the debt off by investing a certain amount of local currency – usually significantly less than the face value of the original debt – in a biodiversity conservation plan.

**In a bilateral deal**, a country which owns some of another country’s debt agrees to discount it in exchange for the debtor country investing an agreed amount in a conservation plan. This frees the indebted country from having to pay off some of its debt and it can instead invest its own resources to preserve its biodiversity.

### What is the significance of Gabon’s debt for nature swap?

Gabon’s debt for nature swap is the world’s second-largest debt-for-nature swap.

In May 2023, the world’s first and largest debt swap to conserve oceans was signed by Ecuador.

### How debt for nature swap could help South Asia?

The debt crisis in the Global South has raised the need for new solutions, and one promising approach is debt-for-nature swaps.

These swaps are seen as important because developing countries face two interconnected challenges. **Firstly**, they need to borrow money from international creditors to support their development plans. **Secondly**, they must adapt to the growing impacts of climate change and biodiversity loss.

South Asia, in particular, faces significant challenges in this regard. Sri Lanka is still grappling with the consequences of poor financial management. Pakistan’s economy, burdened with debt, is struggling to recover from the 2022 floods.

The Maldives, Nepal, and Bangladesh are all dealing with rising food and housing costs, while India’s economic growth has slowed considerably.

## 4. Pacific islands face risk of drowning as sea levels rising faster than expected

**Source:** The post is based on the article **“Pacific islands face risk of drowning as sea levels rising faster than expected”** published in **India Today on 18th August 2023**.

### What is the News?

The World Meteorological Organization (WMO) has released a report titled “State of Climate in the South-West Pacific, 2022”.

### What are the key findings of the report?

**Rising Sea Levels:** The report has issued a warning about rising sea levels in the Pacific Islands. They report that sea levels in this region are increasing at a rate of about 4 mm per year, which is slightly higher than the global average.

– This poses a significant threat to low-lying islands like Tuvalu and the Solomon Islands, as it could lead to destructive floods, damaging agricultural lands and habitable areas.

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**Marine Heatwaves:** The report highlights the occurrence of long-lasting marine heatwaves in the area northeast of Australia and south of Papua New Guinea. These heat waves have had adverse effects on marine life and the livelihoods of local communities.

**Disasters:** The number of disasters reported in the region in 2022 decreased by around 39 per cent compared to 2021.

– The region reported 35 natural hazards compared to 57 in 2021, but the overall economic damages were 53% more than the loss in 2021.

– Nearly 98% of the economic loss has been due to floods. The economic losses associated with flooding in 2022 were more than four times the average over the past 20 years (2002-2021).

### 5. India announces definition of Green Hydrogen

**Source:** The post is based on the article “**India announces definition of Green Hydrogen**” published in **PIB on 19th August 2023**.

#### What is the News?

The Ministry of New and Renewable Energy has notified the green hydrogen standard for India.

#### What is the definition of Green Hydrogen given by the Ministry of New and Renewable Energy?

Green hydrogen is the hydrogen derived from renewable energy sources, either via electrolysis or biomass conversion.

The definition also encompasses green energy preserved in energy storage systems.

#### What are the emission thresholds that must be met in order for hydrogen produced to be classified as ‘Green’?

**The emission thresholds for production of hydrogen to be classified as ‘green’ are:** Green hydrogen having a well-to-gate emission of not more than two kg carbon dioxide (CO<sub>2</sub>) equivalent per kg hydrogen(H<sub>2</sub>).

The well-to-gate emission includes water treatment, electrolysis, gas purification, drying and compression of hydrogen.

The scope of these standards encompasses both electrolysis-based and biomass-based hydrogen production methods.

#### Who will certify Green Hydrogen projects?

The Bureau of Energy Efficiency (BEE) under the Ministry of Power will be the nodal authority for accreditation of agencies for the monitoring, verification and certification for green hydrogen production projects.

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### 6. Luna 25, Russia's first lunar mission in 47 years, crashes into the moon

**Source:** The post is based on the article **“Luna 25, Russia's first lunar mission in 47 years, crashes into the moon”** published in **The Hindu on 21st August 2023.**

#### What is the News?

Russia's Luna-25 spacecraft has crashed on the Moon's surface after it went into an uncontrolled orbit.

#### What is Luna 25?

[Click Here to read](#)

#### Why did Luna 25 crash?

Luna 25 was supposed to land in the moon's south pole region, where scientists believe there might be valuable frozen water and precious elements.

But the spacecraft went into an uncontrolled orbit. As a result, the spacecraft moved unpredictably and ultimately collided with the moon's surface.

#### What are the implications of the failure of Luna 25 for Russia?

Luna 25 was Russia's first mission to the Moon since 1976, when it was part of the Soviet Union.

Only three governments have managed successful moon landings: the Soviet Union, the U.S., and China.

The failure of Luna 25 underscores the decline of Russia's space power status, from a time when it was the first country to launch an artificial satellite and launched the first human, both to earth orbit.

### 7. Cabinet approves signing of MoU between India and Suriname in the field of the regulation of medicines

**Source:** The post is based on the article **“Cabinet approves signing of MoU between India and Suriname in the field of the regulation of medicines”** published in **PIB on 16th August 2023.**

#### What is the News?

A Memorandum of Understanding (MoU) has been signed between the Indian Pharmacopoeia Commission(IPC) and the Ministry of Health of Suriname, aiming to recognize the Indian Pharmacopoeia (IP) as a standard for medicines in Suriname.

#### What is the Indian Pharmacopoeia Commission(IPC)?

Indian Pharmacopoeia Commission (IPC) is an autonomous institution of the Ministry of Health and Family Welfare.

IPC is created to set standards of drugs in the country. Its basic function is to regularly update the standards of drugs commonly required for treatment of diseases prevailing in this region.

It publishes official documents for improving Quality of Medicines by way of adding new and updating existing monographs in the form of **Indian Pharmacopoeia (IP).**



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It further promotes rational use of generic medicines by publishing **National Formulary of India**.

It also provides **IP Reference Substances (IPRS)** which act as a fingerprint for identification of an article under test and its purity as prescribed in IP.

**What are the benefits of International recognition of the Indian pharmacopeia Standards?**

**Firstly**, it would boost the export of Indian pharmaceutical products to these countries as it would remove double regulation, duplication in testing and post importation checks. Indian drug exporters would thus gain a competitive edge and trade would become more remunerative.

**Secondly**, importing nations would gain access to quality Indian medical products at affordable prices.

**Thirdly**, manufacturers in importing countries would have better scope for development of generic medicines contributing to availability of affordable medicines to their citizens.

### 8. What are Acoustic Side Channel Attacks and how is AI used to increase its accuracy?

**Source:** The post is based on the article **“What are Acoustic Side Channel Attacks and how is AI used to increase its accuracy?”** published in **The Hindu on 21st August 2023**.

**What is the News?**

A research paper titled “A Practical Deep Learning-Based Acoustic Side Channel Attack on Keyboards” has shown how accurate Acoustic Side Channel Attacks (ASCA) can be when advanced deep learning models are used to recognize laptop keystrokes.

**What are Side Channel Attacks(SCA's)?**

Side Channel Attacks(SCAs) are a method of hacking a cryptographic algorithm based on the analysis of auxiliary systems used in the encryption method.

These can be performed using a collection of signals emitted by devices including electromagnetic waves, power consumption, mobile sensors as well as sound from keyboards and printers to target devices.

Once collected, these signals are used to interpret signals that can be then used to compromise the security of a device.

**What are Acoustic Side Channel Attacks(ASCA)?**

Acoustic Side Channel Attacks(ASCA) uses the sound of clicks generated by a keyboard to analyze keystrokes and interpret what is being typed to leak sensitive information.

These attacks are particularly dangerous as the acoustic sounds from a keyboard are not only readily available but also because their misuse is underestimated by users.

The use of laptops has increased the scope of ASCAs as laptop models have the same keyboard making it easier for AI-enabled deep learning models to pick up and interpret the acoustics.

**What does the study say about Acoustic Side Channel Attacks(ASCA)?**

The study has found that the advancement of AI and deep learning has heightened the risks associated with ASCAs.

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For instance, it found that when the AI model was made to recognise keystrokes using audio captured through a smartphone microphone, it was able to achieve 95% accuracy.

The study emphasizes that users can adopt defence strategies such as altering typing techniques, using touch-based typing, employing stronger passwords with varied cases and avoiding easily predictable phrases to mitigate the threat of ASCAs.

### 9. Department of Animal Husbandry & Dairying will receive 25 million USD grant under Pandemic Fund for strengthening Animal Health System of India

**Source:** The post is based on the article “**Department of Animal Husbandry & Dairying will receive 25 million USD grant under Pandemic Fund for strengthening Animal Health System of India**” published in **PIB on 21st August 2023**.

#### What is the News?

The G20 Pandemic Fund has granted \$25 million to India’s Department of Animal Husbandry & Dairying to aid pandemic preparedness and response.

#### What is the G20 Pandemic Fund?

The G20 Pandemic Fund was established under Indonesia’s G20 Presidency.

**Purpose:** To finance critical investments to strengthen pandemic prevention, preparedness, and response capacities at national, regional, and global levels, focusing on low- and middle-income countries.

**Hosted by:** The fund is hosted by the World Bank with WHO as technical lead.

#### How does the Pandemic Fund work?

The pandemic Fund secures money from donors to be distributed to low and middle-income countries for various purposes.

This includes disease surveillance, capacity building for critical health workforce, establishment of laboratories and emergency communication.

An intermediary agent will distribute these funds and also implement projects. These implementing agencies include regional development banks such as Asia Development Bank, African Development Bank, and other international organizations.

The World Bank, WHO and a governing body consisting of countries, philanthropic foundations and civil society organizations manage the pandemic fund collectively.

Membership within the governing body includes both donors and recipients to ensure inclusiveness and maintain equal decision-making power between states.

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### 10. India, ASEAN agree to review goods trade pact by 2025 to fix 'asymmetry'

**Source:** The post is based on the article **"India, ASEAN agree to review goods trade pact by 2025 to fix asymmetry"** published in **The Hindu on 22nd August 2023**.

#### What is the News?

India and the Association of Southeast Asian Nations(ASEAN) have agreed to conclude the review of the ASEAN-India Trade in Goods Agreement(AITIGA) by 2025.

#### What is ASEAN-India Trade in Goods Agreement (AITIGA)?

ASEAN-India Trade in Goods Agreement is a trade deal signed in 2009.

The agreement covers trade in physical goods and products. It does not apply to trade in services.

ASEAN and India signed a separate ASEAN-India Trade in Services Agreement in 2014. Along with ASEAN-India Investment Agreement, the three agreements collectively form the ASEAN-India Free Trade Area.

#### Why is there a need to review the ASEAN-India Trade in Goods Agreement(AITIGA)?

**Trade Deficit:** In 2022-23, India's exports to ASEAN increased to \$44 billion from \$42.32 billion in 2021-22.

– However, imports grew faster as it jumped to \$87.57 billion in 2022-23 against \$68 billion a year ago.

– The trade deficit widened to \$43.57 billion in the last financial year, from \$25.76 billion in 2021-22. It was just \$5 billion in 2010-11.

– In this context, India's Commerce and Industry minister had said the trade agreement with ASEAN was an "ill-conceived" agreement and unfair to the Indian industry.

**Other concerns of India:** India has been worried about the routing of goods from third countries in India through ASEAN countries members by taking the duty advantages of the agreement.

### 11. Chandrayaan-3 | ISRO releases images of the far side area of the moon

**Source:** The post is based on the article **"Chandrayaan-3 | ISRO releases images of the far side area of the moon"** published in **The Hindu on 22nd August 2023**.

#### What is the News?

Indian Space Research Organisation (ISRO) has released images of the far side of the Moon.

The images were captured by the Lander Hazard Detection and Avoidance Camera (LHDAC) which is onboard the Chandrayaan-3 Lander.

#### What is the Far Side of the Moon?

The far side is also known as the dark side area of the moon as it is always hidden from the earth.

#### Why is it called Far Side of the Moon?

Over billions of years, Earth's gravitational pull has brought the Moon's spin into sync with its orbit.

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It takes exactly 28 days for the Moon to complete one rotation, and the same time to make one orbit around Earth. This leads to a phenomenon called “tidal locking”.

With the Moon’s rotation and orbit keeping it forever in step with the Earth, only one part of it is visible from Earth at any time. The unseen part is called “far side of the Moon” also known as the dark side area of the moon.

**Note:** The term “dark side” can be misleading because it doesn’t necessarily mean that this side is always in darkness. It experiences day and night like the near side but is not visible to us from Earth.

### What is the significance of Far Side of the Moon?

Because the far side of the Moon is shielded from radio transmissions from the Earth, it is considered a good location for placing radio telescopes for use by astronomers.

## 12. Hangul population in J&K sees uptick, wildlife dept elated

**Source:** The post is based on the article “**Hangul population in J&K sees uptick, wildlife dept elated**” published in **Hindustan Times on 19th August 2023.**

### What is the News?

Hangul, the unique Kashmir stag and the state animal of Jammu and Kashmir has experienced a slight increase in its population after a period of two years.

### What is Hangul?

Hangul is the state animal of Jammu & Kashmir. It is subspecies of Central Asian red deer endemic to Kashmir and surrounding areas.

The last viable population of Hangul in the Indian sub-continent exists only in the protected Dachigam National Park, a vast mountainous 141 sq km sanctuary on the outskirts of Srinagar.

**IUCN Status:** Critically Endangered

**Indian Wildlife Protection Act:** Schedule I

**Census:** A population census of Hangul species is conducted every two years.

**Threats:** Habitat fragmentation and poaching, livestock grazing, predation, ecological threats and disturbed corridors and landscapes.

### What is the population of Hangul according to the latest census?

The population of Hangul species has increased to 289 in 2023 from 261 in 2021, a 10% increase.

The major factors which led to stabilization of the population of the Hangul are: One is the protection of its habitat in the form of Dachigam and another is the restricting of human movement inside the core area of the park to almost zero.

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### 13. India-USA announces 1st Joint Call for proposal under MeitY-NSF research collaboration

**Source:** The post is based on the article “**India-USA announces 1st Joint Call for proposal under MeitY-NSF research collaboration**” published in **PIB on 21st August 2023**.

#### What is the News?

The Ministry of Electronics and Information Technology (MeitY) has announced its 1st Joint Call for proposals under the MeitY- National Science Foundation (NSF) research collaboration.

#### What is the National Science Foundation (NSF)?

The National Science Foundation is an independent agency of the US government that supports fundamental research and education in all the non-medical fields of science and engineering.

Its medical counterpart is the National Institutes of Health.

#### What is the MeitY- National Science Foundation (NSF) research collaboration?

MeitY-National Science Foundation (NSF) has signed an Implementation Arrangement (IA) on Research Collaboration in May 2023.

This MeitY – NSF collaborative research opportunity focuses specifically upon discoveries and innovations in areas of mutual interest such as semiconductor research, next generation communication systems, cyber-security, sustainability and green technologies and intelligent transportation systems.

Through this research agency partnership, U.S. researchers may receive funding from NSF and India researchers may receive funding from MeitY.

### 14. SC panel flags loss of essential documents of people in Manipur

**Source:** The post is based on the article “**SC panel flags loss of essential documents of people in Manipur**” published in **The Hindu on 22nd August 2023**.

#### What is the News?

A committee led by former Jammu and Kashmir High Court Chief Justice **Gita Mittal** appointed by the Supreme Court has submitted three reports regarding the situation in Manipur following recent violence.

#### About the committee on Manipur Violence:

The Supreme Court had set up a committee comprising three woman judges — J&K High Court’s former Chief Justice Gita Mittal, Bombay High Court’s retired judge Shalini Phansalkar Joshi and Delhi High Court’s former judge Asha Menon.

It had tasked the committee with collecting information related to violence against women in Manipur as well as monitoring the conditions at relief camps and deciding on compensation to victims.

The committee has been entrusted with the payment of compensation and helping the victims of violence.

It has been mandated to submit its updated status report on a fortnightly basis directly to the Supreme Court.

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What are the three reports submitted by the committee on Manipur?

**The first report** highlighted the loss of documents of Manipur citizens in the riots. This report calls for assistance in reconstruction of important documents such as Aadhaar cards etc for such citizens.

**The second report** called for the Manipur Victim Compensation scheme to be improved and updated bearing in mind the NALSA scheme.

— For instance, the Manipur Victim Compensation Scheme states that if benefits under other schemes have been received by a victim, no benefit shall be provided to such a person under the Manipur Victim Scheme.

**The third report** proposed the appointment of domain experts to facilitate its functioning.

### 15. Gondia, Gadchiroli to host Maha's 1st elephant reserve

**Source:** The post is based on the article "**Gondia, Gadchiroli to host Maha's 1st elephant reserve**" published in **TOI on 22nd August 2023**,

What is the News?

The Maharashtra state wildlife department has proposed creating the Navegaon Elephant Reserve in an area in Gondia and Gadchiroli districts.

This move aims to conserve wild elephants in the region, where around 23-25 elephants have been residing.

What is the significance of this proposal?

At present, there are 33 elephant reserves in the country. If approved, Navegaon Elephant Reserve could become the 34th elephant reserve in India and the 5th largest in terms of area.

Elephant Conservation in India:

Elephant has been recognised as a national heritage animal of India.

India has the largest population of Asian elephants with nearly 30,000 wild and about 3,600 captive ones.

Government of India had launched Project Elephant in 1991-92. The project was intended to provide financial and technical support to the elephant range states for the protection of elephants, their habitats, and corridors and address the issue of human-animal conflict. It also sought to promote the welfare of captive elephants.

**IUCN Red List:** Endangered

**CITES:** Appendix I

**Wildlife (Protection) Act, 1972:** Schedule I

**Concerns:** According to the Wildlife (Protection) Act (WLPA) 1972, a 'protected area' can be one of a 'national park', a 'wildlife sanctuary', a 'conservation reserve' or a 'community reserve'.

– Hence, in the eyes of the law, an elephant reserve is no different from forest land or revenue land.

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– The activities that are prohibited in protected areas – including mining, oil- and gas-drilling, dams, etc. – are permissible in an elephant reserve.

### 16. ICSSR to develop Indianised research methodology tools

**Source:** The post is based on the article “**ICSSR to develop Indianised research methodology tools**” published in **The Hindu on 22nd August 2023**.

#### What is the News?

The **Indian Council of Social Science Research (ICSSR)** will soon announce the results of the research award proposals it had invited to study the impact of various schemes and public policy initiatives of the Union government.

About 500 researchers will get funding for the studies based on fieldwork focused on a specific geographical region.

#### What is the study conducted by ICSSR on the impact of the various government schemes?

The Indian Council of Social Science Research had recently given a special call for short term research proposals to assess the reach and socioeconomic impact of 31 government schemes, including Ujjwala Yojana, Awas Yojana, Ayushman Bharat, New Education Policy, Mudra Yojana and Start up India among others.

**Purpose behind the research:** The idea behind this research is to independently assess the impact of various government schemes and to understand the bottlenecks being seen in their implementation at the ground level.

– **For example**, take the Ujjawala scheme. It will be important to assess how it has impacted the life of women. What is the continuity of the usage cylinders distributed under the scheme and if there are any bottlenecks.

– Similarly, in the Mudra scheme of financial inclusion, we have some government data, but it would be interesting to actually go to the ground and assess its impact on entrepreneurs.

**Funding:** Each selected project will be funded up to ₹6 lakh. For collaborative projects, the funding is fixed at up to ₹30 lakh.

**Eligibility:** Research scholars from recognised institutions, civil servants, officers from defence services and other professionals with social science perspective having not less than 20 years of regular service will be eligible to apply,

### 17. UP, Gujarat among top 5 states in new investments; Kerala, Assam at bottom

**Source:** The post is based on the article “**UP, Gujarat among top 5 states in new investments; Kerala, Assam at bottom**” published in **Indian Express on 20th August 2023**.

#### What is the News?

According to a study by the Reserve Bank of India (RBI), five states accounted for more than half of the total bank-assisted investment proposals made during the year 2022-23.

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What are the key findings of the RBI study?

**Overall investment plans** shot up by 79.50% with a capital outlay of around 3.5 lakh- the highest since 2014-15.

– Significantly, this rise in new investments has happened at a time when the RBI hiked the repo rate.

– Pick-up in investments is largely due to the capital expenditure plans of the government.

**State wise distribution of investments:** Five states accounted for more than half of the total bank-assisted investment proposals made during the year 2022-23

– These five states are- Uttar Pradesh, Gujarat, Odisha, Maharashtra, and Karnataka.

– On the other hand, Kerala, Goa and Assam were at the bottom of the table in getting the lowest number of new investments.

**Sectors which received investment:** The investment in green field (new) projects accounted for the largest share of 93.1% in the total cost of projects financed by banks and Financial institutions(FIs) during 2022-23.

– Infrastructure sector comprising power, telecom, ports and airports, storage and water management, special economic zone (SEZ), industrial, biotech and IT park, and roads & bridges, remained the major sector accounting for 60% share in the total cost of projects during 2022-23.

### 18. Bharat NCAP: India gets its own car crash testing programme

**Source:** The post is based on the article “**Bharat NCAP: India gets its own car crash testing programme**” published in **The Hindu on 23rd August 2023.**

What is the News?

The Union Minister of Road Transport and Highways has launched the Bharat New Car Assessment Programme (Bharat NCAP).

What is Bharat New Car Assessment Programme (Bharat NCAP)?

Bharat New Car Assessment Programme (Bharat NCAP) is a novel safety assessment initiative introduced by the Ministry of Road Transport and Highways.

**Aim:** To provide a tool to the car customers to make a comparative assessment of crash safety of motor vehicles available in the market.

**The programme is modeled on the** Global New Car Assessment Programme (Global NCAP), a project of the Towards Zero Foundation which is a U.K.-registered charity that promotes the universal adoption of the United Nation’s most important motor vehicle safety standards worldwide.

**Applicable to:** The programme will be applicable to passenger vehicles with not more than eight seats in addition to the driver’s seat with gross vehicle weight not exceeding 3,500 kg.

– The programme will be based on the soon-to-be published Automotive Industry Standard 197, which lays down testing protocols.



## Factly Compilation for the Month of August (Fourth Week) 2023

**Rating:** A rating from one star to five stars will be assigned to a vehicle after an evaluation of three parameters — adult occupant protection, child occupant protection, and safety assist technologies present in the car.

**Voluntary programme:** The programme is voluntary except in certain cases such as a base variant of a popular vehicle model (minimum clocked sale of 30,000 units), or when the Ministry recommends a model for testing based on market feedback or in the interest of public safety.

### What is the significance of Bharat NCAP Programme?

Bharat NCAP serves as a consumer-centric platform enabling car buyers to make safer choices based on the star ratings of vehicles.

It also encourages healthy competition among original equipment manufacturers (OEMs) in India to produce safer vehicles.

Globally, road traffic injuries are a leading cause of death, particularly among individuals aged 15 to 49 years. Annually, approximately 1.3 million lives are lost due to road traffic accidents.

The program aims to address this issue, given that over 90% of these fatalities occur in low and middle-income countries. India holds a significant portion of these fatalities accounting for about 11% of global road traffic deaths.

### 19. G20 countries gave record \$1.4 trillion to support fossil fuels in 2022: report

**Source:** The post is based on the article “**G20 countries gave record \$1.4 trillion to support fossil fuels in 2022: report**” published in **Indian Express on 23rd August 2023**.

#### What is the News?

International Institute for Sustainable Development (IISD) and partners has released a study titled “Fanning the Flames: G20 Provides Record Financial Support for Fossil Fuels”.

#### What are the key findings of the study?

G20 members provided a record \$1.4 trillion (approximately Rs 116 lakh crore) in public money to support fossil fuels in 2022.

This support includes fossil fuel subsidies (\$1 trillion), investments by state-owned enterprises (\$322 billion) and lending from public financial institutions (\$50 billion).

While much of this was support for consumers, around one third (USD 440 billion) was driving investment in new fossil fuel production.

#### What are the concerns raised by the study?

G20 members’ financial support for fossil fuels in 2022 is more than double the pre-Covid-19 and pre-energy crisis levels of 2019.

– This support also perpetuates the world’s reliance on fossil fuels, paving the way for yet more energy crises due to market volatility and geopolitical security risks.

– It also severely limits the possibilities of achieving climate objectives set by the Paris Agreement by incentivizing greenhouse gas (GHG) emissions while undermining the cost-competitiveness of clean energy.

## Factly Compilation for the Month of August (Fourth Week) 2023

What are the recommendations given by the study?

- Stop providing public funds to fossil fuels, except for ensuring energy access for the poorest.
- Wealthier G20 nations, with higher historical emissions, should take the lead.
- Encourage consumers and investors to move away from fossil fuels by setting minimum carbon taxes (between \$25 and \$75 per tonne of CO<sub>2</sub>) based on a country's income.
- Use the revenues from cutting subsidies and carbon pricing to help low-income households and promote clean energy.
- Support developing countries through flows of finance, knowledge, capacity and technology to ensure smooth transition towards clean energy.

### 20. Hubble Space Telescope captures image of irregular galaxy ESO 300-16

**Source:** The post is based on the article “**Hubble Space Telescope captures image of irregular galaxy ESO 300-16**” published in **News9 on 22nd August 2023**.

What is the News?

The Hubble Space Telescope captured an image of the irregular galaxy named ESO 300-16.

What is ESO 300-16?

ESO 300-16 is an irregular galaxy. It is located at a distance of 28.7 million lightyears in the southern constellation of Eridanus.

It is made of many tiny stars all clumped together, surrounded in a diffuse light. In the central, brightest part there is a bubble of blue gas.

The galaxy is surrounded by mostly very small and faint objects, though there are bright stars above and to the left of it, and a string of galaxies nearby.

What is an Irregular Galaxy?

An irregular galaxy is a galaxy that does not have a distinct regular shape, unlike a spiral or an elliptical galaxy.

Irregular galaxies have unusual shapes, like toothpicks, rings, or even little groupings of stars.

They range from dwarf irregular galaxies with 100 million times the Sun's mass to large ones weighing 10 billion solar masses.

Irregular galaxies may hold significant amounts of gas and dust – essential ingredients for making new stars.

**Formation:** Astronomers think these galaxies' odd shapes are sometimes the result of interactions with others.

- **For example**, one spiral galaxy passing another with a stronger gravitational pull could lose some of its material, become distorted, and morph into a new shape. Some, like gas-rich dwarf galaxies, may be new, formed by material pulled from such encounters **(or)**

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– When galaxies collide, they create a larger, oddly shaped mashup. Some scientists theorize that some large irregular galaxies could represent an intermediate step between spiral and elliptical galaxies.

What is the Hubble Space Telescope?

[Click Here to read](#)

21. Price hike on some food items transitory, elevated inflation warrants greater vigil: FinMin

**Source:** The post is based on the article “**Price hike on some food items transitory, elevated inflation warrants greater vigil: FinMin**” published in **Indian Express on 23rd August 2023**.

What is the News?

The Finance Ministry has released its monthly economic review for July, 2023.

What are the key observations made by the Finance Ministry?

**Food Prices:** Food prices had recently gone up but it's expected to be temporary. Global factors, like Russia terminating the Black Sea Grain deal and domestic factors such as white fly disease and uneven monsoons influenced food prices.

– But the government has already taken steps to control food prices, and with new supplies coming in, prices should go down soon.

– For example, tomato prices should drop by the end of August or early September, and importing more tur dal should help with pulse prices.

– However, inflation might still be a concern because of global uncertainty and local issues. The Government and the Reserve Bank of India need to keep a close eye on it.

**Capital Expenditure:** Capital expenditure measures taken by Centre have led to states also increasing their capex spending with states' capex rising by 74.3% year-on-year in Q1 FY24 and Centre's capex increasing by 59.1% in the same quarter.

– Enhanced provision for capital expenditure by the government is now leading to crowding in of private investment as seen in various economic indicators and industry reports.

**Future Projections:** Domestic consumption and investment demand are expected to continue driving growth.

– Government has been making various attempts to raise investment by the private sector.

– PLI and new-age sectors (such as green hydrogen, semiconductors, wearables and solar modules) are expected to account for nearly 17 percent of the capex between FY13 and FY27.

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### 22. BRICS has become a platform for Global South: PM

**Source:** The post is based on the article “**BRICS has become a platform for Global South: PM**” published in **The Hindu on 23rd August 2023**.

#### What is the News?

The Indian Prime Minister is in South Africa for the 15th BRICS Summit to be held in Johannesburg.

#### What is BRICS?

[Click Here to read](#)

#### What is the theme of the 15th BRICS Summit?

**Theme:** “BRICS and Africa: Partnership for mutually accelerated growth, sustainable development and inclusive multilateralism”

**Significance:** The 15th BRICS summit is the first in-person meet since 2019 and the COVID-19 pandemic and the first since the Russian war in Ukraine.

#### What is the BRICS agenda for 2023?

**Expansion of BRICS** is one of the key agenda of the 15th BRICS Summit. All the bloc members first need to agree on new criteria new members need to meet.

– More than twenty countries have formally expressed an interest in joining the grouping, including Saudi Arabia and Iran.

**The group will also discuss** reducing the dollar’s dominance and several BRICS nations have already begun their trade in local currencies.

#### Why is this BRICS summit important for India?

**Firstly**, this BRICS summit carries special importance for India. This is the first in-person summit since the military standoff with China at the Line of Actual Control began in 2020. At the BRICS meet, Indian Prime Minister will come face to face with the Chinese President.

– This meeting would be significant in terms of resolving the LAC situation, where an estimated 1 lakh soldiers stand at the boundary on either side.

**Secondly**, for India, the platform could be a means of establishing its larger efforts to represent the [Global South](#).

### 23. Researchers unveil ‘demon particle’ that can lead to making superconductors

**Source:** The post is based on the article “**Researchers unveil ‘demon particle’ that can lead to making superconductors**” published in **Business Standard on 16th August 2023**.

#### What is the News?

Researchers at the University of Illinois have discovered a **Demon Particle** that could lead to the making of superconductors that can operate at room temperature.

#### What is a Demon Particle?

Demon is a “composite” particle made up of a combination of electrons, in a solid

## Factly Compilation for the Month of August (Fourth Week) 2023

The Demon Particle was first theorized by **David Pines in 1956**.

Pines predicted that electrons in a solid can do something strange. While they normally have a mass and an electric charge, Pines asserted that they can combine to form a composite particle that is **massless, neutral, and does not interact with light**. He called this particle a **“demon.”**

Physicists have speculated that demon particle could play an important role in the characteristics of many metals. But they have never been able to confirm its existence until now.

The researchers at the University of Illinois have now discovered a Demon Particle.

**What is the significance of this discovery?**

Superconductors, which can conduct electricity without resistance, currently require extremely low temperatures, often below 100 degrees Fahrenheit.

This discovery of the Demon Particle could lead to the making of superconductors that can operate at room temperature.

**24. Brazil found the last survivors of an Amazon tribe. Now what?**

**Source:** The post is based on the article **“Brazil found the last survivors of an Amazon tribe. Now what?”** published in **New York Times on 19th August 2023**.

**What is the News?**

Recently, the last survivors of an Amazon rainforest tribe called Piripkura were found in Brazil.

**What is the Piripkura Tribe?**

The Piripkura tribe is a small and indigenous tribe from the Mato Grosso region of Brazil.

The tribe is known for their extreme isolation and efforts to maintain its traditional way of life.

Their land lies within the Amazon rainforest, an area that is rich in biodiversity and crucial for the ecological balance of the region.

**Population of Piripkura Tribe:**

The Piripkura tribe’s population is estimated to **consist of merely three individuals**.

Conducting an accurate census is complicated due to their isolation and unique circumstances.

The Piripkura tribe people have faced significant challenges due to encroachment on their land by illegal logging, mining and other forms of land exploitation.

**What are the other indigenous tribes residing in the Amazon Rainforest?**

**Yanomami Tribe:** They are a group of around 35,000 people who live in the northern part of the Amazon Basin in Brazil and Venezuela. They have a rich culture and deep spiritual connection to the forest, which is central to their daily life.

**Kayapo Tribe:** They live in the central part of the Amazon Basin in Brazil. They are known for their elaborate body painting and beadwork.

**Awa Tribe:** It is a tribe that resides in the northern Amazon Basin of Brazil. They are known for their musical traditions and vibrant dances.

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25. Developers, financiers will have to take 'haircuts': Committee on stalled housing projects suggests

**Source:** The post is based on the article “**Developers, financiers will have to take ‘haircuts’: Committee on stalled housing projects suggests**” published in **Indian Express on 22nd August 2023.**

**What is the News?**

A committee formed by the Union Housing and Urban Affairs Ministry to suggest ways to revive stalled real estate projects has submitted its report.

**About the committee to examine stalled Real Estate projects:**

The committee was chaired by former NITI Aayog CEO and India's G20 Sherpa, Amitabh Kant.

**Mandate:** To examine stalled real estate projects and recommend ways to complete them.

**What is the status of housing projects?**

The committee cited the Indian Banks' Association (IBA) as estimating that 4.12 lakh dwelling units of Rs.4.08 lakh crore were “stressed” and about 2.40 lakh (44%) of these were in the National Capital Region.

Another 21% of the units were in the Mumbai Metropolitan Region.

The committee concluded that the main reason for the stress in these projects was the “**lack of financial viability**”, which had led to cost overruns and time delays.

**What are the recommendations given by the committee?**

In order to make the projects viable, encourage stakeholders — that is the developers, financiers, land authorities etc to take a “**haircut**” or accept less than what is due to them.

Delink the grant of registration or sub-lease by the land authorities to the homebuyers from the recovery of dues from developers. About 1 lakh homebuyers would benefit from this.

Expedite the issuance of no-objection and completion certificates for projects that are substantially complete but face administrative obstacles.

Recommend state governments establish a rehabilitation package to revive stalled projects with a commitment from developers to complete them within three years.

Reserve judicial interventions like using the Insolvency and Bankruptcy Code as a last resort.

Suggest a “Zero Period” for two years, starting from the onset of the COVID-19 pandemic in 2020, where interest and penalties on developers are waived.

Developers should be allowed to get a “co-developer” on board to complete the work.

Propose a “partial surrender policy” where developers can return unused land to authorities in exchange for a waiver of dues on that land.

**Who will implement these recommendations?**

Land is a state subject. Hence, most of the recommendations of the committee fall within the purview of the respective state governments.

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The Ministry of Housing and Urban Affairs will send the recommendations of the committee to all states, who will decide on if and what they want to implement.

### 26. A revived trilateral- Japan and South Korea are shoring up security

**Source:** The post is based on the article “A revived trilateral- Japan and South Korea are shoring up security” published in “Business Standard” on 23rd August 2023.

**Syllabus:** Bilateral, regional and global groupings and agreements involving India and/or affecting India’s interests.

**News:** This article discusses how Japan, South Korea, and the US held a significant summit at Camp David, reinforcing ties to address security and economic concerns in the Indo-Pacific. These efforts are influenced by historical factors, China’s actions, and shifts in global partnerships.

#### About Trilateral Summit at Camp David:

Japan, South Korea, and the US met to deepen cooperation.

The summit aimed at addressing security and economic concerns in the Indo-Pacific.

Prompted by historical grievances, South Korean President Yoon Suk Yeol took initiatives to mend ties.

Resulted in both nations lifting export controls and resuming high-level defence and economic talks.

#### How has the relationship between Japan and South Korea evolved?

##### Historical:

The relationship was strained due to the Japanese occupation of Korea.

A significant issue was Korean women forced into prostitution during this occupation.

##### Recent Changes:

South Korean President Yoon Suk Yeol proposed a compromise on historical grievances.

He made the first visit to Tokyo by a Korean leader in 12 years.

Both countries lifted export controls against each other.

They resumed high-level defence and economic talks, indicating improved ties and cooperation.

#### What are the impacts of these summits?

##### Indo-Pacific Security:

The trilateral summit between Japan, South Korea, and the US can enhance security in the Indo-Pacific against potential threats.

Japan desires greater engagement with the North Atlantic Treaty Organization (NATO).

South Korea’s arms export industry grew rapidly between 2017 and 2021, emphasizing its role in regional defense.

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### Impacts on India and Quad:

Questions arise about India's capability and willingness to partner with the West.

As the Quad prioritizes development, other regions are forming alternative, security-centric alliances.

### Economic Security:

Countries aim to diversify from China-centric supply chains for stability.

Japanese and South Korean companies express concerns about their supply chain vulnerabilities intersecting with both the West and China.

These corporations believe that a trilateral partnership can protect them against US protectionist policies and other geopolitical risks.

### 27. National Curriculum Framework proposes Board exams twice a year

**Source:** The post is based on the article **“National Curriculum Framework proposes Board exams twice a year”** published in **The Hindu on 24th August 2023.**

#### What is the News?

The Union Minister for Education has released the National Curriculum Framework for School Education (NCF-SE).

#### What is the National Curriculum Framework(NCF)?

[Click Here to read](#)

#### What is the National Curriculum Framework for School Education (NCF-SE)?

The National Curriculum Framework for School Education (NCF-SE) is the curriculum framework for the 5+3+3+4 design of schooling as proposed by the National Education Policy 2020 (NEP 2020).

The framework ensures that it covers all stages of schooling. It sets clear learning standards and competencies, enabling teachers to foster critical thinking, creativity, and genuine understanding.

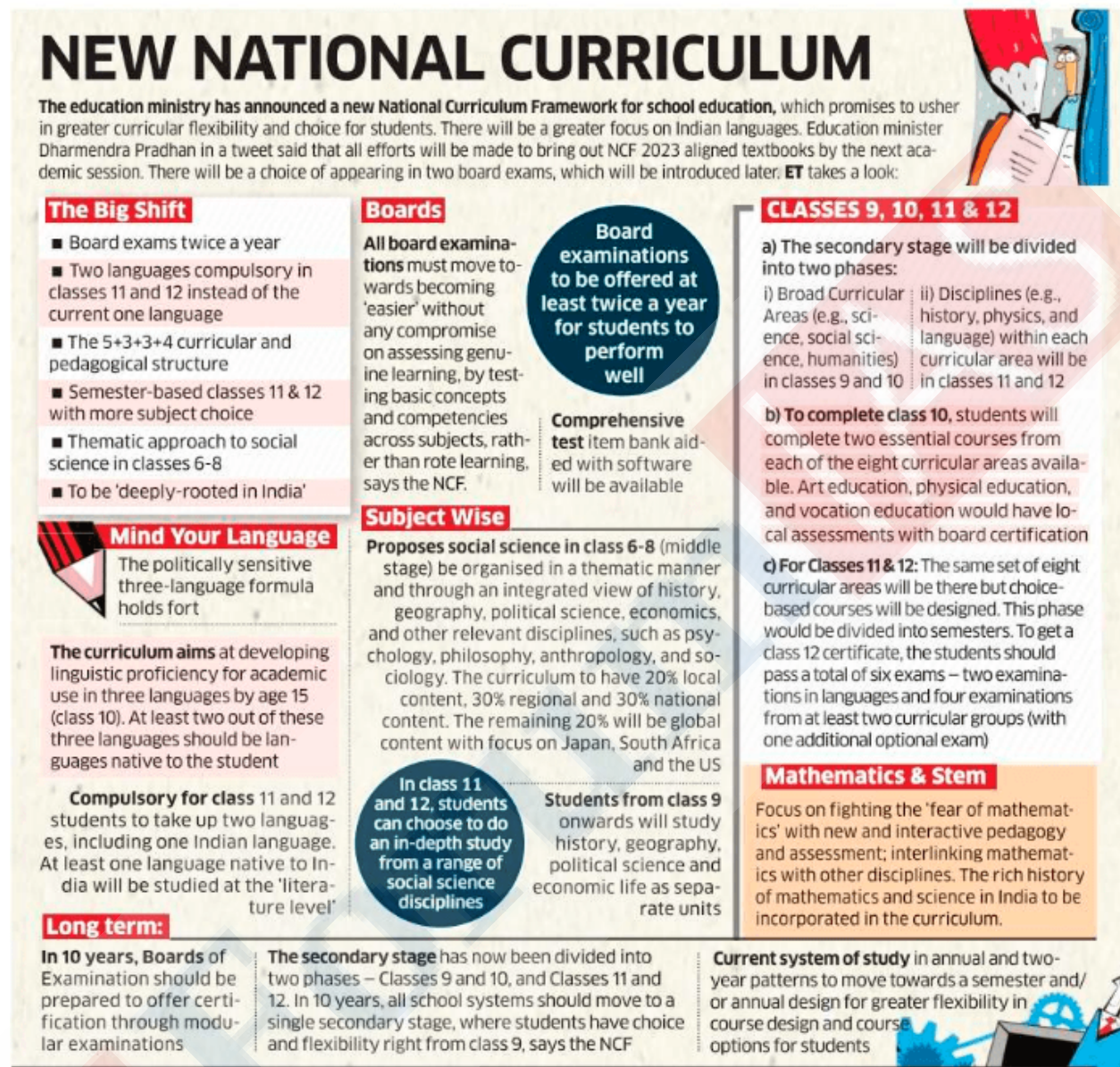
The framework also empowers educators, encourages engaging pedagogies and emphasizes the importance of school culture and values.

**Note:** It's important to note that the National Education Policy(NEP) 2020 and the NCFs, based on the education policy, **are not binding on the states.**



## Factly Compilation for the Month of August (Fourth Week) 2023

What are the key recommendations given in the framework?



# NEW NATIONAL CURRICULUM

The education ministry has announced a new National Curriculum Framework for school education, which promises to usher in greater curricular flexibility and choice for students. There will be a greater focus on Indian languages. Education minister Dharmendra Pradhan in a tweet said that all efforts will be made to bring out NCF 2023 aligned textbooks by the next academic session. There will be a choice of appearing in two board exams, which will be introduced later. **ET** takes a look:

### The Big Shift

- Board exams twice a year
- Two languages compulsory in classes 11 and 12 instead of the current one language
- The 5+3+3+4 curricular and pedagogical structure
- Semester-based classes 11 & 12 with more subject choice
- Thematic approach to social science in classes 6-8
- To be 'deeply-rooted in India'

### Boards

All board examinations must move towards becoming 'easier' without any compromise on assessing genuine learning, by testing basic concepts and competencies across subjects, rather than rote learning, says the NCF.

**Board examinations to be offered at least twice a year for students to perform well**

**Comprehensive test** item bank aided with software will be available

### CLASSES 9, 10, 11 & 12

a) The secondary stage will be divided into two phases:

- i) Broad Curricular Areas (e.g., science, social science, humanities)
- ii) Disciplines (e.g., history, physics, and language) within each curricular area will be in classes 9 and 10 in classes 11 and 12

b) To complete class 10, students will complete two essential courses from each of the eight curricular areas available. Art education, physical education, and vocation education would have local assessments with board certification

c) For Classes 11 & 12: The same set of eight curricular areas will be there but choice-based courses will be designed. This phase would be divided into semesters. To get a class 12 certificate, the students should pass a total of six exams – two examinations in languages and four examinations from at least two curricular groups (with one additional optional exam)

### Mathematics & Stem

Focus on fighting the 'fear of mathematics' with new and interactive pedagogy and assessment; interlinking mathematics with other disciplines. The rich history of mathematics and science in India to be incorporated in the curriculum.

### Mind Your Language

The politically sensitive three-language formula holds fort

The curriculum aims at developing linguistic proficiency for academic use in three languages by age 15 (class 10). At least two out of these three languages should be languages native to the student

**Compulsory for class 11 and 12** students to take up two languages, including one Indian language. At least one language native to India will be studied at the 'literature level'

### Subject Wise

Proposes social science in class 6-8 (middle stage) be organised in a thematic manner and through an integrated view of history, geography, political science, economics, and other relevant disciplines, such as psychology, philosophy, anthropology, and sociology. The curriculum to have 20% local content, 30% regional and 30% national content. The remaining 20% will be global content with focus on Japan, South Africa and the US

**In class 11 and 12, students can choose to do an in-depth study from a range of social science disciplines**

Students from class 9 onwards will study history, geography, political science and economic life as separate units

### Long term:

In 10 years, Boards of Examination should be prepared to offer certification through modular examinations

The secondary stage has now been divided into two phases – Classes 9 and 10, and Classes 11 and 12. In 10 years, all school systems should move to a single secondary stage, where students have choice and flexibility right from class 9, says the NCF

Current system of study in annual and two-year patterns to move towards a semester and/or annual design for greater flexibility in course design and course options for students

Source: Economic Times

**Languages:** Students in Classes 9 and 10 will need to learn three languages, of which at least two will be native to India.

– In Classes 11 and 12, students will learn two languages, including one of Indian origin.

– Currently, students in Classes 9 and 10 study two languages, and students in Class 11 and 12 study one language.

**Board Exams:** All students will be allowed to take Board exams on at least two occasions during any given school year, with only the best score being retained.

**No stream restrictions:** For grades 11 and 12, the previously followed system of science, commerce and humanities streams has been eliminated.

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– Instead, the NCF says that the students will be offered “choice-based courses” that will enable flexibility and remove hard separations between disciplines and academic areas.

**Mandatory Subjects:** So far, the students from Classes 9 to 12 studied five mandatory subjects, with an option of adding one more subject. Now, the number of mandatory subjects for Classes 9 and 10 is seven and it's six for Classes 11 and 12.

**Semester system:** In the long term, all Boards should change to semester or term-based systems, where students can be tested in a subject as soon as they have completed the subject, which would reduce the content load being tested in any one examination.

**Classes 6 to 8:** NCF states that 20% content would be from the local level for the Social Science curriculum, 30% content would be from the regional level, 30% would be from the national level and 20% content would be global.

**Environmental Education** is given due emphasis across all stages of schooling, culminating in a separate area of study in the Secondary Stage.

### 28. India welcomes consensus-based approach to expand BRICS: PM

**Source:** The post is based on the article “**India welcomes consensus-based approach to expand BRICS: PM**” published in **The Hindu on 24th August 2023**.

#### What is the News?

At the 15th BRICS summit in South Africa, India has affirmed its endorsement for the BRICS expansion based on consensus.

Current BRICS members include Brazil, Russia, India, China, and South Africa, whose names make up the group's acronym.

#### What are the key highlights from PM's address at the 15th BRICS summit?

**5 Point Agenda To Boost BRICS Ties:** The PM has outlined a comprehensive 5-point agenda to strengthen relationships between BRICS member nations. These are:

**Space Exploration Collaboration:** PM suggested establishing the BRICS Research Exploration Consilium to advance space research, monitoring, and global cooperation in this arena.

**Education, Skill Development, and Technology Sharing:** PM emphasized the need for future-ready societies.

– He highlighted India's achievements in accessible education through the DIKSHA platform, Atal Tinkering labs for innovation, and AI-based language solutions. He offers these platforms for sharing with BRICS nations.

**Skill Mapping and Mutual Growth:** PM proposed utilizing skill-mapping to identify and leverage each nation's strengths, fostering growth and development through collaborative efforts.

**Collective Initiative for Big Cats Conservation:** Given the rich diversity of big cat populations in BRICS countries, the Prime Minister suggested collective initiatives under the umbrella of International Big Cats conservation to protect these majestic species.

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**Traditional Medicine Repository:** Acknowledging the unique traditional practices and ecosystems of BRICS nations, PM proposed joint efforts to develop a repository for traditional medicines.

### 29. Chandrayaan-3 | India lights up the dark side of the moon

**Source:** The post is based on the article “Chandrayaan-3 | India lights up the dark side of the moon” published in **The Hindu on 24th August 2023.**

#### What is the News?

The Lander Module (LM) of the Chandrayaan-3 Mission has made a successful landing on the Moon’s surface.

With this, India became the first country to land near the Moon’s south pole and the fourth country after the erstwhile USSR, the U.S. and China to make a soft landing on the lunar surface.

What is Chandrayaan-3?

## Chandrayaan 3

The lander and rover together have six payloads to study the local properties of the area near moon's South pole

Landing site: Near lunar South pole

100km polar orbit

Vikram Lander

Solar panel

Door/ramp

Landing skid

Pragyan  
Rover

THE HINDU

Source: The Hindu

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What is Soft Landing?

Soft landing refers to the controlled descent and subsequent touchdown of a spacecraft on the lunar surface without causing significant damage to either the craft or its scientific instruments.

It is achieved by reducing the spacecraft's speed gradually, allowing it to touch down gently.

Such landings ensure a gentle interaction with the Moon's rugged terrain, enabling the collection of valuable data, exploration, and potentially serving as a precursor to human missions.

The landing site is near the south pole of the moon at 70 degrees latitude.

Why does ISRO want to explore the South Pole?

[Click Here to read](#)

What happens after Chandrayaan 3 successfully lands on the moon?

Spacecraft are often carrying certain instruments and experiments with them (called payloads) that observe and record what is happening in Space. This information is then relayed to Earth for scientists to analyze and study.

The six payloads on the Vikram lander and rover Pragyan remain the same as the previous mission.

There will be **four scientific payloads on the lander** to study lunar quakes, thermal properties of the lunar surface, changes in the plasma near the surface, and a passive experiment to help accurately measure the distance between Earth and the Moon. **The fourth payload comes from NASA.**

There are **two payloads on the Rover**, designed to study the chemical and mineral composition of the lunar surface and to determine the composition of elements such as magnesium, aluminum and iron in the lunar soil and rocks.

### 30. Meta launches multilingual AI translation model for 100 languages

**Source:** The post is based on the article "**Meta launches multilingual AI translation model for 100 languages**" published in **India TV on 23rd August 2023.**

What is the News?

Meta, the technology company formerly known as Facebook has launched an advanced multilingual multimodal AI translation and transcription model named '**SeamlessM4T.**'

What is SeamlessM4T?

SeamlessM4T is the first all-in-one multilingual multimodal AI translation and transcription model.

**Aim:** To allow people to communicate effortlessly through speech and text across different languages.

**Features:**

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It is capable of **performing various tasks** including speech-to-text, speech-to-speech, text-to-speech and text-to-text translations.

– **For instance**, it has speech recognition for nearly 100 languages and speech-to-text translation for nearly 100 input and output languages. It also supports speech-to-speech translation in around 100 input languages and around 35 output languages including English.

It **performs the entire translation task in one go**, unlike other large translation models that divide translation across different systems.

It has the **ability to recognize when a speaker is code-switching** or when someone moves between two or more languages in one sentence.

It also **recognizes gender bias in languages** and said the model can quantify gender bias in translations.

### 31. After Chandrayaan-3's landing, the experiments: lunar quakes and water-ice on Moon

**Source:** The post is based on the article **“After Chandrayaan-3's landing, the experiments: lunar quakes and water-ice on Moon”** published in **Indian Express on 24th August 2023**.

#### What is the News?

India's Moon mission Chandrayaan-3 scripted history by successfully landing on the lunar surface.

#### What is Chandrayaan-3?

#### [Click Here to read](#)

The Chandrayaan-3 payloads will further the science learnings of the two predecessor missions by studying lunar quakes, mineral compositions, and the electrons and ions near the surface of the Moon.

The mission will attempt to study water-ice, the presence of which was detected by Chandrayaan-1.

#### Payloads of Chandrayaan-3:

**Lander:** The lander has four experiments on board:

– **Radio Anatomy of Moon Bound Hypersensitive ionosphere and Atmosphere(RAMBHA):** It will study the electrons and ions near the surface of the moon and how they change over time.

– **Chandra's Surface Thermo Physical Experiment (ChaSTE):** It will study the thermal properties of the lunar surface near the polar region. Chandrayaan-3 has landed around 70 degree south latitude, the closest that any spacecraft has reached to the lunar south pole.

– **Instrument for Lunar Seismic Activity (ILSA):** It will measure the lunar quakes near the landing site and study the composition of the Moon's crust and mantle.

– **LASER Retroreflector Array (LRA):** It is a passive experiment sent by NASA that acts as a target for lasers for very accurate measurements for future missions.

**Rover:** There are two scientific experiments on the rover:

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– **LASER Induced Breakdown Spectroscopy (LIBS):** It will determine the chemical and mineral composition of the lunar surface.

– **Alpha Particle X-ray Spectrometer (APXS):** It will determine the composition of elements such as magnesium, aluminum, silicon, potassium, calcium, titanium, and iron in the lunar soil and rocks.

**What are the key discoveries made by Chandrayaan 1 and Chandrayaan 2 Missions?**

**Water on the Moon:** Chandrayaan-1 discovered water and hydroxyl molecules in the Moon's atmosphere and on its surface. Mini-SAR and Moon Mineralogy Mapper (M3) helped detect water-ice in lunar craters.

**Lava Tubes:** The missions found an underground lava tube, potentially suitable for human habitation, providing protection from radiation, meteor impacts, temperature extremes, and dust storms.

**Magma Ocean Theory:** Chandrayaan-1's M3 payload found crystals on the Moon's surface that suggest it was once molten, supporting the magma ocean hypothesis.

**Dynamic Moon:** Contrary to the belief that the Moon was dormant, evidence of recent volcanic activity, including volcanic vents and lava channels, was discovered. The Moon's interaction with the exosphere was observed, even without meteor impacts.

**Solar Flares:** Chandrayaan-2's Solar X-Ray Monitor observed solar microflares and studied the Sun's corona, providing insights into the mystery of coronal heating.

**Mineral Mapping:** The CLASS X-ray Fluorescence experiment mapped 95% of the lunar surface in X-rays, significantly more than previous missions, offering valuable data for future exploration.

### 32. LCA Tejas successfully test-fires Astra Beyond Visual Range air-to-air missile

**Source:** The post is based on the article “**LCA Tejas successfully test-fires Astra Beyond Visual Range air-to-air missile**” published in **The Hindu on 24th August 2023**.

**What is the News?**

The Light Combat Aircraft (LCA) Tejas has successfully test fired the Astra indigenous Beyond Visual Range (BVR) air-to-air missile.

**What is Astra?**

ASTRA is a state-of-the-art Beyond Visual Range (BVR) air-to-air missile.

**Purpose:** To engage and destroy highly maneuvering supersonic aerial targets.

**Developed by:** Defence Research and Development Laboratory (DRDL), Research Centre Imarat (RCI) and other laboratories of the DRDO.

**Features:** Astra has a range of over 70 km and can fly towards its target at a speed of over 5,555 km per hour. The missile has all-weather day and night capability.

**What is Astra Mk-1 Missile?**

[Click Here to read](#)

## Factly Compilation for the Month of August (Fourth Week) 2023

What is Light Combat Aircraft (LCA) Tejas?

[Click Here to read](#)

33. Now, a bacteria that can eat methane. Can it reduce global warming? Researchers say it's possible

**Source:** The post is based on the article “**Now, a bacteria that can eat methane. Can it reduce global warming? Researchers say it's possible**” published in **Down To Earth on 22nd August 2023**.

What is the News?

A study has found that a specific bacteria named **Methylovimicrobium buryatense 5GB1C** could help reduce methane emissions from places like landfills and oil wells.

**Background:**

The rapid increase of the methane in the atmosphere creates great urgency to develop and deploy technologies for methane mitigation.

One approach to removing methane is to use bacteria called **methanotrophs** for which methane is their carbon and energy source.

Methanotrophs naturally convert methane to CO<sub>2</sub> and biomass, a value-added product and a co-benefit of methane removal.

But methanotrophs grow best when the methane concentration is around 5,000-10,000 parts per million (ppm).

However, methane levels in key emission sites are around 500 ppm. So the researchers screened a range of existing methanotrophs to identify those that consume such low methane (500 ppm) at significantly higher rates.

They found that **Methylovimicrobium buryatense 5GB1C** performed the best at 500 ppm.

What is **Methylovimicrobium buryatense 5GB1C**?

**Methylovimicrobium buryatense 5GB1C** is a bacterial strain that consumes methane.

It can grow at low methane concentrations ranging from 200-1,000 ppm. These features make this strain a promising candidate for methane removal technology.

**Significance:** Methane is a significant contributor to global warming, It is over 85 times more potent than carbon dioxide (CO<sub>2</sub>) on a 20-year timescale. It is responsible for nearly 30 percent of the total global warming.

– Hence, this bacteria, if used on a large scale, could prevent 240 million tonnes of methane from entering the atmosphere by 2050.

– It can also help reduce the global temperature rise by about 0.21-0.22 degrees Celsius by 2050 by removing a substantial amount of methane.



## Factly Compilation for the Month of August (Fourth Week) 2023

### 34. Central Vigilance Commission reconstitutes advisory board on bank frauds

**Source:** The post is based on the article “**Central Vigilance Commission reconstitutes advisory board on bank frauds**” published in **The Hindu Business Line on 21st August 2023.**

#### What is the News?

The Central Vigilance Commission(CVC) has reconstituted the advisory board on Banking and Financial Frauds (ABBFF).

#### What is the Advisory board on Banking and Financial Frauds(ABBFF)?

**Constituted by:** Central Vigilance Commission(CVC)

**Purpose:** To conduct the first level examination of bank frauds before recommendations or references are made to investigative agencies such as the Central Bureau of Investigation (CBI).

**Composition:** It consists of the Chairman and four other members and the tenure of the Chairman/ Members would be for two years.

**Functions of the board:** To examine the role of officials/ wholetime directors (including ex-officials/ ex-wholetime directors) in public sector banks, public sector insurance companies; and public sector financial institutions in case of frauds amounting to ₹ 3 crore and above.

– To periodically carry out frauds analysis in the financial system and give inputs, if any, for policy formulation related to the frauds, to RBI and CVC.

– CVC or CBI may also refer any case/technical matter to the ABBFF for its advice.

– To provide advice within a month of receiving initial references from the Ministry, Department, CVC, or investigative agencies.

**Headquarters:** New Delhi

### 35. Next mission to Moon is with Japanese, more of Chandrayaan

**Source:** The post is based on the article “**Next mission to Moon is with Japanese, more of Chandrayaan**” published in **Indian Express on 24th August 2023.**

#### What is the News?

ISRO is preparing for one more lunar mission. This one will be in collaboration with Japanese space agency, JAXA. This mission will be called **LUPEX or Lunar Polar Exploration Mission.**

#### What is the LUPEX Mission?

LUPEX is a joint mission of Japan Aerospace Exploration Agency (JAXA) and Indian Space Research Organisation (ISRO).

**Aim:** **1)** To explore lunar polar region suitability for establishing a base on the Moon for sustainable activities **2)** obtain knowledge regarding the availability of lunar water-ice resources and **3)** demonstrate lunar and planetary surface exploration technologies such as vehicular transport and overnight survival.

**To be Launched in:** 2024-25

## Factly Compilation for the Month of August (Fourth Week) 2023

**Contributions:** For the LUPEX mission, the launch vehicle and rover are supposed to be contributed by the Japanese agency while the lander will come from ISRO.

### Proposed Instruments of LUPEX:

**Permittivity and Thermo-physical investigation for Moon's Aquatic Scout (PRATHIMA):** It aims to detect and quantify water-ice mixed with lunar soil, achieving in-situ detection and measurement of water content.

**Lunar Electrostatic Dust Experiment (LEDEX):** It aims to detect the presence of charged dust particles and to confirm the dust levitation process in the volatile-rich polar region, and to estimate approximate dust size and flux of charged, levitated dust particles/

36. National Judicial Data Grid : a database of orders, judgments and case details created as an online platform under the eCourts Project

**Source:** The post is based on the article “National Judicial Data Grid : a database of orders, judgments and case details created as an online platform under the eCourts Project” published in **PIB on 23rd August 2023.**

### What is the News?

This article provides information about the National Judicial Data Grid.

### What is the National Judicial Data Grid?

National Judicial Data Grid (NJDG) is a database of orders, judgments and case details of 18,735 District & Subordinate Courts and High Courts.

It was created as an online platform under the eCourts Project.

**Features:** Data is updated on the grid on a near real-time basis by the connected District and Taluka courts.

- The grid provides data relating to judicial proceedings/decisions of all computerized district and subordinate courts of the country.
- Case data is available for both civil and criminal cases with the ability to perform drill-down analysis based on the age of the case as well as the State and District.

**Significance of the platform:** NJDG works as a monitoring tool to identify, manage and reduce pendency of cases.

- It helps in providing timely inputs for making policy decisions to reduce delays in disposing of cases and helps in reducing case pendency.
- It also facilitates better monitoring of court performance and systemic bottlenecks, and, thus, serves as an efficient resource management tool.

**Recognition:** The World Bank has praised the National Judicial Data Grid in the Ease of Doing Business report for 2018. It has said that the grid has made it possible to generate case management reports, thereby making it easier to enforce contracts.

## Factly Compilation for the Month of August (Fourth Week) 2023

### 37. BRICS now a non-Western grouping with the induction of six more member nations

**Source:** The post is based on the article “**BRICS now a non-Western grouping with the induction of six more member nations**” published in **The Hindu on 25th August 2023**.

#### What is the News?

At the 15th BRICS summit in Johannesburg (South Africa), BRICS (Brazil, Russia, India, China, and South Africa) has invited six more countries to join the group.

#### Which are the six countries invited by BRICS to become members?

The six countries are: Iran, the United Arab Emirates, Saudi Arabia, Argentina, Egypt and Ethiopia. Their membership will begin in January, 2024.

#### What is the significance of BRICS expansion?

The expansion of BRICS is significant for several reasons which are:

**Increased Representation:** Adding new members increases the group’s diversity and representation. This expansion brings in nations from different regions of the world, strengthening BRICS as a spokesperson for the developing world.

**Demographic and Economic Powerhouse:** BRICS already represents a substantial portion of the world’s population and GDP. With these additions, it will encompass an even larger share, nearly half of the world’s population. This strengthens its collective economic and demographic clout on the global stage.

**Diverse Resource Base:** The inclusion of Saudi Arabia, the UAE, and Iran, three major oil-producing nations adds a new dimension to BRICS. This diversifies the group’s resource base and potentially enhances its influence in global energy markets.

**Geopolitical Significance:** The expansion reflects China’s drive to make BRICS a more prominent international forum. It also highlights the growing influence of China and Russia in shaping global geopolitics, especially in regions where the West has had significant influence.

**Multipolarity and Solidarity:** There is a growing desire for multipolarity in international relations. BRICS provides a platform for countries from the Global South to express their solidarity and assert their influence in global affairs. This is especially important as an alternative to Western-dominated institutions.

**Anti-West Sentiment:** There is a perception of anti-US sentiment in the world, and some countries are looking for groupings where they can collectively challenge Western dominance. BRICS, with its diverse membership, can serve as a counterbalance to Western-centric international organizations.

**Signaling Power:** For Russia and Iran, BRICS membership serves as a signal to the West that they still have global partners and are not isolated. It can be a diplomatic tool to strengthen their positions in international negotiations.

**Economic Assistance:** Countries like Argentina, which are facing economic crises, may hope to receive financial aid or support from BRICS members.

## Factly Compilation for the Month of August (Fourth Week) 2023

### What BRICS expansion means for India?

India, while participating in various international forums, continues to attach importance to BRICS as a platform for non-Western cooperation.

It sees BRICS as a means to promote multipolarity and solidarity among countries of the Global South.

However, concerns have been raised that the group could become more pro-China and sideline India's voice and interests.

### 38. Know your rover pragyan

**Source:** The post is based on the article **“Know your rover pragyan ”** published in **The Hindu on 25th August 2023.**

#### What is the News?

ISRO has released the much-anticipated video of the Pragyan rover ramping down from the Vikram lander and walking on the lunar surface.

#### What is a Rover?

A rover is simply a vehicle for exploring the surface of a planet or moon.

#### What is Pragyan Rover?

**Know your rover PRAGYAN**

Meet the Chandrayaan-3 rover on the moon. Weighing 26 kg and with a speed of 1 cm per second, it is a diminutive yet important component of the mission's distinction, as the first to conduct *in situ* studies of the lunar soil in the moon's south polar region

**What will the rover do on the moon?**

- First, it will move around on the moon's surface in low gravity and a thin atmosphere in a semi-autonomous way and avoiding hazards
- Second, its instruments will study what the materials on the moon's surface near the landing site are made of

**Where is the rover on the moon?**

- On August 23, the Chandrayaan-3 lander descended at a site between the craters Manjusik and Srignipesik. The lander has a moving speed of 3 cm per second, so it is also close to the rover
- It can't move more than 500 m from the lander anyway, to ensure that they are able to send signals between each other. The rover can communicate only with the lander

**PRAGYAN THE LAB**

**Laser-Induced Breakdown Spectroscopy (LIBS)**

- A powerful laser is shined on a target sample...
- ...until it blows off a few atoms and causes the sample to emit some radiation
- Detectors study this radiation to understand what the sample is made of.
- Weights 1.5 kg, consumes 5 W

**Alpha Particle X-Ray Spectrometer (APXS)**

- Blasts a target sample with X-rays emitted by radioactive material (Americium-241)
- Atoms in the sample absorb the X-rays and then release them at a different frequency
- Based on this frequency, scientists can say which elements the sample contains
- Weights 0.7 kg, consumes 4 W

**What will the rover do on the moon?**

- First, it will move around on the moon's surface in low gravity and a thin atmosphere in a semi-autonomous way and avoiding hazards
- Second, its instruments will study what the materials on the moon's surface near the landing site are made of

**Where is the rover on the moon?**

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**LIBS**

**APXS**

**Local data storage: 2 Gb**

**Life span: One lunar day (14 earth days)**

**Waren Electronics box has a volume of around 38 litres**

**Lander can transmit data to the rover at 2-4 GHz freq. at 2 Mbps**

**Rover can transmit data to the lander at 2-4 GHz freq. at 64 Mbps**

**Its solar panels produce 50 W of power**

**Why does it have a short lifespan?**

- When the sun sets on the moon, its area will become dark and very cold. This can damage the battery and other electronic components
- When the sun rises again, after 14 days, the rover can "return" to life if the components have survived. This is unlikely

**Unlikely to survive lunar night: low temperature could damage electronic components**

**Has rocker-bogie suspension**

**Rover speed is 1 cm per second**

**Avoids shadowed areas on the moon, like some sides of craters**

**Weights 26 kg**

**It can climb a maximum slope of 20° and over obstacles maximum 1 cm high**

**The rover has six wheels. The wheel treads will imprint ISRO logo and Ashoka lions emblem on the ground**

**Source:** The Hindu

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## Factly Compilation for the Month of August (Fourth Week) 2023

ISRO has deployed its lunar rover, named Pragyan as part of the Chandrayaan-3 mission. The rover's name 'Pragyan' is Sanskrit for wisdom.

Pragyan has been assigned the task of carrying out a chemical analysis of the lunar surface in situ as it moves about in the highlands near the Moon's south pole.

**It is equipped with two payloads:** APXS or 'Alpha Particle X-Ray Spectrometer' and the LIBS or 'Laser Induced Breakdown Spectroscope'.

– APXS will be engaged in deriving the elemental composition of the lunar surface; while LIBS will carry out experiments to determine the elemental composition of chemical elements such as magnesium and aluminum etc. of lunar soil and rocks around the lunar landing site.

**Cameras:** Pragyan Rover has two Navigation cameras fitted in the front of the rover to navigate the Rover in the lunar terrain.

– NAVCAM-Left & NAVCAM -Right. These cameras help in path planning and obstacle avoidance, to ensure that there is no rock, there is no obstacle, there is no pit etc. in the path.

– It is like a human being or robot having eyes, so wherever the rover is going to move there is a path planning which is done based on the stereo images from Navcams.

**Lifespan:** Pragyan has a mission life of 1 lunar day, approximately equal to 14 Earth days. This will be the period over which the rover will try to fulfill its objectives.

**Why does the Pragyan rover have a short lifespan?** When the sun sets on the moon, an area will become dark and very cold. This can damage the battery and other electronics components. When the sun rises again, after 14 days, the rover can 'return' to life if the components have survived. But this is highly unlikely.

### 39. The Fujiwhara effect: When cyclones 'dance'

**Source:** The post is based on the article **"The Fujiwhara effect: When cyclones 'dance'"** published in **Indian Express on 24th August 2023.**

#### What is the News?

The western coast of the United States recently experienced Hurricane Hilary, which transformed into a sub-tropical storm upon reaching the US.

This event led to the National Hurricane Centre (NHC) issuing its inaugural tropical storm watch for certain areas of Southern California.

California had an exceptionally wet winter with multiple 'atmospheric river' storms, and the area also witnessed the intriguing phenomenon of the 'Fujiwhara effect' during one of these storms, where two low-pressure areas interacted in an unexpected manner.

#### What is the Fujiwhara effect?

As per the National Weather Service (NWS), when two hurricanes or cyclones spinning in the same direction are brought close together, they begin 'an intense dance around their common center' – this interaction between two cyclones is called the **Fujiwhara effect.**

## Factly Compilation for the Month of August (Fourth Week) 2023

Fujiwhara effect was **identified by Sakuhei Fujiwhara**, a Japanese meteorologist whose first paper recognising the Fujiwhara cases was published in 1921.

The first known instance of the effect was in 1964 in the western Pacific Ocean when typhoons Marie and Kathy merged.

### What happens in the Fujiwhara effect?

According to the National Weather Service, one of three things happen when the storms come near each other:

- If one hurricane is a lot stronger than the other, the smaller one will orbit it and eventually come crashing into its vortex to be absorbed **(or)**
- If the two storms are close to the same size, they can gravitate toward each other until they reach a common point where they either merge or they spin each other around for a while before they spin off in different directions **(or)**
- If the two hurricanes are intense enough, they may merge with one another, leading to the formation of a mega cyclone capable of wreaking havoc along coastlines.

### 40. PM seeks level playing field for smaller e-com companies

**Source:** The post is based on the article **“PM seeks level playing field for smaller e-com companies”** published in **The Hindu on 25th August 2023.**

#### What is the News?

The Indian Prime Minister addressed the G20 Trade and Investment Ministerial summit.

#### What are the key takeaways from the PM’s address at the G20 Trade Summit?

**Rebuild Confidence:** COVID-19 pandemic and geopolitical tensions have challenged the world economy. PM called on the G20 countries to work together to restore confidence in international trade and investment.

- He proposed creating a Generic Framework for Mapping Global Value Chains to assess vulnerabilities, minimize risks, and enhance resilience.

**MSMEs:** Micro, Small and Medium Enterprises (MSMEs) account for 60% to 70% of employment and 50% of the global gross domestic product(GDP).

- The proposed **‘Jaipur Initiative’** that seeks to foster seamless flow of information to MSMEs will address the challenge of inadequate access to market and business-related information faced by MSMEs.

**Challenges in e-commerce:** PM highlighted the challenges posed by global cross-border e-commerce, particularly for smaller businesses and consumers.

- He called for collective efforts to ensure fair competition between large and small sellers and to address issues related to fair pricing and grievance handling.
- He also mentioned the importance of digitization in expanding market access through e-commerce.

## Factly Compilation for the Month of August (Fourth Week) 2023

### 41. NMC puts on hold rules for doctors to prescribe only generic medicines

**Source:** The post is based on the article “**NMC puts on hold rules for doctors to prescribe only generic medicines**” published in **Indian Express on 25th August 2023**.

#### What is the News?

The National Medical Commission (NMC) has put on hold its new guidelines that made it mandatory for doctors to only prescribe generic drugs.

#### What were the guidelines issued by the National Medical Commission(NMC)?

NMC had imposed a directive mandating doctors to prescribe generic drugs instead of branded equivalents.

In case of non-compliance, they can be penalized. For breaches, doctors could also receive warnings and mandatory participation in workshops and training sessions.

Persistent violations of the directive could further lead to the suspension of their licenses.

#### [Click Here to read more](#)

#### Why did the NMC issued these guidelines on generic drugs?

The NMC had justified the guidelines saying generic medicines on average are cheaper than branded ones, and may thus improve access to quality care.

#### Why are doctors opposing NMC guidelines on generic drugs?

**Powers of Civil Court:** Doctors and pharma experts pointed out that guidelines gave the NMC and the state medical councils powers equivalent to a civil court. This could only be done by Parliament and not through regulations.

**Difference in quality:** Doctors pointed out that while firms manufacturing branded generics (out-of-patent drugs that are sold with a brand name) usually spend on research and follow US FDA-level processes. But many smaller firms making non-branded generics do not comply even with India’s more-relaxed ‘Schedule M’ norm.

**Prescribing only generic drugs** will prompt pharmacies to sell generic drugs at high-profit margins, disincentivizing firms that manufacture quality branded generics.

### 42. Indian Ocean Dipole turns positive, may prove too late for monsoon

**Source:** The post is based on the article “**Indian Ocean Dipole turns positive, may prove too late for monsoon**” published in **Hindu Business Line on 23rd August 2023**.

#### What is the News?

A report by the Australian Bureau of Meteorology said that the Indian Ocean Dipole(IOD) index has risen beyond the positive threshold.

#### What is the Indian Ocean Dipole(IOD)?

#### [Click Here to read](#)

## Factly Compilation for the Month of August (Fourth Week) 2023

### What is the impact of the Indian Ocean Dipole(IOD)?

A positive IOD helps rainfall along the African coastline and also over the Indian sub-continent while suppressing rainfall over Indonesia, southeast Asia and Australia. The impacts are opposite during a negative IOD event.

### How much rainfall has India recorded this year till now?

India has collectively recorded 824 mm precipitation since the start of the southwest monsoon period on June 1, suffering a 19% deficit compared to its rainfall average for the period so far (1016.1 mm).

### Can positive IOD help the Indian Monsoon now?

Most models indicate that the positive IOD will likely take hold from September through November. But by this time, India's southwest monsoon season would have tragically withdrawn from the subcontinent.

However, the northeast monsoon season that reigns over South India from October to December could receive a boost in the initial rains if the positive IOD continues to stick around during that time.

### What will be the impact of Positive IOD on Australia?

In Australia, when a positive Indian Ocean Dipole (IOD) event occurs, it typically leads to: 1) Low rainfall from October to December 2) A delayed start to the monsoon season and 3) Reduced tropical cyclone activity.

If an El Niño event were to also happen in 2023 alongside a positive IOD, these effects could become even more severe and potentially extend into the wet season.

### 43. To enhance IAF efficiency, govt. to buy weapons locally

**Source:** The post is based on the article **“To enhance IAF efficiency, govt. to buy weapons locally”** published in **The Hindu on 25th August 2023.**

#### What is the News?

Defense Acquisition Council(DAC) has recently approved capital acquisition proposals worth around ₹7,800 crore.

#### What are the projects approved by the Defense Acquisition Council (DAC)?

**Electronic Warfare(EW) Suite:** The DAC approved the procurement and installation of an Electronic Warfare Suite for Mi-17 V5 Helicopters. This will enhance the helicopters' survivability. The EW suite will be procured from Bharat Electronics Ltd.

**Ground-Based Autonomous Systems:** These systems will be used by mechanized infantry and armored regiments for tasks like unmanned surveillance, delivering supplies, and evacuating casualties on the battlefield.

**Light Machine Guns (LMG):** The induction of LMGs will strengthen the capabilities of infantry forces.

**Bridge-Laying Tanks (BLT):** They will enable faster movement for mechanized forces.



## Factly Compilation for the Month of August (Fourth Week) 2023

**Rugged Laptops and Tablets:** The DAC approved the procurement of rugged laptops and tablets for the Army under Project Shakti. These will be sourced domestically.

**Weapons for MH-60R Helicopters:** To enhance the operational capabilities of the Navy's MH-60R helicopters, the DAC approved the procurement of weapons for these helicopters.

44. [New technology developed to transport of radio frequency \(RF\) through optical methods could improve digital & satellite communication](#)

**Source:** The post is based on the article **“New technology developed to transport of radio frequency (RF) through optical methods could improve digital & satellite communication”** published in **PIB on 24th August 2023**.

**What is the News?**

Researchers at IIT Madras have developed a prototype in the Next-Generation Photonic Analog-to-Digital Converters (NG-PADC) project.

**What is Next-Generation Photonic Analog-to-Digital Converters (NG-PADC)?**

NG-PADC prototypes have the capability to instantly measure, generate, and transmit Radio Frequency (RF) using optical methods.

This could bring significant changes to various sectors, including faster digital communication, improved satellite communication, better medical imaging, and advanced photonic radars.

**What are the limitations of traditional electronic Analog-to-digital converters (ADCs)?**

Analog-to-digital converters (ADCs) are crucial for developing advanced digital receivers.

But the traditional electronic ADCs (EADCs) have limitations, especially in maintaining vertical resolution at high bandwidths.

Photonics offers two potential solutions to overcome this limitation:

**Stretching RF Signals:** RF signals can be modulated onto a spectrally rich optical pulsed source and then stretched in the optical domain through a dispersive medium. This transformation converts high-frequency RF signals into effectively lower-frequency signals. As a result, the input bandwidth requirements for the backend ADC are significantly reduced.

**Stable Optical Clocks:** Photonics can utilize optical clocks generated by short-pulsed lasers. These optical clocks have much smaller timing fluctuations (timing jitter) compared to electronic clocks.

–When high-bandwidth RF signals are sampled using stable optical clocks, it leads to a much higher effective number of bits (ENOB) compared to electronic clocks. This enables the digitization of signals with much greater precision.

**How can NG-PADC help in this?**

NG-PADC incorporates a time-stretched photonic ADC with an effective bandwidth 12 times higher than a corresponding EADC. This enables the sampling of higher bandwidth signals using lower bandwidth EADCs.

## Factly Compilation for the Month of August (Fourth Week) 2023

These advancements are particularly beneficial for digital coherent communication with high-bandwidth signals.

45. [PLFS data elucidates a burgeoning trend of youth and individuals from varied age groups actively embracing the workforce](#)

**Source:** The post is based on the article **“PLFS data elucidates a burgeoning trend of youth and individuals from varied age groups actively embracing the workforce”** published in **PIB on 24th August 2023**.

**What is the News?**

According to the Centre for Monitoring Indian Economy (CMIE), there has been a noticeable shift in India's workforce over the past seven years, with the workforce aging and concerns arising about reduced job opportunities across different age groups.

However, the Periodic Labour Force Survey (PLFS) conducted by the Ministry of Statistics and Programme Implementation (MoSPI) shows a completely different picture.

**What does the Centre for Monitoring Indian Economy (CMIE) say about India's workforce?**

[Click Here to read](#)

**What does the Periodic Labour Force Survey (PLFS) say about India's labor market?**

According to PLFS, India's labor market is expanding. The data indicates a positive trend in the participation of various age groups in the workforce. For instance:

**Youth Participation:** The engagement of individuals aged 15 to 29 in the workforce increased from 31.4 percent in 2017-18 to 36.8 percent in 2021-22.

**Middle aged group:** Individuals aged 30-34 saw their participation rate rise from 61.1 percent to 66.5 percent.

– Further, individuals aged 35-39 and 40-44 experienced increased participation, with rates reaching 71.1 percent and 73.7 percent in 2021-22, respectively.

**Even the senior age** brackets demonstrated heightened workforce involvement.

Overall, participation of individuals aged 15 and above in usual employment **rose from 46.8 percent in 2017-18 to 52.9 percent in 2021-22**.

46. [What is India's new car safety rating protocol](#)

**Source:** The post is based on the article **“What is India's new car safety rating protocol”** published in **Indian Express on 25th August 2023**.

**What is the news?**

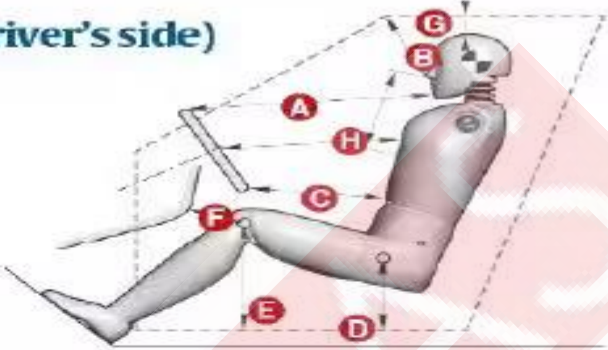
The Union Minister of Road Transport and Highways has recently launched the Bharat New Car Assessment Programme (Bharat NCAP).

What is Bharat New Car Assessment Programme (Bharat NCAP)?

## TESTING PROTOCOL

### Dummy measurements (driver's side)

<b>A</b>	Chin to top of rim
<b>B</b>	Nose to top edge of glass
<b>C</b>	Stomach to rim
<b>D</b>	H-point to top of sill
<b>E</b>	Knee bolt to top edge of sill
<b>F</b>	Knee bolt to top edge of bolster
<b>G</b>	Head to roof surface
<b>H</b>	Nose to webbing (vertically)



*Source: Draft AIS 197*

### Frontal Impact Test

**FOR THE** most common type of crash that causes serious injuries, severely tests integrity and stability of passenger compartment and performance of restraint system of belts and airbags.

**USED TO** gauge impact of a frontal crash on head, neck, chest, abdomen, knee, femur and pelvis, lower leg, foot and ankle. Contact between dummies (of adult driver and front-seat passenger) and intruding parts of compartment is taken into account, as is knee contact with stiff structures in lower part of dashboard, footwell intrusion, pedal movement.

**IN TEST**, driver's head should predictably remain protected by airbag during dummy's forward movement. Airbag should not bottom out, its deployment should not pose risk of facial injury to occupants of any size.

**TEST AIMS** to identify poorly designed restraint systems that lead to neck injuries. Rib compression is used as main guide to chest injury risk; impact of crash on body's lower extremities are also gauged.

### Side & Pole Impact

**FOCUS** is on detecting incorrect airbag deployment, and seat position in side impact.

### Door Opening (Front, Side & Pole Impact)

**INTENTION** is to ensure that structural integrity is maintained. Underlying principle is to minimise risk of ejection from vehicle.

**Source:** Indian Express

Under the Bharat NCAP, cars voluntarily nominated by automobile manufacturers will be crash tested as per protocols laid down in the soon-to-be-published Automotive Industry Standard 197.

The programme is applicable to passenger vehicles with not more than eight seats in addition to the driver's seat with gross vehicle weight not exceeding 3,500 kgs. Only the base model of a particular variant will be tested.

Cars will be assigned a rating between one star to five stars after being evaluated on three parameters — adult occupant protection, child occupant protection and safety assist technologies present in the car.

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### How has Bharat NCAP evolved?

The testing protocols adopted by the Bharat NCAP are modelled on the **Global NCAP**, which is a project of the U.K.-based NGO, Towards Zero Foundation.

It serves as a platform for cooperation among new car assessment programmes worldwide, including countries such as the U.S. which has the world's oldest crash testing regime since 1978.

The NGO launched a **Safer Cars for India campaign** in 2014 when it released the country's first independent crash tests covering the Suzuki-Maruti Alto 800, the Tata Nano, Ford Figo, Hyundai i10 and Volkswagen Polo. All but one of the five models failed the test.

### Why does car testing matter?

Car Testing is important for several reasons:

**Safety:** Testing ensures that cars meet safety standards and perform well in crash scenarios. This helps protect the lives of both passengers and pedestrians.

**Export Potential:** Testing helps determine the export-worthiness of cars. When cars pass rigorous tests, it makes them more attractive to international markets, boosting the country's automotive exports.

**Consumer Confidence:** Consumers can make informed choices when purchasing vehicles based on test results. Knowing that a car has undergone safety and quality tests can increase consumer confidence.

**Road Safety:** In countries with high rates of road accidents, like India, car testing is crucial for improving road safety. Testing helps identify and promote the production of safer vehicles.

**Global Commitments:** Under the Stockholm Declaration, India has committed to reducing the number of road traffic deaths and injuries by 50 per cent by 2030.

### 47. India and Greece pledge to upgrade ties to become strategic partners

**Source:** The post is based on the article "**India and Greece pledge to upgrade ties to become strategic partners**" published in **The Hindu on 26th August 2023**.

### What is the News?

The Prime Minister of India made an official visit to Greece. This was the first visit by an Indian Prime Minister to Greece in 40 years.

### What are the key takeaways from the Indian PMs visit to Greece?

**Grand Cross of the Order of Honour:** Indian PM was honored with the Grand Cross of the Order of Honour by the President of Greece, making him the first foreign Head of Government to receive this award.

**PM visited the Tomb of the Unknown Soldier in Athens:** The Tomb of the Unknown Soldier is a war memorial located in Syntagma Square in Athens, in front of the Old Royal Palace. It is a cenotaph dedicated to the Greek soldiers killed during various wars.

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**Upgrade to Strategic Partnership:** Both countries decided to elevate Greek-Indian bilateral ties to a “Strategic Partnership” level, focusing on expanding cooperation in political, security, and economic domains.

**Doubling Bilateral Trade:** Acknowledging the growth in bilateral trade, the leaders set a goal to double bilateral trade by 2030.

– The two-way trade between India and Greece has grown from \$507 million in 2016-17 to \$1.94 billion in 2022-23.

**Institutional Dialogue Framework:** They agreed to establish an institutional dialogue framework at the level of National Security Advisers to enhance collaboration in defense and security matters.

**Agricultural Cooperation:** An MOU was signed to facilitate sectoral cooperation in agriculture, including the creation of a Hellenic-Indian Joint Sub-committee on Agriculture.

**Mobility and Migration Partnership Agreement (MMPA):** Both leaders agreed the early finalization of a mobility and migration partnership agreement will be mutually beneficial, facilitating the free movement of workforce between the two countries.

### 48. Why did Chandrayaan-3 land on the near side of the moon?

**Source:** The post is based on the article “Why did Chandrayaan-3 land on the near side of the moon?” published in **The Hindu on 26th August 2023.**

#### What is the News?

The controlled descent of the Vikram lander of Chandrayaan-3 made it one of the closest approaches of a lunar mission to the moon’s South Pole.

However, like most of the lunar-landing missions before, Vikram too landed on the near side of the moon.

Hence, China’s Chang’e 4 mission is the only lunar mission to have successfully landed on the far side of the moon.

#### What are the moon’s ‘near’ and ‘far sides’?

**Near Side:** It refers to the portion of the moon — about 60% — that is visible to us. It is always the same side that is visible from Earth because the moon takes the same time to rotate about its axis as it does to circle around the Earth

**Far Side:** It is also known as the dark side area of the moon. It is called the dark side as it is facing away from the Earth. In reality it is no darker than any other part of the Moon’s surface as sunlight does in fact fall equally on all sides of the Moon.

– It is only ‘dark’ to us, as that hemisphere can never be viewed from Earth due to a phenomenon known as ‘Tidal Locking’.

– The ‘dark side’ was mysterious and its various topographical features were hidden until the Soviet spacecraft Luna 3 in 1959 photographed it and the Soviet Academy of Sciences released an Atlas of these images.

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– Astronauts aboard the Apollo 8 mission of 1968 were the first humans to see the far side of the moon.

**Is the dark side very different from the near side?**

**Firstly**, the near side is smoother and has more large volcanic plains called ‘Maria’ compared to the far side. On the far side, there are large craters, likely from asteroid impacts.

**Secondly**, the near side has a thinner crust, which allows volcanic lava to flow and fill up craters over millions of years, creating flat plains. These plains make it easier for space missions as they offer a more even terrain for landers and rovers.

**What is special about Chandrayaan-3 landing?**

The Chandrayaan-3 mission, while still on the near side, has managed to land Vikram the closest ever to the lunar South Pole. The coordinates of Chandrayaan-3 at 69.36 S and 32.34 E make it about 600 km away from the South Pole.

The choice of being as close as possible to the South Pole was to get closer to a “permanently shadowed region” or where no sunlight ever reaches.

This would mean increasing the chances of encountering frozen water-ice along with several “interesting deposits” that can reveal more about the moon and its harvestable resources.

### 49. China-Bhutan hold first meeting on ‘delimitation’ of disputed boundary

**Source:** The post is based on the article “**China-Bhutan hold first meeting on ‘delimitation’ of disputed boundary**” published in **The Hindu on 26th August 2023**.

**What is the News?**

China and Bhutan held the first meeting of the newly set-up joint technical team on the delimitation of their disputed boundary.

**What is the Bhutan China Border Dispute?**

China claims certain territories from Bhutan:

**In the north:** Pasamlung and Jakarlung valleys; Both of these places are culturally vital for Bhutan.

**In the west:** Doklam, Dramana, and Shakhatoe, Yak Chu and Charithang Chu, and Sinchulungpa and Langmarpo valleys. These places are pasture-rich and strategically located in the Bhutan-India-China trijunction, lying close to India’s [Siliguri Corridor](#).

In 2020, China made new claims on Bhutan’s East in the **Sakteng sanctuary**.

**What has been the history of boundary talks between China and Bhutan?**

The boundary talks between Bhutan and China began in 1984, and the 24th round was held in 2016.

The talks have largely focused on disputed areas to Bhutan’s north, and to its west, abutting the Doklam plateau. However, these have been stalled since 2016, especially after the 2017 Doklam stand-off.

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In 2021, Bhutan and China signed an MoU on the Three-Step Roadmap for Expediting the China-Bhutan Boundary Negotiations.

### What has happened now?

China and Bhutan has agreed to expedite and take simultaneous steps to implement the Three-Step Road Map” signed in 2021.

The two sides also agreed to hold the 14th Expert Group Meeting on the China-Bhutan Boundary Issues as soon as possible and maintain communication on holding the 25th Round of China-Bhutan Boundary Talk.

### 50. Indore best city, M.P. top State in Smart Cities contest

**Source:** The post is based on the article “**Indore best city, M.P. top State in Smart Cities contest**” published in **The Hindu on 26th August 2023.**

### What is the News?

The President of India will present the India Smart Cities Award Contest (ISAC), 2022.

### What is the India Smart Cities Award Contest (ISAC)?

India Smart Cities Award Contest (ISAC) is organized by the Ministry of Housing and Urban Affairs.

**Aim:** To recognize and reward cities, projects and innovative ideas that are promoting sustainable development across the 100 smart cities as well as stimulating inclusive, equitable, safe, healthy and collaborative cities leading to a better quality of life for all.

**The ISAC award had a two-stage submission process** consisting of ‘Qualifying Stage’, which involved overall assessment of the city’s performance, and the ‘Proposal Stage’ which required the smart cities to submit their nominations for six award categories.

**This is the fourth edition of the ISAC awards** with the previous ones held in 2018, 2019, and 2020. There were no awards in 2021 due to the COVID-19 pandemic.

### What are the key takeaways from ISAC 2022?

Indore has been named as the best Smart City. Surat and Agra are the second and third place winners among cities.

Madhya Pradesh has been chosen as the top state. Tamil Nadu is the second in State category followed by Rajasthan and Uttar Pradesh.

The award for the best Union Territory has gone to Chandigarh.

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### 51. Committee of Experts to 'Onshoring the Indian Innovation to GIFT IFSC'

**Source:** The post is based on the article “**Committee of Experts to 'Onshoring the Indian Innovation to GIFT IFSC'**” published in **PIB on 25th August 2023**.

#### What is the News?

The Committee of Experts appointed by the International Financial Services Centres Authority (IFSCA) to explore 'Onshoring the Indian Innovation to Gujarat International Finance Tec-city International Financial Services Centre (GIFT IFSC)' has submitted its report.

#### **About Committee of Experts to Onshoring the Indian Innovation to GIFT IFSC:**

**Chaired by:** G. Padmanabhan, former executive director of the RBI

**Mandate:** To understand the reasons for shifting of Indian startups outside India and suggestions to avoid externalization of startups in the future and also to persuade startups that are presently externalized to redomicile back.

#### What are the recommendations given by the committee?

The committee has identified challenges and recommended measures for the development of the **International Innovation Hub** at GIFT IFSC.

It has recommended **aligning the tax and regulatory laws within the IFSC with international best practices** to create an environment that actively incentivizes and supports holding company structures.

### 52. New brain-computer interface device gives voice to paralysed

**Source:** The post is based on the article “**New brain-computer interface device gives voice to paralysed**” published in **Deccan Herald on 25th August 2023**.

#### What is the News?

Researchers have developed a brain-computer interface (BCI) that has enabled a woman with severe paralysis from a brainstem stroke to speak through a digital avatar.

It is the first time that either speech or facial expressions have been synthesized from brain signals.

#### What is Brain-Computer Interface(BCI)?

A Brain-Computer Interface (BCI), also known as a Brain-Machine Interface (BMI), is a technology that establishes a direct communication pathway between the human brain and external devices or computers.

BCIs are designed to enable individuals to interact with and control these external devices using only their brain activity, bypassing traditional routes such as muscle movements or physical inputs.

#### What are the potential applications of Brain-Computer Interface(BCI)?

**Assistive Technology:** BCIs can empower individuals with paralysis or motor disabilities to regain communication and control over their environment.



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**Neurorehabilitation:** They are used in therapy and rehabilitation programs to help patients recover lost motor functions after injuries or strokes.

**Research:** BCIs play a crucial role in neuroscience research, allowing scientists to study brain activity patterns and understand the brain's functions better.

**Enhanced Control:** BCIs have applications in fields like gaming, allowing players to control characters or devices using their thoughts.

### What are the concerns related to Brain-Computer Interface(BCI)?

Some researchers have noted some concerns related to BCIs. For example, BCIs could be vulnerable to cyberattacks that expose brain data or interfere with a device's function.

Reported costs of wearable BCIs range from hundreds to thousands of dollars, which may result in unequal access.

Further, translation of brain signals to speech by a BCI could cause harm if it is not accurate. For example, inaccurate translation might indicate legal or medical consent that the person did not intend to give.

### 53. National Action for Mechanised Sanitation Ecosystem (NAMASTE)

**Source:** The post is based on the article “National Action for Mechanised Sanitation Ecosystem (NAMASTE)” published in **PIB on 25th August 2023**.

#### What is the News?

The Government of India is implementing the National Action for Mechanised Sanitation Ecosystem (NAMASTE) scheme to stop deaths of Sewers and Septic Tank Workers (SSWs) and to promote mechanization of cleaning operations with a vision to reduce hazardous cleaning and ensure safety of sanitation workers.

#### What is the National Action for Mechanised Sanitation Ecosystem (NAMASTE) Scheme?

**Launched by:** Ministry of Social Justice and Empowerment (MoSJE) and Ministry of Housing and Urban Affairs (MoHUA)

**Aim:** To eliminate hazardous cleaning, stop deaths of sewer and septic tank workers and ensure their safety and dignity.

**Type:** Central Sector Scheme

**Replaced by:** The scheme has replaced the Self-Employment Scheme for the Rehabilitation of Manual Scavengers (SRMS), which was started in 2007.

**Coverage:** The scheme is to be implemented in all 4800+ Urban Local Bodies (ULBs) of the country, during the three years upto 2025-26.

**Objectives of the scheme:** Zero fatalities in sanitation work in India

- All sanitation work is performed by skilled workers
- No sanitation workers come in direct contact with human faecal matter

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- Sanitation workers are collectivized into SHGs and are empowered to run sanitation enterprise
- All Sewer and Septic tank sanitation workers (SSWs) have access to alternative livelihoods
- Strengthened supervisory and monitoring systems at national, state and ULB levels to ensure enforcement and monitoring of safe sanitation work.

What are the key features of the Scheme to be Implemented in all ULBs?

**Identification:** NAMASTE envisages identifying the Sewer/Septic Tank Workers (SSWs).

**Occupational Training and distribution of PPE Kits to SSWs.**

**Assistance for Safety Devices to Sanitation Response Units (SRUs).**

**Extending Health Insurance Scheme Benefits** to identified SSWs and their families under the Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).

**Livelihood Assistance:** The Action Plan will promote mechanization and enterprise development by providing funding support and subsidy (capital +interest) to the sanitation workers, to procure sanitation related equipment.

**IEC (Information Education and Communication) Campaign:** Massive campaigns would be undertaken jointly by the ULBs & NSKFDC (National Safai Karamcharis Finance & Development Corporation) to spread awareness about the interventions of NAMASTE.

### 54. Tele-Law 2.0 unveiled by Law Minister

**Source:** The post is based on the article “**Tele-Law 2.0 unveiled by Law Minister**” published in **PIB on 25th August 2023.**

What is the News?

The Union Law Minister has launched the Tele-Law 2.0 initiative.

What is the Tele Law Initiative?

[Click Here to read](#)

What is the Tele-Law 2.0 initiative?

Tele-Law 2.0 entails the fusion of Tele-Law Services with Nyaya Bandhu pro bono legal services to improve citizen access to legal aid.

This merger is seen as a significant step in making legal services more accessible to people throughout India, contributing to the democratization of legal assistance.

What is the Nyaya Bandhu Initiative?

Nyaya Bandhu's (Pro Bono Legal Services) initiative was launched by the Minister for Law & Justice.

**Aim:** To establish a framework for dispensation of pro bono legal services across the country.

**Under Nyaya Bandhu,** practicing advocates, interested to volunteer their time and services, are connected, via mobile technology, with eligible marginalized beneficiaries.

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### Who qualifies to be a beneficiary for Legal help under Nyaya Bandhu Initiative?

Beneficiaries or Applicants, in order to avail the benefits under this programme must belong to one of the categories mentioned under Section 12 of The Legal Services Authority Act of 1987. These include: **1)** Member of a Scheduled Caste **2)** Member of a Scheduled Tribe **3)** Victim of trafficking in human beings or begar as referred in article 23 of the Constitution **4)** Woman or a Child **5)** Person with disability **6)** Person in custody **7)** An industrial workman **8)** Victim of a mass disaster, ethnic violence, caste atrocity, flood, drought, earthquake or industrial disaster; **9)** Person with annual income less than as specified under law and Others.

### 55. NIAS launches pilot project involving GEOAI and random forest tech to monitor air pollution in Bengaluru

**Source:** The post is based on the article “**NIAS launches pilot project involving GEOAI and random forest tech to monitor air pollution in Bengaluru**” published in **Indian Express on 25th August 2023.**

#### What is the News?

At the India Clean Air Summit (ICAS), National Institute of Advanced Studies (NIAS), informed that it has launched a pilot project to monitor and predict the city's air quality.

#### What is the India Clean Air Summit(ICAS)?

India Clean Air Summit(ICAS) is India's premier event on air pollution.

**Organized by:** Centre for Air Pollution Studies (CAPS) at the Center for Study of Science, Technology and Policy (CSTEP).

**Aim:** To understand the impact of climate change on air pollution in the light of Sustainable Development Goals (SDGs) and the actions required to deal with it.

#### What is the National Institute of Advanced Studies(NIAS)?

National Institute of Advanced Studies(NIAS) is a premier institute in India engaged in interdisciplinary and multidisciplinary research in natural sciences, social sciences, arts and humanities. It was founded by J. R. D. Tata in 1988.

**Located in:** Bangalore

#### What is the project launched by NIAS to monitor and predict the city's air quality?

The pilot project has been launched in Bangalore. It combines geospatial artificial intelligence (GeoAI) and random forest technology to monitor and predict air quality in the city.

The random forest algorithm combines data from various air quality monitoring stations to predict the Air Quality Index.

GeoAI uses technology like artificial intelligence, satellite imagery, and mobile data to identify sources of air pollution.

This project will soon be launched in cities like Delhi, Mumbai, Chennai, and Kolkata.

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### 56. Centre approves Rajasthan's fifth tiger reserve in Dholpur-Karauli

**Source:** The post is based on the article “**Centre approves Rajasthan's fifth tiger reserve in Dholpur-Karauli**” published in **Hindustan Times on 22nd August 2023**.

#### What is the News?

The National Tiger Conservation Authority (NTCA) has approved the **Dholpur-Karauli Tiger Reserve** in Rajasthan.

This is India's 54th tiger reserve and Rajasthan's fifth tiger reserve after Ranthambore, Sariska, Mukundra Hills and Ramgarh Vishdhari.

#### How are Tiger Reserves notified?

Tiger Reserves are notified by State Governments as per provisions of Section 38V of the Wildlife (Protection) Act, 1972 on advice of the National Tiger Conservation Authority.

#### Can tiger reserves be altered and denotified?

These processes are governed by Section 38W of the Wildlife (Protection) Act, 1972 whose provisions are as follows:

Section 38 W(1) says that “No alteration in the boundaries of a tiger reserve shall be made except on a recommendation of the Tiger Conservation Authority and the approval of the National Board for Wild Life”.

Section 38 W (2) says “No State Government shall de-notify a tiger reserve, except in public interest with the approval of the Tiger Conservation Authority and the National Board for Wild Life”.

#### What is the status of tiger population in India?

The number of tigers in India has increased from 2,967 in 2018 to 3,682 in 2022, an annual rise of 6%.

Madhya Pradesh has the maximum number of tigers in the country (785), followed by Karnataka (563), Uttarakhand (560), and Maharashtra (444).

The number of tigers in Rajasthan has increased from 32 in 2006 to 88 in 2022.

### 57. Express View on Jadavpur University student death: End ragging

**Source:** The post is based on the article “**Express View on Jadavpur University student death: End ragging**” published in **The Indian Express on 26th August 2023**.

**Syllabus topic:** Issues relating to development and management of Social Sector/Services relating to Education.

**News:** An 18-year-old student from Jadavpur University (JU) possibly died due to ragging. His family claims he faced abuse from senior students. The university and police are investigating, and 12 people have been arrested.

#### Why Ragging been a long-standing issue?

**Tradition and Misguided Rituals:** Ragging is often seen as a coming-of-age ritual on campuses.

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**Lack of Oversight:** Universities sometimes fail to ensure the safety and well-being of new students. For example, reports suggest that even long-graduated students at JU still occupy hostels and intimidate freshers.

**Deep-rooted Hierarchies:** Seniority often mixes with caste, class, and gender privileges, worsening bullying.

**Ineffective Implementation:** Despite two Supreme Court verdicts against ragging, many institutions don't adhere to guidelines. For instance, 25 students have committed suicide since 2018 due to ragging, as per UGC data.

### What have courts said before?

**2001 Directive:** The Supreme Court instructed higher educational institutions (HEIs) to establish proctorial committees to address ragging complaints.

**2009 Committee Formation:** After the death of a 19-year-old medical student due to ragging, the Supreme Court formed a committee led by former CBI director R K Raghavan.

**UGC's Role:** The same year, UGC accepted the committee's recommendations and instructed HEIs to establish internal anti-ragging committees and promote positive interaction between new and senior students.

### What should be done to overcome the issue of Ragging?

**Strict Implementation:** Universities must strictly enforce anti-ragging guidelines. Past negligence led to tragic outcomes, like the JU student's death.

**Increased Oversight:** Campuses should monitor senior students and alumni, especially those wrongfully occupying hostels, as seen at JU.

**Promote Positive Interaction:** As the UGC advised, institutions should foster healthy interactions between newcomers and senior students.

**Transparent Reporting Mechanisms:** Create efficient internal mechanisms for ragging complaints, in line with the Supreme Court's 2001 directive.

**Regular Audits:** Institutions should undergo periodic checks to ensure adherence to anti-ragging rules, addressing gaps like JU's inadequate response on preventive measures.