

# ज्ञानकोश

## मासिक चालू घडामोडी (महाराष्ट्र राज्य)

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106 वी घटनादुरुस्ती कायदा:  
महिला आरक्षण विधेयक

2024 मध्ये महागाई जास्त राहिल

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राष्ट्रीय कुटुंब आरोग्य सर्वेक्षण

प्रधानमंत्री गरीब कल्याण अन्न योजना (PMGKAY)

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महाराष्ट्रामध्ये हवेची गुणवत्ता सुधारण्यासाठी नवीन उपक्रम घेतले

भारत-श्रीलंका 'मित्र शक्ती' सुरू

छत्रपती शिवाजी महाराज टर्मिनस (CSMT) चा पुनर्विकास

अडवाणींनी 26 व्यांदा विश्वविजेतेपद पटकावले

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## National News

### India's green hydrogen move

#### Context

- India aims to produce 'green hydrogen' with no fossil fuel emissions.
- A study by Climate Risk Horizons (CRH) warns of potential pollution if proper checks are not in place.

#### Key Points:

#### National Green Hydrogen Mission

- The Ministry of New and Renewable Energy (MNRE) leads the National Green Hydrogen Mission.
- The mission targets five million tonnes of green hydrogen production by 2030.
- This requires 125 GW of renewable energy capacity and 250,000 gigawatt-hour units of power, equivalent to 13% of India's current electricity generation.

#### Current Renewable Energy Capacity

- As of August 2023, India's renewable energy capacity is 131 GW.
- The 2030 green hydrogen plan necessitates adding a similar capacity by 2030.
- India's commitment to install 500 GW of renewable energy capacity by 2030 as part of the Paris Agreement.
- India installed only 15 GW of new solar and wind capacity in 2023, falling short of the annual 45 GW target.

#### Challenges in Green Hydrogen Definition

- MNRE defines green hydrogen as producing no more than two kg of carbon dioxide per kg of hydrogen.
- Current 'grey hydrogen' production emits nine kg of carbon dioxide per kg.
- The definition leaves room for interpretation.

#### Electricity Source for Electrolysers

- The main concern is the source of electricity for electrolysers, especially during nighttime.
- The majority of India's electricity grid relies on coal generation, particularly during non-daylight hours.
- Most projects have not disclosed their electricity source, raising concerns about increased carbon emissions.
- It is unclear if projects committing to 100% clean energy can meet this requirement.

#### Conclusion

- India's Green Hydrogen Mission faces challenges

related to electricity sources and meeting ambitious renewable energy capacity targets.

- Proper checks and transparency are needed to ensure that green hydrogen production does not worsen pollution.

### Vision India 2047 document

#### Context

- The government is in the midst of finalising a national vision plan to make India a developed nation by 2047
- It is to ensure that the country does not slip into a middle-income trap that several countries have fallen into at similar stages of development.

#### About Document

- The vision document will outline the structural changes and reforms needed to reach the objective of becoming a 30-trillion dollars developed economy by 2047.
- It will include government process re-engineering, reforms and cut down on duplication of work by different ministries and departments.
- It is also expected to have details about the country's global engagement on trade, investment, technology, capital, research and development entities.
- The document is also expected to outline which Indian companies would be global leaders and also the strategy for creating an ecosystem needed to achieve the goal.
- It will also have details about creating human capital to achieve the vision, how to leverage the country's market size and how to address regional disparities.
- The vision document will also detail the roadmap where India will be in 2030 and in 2047.

### The Indian Railways' revenue problem

#### Context

The Indian Railways (IR) has been on a spending spree with respect to capital expenditure (capex), particularly after the government merged its rail budget with the main budget.

#### Key points

- Its operating ratio, which is the ratio of ordinary working expenses to the gross traffic receipts, has shown no improvement.
- A lower ratio implies better profitability and surplus for capital investment.
- The problem is that the IR's freight segment is

profitable whereas the passenger segment makes huge losses.

### Did you know?

The **11** commodities in the IR's transport basket account for **90%** of tonnage and revenue, of which coal is around **45%** and iron ore and cement are around **10%** each.

### Modi pays tribute to Patel, launches development projects at Statue of Unity

#### Context

Prime Minister paid floral tribute to Sardar Vallabhbhai Patel at the Statue of Unity in Narmada, Gujarat, on the birth anniversary of India's first Home Minister, which is celebrated as National Unity Day. (31st October)

#### Key points

- He launched several development projects at the Statue of Unity, which has emerged as a major tourism hub.
- Statue of Unity is the world's tallest statue with a height of 182 metres. Over three million visitors visit the site annually.
- Mr. Modi witnessed the Rashtriya Ekta Diwas (National Unity Day) parade.

#### About Aarambh

- PM addressed the officer trainees of the 98th Common Foundation Course at the culmination of the fifth edition of "Aarambh" in which 560 trainees from Indian civil services and three from Bhutan civil services participated.
- The 5th edition of the "Aarambh" programme was held on the theme of 'Harnessing the Power of Disruption'.
- The course provides a first-hand introduction to the ideas, challenges and responsibilities of governance in a large and diverse country.

### SC verdict on same-sex marriage

#### In news:

- Petitions seeking review of SC's majority judgment refusing to legalise same-sex marriage.
- SC holds no fundamental right to marry for same-sex couples, but directs authorities to protect them from harassment.

#### Key points:

- Right to marry is a fundamental right.
- Article 21 of the Constitution guarantees the right to marry the person of one's choice.

#### Did you know?

- Parliament has conferred social status for marriage as an institution under the Special Marriage Act, 1954.

### 106th Constitutional Amendment Act: Women's Reservation Bill

#### Why in news?

- Delay in implementation of the quota law before the general election in 2024.
- Govt proposes to implement this reservation after the next census followed by delimitation.

#### Key points:

- 106th Constitutional Amendment Act stipulates 33% reservation for women in the Lok Sabha and State Assemblies.
- 73rd and 74th constitutional amendments of 1993 gave women one-third representation in local body elections.
- 77th Constitutional Amendment extended reservations for promotions in jobs for the Scheduled Castes and Scheduled Tribes.
- 103rd CAA provided for 10% EWS reservation for poor Forward Caste sections of the society in educational institutions and public employment.

#### Think:

- Know about 106th Constitutional Amendment Act
- Know about Delimitation

### NCERT to introduce electoral literacy content in textbooks

#### Context

In a bid to address voter apathy among young Indians, the National Council of Educational Research and Training (NCERT) will introduce and update textbooks to include content on electoral literacy

#### Key points

- The measures are part of a memorandum of understanding signed the Election Commission of India (EC) and the Education Ministry.
- It is aimed at extending the EC's flagship Systematic Voters' Education and Electoral Participation (SVEEP) in schools and colleges.
- The MoU aims to address issues such as voter apathy among urban and young Indians.

#### Did you know?

Almost 297 million of the 910 million electors did not vote in the Lok Sabha election in 2019

### SC seeks data on donations through electoral bonds, reserves verdict on scheme

#### Context

The Supreme Court gave the Election Commission of India (EC) two weeks to produce updated data on

contributions received by political parties through the electoral bonds scheme.

### About Electoral Bond Scheme

- The electoral bond scheme was launched by the Union government in 2018.
- It is a bearer instrument, like a promissory note that can be bought by any Indian citizen or company incorporated in India.
- The citizen or corporate can then donate the same to any eligible political party of his/her choice.
- The bonds are similar to bank notes that are payable to the bearer on demand and are free of interest.
- An individual or party is allowed to purchase these bonds digitally or through cheque.
- EBs are issued/purchased for any value, in multiples of Rs 1,000, Rs 10,000, Rs 1,00,000, Rs 10,00,000 and Rs 1,00,00,000.
- The electoral bonds are available for purchase for 10 days at the beginning of every quarter.
- SBI is the only bank authorized to sell these bonds.
- Anonymous cash donations were capped at Rs 2,000.
- EBs have a life of only 15 days during which it can be used for making donations to political parties.

### Eligibility for Bonds

- Only political parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than 1% of votes polled in the last general election to the House of the People or the Legislative Assembly of the State, are eligible to receive electoral bonds.
- The bond can be encashed by an eligible political party only through a designated bank account with the authorized bank.
- The political parties have to disclose the amount to the Election Commission.
- The electoral bonds will not bear the name of the donor.

### Bharat Atta

#### In news

- With wheat flour (atta) becoming costly around the festival season, Govt. expands 'Bharat Atta' sale.

#### Key points

- Union Food and Consumer Affairs Ministry released more stocks of the 'Bharat' brand atta for moderation of prices.
- Bharat Atta will be available at ₹27.50 a kg to increase supplies in the market at affordable rates.
- 100 mobile vans used for distribution
- Other outlets of at Kendriya Bhandar, National Cooperative Consumers' Federation of India Ltd. (NCCF), and National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED).

### Come out with policy for providing sanitary napkins at schools: SC

#### Context

- The Supreme Court gave the Centre four weeks to finalize and place on record an "optimum" menstrual hygiene policy with focus on the distribution of sanitary napkins.
- It would serve as a "catalyst to raise awareness, challenge societal norms and foster a society that embraces menstrual hygiene as a natural and normal part of life".

#### Key data

The latest National Family Health Survey (NFHS-5) found a significant improvement in the percentage of women aged 15-24 who use a hygienic method of protection during their menstrual cycle, rising from 58% in NFHS-4 to 78%.

#### National Family Health Survey

1. National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India.
2. The Ministry of Health and Family Welfare (MoHFW) has designated the International Institute for Population Sciences (IIPS) Mumbai, as the nodal agency for providing coordination and technical guidance for the survey.
3. IIPS collaborates with a number of Field Organizations (FO) for survey implementation.
4. First National Family Health Survey (NFHS-1) was conducted in 1992-93.
5. Second National Family Health Survey (NFHS-2) was conducted in 1998-99
6. Third National Family Health Survey (NFHS-3) was carried out in 2005-2006
7. Fourth National Family Health Survey (NFHS-4) in 2014-2015
8. Fifth National Family Health Survey NFHS-5 has captured the data during 2019-20
9. Its survey depends upon 67 indicators like population & household survey, marriage &

fertility, family planning, maternal & child health, vaccination, etc.

### National Family Health Survey-5 (2019-20)

International Institute for Population Sciences, Mumbai conducts the survey.

#### According to this survey:

- Malnutrition has worsened.
- Stunting has risen in 11 out of 18 states.
- Wasting increased in 14 states.
- Obesity increased
- NFHS-5 includes some new topics, such as preschool education, disability, access to a toilet facility, death registration, bathing practices during menstruation, and methods and reasons for abortion.

### Govt. expands 'Bharat Atta' sale to curb rising prices

#### Context

With wheat flour (atta) becoming costly around the festival season, the Union Food and Consumer Affairs Ministry released more stocks of the 'Bharat' brand atta through 100 mobile vans and the outlets of Kendriya Bhandar.

#### Key points

- Bharat Atta will be available at ₹27.50 a kg.
- The launch of retail sale of Bharat Atta will increase supplies in the market at affordable rates, and will help in continued moderation of prices of this important food item

### G-7 meet appeals for humanitarian pauses in Gaza

#### Context

G-7 Foreign Ministers called for humanitarian pauses in the Israel-Hamas war to let aid in and help the release of hostages and sought a return to a "broader peace process", as Israeli forces continue to strike the Gaza Strip.

#### About G-7

- It is an intergovernmental organisation that was formed in 1975.
- The bloc meets annually to discuss issues of common interest like global economic governance, international security and energy policy.
- The G7 countries are the UK, Canada, France, Germany, Italy, Japan and the US.
- All the G7 countries and India are a part of G20.

- The G7 does not have a formal charter or a secretariat.
- The presidency, which rotates among member countries each year, is in charge of setting the agenda. Sherpas, ministers and envoys hammer out policy initiatives before the summit.

### Centre to invite bids for 20 critical mineral blocks

#### Context

The government will invite bids for 20 critical mineral blocks, including **lithium and graphite mines**.

#### Key points

- A national-level strategy on mining and processing of critical minerals will be made.
- Earlier, the Centre had approved royalty rates of **3% each for lithium and niobium and 1% for Rare Earth Elements (REEs)**.
- Critical minerals have become important for the nation's economic development and national security.
- Lithium and REEs have gained significance, keeping in mind India's commitment to energy transition and achieving **net-zero emissions by 2070**.

### Central Consumer Protection Authority

#### Context

The Central Consumer Protection Authority (CCPA) is probing **20 IAS coaching institutes** for making misleading claims in their advertisements and for unfair trade practices

#### About CCPA

- It is a **regulatory body established in 2020** based on the provisions of the **Consumer Protection Act, 2019**.
- **Nodal Ministry:** The Ministry of Consumer Affairs.
- It will have a Chief Commissioner as head, and only two other commissioners as members one of whom will deal with matters relating to goods while the other will look into cases relating to services.
- **Objective:** To promote, protect and enforce the rights of consumers as a class.

#### State News

### The T.N. experience on caste survey

#### Key Points

- The Second BC Commission was established in

Tamil Nadu in 1982, following a government decision to increase the BC reservation from 31% to 50%.

- The Commission conducted a survey in two stages in 1983-84, focusing on enumeration and classification of BCs.
- The Commission's findings showed that BCs constituted a significant portion of the State's population, leading to a 50% reservation quota for BCs in Tamil Nadu.
- Differences arose between the Commission's Chairman, Ambasankar, and other members regarding the quantum of BC reservation and the inclusion of certain castes.
- Despite these differences, the government chose to maintain the 50% reservation quota for BCs and included some new communities while rejecting the exclusion of others.

### Akhaura-Agartala rail link to be inaugurated

#### Context

The much-awaited Akhaura-Agartala rail link will be inaugurated virtually by Prime Minister Narendra Modi and his Bangladesh counterpart Sheikh Hasina

#### Key points

- The rail link is 12.24 km, with a 6.78-km dual gauge line in Bangladesh and 5.46 km in Tripura.
- This rail link is being seen as a first step to connect Tripura to Kolkata through Bangladesh.
- The link will significantly reduce the time and distance needed to reach Tripura, southern Assam, and Mizoram from Kolkata.
- It will also help boost India-Bangladesh trade in agriculture products, tea, sugar, construction items, iron and steel, consumer items, besides people-to-people ties.

### Keraleeyam festival

#### Context

- Chief Minister Pinarayi Vijayan inaugurated the first-ever "Keraleeyam" festival on Kerala's foundation day.
- It a week-long event showcasing the richness of the region's ethnic traditions and the complexity of its evolution as a modern State.

#### Key points

- Keraleeyam is the "mahotsavam" (great festival) that celebrates the spirit of the southern State.
- The event would be held every year from November 1 as part of the State formation day celebrations.
- The event would be held annually for all the people who are proud of themselves as Keralites, to share their happiness in it with

others, and to announce this to the world.

### Kozhikode and Gwalior enter creative cities list

#### Context

- Kozhikode in Kerala and Gwalior in Madhya Pradesh have made it to the prestigious creative cities list of UNESCO for contributions in the fields of literature and music, respectively.
- The announcement was made by UNESCO on its official website on October 31, which is designated as World Cities Day.

#### About UNESCO CCN

- The UNESCO Creative Cities Network (UCCN) was created in 2004 to promote cooperation with and among cities that have identified creativity as a strategic factor for sustainable urban development.
- Objective: placing creativity and cultural industries at the heart of their development plans at the local level and cooperating actively at the international level.
- The Network covers seven creative fields: Crafts and Folk Arts, Media Arts, Film, Design, Gastronomy, Literature and Music.

### Air pollution in states

#### Context

Delhi and parts of the surrounding States of Punjab, Haryana and Uttar Pradesh encounter their annual air quality inflection point.

#### Reasons for pollution of North India in winters

- Stubble Burning
- Geographical location
- Temperature inversion
- Firecrackers due to festive season
- Vehicular Pollution
- Construction

#### About CAQM

- CAQM stands for Commission for Air Quality Management.
- CAQM is a statutory mechanism to coordinate and oversee diverse efforts to improve air quality in Delhi, Punjab, Haryana, Rajasthan and UP, with the underlying remedial approach.

### Enemy property' Butler Palace to turn into a tourist haven

#### Context

Lucknow's once-grand three-storey Butler Palace, left deserted and in darkness for many decades, will see a facelift.

### Key points

- Built a century ago, the palace is a mix of Rajasthani and Indo-Mughal styles
- The palace, originally built as the official residence of the Commissioner of Avadh, Harcourt Butler, in 1915, was owned by the royal family of Mahmudabad.
- By its own account, the family migrated to India in the 13th century and settled in erstwhile Avadh, current Lucknow, in the 16th century, and owed allegiance to the Mughals.
- Mohammed Amir Ahmad Khan, the king at the time of Independence, migrated to Pakistan, while his son Mohammad Amir Mohammad Khan, stayed on in India as a citizen, fighting a legal battle over several properties, including Butler Palace.
- After the India-Pakistan war in 1965, Butler Palace was declared “enemy property” by the Government of India
- After being declared enemy property in the 1960s, the premises were handed over to the Uttar Pradesh government, who used it as a sales tax office.
- In the 1980s, it was given to the Indian Council of Philosophical Research, an organisation under the Union Human Resource Development Ministry.

### Fact Checking Unit (FCU) by the Tamil Nadu government

#### In news

- The PIL in High Court challenges formation of Fact Checking Unit by the government.

### Key points

- Objective of FCU: Fact Check Unit is to act as a deterrent to creators and disseminators of fake news & misinformation and to provide people with an easy avenue to report suspicious and questionable information pertaining to the Government of India for fact-checking.
- The Information Technology (Amendment) Bill, 2020 ensures that all electronic documents, records, and information of Indian citizens are retained in data centers located in India.
- The bill also gives the government the power to direct decryption and block information

### Bihar seeks to raise reservation to 65%

#### In news

- The Bihar Cabinet has approved a proposal to increase reservations in the State for SCs,STs,

OBCs and Extremely Backward Classes EBCs to 65%.

- Decision comes after caste survey report published.

### Key point

- Reservation for SCs,STs, OBCs and EBCs to become 65%.
- Including 10% reservation for Economically Weaker Sections (EWS), quota will go up to 75% crossing the ceiling set by the Supreme Court.
- Currently 50% quota in the state.

### According to survey

#### SCs:-

19.7% population, should get a quota of 20%, higher than the current 16%.

#### STs:-

1.7% share in population, should get reservation doubled from 1% to 2%.

#### OBCs:-

27% population to get a quota of 12%, while EBCs 36% of the population and get a quota of 18%; together should get a quota of 43%.

### Odd-even vehicle rotation scheme to return in Delhi

#### Context

As air pollution in Delhi touched about 18 times the limit set by the World Health Organization, the Environment Minister announced that the government would implement an odd-even vehicle rotation scheme in the city to reduce air pollution.

#### About Scheme

- The odd-even scheme entails allowing vehicles whose registration number ends in even digits to ply on even dates and those with odd digits to ply only on odd dates.
- On odd days, only vehicles with license plates ending in one, three, five, seven, and nine will be allowed, while on even days, vehicles with numbers ending with zero, two, four, six, and eight will be allowed to operate.

### Kerala forms Organic Farming Mission to boost agriculture

#### Context

The Kerala government has created an Organic Farming Mission to encourage the adoption of sustainable organic and climate-smart farming practices in the



State.

### Key points

- The mission aims at expanding organic farming to 5,000 hectares in the next five years through an annual target of 1,000 ha.
- In farms run by the Agriculture Department, at least 10% of the area will be set aside for organic farming.
- Mandate of the mission is to make sure that selected beneficiaries/farms of organic farming schemes pursue the system at least for five years.
- The mission will take steps to expand the system for certification, branding, and marketing of organic agricultural products from Kerala.
- The mission will also focus on value addition of organic products.

### Bihar House passes Bill raising ceiling on caste quota to 65%

#### Context

The Bihar Assembly unanimously passed a Bill to increase reservation for Backward Classes, Extremely Backward Classes, Scheduled Castes, and Scheduled Tribes from the existing 50% to 65%.

#### Key points

- Together with the 10% Economically Backward Class (EWS) quota, the Bill will push reservation in Bihar to 75%, well past the 50% ceiling set by the Supreme Court.
- According to the Bihar Reservation Amendment Bill, quota for Extremely Backward Class (EBC) will be raised from the existing 18% to 25%; for Backward Class (BC) from 12% to 18%; for Scheduled Caste (SC) from 16% to 20%; and for Scheduled Tribe (ST), the quota will be doubled, from 1% to 2%.
- The existing 3% reservation for BC women has been scrapped.
- Bills providing for the same increase in reservation in educational institutions and government jobs, which were drafted based on the recent caste survey in the State, too were passed unanimously through voice vote in the State Assembly.

### Kadalundi's shrinking mudflat ecosystem

#### Context

- In Kadalundi, a village on the southwest coast in Kozhikode district of Kerala, the expanse of mudflats in the estuary of the Kadalundipuzha

river has reduced to about 1 hectare.

- This is depriving prey to thousands of shorebirds that migrate from colder climes in winter to the village.

#### Key points

- Researchers point out that if the mudflats are not protected and restored, Kadalundi will vanish from the global map as a prominent destination of migrant shorebirds in a few years.
- It is the abundance of prey such as **polychaetes and crustaceans** in the mudflats that attract a wide variety of migrant shorebirds to Kadalundi from places such as Siberia, Ladakh, Mongolia, and Scotland.

### Kerala to expand farming of GI-tagged Onattukara sesame

#### Context

Efforts are being made to expand the cultivation of geographical indication **(GI)-tagged Onattukara sesame** in Alappuzha district of Kerala.

#### Key points

- Authorities have announced an incentive scheme for growing sesame on fields and homesteads in the Thekkekara Krishi Bhavan limits.
- A **financial assistance of ₹40 for a cent of land** would be given to farmers for cultivating sesame.
- The project, which was launched recently, is a **joint initiative** involving the local Krishi Bhavan, Onattukara Vikasana Agency (OVA), Onattukara Regional Agricultural Research Station (ORARS), Krishi Vigyan Kendra, Kayamkulam, and Mavelikara Thekkekara panchayat

#### Did you know?.

- The Onattukara sesame is currently **grown on around 600 hectares spread across 43 local bodies** in the three districts of Alappuzha, Kollam and Pathanamthitta.
- An analysis by Kerala Agricultural University revealed that sesame grown in the region contains high levels of **Vitamin E and antioxidants**.

#### International News

### Bangladesh is building memorial to honour Indian heroes of 1971 war

#### Context

- A memorial to honour the Indian soldiers who sacrificed their lives in the Liberation War of Bangladesh in 1971 at Ashuganj in Bangladesh is in the advanced stages of completion.
- It will have the names of around 1,600 Indian soldiers inscribed on it

### Key points

- This will be the first memorial in Bangladesh to exclusively honour Indian soldiers from the 1971 war.
- The foundation stone for the memorial at Ashuganj, Brahmanbaria was laid by Prime Minister Narendra Modi and Bangladesh Prime Minister Sheikh Hasina in March 2021.

### PM discusses security situation in West Asia with Egypt President

#### Context

Prime Minister spoke to Egyptian President Abdel Fattah El-Sisi to discuss the security and humanitarian situation in West Asia amid the Israel-Hamas conflict.

#### Key points

- The discussion indicates the importance that India attaches to the role of Egypt in ensuring humanitarian assistance to Gaza Strip
- On October 22 India sent humanitarian relief meant for Gaza to Egypt's El Arish airbase.
- However, much of the relief material that various countries have been sending for Gaza remained stuck inside Egypt because of intense military activity by Israel as well as due to the shortage of fuel for the trucks inside Gaza.
- India abstained at the UN General Assembly during a resolution calling for ceasefire in the fighting.

### UN chief Guterres meets Nepal Prime Minister

#### Context

- UN Secretary-General Antonio Guterres met Nepal Prime Minister Pushpa Kamal Dahal 'Prachanda'
- This was his first official visit to the Himalayan nation.
- He urged that developed countries must step up to support sustainable development, and help developing economies, including Nepal, to tackle the climate crisis.

### PM launches new projects in Gujarat

#### Context

Prime Minister dedicated a slew of infrastructure projects worth ₹5,950 crore in Gujarat during his two-day visit to his home State.

#### Key points

- He inaugurated railway projects, such as new sections of the Western Dedicated Freight Corridor and doubling of the Viramgam-

Samakhiali rail line,

- He also inaugurated initiatives to recharge lakes, construct a barrage on the Sabarmati River, and set up drinking water and sewage treatment facilities.
- The projects will come up in the districts of Mehsana, Ahmedabad, Banaskantha, Sabarkantha, Mahisagar, Gandhinagar, and Patan.

### India set to open new consulate in Seattle

#### Context

- The Ministry of External Affairs has appointed its first Consul-General in the U.S. city, Seattle.
- This will be the sixth consulate in the U.S.

### Russia test-fires nuclear-capable ballistic missile from submarine

#### Context

- Russia had successfully test-launched an intercontinental ballistic missile capable of carrying nuclear warheads from one of its submarines.
- The launch of the "Bulava" missile comes as Russia ramps up nuclear rhetoric since revoking its ratification of a key nuclear test ban treaty

### About Nuclear Test Ban Treaty

- The Comprehensive Test Ban Treaty prohibits "any nuclear weapon test explosion or any other nuclear explosion" anywhere in the world.
- The treaty was opened for signature in September 1996, and has been signed by 187 nations and ratified by 178.
- The treaty cannot formally enter into force until it is ratified by 44 specific nations, eight of which have yet to do so: India, China, Pakistan, North Korea, Israel, Iran, Egypt, and the United States.
- In order to verify compliance with its provisions, the treaty establishes a global network of monitoring facilities and allows for on-site inspections of suspicious events.
- Since the conclusion and opening for signature of the CTBT, nuclear testing has become taboo.
- Today, even those nuclear-armed states that have not signed or not ratified the CTBT, including India, Israel, and Pakistan, observe nuclear testing moratoriums.
- Only one country has conducted nuclear test explosions in this century, and even that country—North Korea—halted nuclear testing in 2017.
- Although the CTBT has not formally entered into

force, the treaty has, for now, achieved its primary goal: ending nuclear weapon test explosions.

### UNESCO Man and the Biosphere (MAB) programme

- It is an intergovernmental scientific programme launched in 1971 by UNESCO to establish a scientific basis for enhancing the relationship between people and their environments.
- Under the programme, UNESCO has established the World Network of Biosphere Reserves (WNBR).
- Biosphere reserves are nominated by national governments.
- If selected by UNESCO, they are included in the WNBR.
- There are 12 biosphere reserves of India which have been recognized internationally under Man and Biosphere (MAB) Reserve program.
- These are:
  1. Nilgiri (First one to be included)
  2. Gulf of Mannar
  3. Sunderban
  4. Nanda Devi
  5. Nokrek
  6. Pachmarhi
  7. Similipal
  8. Achanakmar – Amarkantak
  9. Great Nicobar
  10. Agasthyamala
  11. Khangchendzonga (2018) and
  12. Panna (2020).

### Chinese vessel begins research off the coast of Sri Lanka amid India's concerns

#### Context

Chinese research vessel Shiyan 6, amid concerns raised by India and the U.S., is set to begin its two-day research off the Sri Lankan coast

#### Key points

- The research will be pursued off Sri Lanka's western coast, and in collaboration with Sri Lanka's National Aquatic Resources Research and Development Agency (NARA) and the University of Ruhuna
- It is marine scientific research.

### India Bhutan regional connectivity

#### In news

- India and Bhutan agreed to discuss new routes of regional connectivity and upgrade border and immigration posts.

#### Key points

- 58-km cross border rail link between Gelephu and Kokrajhar in Assam to be built by India.
- Agreed to explore a second rail link for about 18 km between Samtse in Bhutan and Banarhat in West Bengal tea gardens area.
- Allows Bhutanese trade items to be carried further on from Haldibari in West Bengal to Chilhati in Bangladesh
- Agreed to designate the Darranga-Samdrup Jongkhar border crossing between Assam and Bhutan as an immigration check post, so as to allow third country nationals to enter and exit as well "for enhancing connectivity, and promoting tourism"
- Bhutan plans for a smart city at Gelephu on the border between Bhutan and Assam, and to have an international airport and Special Economic Zone at Gelephu.

### The Indo-Pacific Maritime Domain Awareness (IPMDA) initiative

#### In news

- Navy Chief Admiral R. Hari Kumar says, IPMDA initiative proof of our commitment to a free Indo-Pacific Region.

#### Key fact about IPDMA

- The IPMDA was announced by the Quad grouping, comprising India, Australia, Japan and U.S., at the Tokyo summit in early 2022

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**MPSC (राज्यसेवा) MPSC (संयुक्त) महाराष्ट्र पोलीस  
तलाठी, वनरक्षक, कृषी विभाग महानगर पालिका नगर  
परिषद, जिल्हा परिषद, SSC & ALL OTHER STATE  
EXAM**

- Aim to track “dark shipping” and build a “faster, wider, and more accurate maritime picture of near-real-time activities in partners’ waters”.
- Integrating three critical regions in the Indo-Pacific — the Pacific Islands, Southeast Asia, and the Indian Ocean Region (IOR).
- Become a critical platform for fostering cooperation and addressing maritime security challenges in the IOR.
- “Sharing of intelligence and information also contributed to enhanced Maritime Domain Awareness [MDA].
- Navy’s Information Fusion Centre for Indian Ocean Region (IFC-IOR) located at Gurugram, had greatly improved the situational awareness in the IOR region.

### U.S. to invest \$553 mn. in Adani’s Sri Lanka port terminal project

#### Context

The U.S. International Development Finance Corporation (DFC) has agreed to invest \$553 million in the Adani Ports-led container terminal project in Colombo.

#### Key points

- The DFC seeks to drive private-sector investments that advance development and economic growth while strengthening the strategic positions of our partners
- Adani Ports signed a \$700-million deal with the Sri Lanka Ports Authority (SLPA) and Sri Lankan conglomerate John Keells Holdings in September 2021 to jointly develop the terminal.

### WHO hailed India’s success in managing TB

#### Context

According to World Health Organization’s (WHO) ‘Global TB Report 2023’, India has made tremendous progress in improving case detection and reversed the impact of COVID-19 on the tuberculosis (TB) programme.

#### Key facts

- TB treatment coverage, according to the report, has also improved to 80% of the estimated TB cases, an increase of 19% over the previous year.
- India’s efforts have resulted in the reduction of TB incidence by 16% from 2015 to 2022, almost double the pace at which global TB incidence is declining (which is 8.7%).
- TB mortality has also reduced by 18% during

the same period in India, and globally.

### U.S. approves first vaccine against chikungunya virus for those over 18

#### Context

U.S. health authorities approved the world’s first vaccine for chikungunya, a virus spread by infected mosquitoes.

#### Key points

- The vaccine was approved for people 18 and over who are at risk of exposure.
- It is developed by Europe’s Valneva which will be marketed under the name Ixchiq.

#### Chikungunya virus

- It is a viral disease transmitted to humans through the bites of mosquitoes infected with the chikungunya virus.
- The word comes from the African Makonde language and means “bent over in pain.”
- It is most commonly transmitted by mosquitoes, *Aedes (Stegomyia) aegypti* and *Aedes (Stegomyia) albopictus*, which can also transmit dengue and Zika viruses.
- It was first described during an outbreak in southern Tanzania in 1952 and has now been identified in nearly 40 countries in Asia, Africa, Europe and the Americas.

### Maldives ‘requests’ India to withdraw military persons

#### Context

- Hours after being sworn in, President **Mohamed Muizzu** of the Maldives “requested” India to “withdraw” its military personnel from his country
- Indian military personnel was meant for the training of Maldivian personnel and for the maintenance of equipment.
- Mr. Muizzu-led **Progressive Party of Maldives** won the September election by defeating President Ibrahim Mohamed Solih’s **Maldivian Democratic Party (MDP)**.

### Japan PM raises ‘serious concerns’ about military activity in talks with Xi

#### Context

Japan’s Prime Minister **Fumio Kishida** said that he told President Xi Jinping he has “serious concerns” about Chinese military activity during their first direct talks in a year and slammed Beijing’s ban on its seafood.

## Key points

- Military tensions have soared in the Pacific over China's actions in the disputed South China Sea and its drills around the self-ruled island of Taiwan, which Beijing regards as its own territory.
- **China banned all Japanese seafood** imports after Japan began releasing treated wastewater into the Pacific Ocean from the stricken **Fukushima nuclear plant** in August, with Beijing accusing Tokyo of treating the sea like a "sewer".
- Japan insists the discharge is safe, a view backed by the UN atomic watchdog, the **International Atomic Energy Agency**.

## Pakistan and China Navies to carry out joint sea patrol

### Context

China and Pakistan are conducting the third edition of the **Sea Guardian-3** bilateral naval exercise in the northern Arabian Sea.

## Key points

- The exercise comes just a day after the **2+2 Ministerial dialogue** between India and the U.S. where maritime security in the Indo-Pacific was in focus and New Delhi announced its decision to become a full-member of the Bahrain-based U.S.-led multilateral grouping **Combined Maritime Forces (CMF)**, of which Pakistan is also a member.
- The exercise also comes days after Russia and Myanmar held their first naval exercise in the Andaman Sea.
- **China's People's Liberation Army (PLA) Navy** has deployed a Type-093 Song class diesel-electric submarine for the exercise.

## India-Middle East-Europe Economic Corridor (IMEC) Project

### Key points:

- **Components:** The IMEC will include Railroad, Ship-to-Rail networks, and Road transport routes.

### Corridors:

- The East Corridor: Connecting India to the Arabian Gulf.
- The Northern Corridor: Connecting the Gulf to Europe.

**Additional Infrastructure:** The corridor will also encompass an electricity cable, a hydrogen pipeline, and a high-speed data cable.

### Goals:

- To establish a comprehensive transportation network combining rail, road, and sea routes.
- To connect India, the Middle East, and Europe.
- To enhance transportation efficiency and reduce costs.
- To increase economic unity and generate employment.
- To reduce Greenhouse Gas (GHG) emissions.

**Expected Impact:** The IMEC is anticipated to transform the integration of Asia, Europe, and the Middle East by bolstering trade and connectivity.

## China keen to extend Myanmar economic corridor to Sri Lanka

### Context

- China is "prioritising" the extension of the **China-Myanmar Economic Corridor (CMEC)** to Sri Lanka
- China is looking to scale up the Belt and Road Initiative (BRI) project in South Asia.

### Key points

- The CMEC is the **newest of the six land corridors** under the BRI, and has assumed prominence in place of the **Bangladesh China India Myanmar (BCIM) corridor** which has largely been stalled.
- **India and Bhutan** are the only countries in South Asia that have **stayed out of the BRI** and China's more recent Global Development Initiative.

## Far-right populist Javier Milei wins presidential run-off in Argentina

### Context

Controversial economist **Javier Milei** has won **Argentina's presidential elections** in Argentina, a country that's grappling with the worst economic crisis in a generation.

### Key points

- He is an **anarcho-capitalist**.
- He has proposed to **abandon the national currency** and **adopt the U.S. dollar**, similar to

what El Salvador and Ecuador have done in Latin America, although those were smaller countries and Argentina is the third-largest economy in the region.

### Israel lists Lashkar-e-Taiba as a terrorist organisation

#### Context

- Israel listed **Pakistan-based militant organisation Lashkar-e-Taiba** as a terror outfit.
- The move is in sync with Israel's attempts to support a global war on terror.

#### Key points

- Lashkar-e-Taiba is a **deadly and reprehensible terror organisation**, responsible for the murder of hundreds of Indian civilians as well as others.
- Its heinous actions on **November 26, 2008** still reverberate in force through all peace seeking nations and societies

### Appointment News

#### Regional Director of the World Health Organization's South-East Asia region

#### Context

Bangladesh Prime Minister Sheikh Hasina's daughter, Saima Wazed, was elected Regional Director of the World Health Organization's South-East Asia region

#### Key points

- She defeated Shambu Acharya, a public health veteran from Nepal, in a vote held here during the 76th session of the WHO Regional Committee for Southeast Asia Region.
- India, Bangladesh, Bhutan, North Korea, Indonesia, the Maldives, Nepal, Sri Lanka, Thailand, and Timor-Leste — 10 of the 11 member countries — took part in the vote.

### Economy News

#### RBI Maintains 6.5% GDP Growth Projection

#### Context:

#### Reserve Bank of India's Outlook (October 6):

- RBI maintains its 6.5% GDP growth projection for the year.
- Risks include geopolitical tensions, economic fragmentation, volatile financial markets, and an uneven monsoon.
- Domestic demand is strengthening.

#### Key Points:

#### Emerging Uncertainties (Fortnight Since):

- New uncertainties have arisen since the RBI's projection.
- The Israel-Hamas conflict has widened, raising concerns about global food, fuel, and fertilizer supplies.
- India's dependence on fuel and fertilizer imports could be problematic.
- Rising U.S. bond yields and mixed data points add to uncertainties.
- Sharp sell-off on Indian bourses observed.

#### Inflation to remain high in 2024

#### Context

High inflation will dog the world economy next year, with three-quarters of more than 200 economists polled by Reuters.

#### Key points

- Interest rates will also remain higher for longer.
- The latest poll resulted in 2024 growth downgrades and inflation upgrades for a majority of the 48 economies surveyed.

#### Fiscal deficit touches 39.3% of full-year target in first half

#### Context

- The central government's fiscal deficit touched 39.3% of the full year target in the first half of the current financial year, slightly higher than 37.3% recorded in the year-earlier period.
- In the Union Budget, the government projected to bring down the fiscal deficit to 5.9% of the Gross Domestic Product (GDP) in the 2023-24 financial year.
- Tax revenue was at ₹11.60 lakh crore or 49.8% of the annual target. During April-September 2022, net tax collection was 52.3% of Budget Estimate.

#### Climate finance

- It refers to local, national, or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support mitigation and adaptation actions that will address climate change.
- The UNFCCC, Kyoto Protocol, and the Paris Agreement call for financial assistance from Parties with more financial resources (Developed Countries) to those that are less endowed and more vulnerable (Developing Countries).

#### Status of India's Economy post-COVID-19 years

#### Context:

- The Indian economy has increased in the post-COVID-19 years.

- In FY2023, it grew at YoY at 7.2%, the fastest among major economies.

**Key Points:**

**According to IMF,**

- India's YoY growth to be 6.3% for FY2024
- India is currently the 5th largest economy in the world in U.S. dollar terms
- India to become the third largest by 2027

**Reasons for India's high growth rates**

- It was propelled by strong growth in world trade
- domestic credit boom
- Government's measures since 2014

**Government's measures since 2014**

- Calibrated liberalization of the economy - led to high foreign direct investment inflows
- Insolvency and Bankruptcy Code (IBC) introduced in 2015 - Lowered non-performing assets in the banking sector
- Policies to increase private corporate investment
- 2016 demonetisation drive - improved tax compliance
- Goods and Services Taxes (GST) rolled out in 2017 - increased revenues
- reduction in the corporate tax rate in 2019 increased corporate reserves and private capital investments
- large Capex programmes by both Centre and State Governments
- containing the fiscal deficit
- Focus on improving physical infrastructure
- Focus on inclusive growth - Commitment to Sabka Saath Sabka Vikas
- various steps to lift people above the poverty line, livelihood enhancement, skill development, women's empowerment, and infrastructure development

**Way ahead:**

**India aims to achieve the following for a majority of its citizens**

- high-income status
- high quality of life
- Realizing high aspirations of its citizens
- To address weak domestic demand.

**According to NITI Aayog report -**

- Multidimensional poverty in India declined: 13.5 crore Indians are estimated to have

escaped multidimensional poverty between 2015-16 and 2019-21.

- India witnessed tangible progress in rural living standards.

**According to National Family Health Survey for 2019-21**

India witnessed a significant improvement in an array of indicators concerning -

- the quality of rural lives
- access to electricity
- improved drinking water sources
- coverage under health insurance schemes
- institutional births
- immunization
- health insurance coverage

**Government support to Agriculture has led to-**

- Improved growth of dairy, fisheries and livestock products sector
- Share of fruits and vegetables in the food basket has increased to 19.4% in 2021.
- Country's food basket is more nutritious today than ever.

**About 80% funds for semiconductor PLI remain unused**

**Context**

- About \$8 billion of the \$10 billion allocated by the Centre for the production of semiconductors under the production-linked incentive (PLI) scheme remains untapped.
- Govt has allocated \$26 billion in 14 economic sectors to expand domestic manufacturing

**About PLI**

- The Production Linked Incentive (PLI) scheme is a government programme that offers subsidies to companies based on a percentage of their incremental sales.
- The goal of the PLI scheme is to boost domestic manufacturing and make Indian industries more competitive in the global market.

**Headline Inflation**

**Context**

Even though CPI inflation has been projected at 5.4% for

2023-24 by the Monetary Policy Committee (MPC), a moderation from 6.7% in 2022-23, headline inflation remains vulnerable to recurring and overlapping food price shocks

### About Headline inflation

- Headline inflation is the raw inflation figure reported through the Consumer Price Index (CPI) that is released monthly by the Bureau of Labor Statistics.
- Headline inflation is not adjusted to remove highly volatile figures, including those that can shift regardless of economic conditions.

### Wholesale prices remain in deflation zone in Oct

#### Context

India's wholesale prices remained in deflationary mode for the seventh month in a row in October, with the Wholesale Price Index (WPI) reflecting an **inflation of -0.52% from -0.26%** in September.

#### About WPI

- It measures the **changes in the prices of goods sold and traded** in bulk by wholesale businesses to other businesses.
- Published by the **Office of Economic Adviser, Ministry of Commerce and Industry**.
- It is the most widely used inflation indicator in India.
- Major criticism for this index is that the general public does not buy products at wholesale price.
- The base year of All-India WPI has been revised from **2004-05 to 2011-12 in 2017**.

### India sees 6.2% rise in goods exports in October

#### Key facts

- India's **goods exports grew 6.2%** in October and **imports jumped 12.3%** to a record high of \$65.03 billion, fuelled largely by higher imports of gold, which rose 95.4%, and oil.
- The monthly goods trade deficit widened to an all-time high of **\$31.46 billion**.

### Summits & Conferences News

#### Biden, Xi to hold talks in San Francisco

#### Context

U.S. President Joe Biden will meet Chinese President Xi Jinping face-to-face for the first time in a year, in high-stakes diplomacy aimed at curbing tensions between the world's two superpowers.

#### Key points

- They will meet on the sidelines of the Asia-Pacific Economic Cooperation (APEC) summit in San Francisco.
- It is expected to cover global issues from the Israel-Hamas war to Russia's invasion of Ukraine, North Korea's ties with Russia, Taiwan, the Indo-Pacific, human rights, fentanyl, Artificial Intelligence, as well as "fair" trade and economic relations.

### Agreement News

#### China-Bhutan boundary talks

##### Context

- China and Bhutan held their 25th round of boundary talks in Beijing.
- They signed a Cooperation Agreement on the "Responsibilities and Functions of the Joint Technical Team (JTT) on the Delimitation and Demarcation of the Bhutan-China Boundary."

##### Significance of the Talks:

- After a seven-year gap, Bhutan and China resumed boundary talks.
- Indicative of significant progress in resolving border disputes.
- The talks were paused after the Doklam Standoff in 2017 and the COVID-19 pandemic in 2019-2021.
- Talks at other levels occurred during the pause, and an Expert Group met in 2021 to agree on a 3-step roadmap.
- Bhutan's Prime Minister stated that they were "inching towards" completing the roadmap.
- Further progress was made during FM Tandi Dorji's visit to Beijing.

##### The 3-Step Roadmap:

**A roadmap established in 2021 with three key steps: Agreeing on the border "on the table."**

- Visiting the border sites on the ground.
- Formally demarcating the boundary.
- Aims to delineate Bhutanese and Chinese territory clearly for the first time.

##### India's Concerns:

- India is closely monitoring these talks due to its strained relations with China since the 2020 Line of Actual Control standoff.
- India is particularly concerned about demarcation discussions over Doklam, where China has proposed a land swap.
- Doklam is strategically significant as it is close to India's Siliguri corridor, connecting the North Eastern States to the rest of India.
- China has continued to build infrastructure in



disputed areas in neighbouring Bhutan, eroding India's strategic advantages.

- India is worried about China's demand for full diplomatic relations with Bhutan and opening an embassy in Thimphu.
- This concern arises from India's challenges with Chinese projects and influence in neighbouring countries.

### China-Pakistan Economic Corridor (CPEC)

#### Context

- Seeking funds to the tune of **\$65 billion via infrastructure investment**, Pakistan's caretaker Prime Minister **Anwaarul Haq Kakar** completed a five-day trip to Beijing.
- He was also attempting to allay China's demands regarding the **China-Pakistan Economic Corridor (CPEC)**, the infrastructure project spearheaded by Beijing from 2015 that had reached an impasse due to disagreements over the Gwadar port in Balochistan.

#### About CPEC

- CPEC is a **3,000-km long route** of infrastructure projects connecting China's northwest Xinjiang Uygur Autonomous Region and the Gwadar Port in the western province of Balochistan in Pakistan.
- It is a **bilateral project between Pakistan and China**, intended to promote connectivity across Pakistan with a network of highways, railways, and pipelines accompanied by energy, industrial, and other infrastructure development projects.
- It will **pave the way for China to access the Middle East and Africa** from Gwadar Port, enabling China to access the Indian Ocean and in return China will support development projects in Pakistan to overcome the latter's energy crises and stabilising its faltering economy.
- CPEC is a part of the **Belt and Road Initiative**.
- The BRI, **launched in 2013**, aims to link Southeast Asia, Central Asia, the Gulf region, Africa and Europe with a network of land and sea routes.

### Ranks and Report News

#### Salt Consumption in India

##### Context

A recent report, a part of the national non-communicable disease monitoring survey, states that Indian men consume 8.9 grams, and Indian women take

in 7.1 grams of salt on a daily basis

##### Key points

- The World Health Organization recommends 5 grams of salt in your diet every day.
- The world average is 10.8 grams.
- High salt intake causes disease in the kidney, brain, vasculature, and immune system.
- High levels of sodium in the diet are also associated with conditions ranging from kidney stones to osteoporosis.
- It is estimated that excessive salt contribution contributes to around five million deaths worldwide every year.

##### Did you know?

- The Yanomami people of the Amazon rainforest live a foraging lifestyle and eat a diet consisting of the root vegetable Cassava, plantains, fruit, fish and an occasional tapiir.
- They use peppers for flavour, and no salt.
- They consume less than one gram of salt a day yet stay supremely fit.

### Developed countries to overshoot carbon emissions goal, says study

#### Context

The Delhi-based think tank Council for Energy Environment and Water (CEEW) published a study indicating that Developed countries — responsible for three-fourths of existing carbon emissions — will end up emitting 38% more carbon in 2030 than they have committed

#### Key findings

- The NDCs of developed countries already fall short of the global average reduction of emissions to 43% below 2019 levels that is needed to keep temperatures from rising above 1.5 degrees Celsius.
- Instead, developed countries' collective NDCs only amount to a 36% cut.
- Except for two countries — Belarus and Norway — none of the developed countries seem to be on the path to meet their 2030 targets, though Japan and Kazakhstan are close, and are expected to miss their targets by only a single percentage point.

### Studies provide insight into the internal structure of Mars

#### Context

- Mars's liquid iron core is likely to be surrounded by a fully molten silicate layer, according to a pair of studies published in Nature.
- These results offer a new interpretation of the interior of Mars, suggesting its core is smaller and denser than previously proposed.

### Key points

- InSight Mars Lander used SEIS(Seismic Experiment for Interior Structure) to record Mars's seismic waves.
- SEIS data in 2021 suggested a large, low-density core on Mars.
- The core has more lighter elements than expected.
- Mars's core is surrounded by a 150 km-thick layer of molten rock.
- The core's smaller radius implies higher density than earlier thought.
- SEIS data challenged previous core density estimates.

### 7.5% dip in active workforce under MGNREGS, says study

#### Context

- The number of active workers under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has dipped by 7.5%, according to a data analysis for the period April to September 2023 by LibTech India, a consortium of academics and activists.
- The workforce has reduced from 15.49 crore in the previous financial year to 14.33 crore, as per data available till October 6, 2023.

### 53 accidents, 19 deaths per hour in road crashes in 2022, says Ministry

#### Context

India witnessed 53 accidents and 19 deaths every hour, or an average of 1,264 accidents and 42 deaths, daily in road crashes last year, according to a Ministry of Road Transport and Highways report

#### Key findings

- The number of road accidents in 2022 increased by 11.9% and deaths rose by 9.4%.
- According to an analysis by the Save Life Foundation, with a crash severity of 38.15, India ranks among the 20 worst countries for road crashes.
- According to World Road Statistics, 2022 published by the International Road Federation, Geneva, which uses data for the year 2020 in terms of the total number of fatalities, India was followed by China (with a crash severity of 25.22) and the U.S. (with a crash severity of 2.01).
- Of the factors causing road accidents, "speeding" was the most common. It accounted for 72.3% of accidents and 71.2% of deaths.
- Uttar Pradesh registered the highest share of deaths at 13.4%.

- This was followed by Tamil Nadu at 10.6% and Maharashtra at 9%.

### 7.5 million new cases of TB in 2022, shows WHO Global report

#### Context

TB remains the world's second leading cause of death from a single infectious agent, and global TB targets have either been missed or remain off track

#### Key points

- The reported global number of people newly diagnosed with TB was 7.5 million in 2022.
- This is the highest number since WHO began global TB monitoring in 1995, above the pre-COVID baseline (and previous historical peak) of 7.1 million in 2019, and up from 5.8 million in 2020 and 6.4 million in 2021.
- India, Indonesia and the Philippines, which collectively accounted for nearly 60% of the reduction in the number of people newly diagnosed with TB in 2020 and 2021, recovered to above 2019 levels in 2022.

### India has taken several measures to reduce tuberculosis (TB):

- National Strategic Plan for TB Elimination: Launched to end TB by 2025
- Universal Drug Susceptibility Testing (UDST): Ensures every diagnosed TB patient is tested for drug resistance before or at the start of treatment
- Ni-kshay Mitra initiative: Provides community support to patients and their families to improve treatment outcome
- Ni-kshay Poshan Yojana: Provides nutritional support to TB patients
- Tuberculosis (TB) Mukta Bharat Abhiyaan: Launched in 2021 under the NSP India 2020-25 for TB Elimination.

### Index of Industrial Production (IIP)

#### Context

India's industrial output growth slid to a three-month low of 5.8% in September from a 14-month high of 10.3% in August

### About Index of Industrial Production (IIP)

- It is one of the Prime indicators of economic development for the measurement of trends in the behaviour of Industrial Production over a

period of time with reference to a chosen base year.

- It indicates the relative change of physical production in the field of industries during a specified year as compared to the previous year.
- It is computed and published by the Central Statistical Organisation (CSO) on a monthly basis.
- The base year is always given a value of 100.
- The current base year for the IIP series in India is 2011-12.

### Index of Eight Core Industries (ICI)

- ICI measures the collective and individual performance of production in selected eight core industries viz. Coal, Crude Oil, Natural Gas, Petroleum Refinery Products, Fertilizers, Steel, Cement and Electricity.
- The objective of the ICI is to provide an advance indication of production performance of industries of 'core' nature before the release of IIP by the Central Statistics Office.
- These industries are likely to impact general economic activities as well as industrial activities.
- The Index is compiled and released by the Office of the Economic Adviser (OEA), Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry, Government of India.

### The OECD report on climate finance

#### Context

- A new report, published by the **Organisation for Economic Cooperation and Development (OECD)**, showed that economically developed countries fell short of their promise to jointly **mobilise \$100 billion** a year towards climate mitigation and adaptation needs of developing countries in 2021 — one year past the 2020 deadline.
- The report said that developed countries **mobilised \$89.6 billion** in 2021 and that finances for adaptation fell by 14% in 2021 compared to 2020.

#### Key points

- The OECD report showed that of the **\$73.1 billion mobilised in 2021** by the public sector via bilateral and multilateral channels, \$49.6 billion was provided as loans.
- The OECD report added that by 2025, developing countries are estimated to require around **\$1 trillion a year** in climate

investments, rising to roughly **\$2.4 trillion each year** between 2026 and 2030.

#### Did you know?

The OECD is largely a group of rich countries including the U.S., the U.K., Germany, France, Switzerland, Canada, and others.

### Science and Technology News

### ISRO to hold more tests for Gaganyaan in coming months

#### Context

- Successful completion of Test Vehicle-D1 (TV-D1) mission on October 21.
- Planned series of test missions to further Gaganyaan program.

#### Upcoming Tests by ISRO

##### TV-D2 Mission

- Demonstrates in-flight abort capability under varied initial conditions.
- Features control system for crew module re-orientation upon separation.
- Utilizes the same expendable version based on L40 strap-on from GSLV.

##### G-X Unmanned Orbital Demonstration Flight

- Involves crew module with service module.
- Launches aboard a human-rated LVM3.
- Introduces 'Vyommitra' – a robot astronaut developed by ISRO Inertial Systems Unit (IISU).
- Tests control systems, reduced life support system, thermal protection, and parachute systems.

#### Integrated Air-Drop Test (IADT)

##### Pad Abort Test

##### Reuse of TV-D1 Crew Module

- Consideration of TV-D1 crew module recovery for future tests.
- Module retrieved from sea after parachute-assisted splash-down.
- Requires detailed inspection due to salt water exposure.
- Plan to assess feasibility of reuse and determine suitable future test programs.

### IITM Pune demonstrates cloud seeding can produce rainfall

#### Context

A cloud seeding experiment carried out in Solapur city, was able to achieve 18% relative enhancement in rainfall, which is approximately 8.67mm more rainfall than usual.

#### Key points

- Solapur city falls on the leeward side of the Western Ghats and hence gets low rainfall

- It had 384 mm and 422 mm of total rainfall during the period June to September 2018 and 2019, respectively
- The relative enhancement of accumulated rainfall was seen over two hours after seeding the clouds.
- This was done with the help of Cloud Aerosol Interaction and Precipitation Enhancement Experiment (CAIPEEX phase-4)
- Calcium chloride flare was used for seeding the clouds.

### Access to high-speed Internet

#### Context

Prime Minister hailed telecom operators' progress in spreading 5G coverage in urban centres, saying that over 80% of India's urban population now had access to the high-speed technology.

#### Key points

- Within a year of 5G launch, about 4 lakh 5G base stations have been built in India
- India is exporting about ₹2 lakh crore in electronics manufacturing
- India is not only rapidly expanding 5G in India, but are also moving towards becoming a leader in the field of 6G.

### Police stations to install DNA systems

#### Context

- In April 2022, the Criminal Procedure (Identification) Act (CrPI) was passed by Parliament.
- The Act enables police and central investigating agencies to collect, store and analyse physical and biological samples including retina and iris scans of arrested persons.

#### About NAFIS

- Police across States have been trained to record finger impressions through the National Automated Fingerprint Identification System (NAFIS).
- NAFIS is under the NCRB
- It is a separate project that was launched in 2022.

- It assigns a unique ten-digit National Fingerprint Number (NFN) to all suspects arrested by the police.
- State police have their own fingerprint database.
- NAFIS integrates the data on a common platform, enabling the police to run a countrywide search to match fingerprint impressions lifted from a crime scene.

### Haemoglobin isn't used only in blood, scientists discover

#### Context

- A new and serendipitous discovery has revealed that haemoglobin isn't used by RBCs alone.

- In a study published in Nature, scientists from China have reported that chondrocytes – cells that make cartilage, the connecting tissue between bones – also make haemoglobin and seem to depend on it for their survival.

#### Key points

- The scientists called these blobs haemoglobin bodies, or Hedy.
- The discovery of functional haemoglobin in cartilage also leads to the possibility that it plays a role in certain joint diseases.

### NICED makes quick detection of drug-resistant H. pylori possible

#### Context

- A two-step PCR-based assay of a small region of the Helicobacter pylori (H. pylori) bacteria can help detect H. pylori infection and also identify clarithromycin-resistant bacteria and those which are drug-sensitive in six-seven hours
- This has been developed by a team of researchers from the National Institute of Cholera and Enteric Diseases (ICMR-NICED), Kolkata.

### Traffic Collision Avoidance Systems (TCAS)- Kavach

#### Context

The deadly collision between two passenger trains in southern India's Vizianagaram district in Andhra Pradesh which killed 14 people and injured fifty persons could have been averted if Traffic Collision Avoidance Systems (TCAS) were in place.

#### About TCAS - Kavach

- Kavach is a cab signalling train control system with anti-collision features.
- Simply put, it plays the role of a watchdog over the existing signalling system.
- It was developed over a period of 10 years, starting in 2012, by the Indian Railways Research Designs and Standards Organisation (RDSO).
- Kavach is designed to give out warnings to the loco pilot in case he does not notice the 'red signal,' and instead of stopping, is going to overshoot the signal.
- After giving warnings on the loco pilot's display, if the pilot does not slow down below 15 kilometres per hour, the Kavach system automatically applies brakes to bring the train to a halt.

### Aditya-L1 captures first glimpse of solar flares

## Context

The High Energy L1 Orbiting X-ray Spectrometer (HEL10S) payload, onboard the Aditya-L1 spacecraft, has captured the first glimpse of solar flares.

### About Aditya L1

- The objective of Aditya L1 mission is to study the Sun's Corona, Chromosphere and Photosphere.
- In addition, it will study the particle flux emanating from Sun, and the variation of magnetic field strength.

## AI Deepfakes

### Context

- The government instructed “social media intermediaries” to remove morphed videos or deep fakes from their platforms within 24 hours of a complaint being filed, in accordance with a requirement outlined in the IT Rules 2021.
- The instructions came as deep fake videos of actors Rashmika Mandanna and Katrina Kaif surfaced online within the span of one week.

### About Deepfakes

- Deep fakes have been around since 2017.
- It refers to videos, audios or images created using a form of artificial intelligence called deep learning.
- Researchers have observed a 230% increase in deepfake usage by cybercriminals and scammers.
- The technology involves modifying or creating images and videos using a machine learning technique called generative adversarial network (GAN).
- The AI-driven software detects and learns the subjects' movements and facial expressions from the source material and then duplicates these in another video or image

### Laws in India about Deepfakes

- India's IT Rules, 2021 require that all content reported to be fake or produced using deep fake be taken down by intermediary platforms within 36 hours.
- The IT ministry has also issued notices to social media platforms stating that impersonating online was illegal under Section 66D of the Information Technology Act of 2000.

## Self-Sustainable Energy Buildings (SSEB)

### Context

Shri Amit Shah virtually inaugurated Self Sustainable

Energy Buildings (SSEB) for soldiers and drones for supply of vegetables, medicines and other essential commodities at BOPs (Border Observation Posts) located at difficult areas.

He also launched a flip book on 147 martyrs of ITBP.

### About

- Self-Sustainable Energy Building (SSEB) is built at an altitude of 17,000 feet in the cold desert
- This building will become a symbol of self-reliant India.

### e-FIR

#### Context

The Law Commission of India, in Report No. 282, recommended that “in cases where the accused is not known, registration of an e-FIR should be allowed for all cognisable offences”

#### About e-FIR

- It is obtaining information/complaint through electronic means using a common national portal
- getting the information/complaint signed by the complainant physically within three days to convert the complaint into an actual FIR.
- 'e-FIR' is not an automatically registered FIR using electronic means, including electronic signature of the complainant.
- The online facility will have only limited efficacy.
- Any investigation done prior to the actual registration of the FIR shall not be an investigation undertaken in the true spirit of the Code of Criminal Procedure.
- In e-FIR, the complainant does not have to visit the police station; rather they can register their complaint through a mobile app or the police's online network.
- Once an FIR is filed, designated investigating officers will contact the complainant.
- This initiative is being implemented partially in Delhi, Gujarat, Karnataka, Madhya Pradesh, Odisha, Rajasthan, Uttar Pradesh, and Uttarakhand.

## AI-powered chemist makes oxygen from Martian meteorites

### Context

- Oxygen-producing materials made from meteorites found on Mars have been produced using a robotic **artificial intelligence (AI)**-

chemist.

- The research, published in **Nature Synthesis**, provides a proof-of-concept for generating oxygen and may have implications for future manned missions to Mars.

### Key points

- **Five different categories** of meteorites were selected, that come from or have been confirmed to exist on Mars, which were analysed by the robotic AI-chemist.
- Recent **evidence of water on Mars** and analysis of the elemental composition of meteorites found on the planet could provide an opportunity to make catalysts using Martian resources.

### NASA, ISRO prepare to launch joint space mission

#### Context

The **NASA-ISRO Synthetic Aperture Radar (NISAR)** is set to be launched in the first quarter of 2024 after a few tests, particularly those related to vibration

#### About NISAR:

- NISAR is a **Low Earth Orbit (LEO)** observatory jointly developed by NASA and ISRO.
- It is an **SUV-size satellite** weighing 2,800 kilograms.
- It consists of both **L-band and S-band synthetic aperture radar (SAR)** instruments, which makes it a dual-frequency imaging radar satellite.
- NISAR will be the first satellite mission to use two different radar frequencies (L-band and S-band) to measure changes in our planet's surface.
- SAR is **capable of penetrating clouds** and can collect data day and night regardless of the weather conditions.
- NASA has provided the L-band radar, GPS, a high-capacity solid-state recorder to store data, and a payload data subsystem. ISRO has provided the S-band radar, the GSLV launch system, and spacecraft.
- It also consists of a large 39-foot stationary **antenna reflector** made of a gold-plated wire mesh which will be used to focus "the radar signals emitted and received by the upward-facing feed on the instrument structure.
- It will **measure Earth's changing ecosystems**, dynamic surfaces, and ice masses, providing

information about biomass, natural hazards, sea level rise, and groundwater.

- NISAR will **observe Earth's land and ice-covered surfaces** globally with 12-day regularity on ascending and descending passes.

### Energy burst in distant galaxy disturbed ionosphere

#### Context

- About two billion years ago in a galaxy far beyond our Milky Way, a big star met its demise in a massive explosion called a **supernova** that unleashed a huge burst of gamma rays, which pack the most energy of any wave in the electromagnetic spectrum.
- Those waves traversed the cosmos and finally reached the earth last year. This **gamma-ray burst**, according to researchers, caused a significant disturbance in the earth's ionosphere, a layer of the planet's upper atmosphere that contains electrically charged gases called **plasma**.

#### About Ionosphere

- The ionosphere is situated about **50-950 km above the earth's surface**, stretching to the very edge of space.
- It helps form the boundary between the **vacuum of space and the lower atmosphere** inhabited by people.
- The ionosphere, which **helps protect life on the earth** by absorbing harmful ultraviolet rays from the sun, is sensitive to changing magnetic and electrical conditions in space, usually connected to solar activity.

### Chimaeras -hosts to multiple genotypes, and maybe human organs

#### Context

- At present, more than **3 lakh people are waiting for an organ transplant** in India alone; the global number is far higher, with no respite in sight.
- There is an alarming disparity in the number of organ donors and the number of recipients
- The successful application of **animal insulin** and the more recent use of **animal heart valves** in human surgeries have saved human lives.
- Researchers have also made attempts to grow full human organs inside the bodies of animals using advancements in **induced pluripotent stem cells (iPSCs) technology**.
- At the same time, controversy continues to beset this field, most of it centred on the use of human iPSCs in animal embryos and the creation of

chimeric animals, the results of which we are yet to fully comprehend.

### Key points

- A **genetic chimaera** is a single organism composed of cells of more than one genetic makeup.
- **Human-pig chimaeras** have been induced in laboratory settings in a bid to develop model systems that could 'produce' human organs of a suitable size, anatomy, and physiology
- In a **study published in Cell**, scientists reported successful generation of a live chimaera in non-human primates – species evolutionarily close to humans.
- This is the first time scientists have succeeded in producing a live infant chimeric monkey.

### Induced pluripotent stem cells (iPSCs)

- Induced pluripotent stem cells (iPSCs) are adult cells that have been **genetically reprogrammed to an embryonic stem cell-like state** by being forced to express genes and factors important for maintaining the defining properties of embryonic stem cells.
- Although additional research is needed, iPSCs are already useful **tools for drug development and modeling of diseases**, and scientists hope to use them in transplantation medicine.

### Award News

#### Author Nandini Das wins 2023 British Academy Book Prize

#### Context

Indian-born author Nandini Das has been named the winner of the 2023 British Academy Book Prize

#### Key points

- She got this prize for her book *Courting India: England, Mughal India and the Origins of Empire*.
- The British Academy Book Prize, formerly known as the Nayef Al-Rodhan Prize, was established in 2013 to reward and celebrate the best works of non-fiction that demonstrate rigour.

#### Nicaraguan Sheynnis Palacios wins crown at Miss Universe 2023

#### Context

- **Nicaragua's Sheynnis Palacios** was crowned **Miss Universe 2023** at the **72nd edition** of the pageant, held this year in El Salvador.
- Palacios received the crown and sash from her predecessor, **R'Bonney Gabriel from the United States**.

- Miss India **Shweta Sharda** had made it to the list of top 20 contestants.

### 54th IFFI

- The 54th International Film Festival of India (IFFI) is scheduled to be held in Goa from November 20 to 28, 2023.
- The Ministry of Information & Broadcasting, Government of India, through National Film Development Corporation (NFDC), jointly with the State Government of Goa through its Entertainment Society of Goa (ESG), is organizing the festival.

#### The festival will include:

- An announcement by Union Minister Anurag Thakur that India's media & entertainment industry is 5th largest globally, growing 20% annually.

#### Do you know?

- The theme for the festival is "Celebrate the Joy of Cinema."
- This theme highlights the immense happiness, excitement, and inspiration that cinema brings to people's lives.
- It aims to showcase the diversity and richness of Indian culture through the lens of cinema, arts, millets, textiles, and Indian scripts. Stills of several Indian Movies like *Lunch Box*, *RRR*, *Manikarnika*, *Kantara*, *Tanhaji*, can be seen on the poster.
- The concept for the 54th International Film Festival of India poster revolves around a central motif of a peacock, surrounded by a captivating representation of iconic Indian cinema, arts, millets, textiles, and Indian scripts.
- This visually striking composition captures the joy and magic of cinema and invites audiences to celebrate the diverse cultural heritage of India.
- IFFI this time introduces the "Best Web Series (OTT) Award."

#### Key facts:

- Satyajit Ray Lifetime Achievement Award: Micheal Douglas

#### Indian Panorama:

- This section of IFFI will highlight 25 feature films and 20 non-feature films from India.
- The opening film in the feature section is the Malayalam film "Aattam," while the non-feature section features "Andro Dreams" from Manipur.

## Sports News

### All India Football Federation (AIFF)

- The All India Football Federation (AIFF) is the national governing body of football in India.
- President: Kalyan Chaubey
- Headquarters: New Delhi
- Founded: 23 June 1937
- Subsidiaries: Indian Football Association, MORE
- Parent organization: South Asian Football Federation.
- It is a member of FIFA, the international governing body of football and affiliated to the Asian Football Confederation and South Asian Football Federation.
- It is affiliated to the Ministry of Youth Affairs and Sports, Government of India.
- The AIFF manages, sanctions, conducts, schedules and runs all national level football tournaments and leagues in India.

### Advani wins World title for the 26th time

#### Context

- Indian cueist Pankaj Advani rallied to win the **IBSF World Billiards Championship title** for a staggering 26th time, beating compatriot Sourav Kothari in the final.
- Advani rallied to defeat the 2018 world champion Kothari **1000-416** in a rematch of last year's title clash in Kuala Lumpur.

#### About IBSF World Billiards Championship

- The IBSF World Billiards Championship (**previously known as the World Amateur Billiards Championship**) is the premier, international, non-professional tournament for the game of English billiards.
- Dating to some form to **1951**, the event has been sanctioned by the International Billiards and Snooker Federation since 1973.

## Defence News

### De-induction of the IL-38

#### Context

- The de-induction of the IL-38 aircraft was done recently.
- C-295 aircraft in the medium-range maritime patrol aircraft (MPA) can take its role in the future

#### About IL-38

- IL-38 is a maritime reconnaissance aircraft that was commissioned into the Indian Navy in 1977

and remained a formidable air asset throughout its service life for nearly 44 years.

- It was with the induction of IL 38 aircraft that the Navy moved into the arena of airborne Long Range Maritime Reconnaissance (LRMR) combined with long range anti-submarine search and strike, anti-shipping strike, electronic signal intelligence and distant SAR.
- The IL 38 is an all-weather aircraft with long endurance and substantial operating range. Having clocked nearly 10,000 hours of operational flying.

### Leave benefits for women in armed forces

#### Context

Defence Minister has approved a proposal to grant maternity, childcare and child adoption leave to women soldiers, sailors, and air warriors on a par with the officers.

#### Key points

- The move was in line with the vision of "inclusive participation" of all women in the armed forces, irrespective of their ranks.
- At present, women officers get maternity leave of 180 days with full pay for each child, subject to a maximum of two children.
- Childcare leave of 360 days is granted in total service career (subject to the child being less than 18 years of age) to women officers.
- Child adoption leave of 180 days is granted after the date of the valid adoption of a child below one year of age.

### Bongosagar-23

#### About:

- It is an annual naval exercise which is aimed at developing a high degree of interoperability and joint operational skills through the conduct of a wide spectrum of maritime exercises between India and Bangladesh
- Indian Navy ships Kuthar, Kiltan and Maritime Patrol Aircraft (MPA) Dornier participated in the exercise.
- INS Kuthar is an indigenously built guided-missile Corvette.
- INS Kiltan is an indigenously built anti-submarine Corvette.
- Both ships are part of the Indian Navy's Eastern Fleet based at Visakhapatnam.

### '2+2' ministerial dialogue

#### Context



- U.S. Secretary of Defence Lloyd J. Austin arrived in India for the '2+2' ministerial dialogue
- The '2+2' dialogue will enable a high-level review of progress being made in cross-cutting aspects of defence and security cooperation, technology value chain collaborations and people-to-people ties

### About

The 2+2 meetings signify the participation of two high-level representatives, Ministers holding Foreign and Defence portfolios, from each of the two countries who aim to enhance the scope of dialogue between them.

### Rajnath to attend Defence Ministers' meet in Jakarta

### Context

Defence Minister Rajnath Singh will pay an official visit to Jakarta to attend the **10th Association of South East Asian Nations (ASEAN) Defence Ministers' Meeting-Plus (ADMM-Plus)** and will address the forum on regional and international security issues

### Key points

- **Indonesia** is hosting the meeting as the chair of ADMM-Plus.
- The ADMM is the **highest defence consultative and cooperative** mechanism in ASEAN.
- The ADMM-Plus is a platform for the ASEAN **member-states**, Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam, and its eight dialogue partners, India, the U.S., China, Russia, Japan, South Korea, Australia and New Zealand.
- It is to **strengthen security and defence cooperation**.
- India became a dialogue partner of the ASEAN in 1992 and the inaugural ADMM-Plus was convened in Hanoi, Vietnam, on October 12, 2010.
- Since 2017, the ADMM-Plus Ministers have been meeting annually to bolster the cooperation among the ASEAN and the Plus countries.

### Proposed criminal code gives more immunity to defence personnel

### Context

The **Bharatiya Nagarik Suraksha Sanhita (BNSS) Bill, 2023**, expected to replace the **Code of Criminal Procedure (CrPC)**, provides further immunity to armed forces personnel.

### Key points

- **Purpose:** The BNSS Bill, 2023, is intended to replace the existing Code of Criminal Procedure (CrPC).
- **Immunity to Armed Forces:** It provides additional immunity to armed forces personnel.
- **Sanction for Legal Action:** The bill stipulates that no case can be registered against armed forces personnel without the sanction of the Union or State government for acts performed in the line of duty.
- **Relation to AFSPA:** This provision is in addition to the Armed Forces Special Powers Act (AFSPA), which already grants significant powers to armed forces in disturbed areas.
- **AFSPA Powers:** Under AFSPA, armed forces have the authority to arrest or kill individuals contravening the law, conduct warrantless searches, and are protected from prosecution and legal suits without the Central government's sanction.
- **AFSPA Application:** Currently, AFSPA is applicable in parts of Assam, Arunachal Pradesh, Nagaland, Manipur, and the entirety of Jammu and Kashmir.

### Important Days

#### National Legal Services Day

- Annually on November 9, India observes National Legal Services Day to mark the adoption of the Legal Services Authorities Act 1987, which was officially enacted on the same date in 1995
- The theme for National Legal Services Day 2023 is 'Access to Justice for All: Empowering the Marginalised through Legal Awareness.'
- This theme emphasises the importance of providing equal access to legal resources and knowledge, especially to those who are underprivileged and marginalised.

#### World Biosphere Reserve Day

### Key points:

- This day celebrates the role of biosphere reserves in conserving biodiversity and promoting sustainable development.
- Established by UNESCO in 2022, to be observed annually on November 3.
- Aims to raise awareness, share best practices, and showcase achievements of the World Network of Biosphere Reserves (WNBR).
- The theme for 2023 was #ItsAboutLife.

#### World Tsunami Awareness Day

- World Tsunami Awareness Day is an annual

event held on 5 November

- It is to raise awareness of the dangerous effects of tsunamis and the importance of tsunami preparedness and early warning of tsunamis
- The 2023 World Tsunami Awareness Day theme is "Fighting Inequality for a Resilient Future," which mirrors the subject highlighted during the International Day for Disaster Reduction.
- The observance encourages all sectors of society to engage and collaborate on disaster risk reduction.

### International Day for Preventing the Exploitation of Environment in War and Armed Conflict

- International Day for Preventing the Exploitation of Environment in War and Armed Conflict is celebrated on November 6th each year
- It is to raise awareness about the devastating impact of war and armed conflict on the environment.
- The theme for International Day for Preventing the Exploitation of Environment in War and Armed Conflict 2023 is "Together for a more sustainable and peaceful future."

### Infant Protection Day

- Every year, Infant Protection Day is celebrated on November 7
- The theme for Infant Protection Day 2023 is 'Ensuring Every Child's Right to Thrive.'
- This annual observance is focused on raising awareness on the sensitive topic of infant mortality.

### National Cancer Awareness Day

- National Cancer Awareness Day is observed on the 7th of November in India every year since 2014 to create public awareness about early detection, prevention, and treatment of cancer.
- The theme for World Cancer Day 2022-2024 is Close the Care Gap.

### Misc. News

#### Electoral bonds

##### Context

A five-judge bench of the Supreme Court is hearing petitions challenging the constitutional validity of the electoral bonds scheme.

##### Key facts about Electoral Bonds

- Implemented in 2018 to reduce the influence of black money in politics.
- Provided a legal and transparent mechanism for contributions to political parties.

- Donors' identities remain confidential, reducing the risk of retaliation.

##### Do you know

- There is a criticism regarding Electoral bonds because
- Lack of transparency regarding the source of funds.
- Concerns about potential misuse, including laundering illicit money.
- Reports indicate a significant portion of political funding comes from electoral bonds.

### Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)

##### Context

The Union government's scheme to provide 5 kg of free food grains every month to 80 crore Indians, which is slated to end this December, will be extended for another five years.

##### Key points

- The Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) was introduced in 2020 as a pandemic relief measure, providing 5 kg of free foodgrains per beneficiary a month in addition to the 5 kg of subsidised foodgrains they were entitled to under the National Food Security Act.
- This is now being extended to another 5 years.

### Production-linked incentive (PLI) scheme

##### In news

- About 80% funds for semiconductor PLI remain unused.
- About \$8 billion of the \$10 billion allocated by the Centre for the production of semiconductors under the PLI.

##### Key points

### Production-linked incentive scheme

- Aims to enhance India's manufacturing capabilities and exports in 14 economic sectors
- Scheme comes under Ministry of Commerce & Industry
- Govt has allocated a \$26 billion fund.
- PLI scheme is expected to have a cascading effect on the country's MSME ecosystem
- India is expected to raise bilateral trade with South Korea to \$50 billion by 2030 in battery storage solutions through PLI scheme.

##### The 14 sectors under PLI

1. Mobile Manufacturing and Specified Electronic Components
2. Critical Key Starting Materials/Drug

3. Intermediaries & Active Pharmaceutical Ingredients
4. Manufacturing of Medical Devices
5. Automobiles and Auto Components
6. Pharmaceuticals Drugs
7. Specialty Steel
8. Telecom & Networking Products
9. Electronic/Technology Products
10. White Goods (ACs and LEDs)
11. Food Products
12. Textile Products: MMF segment and technical textiles
13. High efficiency solar PV modules
14. Advanced Chemistry Cell (ACC) Battery Drones and Drone Components.

### A new mushroom species named *Candolleomyces albosquamosus*

#### Context

- A new mushroom species named *Candolleomyces albosquamosus* has been discovered in the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI) at Palode, Thiruvananthapuram.

#### Key Details about the New Species:

- Physical Characteristics: The mushroom has a delicate, fragile appearance with a honey-yellow cap.
- Distinctive Feature: It is identified by the presence of white woolly scale-like structures on its cap, leading to the name 'albosquamosus.'
- Size: The mushroom is small, reaching a height of about 58 mm.

#### Genus and Taxonomic Information:

- Genus: Belongs to the genus *Candolleomyces*.
- Previous Understanding: Seven species previously categorized under the genus *Psathyrella* in India are now recognized as *Candolleomyces*.
- Global Significance: The discovery is notable because there are only 35 known species in the *Candolleomyces* genus worldwide.

#### Significance:

- The discovery adds momentum to the study of fungal diversity in the Western Ghats region, emphasizing its ecological importance and uniqueness in the realm of biodiversity.

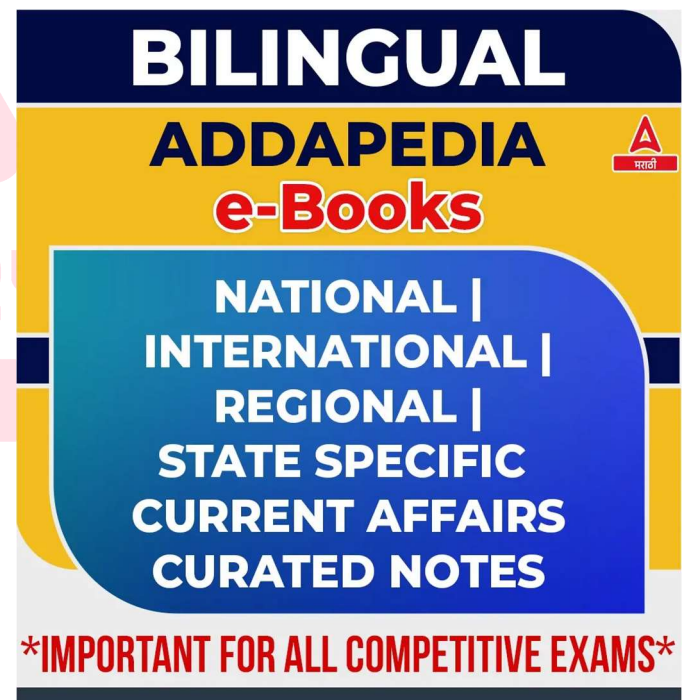
### Zika Virus

#### Context

Five Karnataka villages come under surveillance after Zika virus outbreak.

### About Zika Virus

- It is a mosquito-borne virus that was first identified in the Zika Forest of Uganda in 1947.
- It is primarily transmitted to humans through the bite of infected *Aedes* mosquitoes, particularly *Aedes aegypti* and *Aedes albopictus*.
- It can also spread through sexual contact, blood transfusion, and from an infected mother to her baby during pregnancy or childbirth.
- This virus infection is usually mild, it can have serious consequences for pregnant women and their babies.
- Infection during pregnancy can lead to birth defects such as microcephaly, as well as other neurological disorders in the baby.
- It has also been linked to Guillain-Barré syndrome, a rare autoimmune disorder that can lead to muscle weakness and paralysis.
- Treatment: There is no specific treatment available for Zika virus infection or disease.



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### Parkinson's Disease

#### Context

Scientists have discovered a link between air pollution and Parkinson's disease.

#### About:

- It is a progressive disorder that affects the nervous system and the parts of the body controlled by the nerves.

- Symptoms start slowly
- The risk of developing the disease increases with age.

#### Symptoms:

- Uncontrollable shaking and tremors
- Slowed movement
- Balance difficulties and eventual problems standing up
- Stiffness in limbs
- Speech changes
- Writing changes
- Loss of automatic movements

#### Causes:

- Genes
- Environmental triggers
- Presence of Lewy bodies: Clumps of specific substances within the brain cells are microscopic markers of Parkinson's disease. These are known as Lewy bodies.

#### Parkinson disease also have the following additional problems:

- Thinking difficulties
- Swallowing problems
- Depression and emotional changes
- Problems with chewing
- People also experience rapid eye movement sleep behaviour disorder, which involves acting out dreams.
- Bladder problems
- Constipation

#### Treatment:

- Currently there is no cure for Parkinson's disease but medicines, surgical treatments and other therapies can relieve some symptoms.
- The main therapy for Parkinson's is Levodopa- Nerve cells use levodopa to make dopamine to replenish the brain's dwindling supply.

#### Massive displacement in Congo

##### Context

- The UN International Organization of Migration (IOM) reported that the number of people who have been internally displaced in the Democratic Republic of Congo (DRC) has risen to 6.9 million.
- In the eastern province of North Kivu, nearly a million people have been displaced due to the ongoing conflict with the rebel group, Mouvement du 23 Mars (M23).

##### Reasons for displacement

1. ethnic intolerance and insurgency.
2. the political uncertainty and lack of inclusive governance
3. regional tensions.

#### World's longest-serving lawyer

##### Context

- Seventy-three years and 60 days of practice as a lawyer is a Guinness World Record.
- Palakkad's veteran civil lawyer P.B. Menon has brought that world record to India by knocking out Gibraltar government lawyer Louis Triay.

##### Key points

- Guinness World Records, is a British reference book published annually, listing world records both of human achievements and the extremes of the natural world.
- It is known from its inception in 1955 until 1999 as The Guinness Book of Records and in previous United States editions as The Guinness Book of World Records.

#### 168 villages along China border to get road connectivity in a year

##### Context

- Union Home Minister informed that 168 villages along the China border that do not have any connectivity would be connected by road and other forms of communication in the next one year
- This will be an important step towards border infrastructure.

#### Former Reserve Bank of India Governor S. Venkitaramanan

##### Context

Former Governor of the Reserve Bank of India (RBI) S. Venkitaramanan, passes away.

##### About

- Born on January 28, 1931, in **Tirumayam of Pudukottai district**, Venkitaramanan obtained a post-graduate degree in physics from University College, Thiruvananthapuram.
- After he joined the **Indian Administrative Service (IAS) in 1953**, he also received a post-graduate degree in management from the Carnegie Mellon University in the U.S., in 1968.
- Belonging to the Tamil Nadu cadre of the IAS, Venkitaramanan was appointed RBI **Governor**

in December 1990 when a balance of payment crisis was brewing in the economy.

### Greenhouse gases hit record high in 2022

#### Context

- The United Nations warned that Greenhouse gas concentrations in the atmosphere hit new record highs in 2022, with no end in sight to the rising trend
- The **UN's World Meteorological Organization** said levels of the three main greenhouse gases — the climate-warming **carbon dioxide, methane and nitrous oxide** — all broke records last year.

#### Key points

- The **2015 Paris Agreement** saw countries agree to cap global warming at “well below” 2° C above average levels measured between 1850 and 1900 — and 1.5° C if possible.
- The global mean temperature in 2022 was **1.15° C above the 1850-1900 average**.

### SATHEE portal

#### Context

With the Joint Entrance Examination for admission to the Indian Institutes of Technology (IIT) and other engineering colleges only few days away, Education Ministry asked all States to encourage aspirants to utilise the newly launched portal — **SATHEE (Self Assessment Test and Help for Entrance Exams)** — for exam preparation.

#### About

- SATHEE is an **open learning platform** available to students free.
- The online coaching platform has been launched by the **Education Ministry and the IIT-Kanpur**.
- The portal uses artificial intelligence (AI) to interact with students, and can be customised to each student's pace of learning.
- **SATHEE's integrated AI chatbot** helps students align their learning needs
- SATHEE **hosts lectures and video content** prepared by Professors and students of the IITs, and the All India Institute of Medical Sciences (AIIMS).
- Currently, digital learning material is available on the portal in **English, Hindi, Odisha, and Telugu**.

### Blue Dart, India Post offer parcel lockers at post offices

#### Context

**Express logistics provider Blue Dart** has set up digital parcel locker service at post offices under a partnership with **India Post**

#### Key points

- The service **allows consignees to retrieve their shipments** from digital parcel lockers, doing away with the need for personal receipts or signing for a package
- When the recipient needs to retrieve a package from the locker, they can simply enter the assigned code and open the locker.

### World Fisheries Day

- It is celebrated across the world on **21 November annually**.
- The main purpose behind this day is to highlight the **importance of sustainable stocks of fisheries** in the world, to strengthen human rights for the small-scale fishing communities, to make a true difference in the working conditions of fishing communities and to eliminate illegal, unreported and unregulated fishing.
- The theme for World Fisheries Day 2023 is '**Celebrating the Wealth of Fisheries and Aquaculture**'.

### IMA, nurses' association honoured with Indira Gandhi Peace Prize

#### Context

The **Indira Gandhi Prize for Peace, Disarmament and Development, 2022** was jointly awarded to the **Indian Medical Association and the Trained Nurses Association of India** as representatives of the COVID-19 warriors in the country.

#### Key points

- The award was for every doctor, nurse, paramedic and karamchhari for their selfless service, unflinching dedication and perseverance.
- The award was instituted in the name of one of the most remarkable leaders of the 20th century (Indira Gandhi), aims to honour women, men and institutions that have done exemplary work.

### A fact check unit that is unconstitutional

### Context

- The Government of Tamil Nadu issued an order recently to set up a **Fact Check Unit** with the intent of checking across all media platforms the authenticity of information related to the Government of Tamil Nadu.
- This government order (GO) is violative of several fundamental rights guaranteed by the Constitution of India, and is unconstitutionally vague and arbitrary.

### Key points

- The operative part of the GO issued by the Government of Tamil Nadu says that the fact check unit will check the veracity of information related to the announcements, policies, schemes, guidelines and initiatives of the Government of Tamil Nadu.
- **Annexure III to the GO** has more details on the unit's functioning.
- The fact check unit has been given powers to take **suo motu cognisance** of social media posts/articles that require fact checking

