

# Factly Weekly

**Compilation**

2024

**For UPSC CSE Prelims  
Exam**

**1<sup>st</sup> Week  
February 2024**

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## Subject: Polity and Nation

### Default Bail

#### Why in the news?

The Supreme Court in Wadhawani brothers multi-crore bank loan scam case, held that an accused can not seek default bail on the grounds that the probe is pending against other co-accused. In cases where there are multiple accused, the default bail can only be sought by an individual if the investigation/probe is pending against that particular individual.

#### About Default Bail

1) Default bail is also known as **statutory bail**. It is a type of bail which is given to an accused detained in custody, when the police **fails to complete the investigation and file the charge sheet** within the time frame mentioned under the law.

2) The time frame for completing the investigation of offences under the IPC, and for filing of the charge sheet, varies depending on the gravity of the offence.

**For Example-** An offence punishable with imprisonment up to 10 years, the investigation must be completed within 60 days of arrest. For offence where imprisonment is more than 10 years, the investigation must be completed within 90 days of arrest.

**Exception to this rule-**special laws like the **Narcotic Drugs and Psychotropic Substances Act** where the time period for investigation may be different, such as 180 days.

3) **The Code of Criminal Procedure (CrPC)** provides for three kinds of bail:-

**Section 438- Anticipatory Bail**

**Section 439 – Regular bail**

**Section 167(2) – Default/statutory bail.**

#### Different types of bail

1. **Regular Bail-** This is granted to accused individuals **who are already in legal custody or jail**. It allows the individual to be released from custody by giving a bond, either with or without sureties, under **section 437 and section 439 of the CrPC**.

2. **Interim Bail-** This is bail which is provided for a **short period** of time. It is provided to the accused person before the actual bail hearing or anticipatory bail.

3. **Anticipatory Bail-** This is defined under section **438 of CrPC**. It is to be granted to those individuals who are apprehending arrest.

4. **Medical Bail-** Granted to individuals based on medical grounds, such as life-threatening disease.

#### Important judgements regarding bail

1) **Ritu Chhabaria judgment-** The Supreme court held that “the right of default bail under Section 167(2) of the Criminal Procedure Code (CrPC) is not merely a statutory right, but a **fundamental right that flows from Article 21 of the Constitution**”.

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2) **Jasbir Singh vs National Investigating Agency (2023) judgement**– The Supreme Court held that an accused has no right to ask for default bail by claiming that the **charge sheet is incomplete** (although it is filed on time) for lack of sanction under Section 167(2) of the Code of Criminal Procedure.

### The Public Examinations Bill 2024

#### Why in the news?

Union minister Jitendra Singh introduced the Public Examinations (Prevention of Unfair Means) Bill, 2024 in the Lok Sabha.

#### About The Public Examinations (Prevention of Unfair Means) Bill, 2024

**Background**– Many States were not able to declare results of their public examinations on time. This happened due to negative impact of **unfair practices**.

**Objective**– To bring greater **transparency, fairness** and **credibility** to the public examination systems.

**Applicability**– The bill is applicable to central recruitment and entrance exams conducted by **Union Public Service Commission (UPSC), Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs), National Testing Agency (NTA) and Institute of Banking Personnel Selection (IBPS)**.

**Prescribed punishment**– For cheating-**minimum of 3 to 5 years** of imprisonment. For **organised crimes of cheating**, punishment will be **5 to 10 years** of imprisonment and a minimum **fine of Rs 1 crore**.

**High level National Technical Committee on Public Examinations**– The bill seeks to set up a high level committee to develop protocol for **developing foolproof IT security system** for **online** and **technology based exams**.

**Note**– The proposed bill protects **candidates** from its provisions.

## Subject: International Relations

### Codex Committee on Spices and Culinary Herbs

#### Why in the news?

The 7th session of the Codex Committee on Spices and Culinary Herbs (CCSCH) was held from 29th January 2024 to 2nd February 2024 at Kochi.

#### About Codex Committee on Spices and Culinary Herbs

**Background**– The Indian officials had asked for the establishment of an **exclusive Committee** for Spices, Culinary Herbs. This was demanded to ensure **harmony and transparency** in fixing global quality standards for spices, herbs and formulations.

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**Established**-It was established as one of the Commodity Committees under the Codex Alimentarius Commission (CAC) in 2013.

**Secretariat**-India hosts this prestigious Committee since the beginning and Spices Board of India serves as the secretariat organization.

**Outcome of 7th session**-The quality standards for 5 spices, namely small cardamom, turmeric, juniper berry, allpice and star anise were finalised.

### About Codex Alimentarius Commission

Aspect	Details
Established by	FAO and WHO. Codex Alimentarius Commission (CAC) is also called "Food Code".
Members	It consists of 189 member countries.
Headquarter	It is an international, intergovernmental body which is based in Rome
Funding	The programme of work of the Commission is funded through the regular budgets of WHO and FAO.
Nature of standards	The standards developed by the Committees under the CAC, including the CCSC, are voluntary in nature.
Significance	1) Its standards are recognized by the WTO to resolve trade disputes concerning food safety and consumer protection. 2) It contributes to harmonization of food standards across the globe. This facilitates fair global trade in food. 3) It ensures food safety to safeguard the health of global consumers.

### About Spice Board Of India

- 1) **Established**- This is a statutory body constituted under Spices Board Act 1986.
- 2) **Mandate**- It has the responsibility of production/development of cardamom and export promotion of 52 spices shown in the schedule of the Act.
- 3) **Headquarter**- The board is headquartered in Kochi.
- 4) The board has a state-of-the-art testing laboratory at its headquarters in Kochi. There are also regional laboratories at Mumbai, Chennai, Delhi, Tuticorin, Kandla and Guntur.

## Subject: Indian Economy

### Input Service Distributor

#### Why in the news?

An amendment has been proposed under Finance Bill 2024 for mandatory Input Service Distributor registration of an office, which receives invoices for common input services.

#### About Input Service Distributor

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- 1) It is a taxpayer that receives invoices for services used by its branches. It **distributes** the tax paid, known as the **Input Tax Credit (ITC)**, to such branches on a **proportional** basis by issuing ISD invoices.
- 2) The branches can have different GSTINs, but must have the **same PAN as that of ISD**.

### Where ISD does not apply?

- 1) ISD mechanism is meant only for distributing credit on common invoices pertaining to input services.
- 2) It is not applicable when input or capital goods are involved.

## Paytm Payments Bank

### Why in the news?

The Reserve Bank of India recently placed additional restrictions on Paytm Payments Bank Ltd (PPBL) due to non-compliances of its directives.

### About Payment Banks

**Definition**- It is like any other bank. However, it operates on a smaller scale without involving any credit risk. It was set up based on the recommendations of the **Nachiket Mor Committee**.

**Objective:** To advance **financial inclusion** by offering banking and financial services to the **unbanked** and underbanked areas.

**Status**-It is registered as a **public limited company** under the **Companies Act 2013** and licensed under **Section 22 of the Banking Regulation Act 1949**.

### Salient features of Payment Bank

- 1) They are differentiated, and not **universal banks**.
- 2) These operate on a **smaller scale**.
- 3) The minimum paid-up equity capital for payments banks shall be **Rs. 100 crores**.
- 4) The minimum initial contribution of the promoter to the Payment Bank to the paid-up equity capital shall be at least 40% for the first five years from the commencement of its business.

### Banking operation that can be performed:

- 1) It can take deposits up to **Rs. 2,00,000**. It can accept demand deposits in the form of **savings and current accounts**.
- 2) The money received as deposits can be invested in secure **government securities** only in the form of **Statutory Liquidity Ratio (SLR)**.
- 3) It can offer **remittance services, mobile payments/transfers/purchases, and other banking services like ATM/debit cards, net banking, and third-party fund transfers**.
- 4) It can become a **banking correspondent (BC)** of another bank for credit and other services.

### Restricted activities

- 1) It cannot issue **loans** and **credit cards**.
- 2) It cannot accept **time deposits or NRI deposits**.
- 3) It cannot set up **subsidiaries** to undertake non-banking financial activities.

## Subject: Science & Technology

### Fentanyl Trafficking

#### Why in the News?

Recently, discussions between America and China have centred around collaborative initiatives aimed at **curbing the influx of fentanyl into the U.S**. Fentanyl, a synthetic opioid (**a type of drug**) has caused chaos in America. It contains ingredients which are made in China.

#### What is Fentanyl?

- 1) Fentanyl is a potent synthetic opioid **authorized by the FDA** (Food and Drug Administration).
- 2) It is **50 times stronger than heroin** and 100 times stronger than morphine.
- 3) It is typically **used to treat severe pain**, such as that experienced by cancer patients or those undergoing surgery.
- 4) However, it is also sometimes **made illegally and sold for recreational use**. It is often mixed with heroin, cocaine, and methamphetamine and **formed into pills** resembling prescription opioids.
- 5) Fentanyl is **highly addictive and can be deadly**, especially in large doses or **when combined with other drugs**.

### Solid-state batteries

#### Why in the news?

Japan's Toyota Motor Corp, a late entrant into the battery electric vehicle race, aims to roll out next-generation solid-state batteries over the next three year.

#### About Solid-state batteries

These batteries use **solid electrodes and a solid electrolyte**, instead of the liquid or polymer gel electrolytes used in lithium-ion batteries.

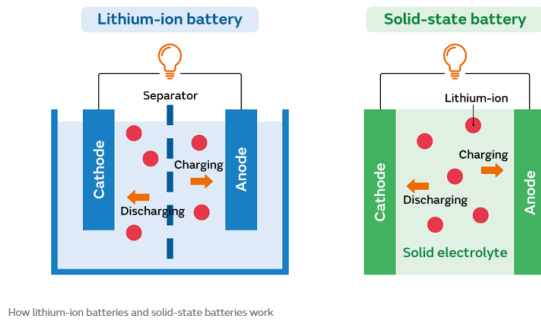
#### How does it work?

Solid-state batteries have almost the same mechanism as lithium-ion batteries for extracting electricity from the batteries.

**Metal is used as the material for the electrodes**, and electrical flow is generated by ions moving through the electrolyte between the cathode and anode.

The big difference is that the **electrolyte is solid whereas in lithium-ion batteries electrolyte is liquid**. Thus, in these batteries there is **no need of separator unlike lithium-ion batteries**.





How lithium-ion batteries and solid-state batteries work

Figure 1Source- Murat

### Application of solid state batteries

Solid-state batteries are potentially useful in pacemakers, RFIDs, wearable devices, and electric vehicles.

### Advantages of solid-state batteries over lithium-ion batteries

- 1) A solid-state battery has **higher energy density than a Lithium-ion**.
- 2) It **doesn't have a risk of explosion or fire**.

There is no need to have components for safety, and thus it saves more space

3) **Longer Lifespan**- Solid-state batteries can last longer than traditional lithium-ion batteries due to their improved stability.

### Limitation

- 1) **Cost**- Manufacturing solid-state batteries are currently more **expensive than traditional lithium-ion batteries**. This has made them less accessible to everyday consumers.
- 2) **Performance Challenges**- Solid-state batteries currently have some performance challenges such as **limited cycle life, poor cold weather performance**, and a **high internal resistance** that reduces their power output.
- 3) **Unproven Technology**- Solid-state batteries are still under development, and more research is required to address their shortcomings and make them a commercially viable option for electric cars.

## MQ-9B drone deal

### Why in the News?

Recently, the U.S. Congress was **officially informed** of the potential sale of 31 MQ-9B high-altitude long-endurance armed Unmanned Aerial Vehicles (UAVs) to India, valued at approximately **\$3.99 billion**.

### What are MQ-9B Reaper drones?

<b>About</b>	MQ-9B is a <b>High Altitude Long Endurance (HALE) Unmanned Aerial vehicle(UAV)</b> .
<b>Developed by</b>	US based General Atomics Aeronautical Systems.
<b>Variants</b>	<ol style="list-style-type: none"> <li>1. The MQ-9B has <b>two variants</b> — Sky Guardian and Sea Guardian.</li> <li>2. The Indian Navy has been operating the MQ-9B Sea Guardian since 2020.</li> </ol>
<b>Features</b>	<ol style="list-style-type: none"> <li>1. It can <b>operate at over 40,000 feet</b>.</li> <li>2. It also has a <b>maximum endurance of 40 hours</b>, making it useful for long-hour surveillance.</li> <li>3. It can support land, maritime surveillance, <b>anti-submarine warfare</b>, anti-surface warfare, strike, <b>electronic warfare</b> and expeditionary roles.</li> <li>4. It is equipped with advanced features such as <b>automatic take-off and landing, detect and avoid system, anti-spoofing GPS, and encrypted communication links</b>.</li> </ol>

## Zodiacal light

### Why in the news?

Recently a scientist at Physics Research Laboratory (PRL), Ahmedabad have published a paper attributing dust from Mar's two moon as the possible source of Zodiacal light.

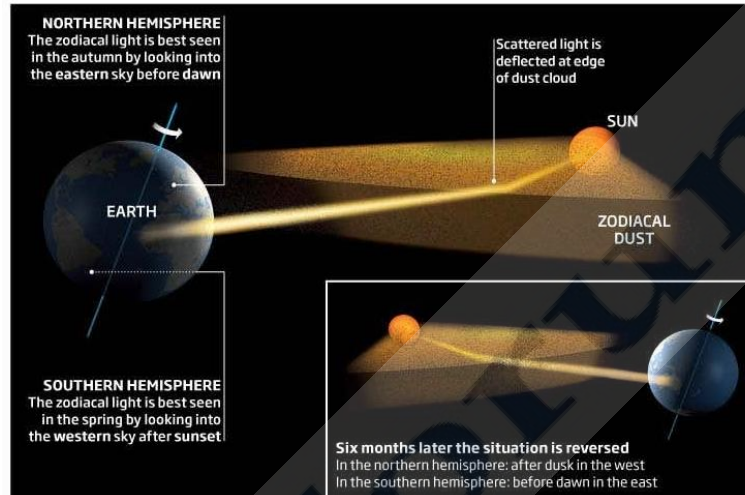
### About Zodiacal Light

It is sunlight scattered by **interplanetary dust**. This is visible from the earth as a **faint, diffuse** glow on completely dark nights. **Interplanetary dust** consists of **cosmic dust** (small particles floating in outer space) that pervades the **space between planets** in solar system.

It is present across the **entire path of the ecliptic**. This is the path along which the Sun moves in the sky over the course of a year.

### How to see the zodiacal light

Sunlight scattered by dust in the plane between Earth and the sun produces the faint night-time glow over the horizon. Here is the best way to see it



**NOTE-1)** 'AU' stands for '**astronomical unit**', which is the distance between the **earth** and the **Sun**.  
**2)** Mars's has two moons called **Deimos** and **Phobos**.  
**3)** **Stickney crater**-This is a 10-km-wide crater in **Phobos**.

Figure 2. Source-NewScientist

## Cygnus X-1

### Why in the news?

AstroSat, India's first, dedicated multi-wavelength astronomy mission, has achieved a remarkable feat by measuring X-ray polarisation from the Cygnus X-1 black hole.

### About Cygnus X-1



Source-The Indian Express

- 1) It is one of the **first confirmed black hole** systems in our galaxy that was discovered over four decades ago.
- 2) Its distance from the earth is about **400 times** of the distance between **Earth and Sun**.
- 3) It is **20 times heavier than the Sun**, and has a companion – a heavy supergiant star (40 times more massive than the Sun) in a binary system.
- 4) Due to the **gravitational pull of the black hole**, material from the supergiant falls and spirals in towards the black hole. This process leads to the formation of a **thin accretion disk**, which is responsible for soft X-rays.

### GRAPES-3 experiment

#### Why in the news?

The Tata Institute of Fundamental Research's GRAPES-3 experiment, situated in Ooty, India, has revealed a new facet in the realm of cosmic ray physics.

#### About GRAPES-3 experiment (Gamma Ray Astronomy PeV EnergieS phase-3)

Aspect	Details
About	GRAPES-3 (Gamma Ray Astronomy PeV EnergieS phase-3) is designed to study <b>cosmic rays</b> . It employs <b>an array of air shower detectors</b> and a large area <b>muon detector</b> .
Established by	Collaboration of the <b>Tata Institute of Fundamental Research, Mumbai</b> , India and the <b>Osaka City University, Osaka</b> , Japan.
Location	<b>Ooty (Tamilnadu)</b>
Objective	To study the <b>origin, acceleration and propagation</b> of cosmic rays in the galaxy and beyond.

### Transiting Exoplanet Survey Satellite (TESS)

#### Why in the News?

Recently, astronomers utilized data from **NASA's Transiting Exoplanet Survey Satellite (TESS)** to uncover and analyze a potentially habitable zone planet known as **TOI-715b**.

#### What is Transiting Exoplanet Survey Satellite (TESS)?

Aspect	Details
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<b>About</b>	1. It is a NASA mission dedicated to <b>locating planets</b> that orbit the brightest stars visible from Earth. 2. It is a <b>successor</b> to NASA's <b>Kepler space telescope</b> , which discovered thousands of exoplanets over a decade following its launch in 2009.
<b>Launched on</b>	April 18, 2018, <b>using a SpaceX Falcon 9 rocket</b> from Cape Canaveral(USA).
<b>Mission life</b>	The main mission concluded on July 4, 2020, and TESS is <b>currently in an extended mission phase</b> .
<b>Orbit</b>	1. TESS follows a distinctive <b>high Earth orbit</b> , completing its <b>cycle every 12 to 15 days</b> . 2. This orbit is strategically inclined to minimize obstructions from Earth and the Moon, allowing the telescope an unimpeded view of the sky.
<b>Significance</b>	1. During its two-year primary mission, TESS's four cameras scanned more than 200,000 nearby and bright stars, <b>covering 75% of the sky</b> . 2. TESS <b>discovers planets of various sizes and compositions</b> , from small rocky ones to giant ones, demonstrating the galaxy's planet diversity.

### How does TESS detect exoplanets?

1. It employs the **transit technique** to identify planets.
2. It **searches for regular dips in the brightness of stars** as planets pass in front of them from our perspective.
3. The bigger the planet, the greater the drop in brightness during the transit.
4. The duration it takes for a planet to transit in front of the star and return helps determine the shape of its orbit.
5. This **method unveils the planet's diameter** and **the size of its orbit**.

## Ergosphere

### Why in the news?

It is possible to extract matter and energy from Ergosphere as per some scientist.

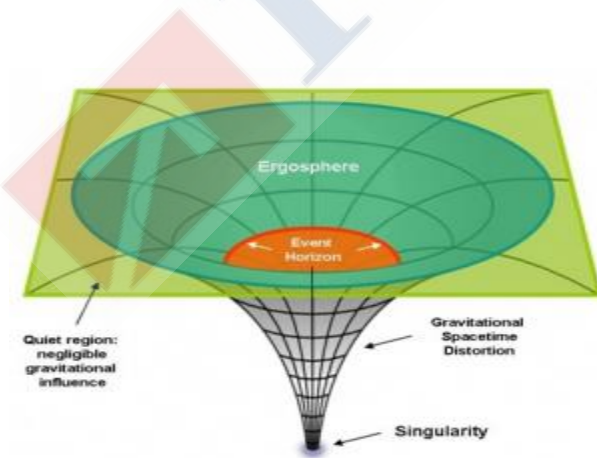


Figure 3. Source-ResearchGate

### About Ergosphere

**Origin**-Ergosphere comes from the Greek word 'ergon' that means 'work'. It has got its name because it is possible to **get energy** and even mass from this place.

**Definition**-It is the region in between the **event horizon** and the **stationary limit**.  
**NOTE- Event Horizon**: It is a sphere around the singularity of a Black Hole. When anything enters this sphere, it can't escape unless it travels faster than light (which is impossible).

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**Stationary limit**-It is a surface around the outside of a rotating black hole.

**Shape:** An Ergosphere is shaped like an **oblate spheroid**, or a pumpkin.

### Features Of Ergosphere

- 1) In this region, **space-time itself** is dragged along with the **rotation** of the black hole.
- 2) Objects within the ergosphere are forced to rotate along with the **black hole's spin** due to the distortion of spacetime caused by its **immense gravitational pull**.

**NOTE-Black hole**-It is a region of spacetime where gravity is so strong that **even light** can not escape.

**Gravitational Singularity**-The centre of a black hole has a gravitational singularity, a one-dimensional point. This point contains a **huge mass in an infinitely small space**, where density and gravity become **infinite**. Here, laws of **physics** cease to **operate**.

## Satellite-based toll collection

### Why in the News?

The government recently reiterated its intention to introduce **satellite-based toll collection on highways** prior to the implementation of the Model Code of Conduct for the Lok Sabha election.

### What is Satellite-based toll collection system?

1. It is a **GPS based** toll collection system.
2. The **National Highways Authority of India (NHAI)** will implement this system.
3. It will **enable vehicles to move freely** without the need to stop for toll payments.
4. It will **capture the vehicle's registration plate photo** and **debit the toll amount based on the actual distance traveled by the vehicle** on the highway.
5. Every vehicle in this GPS-based toll collection system will need an **onboard unit (OBU)** linked to a constellation of satellites.. The **OBU will also connect to a wallet** for toll deductions.
6. It will **replace** the existing **radio frequency identification-based FASTag system** (Fastag was rolled out in 2016 and it was made mandatory from January 2021).

**Note**- Currently, this GPS based toll collection system is in the trial phase.

## The Healthy Indian Project

### Why in the news?

The Healthy Indian Project (THIP), a health information platform in India, has recently been included as a member of the World Health Organization's Vaccine Safety Net (VSN).

### What is "The Healthy Indian Project"?



Figure 4. Source- WHO

**About-** It is a **health information** and **fact-checking** platform in India.

**Objective-** To enhance health literacy among Indians by delivering **credible** and **evidence-based** content in **multiple Indian languages**.

**Website language-** It is available in **5 Indian languages** namely English, Hindi, Bengali, Punjabi and Gujarati.

**VSN membership-** Since 2023.

**Website's sponsorship policy-** This is

privately funded by its directors. The company is **not** affiliated to any **political institution**.

#### **About Vaccine Safety Net**

- 1) **Origin-** Various **non-governmental organizations**, **United Nations Children's Fund (UNICEF)** and WHO came together in 2003 to start the Vaccine Safety Net Project (VSN).
- 2) **Established by-** **World Health Organization**. This is a global network of **websites**.
- 3) **Objective-** To provide **scientifically based information** on vaccine safety in various languages.
- 4) **Membership-** It has 110 websites from **45 countries**. They provide vaccine safety information in **43 languages**.

### **India's first hypervelocity test facility**

#### **Why in the news?**

The Indian Institute of Technology Kanpur (IIT-K) has successfully established and tested India's first Hypervelocity Expansion Tunnel Test Facility recently.

#### **About India's first hypervelocity test facility**

**Location-** The S2, nicknamed '**Jigarthanda**', is a **24-meter-long facility** located at IIT Kanpur's Hypersonic Experimental Aerodynamics Laboratory (HEAL) within the Department of Aerospace Engineering.

**Designed by-** It was **indigenously designed and developed** over three years by the Department of Science and Technology (DST) and IIT Kanpur.

**Funding-** The development of the facility was supported by the Fund for Improvement in S&T Infrastructure (FIST) of the **Department of Science & Technology (DST)** with a sum of Rs 4.5 Crores in 2018.

**Speed range-** It is capable of generating flight speeds between **3-10 km/s**. It can **simulate** the hypersonic conditions encountered during the **atmospheric entry of vehicles, asteroid entry, scramjet flights, and ballistic missiles**.

## SMART food grain storage system technology

### Why in the news?

MeitY has recently transferred SMART food grain storage system technology to Paras Defense to pave the way for innovation in digital India.

### About SMART food grain storage system (SAFEETY) technology

**Developed by**-It is developed by Society for Applied Microwave Electronics Engineering and Research(SAMEER) under MeitY's guidance.

### Salient Features of this technology

- 1) It boasts cutting-edge features such as conveyORIZED **loading and unloading** of grain bags.
- 2) Grain bags are tagged with **RFID** for ensuring its **traceability**.
- 3) It can measure **weight** and **moisture** of food grain **online**.
- 4) By employing radio frequency, it can **remove moisture** from grain.

## Wheat Blast

### Why in the news?

Researchers have estimated that a **wheat blast disease** that may spread in the future could reduce global wheat production **by 13% by 2050**.

### About Wheat blast

Aspect	Details
About	It is a <b>fungus disease</b> that affects wheat production in <b>tropical and subtropical regions</b> .
Caused by	<b>Magnaporthe oryzae pathotype Triticum (MoT)</b> . It was identified in Brazil in 1985. The <b>fungus</b> infects wild and cultivated grasses, most notably <b>rice</b> and <b>wheat</b> .
Transmission	It spreads through infected <b>seeds, crop residues, and spores</b> that can travel long distances in the air.
Favourable condition	It thrives in <b>warm</b> and <b>humid</b> conditions.
Effects	<ol style="list-style-type: none"><li>1) It causes progressive bleaching of the heads, lower yields, and poor seed quality.</li><li>2) Stems and leaves are <b>discoloured</b>, with dark brown, eye-shaped lesions on leaves.</li><li>3) Sometimes <b>dark grey spores</b> can be seen.</li><li>4) It can shrivel and deform the grain in less than a week from the first symptoms.</li></ol>

## Subject: Environment

### Newly Added Ramsar sites

#### Why in the news?

India has increased its tally of Ramsar sites (Wetlands of International Importance) to 80 from existing 75 by designating five more wetlands as Ramsar sites.

#### About Ramsar site

Aspect	Details
<b>About</b>	<ol style="list-style-type: none"><li>1) Ramsar Sites, also known as Wetlands of International Importance, are designated areas under the <b>Ramsar Convention on Wetlands</b>.</li><li>2) The Ramsar Convention is an international treaty established in 1971 in Ramsar, <b>Iran</b>.</li><li>3) There are over <b>2,400 Ramsar Sites covering 2.5 million sq km on the territories of 171 Ramsar Contracting Parties across the world</b>.</li><li>4) The <b>world's first site</b> was the Cobourg Peninsula in Australia, designated in 1974.</li><li>5) The countries with the <b>most Ramsar Sites are the United Kingdom with 175 and Mexico with 142</b>.</li></ol>
<b>Objective</b>	to promote the conservation and sustainable use of wetlands, recognizing their ecological importance.
<b>Latest addition to Ramsar sites in India</b>	<ol style="list-style-type: none"><li>1) Karaivetti Bird Sanctuary, <b>Tamil Nadu</b></li><li>2) Magadi Kere Conservation Reserve, <b>Karnataka</b></li><li>3) Longwood Shola Reserve Forest, <b>Tamil Nadu</b></li><li>4) Ankasamudra Bird Conservation Reserve, <b>Karnataka</b></li><li>5) Aghanashini Estuary, <b>Karnataka</b></li></ol>



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<p><b>Features of recently added Ramsar site</b></p>	<p><b>1) Karaivetti Bird Sanctuary</b>-It is centred around a large freshwater lake. This lake is the focal point of the sanctuary and serves as a crucial habitat for a variety of bird species, both resident and migratory. It supports 1% population of Black-headed iblis and oriental Darter.</p> <p><b>2) Magadi Kere Conservation Reserve</b>-The bar-headed goose is one of the birds which migrate to Magadi wetlands.</p> <p><b>3) Longwood Shola Reserve Forest</b>-it derives its name from the Tamil word, “Solai”, which means a ‘tropical rain forest’. It maintains the hydrological regime of the region, by capturing rainwater through marshes and then releasing it via streams. It is home to the threatened Nilgiri marten and other rare fauna and flora.</p> <p><b>4) Ankasamudra Bird Conservation Reserve</b>-It is the only place in Karnataka where Great Indian Bustard can be seen.</p> <p><b>5) Aghanashini Estuary</b>- It is formed at the confluence of Aghanashini River with the Arabian sea. The brackish water of the Estuary provides diverse ecosystem services including flood and erosion risk mitigation, biodiversity conservation and livelihood support.</p>
<p><b>States having largest number of Ramsar sites</b></p>	<p>1) <b>Tamilnadu</b>-16</p> <p>2) <b>Uttar Pradesh</b>-10</p> <p>3) <b>Odisha</b>-6</p> <p>4) <b>Punjab</b>-6</p>

### Manatees

#### Why in the news?

Manatees are typically solitary animals. However, they have gathered in record-breaking numbers at a Florida state park.

#### About Manatees



Source-Business insider

Aspect	Details
<b>About</b>	<p>Manatees are large <b>aquatic mammals</b>.</p> <p>They belong to a group of animals called Sirenia. This group also contains dugongs.</p>

## Factly Compilation for the Month of February (First Week) 2024

<b>Types</b>	There are three species, or types, of manatee:- 1) The <b>Amazonian manatee</b> lives in the Amazon River and in fresh water in South America. This species is <b>only</b> found in <b>freshwater</b> . 2) The <b>African manatee</b> lives in <b>tropical West Africa</b> . 3) The <b>Caribbean manatee</b> is found in <b>Florida</b> and the <b>West Indies</b> .
<b>Characteristics</b>	1) <b>Size</b> -Adult manatees may reach a length of 15 feet (4.6 meters) and a weight of 1,660 kilograms. <b>Females</b> tend to be larger and <b>heavier</b> than <b>males</b> . 2) <b>Diet</b> -They are <b>herbivores</b> . They spend up to eight hours a day grazing and can consume 4 to 9 percent of their body weight in aquatic vegetation daily. 3) <b>Behavior</b> - They are generally <b>solitary animals</b> . -In order to breathe, they must swim to the water's surface for air. -Dugongs and manatees are very similar in appearance and behavior, but there is one key difference:-Manatees have paddle-shaped tails, and dugongs have fluked tails, giving it a whale-like appearance. 4) <b>Lifespan</b> : 50 to 60 years.
<b>Conservation status</b>	IUCN-All 3 species are <b>vulnerable</b> .
<b>Threats</b>	1) Habitat destruction. 2) Their curious nature seldom leads to violent <b>collisions with propeller driven ships and boats</b> . 3) <b>Red tides</b> are major threats to the manatee. Red tide is the discolouration of sea surface due to algal blooms. 4) They are entangled in <b>fishing gear</b> , water control structures such as floodgates, navigation locks, etc.

**NOTE- Dugong**-They are also called the sea cow. They are the **herbivorous mammal**. It is classified as '**Vulnerable**' under the IUCN Red List.

### Dusted Apollo Butterfly a Brief

#### Why in The News?

**Dusted Apollo Butterfly a Brief**, A rare high-altitude butterfly called the Dusted Apollo (*Parnassius stenosemus*) was seen and photographed for the first time in Himachal Pradesh. It was sighted and photographed by two forest guards during a trek to **Manimahesh Lake** in Chamba.

#### What is Dusted Apollo Butterfly (*Parnassius stenosemus*)?



Source- The Hindu

## Factly Compilation for the Month of February (First Week) 2024

Aspect	Details
About	<ol style="list-style-type: none"><li>1. It is a butterfly species found in high-altitude regions, especially in mountainous regions of Ladakh.</li><li>2. It belongs to the family Papilionidae.</li><li>3. It was discovered in the year 1890.</li></ol>
Range of distribution	It is found from Ladakh to West Nepal, flying at altitudes between 3,500 to 4,800 meters in the inner Himalayas.
Characteristics	<ol style="list-style-type: none"><li>1. It is known for its distinctive wing patterns and coloration.</li><li>2. It closely resembles the Ladakh Banded Apollo (Parnassius stoliczkanus), but its distinguishing feature lies in the discal band on the upper forewing.</li><li>3. In the Dusted Apollo, the band is complete and extends from the costa to vein one, while in the Ladakh Banded Apollo, it is incomplete and extends only up to vein four.</li><li>4. The dark marginal band on the hind wings of the Dusted Apollo is narrower compared to the broader band found in the Ladakh Banded Apollo</li></ol>

**Note**– Regal Apollo (Parnassius charltonius) was also photographed at Manimahesh lake. a. It is protected under Schedule II of the Wildlife Protection Act, 1972.

### About Ladakh Banded Apollo (Parnassius stoliczkanus)



Figure 5. Source- Wikipedia

- 1) It is a rare butterfly found in high-altitude regions of Central Asia.
- 2) It is a member of the genus Parnassius of the swallowtail family, Papilionidae.

### What are The Apollo Species of Butterflies?

- 1) Apollos are highly valued butterflies in commercial trade and command high prices within the poaching industry.
- 2) Himachal Pradesh has recorded 11 Apollo species, with five of them designated as Scheduled species.
- 3) Most of the Apollo butterflies are endangered and urgently require conservation and protection measures.

## Lantana camara

### Why in the News?

Recently, at an exhibition in Bengaluru, sculptures crafted from lantana camara drew significant attention.

### What is Lantana Camara (Lantana)?



Source- DownToEarth

- 1) It is a **flowering plant species** belonging to the verbena family. It is **native to the American tropics**.
- 2) Due to its capability to adapt to shifting climates, lantana can **withstand high temperatures and moisture levels**.
- 3) However it is among the **world's ten worst invasive species** and is of **great concern in India**.
- 4) It was introduced to India as **ornamental shrubs** during the colonial period but it rapidly became invasive, spreading across various ecosystems.
- 5) The shrub can **easily spread across the forest floor**, climb trees as a creeper, and entangle with other native plants.
- 6) The **Nilgiri Biosphere Reserve** in the Western Ghats is heavily impacted by the invasion of Lantana camara, making it one of the **largest affected areas**.

**WHY LANTANA CAMARA IS A PROBLEM**

Workers uproot lantana and put it upside down at Asola

**FINAL SOLUTION**

**CUT ROOTSTOCK METHOD**

- > Cut portion between stem and root using shovel
- > Lift and put the plant upside down
- > This creates a hormonal imbalance, so no new root is produced and lantana dries up
- > Clean the area of any germinating lantana
- > Plant native shrubs or creepers

**WHY IT'S DANGEROUS**

Alters the forest ecosystem	Results in failure of regeneration of forests	Has invaded several million hectares of forests in India	Rate of growth is <b>1.5 inches</b> per day	Produces volatile chemical that bars insects from coming near it, except its native insect
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Native to Central and South America | Spread by birds

Source- TimesofIndia

## Black-necked Crane

### Why in the news?

As per the survey conducted by the Wildlife Institute of India in 2016-2017 in Ladakh region, the population size of black necked crane is around 66-69 individuals.

### About Black-necked Crane

## Factly Compilation for the Month of February (First Week) 2024



Source-eBird

Aspect	Details
<b>About</b>	The black-necked crane is a <b>medium-sized crane in Asia</b> that breeds on the Tibetan Plateau and remote parts of India and Bhutan. Both the sexes are almost of the <b>same size</b> , but male is slightly bigger than female.
<b>Population distribution</b>	The high altitude wetlands of the <b>Tibetan plateau, Sichuan (China), and eastern Ladakh (India)</b> are the main breeding ground of the species. However, the birds spend winter at lower altitudes. It is also found in Arunachal Pradesh's valleys- <b>Sangti valley, Zemithang and Chug valley</b> .
<b>Conservation status</b>	IUCN Red List- <b>Near Threatened (NT)</b> CITES- <b>Appendix I</b> Indian Wildlife (Protection) Act, 1972- <b>Schedule I</b>
<b>Threats</b>	1) Damage to the eggs and chicks, caused by <b>feral dogs</b> . 2) Increasing <b>grazing pressure</b> on the limited pastures near the wetlands. 3) Loss of habitat due to development projects on the wetlands.
<b>Conservation efforts</b>	1) <b>Notified Protected areas</b> - The important habitats of Black-necked Crane have been notified as a <b>Protected Areas. For ex- Changthang Sanctuary, Ladakh.</b> 2) <b>Designated Wetlands</b> - The <b>Tso Kar Wetlands Complex</b> , an important foraging and breeding ground for Black-necked Crane has been designated as a <b>Ramsar Site</b> . 3) <b>Financial assistance</b> - The Central Government provides <b>financial assistance</b> to State/Union Territory Governments under the <b>Centrally Sponsored Scheme</b> of ' <b>Development of Wildlife Habitats</b> '.
<b>Religious significance</b>	The bird is revered by <b>Monpas</b> (a major <b>Buddhist ethnic group</b> of <b>Arunachal Pradesh</b> ) as an embodiment of the sixth <b>Dalai Lama</b> .

### Aldabra giant tortoise

#### Why in the News?

The **Aldabra giant tortoise reintroduction project** was started in 2018 to reintroduce Aldabra giant tortoises in Madagascar's natural habitats. The project is heading towards success as it has led to thousands of these megaherbivores (Aldabra giant tortoises) **repopulating** the island for the first time in 600 years.

#### About Aldabra giant tortoise

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Source-DownToEarth

Aspect	Details
<b>About</b>	<ol style="list-style-type: none"><li>1. It is the <b>world's second-largest land tortoise species</b>, after the Galapagos giant tortoise.</li><li>2. These tortoise have <b>descended from ancestors of Aldabrachelys abrupta</b>, one of two giant tortoises that lived in Madagascar for 15 million years.</li></ol>
<b>Lifespan</b>	It has a lifespan of about <b>100 years</b> .
<b>Population Distribution</b>	These are endemic to <b>the Aldabra Atoll in the Seychelles</b> , an archipelago in the western Indian Ocean, approximately 930 miles east of Africa and northeast of Madagascar.
<b>Habitat</b>	<ol style="list-style-type: none"><li>1. These tortoises live on land and inhabit diverse environments such as <b>scrub forests, mangrove swamps, and coastal dunes and beaches</b>.</li><li>2. Grasslands named "<b>platins</b>" harbour the largest populations of tortoises.</li></ol>
<b>Conservation Status</b>	<b>IUCN- Vulnerable</b> <b>CITES- Appendix II</b>
<b>Physical Characteristics</b>	<ol style="list-style-type: none"><li>1. They are <b>dark gray to black</b> with a strongly domed, thick shell.</li><li>2. Aldabra tortoises show <b>sexual dimorphism</b>, meaning males and females have different appearances.</li><li>3. <b>Males are much bigger than females</b> and have longer, thicker tails.</li></ol>
<b>Significance</b>	<ol style="list-style-type: none"><li>1. They are <b>vital in keeping the ecological balance</b> in a habitat <b>mosaic</b> (a place where different habitats exist side by side).</li><li>2. They consume fruits from different trees. These then spread the seeds through their dung, aiding in <b>megafauna-dependent germination</b>. This facilitates the growth of forests, woodlands, shrublands, and grasslands.</li></ol>

### About Aldabra Atoll

1. Aldabra is the **world's second-largest coral atoll**, located **southeast of Africa**.
2. It **belongs to the Aldabra Group of islands in the Indian Ocean**, which are part of the Outer Islands of the Seychelles.
3. It is inscribed on the UNESCO **World Heritage List** in 1982.

**Note-** An atoll is a ring-shaped coral formation surrounding a lagoon, usually formed from the rim of a submerged extinct volcano. They're **often found in warm, tropical oceans**.

## Sepahijala Wildlife Sanctuary

### Why in the news?

The Sepahijala Wildlife Sanctuary of Tripura recently welcomed two Royal Bengal tigers, two leopards and four golden pigeons.

### About Sepahijala Wildlife Sanctuary

Aspect	Details
Location	It is located around 25 km from Agartala, Tripura.
Established	It came into existence in 1972.
Vegetation	It has moist deciduous forest
Lakes	It has two <b>natural lakes</b> , namely <b>Abasarika</b> and <b>Amrit Sagar</b> .
Flora	The sanctuary has around 456 plant species; many kinds of bamboo and a variety of grasses and medicinal plants also grow in the sanctuary
Fauna	It is the habitat of different species of primates like Rhesus macaque, Pigtailed macaque, Capped langur, Spectacled monkey, Slow loris and several other wild animals like Leopard, Clouded leopard, Jungle fowl, Civets, Barking, Deer, Wild pig, etc.
Important fact	<b>Clouded Leopard National Park</b> , established in <b>2007</b> , is a part of this wildlife sanctuary.

## Subject: Schemes & Programmes

### National Mission for Mentoring (NMM)

### Why in the News?

The National Council for Teacher Education (NCTE) held a 2-day seminar to share best practices and review the National Mission for Mentoring (NMM) with stakeholders.

### What is National Mission for Mentoring (NMM)?

Aspect	Details
About	1. It is a programme in line with the <b>National Education Policy (NEP) 2020</b> . 2. It provides mentors with opportunities to <b>share expertise with mentees, assisting them in becoming effective teachers</b> .
Objective	To establish a strong mentorship system that empowers teachers to improve teaching practices and effectiveness.
Launched on	<b>July 29, 2022</b> , in 30 selected Central Schools nationwide by <b>NCTE</b> as a pilot

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	program.
<b>Features</b>	<ol style="list-style-type: none"><li>1. NMM enhances mentee teachers' teaching abilities and fosters a <b>culture of continuous learning</b>.</li><li>2. It keeps teachers updated and relevant in today's dynamic educational landscape.</li><li>3. NCTE has <b>onboarded 60 professionals as NMM mentors</b> for various areas including leadership, digital education, socio-emotional learning, inclusive education etc.</li></ol>

### What is National Council for Teacher Education (NCTE)?

1) **About**- It is a governmental **statutory body** established under the National Council for Teacher Education Act of 1993 in India. This council **advises both central and state governments on Teacher Education matters**.

#### 2) **Objective:**

- a. To achieve coordinated development of teacher education nationwide.
- b. To **regulate and uphold Norms and Standards** in teacher education and related matters.
- c. To **train individuals to teach at all school levels**, including pre-primary, primary, secondary, and senior secondary, as well as non-formal, part-time, adult education (correspondence), and distance education courses.

## Pradhan Mantri Suryodaya Yojana

### Why in the News?

In the Interim Budget 2024, the Finance Minister announced that one crore households will receive up to 300 units of free electricity monthly through rooftop solarization. This **announcement is part of the Pradhan Mantri Suryodaya Yojana**.

### What is Pradhan Mantri Suryodaya Yojana?

Aspect	Details
<b>About</b>	<ol style="list-style-type: none"><li>1. This scheme was recently announced on the auspicious occasion of the consecration of the Ram Mandir in Ayodhya by the PM Modi.</li><li>2. It aims to <b>install rooftop solar panels on one crore households</b>.</li><li>3. Under this initiative, one crore households will receive up to <b>300 units of free electricity monthly</b>.</li></ol>
<b>Nodal agency</b>	Rural Electrification Corporation (REC)

### What is the Significance of this Scheme?

- 1) It is an attempt to **achieve the goal of 40 GW rooftop solar capacity by March 2026**.
- 2) The scheme will help households to **save between Rs 15,000 and Rs 18,000 annually**. It will also enable them to **sell any surplus electricity to distribution companies (DISCOMs) as part of the net metering policy**.
- 3) The **net-metering policy** permits rooftop solar power users to feed their excess power back into the grid, thereby reducing their electricity expenses.



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**Note**– The mechanism of Net Metering was **started in India in 2009**. The Ministry of New and Renewable Energy (MNRE) overseeing its implementation.

### What other major announcements have been made for the energy sector in Budget 2024?

1) A '**viability gap funding**' (VGF) will be provided for harnessing **offshore wind energy** potential for an initial capacity of **one gigawatt**. These are wind farms located in the sea.

**Note**– The government aims to install 500 GW of renewable energy by 2030. As part of this initiative, the government **aims to achieve a 10 GW offshore wind capacity by 2030**. Presently, India's onshore wind energy capacity amounts to 44 GW.

## Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme

### Why in the news?

The Karnataka government has registered FIR against 56 officials of Department of School Education and Literacy(DSEL) and 22 non-governmental organisations (NGOs) for criminal offences such as forging documents during the implementation of IEDSS scheme.

### About Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme

Aspect	Detail
<b>About</b>	1) The Scheme of Inclusive Education for Disabled at Secondary Stage (IEDSS) has been launched from the year 2009-10. 2) This scheme replaces the earlier <b>scheme of Integrated Education for Disabled Children (IEDC)</b> and provides <b>assistance for the inclusive education of the disabled children in classes IX-XII</b> . 3) This scheme is now subsumed under Rashtriya Madhyamik Shiksha Abhiyan.
<b>Objective</b>	To enable students with disabilities to pursue <b>four years of secondary schooling after completing eight years of elementary schooling</b> in an inclusive environment.
<b>Components</b>	Funds are released per student for student-oriented components, such as <b>medical and educational assessment, books and stationery, uniforms, transport allowance, reader allowance, stipend for girls, support services, assistive device</b> etc.
<b>Eligibility</b>	The scheme covers all children studying at the secondary stage in Government, local body and Government-aided schools, with one or more disabilities as defined under the <b>Persons with Disabilities Act (1995) and the National Trust Act (1999)</b> . For example- <b>blindness, low vision, leprosy cured, hearing impairment, locomotory disabilities</b> , etc.
<b>Implementing agencies</b>	The School Education Department of the State Governments/Union Territory (UT) Administrations. They may involve <b>NGOs</b> having experience in the field of education of the disabled in the implementation of the scheme.
<b>Funding</b>	Central assistance for all items covered in the scheme is on <b>100 percent basis</b> . <b>The State governments are only required</b> to make provisions for scholarship of <b>Rs. 600/- per disabled child per annum</b> .

## Vidyanjali Scholarship Programme

### Why in the News?

The Union Minister of Education recently launched the EdCIL Vidyanjali Scholarship Programme.

### What is Vidyanjali Scholarship Programme?

Aspect	Details
About	1. This initiative ensures that <b>meritorious Navodaya Vidyalaya students lacking financial means</b> have access to high-quality learning systems. 2. It facilitates a smooth <b>transition from secondary to higher education</b> while <b>also providing financial support</b> .
Nodal Ministry	Ministry of Education
Implementing agency	EdCIL (Educational Consultants India Limited)
Funding	It secures support and funding from <b>non-governmental partners and private entities, including CSR grants, national and international donors</b> , as well as impact investors.
Beneficiaries	<b>Students of Class XI and XII</b> attending <b>Navodaya Vidyalayas nationwide</b> .
Features	1. A <b>fintech platform</b> created for Vidyanjali will <b>distribute sponsorships directly to students through Direct Benefit Transfer (DBT)</b> . 2. This platform will be instrumental for collecting data, managing student applications, <b>monitoring student progress, tracking grant distribution</b> , overseeing fund usage, <b>creating impact reports for SDG progress</b> , recognizing notable student achievements, and publicly thanking funders, among other functions.

### What is EdCIL (Educational Consultants India Limited)?

1. It is the **sole Public Sector Undertaking (PSU)** under the **Ministry of Education**.
2. It was incorporated under the **Companies Act of 1956**, on June 17, 1981.
3. It is classified as a '**Mini Ratna Organization**' by the Government of India.
4. It provides **consulting and technical services in Education and Human Resource Development**, both domestically and internationally.

## SAMARTH Centres

### Why in the news?

The Minister of State for Heavy Industries has recently informed the Lok Sabha about SAMARTH Centres.

### About SAMARTH Centres

**Established**– The **Smart Advanced Manufacturing and Rapid Transformation Hub (SAMARTH)** centres are set up under the Scheme for "**Enhancement of Competitiveness in the Indian Capital Goods Sector**".

## Factly Compilation for the Month of February (First Week) 2024

**Objective-** To provide assistance to the MSMEs to train the workforce and make them aware about **Industry 4.0 technologies**.

**Methods of training-** These centres have been using the following methods-

- 1) Organizing **Seminars/ Workshops** and knowledge sharing events on Industry 4.0.
- 2) Training industries to create **awareness** about Industry 4.0.
- 3) Providing **consultancy** (in areas such as IOT Hardware, Software development, data analytics)
- 4) **Incubation support** to start-ups including MSMEs.

**About the Enhancement of Competitiveness in the Indian Capital Goods Sector scheme**

**Launched by-** Ministry of **Heavy Industries**

**Objective-** To address the **technological obsolescence**, limited access to quality industrial infrastructure and common facilities.

## Subject: Reports & Indices

### RBI report on Panchayati Raj Institutions (PRIs)

#### Why in the News?

According to a report by the Reserve Bank of India (RBI) on the **finances of Panchayati Raj Institutions for 2022-23**, local taxes and fees **contributed only 1.1 percent to Panchayats' total revenue**.

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

1) **Decline in Panchayat average revenue** – According to the report, the **average revenue per Panchayat** (including taxes, non-taxes, and grants) stood at 21.2 lakh in 2020-21, increased to 23.2 lakh in 2021-22, and then slightly declined to **21.23 lakh in 2022-23**.

#### 2) Panchayat own revenue sources:

a. During the study period, the Panchayats' own revenues (**Local taxes and fees**) accounted for merely **1.1 percent of their total revenue**.

b. **Non-tax revenue**, primarily from Panchayati Raj programmes and interest earnings, constituted **3.3 per cent of the total revenue receipts**.

#### 3) Grant reliance:

a. Panchayats rely heavily on property taxes, fees, fines, and grants, with approximately **95% of their revenue coming from grants** provided by higher levels of government.

b. Specifically, **80% of the revenue was from Central government grants**; only **15% was from State government grants**.

#### 4) Low Expenditure:

a. The average Panchayat expenditure dropped from 17.3 lakh in 2020-21 to 12.5 lakh in 2022-23, mainly **due to higher spending during the pandemic**.

b. Goa, Karnataka, Odisha, Sikkim, Kerala, and Tamil Nadu recorded the **highest average Panchayat**

expenditures.

c. The revenue expenditure of panchayats accounts for **less than 0.6% of the gross state domestic product** across all states.

**What are the source of Finance for PRIs?**

- 1) **Grants from the Central Finance Commission** (tax devolution) and other grants provided by the Central Government.
- 2) Revenue collected by the State government on behalf of local bodies (State Finance Commissions Transfer), **including tolls, taxes, duties, and fees, as well as grants-in-aid.**
- 3) As per **Article 243-H**, PRIs are empowered to levy, collect, and distribute taxes, duties, tolls, and fees.

## Subject: Art & Culture

### Subika painting

**Why in the news?**

Invaluable art forms of Manipur are on the brink of extinction due to neglect.

**About Subika painting**



Source-The Indian Express

Aspect	Details
Type	It is an early <b>visual art</b> form of Manipur.
Community	It is a style of painting which is linked to the <b>Meitei community's</b> cultural history.
Manuscript	It is surviving through its six manuscripts — <b>Subika, Subika Achouba, Subika Laishaba, Subika Choudit, Subika Cheithil and Thengrakhel Subika.</b>
Origin	The royal chronicle, <b>Cheitharol Kumbaba</b> , doesn't mention a specific founder. However, experts estimate the use of Subika paintings since the <b>18th or 19th century.</b>

<b>Key points</b>	<ol style="list-style-type: none"><li>1) It is a composition of <b>cultural motifs</b> made by pre-existing features and other influences encouraged by cultural world-views of the community.</li><li>2) The illustrations of Subika Laishaba have visual language from the elements such as <b>lines, shapes, forms, colours, and patterns</b>.</li><li>3) These visual images become Meitei's cultural motif, and structure to create visual effects as well as <b>express cultural significance</b>.</li><li>4) The visual images are painted on <b>handmade paper</b>.</li><li>5) The materials of manuscripts are prepared <b>indigenously</b>, either handmade paper or barks of trees.</li></ol>
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### 390-Year-Old Deepastambham (Lamp Post)

#### Why in the News?

Recently, archaeologists discovered a **390-year-old Deepastambham (lamp post)** on the banks of the River Krishna in Nalgonda district, Telangana. This discovery sheds new light on trade ties in the region during early medieval times.



Figure 6. Source-The Hindu

#### About the Deepastambham (lamp post)

1. According to the inscription found on the lamp post, the pillar can be dated back to **June 1635**.
2. The inscription, **comprising a fusion of Telugu and Tamil languages** which suggests that the **pillar was dedicated to Kasi Viswanatha**.
3. The impressive height of the pillar hints at its possible **role as a lighthouse**, aiding ships along the riverine trade route in the early medieval era.

#### What is the history of the Nalgonda region?

1. During the construction of the lamp post, the **region was governed by the Qutb Shahi dynasty**.
2. European travelers like the **French diamond trader Tavernier**, who visited the Hyderabad kingdom has also made note of these land trade routes.

## Subject: Geography & Places in News

### Mekong River

#### Why in the news?

A multibillion-dollar dam project on river Mekong in Laos's Luang Prabang city, may result in the city losing its UNESCO status.

#### About Mekong river



Source-Radio Free Asia

Aspect	Details
About	It is a <b>trans-boundary river</b> in <b>East Asia</b> and <b>Southeast Asia</b> . It is the <b>world's twelfth-longest</b> river and the <b>third-longest</b> in Asia.
Origin	It originates from the Sanjanyuang in the <b>Tibetan Plateau</b> in China.
Mouth	The river drains into the <b>South China Sea</b>
Countries	It flows through <b>six Asian</b> countries: <b>China, Myanmar, Laos, Thailand, Cambodia and Vietnam</b> . It covers a total length of 2700 km.
Biodiversity	It is the <b>second most biodiverse river basin</b> in the world, after Amazon River Basin. It contains about 20,000 plant species, 1,200 birds, 430 mammals, 800 amphibians and reptiles, and 850 fish species.
Capital cities on its banks	1) <b>Vientiane</b> - the capital of <b>Laos</b> 2) <b>Phnom Penh</b> -the capital of <b>Cambodia</b>
Significance for India	1) The <b>Mekong Ganga Cooperation (MGC)</b> is an initiative by six countries – <b>India and five ASEAN countries</b> – Cambodia, Laos, Myanmar, Thailand, and Vietnam. 2) Mekong Delta is a potential source of <b>regional tension</b> due to an increasing number of hydroelectric projects that are altering the flow and raising concerns of ecological damage.

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**Note-Luang Prabang**– It is a **UNESCO World Heritage Site** where as per legend **Buddha** once rested during his travels.

### Messinian Event

#### Why in the news?

The Geological Institute of Israel recently uncovered an underwater canyon near Cyprus that dates back to the Messinian Event.

#### About Messinian Event

- 1) It is also known as the **Messinian Salinity Crisis (MSC)**
- 2) It was a **geological event** during which the Mediterranean Sea went into a **cycle of partial or nearly complete desiccation (drying up)**. It was one of the most severe ecological crises in the Earth's history.
- 3) The MSC began approximately **6 million years ago (MYA)** and lasted until around **5.3 MYA**.

### Subject: Miscellaneous

### Grammy Awards

#### Why in the news?

The fusion band, Shakti, bagged the Global Music Album Winner at the Grammy Awards.

#### About Grammy Awards

Aspect	Details
About	The Grammy Award is a prestigious accolade presented annually by the <b>Recording Academy</b> to honour outstanding achievements in the music industry.
History	The Grammy Awards were first established in <b>1959 to honour artistic and technical excellence</b> across various <b>music genres</b> . The name "Grammy" is derived from "gramophone," reflecting the original trophy's design resembling a gramophone.
Categories	1) It includes a wide range of categories covering such as <b>pop, rock, rap, country, classical, jazz, and many more</b> . 2) The "General Field" are four awards that are not restricted by genre. 3) They are Album of the Year, Record of the Year, Song of the Year, Best New Artist, and genre-specific awards.
Nomination and selection process	1) The nomination process involves submissions by record companies, artists, and other industry professionals. 2) The Recording Academy members then vote to determine the final nominees. 3) Winners are selected by voting members of The Recording Academy, consisting of music professionals across various fields.
Some interesting	1) There are <b>15 Indians</b> who have won Grammy Awards such as A.R. Rahman, Zakir Hussain etc

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<b>facts.</b>	2) Grammy Awards has introduced 3 new categories to recognise African Music, pop dance, and alternative jazz.
<b>Ceremony</b>	It is held annually in Los Angeles, California, typically in January or February.

