# **Factly Weekly**

**Compilation** 

2025

For UPSC CSE Prelims Exam

1<sup>st</sup> Week

**July 2025** 

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#### ZSI records 683 faunal discoveries in 2024

**News:** Zoological Survey of India's flagship publication, Animal Discoveries-2024, documents 683 new faunal discoveries from across the country.

#### ZSI records 683 faunal discoveries in 2024



- Animal Discoveries-2024: It is Zoological Survey of India's flagship publication which documents 683 new faunal discoveries from across the country, 459 of the species being new and 224 newly recorded in India.
- State-wise distribution: Kerala emerged as the top contributor with 101 discoveries (80 new species and 21 new records), followed by Karnataka (82), Arunachal Pradesh (72), Tamil Nadu (63) and Bengal (56).
- In contrast, **Chandigarh**, **Delhi**, **Haryana and Telangana** reported the **lowest** number of species.
- Version 2.0 of the Checklist of Fauna of India: It is also released by ZSI which is an inventory comprising 1,05,244 species and subspecies.
- The updated checklist spans 121 taxonomic groups, from protists to mammals.
- Insects particularly beetles, moths, flies, and bees dominate the diversity, while among vertebrates, fish is the most represented group.
- Animal Taxonomy Summit (ATS- 2025): The 110th celebrations of establishment of ZSI coincide with the third ATS- 2025, hosted by ZSI from June 30 to July 3.
- The summit is focused on three key themes—taxonomy, systematics and faunal diversity & conservation.

## **Bar Council of India (BCI)**

**News:** The Bar Council of India (BCI) has clarified that any Master of Laws (LL.M.) programme offered without its prior approval, will be considered unauthorised.

**About Bar Council of India (BCI)** 





Source - BCI

- It is a **statutory body** created by Parliament under the **Advocates Act, 1961**.
- Purpose: It was established to regulate and represent the Indian Bar.
- **Functions:** The following statutory functions under **Section 7** cover the Bar Council's regulatory and representative mandate:
  - To lay down standards of professional **conduct and etiquette** for advocates.
  - To lay down procedure to be followed by its disciplinary committee and the disciplinary committees of each **State Bar Council**.
  - To safeguard the **rights**, **privileges** and **interests** of advocates.
  - To promote and support **law reform**.
  - To promote **legal education** and to lay down standards of legal education.
  - To recognise Universities whose degree in law shall be a qualification for enrolment as an advocate.
  - The BCI visits and inspects Universities or directs the State Bar Councils to visit and inspect Universities for this purpose.
  - To organise legal aid to the poor.
  - To recognise the foreign qualifications in law obtained outside India for the purpose of admission as an advocate in India.
  - To manage and invest the funds of the Bar Council.
  - To provide for the **election of its members** who shall run the Bar Councils.

#### Composition

- It consists of members elected from each State Bar Council, the Attorney General of India, and the Solicitor General of India who is an ex-officio member.
- The members from the State Bar Councils are elected for a period of five years.



• The Council elects its **own Chairman and Vice-Chairman** for a period of **two years** from **among its members.** 

## **Secondary Pollutants**

**News:** CREA study says that secondary pollutants constitute up to third of PM2.5 pollution in the country.

#### **About Secondary Pollutants**

Source - Envira

- **Secondary pollutants** are air pollutants that are **not emitted directly** from a source (such as vehicles or factories) but are **formed in the atmosphere** through **chemical reactions** involving primary pollutants and other atmospheric components like sunlight, oxygen, and water vapor.
- Their formation often makes them **harder to control**, as they can arise from various combinations of precursors and environmental conditions.
- Examples of secondary pollutants
  - $\circ$  Tropospheric Ozone  $(0_3)$
  - Sulfuric acid and Nitric acid (component of acid rain)
  - Peroxyacetyl Nitrate (PAN)
  - Particulate Matter (PM)
  - Photochemical Smog
- As per a study from the Centre for Research on Energy and Clean Air (CREA), Secondary pollutants, particularly ammonium sulphate, are responsible for nearly one-third of India's fine particulate matter (PM2.5) pollution.
  - **Ammonium sulphate** results from the reaction between sulphur dioxide (SO2) and ammonia (NH3) in the atmosphere,
- The **main driver** of ammonium sulphate formation and more than 60% of SO2 emissions in India originate from **coal-fired thermal power plants**.
- This makes them a critical **target for reducing secondary PM2.5 pollution** through the implementation of **flue gas desulphurisation (FGD) systems**.

#### **Botrytis fungus**

**News:** A recent study found that Botrytis fungi, known for creating noble rot in fine wines, have a unique genetic setup.

#### **About Botrytis fungus**

- It is a necrotrophic fungus that infects ripe grapes.
- The fungus pierces the grape skin, causing **dehydration** as water evaporates. This concentrates the **sugars**, **acids**, **and flavors** in the grape, which is essential for producing **botrytized wines**.
- This fungus belongs to the **Ascomycetes group** and reproduces through spores housed in sac-like structures called *asci*.
- Botrytis-infected grapes are used to craft renowned and high-value dessert wines such as Sauternes (France), Tokaji Aszú (Hungary) etc.

#### **About Fungi**

- Fungi are **eukaryotic** organisms with a true nucleus and membrane-bound organelles.
- They belong to the **Kingdom Fungi** in the domain **Eukarya**.
- Examples include **mushrooms**, **yeasts**, **molds**, and *Penicillium notatum*.



- Fungi are **closer to animals** than plants in terms of evolution.
- The **cell wall** of fungi is made of **chitin**.
- Fungi reproduce **sexually** (ascospores, basidiospores) or **asexually** (conidia, sporangiospores).

# RailOne App

**News:** The Union Railway Minister launched a new app, RailOne, in New Delhi on 40th Foundation Day of Centre for Railway Information Systems (CRIS).

## **About RailOne App**

- It is a **comprehensive**, **all-in-one application** with a **user-friendly** interface, focused on **improving passenger interface** with railways.
- **Developed by:** Centre for Railway Information Systems (CRIS)
- **Benefits:** It **integrates** all the passenger **services** such as:
  - O Unreserved UTS Tickets via R-Wallet to Get 3% Discount
  - Live train tracking
  - Grievance redressal
  - E-catering, porter booking & last-mile taxi
- **Space saving App:** The app is space-saving, as there is no need to install multiple apps.
  - The user can use their existing user credentials of RailConnect or UTSonMobile App to register on RailOne.
    - The users will not have to carry several applications for different services of IR.
  - It features a single-sign-on with login via mPIN or biometric.
  - It supports existing RailConnect & UTS credentials.

**Note:** Reserved tickets will continue to be offered on IRCTC.

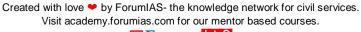
 RailOne app has also been authorised by IRCTC just like many other commercial apps who have partnered with IRCTC.

## **Certificate of Deposit (CD)**

**News:** News: PSU Banks' share in certificates of deposits issuance rises to 69% from 6% in three years, leading to their market share zooming from single digit to nearly 70% in three years.

#### **About Certificate of Deposit (CD)**

- A Certificate of Deposit (CD) is a **negotiable**, **unsecured money market instrument** issued by scheduled commercial banks and select All-India Financial Institutions (FIs) that offers **a fixed interest rate** on a **lump-sum deposit for a predetermined period**.
- Key Features:
  - Issuer: Scheduled commercial banks and specified financial institutions (excluding Regional Rural Banks and Local Area Banks).
  - Eligible investors: Individuals (including NRIs on a non-repatriable basis), corporations, companies, trusts, funds, associations, etc.
  - Minimum amount: 1 lakh from a single subscriber and in multiples of Rs. 1 lakh thereafter.
  - Tenure: Ranges from 7 days to 1 year for banks; for financial institutions, from 1 to 3 years.





- Interest & returns: Issued at a discount to face value; returns equal the difference between issue price and face value. Interest is fixed and guaranteed.
- **Negotiability:** CDs are freely transferable and can be traded in the secondary market before maturity.
- No lock-in period: Investors can sell CDs before maturity, subject to market conditions.
- Taxation: Interest income on CDs is fully taxable under the Income Tax Act.
- **Regulation:** Governed by the Reserve Bank of India (RBI).

## **Operation MELON**

**News:** The Narcotics Control Bureau has achieved a major breakthrough by dismantling India's most prolific darknet drug syndicate under its Operation Melon.

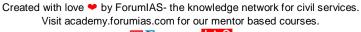
## **About Operation MELON**

- It is an operation by the Narcotics Control Bureau (NCB) in 2025 that dismantled "Ketamelon," India's most sophisticated darknet drug syndicate.
- This high-impact operation was led by the NCB Cochin zonal unit.
- **Ketamelon:** It had established a wide network for shipping **Lysergic Acid Diethylamide (LSD)** to major cities, including Bengaluru, Chennai, Bhopal, Patna, and Delhi, as well as in Himachal Pradesh and Uttarakhand.
  - 'Ketamelon' was India's only 'Level 4' darknet vendor operating actively over the past two vears.
  - LCD: Also known as acid, blots, and stamp, LSD is a hallucinogenic drug.
    - It is **odourless, colourless, and tasteless**, and can be painted onto small paper pieces that users lick or swallow.
  - Zambada: In 2023, the NCB had busted the then biggest darknet based LSD cartel named 'Zambada'.
    - It was the only cartel in the country with **5-star rating operating from Delhi** National Capital Region.
  - **Ratings:** The cartels on the darknet are rated on the scale of 1 to 5 levels based on the potency of the drug sold, and their "customer service".

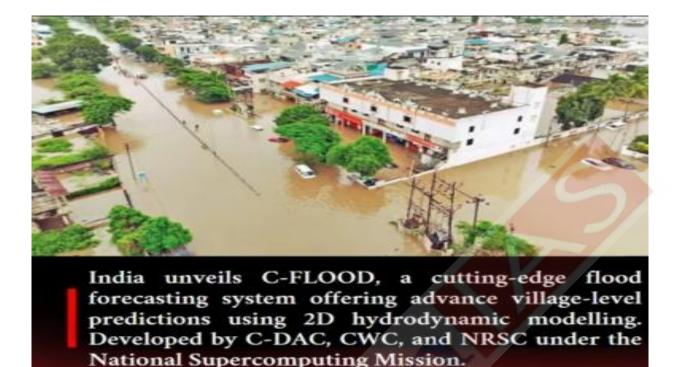
#### **C-FLOOD Platform**

**News:** Union Minister of Jal inaugurates C-FLOOD, a Unified Inundation Forecasting System at Shram Shakti Bhawan, New Delhi.

**About C-FLOOD Platform** 







Source - World of India

- It is a **web-based platform** that provides **two-days advance inundation forecasts** up to village level in the form of flood inundation maps and water level predictions.
- Developed by: Centre for Development of Advanced Computing (C-DAC), Pune and Central Water Commission (CWC), Department of Water Resources, River Development & Ganga Rejuvenation (DoWR, RD & GR), Ministry of Jal Shakti.
- Ministries involved: This initiative executed under the National Supercomputing Mission (NSM)
  jointly steered by Ministry of Electronics and Information Technology (MeitY) and Department of
  Science and Technology (DST).
- Features
  - The platform will act as a unified system integrating flood modelling outputs from national and regional agencies, offering a comprehensive decision-support tool for disaster management authorities.
  - At present, the system covers the **Mahanadi**, **Godavari**, **and Tapi river basins**, with more river basins to be incorporated in the future.
  - The platform uses advanced 2-D hydrodynamic modelling to simulate flood scenarios.

## **Community Forest Resource Rights (CFRR)**

**News:** The Chhattisgarh forest department has withdrawn its directive barring other government departments, NGOs, and private entities from undertaking any work related to Community Forest Resource Rights (CFRR).

**About Community Forest Resource Rights (CFRR)** 





Source - DTE

- These are **legal rights** granted to **forest-dwelling communities**, empowering them to protect, regenerate, conserve, and manage forest resources within their traditional or customary boundaries.
- These rights are recognized under **Section 3(1)(i)** of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of **Forest Rights) Act, 2006 (FRA).**

## • Key Provisions

- Legal recognition: CFRR legally acknowledges the traditional rights of communities over forest land and resources, shifting management authority from the forest department to the Gram Sabha.
- Scope: Rights extend to customary common forest land, including reserved and protected forests, sanctuaries, and national parks, provided the community has traditionally accessed and managed these areas.
- **Gram Sabha as nodal body:** The Gram Sabha becomes the primary authority for forest management, empowered to make rules for forest use, conservation, and protection.
- **Protection from eviction:** Communities cannot be displaced from their recognized forest areas **without their explicit consent**.

#### Objectives and Benefits

- Sustainable livelihoods: CFRR enables communities to sustainably harvest non-timber forest produce (NTFP) such as honey, bamboo, and medicinal plants, supporting local livelihoods.
- Conservation and biodiversity: The Rights empower communities to protect forests from deforestation, mining, and other external threats, promoting biodiversity and climate resilience.
- Cultural and customary Rights: They recognize and safeguard traditional knowledge, cultural practices, and rituals related to forests.
- **Decentralized governance:** They **democratize forest governance** by vesting decision-making powers in local institutions, fostering participatory and inclusive management.
- Implementation Status (as of year 2025)

 Limited progress: Only three states – Maharashtra, Chhattisgarh, and Odisha – in India have recognised a notable number of CFRR, with Maharashtra being the only state where these rights have been operationalised.

## **Grand Ethiopian Renaissance Dam (GERD)**

**News:** Ethiopia's Prime Minister said a multi-billion-dollar mega-dam on the Blue Nile, Grand Ethiopian Renaissance Dam (GERD), is complete and will be officially inaugurated soon.



Source - DW

- It is a **gravity dam** built on the **Blue Nile River** in **Benishangul-Gumuz region of Ethiopia**, near the **border with Sudan**.
  - The Blue Nile is a major tributary of the Nile River.
  - It originates from **Lake Tana in Ethiopia**.
- It was formerly known as the **Millennium Dam** and sometimes referred to as the **Hidase Dam**.
- Features
  - The project to build it was started in **2011**.
  - Largest in Africa: It is considered Africa's largest hydroelectric project stretching 1.8 km wide and 145 metres (475 feet) high.
  - Capacity: At full capacity, the huge dam can hold as much as 74 billion cubic metres of water and could generate more than 5,000 megawatts of power more than double Ethiopia's current output.
- **Issue:** It has been a source of **tensions** with **downstream nations Egypt and Sudan** who worry, it will affect their **water supply**.
  - Egypt relies on the Nile for 97 percent of its water needs.



## **Key facts about Trinidad and Tobago**

**News:** The PM announces that sixth generation Indian-origin citizens of Trinidad and Tobago will receive Overseas Citizens of India card soon.

## **Key facts about Trinidad and Tobago**



Figure 2. Source - World Atlas

- It is an **island country** of the **southeastern West Indies**, forming the two southernmost links in the **Caribbean chain**.
- Location: It lies close to the continent of South America, northeast of Venezuela and northwest of Guyana between the Caribbean Sea and the North Atlantic Ocean.
- Capital: Port of Spain, located on the northwestern coast of Trinidad.
- It consists of two main islands—
   Trinidad and Tobago—and several smaller islands.
- Trinidad: It is the larger one of the two islands and is separated from the Venezuelan coast by the Gulf of Paria.
- Tobago: It is the smaller island and lies 30 km to the northeast of Trinidad.
- **Little Tobago**: It lies about a mile

off Tobago's northeastern coast and is also called **Bird of Paradise Island**.

- It was once noted as the **only wild habitat of the greater bird of paradise** outside of New Guinea; however, the bird is no longer found there.
- **Terrain:** The terrain of the islands is a mixture of **mountains and plains**.
- **Northern Range:** It is located in the island **of Trinidad** and is a **continuation** of the coastal ranges of the **Andes Mountains in Venezuela**.
  - Waterfalls: Blue Basin Falls and the Maracas Falls, both 298 feet (91 metres) high.
- Climate: It has a maritime tropical climate comprising of a dry season and rainy season.
- Resources
  - La Brea Pitch Lake: World's largest natural asphalt deposit.
  - Tobago Main Ridge: Oldest legally protected rainforest reserve in Western Hemisphere (est. 1776).
  - **Leatherback Turtles**: One of the **world's densest nesting sites**, with around 10,000 turtles annually (Mar–Jul).
    - They are categorized as **Critically Endangered** on the IUCN Red List.
  - Government: It is a multiparty republic with a President (head of state) and Prime Minister (head of government)



#### **SPREE 2025**

**News:** The Employees' State Insurance Corporation (ESIC) has approved SPREE 2025 during its 196th ESI Corporation Meeting held in Shimla, Himachal Pradesh.

#### **About SPREE 2025**



Figure 3. Source - PIB

- It is a special initiative aimed at **expanding social security coverage** under the ESI Act.
- **Aim:** It is aiming to bring left-out establishments and workers into the ESI fold and ensure broader social protection.
- Full name: Scheme for Promotion of Registration of Employers and Employees
- Launched by: Employees' State Insurance Corporation (ESIC)
- Nodal Ministry: Ministry of Labour & Employment
- Features: The scheme will be active from 1st July to 31st December 2025 and provides a one-time opportunity for unregistered employers and employees—including contractual and temporary workers—to enrol without facing inspections or demands for past dues.

#### Under SPREE 2025:

- Employers can register their units and employees digitally through the ESIC portal, Shram Suvidha and MCA portal.
- Registration will be considered
- valid from the date declared by the employer.
- No contribution or benefit will apply for periods prior to registration.
- No inspection or demand for past records will be made for the pre-registration period.

## Benefits

- inclusive and accessible social security
- simplified registration process
- offering immunity from retrospective liabilities

## **India unveils Aluminium, Copper Vision Documents**

**News:** Coal and Mines Minister released the Copper and Aluminium Vision Documents at the International Conference on Sustainable and Responsible Mining in Hyderabad.

## **India unveils Aluminium, Copper Vision Documents**





Source - PIB

#### The Aluminium Vision Document

- The document lays the foundation for a **globally competitive** and **environmentally responsible** aluminium industry.
- Key goals outlined in the Vision Document:
  - Scale up aluminium **production six-fold by 2047**
  - Expand bauxite production capacity to 150 million tonnes per annum (MTPA)
  - **Double** the national aluminium recycling rate
  - Adopt low-carbon technologies for sustainable production
  - Strengthen **raw material security** through targeted policy reforms
- Future demand: Aluminium demand in India will rise six-fold by 2047 and to meet this demand, India must ramp up production from current 4.5 million tonnes per annum to nearly 37 MTPA over the next two decades, which will need an additional investment of over ₹20 lakh crore.
- Status of Aluminium production
  - O Bauxite (a sedimentary rock) is the primary ore of Aluminium.
  - India is the world's second largest producer of aluminium, it accounts for just 6% of global production pointing to a massive untapped potential.
- Global production
  - World production of aluminium was at 67 million tonnes in 2022.
  - **China** continued to be the leading producer with a share of about **60%** which is followed by Russia (6%), Canada (4.47%), UAE (4%), India (3.46%) and Bahrin (2.39%).

## **Copper Vision Document**

- Aim: It aims for a six fold increase in demand by 2047 and outlines plans to add 5 million tonnes per annum of smelting and refining capacity by 2030.
- Focus: It focuses on scaling up secondary refining, enhancing domestic recycling, and reducing dependence on open-market imports by securing overseas mineral assets through global partnerships
- It lays the foundation for a sustainable, resilient and future-ready copper ecosystem for the country.



## Status of copper resources

- **India: India** is **not** self-sufficient in the production of copper ore.
- O Distribution in In India:

States (%age)	Copper rich region/ Famous mines	
Rajasthan (52.25%)	Khetri-Singhana belt in Jhunjhunu district, Kho-Dariba area in Alwar and Delwara-Kirovali in Udaipur.	
Madhya Pradesh (23.28%)	h Malanjkhand belt of Balaghat and Kherlibazar-Bargaon area of Betul	
Jharkhand (15.14%)	Singhbhum district	

#### **Global reserves:**

- The world reserves of copper are assessed at **1000 million tonnes** of copper content.
- Chile has the largest share, accounting for about 19% of world reserves, followed by Peru (12%), Australia (10%), Russia & Congo (8% each), Mexico & USA (5% each), China (4%), Poland (3%), Indonesia, Zambia & Kazakhstan (2% each).

## 17th BRICS Summit, 2025

**News:** Prime Minister Shri Narendra Modi participated today in the 17th BRICS Summit being held in Rio de Janeiro, Brazil on 6-7 July 2025.

## **About 17th BRICS Summit, 2025**



Source - PMO

- Host (President): Brazil
- Theme: 'Strengthening Global South Cooperation for More Inclusive and Sustainable Governance'



- **Focus of 2025 Summit:** The Brazilian Presidency will focus on **two priorities**:
  - The Global South Cooperation; and
  - o BRICS Partnerships for Social, Economic, and Environmental Development
- Brazil also proposes to **focus on six core areas**:
  - Global health cooperation;
  - Trade, investment, and finance;
  - Climate change;
  - Artificial intelligence (AI) governance;
  - Multilateral peace and security architecture; and
  - Institutional development.

#### **About BRICS**

- It is an intergovernmental organization **comprising ten countries** Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran and the United Arab Emirates.
- Genesis of Idea: The idea of a BRICS-like group can be traced back to Russian foreign minister Yevgeny Primakov and to the two forums RIC (Russia, India, China) and IBSA (India, Brazil, South Africa).
- BRIC was originally a term coined by British economist Jim O'Neill.
- **First Summit:** The **first summit in 2009** featured the founding countries of **Brazil, Russia, India, and China**, where they adopted the acronym **BRIC**.
- First expansion: In April 2010, South Africa attended the 2nd BRIC summit as a guest.
  - In September 2010, it joined the organization which was then **renamed BRICS**, and attended the **3rd BRICS summit in 2011 as a full member**.
- BRICS expanded to BRICS+ (second expansion): Iran, Egypt, Ethiopia, and the United Arab Emirates attended their first summit as member states in 2024 in Russia.
  - **Indonesia** officially joined as a member state in **early 2025**, becoming the **first Southeast Asian member**.

## Tokara Islands

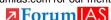
**News**: In a rare seismic occurrence, over 1,000 earthquakes have struck Japan's Tokara Islands in the past two weeks, causing widespread fear among residents and triggering evacuation orders.

#### About Tokara Islands



Figure 4. Source: Nippon

- The **Tokara Islands** are a remote archipelago located between **Kyushu** (southern Japan) and the **Amami Islands**.
- They are also known as the **Toshima Islands.**
- There are **12 islands** in the Tokara chain, out of which **7 are inhabited** and the rest are uninhabited or too rugged for settlement.



- From north to south, the inhabited islands are **Kuchinoshima**, **Nakanoshima**, **Tairajima**, **Suwanosejima**, **Akusekijima**, **Kodakarajima**, and **Takarajima**.
- Kuchinoshima is the northernmost inhabited island and is closest to mainland Kyushu.
- **Nakanoshima** is the largest island in both area and population.

## **International Treaty on Plant Genetic Resources for Food and Agriculture (Plant Treaty)**

**News:** Farmers, policymakers warn Centre against proposed amendments to the International Treaty on Plant Genetic Resources for Food and Agriculture (the 'Plant Treaty').

About International Treaty on Plant Genetic Resources for Food and Agriculture



Source - FAO

- It is an **international agreement** between member countries to **conserve**, **use and manage plant genetic resources for food and agriculture** around the world for the benefit of people everywhere.
- It is also known as the **Plant Treaty**.
- It was **adopted** by the the **Food and Agriculture Organization (FAO)** of the United Nations on 3 November **2001**.
  - The Treaty **entered into force on 29 June 2004**.
- It is a legally binding instrument.
- Aim: The Treaty aims at-
  - recognizing the enormous contribution of farmers to the diversity of crops that feed the world;
  - establishing a global system to provide farmers, plant breeders and scientists with access to plant genetic materials;
  - ensuring that recipients share benefits they derive from the use of these genetic materials.
- The Treaty ensures that farmers and plant breeders access, easily, the raw genetic material needed
  to develop new crop varieties, including those with higher yields and those that are resilient to climate
  change.



- Mechanisms: It provides a global solution to the challenges of crop diversity loss and climate change adaptation through mechanisms such as the Multilateral System and Benefit-sharing Fund.
- It is a **Multilateral System on Access and Benefit-sharing** covers **64 of the world's major crops**, accounting for about **80% of our food derived from plants**.
- The **genetic resources of our most important food crops** are **managed and exchanged** by member countries and other stakeholders **according to the provisions** of the International Treaty.
- Contracting Parties: As of 1 April 2025, the International Treaty has **154 Contracting Parties** (members), including the European Union (EU).

# **Phone Tapping in India**

**News:** The Delhi High Court rejected the plea of an accused who challenged a trial court's order accepting evidence gathered by the CBI through phone-tapping.

## Phone Tapping in India



Source - ToI

- **Phone tapping:** Also known as **cell phone monitoring or tracing**, it is the practice of employing various **applications to follow a user's phone calls** and other actions.
- The targeted individual is largely not informed of any such activity during this operation.
- The law on tapping: The government's powers to intercept communications is laid down in three pieces of legislation-
  - The **Indian Post Office Act, 1898** allows for the **interception of communication** through **post (Section 26)**;
  - The Indian Telegraph Act, 1885 is used for tapping voice calls (Section 5(2));
    - Section 5(2) of the Act states that both state and central governments can, "on the
      occurrence of any public emergency, or in the interest of the public safety",
      authorize interception.
  - The **Information Technology Act, 2000** governs the interception of **WhatsApp messages, emails, etc. (Section 69).**

Grounds for phone tapping



Article 19(2): The grounds — the interest of the sovereignty, and integrity of India; the security of the state; friendly relations with foreign states; public order; or preventing incitement to the commission of an offence — are enumerated as "reasonable **restrictions**" under Article 19(2) of the Constitution.

## Safeguards against interception

- **Article 21:** The right to have telephone conservation in the privacy of one's home or office is part of the Right to Life and Personal Liberty enshrined in Article 21 of the Constitution, which cannot be curtailed **except** according to the procedure established by law.
- PUCL vs Union of India Case The Supreme Court upheld the law, but it laid down procedural safeguards for its application which are -
  - **Tapping** of telephones is **prohibited without** an authorizing **order** from the **Home** Secretary, Government of India or the Home Secretary of the concerned State Government.
  - The order, unless it is renewed shall cease to have authority at the end of two months from the date of issue. Though the order may be renewed, it cannot remain in operation beyond six months.
  - Tapping must be **limited to the address specified in the order** or to address (es) likely to be used by a person specified in the order.
  - All copies of the intercepted **material must be destroyed** as soon as their retention is not necessary.
  - Within two months of ordering a phone tap, a committee comprising the cabinet **secretary**, the law secretary and the telecom secretary shall review the order.
    - The scrutiny by the board has also been included under Rule 419-A (17) of the Telegraph Rules.

#### Seine River

**News:** Paris reopens the River Seine for public swimming after century-long ban.

## **About Seine River**

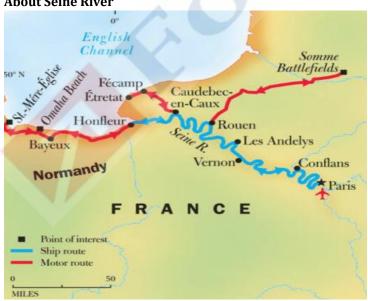
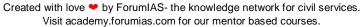


Figure 5. Source – National Geography

- •It is a 777 km-long river in **northern**
- Drainage basin: Its drainage basin is in the **Paris Basin** covering most of **northern**
- •Origin: It originates at Source-Seine, 30 km northwest of **Dijon** in northeastern France in the **Langres plateau**.
- It flows through **Paris** and **ends into the English Channel** at Le Havre (and Honfleur on the left bank).
- •It is the **second longest** river of France after the Loire River.
- •Important tributaries: Marne, Yonne, Oise, and Aube rivers





• **Cultural importance: UNESCO** has added the **banks of the Seine in Paris**—the **Rive Gauche** and **Rive Droite**—to its list of **World Heritage Sites** in Europe.

## **Pressurised Heavy Water Reactor (PHWR)**

**News:** The Atomic Energy Regulatory Board (AERB) has approved the operational license for Units 3 and 4 of the Kakrapar Atomic Power Station (KAPS) in Gujarat.

#### About Pressurised Heavy Water Reactor (PHWR)

- The Pressurised Heavy Water Reactor (PHWR) forms the foundation of the **first stage** of India's **Three-Stage Nuclear Power Programme**.
- It operates using **natural uranium** as fuel, which contains approximately **99.28% uranium-238**.
- During the fission process, the reactor generates **plutonium-239** as a by-product.
- This plutonium-239 is later used to create Mixed Oxide (MOX) fuel, a combination of uranium and plutonium, which will serve as fuel for Fast Breeder Reactors (FBRs) in the second stage of the programme.
- The PHWR uses **heavy water** (D<sub>2</sub>O) as both the **coolant** and **neutron moderator**, allowing the reactor to sustain a chain reaction even with natural uranium.
- Advantages
  - They use **thin-walled pressure tubes** instead of a large pressure vessel, which is typically used in other reactor types such as Pressurised Water Reactors (PWRs).
  - This design reduces the potential severity of accidents in case of a rupture, making the reactor inherently **safer and easier to manage**.

## About Atomic Energy Regulatory Board (AERB)

- The Atomic Energy Regulatory Board (AERB) is a regulatory authority in India.
- It was established in November 1983 under the provisions of the Atomic Energy Act, 1962.
- AERB is responsible for ensuring the safety of nuclear and radiation facilities and activities across
  the country.
- **Objective:** Its primary objective is to **protect human health and the environment** from potential risks associated with **ionizing radiation and nuclear energy.**
- The Board functions as the **regulatory body for nuclear safety**, setting standards, granting licenses, and enforcing compliance.

