



## **DAILY CURRENT AFFAIRS 22-02-2025**

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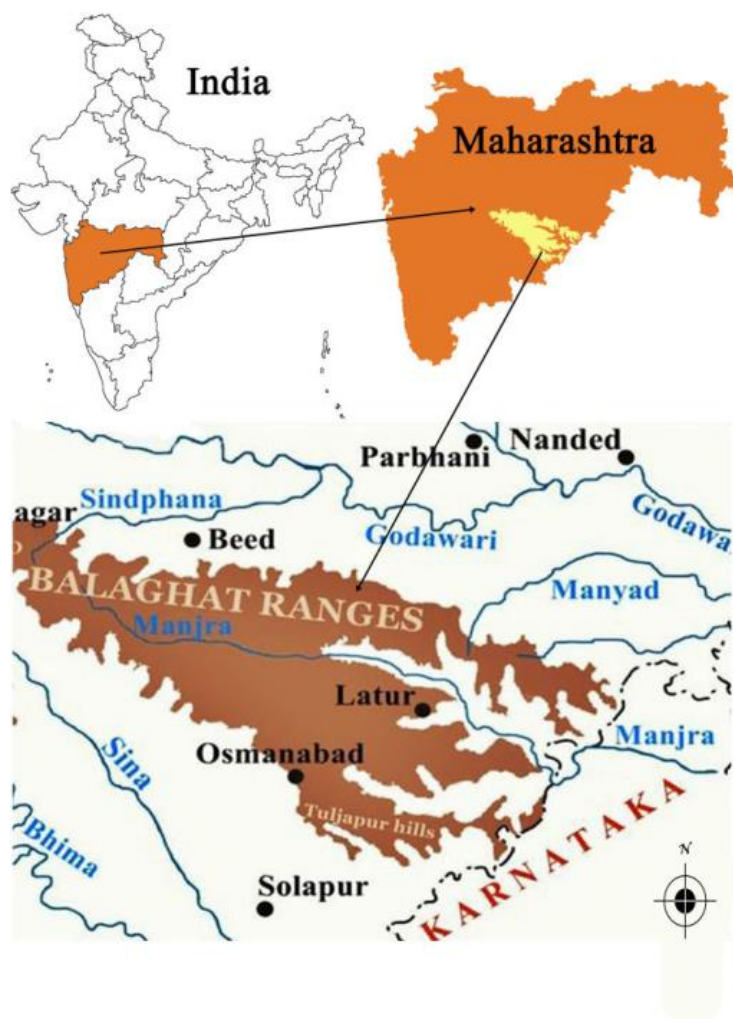
## **Balaghat**

### **Syllabus: GS-1; Geography- Mapping**

#### **Context**

- Recently, the four women Maoists shot dead by Madhya Pradesh police in Balaghat district.

#### **Geographical & Environmental Significance**



- **Location:** Southeastern part of Madhya Pradesh, sharing borders with Maharashtra and Chhattisgarh.
- **Rivers:** The Wainganga River is the major river flowing through the district.
- **Forests:**
  - Part of the **Satpura Range**, covered with **dense teak forests**.

- Hosts **Kanha National Park** (partially in Mandla and Balaghat), a prominent tiger reserve.
- **Climate:** Tropical climate with distinct summer, monsoon, and winter seasons.
- **Biodiversity:** Rich in wildlife, including tigers, leopards, and barasingha.

### Economic & Industrial Importance

- **Manganese Mining:** Balaghat is one of the largest producers of **high-grade manganese ore** in India.
- **Copper Deposits:** Malanjkhand Copper Project, Asia's largest open-cast copper mine, is located here.
- **Agriculture:**
  - Major crops: Rice, wheat, maize, and pulses.
  - Presence of irrigation projects like **Rani Avanti Bai Sagar Dam** (Bargi Dam).

### Historical & Cultural Significance

- **Gondwana Region:** Historically inhabited by the Gond tribe, with influences from various dynasties.
- **Freedom Movement:** Played a role in India's independence movement with local uprisings.
- **Festivals & Tribes:**
  - **Tribal population:** Gonds, Baigas, and Bharias are the major tribal communities.
  - **Famous festivals:** Madai Festival, Bhagoriya Festival.

### Administrative & Political Aspects

- **Balaghat Lok Sabha Constituency:** Represents the district in the Parliament.
- **State Assembly Seats:** Several Vidhan Sabha constituencies within the district.
- **Developmental Challenges:**
  - Naxal influence in some forested areas.
  - Need for better connectivity and infrastructure development.

### Recent Developments & Issues

- **Naxalite Activity:** Some areas, especially in the forests, are affected by left-wing extremism.
- **Ecotourism Promotion:** Efforts are being made to develop eco-tourism in the region.

- **Mining & Environmental Concerns:** Sustainable mining practices are being emphasized to prevent deforestation and pollution.

## **Advocates-on-Record (AoRs)**

**Syllabus: GS-2; Judiciary**

### **Context**

- The Supreme Court has held that Advocates-on-Record (AoRs) bear full responsibility for the accuracy of petitions filed before the Court, even if the drafts are prepared by other advocates.

### **About**

- **Advocates-on-Record (AoRs)** are a specialized category of lawyers in India who have the exclusive right to file cases, petitions, and other legal documents in the **Supreme Court of India**.
- This system ensures that only experienced and qualified advocates can represent clients in the highest court of the country.

### **1. Role and Importance of AoRs**

- **Exclusive Right to File Cases:** Only AoRs are authorized to file cases, petitions, and applications in the Supreme Court. They act as a bridge between the court and the litigants.
- **Representation in Court:** While AoRs file cases, they may not necessarily argue them. Senior advocates or other lawyers can argue the case, but the AoR remains responsible for the paperwork and procedural compliance.
- **Accountability:** AoRs are accountable to the Supreme Court for the conduct of cases they file. They ensure that all procedural requirements are met.

### **2. Eligibility to Become an AoR**

To become an Advocate-on-Record, a lawyer must meet the following criteria:

- **Enrollment as an Advocate:** The candidate must be enrolled as an advocate with the Bar Council of India.
- **Experience:** At least **4 years of continuous practice** as an advocate.

- **Training:** Completion of a **1-year training program** under a senior AoR or a Supreme Court lawyer.
- **Examination:** Passing the **Advocate-on-Record Examination** conducted by the Supreme Court. The exam tests knowledge of Supreme Court rules, procedures, and drafting skills.

### 3. Advocate-on-Record Examination

- The exam is conducted by the **Supreme Court of India**.
- It consists of **four papers**:
  - **Practice and Procedure** (Supreme Court Rules, filing procedures, etc.)
  - **Drafting** (drafting petitions, affidavits, etc.)
  - **Professional Ethics** (standards of professional conduct)
  - **Leading Cases** (important judgments of the Supreme Court).
- The exam is known for its difficulty, and the pass percentage is generally low.

### 4. Historical Background

- The AoR system was established under **Rule 2 of Order IV of the Supreme Court Rules, 1966**.
- It was introduced to ensure that only competent and experienced advocates handle cases in the Supreme Court, maintaining the quality of legal practice.

### 5. Significance for the Judiciary

- **Efficiency:** AoRs help streamline the filing process, reducing the burden on the Supreme Court.
- **Specialization:** They bring expertise in Supreme Court procedures, ensuring compliance with legal formalities.
- **Accountability:** AoRs are directly accountable to the Supreme Court, ensuring professionalism and ethical conduct.

## **Securities and Exchange Commission**

**Syllabus: GS-3; Economy- Institutions and Terms.**

### **Context:**

- The US Securities and Exchange Commission (SEC) has sought assistance from India's Ministry of Law and Justice regarding a complaint against Gautam Adani and his nephew Sagar Adani in the alleged violation of securities laws.

### **The US Securities and Exchange Commission (SEC)**

#### **Introduction**

- The **US Securities and Exchange Commission (SEC)** is a federal agency responsible for enforcing securities laws and regulating the securities industry in the United States.
- Established in **1934** by the **Securities Exchange Act** following the **1929 stock market crash**.

#### **Key Functions**

- **Regulating Securities Markets** – Ensures fair, transparent, and efficient markets.
- **Protecting Investors** – Prevents fraud, market manipulation, and insider trading.
- **Enforcing Securities Laws** – Implements laws like the **Securities Act of 1933** and the **Securities Exchange Act of 1934**.
- **Overseeing Financial Disclosures** – Companies must file financial reports (e.g., Form 10-K, Form 10-Q).
- **Regulating Investment Advisors & Mutual Funds** – Ensures fair practices in the investment sector.

#### **Structure**

- **Five Commissioners** appointed by the **U.S. President**, confirmed by the **Senate**.
- Commissioners serve **staggered five-year terms**, with no more than three from the same political party.

#### **Significance**

- **Prevents Financial Crises** by regulating securities markets.
- **Ensures Corporate Transparency** by mandating public disclosures.
- **Global Influence** – Sets standards influencing financial regulations worldwide.

## **Nocturnal Bull Ants**

**Syllabus: GS-3: Biodiversity – Species.**

### **Context:**

- Recent research by Macquarie University, Sydney, has found that nocturnal bull ants (*Myrmecia pyriformis* and *Myrmeciamidas*) use **polarised moonlight** for navigation.
- This marks a unique adaptation in insects and provides insights into nocturnal navigation strategies.

### **Polarisation in Light**

- **Nature of Light:** Light consists of electromagnetic waves oscillating in various directions.
- **Polarisation Process:**
  - When light scatters in the atmosphere, it becomes **polarised**, meaning its waves oscillate in a specific direction.
  - Both **sunlight and moonlight** can be polarised, but their patterns differ.
- **Role in Navigation:**
  - Polarised light provides a **stable reference point**, functioning as a **natural compass** for animals capable of detecting it.

### **Ant Navigation and Adaptation**

- **Daytime Navigation:**
  - Prior research established that these bull ants use **polarised sunlight** for orientation.
- **Nocturnal Adaptation:**
  - As daylight fades, these ants shift to using **polarised moonlight** for navigation.
  - They detect **e-vector patterns** (direction of light oscillation) to orient themselves.
  - Most effective during the **waxing and full moon phases** when moonlight intensity is higher.

### **Experimental Findings**

- **Methodology:**
  - Researchers projected **linearly polarised light** onto the ants.

- Observed how ants adjusted their movement in response to changes in the e-vector.
- **Key Observations:**
  - Ants altered their heading under **various moonlight conditions**.
  - **Greatest directional shifts** were observed during **full moon** nights.
  - **Lesser shifts** during **waning moon** phases, indicating that moonlight intensity influences navigation.

### Significance of Findings

- Only the **second** known case of an animal using **polarised moonlight** (after dung beetles).
- **Implications for Animal Navigation:**
  - Enhances understanding of how insects navigate in **low-light conditions**.
  - Raises questions about whether other species utilise similar strategies.
  - Can aid in the development of **bio-inspired navigation systems**.

### Relevance for UPSC

- **Science & Technology (GS-3):** Understanding advanced insect sensory mechanisms and bio-navigation.
- **Environment & Ecology (GS-3):** Insights into species adaptation to nocturnal environments.

## On Building Resilient Telecom Infrastructure

**Syllabus: GS-3: Disaster Management – role of telecom networks.**

### Context:

- The **Coalition for Disaster Resilient Infrastructure (CDRI)**, a multilateral initiative launched by **PM Narendra Modi in 2019**, recently released a report assessing the preparedness of Indian telecom networks for disasters.
- The report highlights vulnerabilities and suggests measures for **State governments** to enhance disaster resilience in telecom infrastructure.

### Significance of Telecom Networks in Disaster Management

- **Essential for Coordination:**



- Enables **quick communication** between the **State and National Disaster Management Authorities**, municipalities, and governments.
- **Vulnerabilities in Telecom Networks:**
  - **Above-ground cables and towers** are prone to damage from **high wind speeds, cyclones, and earthquakes**.
  - **Dependence on electricity**, which is often disrupted during disasters.
  - **Coastal regions are at higher risk** due to undersea cable dependencies for global internet connectivity.

### Impact of Disasters on Telecom Networks

- **Structural Damage:**
  - **Overland cables** are exposed to damage, while **underground cables** offer better protection.
  - **Telecom towers** in coastal areas face the **brunt of high-speed winds**.
- **Power Supply Disruptions:**
  - Lack of power is a major issue, as **towers and network centers** rely on **uninterrupted electricity**.
  - Analysis of past telecom outages since **2016** shows that **power failure is the biggest challenge**.

### Measures to Strengthen Telecom Networks

#### 1. Restoring and Maintaining Power Supply

- **Severed undersea cables** require time-consuming repairs using specialized vessels.
- During disasters, priority should be given to maintaining power supply for:
  - **Telecom towers**
  - **Network operating centers**
- **Backup Power Solutions:**
  - **Fuel reserves:** Odisha's disaster management strategy includes **providing 50 liters of fuel per telecom tower** to sustain operations.
  - **Battery backup** systems should be enhanced, considering that **Mumbai is the only city where 24/7 power supply is assumed**.

#### 2. Network Protection and Resilience

- **CDRI Recommendations:**

- **Stronger infrastructure:**
  - Cell towers must be designed to **withstand higher wind speeds**, particularly in cyclone-prone **coastal areas**.
- **Dig-once policy:**
  - Encourages the **simultaneous underground installation of fiber-optic cables, water, and gas pipelines**, reducing risks of future damage.
- **Real-time monitoring:**
  - The **Department of Telecommunications (DoT)** uses software to **track telecom assets in real-time** and quickly deploy resources.

### 3. Financial and Policy Interventions

- **Disaster Risk Modeling:**
  - **Updating damage assessment protocols** and integrating risk models into **telecom infrastructure planning**.
- **Parametric Insurance:**
  - Provides **financial protection to telecom operators** against disaster-related losses.
  - Encourages **quick network restoration** and incentivizes disaster-proofing investments.

### 4. Small Yet Effective Measures

- **Raising generator platforms** above **flood levels** to ensure uninterrupted backup power supply.
- **Strengthening coordination** among government agencies and telecom operators for **faster response and recovery**.

### Conclusion

- The resilience of **India's telecom infrastructure** is crucial for effective disaster response.
- A **combination of policy interventions, infrastructure upgrades, and financial incentives** can significantly reduce disruptions and ensure a **robust, disaster-resilient telecom network**.