



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**.