



DAILY CURRENT AFFAIRS-

1. Meta Tenders Apology For 'Errors' As Govt. Summons Senior Official
2. Artificial Intelligence (AI) and Digital Education in Government Schools
3. The road ahead for the Asiatic lion
4. Climate Resilience Cooperation Between India and China
5. Light-Activated Nanobots for Targeted Breast Cancer Therapy

1. Meta Tenders Apology For 'Errors' As Govt. Summons Senior Official

Source: The Hindu

Why in News?

Meta apologizes for content errors, deepfakes, and PM's post removal after government summons, raising concerns over intermediary liability and cybercrime.

Key Highlights:

- Meta CEO Mark Zuckerberg conveyed apologies for **Child Sexual Abuse Material (CSAM)**, deepfake content, and operational errors on its platforms.
- Joel Kaplan, Meta's Global Head of Public Policy, met with officials from the **Ministry of Electronics and Information Technology (MeitY)** and Union IT Minister Ashwini Vaishnaw.
- The apology followed the temporary removal of Prime Minister Narendra Modi's video message from Facebook on July 23, which Meta attributed to an error.
- The Indian government asserted that Meta might not be covered under the "intermediary definition," potentially increasing its liability for user-generated content.
- The **Parliamentary Standing Committee on Communications and Information Technology** demanded the lifting of Google India's **safe harbour** status due to cybercrime complaints.

Detailed Insights:

- The meetings addressed concerns over Instagram's role in amplifying protests at Jantar Mantar and the brief takedown of PM Modi's post.
- The government's stance on the "intermediary definition" indicates a potential shift towards holding platforms directly liable for user-generated content.
- This move could significantly alter the legal framework for social media companies operating in India, increasing their accountability.
- The demand to lift Google India's **safe harbour** status highlights growing governmental scrutiny over platform responsibility for user content and cyberfraud.
- The incident underscores the ongoing tension between the autonomy of digital platforms and governmental oversight regarding content moderation and platform liability.

2. Artificial Intelligence (AI) and Digital Education in Government Schools

Source: PIB

Why in News?

Government integrates Artificial Intelligence and computational thinking into school education through NEP 2020 and NCF SE 2023, launching new curricula and teacher training programs.

Key Highlights:

- The **National Education Policy (NEP) 2020** and **National Curriculum Framework for School Education (NCF SE) 2023** emphasize integrating Artificial Intelligence (AI) and computational thinking in schools.
- NCERT, in collaboration with CBSE, introduced a dedicated **Computational Thinking and Artificial Intelligence Curriculum** for Classes III-VIII from academic year 2026-27, and finalized it for Grades 9-12.
- The Ministry of Skill Development and Entrepreneurship launched **SOAR (Skiiling for AI Readiness)** to embed AI awareness and foundational skills among students (Classes 6-12) and educators.
- Education is a subject on the **Concurrent List**, making State/Union Territory Governments responsible for establishing AI and Robotics Laboratories in schools under their jurisdiction.

Detailed Insights:

- NEP 2020 recommends increased emphasis on mathematics and computational thinking throughout school years, starting from the foundational stage.
- NCF SE 2023 highlights the crucial role of mathematics due to its close connection with AI, machine learning, and data science.
- AI is transforming education by enabling personalized learning, intelligent assessment, adaptive instruction, and data-driven decision-making.
- The new curriculum focuses on fostering logical reasoning, pattern recognition, algorithm design, data literacy, and ethical AI.
- Teacher Handbooks and Facilitator Guides have been developed by NCERT and CBSE to support the learning process.
- **SOAR** comprises three progressive 15-hour modules for students and one 45-hour module for teachers, covering AI basics, generative AI, and ethics.
- CBSE affiliated schools are required to ensure adequate digital infrastructure for students studying AI as a subject, as per affiliation Bye-Laws.

3.The road ahead for the Asiatic lion

Source: Indian Express

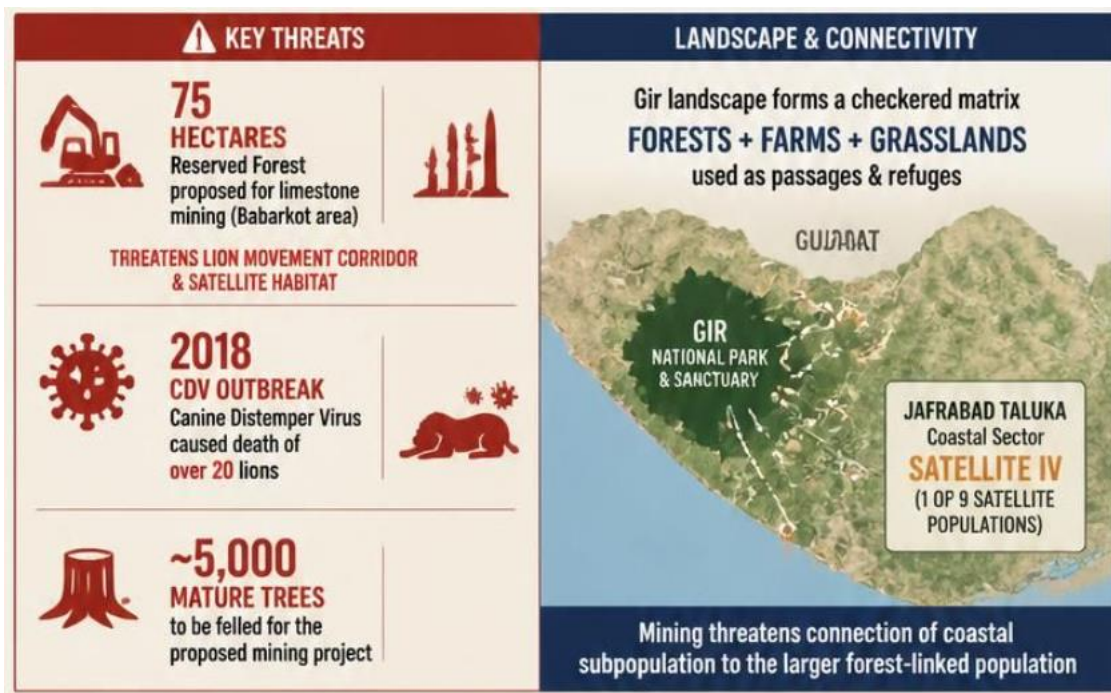
Why in News?

Proposed limestone mining threatens crucial Asiatic lion habitat and movement corridors in Gujarat, jeopardizing decades of conservation success and raising concerns about the species' future.

Key Highlights:

- The only free-ranging population of the **Asiatic lion** is found in and around **Gir National Park and Sanctuary** in Gujarat.
- The lion population has grown from 100-150 individuals six decades ago to 891 in the 2025 census, with nearly half residing outside designated protected areas.
- A proposal to divert approximately 75 hectares of reserved forest for limestone mining in the **Babarkot** area threatens a crucial lion movement corridor and satellite habitat.

- In 2018, over 20 lions succumbed to an outbreak of **Canine Distemper Virus (CDV)**, highlighting the vulnerability of a geographically concentrated population.
- The **International Union for Conservation of Nature (IUCN) Red List** currently classifies the **Asiatic lion** as Vulnerable, a significant improvement from its previous Critically Endangered status.



Detailed Insights:

- The semi-arid landscape of Gir extends into agricultural fields and grasslands, forming a checkered matrix that lions use as passages and refuges.
- The **Gujarat Forest Department's 2025 lion population estimation** identifies the coastal sector of Jafraabad Taluka as Satellite IV, one of nine recognized satellite lion populations.
- The proposed mining project would require felling nearly 5,000 mature trees, potentially disrupting the coastal subpopulation's connection to the larger forest-linked population.
- The success of lion conservation has transitioned from protected-area management to landscape-level conservation, supported by political will and local community goodwill.
- The 2018 **CDV** outbreak, which caused significant mortality, underscored the risk of disease in a single, concentrated population, prompting calls for a second home for the lions.

- The **IUCN Green Status assessments** indicate that while the **Asiatic lion** has recovered from the brink, it remains "largely depleted" and far from fully restored across its historical range.
- The **Gir National Park and Sanctuary** was established in 1965, and conservation efforts have led to a substantial increase in the lion population.

4.Climate Resilience Cooperation Between India and China

Source: The Hindu

Why in News?

Amid increasing climate-induced disasters across Asia, India and China are exploring avenues for **climate resilience cooperation**. A Chinese delegation's visit to New Delhi in April 2026 has revived discussions on collaboration in disaster mitigation, urban resilience, climate adaptation and scientific research.

Key Highlights

- India and China are witnessing similar climate-induced extreme events, including **heatwaves, floods, droughts and intense rainfall**.
- A **Chinese delegation visited New Delhi in April 2026**, indicating renewed engagement on climate cooperation.
- **Disaster risk reduction and urban resilience** have emerged as politically less sensitive areas for bilateral cooperation.
- Previous engagements included the **India-China Strategic Economic Dialogue** and **sister-city partnerships** focusing on sustainable urban development.
- Both countries face a significant **climate adaptation finance gap**, necessitating greater private sector participation alongside public investment.

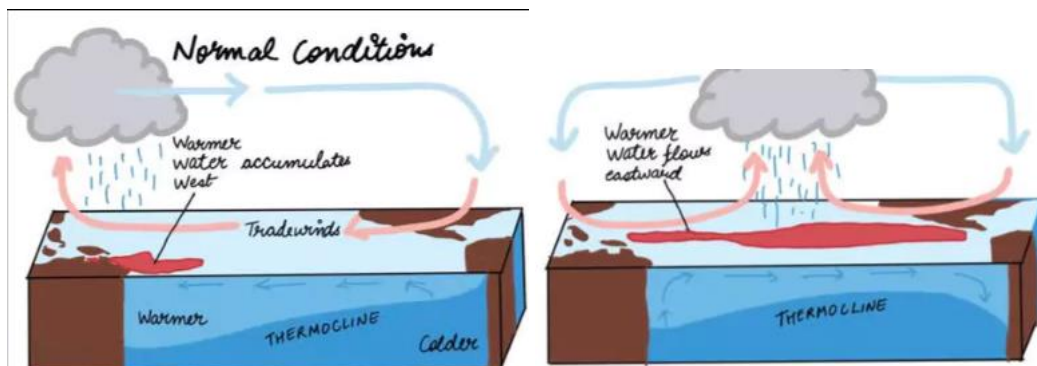
Why Climate Cooperation is Important?

- India and China together account for a substantial share of the global population, greenhouse gas emissions and climate-related risks.
- Both countries face:
 - Increasing frequency of extreme weather events.
 - Rapid urbanisation resulting in urban flooding and heat island effects.

- Shared vulnerability of the **Himalayan ecosystem**, glaciers and transboundary river systems.
- Rising risks to agriculture, water security and infrastructure.
- Cooperation in climate adaptation can generate mutual benefits while remaining separate from broader geopolitical differences.

The Mechanics of El Niño

- **El Niño** is the **warm phase** of the **El Niño–Southern Oscillation (ENSO)** and develops when the normal easterly trade winds weaken or reverse across the equatorial Pacific Ocean.
- **Oceanic Change:** Warm surface waters, normally accumulated near Indonesia and Australia, shift eastward towards the South American coast.
- **Atmospheric Change:** The eastward movement of warm water shifts the **Walker Circulation**, causing rainfall to move from the western Pacific to the central and eastern Pacific.
- **Threshold:** An El Niño event is declared when **Sea Surface Temperature (SST) anomalies** in the **Niño 3.4 region** remain at or above **+0.5°C** for several consecutive months.



Common Trap

- El Niño does **not** imply warming everywhere. It specifically refers to **abnormal warming of the equatorial Pacific Ocean**, whose atmospheric effects influence weather patterns across different regions.

Current Status (August 2026)

- According to **NOAA** and the **World Meteorological Organization (WMO)**, El Niño is strengthening.
- The **Niño 3.4 Index** reached **1.5°C** in early August 2026, with an **81% probability** of becoming a **very strong El Niño** (above 2.0°C) later in the year.

- While a **Positive Indian Ocean Dipole (pIOD)** is also developing, the strong El Niño is expected to have a greater influence on the Indian monsoon.
- **Impact on the Indian Monsoon**
- El Niño generally suppresses the **Southwest Monsoon**, resulting in below-normal rainfall.
- It increases the frequency of **monsoon break periods**, adversely affecting Kharif crops.
- Recent studies indicate that **each 1°C increase in El Niño intensity could reduce Indian monsoon rainfall by around 6.6%**, compared to nearly 5% historically.
- Reduced rainfall lowers reservoir storage, affecting irrigation, drinking water supply and hydropower generation.

UPSC Prelims Practice Question

Q. With reference to **El Niño**, consider the following statements:

1. It represents the warm phase of the El Niño–Southern Oscillation (ENSO).
2. It is associated with warming of sea surface temperatures in the central and eastern equatorial Pacific Ocean.
3. El Niño generally suppresses the Southwest Monsoon over India.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

UPSC Mains Practice Question

Q. *India and China face similar climate vulnerabilities despite their geopolitical differences. Discuss the scope of bilateral cooperation in strengthening climate resilience. Also explain the mechanism of El Niño and examine its impact on the Indian monsoon. (15 Marks, 250 Words)*

5.Light-Activated Nanobots for Targeted Breast Cancer Therapy

Source: The Hindu

Why in News?

Researchers from the **Institute of Nano Science and Technology (INST), Mohali** and **Bhabha Atomic Research Centre (BARC), Mumbai** have developed **light-activated nanobots** capable of selectively targeting breast cancer cells, offering a precise and minimally invasive alternative to conventional chemotherapy.

Key Highlights

- Developed by **INST, Mohali** and **BARC, Mumbai**.
- Based on **Upconversion Nanoparticles (UCNPs)** activated by **Near-Infrared (NIR) light**.
- Nanobots exhibit **phototaxis (light-directed movement)** for controlled navigation toward tumors.
- Functionalized with **folic acid** to selectively target **folate receptor-overexpressing breast cancer cells**.
- Combines **Photothermal Therapy (PTT)** and **Photodynamic Therapy (PDT)** for enhanced cancer cell destruction.
- Successfully demonstrated therapeutic efficacy in **cell culture studies and breast tumor-bearing mice**.
- **How the Technology Works**
- **Near-Infrared (NIR) light** penetrates deep into body tissues and activates the UCNP-based nanobots.
- Activated nanobots:
 - Convert light into **heat** (Photothermal Therapy).
 - Generate **Reactive Oxygen Species (ROS)** (Photodynamic Therapy).
- The combined effect destroys cancer cells while minimizing damage to surrounding healthy tissues.
- **Folic acid** coating enables selective binding to cancer cells expressing **folate receptors**, improving treatment precision.
- Addresses the limitations of conventional chemotherapy, which affects both cancerous and healthy cells.

- Improves drug delivery by enabling **active, externally controlled targeting**, unlike passive accumulation used in existing nanomedicines.
- Enhances tumor penetration and localized treatment, reducing systemic toxicity and side effects.
- Represents a promising approach for **precision oncology** and next-generation nanomedicine.

Challenges

- Technology has been validated only in **pre-clinical models**; extensive human clinical trials are still required.
- Long-term safety, biodegradability, and large-scale manufacturing need further evaluation.
- Regulatory approvals and cost-effective production remain major hurdles before clinical use.

UPSC Prelims Practice Question

Q. With reference to **light-activated nanobots for cancer therapy**, consider the following statements:

1. They are activated using Near-Infrared (NIR) light.
2. They selectively target breast cancer cells using folic acid functionalization.
3. They destroy cancer cells through both photothermal heating and reactive oxygen species generation.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

Answer: (d)

UPSC Mains Practice Question

Q. *Nanotechnology is transforming cancer diagnosis and treatment. Discuss the significance of light-activated nanobots in targeted cancer therapy and examine their*

potential advantages over conventional chemotherapy. (10 Marks, 150 Words)

