

Current Affairs - 01 August 2026

XTREME WEATHER GRADE DIESEL



Recently, the Chief of the Army Staff (COAS) launched the indigenously developed Xtreme Weather Grade (XWG) Diesel in New Delhi.

- It is a **specialised diesel fuel** developed for **operations in extremely low temperatures**.
- It is designed to remain usable **at temperatures as low as minus 42 degrees Celsius**.
- It is developed jointly by the **Indian Army and Oil Marketing Companies**.
- **Characteristics:**
 - It can **withstand a wide temperature range**, with a **pour point of minus 42 degrees Celsius** and a **flash point of around 50 degrees Celsius**.
 - It is also **compliant with BS-VI emission standards** and **IS 1460:2025 specifications**.
 - It allows it to be used in the Indian Army's existing fleet without requiring engine modifications or re-homologation.
 - It is the specialised fuel will enhance the mobility, safety and operational availability of combat and logistics vehicles in extreme climatic conditions.
- **Significance:** The technology also **has wider civilian use in high-altitude and severe winter regions** and represents a significant step towards Atmanirbhar Bharat.

SAMUDRA MANTHAN SCHEME



- It is also called a as the **National Offshore Exploration Scheme**.
- **Nodal Ministry:** It is a **Central Sector Scheme** of the **Ministry of Petroleum & Natural Gas**.

Current Affairs - 01 August 2026

- **Implementation Period:** Up to FY 2030–31.
- The scheme aims at unlocking India's **vast offshore energy potential**.
- **Features of Samudra Manthan Scheme:**
 - It encompasses a comprehensive set of interventions across the **offshore exploration value chain**.
 - It provides for **large-scale acquisition**, processing and interpretation of **high-quality seismic data**, accelerated deep water and ultra-deep water exploratory drilling, scientific drilling in frontier basins.
 - It involves development of common **offshore production and evacuation infrastructure**, and establishment of an integrated Oil & Gas Manufacturing and Services Zone.
 - It also includes dedicated provisions for **digital programme management**, capacity building, technology adoption, stakeholder engagement and international outreach, creating an **integrated ecosystem** to **accelerate offshore exploration** and production in the country.

PRADHAN MANTRI SURYA SAROVAR YOJANA



- It is a scheme for the **development of Floating Solar Photovoltaic (FSPV) Projects with Energy Storage Systems (ESS)**.
- **Features:**
 - It envisages the development of **5,000 MW of Floating Solar Photovoltaic projects with co-located Energy Storage Systems**.
 - **Time Period:** The projects will be sanctioned during **FY 2026-27 to FY 2030-31**, with disbursement of **financial support continuing up to FY 2032-33**.
- **Significance:**
 - It would enhance the floating Solar PV capacity in the **country by 5,000 MW**, which is presently around 700 MW only.

Current Affairs - 01 August 2026

- It would provide an opportunity to **gainfully utilize existing reservoirs & industrial ponds**, and eliminate competition for scarce land resources.
- The integration of an energy storage system will **help strengthen grid reliability**.
- It would help in the **reduction of around 10 million tonnes of CO₂ emissions**
- It would help in the generation of **approximately 16,000–17,000 full-time equivalent employment** opportunities across the project value chain.
- The scheme would also promote domestic manufacturing of floatation systems as well as the entire value chain of the projects.

CRUDE LANGUAGE AND THE LAW: DECODING THE NOIDA FIR AGAINST A WOMAN OVER PM MODI REMARKS

Recently, Noida Police registered a Zero FIR against 25-year-old Ruchika Singh over remarks she allegedly made against PM Modi during a protest at Delhi's Jantar Mantar on July 23.

The case, filed on a complaint by a Supreme Court advocate, has reignited debate on whether crude language against public figures constitutes a crime in India — and the legal answer is narrower than public sentiment suggests.

- The Zero FIR was filed at Expressway police station, Noida, on a complaint by advocate Smriti Singh, who found the language in a video of the incident objectionable.
 - Zero FIR: An FIR that can be filed at any police station regardless of jurisdiction, later transferred to the station with actual jurisdiction.
- It invokes Sections **352, 353(1), and 356(1)** of the Bharatiya Nyaya Sanhita (BNS) — covering intentional insult, public mischief, and defamation respectively.
- Since the alleged incident occurred in Delhi, the case has been transferred to Delhi Police for investigation.

Profanity Is Not Obscenity: Recent Rulings

- The Supreme Court has repeatedly clarified that vulgar or abusive language, however distasteful, does **not** automatically amount to obscenity:

Current Affairs - 01 August 2026

- **2024 — College Romance case:** SC quashed an IT Act case against the web series, holding that swear words reflect emotions like anger or frustration, not sexual intent.
- **April 2026 — Sivakumar v State:** SC acquitted a man for calling someone "bastard" during an argument, holding it insufficient to constitute obscenity.
- **July 2026 — Mani v State:** SC reiterated, "obscenity is not synonymous with vulgarity, abuse or profanity."
- **Legal test:** For speech to be obscene, it must be shown to be **lascivious** (expressing inappropriate sexual desire). Mere insult or vulgarity falls short of this threshold.

Why the Noida Case Involves a Different, Higher Bar?

- The sections invoked against Ruchika Singh are unrelated to obscenity and each carry a stricter test:
 - **Section 352 (Insult):** Requires proof the accused intended, or knew it was likely, that the insult would provoke an actual breach of public peace — not merely that someone felt offended.
 - **Section 353(1) (Public Mischief):** Aimed at incitement — such as mutiny, enmity between communities, or offences against the state — a considerably higher threshold than criticism of a leader.
 - **Section 356(1) (Defamation):** Carries long-standing exceptions for good-faith comment on a public figure's conduct in their public role.

Conclusion

Indian courts have consistently narrowed the scope of "obscenity" from the archaic Hicklin test to a contemporary community-standards approach, while clarifying that mere vulgarity or insult does not meet this threshold.

In the Noida case, the actual charges — insult, public mischief, and defamation — demand proof of intent to breach public peace or incite unrest, not just offensive language, placing the burden on investigators and courts to distinguish sharp political criticism from genuine criminal conduct.

Current Affairs - 01 August 2026

KIMI K3 - EVOLVING US-CHINA ARTIFICIAL INTELLIGENCE RACE

- Chinese start-up **Moonshot AI** has launched **Kimi K3**, an advanced AI model that is being compared with OpenAI's ChatGPT and Anthropic's Claude, intensifying the global AI race between China and the United States.

Artificial Intelligence Models: Closed vs Open-Weight

- Modern Large Language Models (LLMs) can broadly be classified into closed (proprietary) models and open-weight models based on how much of their underlying technology is made publicly available.
- Closed (Proprietary) Models:**
 - Closed models are developed and controlled by private companies. Their model parameters, source code, and training methods are not publicly released.
 - Examples include:**
 - OpenAI's GPT models, Anthropic's Claude, Google's Gemini
- Open-Weight Models**
 - An open-weight model allows developers to download and use the model's trained parameters (weights) while the company may still retain parts of the training code or datasets.
 - Unlike fully open-source software, open-weight models do not necessarily disclose every component used to build the model.

About Kimi K3

- Kimi K3 is the latest AI model developed by Moonshot AI, a Chinese start-up founded in 2023 by Yang Zhilin, a graduate of Tsinghua University and Carnegie Mellon University.
- According to the company, **Kimi K3 is among the world's largest open-weight AI models, containing ~2.8 trillion parameters.**
- Kimi K3 offers capabilities across multiple domains, including:
 - Coding assistance, Financial consulting, Deep research
 - Video editing, General conversational AI.

Current Affairs - 01 August 2026

AI and the US-China Technology Rivalry

- The emergence of Kimi K3 reflects the broader technological competition between China and the United States.
- Alongside competition over advanced semiconductor chips and AI infrastructure, both countries are increasingly seeking leadership in AI governance and innovation.
- China recently supported the establishment of the World AI Cooperation Organisation, with President Xi Jinping advocating international cooperation in AI development rather than dominance by a single country.
- At the same time, debates within the United States have intensified regarding whether American firms should move towards more open AI models.
- A recent open letter supported by industry leaders, including Microsoft's Satya Nadella, NVIDIA's Jensen Huang, and OpenAI, argued that open-weight AI could strengthen innovation and maintain American technological leadership.
- However, experts caution that a genuine shift would require major US companies to consistently release competitive open-weight models rather than relying primarily on proprietary systems.

Concerns and Challenges

- Despite its technological progress, Kimi K3 has also become the centre of controversy.
 - Anthropic has accused Moonshot AI of unlawfully extracting capabilities from its Claude model.
 - A US government official described such practices as unfair competition.
 - In response, China's Commerce Ministry accused the United States of pursuing "AI hegemonism."
 - These developments highlight the growing intersection of artificial intelligence, intellectual property rights, trade policy, and national security.
-

CROSS & CLIMB ROHTAK

School of Research Based Learning & Competition

Current Affairs - 01 August 2026

WESTERN GHATS CONSERVATION WITH SCIENCE AND DIALOGUE

- The Western Ghats, one of the world's **eight major biodiversity hotspots**, extend across six Indian States and host 39 UNESCO World Heritage Sites, rich endemic flora and fauna, and vital watersheds.
- Recognising its ecological significance, the **Western Ghats Ecology Expert Panel (WGEEP)** recommended declaring the region an Ecologically Sensitive Area (ESA) under the Environment (Protection) Act, 1986.
- However, concerns over **livelihoods, development**, and local participation have delayed its implementation, highlighting the challenge of balancing environmental conservation with inclusive development.

Ecological Significance of the Western Ghats

- The Western Ghats perform indispensable ecological functions:
 - A global **biodiversity hotspot** with numerous endemic species.
 - Source of major peninsular rivers, ensuring **water security**.
 - Regulates **climate, rainfall**, and **carbon sequestration**.
 - Supports agriculture, forestry, and livelihoods for millions.
- Houses protected areas including national parks, wildlife sanctuaries, and UNESCO World Heritage Sites.

Need for Ecological Conservation

- Despite opposition, conservation remains imperative because:
 - The Western Ghats face threats from deforestation, quarrying, unplanned tourism, and habitat fragmentation.
 - Ecological degradation increases risks of **landslides, floods**, and biodiversity loss.
 - Healthy ecosystems strengthen **climate resilience** and **water security**.
 - Delayed action may irreversibly damage fragile ecosystems that extend beyond State boundaries.

Current Affairs - 01 August 2026

Role of Indigenous Communities

- An effective ESA framework must recognise the contribution of **indigenous communities**.
- Traditional forest-dwelling communities have historically practised **sustainable resource management**, protected sacred groves, and preserved bio cultural diversity.
- Their knowledge systems complement scientific conservation and should be integrated into decision-making rather than treating them as obstacles.

Way Forward

- A balanced approach should focus on:
 - **Participatory governance** involving local communities and Gram Sabhas.
 - **Ground-based ecological surveys** alongside satellite mapping.
 - Clear communication to eliminate misconceptions regarding eviction and land rights.
 - Strict regulation of environmentally destructive activities such as illegal mining, stone quarrying, and unplanned tourism, while permitting sustainable livelihoods.
 - Protection of **Forest Rights Act** entitlements.
 - Promotion of **eco-tourism**, **sustainable agriculture**, and community-based conservation.
 - Adoption of a phased and State-specific implementation strategy with periodic review.

Conclusion

- The debate over the Western Ghats ESA is not a choice between development and conservation, but an opportunity to achieve both through sustainable governance.
 - Protecting this globally significant ecosystem requires **scientific planning**, **cooperative federalism**, **community participation**, and respect for the rights of indigenous and local populations.
 - A well-designed ESA framework can ensure that ecological security and livelihood security reinforce rather than undermine each other.
-

Current Affairs - 01 August 2026

WHAT IS CHOLERA?



- Cholera is a disease that is caused by the **bacteria Vibrio cholerae**.
- Cholera can cause **serious diarrhea and dehydration**. Without treatment, the disease can be **fatal within hours**, even in people who are healthy.
- **Transmission:**
 - People can get cholera by **drinking water or eating food contaminated with cholera bacteria**.
 - The disease is **most common in places with poor sanitation, crowding, war, and famine**. Cholera outbreaks are more **common in warm climates**.
 - Cholera bacteria also can **live in brackish** (slightly salty) and **coastal waters**. **Eating raw shellfish** like shrimp and crab can be a source of cholera.
 - Cholera is **not likely to spread from person to person or from casual contact** with someone with cholera.
 - It is often **predictable and preventable**. It can ultimately be **eliminated where access to clean water and sanitation facilities**, as well as good hygiene practices, are ensured and sustained for the whole population.
- **Treatment:**
 - Treatment for cholera includes **drinking plenty of fluids or getting intravenous fluids** to prevent dehydration.
 - Healthcare providers also **sometimes prescribe antibiotics** like doxycycline, erythromycin, or azithromycin to help you feel better.
 - Providers also **treat kids** between the ages of 6 months and 5 years with **zinc supplements**.
 - **Antidiarrheal medicines aren't recommended** for cholera and could make symptoms worse.