



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN)



- It is an **inter-governmental regional organisation** formed to promote political, economic, and security cooperation among **Southeast Asian nations**.
- **Established in 1967** with the signing of the **Bangkok Declaration**, its founding members were Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
- ASEAN currently has **10 member countries: Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Vietnam, Laos, Myanmar, and Cambodia**.
- **Headquarters: Jakarta, Indonesia**
- The ASEAN Community comprises **three pillars: the Political-Security Community, the Economic Community and the Socio-Cultural Community**.
- Two of its core operating principles are **consensual decision-making and noninterference in the internal affairs of its members**.
- In line with ASEAN centrality, ASEAN sees itself as a **platform for intergovernmental cooperation** throughout the **entire Asia-Pacific**.

Institutional Mechanisms of ASEAN:

- The **ASEAN Summit** is **held annually**, where member states discuss regional developments and set strategic policy directions. It is chaired by a rotating presidency.
- The **ASEAN Coordinating Council (ACC)** monitors the implementation of agreements and decisions, ensuring alignment across the member states.
- The **ASEAN Secretariat, located in Jakarta**, acts as the administrative body supporting and facilitating ASEAN's initiatives, coordination, and documentation.
- The **ASEAN Regional Forum (ARF)** is a key platform for dialogue on political and security issues **involving both member countries and external partners**.
 - **India joined the ARF in 1996**, marking its formal inclusion in ASEAN-led security dialogue mechanisms.



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

JAIMEX 2025



- It is a **maritime exercise** between **India and Japan**.
- **Objective:** It underscores the strong and burgeoning Navy-to-Navy interactions that underpin the ‘Special Strategic and Global Partnership’ established between India and Japan in 2014.
- This partnership is a crucial pillar for ensuring **peace and stability in the Indo-Pacific maritime domain**.
- **It involved two phases:**
 - **Sea phase** included advanced **Anti-Submarine Warfare and missile defence drills**, enhancing interoperability by undertaking flying operations and underway replenishment.
 - **Harbour Phase** at Yokosuka includes engagement in a **multitude of professional** and cultural exchanges, cross-deck visits, collaborative operational planning, sharing of best practices,
- **Significance:** The Indian Navy and JMSDF have been at the forefront of this growing partnership with a shared vision of a free, open, and inclusive Indo-Pacific region.
- Other bilateral exercises between India and Japan: **Malabar exercise**(Naval Exercise), ‘**Veer Guardian**’ (Air Force), and **Dharma Guardian** (Army).

Key Facts about INS Sahyadri

- It is an indigenously built **Shivalik-class Guided Missile Stealth Frigate**.
 - It is indigenously designed, constructed and **commissioned in 2012**.
 - The ship is capable of carrying **Barak-1 and Shtil-1 3S90M missiles**, BrahMos anti-ship missiles, anti-submarine rocket launchers.
 - The multi-role stealth frigate has participated in various operational deployments, bilateral and multilateral exercises.
-



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

STUBBLE BURNING IN PUNJAB - DECLINE IN NUMBERS AND DATA GAPS

- Punjab, a leading rice and wheat-producing state, relies heavily on **mechanised harvesting** using combine harvesters.
- These machines leave behind paddy stubble that is difficult to remove manually. Given the short **three-week window between paddy harvesting and wheat sowing**, farmers find **burning the residue the most cost-effective and time-efficient option**.
- While the method helps prepare the fields quickly, it leads to **massive emissions of particulate matter (PM2.5 and PM10)**, nitrogen oxides, and greenhouse gases.
- The smoke drifts toward neighbouring states, worsening air quality across Delhi-NCR and beyond.

Trends and Statistics: Is the Problem Really Declining?

- Recent data indicate a complex picture. According to the **Punjab government's satellite-based estimates**, the state recorded **10,909 cases of stubble burning in 2024**, a sharp **70% decline** from **36,663 cases in 2023**.
- However, while the number of incidents has declined, **the total burnt area has not shown a corresponding reduction**.
- This suggests that although fewer fire incidents are being recorded, the fires that do occur are covering **larger areas** or are being **underreported** by existing detection systems.

Understanding the Data Discrepancy

- Satellite systems such as **MODIS (Moderate Resolution Imaging Spectroradiometer)** and **VIIRS (Visible Infrared Imaging Radiometer Suite)** detect fires based on **thermal infrared imaging**, essentially identifying heat anomalies on the Earth's surface.
- However, these satellites **pass over Punjab only a few times a day**, often missing short-lived or smaller fires that occur **in the late afternoon or evening**, which are common in Punjab's fragmented landholdings.



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

- A study by the **Indian Institute of Science Education and Research (IISER)**, Mohali, found that cloud cover, haze, and the short duration of many farm fires lead to **significant underreporting**.
- Additionally, as farmers become aware of satellite monitoring, some have started **covering up burnt patches** or conducting burns strategically to avoid detection.

Advances in Monitoring and the Role of New Technologies

- Despite these limitations, advances in **optical satellite imaging** are improving accuracy.
- According to experts, **optical sensors like Sentinel-2** can detect **post-fire discolouration and burn scars**, providing a more precise estimate of the total burnt area even when thermal sensors miss direct fire events.
- They emphasise that future assessments must integrate **thermal and optical satellite observations**, supported by **ground-based verification**, to accurately capture both the number of incidents and the extent of damage.

Policy Interventions and Way Forward

- The **Central and Punjab governments** have undertaken several initiatives over the years to tackle the stubble burning problem. These include:
 - **Subsidised Crop Residue Management (CRM) Machines:** Distribution of happy seeders, super straw management systems, and mulchers to promote in-situ residue management.
 - **Ex-situ Biomass Utilisation:** Encouraging biomass-based power plants and ethanol production to use paddy straw.
 - **Financial Incentives:** Direct benefit transfers to farmers adopting non-burning methods.
 - **Monitoring and Enforcement:** Deployment of real-time monitoring via satellites and drones, coupled with local enforcement by district administrations.
 - However, experts argue that these measures need **long-term economic incentives**, not just penalties or machinery subsidies.
-



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

U.S. SANCTIONS ON RUSSIAN OIL GIANTS - GLOBAL ENERGY AND GEOPOLITICAL REPERCUSSIONS

- **The Russia–Ukraine war**, now in its fourth year, continues to strain global diplomacy and energy markets.
- The new U.S. sanctions target **Rosneft and Lukoil**, responsible for **over 5% of global oil output**, contributing over 5 million barrels per day (mbd) globally, including 2 mbd in seaborne exports.
- **The U.S. Treasury** has **given companies time till November 21** to wind down transactions with these entities, **to curb Russia’s oil revenue**, which funds nearly one-fourth of its federal budget and sustains the war effort.

India’s Position and Compliance:

- **India’s position:**
 - India, **the second-largest buyer of Russian crude after China** (with over 35% of total imports sourced from Russia in 2025), faces pressure to reduce imports.
 - Historically, India avoided oil imports from **Iran and Venezuela** after similar U.S. sanctions, signalling a possible precedent.
 - President Trump claimed India has agreed to reduce oil purchases from Russia to “almost nothing” by year-end.
 - The Indian PM has reportedly **assured cooperation** while balancing India’s energy security needs.
- **Private refiners’ response:**
 - **Reliance Industries**, operating the world’s largest refinery at Jamnagar, plans to halt or reduce imports, including its long-term deal with Rosneft (approx. 500,000 barrels/day).
 - **Nayara Energy**, partly owned by Rosneft, has remained silent but is expected to adjust supply chains.
- **Public sector refiners’ review:**



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

- **IOC, BPCL, and HPCL** are reassessing trade documents to ensure no direct dealings with sanctioned firms.
- However, **some oil may still enter India via intermediaries**, highlighting challenges in total disengagement.

International Reactions:

- **Russia** dismissed the sanctions, claiming “immunity” to Western restrictions and pointing out that its revenue comes mainly from taxing output rather than exports.
- **Ukraine’s** President Volodymyr Zelenskyy welcomed the move but urged for stronger measures to pressure Moscow into a ceasefire.
- **The European Union** is considering using frozen Russian assets to fund a €140 billion loan for Kyiv’s reconstruction.

Strategic Implications for India:

- **India faces a policy dilemma** - balancing strategic autonomy, energy security, and geopolitical alignment.
- The shift could push India to **diversify oil imports** from Middle Eastern and African suppliers.
- Maintaining stable ties with both Washington and Moscow will **test India’s multi-alignment diplomacy**.

Way Forward:

- **Diversification of energy sources:** Strengthen ties with **Gulf nations, the U.S., and Africa** for stable supplies.
 - **Negotiated flexibility:** India should seek exemptions or phased compliance from U.S. sanctions.
 - **Strategic oil reserves:** Enhance domestic reserves to cushion against supply disruptions.
 - **Diplomatic balancing:** Continue pursuing strategic autonomy within frameworks like **QUAD, SCO and BRICS**.
-



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

INDIA MOVES TO TACKLE DEEPFAKES WITH MANDATORY AI CONTENT LABELLING

The Indian government has proposed draft rules mandating AI-generated content labelling on social media platforms like YouTube and Instagram to curb the spread of deepfakes and synthetic media.

- Under the amendments to the IT Rules, 2021, platforms must:
 - Ask users to declare whether uploaded content is AI-generated.
 - Ensure such content carries permanent labels or metadata identifiers.
 - For videos, the label must cover 10% of the screen area; for audio, it must play during the first 10% of duration.

India's Draft Rules for Labelling AI-Generated Content

- The proposed IT Rules amendments require social media platforms to:
 - Ask users to declare if uploaded material is AI-generated or synthetic.
 - Use automated tools to verify such declarations.
 - Clearly label confirmed AI-generated content with a visible notice.
- If platforms fail to comply, they **risk losing legal immunity under safe harbour** provisions, making them liable for unverified or unlabeled synthetic content.
- The draft also defines “**synthetically generated information**” as content created, altered, or modified using computer algorithms in a way that appears authentic or real.

Existing AI Labelling Practices and India's Stricter Proposal

- Platforms like Meta and Google already use AI content labels, asking creators to declare if content was made or modified using AI.
 - Instagram tags such posts with an “AI Info” label, though enforcement is inconsistent. YouTube adds an “Altered or Synthetic Content” tag, explaining how AI influenced the video's creation.
- Meta has also partnered with other tech firms under the **Partnership on AI (PAI)** to develop common identification standards and tools to detect invisible AI markers across platforms like Google, OpenAI, Adobe, and Midjourney.



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

- However, these global measures are mostly reactive, activated after content is flagged.
- In contrast, India's proposed rules require companies to proactively verify and label AI-generated content using automated detection tools, even without user notification.

Bollywood Pushes Back as Deepfakes Threaten Celebrity Rights

- The rise of AI-generated deepfakes has alarmed India's entertainment industry, prompting stars like Amitabh Bachchan, Aishwarya Rai, Akshay Kumar, and Hrithik Roshan to take legal action to **protect their personality rights** — their likeness, voice, and image.
- Experts note that **India lacks explicit legal protection for personality rights**, relying instead on a patchwork of existing laws for limited safeguards.
- The issue gained attention after the production company behind Raanjhanaa reportedly used AI to alter the film's ending without the consent of its director and actors.
- This highlighted the urgent need for clearer legal frameworks against deepfakes in Indian entertainment.

How Global Regulations Are Responding to the Deepfake Challenge?

- Countries worldwide are introducing AI labelling and protection laws to curb the spread of deepfakes and synthetic media.
 - **European Union:** The AI Act mandates that all AI-generated or altered content — including text, audio, video, and images — must be clearly labelled in a machine-readable format. Entities using AI for public-interest content must also disclose artificial generation or alteration.
 - **China:** Recently enforced AI labelling rules require visible markers for chatbots, voice synthesis, face swaps, and scene editing. Hidden watermarks can be used for other AI content. Platforms must detect, label, and alert users about AI-generated material.
 - **Denmark:** Proposes giving citizens copyright ownership over their likeness, allowing them to demand removal of any digitally altered content created without consent — a pioneering move in personal image rights protection.
-



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

CROSS & CLIMB ROHTAK

Institute of Research Based Learning & Competition



CROSS & CLIMB
MAKING THE ELIGIBLE ENTITLED

Current Affairs - 24 October 2025

INTRUSION DETECTION SYSTEM



- The IDS initiative aims to strike a balance between **operational efficiency and environmental protection.**

Objective: It is designed to **protect wildlife and maintain operational efficiency**, especially in areas where railway lines pass through forested and elephant-inhabited zones.

- It runs parallel to tracks at a **distance of 10 metres.**

Launched by: This initiative has been launched by the **Northeast Frontier Railway (NFR)** under the Ministry of Railways.

Working of Intrusion Detection System

- **Technology:** It uses **advanced optical fibre sensing technology** to detect elephant movement near railway tracks,
 - **Real Time Alert:** It generates **real-time alerts for train drivers** and control rooms to take timely preventive action.
 - When elephants come close to the railway tracks, the **vibrations generated by their movement** are detected by the sensor cables, which then **transmit signals to the control room.**
-