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Current Affairs - 02 January 2026

INDIAN RAILWAYS IN 2025: NEW FRONTIERS, NEW CHALLENGES

- In 2025, Indian Railways achieved historic milestones by extending the rail grid to: **Kashmir** Valley in the North; **Aizawl** in the East.
- These connections brought the country's last major unlinked regions into the national railway network, symbolising territorial integration and strategic connectivity.
- **Kashmir Rail Link: A Century-Old Dream Realised**
 - The idea of a railway line to the Kashmir Valley dates back to 1898, when **Maharaja Pratap Singh** first conceived it.
 - However, after Partition, the Jammu–Sialkot rail link went to Pakistan, cutting off Jammu and Kashmir from India's rail grid.
 - While Jammu was connected by rail in 1972, the Valley remained unlinked.
 - The long-cherished dream was realised in June 2025, when PM Modi inaugurated the final 63-km **Katra–Sangaldan** section of the 272-km Udhampur–Srinagar–Baramulla Rail Link (USBRL).
 - A Vande Bharat train began services between Katra and Srinagar.
 - The project's most challenging stretch was the 111-km Katra–Banihal section, featuring:
 - **T-50**, India's longest operational transport tunnel (12.77 km)
 - **Chenab Bridge**, the world's highest railway arch bridge (359 metres above the riverbed)
 - **Anji Bridge**, Indian Railways' first cable-stayed bridge
- **Mizoram: Railways Overcome Geography**
 - Mizoram's late rail arrival was largely due to its difficult terrain and landlocked location—bordering Myanmar, Bangladesh, and northeastern states.
 - Until recently, the state depended almost entirely on roads for passenger and freight movement.

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- The breakthrough came with the inauguration of the Bairabi–Sairang line in September 2025, linking **Bairabi to Sairang**, near Aizawl.
- This marked the first-ever rail connectivity to the Mizoram capital.
- **Pamban Bridge: Reconnecting South India’s Maritime Edge**
 - Another landmark in 2025 was the inauguration of the 2.08-km new Pamban Bridge, replacing the 110-year-old cantilever bridge.
 - It is India’s first vertical-lift railway sea bridge. It connects Rameswaram to the mainland across the Palk Strait.
- **Western Dedicated Freight Corridor (WDFC)**
 - First rail car ran on the 102-km Vaitarna–Jawaharlal Nehru Port (JNPT) section.
 - Marks progress in India’s high-capacity, freight-only rail infrastructure.
- **Strategic Himalayan Connectivity**
 - **Rishikesh–Karnaprayag Line**
 - 125 km line with strategic and pilgrimage significance
 - Includes India’s longest transportation tunnel (14.57 km) (yet to be operational) Serves as a gateway to the China border and boosts Char Dham Yatra connectivity
 - **Bhanupalli–Bilaspur–Beri Line**
 - Connects Punjab to Himachal Pradesh
 - Proposed extension up to Ladakh
 - Progress delayed due to financial disputes between the state government and Railways

Technological Advancements

- Commissioning of Kavach 4.0 (advanced Automatic Train Protection system)
 - Deployed over 738 route kilometres on two high-density corridors
 - Rollout of: 13 Amrit Bharat trains for migrant workers; 2 Namo Bharat Rapid Rail Services for intercity commuters.
 - Trials of Vande Bharat sleeper trains, signalling next-generation long-distance travel.
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WHAT IS THE CLOSE QUARTER BATTLE (CQB) CARBINE?



- The 56 x 45 mm CQB Carbine is an **indigenously designed, developed and manufactured (IDDM) compact firearm.**
 - It has been **designed by DRDO's Armament Research & Development Establishment (ARDE), Pune, and is being manufactured by Bharat Forge Ltd (a Pune based Indian multinational).**
 - CQB carbines are **compact, lightweight weapons designed specifically for urban warfare, close-range engagements and counter-terrorism**
 - Their **reduced size** compared to standard rifles offers **enhanced manoeuvrability in confined spaces** whilst maintaining operational effectiveness.
 - It has an **effective range of 200 meters.**
 - The weapon also uses a 30-round curved magazine to ensure reliable feeding during rapid fire.
 - It can **fire both NATO-standard and INSAS ammunition.**
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WHAT IS A BOMB CYCLONE?



- It is a **large midlatitude storm** resulting from **explosive cyclogenesis** (or, informally, **bombogenesis**), a type of accelerated extratropical cyclone development in which surface pressure falls substantially over a 24-hour
 - **In structure, a bomb cyclone is indistinguishable from any other intense midlatitude storm.**
 - The **center** of the storm is a **low-pressure cell** (or cyclone) that **draws winds** near the surface **inward.**
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- However, a bomb cyclone is set apart by its **rapid rate of intensification**. The intensification required to classify as "bombogenesis" varies by **latitude**.
- Bomb cyclones are often associated with atmospheric rivers and **typically form in winter when cold and warm air masses collide**.
- The **four most active regions** where extra-tropical explosive cyclogenesis occurs in the world are
 - the **Northwest Pacific**
 - the **North Atlantic**
 - the **Southwest Pacific**
 - the **South Atlantic**
- The **precipitation** associated with a bomb cyclone is **intense**, ranging from **heavy downpours to strong thunderstorms to blizzards and heavy snowfalls**, along with strong winds.

PRALAY MISSILE



- It is an indigenously developed **short-range, surface-to-surface**
- **Features of Pralay Missile:**
 - It is a **solid propellant quasi-ballistic**.
 - It is capable of carrying multiple types of **warheads against various targets**.
 - **Range:** The missile has a **range of 150-500 km** and can be launched from a mobile launcher.
 - The missile is capable of carrying conventional warheads.
 - It is equipped with guidance systems that **provide a Circular Error Probable (CEP) of less than 10 meters**.
 - **Speed:** It reaches terminal **speeds of Mach 6.1** and can engage targets such as radar installations, command centers, and airstrips.



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- It has the **ability to change its path** after covering a certain range midair.
- **Developed by:** It has been developed by **Research Centre Imarat** and in collaboration with other **Defence Research & Development Organisation labs**.
- **Industry partners:** Bharat Dynamics Limited & Bharat Electronics Limited and many other industries and MSMEs.

INDIA'S TOBACCO TAXATION REFORMS

- Sin goods such as tobacco, pan masala, and alcohol are taxed heavily in India due to their adverse public health and social impacts.
- Tobacco taxation serves a dual policy purpose: discouraging consumption through higher prices and generating revenue for public expenditure, particularly in health and social security.

Structure of Tobacco Taxation in India

- India follows a multi-layered taxation framework for tobacco products, involving:
 - Goods and Services Tax (GST)
 - Central Excise Duty
 - Cess (earlier GST Compensation Cess, now replaced for tobacco)
- Under GST, tobacco products have always been placed in the highest tax slabs due to their classification as demerit goods.
- However, despite high nominal tax rates, tobacco products, especially cigarettes, remained relatively affordable for consumers over the past decade.

Public Health Rationale

- Global public health bodies, including the WHO, recommend that tobacco prices should rise faster than income growth to reduce affordability and consumption.
- In India, stagnation in effective excise duties meant that real prices of cigarettes did not rise sufficiently, weakening tobacco control efforts.

Revenue Considerations

- Historically, tobacco has been a major contributor to indirect tax revenues.



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- The GST Compensation Cess, introduced in 2017, was meant to compensate States for revenue losses due to GST implementation.
- While it ended for most goods, tobacco remained one of the last items subjected to this cess, reflecting both its revenue potential and public policy priority.

Shift Towards Purpose-Specific Cess

- The recent reform reflects a shift from a general compensation-oriented cess to a **dedicated, non-lapsable cess**, designed to ensure predictable funding without raising broad-based taxes.
- This approach aligns fiscal objectives with sector-specific policy needs, particularly national security and long-term preparedness.

End of GST Compensation Cess

- The GST compensation cess on tobacco products will cease from February 1, as the original objective of compensating States for GST-related losses has largely been met.
- The cess had already been extended beyond its original timeline due to pandemic-induced revenue shortfalls.

Introduction of New Excise and Cess Framework

- To replace the compensation cess, the government has introduced:
 - Revised central excise duties on tobacco products
 - A new cess under the Health Security-cum-National Security Act, 2025, applicable to pan masala and related units
- This new cess is designed to create a non-lapsable and predictable revenue stream, particularly for long-term security preparedness and capacity building, without increasing the tax burden on the general population.

Significance

- The reform aligns India's tobacco taxation closer to global public health guidance by:
 - Increasing the real prices of tobacco products
 - Reducing affordability over time
 - Strengthening enforcement through clearer valuation rules
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EU'S CARBON BORDER ADJUSTMENT MECHANISM (CBAM) - IMPLICATIONS FOR INDIA'S STEEL AND ALUMINIUM EXPORTS

- CBAM is the EU's instrument to extend its carbon pricing regime (EU Emissions Trading System – ETS) to imports, preventing carbon leakage (shifting production to countries with weaker climate norms).
- **Covered sectors (Phase I):** Steel, Aluminium, Cement, Fertilisers, Electricity, Hydrogen (and more sectors likely to be added).
- **Key objective:** It will ensure a level playing field between EU producers and foreign exporters by pricing carbon emissions embedded in imports.

How CBAM Works?

- **Basis of taxation:** CBAM liability depends on -
 - Plant-level carbon emissions during production.
 - EU carbon price (equivalent to €80 per tonne of CO₂):
 - Only Scope 1 (direct fuel) and Scope 2 (electricity) emissions are counted.
 - No company-wide averages; only the exact supplying plant matters.
 - Emissions from mining, transport, or product use are excluded.
- **Who pays?**
 - EU importers officially buy CBAM certificates.
 - Actual burden is passed to Indian exporters through lower prices and tougher contracts.

Impact on Indian Steel and Aluminium Exports:

- **Shrinking margins:**
 - 16–22% reduction in realised prices.
 - **Example:**
 - Blast Furnace–Basic Oxygen Furnace (BF-BOF) steel emits almost 2.4 tonnes CO₂/tonne
 - CBAM cost equivalent to €192 per tonne

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- Exporter bears €95–€133 per tonne after cost pass-through
- €600 sale price falls to €467–505
- **Export decline:**
 - In FY2025, India exported \$5.8 billion worth of steel and aluminium to the EU — 24% lower than the previous year — despite no carbon tax.
 - The decline began after new EU rules took effect in October 2023, requiring exporters to report plant-level carbon emissions under CBAM’s transition phase.
 - Compliance costs, data gaps, and verification hurdles forced many Indian firms to scale back exports well before CBAM formally became a tax.

Challenges for India:

- Absence of a national carbon pricing mechanism.
- High dependence on coal-based steel.
- Weak carbon accounting and verification ecosystem.
- Risk of losing EU market share (22% of India’s steel and aluminium exports).
- Slower industrial growth with minimal global emission reduction impact.

Way Forward:

- **At the international level:** Seek CBAM resolution or exemptions in India–EU FTA negotiations. Push for differentiated responsibilities reflecting development levels.
- **At the domestic level:**
 - Strengthen carbon accounting frameworks.
 - Build capacity of emissions auditors.
 - Support transition to gas-based DRI, scrap-based or electric arc furnace (EAF) steel
 - Encourage green steel through incentives, technology upgrades, and financing.
 - Prepare exporters for data discipline and contract restructuring.

Conclusion:

- CBAM is not a temporary compliance hurdle, but a fundamental reordering of global trade rules where carbon becomes a trade currency.
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MANDATING STUDENT PRESENCE, ERASING LEARNING

- Attendance is often treated as evidence of seriousness and commitment, yet physical presence guarantees neither attention nor understanding.
- Attendance measures compliance, **not intellectual engagement**. This fixation thrives where classrooms have been reduced to routine delivery of notes and predictable content.
- When teaching lacks vitality, institutions substitute inspiration with enforcement.
- Instead of examining why students disengage, responsibility is displaced onto attendance policies that conceal pedagogical inadequacies.

Pedagogy, Autonomy, and the Role of the Teacher

- Coercive education produces neither depth nor seriousness. Meaningful pedagogy demands confidence in the teacher's ability to create intellectual value.
- Absence should provoke reflection, not punishment. This view aligns with Paulo Freire's rejection of the banking model of education, which treats students as passive recipients.
- For Freire, learning emerges through dialogue, questioning, and shared inquiry. Education thrives on **autonomy and dialogue**, not compulsion.
- Compulsory attendance undermines this vision by privileging discipline over thought.

Learning Beyond the Classroom

- Transformative learning often occurs when institutional rigidity dissolves.
- Reading Wordsworth's Tintern Abbey within natural landscapes or engaging with Thoreau's Walden outdoors allows texts to emerge as living provocations rather than static artefacts.
- Students interpret, debate, and reflect independently.
- These experiences reveal learning in its most fundamental form, rooted in curiosity, dialogue, and personal engagement rather than prescribed metrics.

Conclusion

- By separating attendance from examination eligibility, the Delhi High Court affirms a foundational educational principle: **Intellectual engagement cannot be legislated.**
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