



VAJIRAM & RAVI
Institute for IAS Examination

The Analyst

CURRENT AFFAIRS Handout

2nd March 2026



Industrial Disaster – Laxity and Gaps



CONTEXT: At least 18 people were killed and over 20 injured in an explosion at an ammunition manufacturing company in Raulgaon village of Nagpur district in Maharashtra.

Facts and Data

Disaster Management Act, 2005 – Often, man-made, sudden, or unexpected catastrophe arising from chemical, mechanical, or civil processes, resulting in substantial loss of life, property, or environmental damage beyond the coping capacity of the affected community.

NDMA – 130 significant chemical accidents in the last decade, resulting in 250+ deaths and 550+ injuries.

Centre for Science and Environment (CSE) 2022 – Over 130 major chemical accidents in just a 30-month window post-2020, with 218 fatalities and 300-plus injuries. Most of these occurred in small and medium-sized enterprises (SMEs)

The Times of India

Telangana's worst industrial disaster: Sigachi blast raises red flags; experts slam safety failures in ch

HYDERABAD: The dryer explosion at Sigachi Industries in Pashamylaram, which killed over 35 workers and injured dozens, stands as the...

2 Jul 2025



The Times of India

Toxic gas leak at Visakhapatnam pharma unit; two dead, one critical in chemical exposure

VISAKHAPATNAM: Two persons died and one more is in critical condition after inhaling toxic fumes at a private pharmaceutical company in the...

12 Jun 2025



The Hindu

32 dead, many injured as boiler explodes in NTPC's Unchahar plant in Rae Bareilly

At least 32 persons died and more than 97 were injured, many sustaining serious burns, after a boiler tube exploded at the National Thermal Power Corporation (...)

1 Nov 2017



The Hindu

20 die in chimney collapse at power plant in Chhattisgarh

At least 20 labourers were killed, 15 injured and nearly 70 feared trapped under the debris when a chimney at the under-construction thermal power plant of...

24 Sept 2009



Act / Regulation	Feature
Disaster Management Act, 2005	Establishes NDMA, SDMA & DDMA and provides a national framework for disaster prevention, mitigation, preparedness and response.
Environment (Protection) Act, 1986	Umbrella environmental law empowering the Centre to regulate industrial pollution and hazardous substances.
Factories Act, 1948	Mandates occupational safety, health standards and emergency preparedness in factories handling hazardous processes.
Public Liability Insurance Act, 1991	Provides immediate relief to victims of accidents involving hazardous substances on a no-fault liability basis.
Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996	Requires on-site and off-site emergency plans and crisis groups for hazardous chemical installations.
Manufacture, Storage and Import of Hazardous Chemical Rules, 1989	Regulates handling, storage and import of hazardous chemicals with safety reporting and risk assessment.
Explosives Act, 1884	Governs manufacture, possession and transport of explosives to prevent industrial accidents.
Petroleum Act, 1934	Regulates import, transport and storage of petroleum products to minimize fire and explosion risks.
Atomic Energy Act, 1962	Controls production and handling of radioactive substances to prevent nuclear/industrial hazards.

Causes

Regulatory and Institutional Gaps

- **Weak Enforcement Capacity** – Low inspection frequency and inspector shortages dilute effective oversight.
- **Fragmented Governance Structure** – Overlapping jurisdiction
- **Corporate Negligence and Safety Deficit**
- **Cost Minimisation Over Compliance** – Industries often compromise on maintenance, safety audits and emergency preparedness to reduce operational costs.

Unplanned Urbanisation Around Hazardous Units

- **Shrinking Buffer Zones** – Urban expansion around industrial clusters

Informalisation of Industrial Workforce

- **Contract Labour Vulnerability** – Untrained contractual workers lacking safety awareness and protective equipment

Ageing Infrastructure and Technological Obsolescence

- **Operating Beyond Design Life** – Outdated plants and poor process safety management

Weak Risk Mapping and Emergency Preparedness

- **Poor compliance** – Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 mandates on-site and off-site disaster plans



CONTEXT: At least 18 people were killed and over 20 injured in an explosion at an ammunition manufacturing company in Raulgaon village of Nagpur district in Maharashtra.

Fireworks unit blast exposes laxity in ensuring safety steps

Rules recommended by the inquiry panel in the aftermath of a deadly firecracker accident in A.P. last year had reportedly not been followed leading to a second tragedy in barely five months

M. Sambasiva Rao
AMARAVATI

In the wake of the accident that killed 20 people at the Sri Surya Firecrackers complex at Vetlapalem village in Kakinada district of Andhra Pradesh on Saturday, serious questions have resurfaced on the implementation of the Standard Operating Procedures (SOPs) recommended by a two-member Inquiry Committee constituted by the Andhra Pradesh government in October last year.

Despite comprehensive directions, accidents continue to occur, allegedly due to non-compliance by both enforcement agencies and manufacturers. Most of the rules prescribed by the committee were reportedly not followed by Sri Surya Fire Crackers, underscoring systemic lapses.

The committee was formed following a devastating explosion at Sri Ganapathi Grand Fireworks in Rayavaram village of Dr. B.R. Ambedkar Konaseema district on October 8, 2025,



Twenty people died in a blast at a firecrackers unit in Kakinada district, Andhra Pradesh on Saturday. PTI

which claimed 10 lives and caused extensive property damage.

The committee proposed a two-tier framework – policy reforms and operational SOPs. It called for a unified digital portal, the Andhra Pradesh Fireworks Licensing and Monitoring System (APFLMS), integrating licensing, inspections and compliance tracking across departments. Joint inspections by Petroleum and Explosives Safety Organisation (PESO), Fire Services, Labour and District Administration were made mandatory.

A composite Fireworks

Business thrives amid rising demand, safety concerns

M. Sambasiva Rao
AMARAVATI

The multi-crore firecracker manufacturing business has come under sharp focus following the accident at a firecracker factory in Kakinada district on Saturday.

The tragedy has once again drawn attention to the rapid expansion of the sector, driven by soaring demand.

As the demand steadily rises, firecracker units are spreading across the length and breadth of the State. However, with expansion comes responsibility. Observers stress that while the industry should be encouraged for its economic contribution and employment generation, the government must strictly enforce safety regulations.

Operation Licence, risk-based categorisation and a Fireworks Risk Index (FRI) were recommended to prioritise high-risk units. The District Fireworks Safety Committee, chaired by the Collector, is tasked with quarterly inspections, maintaining a district risk register, and suspending licences for persistent violations.

The committee's warning was unequivocal: without strict adherence by both government machinery and manufacturers, regulatory provisions will remain on paper and tragedies will continue.

Way Ahead

Strengthen Process Safety Management (PSM)

- Mandatory third-party safety audits.
- Real-time monitoring of industrial parameters
- AI-based predictive maintenance systems.

Professionalise Inspectorates

- Increase inspector-to-factory ratio.
- Use digital inspection platforms.

Land Use Planning Reform

- Strict zoning laws.
- Mandatory buffer zones around hazardous industries.
- No residential expansion within notified hazard radius.

Worker-Centric Safety Model

- Compulsory periodic safety certification.
- Whistle-blower protection in industrial units.
- Integration of safety metrics into ESG disclosures.

Emergency Response Modernisation

- Under the **Disaster Management Act, 2005**:
- District Disaster Management Authorities must integrate chemical hazard scenarios.
- Strengthen NDRF's CBRN (Chemical, Biological, Radiological, Nuclear) units.
- Conduct community-level evacuation drills.

Strict Liability and Insurance Enforcement

- Increase mandatory insurance cover.
- Fast-track compensation tribunals.

Mains Practice Question

Q. "Industrial disasters in India are not merely accidental events but symptoms of deeper structural and regulatory deficiencies". Discuss (250 word / 15 Marks)

Effect

Human Cost

- Immediate fatalities
- Long-term morbidity: cancers, birth defects, neurological damage.
- Generations continue to report congenital abnormalities.
- Groundwater contamination persists decades later.

Environmental Degradation

- Soil and aquifer contamination.
- Toxic waste accumulation.
- River pollution from effluent release.

Economic Disruption

- Production shutdowns
- Loss of investor confidence
- Supply chain interruptions
- Compensation and litigation costs

Social and Governance Impact

- Public distrust in regulatory institutions.
- Protests and civil society activism.



CONTEXT: Mere legal measures cannot bring about true national integration. What is needed is the cultivation of a deeper understanding of the people of the Northeast and other border areas.

Borderlands – Significance and Scope

- **Strategic and National Security Significance** – Border populations act as the **first line of defence**.
- **Economic and Geo-economic Potential** – They can serve as gateways to unlocks untapped economic capital.
- **Cultural and Civilisational Diversity** – Repositories of unique languages, customs and indigenous knowledge.
- **Emotional and Psychological Integration** – Development is not merely material; it is psychological



Issues and Challenges

- **Historical Neglect and Peripheral Governance** – Mainland-centric policy for decades.
- **Security-Development Dilemma** – Militarisation in conflict-prone areas creates trust deficits.
- Insurgency cycles discourage private investment.

- **Identity and Alienation** – Integration cannot be achieved solely through law-and-order mechanisms.
- **Geographical and Logistical Constraints** – Mountainous terrain, Fragile ecosystems, Disaster vulnerability, High cost of infrastructure delivery
- **Urban Expansion & Strategic Sensitivity** – Unregulated demographic changes creates : Cultural anxiety, Political friction, Ethnic tensions



1. Development vs Emotional Integration Gap

- Infrastructure alone \neq National integration
- Need for psychological and cultural inclusion

2. Knowledge Deficit About Border Regions

- Poor representation in textbooks
- Limited academic research on border studies

3. Administrative Disconnect

- Limited field exposure of civil servants
- Urban-centric governance mindset

4. Cultural Marginalisation

- Border heroes underrepresented in national narrative



CONTEXT: Mere legal measures cannot bring about true national integration. What is needed is the cultivation of a deeper understanding of the people of the Northeast and other border areas.

Government Steps

Institutional Mechanisms

- **Ministry of Development of North Eastern Region**

- North Eastern Council (NEC)

- **Border Area Development Programme (BADP)**

- Focuses on infrastructure within 0–10 km of international borders.
- Covers roads, schools, health centres, community assets.

Connectivity Push

- Expansion of railways and airports in Northeast and Himalayan regions.
- Improved connectivity reduces isolation.

Act East Policy

- Integrates Northeast into Southeast Asian trade architecture.
- Enhances cross-border economic cooperation.

Increased Budgetary Allocation

- Over recent years, allocations to DoNER have significantly increased, signalling prioritisation of the region.

Way forward

Shift from Development to Integration Model

- Infrastructure must be complemented by cultural inclusion
- Representation in curricula
- Academic institutionalisation of Border Area Studies

Educational Reforms

- Include structured lessons on border regions in NCERT textbooks.
- Celebrate regional freedom fighters nationally.
- Promote inter-state student exchange programs.

Administrative Immersion

- Mandatory field exposure for civil servants in border regions.
- Experiential learning to reduce mainland bias.

Participatory Governance

- Empower Autonomous District Councils.
- Strengthen local self-government.
- Encourage community-driven planning.

Balanced Security Approach

- Combine counter-insurgency with trust-building.
- Promote economic opportunity alongside security presence.

Promote Border Economies

- Border haats
- Tourism circuits
- Agro-processing clusters
- Blue economy in island territories

Mains Practice Question

“True national integration goes beyond infrastructure development.” Discuss in the context of India’s border regions. (15 Marks / 250 Words)



SYLLABUS : Prelims: History - Personality in News
Newspaper: The Indian Express; Page Number : 5

Guru Tegh Bahadur (1621–1675)

- Ninth Guru of the Sikh religion
- Youngest son of the sixth Sikh Guru, Guru Hargobind ji
- In 1664, he succeeded Guru Har Krishan Ji as the ninth Sikh Guru.
- His son, Guru Gobind Singh, became the tenth Sikh guru.
- He founded the town of **Chak Nanki** in Punjab, later enlarged into the city of Shri Anandpur Sahib (Rupnagar district – PB)
- **Contributed more than 100 poetic hymns to the Granth Sahib (covering themes such as the nature of God, human attachments, body, mind, dignity, service, etc.)**
- He **resisted the forced conversions** of Kashmiri Pandits and non-Muslims to Islam
- He preached and propagated ideas of **universal brotherhood and religious freedom.**
- He fought **against superstitions, caste- based discrimination, and untouchability.**
- **Beheaded in 1675 in Delhi for refusing the conversion to Islam**
- **Gurdwara Sis Ganj Sahib** in Chandni Chowk marks the place of his execution.
- **Gurdwara Rakab Ganj Sahib** marks the place of cremation of his body



Gharials and Three-striped roofed turtle



SYLLABUS : Prelims: Species in News
Newspaper: The Hindu; Page Number : 12

Gharials

- **IUCN** – Critically endangered
- It is a freshwater crocodile
- **Scientific Name:** Gavialis gangeticus
- **Distribution**
- **Rivers of Bangladesh, Bhutan, India, Myanmar, Nepal, and Pakistan.**
- **Major population occurs in three tributaries of the Ganga River:** the Chambal and Girwa Rivers in India and the Rapti-Naryani River in Nepal.
- **It is one of the largest crocodilian species** (Males 16 to 20 feet in length Females typically grow to lengths of 11.5 to 15 feet.)
- The snout is uniquely the thinnest and most elongated among all the crocodilians.



Three-striped roofed turtle (Batagur dhongoka)

- **IUCN** – Critically Endangered
- It is endemic to South Asia.
- **Distribution :** India , Bangladesh and Nepal
- **India** - Assam, Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh, West Bengal
- It is primarily found in the river systems of the Ganges, Brahmaputra and Mahanandi
- Also reported in the drainage systems of the Sind River in both India and Pakistan.
- Wetlands of Assam, Bihar, Uttar Pradesh and West Bengal.
- They are mainly herbivorous, feeding on aquatic vegetation
- Their diet also includes insects, small fishes and mussels



SYLLABUS : Prelims: Judiciary
Newspaper: The Hindu; Page Number : 5

Bar Council of India

- **Statutory body** - Advocates Act, 1961.
- **Recommendation** - All-India Bar committee (1951/ 1953)
- **Objectives** - Safeguarding the rights, interests, and privileges of advocates throughout India.
- **Composition**
 - **Elected members** from each State Bar Council (5-year term).
 - **Ex-officio members**
 - Attorney General of India
 - Solicitor General of India.
 - **Chairman and Vice-Chairman** - Elected from among the members (**2 years term**).



Functions

1. To lay down **standards of professional conduct and etiquette for advocates.**
2. To lay down **procedure to be followed by its disciplinary committee and the disciplinary committees** of each State Bar Council.
3. **To safeguard the rights, privileges and interests of advocates.**
4. To **promote and support law reform.**
5. To **deal with and dispose of any matter** which may be referred to it by a State Bar Council.
6. To **promote legal education and to lay down standards of legal education.**
7. To **recognise Universities** whose degree in law shall be a qualification for enrolment as an advocate.
8. To **conduct seminars and talks on legal topics** by eminent jurists and publish journals and papers of legal interest.
9. To **organise legal aid to the poor.**
10. To recognise on a reciprocal basis; **the foreign qualifications in law obtained outside India for the purpose of admission as an advocate in India.**
11. **To manage and invest the funds of the Bar Council.**
12. To **provide for the election of its members who shall run the Bar Councils.**



Iran and Gulf of Oman



SYLLABUS: Prelims: Places in News
Newspaper: The Indian Express; Page Number : 7



SYLLABUS : Prelims: Science and Technology
Newspaper: The Hindu; Page Number : Science

Salar de Pajonales:

- Located in **Atacama Desert Chile**.
- One of the driest places on Earth.
- **Salt flat** situated ~3.5 km above sea level.
- Extremely dry, freezing, and exposed to intense ultraviolet (UV) radiation.
- Considered a **near-perfect analogue of Martian environmental conditions**.

Gypsum (CaSO₄·2H₂O)

- Hydrated calcium sulphate mineral.
- Found on Earth and Mars.

Properties:

- Translucent – allows sunlight penetration.
- Blocks harmful UV radiation.
- Traps small amounts of moisture.
- Acts as a protective microhabitat in extreme environments.



Stromatolites

- Layered rock structures formed by microbial activity over long periods.

Contain:

- Living microbes just millimetres beneath surface.
- Fossils and chemical signatures of ancient life deeper inside.

Gypsum preserves:

- Living microbes (radiation shield + moisture retention).
- Fossilized remains (sealing and chemical preservation).



Q1. With reference to Guru Tegh Bahadur, consider the following statements:

1. He was the youngest son of Guru Hargobind Ji.
2. He succeeded Guru Har Krishan Ji as the seventh Sikh Guru in 1664.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: a

Q2. With reference to the Gharial (*Gavialis gangeticus*), consider the following statements:

1. Its major population occurs in the Chambal and Girwa rivers in India and the Rapti-Narayani river in Nepal.
2. It is one of the smallest crocodylian species.
3. Its snout is the thinnest and most elongated among all crocodylians.

Which of the statements given above are correct?

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

Answer: a

Q3. With reference to the Bar Council of India (BCI), consider the following statements:

1. It is a statutory body constituted under the Advocates Act, 1961.
2. The Attorney General of India and Solicitor General of India are ex-officio members of the Bar Council of India.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c

Q4. With reference to the physical geography of Iran, consider the following statements:

1. The Zagros and Taurus mountain ranges are prominent mountain systems in Iran.
2. Much of Iran's interior consists of extensive desert plateaus such as the Dasht-e Kavir and Dasht-e Lut.

Which of the statements given above are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: b

Q5. With reference to Salar de Pajonales, consider the following statements:

1. It is located in the Atacama Desert of Chile.
2. It lies approximately 3.5 km above sea level.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c





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