Firecracker Blast

Prelims – Current events of national and international importance.

Mains (GS Paper III) – *Conservation, environmental pollution and degradation, environmental impact assessment, and disaster management.*

Why in news?

The recent firecracker factory blaze in Gujarat caused fatalities of 21 people including few children's.

What are the causes for recent fire blast incident?

- **Lack of safety mechanisms –** The factory had *no fire safety equipment,* no proper ventilation, and no first-aid equipment.
    - It violates norms under the Factories Act, 1948.
- **Negligent Monitoring** – Though local police had conducted a spot check at the factory just 15 days ago, they *failed to indicate that crackers were being manufactured* based the materials found.
- **Illegal manufacturing** – While the factory had *license only for storage and trading*, it had illegally operated to manufacture firecrackers.
- **Presence of Explosive Substances –** *Aluminium powder and yellow dextrin,* the chemicals used for making explosives were found which might have led to a massive uncontrolled blast.

Status of Fire Blast Related Fatalities in India
• According to the *NCRB's "Accidental Deaths and Suicides in India 2022"* report: • **Events** – *60 incidents of fires at factories* where combustible materials like crackers and matchboxes are made. • **Fatalities** – It led to *66 deaths and 32 injured people*. • **Vulnerable states** – *Tamil Nadu, Bihar, Jharkhand*, Uttar Pradesh, and Rajasthan. • **Issues** – Many cases involve migrant workers and child labour, but go unreported or untraced.

How India regulates fire blast events?

- **Explosives Act, 1884 & Explosive Substances Act, 1908 –** They *regulate the manufacture, possession, use, sale, transport*, and import of explosives.
- **Factories Act, 1948 –** It has provisions for *health, safety, and welfare of workers* in factories.
- **National Building Code (NBC) 2016:** It *mandates fire safety norms*, including proper ventilation, spacing, and storage standards for industrial units handling explosives.

- **NDMA Guidelines on Chemical and Industrial Disasters, 2007 –** It emphasise *risk assessment, licensing, regular audits*, and disaster response planning for hazardous industries.
- **Child Labour (Prohibition and Regulation) Act, 1986 –** It *prohibits employment of children* in hazardous industries like firecracker manufacturing.
- **Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 –** It protects migrant workers employed in a firecracker unit when they are injured or killed in an accident.
    - **Section 13 & 16**: The contractor is legally bound to provide *medical aid and timely compensation*.
- The principal employer also shares responsibility to ensure that *insurance coverage and emergency assistance* are in place.



What are the challenges in regulating it?

- **Fragmented oversight** – Licensing, safety, labour laws, and environment regulations are all *handled by different departments*, creating gaps in accountability.
- **Corruption and local nexus –** Units often operate with *political patronage or by bribing* local officials.

- Even when inspections happen, they are just a formality.
- **Poor Inter-State Coordination –** In this incident, migrants from Madhya Pradesh working in Gujarat had *no records or benefits,* exposing a failure in inter-state labour coordination.
- **Outdated laws** – Laws like the Explosives Act (1884) is over 140 years old and they *don't reflect modern industrial risks*.
- **Judicial delays –** Even when FIRs are filed, convictions are rare.
    - Victims' families wait years for justice or compensation.

What lies ahead?

- **Unifying licensing and monitoring** - A *single-window system can be created* for issuing and monitoring explosive-related licences with *geo-tagging and digital audits.*
- **Factory inspections –** Making labour and safety inspections *mandatory even for small-scale or rural units*.
- Surprise checks must be incentivised.
- **Faster penal action** – It can be ensured by *fast-track cases* under Bharatiya Nyaya Sanhita for culpable homicide.
- Officials who overlook violations should be penalised.
- **Support for migrant workers** - Implement *portable social security, digital ID cards, and insurance* for inter-state workers through e-Shram platform.
- **Child labour rehabilitation** – Enforcing and *expanding skill-building & cash transfer schemes* for rescued child workers.
- **Victim compensation & care** - A *Firecracker Accident Victims Fund* and fast-track disbursement through District Legal Services Authorities (DLSA) can be implemented.

Quick facts

Petroleum and Explosive Safety Organisation (PESO)

• PESO, formerly known as *Department of Explosives*, since its inception in *1898.*
• It has been serving as a *nodal agency for regulating safety of hazardous substances* such as explosives, compressed gases and petroleum.
• **Headquarters –** Nagpur, *Maharashtra,*
• **Objective** – To provide operational and technical advice and assistance to central government, states, local bodies, law enforcement agencies, industry, trade and end users.
• **Role** – Its major work is to administer the responsibilities delegated under the *Explosives Act 1884* and *Petroleum Act 1934* with the motto "***Safety First***".

Reference

The Hindu| Gujarat Firecracker Factory Blast

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