16 - March 2023

Industrial Disaster

This article covers "Daily current events "and the topic is 'Industrial Disaster' which is in news, it covers "Disaster Management" In GS-3, and the following content has relevance for UPSC.

For Prelims: Industrial Disaster
For Mains: GS-3, Industrial Disaster

Why in news:
The fire at a Kochi landfill site in Brahmapuram earlier this month served as a sharp reminder that Indian towns must brace themselves for more such occurrences as summer approaches.

Industrial Disasters

ABOUT INDUSTRIAL DISASTER

- An industrial disaster is a significant event involving hazardous materials that can have ramifications for the surrounding population and environment.
- Depending on the nature of the products involved, the disaster may take the form of a fire, an explosion, or the release of hazardous or radioactive substances.
- It usually happens when an employer is remiss in their duties to protect their employees.
- This could be due to failing to offer a safe working environment, encouraging work shortcuts, not adequately training personnel, or neglecting to supervise staff.

INDUSTRIAL DISASTER IN THE PAST

- **Bhopal Gas Tragedy:**
  - The 1984 gas leak at Union Carbide India Ltd's pesticide plant is regarded as the world's biggest industrial disaster.
  - More than 5 lakh people were affected.
  - The leak is said to have killed over 3,700 individuals and maimed or permanently handicapped countless more.
  - The hazardous chemical was identified as methyl isocyanate. The gas harmed the lungs, kidneys, and liver, and produced cerebral oedema, among other things. The occurrence increased the stillbirth rate by 300% and newborn death by 200% in the area.
  - The healthcare system was overburdened, and staff were unprepared for the crisis.
- **Chasnala Mining Disaster:**
  - In 1975, the Chasnala mining accident occurred in a coal mine in Jharkhand, and it was one of the worst in Indian mining history.
  - It was triggered by malfunctioning equipment that ignited a pocket of methane gas, resulting in an explosion. The explosion caused the mine to collapse, releasing millions of gallons of water from a nearby reservoir.
  - Around 700 individuals were killed due to the explosion, mine collapse, or reservoir flooding.
- **Jaipur Oil Depot Fire:**
  - In 2009, an industrial disaster happened at an Indian Oil Corporation oil depot in Rajasthan.
  - It led to 12 fatalities and numerous injuries. During a week, 500,000 people were evacuated from the neighbourhood as the fire was brought under control.
  - The administration lacked a disaster management strategy, and the fire department lacked the necessary equipment to combat the fires.

- **Korba Chimney Collapse:**
  - In 2009, an under-construction chimney for a thermal plant (under BALCO's contract) in Chhattisgarh collapsed, killing 45 people. Severe weather (torrential rainfall) hampered rescue efforts.
  - The causes were determined to be the use of substandard materials, technical flaws in the design, incorrect water curing, and supervisor incompetence.
- **Bombay Docks Explosion:**
  - In 1944, an explosion aboard a cargo transporting weapons in Mumbai's Victoria Dock killed over 800 people.
  - When the initial fire on the cargo could not be put out, the crew was forced to abandon the ship. It was followed by explosions that damaged neighbouring vessels, including numerous navy warships, several economically developed places nearby, and fires that erupted in the adjacent slums as a result of the shower of flaming debris.

INDIA'S ABSOLUTE LIABILITY

- Absolute Liability holds an individual ultimately accountable for actions caused by the release of a dangerous object in a non-natural usage of the land, with no exceptions.
- In the **case of MC Mehta v Union of India**, the Indian judiciary, led by Justice Bhagwati, ultimately adopted the notion of Absolute Responsibility as applicable in situations like the one in the case.
- The Court specifically indicated that there will be no exceptions to the new concept of Absolute Responsibility. There were two justifications for this, which were:
  - The firm engaged in hazardous and fundamentally dangerous activities owes a duty to society to compensate persons who have suffered as a result of the industry.
  - Only the enterprise has the ability and resources to create and implement protections against such hazards and threats.
- The **Public Liability Insurance Act of 1991** was enacted in India to provide a solid basis and logic for the notion of Absolute Responsibility.
- The goal of enacting such legislation is to address the significant expansion in the number of hazardous industries and operations in India.
- This has increased the potential of accidents, injuries, and damages, not just to personnel but also to individuals and property located near such industries.
- As a result, this act improves the position of the affected people by giving quick relief in the form of insurance to workers and people impacted and injured in the process of handling hazardous materials, whether by themselves or by a nearby industry or operation.

WHY IS ABSOLUTE LIABILITY NECESSARY?

- The **Rylands v Fletcher decision** established the Strict Liability rule.

- This rule has so many exceptions in the issue that the actual scope of responsibility becomes very small.
- Due to the dynamic nature of technology and society, this old idea, first proposed in 1868, may not fit all countries as well as it did then.
- Since India has followed English laws since before independence, tweaks and amendments have been made to meet the demands of the country over time.
- Numerous principles and concepts that were not entirely appropriate in the Indian context were modified to meet the requirements of Indian legislation.
- India followed Strict Liability in no-fault liability law until it discovered that it could not be adequately implemented in the Indian environment.
- The principal impetus came from the two occurrences of the Bhopal Gas catastrophe and the Oleum Gas Leak case, which implanted a realisation of the necessity for a new liability concept in India to meet its industrial and economic needs.

WAY FORWARD

- Although India has adequate regulations to combat industrial disasters, its effectiveness must be evaluated.
- Buffer zones must be built around factories that handle hazardous products. By doing so, disasters can be controlled and fewer lives and property are lost.
- The Supreme Court emphasised that financial compensation should serve as a deterrent to future disasters. It must be proportional to the capacity of the infringing firm.
- The disaster management strategy must be made known to the local authorities, especially because CBRN (chemical, biological, radiological, and nuclear) disasters necessitate a unique response.
- All such industrial facilities should be required to maintain an efficient disaster management plan. The individual must also be aware of the plan and educated on how to handle similar events through recurrent safety drills.
- The disaster management strategies of the industries must be communicated to the local public. The "sitting of the industries" problem can be handled by gradually shifting industries away from densely populated areas.
- Furthermore, planning must be undertaken to keep growing cities away from such industrial complexes.
- Given the increasing frequency of natural disasters in India, infrastructure resilience must be enhanced. For example, the 2001 Bhuj earthquake destroyed a phosphoric acid sludge containment system, while a 1991 super-cyclone in Odisha caused an ammonia gas leak from a fertiliser plant.
- Many initiatives, such as Make in India, require industrial expansion to be backed by sufficient safety procedures and regulations; in other words, growth must be sustainable.

- Following the Vizag gas spill, the centre gave certain instructions. The NDMA requested that businesses treat the first week of operations after the lockout as a trial period. High output targets were discouraged for the first week.
- It also urged that the sectors train their staff to recognise irregularities that could lead to such mishaps. Before restarting manufacturing, complete safety audits should be performed.

Source:
Wikipedia

Saurabh kaushik