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**MAD- 2020  
ENVIRONMENT  
Day - 53**

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### **Question:**

In context of gas leak from LG Polymers factory situated on the outskirts of Vizag, Andhra Pradesh, discuss the various safeguards against chemical disasters in India.

### **Answer:**

Recently, a gas leak from LG Polymers factory situated on the outskirts of Visakhapatnam Andhra Pradesh killed at least 11 people affected over 2,000 residents of five villages in the vicinity.

Between Bhopal Gas Tragedy and the latest one at Vizag, several chemical disasters have taken place in the country including 2017 Delhi Gas leak, 2018 Bhilai Steel Plant Blast, etc.

### **Various safeguards against chemical disasters which have evolved over a period of time include -**

Laws Before and During Bhopal Gas Tragedy (1984) -

- Initially, at the time of the Bhopal gas tragedy, the Indian Penal Code (IPC) was only relevant law specifying criminal liability for such incidents. The accused were initially charged under Section 304 (culpable homicide not amounting to murder) of the Indian Penal Code (IPC).
- The charges were later framed under Section 304A, which deals with death due to negligence and imposes a maximum punishment of two years and a fine.
- The charges were re-framed after a 1996 Supreme Court judgment held that there was no evidence to show that the accused had knowledge that such a gas leak would happen and kill people.

Laws After Bhopal Gas Tragedy (1984) -

So learning from the experience of horrid Bhopal Gas tragedy, following safeguards have evolved -

1. Bhopal Gas Leak (Processing of Claims) Act, 1985, which gives powers to the central government to secure the claims arising out of or connected with the Bhopal gas tragedy. Under the provisions of this Act, such claims are dealt with speedily and equitably.
2. The Environment Protection Act, 1986, which gives powers to the central government to undertake measures for improving the environment and set standards and inspect industrial units.
3. The Public Liability Insurance Act, 1991, which is an insurance meant to provide relief to persons affected by accidents that occur while handling hazardous substances.
4. The National Environment Appellate Authority Act, 1997, under which the National Environment Appellate Authority can hear appeals regarding the restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards under the Environment (Protection) Act, 1986.
5. National Green Tribunal, 2010, which provided for the establishment of the National Green Tribunal for effective and expeditious disposal of cases related to environmental protection and conservation of forests.

### **But at the same time, there are certain concerns as well -**

- According to the National Disaster Management Authority (NDMA), in the recent past, over 130 significant chemical accidents have been reported in the country, which have resulted in 259 deaths and caused major injuries to more than 560 people.

- Further, there are thousands of registered and hazardous factories and unorganised sectors dealing with numerous ranges of hazardous material posing serious and complex levels of disaster risks.
- There are over 1861 Major Accident Hazard (MAH) units spread across 301 districts and 25 states and three Union Territories in all zones of the country. The Major Accident is defined as an incident involving loss of life inside or outside the site or ten or more injuries. Further it also involves the release of toxic chemical or explosion or fire of spillage of hazardous chemical resulting in 'on-site' or 'off-site' emergencies leading to adverse effects to the environment.
- **Clearance processes are flouted routinely** - Industries that process petrochemical-based products, such as styrene, require two levels of clearances – an Environmental Clearance (EC) from the Union Ministry of Environment, Forest and Climate Change (MoEF&CC) and a Consent to Operate (CTO) from the State Pollution Control Board (SPCB), which needs to be renewed every five years. CTO documents give production limits on products that can be manufactured, limits on treated effluents and ambient air surrounding the factory compound. LG Polymers India has not adhered to rules at both these levels.
- **Rules are flouted routinely** - The Environment (Protection) Act, 1986, is the omnibus Act that gives sweeping powers to the Central government to take all measures to protect the environment. There are clear rules on hazardous chemical storage under the Act. These include Hazardous Waste (management, handling and trans-boundary movement) Rules, 1989; Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989; and Chemical Accidents (Emergency, Planning, Preparedness and Response) Rules, 1996. That such an accident could happen despite these laws shows negligence on the part of all parties.

### Way Forward

- The current set of legislations, though comprehensive and covers all aspects, is more inclined towards the civil suits than criminal ones. Even though there are provisions for criminal litigation that are applicable for industrial accidents, they aren't used very often.
- Fixing accountability for an accident or negligent actions is another aspect of the legal system that we often ignore.
- To set this degree of accountability and culpability, we must empower NGT further. NGT is a "quasi-judicial" body and has limited power. Therefore, in order to strengthen the deterrence system, it is important to vest more power in NGT.
- There is lack of strong regulatory body to ensure proper enforcement of laws and regulations related industrial accidents. Ensuring more autonomy to the state pollution control boards (SPCB) to work without any sort of influence and micromanagement and increasing the manpower and funding to SPCBs is the way to go.
- The industries have a major role to play - similar to the legal and the regulatory systems - in the entire process that ensures safety. There is a need to ensure the safety at two ends – on-site and off-site. Conducting a thorough HAZOP (HAZard and Operability) study in regular intervals which helps in the identification of problems related to hazards and operability in a process plant. Should be a norm.

### Conclusion

India's vast environmental laws can only be effective if we bring in elements of deterrence into our policy, programme and practices. It starts from the decision to grant a clearance to a project to how it unfolded on ground to the project's day-to-day operation adhering to all safety measures.