

Fire Safety and Regulations in India

March 19, 2021

The death of 9 including 4 firefighters, an assistant police sub-inspector, and two RPF men, in fire at Eastern Railway headquarters in Kolkata spotlights the risk posed by fire accidents

In news: Nine dead in fire at Eastern Railway headquarters in Kolkata

Placing it in syllabus: Disaster Management

Dimensions

- Magnitude of the Problem In India
- Present System of Fire Services
- Problems in the current structure
- Suggestions

Content:

Magnitude of the problem in India:

- With 27,027 deaths, every fifth fire-related death in the world in 2017 took place in India. Around 9 million fire incidents and 1.2 lakh deaths were recorded across the globe that year.
- Of these incidents, India recorded 1.6 million fires and 27,027 deaths, according to a 195-nation analysis by Global Diseases Burden published in The BMJ Injury Prevention journal recently.
- The Indian deaths were 2.5 times the figures in China, where 10,836 people died in fires in 2017.
- India, along with seven countries, including Pakistan, accounted for over half the deaths due to fires.
- The study said kids under five and adults above 60 are

the biggest fire victims – a trend seen in urban India as well.

- Accidental fires caused 6% of all unnatural deaths in India, third-highest after car accidents (53%) and drowning (9%), as IndiaSpend has reported.
- Eight times more people die than are injured, testimony to the danger posed by accidental fires.
- Maharashtra had more fires and deaths, giving India's second-most populous state the distinction of being most unsafe for fire incidents.
- Maharashtra recorded nearly a quarter of all accidental fires and a fifth of all deaths in 2014, more than twice as many fires and 70% more deaths than second placed Madhya Pradesh.

Role of Fire Services in India:

- Role of Fire Service in India broadly is extinguishing fire and protecting life and property in case of fire.
- Fire Service role has changed dramatically in the last few years.
- Some changes were influenced by external forces, while the impetus for others was the organization itself. All these changes have increased the risk of the profession.
- The fire service now responds to hazardous material incidents, advanced emergency medical situations, high angle rescue and confined space rescue incidents, trench and collapse operations, underwater rescue and more.
- It has been said that "when the experts panic, they call the fire department."
- In the immediate aftermath of any disaster coordinated search and rescue efforts are critical to saving lives and property.

Present System of Fire Services:

12th Schedule (Municipalities)

- The system of urban government was constitutionalised through the 74th constitutional amendment act of 1992. This act gave the constitutional status to the municipalities in India.
- The 12th Schedule of the Indian constitution contains the powers, authority and responsibilities of Municipalities. This schedule has 18 items.
- Fire services is one among these items

Standing Fire Advisory Council

- The Standing Fire Advisory Committee was constituted by the Government of India (Ministry of Home Affairs) on the recommendation of Chiefs of Fire Services in 1955.
- It was to examine the technical problems relating to fire services and to advise the Government of India on matters concerning the organization and speedy development of fire services all over the country.
- The Standing Fire Advisory Committee was **renamed Standing Fire Advisory Council** in 1980.
- The membership of the SFAC includes all State Government's representatives and representatives of all Union Territories and other Central Ministries.

Part 4 of National Building Code

- The National Building Code of India covers the detailed guidelines for construction, maintenance and fire safety of the structures.
- The National Building Code of India is published by the Bureau of Indian Standards and it is recommendatory document.
- Guidelines were issued to the States to incorporate the recommendations of National Building Code into their local building bylaws making the recommendations of National Building Code of India as mandatory requirement.
- The main objective of NBC is to specify measures that

will provide that degree of safety from fire, which is practical and can be reasonably achieved. The Code insists upon compliance with minimum standards of fire safety necessary for building occupants and users.

- The NBC also deals with three types of fire zones and four types of constructions.
- The Part 4 (Fire and Life Safety) of NBC contains the fire safety norms through detailed provisions on fire prevention, life safety and fire protection.
- The fire protection, which not only deals with fire prevention and fire protection but also gives guidance by specifying the standards for construction, plumbing, electrical installations including wiring, lighting, ventilation, heating and air conditioning, safety sanitation, active and passive fire protection systems, etc.
- It mentions the restrictions of buildings in each fire zone, classification of buildings based on occupancy, the demarcation of fire zones, limitations of height, types of building construction according to fire resistance of the structural and non-structural components and other restrictions and requirements necessary to minimise danger to life from fire, smoke, fumes or panic before the building can be evacuated.

Problems in the current structure

Laxity in following Safety Norms:

- In India, although there are many rules and regulations, codes and standards related to fire safety, these are seldom followed. Laxity in following fire safety measures caused many major fires in various occupancies and some of them even resulted in catastrophes
- Many commercial and residential buildings in particular high-rise buildings, have been found to be flouting fire safety norms.
- Many occupiers or societies do not bother to conduct

regular maintenance of the fire prevention systems installed in their buildings.

Unclear Fire Safety Assessment Standards and Audits:

- Though a Fire Safety Audit is found to be an effective tool for assessing fire safety standards of an organization or occupancy, there are no clear cut provisions in any of the fire safety legislations in India, regarding the scope, objectives, methodology and periodicity of a fire safety audit.
- However, the NBC 2016, recommends for periodical fire safety inspection by the key personnel of the occupants of the building to ensure fire safety standards.
- As far as industrial buildings are concerned, the statutory authorities like State Factory Inspectorate, insist for fire safety audit by external agencies, depending on the type of activity and the nature of the materials handled in the building.

Unorganised Fire Services:

- The Fire services are not well organized in India.
- In recent years, the requirements for fire safety cover have increased manifold whereas the development of Fire Service has not made much headway.
- The setting up of Industrial Plants at a fast pace with extensive use of hazardous materials and the construction of larger and taller buildings have multiplied the problems of fire fighting.
- The fire hazards are no longer confined to big cities and manufacturing centers only.
- Vast quantities of hazardous commodities are daily moved by different modes of transport all across the country posing complicated fire rescue problems.

Suggestions:

- If the objective of ensuring safety of life and property

in urban and rural areas is to be achieved, then a complete overhauling of fire service organization is called for.

- The fire services need to be organized properly with adequate infrastructure and equipment for keeping pace with advancement of technology and economic growth.
- **Hazard Identification & Risk Assessment (HIRA)** can be focused to identify potential hazards. A comprehensive fire safety audit can address the inherent fire hazards associated with the day to day activities in an occupancy and recommend measures to reduce the potential fire hazards.
- Fire Safety Audit should be made mandatory for all over India and the audit work should be entrusted to Third Party Agencies, who have expertise in it.
- It is reasonable to have a fire safety audit every year in every occupancy.
- Above all, the success of fire prevention and fire protection mainly depend upon the active cooperation from all personnel in an occupancy.

Mould your thought: Highlight the issues concerning Fire Safety in India. Suggest measures to overcome these challenges.

Approach to the answer:

- Introduction
- Discuss the situation of Fire Safety in India
- Mention the organisations involved in Fire Services
- Discuss the problems in Fire Services
- Suggest solutions to overcome them
- Conclusion