



Fire Safety in India

This editorial is based on [“The failure of fire safety norms”](#) which was published in The Hindu on 22/09/2022. It talks about recent fire accident in Telangana and issues related to Urban fires in India.

For Prelims: Fire Safety in India, India Risk Survey 2018, Greenhouse Gases, National Building Code (NBC), Bureau of Indian Standards, National Disaster Management Authority, Accidental Deaths & Suicides in India report 2020, Polyurethane foam (PUF).

For Mains: Current Provision Regarding Fire Safety in India, Issues Leading to Urban Fire in India, Measures to improve fire safety in India.

[Urbanisation](#) leads to house densification, a phenomenon experienced in both planned and unplanned settlements in cities. In **densely packed urban areas** of India, devastating **fires** are the most predominant risks.

According to **India Risk Surveys 2018**, India ranks 3rd in [fire incidents](#), especially in the Northern and Western regions of the country. Typical causes of fire disasters in urban areas include **usage of wood fuel and charcoal for room heating, waste burning around courtyards, poor city infrastructure** for firefighting and accessibility which increase the potential for fire risk occurrence.

[Urban fire](#) can adversely affect human lives and property as well as **environment and ecosystem** by generating a large amount of **smoke pollution and releasing greenhouse gases**. Despite major fires in the past, **flagrant violations of building and fire safety norms continue unabated** and fire accidents take place with alarming regularity. It is high time fire safety is taken seriously and violators are brought to book.

What is the Current Provision Regarding Fire Safety in India?

- Fire service is one of the most important emergency response services in the country, which comes under the **12th schedule of the Indian Constitution** dealing with **Municipal functions**.
 - At present, fire prevention and fire fighting services are organised by the concerned **States and Union Territories (UTs), and Urban Local Bodies (ULBs)**.
- The [National Building Code \(NBC\) of India, 2016](#): Published by the [Bureau of Indian Standards](#), NBC is a **“recommendatory document”**, and state governments are expected to incorporate it into their local building by laws, **making the recommendations a mandatory requirement**.
 - It mainly contains **administrative regulations**, general building requirements such as **fire safety requirements**, structural design and construction (including safety) provisions.
- **Model Building Bye Laws, 2003**: Under **Modern Building Bye Laws 2003**, fire clearance is the responsibility of the **Chief Fire Officer** at each point. The concerned **Development**

- Authority** must provide the building plans to the Chief Fire Officer for clearance purposes.
- **National Disaster Management Authority (NDMA):** Guidelines by [National Disaster Management Authority](#) stipulates fire safety requirements for **public buildings, including hospitals** along with design guidelines relating to maintaining a **minimum level of open space, exit mechanisms, stairs, and evacuation drills.**

What are the Issues Leading to Urban Fire in India?

- **Lack of Uniform Fire Safety Legislation:** According to [Accidental Deaths & Suicides in India report 2020](#), a total of **11,037 cases of fire accidents** were reported in the country during 2020. Despite that there is **no uniform legislation** regarding fire safety in India.
- **Natural and Climatic Causes:** Natural weather phenomena like [lightning](#), [extreme heat with low humidity](#) cause fires in urban areas.
- **Absence of Smoke Management and Emergency Lighting:** Because high-rise buildings often contain large enclosed spaces or voids, even a small fire can become a fire hazard due to the **lack of smoke management and warning mechanism through emergency lighting.**
- **Lack of Vulnerability Analysis:** Due to poor regulation and enforcement of **National Building Code 2016, lack of vulnerability analysis** buildings leads to urban fire as vulnerability directly affects preparedness, response, and recovery.
- **Lack of Proper Electric Insulation:** [Polyurethane foam \(PUF\)](#) used for plastic insulation is highly flammable due to its proximity to electrical wiring that, when heated due to overloading or short circuit, **immediately catches fire.**

What Should be the Way Forward?

- **Fire Safety Legislation and Audit:** India needs strong **fire safety legislation** with an effective time to time audit mechanism to reduce the vulnerability of urban fires.
- **Corporate Safety Responsibility:** Building corporations need to ensure proper **vulnerability assessments** before construction and maintain basements free of obstructions to maintain proper escape channels.
- **Fire Hazard Response Plans:** It is imperative that every **Urban Local Body develops a fire hazard plan in partnership with administration, fire brigade, and health department** and conduct regular mock drills in public spaces to facilitate awareness among the people and swift recovery from unforeseen fires.
- **Modernisation of Fire Safety Equipment:** Finances and assistance should be provided by the government to bolster and modernise fire departments with equipment like **smoke detectors, fire hose cabinets and automatic sprinkler systems.**

Drishti Mains Question

Discuss the provision related to Fire Safety in India in the light of recent fire incidents. Also, suggest measures to improve fire safety in India.