PREPARING FOR FIRES

Relevant for: Environment | Topic: Disaster and disaster management

Smoke billows from the Taxshila Complex in Surat after fire engulfed the third and fourth floor of the building on May 24, 2019. | Photo Credit: PTI

India saw at least three major fire accidents in 2019. The first, in **a four-storey central Delhi hotel in February**, killed 17 people. The second, at a **coaching centre in Surat in May**, killed 22 students. The **third broke out in a factory in Delhi** and resulted in the death of 43 workers. In the second and third instances, it was found that buildings authorised to be residential complexes were operating as commercial buildings instead. (According to the Accidental Deaths and Suicides in India report of 2015, residential buildings are most prone to fire outbreaks.) 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 safety is taken seriously and violators are brought to book. Past incidents show that most fire accidents take place due to three major reasons: electrical short circuit and gas cyclinder/stove bursts, human negligence, and ill-formed habits. All three need to be addressed to make buildings safer.

So, what all can we do to reduce fire accidents? On the regulatory side, adherence to the National Building Code of 2016 should be made mandatory. This is a detailed set of guidelines for the construction, maintenance and operation of buildings of all kinds (residential, educational, institutional, assembly, mercantile, industrial, business, etc.) and includes a separate and comprehensive chapter on fire and life safety. The National Building Code specifies, for instance, how many exits should be provided in a specific kind of building and where they must be placed. In the case of the Delhi fire, it was not only reported that a residential space was operating as a commercial space, but also that the fire exits in the buildings were blocked, thus trapping people inside.

But before all that, the first stage towards a fire-safe building is to construct the building with fire-resistant/retardant materials and install smoke detection systems and fire alarms. A building's fire alarm/detection system should be connected with the city's fire system. Fire compartmentalisation (area/floor wise) should be made mandatory to restrict the spread of fire through horizontal and vertical spaces. Further, a systematic procedure should be outlined for periodically assessing and monitoring fire risks. While the fire safety udit (FSA) is a good tool to assess fire safety standards of an occupancy, there are no clear provisions in any legislation regarding, say, the scope or periodicity of an FSA. FSAs should thus be made mandatory everywhere.

Once electrical and fire installations are in place, they should be certified by authorised persons and agencies. These will help identify and monitor risks of short circuits due to changes in building use, change in load pattern, etc. Only qualified persons and firms should be authorised to inspect buildings. No-objection certificates should be renewed only after verifying the originally intended use of the building being certified and any change in the building's pattern.

In case fires break out despite all this, fire services should always be in place. This too is lacking in India. Data show that fire services are not at all adequate. In 2017, for instance, the Home Ministry told Parliament that that in 2012 India had just 2,987 fire stations against the requirement of 8,559. It is hoped that there are more now. It is important to not only increase fire services but also modernise fire fighting departments.

Awareness of fire safety is nearly absent in India. In schools, the curriculum should have a

chapter on fire safety. Regular drills should be conducted so that children are prepared to handle such incidents. Communities managing housing and commercial premises need to regularly organise awareness programmes with assistance from authorised persons and agencies. These need to be not only on fire safety but also on other disasters such as earthquakes and floods.

Infrastructural changes are mandatory too. We need dedicated access lanes for quick movement of emergency vehicles. Under the Smart Cities Mission, 'smart control rooms' should be able to guide emergency vehicles through the shortest route and enable coordination among various departments such as police, traffic police, fire, ambulance, and security forces.

A lot of ground has to be covered before India can claim to be a fire-safe country. It is imperative that lessons are learned from the Delhi incident at least now. India can work towards a new goal this decade if everyone cooperates and takes precious lives seriously — the goal of a 'surakshit Bharat'(safe India).

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