MITIGATION OF FIRE HAZARDS IN HIGH RISE BUILDINGS: INITIATIVE BY NDMA

BY

BRIG (DR) B K KHANNA,
Sr. SPECIALIST (TRAINING & CAPACITY DEVELOPMENT)
NATIONAL DISASTER MANAGEMENT AUTHORITY

Email. bkkhanna2@rediffmail.com
Fire Accident in ‘D’ Block, A.P. Secretariat, Hyd. On 07.05.2009
Fire Accident in Burra Bazar, Kolkata
Fire Accident in Vijayawada
Multi-storied Building Fire in M/s Agri Gold at Vijayawada on 27-02-2007 (2 persons died)
MANDATE – NDMA

AND

VISION
MANDATE

1. Lay down Policy and Guidelines.


3. Coordinate enforcement and implementation of policy and plans.

4. Take Measures for :-
   - Prevention.
   - Preparedness.
   - Capacity Development.
   - Mitigation.
   - Awareness Generation.
   - Rehabilitation and Recovery.

Contd.
5. **Response** :-

- National Executive Committee (NEC) will Coordinate the Response on behalf of the NDMA.

6. **Additional** :-

- Recommend provision of funds for mitigation.
- National Disaster Response Force (NDRF).
- National Institute of Disaster Management (NIDM).
- Assist in Support to other Countries.
"The National Vision is, to build a **Safer and Disaster Resilient India**, by developing a **Holistic, Proactive, Multi-hazard and Technology-Driven Strategy for DM**. This will be achieved through a Culture of Prevention, Mitigation and Preparedness to generate, a prompt and efficient Response at the time of Disasters. The entire process will Centre-Stage the Community and will be provided Momentum and Sustenance through Collective efforts of all Government Agencies and Non-Governmental Organisations."
High Rise Buildings
Vulnerabilities in the Indian Context
BASIC DRAW-BACKS OF FIRE FIGHTING

IN INDIA

- 70% OF India, mostly rural and semi urban areas, not covered by fire fighting.
- Almost total dependence on Govt to provide fire fighting services.
- Fire Fighting subject does not come under Centre or State but under the Local Govt, like Municipal Corporation jurisdiction. Local Govt, invariably short of funds and hence little allocation for fire fighting.
- High rise buildings of earlier vintage do not have requisite fire safety norms.
- Fire & Emergency Services not empowered to carry out checks of violations to safety norms.
- Shortage of manpower & modern fire fighting equipment with Fire & Emergency Services.
STRUCTURAL & NON-STRUCTURAL DISCREPANCIES NOTICED IN HIGH RISE BLDGS

1. High Rise Buildings, especially 1970 or earlier vintage have invariably single stair case for entry/exit.

2. No fire escape route/s or chutes.

3. No or negligible integral fire fighting equipment.

4. Fire Fighting equipment not in working condition/outdated candles in fire extinguishers.

5. Community/personnel using high rise buildings not trained in use of fire fighting equipment.

6. First responders not trained & not having PPE.

7. Water tenders being used for drinking water supply and for watering the plants.
CAUSES OF MOST FIRES IN HIGH RISE BUILDINGS

1. Short Circuit due to illegal additional wiring, defective plugs and irregular electricity supply.
2. Human errors – additional load on single plugs, use of excessive heating devices during winters, gas leaks, cylinder burst & burning cigarette butts, thrown un-intentionally.
3. Once NOC given by Fire Services, changes carried out in the buildings to increase floor area ratio, making them unsafe.
5. Once fire breaks out, not reporting or reporting late by the junior staff, trying to control the fire, not knowing the consequences.
6. Evacuation drills & mock exercises not carried out regularly and sincerely, considered burden or waste of time.
7. Integral fire fighting systems required to be in position by laws not provided.
8. Maintenance of system/equipment not regularly carried out
WAY OUT

1. Fire Fighting subject in concurrent list.
2. Planning Commission allocated Rs 200 cr in XI Plan Period for strengthening Fire & Emergency Services in the country.
3. Strengthening scheme envisages introduction of modern technology such as AFT, high pressure pumps and water mist technology and emergency rescue hand held tools.
5. Formulation of DM Plans a must for schools, all high rise & heritage buildings.
6. Training of trainers of Fire Services personnel in CSSR & AFT training, etc.
7. Orders issued for making up of authorized manpower.
8. Fire Fighting teams even in schools being advocated.
9. NDMA conducted 16 mock exercises on fire in high rise buildings, all over India, to train the first responders & to sensitize the community.
THANK YOU