A Report on National Conference on Fire Risk Reduction and Mitigation (NFRRM)













Fire & Security Association of India





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Background note:

Fire-related accidents have, on average, killed 35 people every day in the five years between 2016 and 2020, according to a report by Accidental Deaths and Suicides in India (ADSI), maintained by the National Crime Records Bureau (NCRB)¹. The National Building Code – NBC 2016 provides a comprehensive document which provides the fire safety requirements in the built environment.

Fire protection, suppression and prevention systems are an essential and basic minimum requirement for a safer built environment in India and beyond. For building '*Surakhsit Bharat*' (Safer India) the entire system must function as well-oiled machinery. The Bureau of Indian Standards (BIS) has developed and published National Building Code – NBC 2016 and has initiated revision too. A deeper understanding of standards facilitates ensuring safe design, safe construction, and deployment of safety measures in buildings.

With evolving technologies and construction trends, new safety challenges have emerged which demand immediate attention above and beyond the pre-existing safety challenges. With vertical growth in the built environment being an imperative, the associated safety challenges to address the tall buildings should be addressed through relevant amendments to codes. Other challenges which have emerged due to the commitment to decarbonization and the adoption of clean technologies – such as electric vehicles, energy storage systems integrated with renewable energy sources, and the use of a building's façade for energy conservation – bring new safety challenges. Addressing these emerging safety challenges requires standards, codes, and the involvement of skilled personnel.

Report and Recommendations:

The National Conference on Fire Risk Reduction and Mitigation was organized by the Directorate General-Fire Services, Civil Defense & Home Guards (DG-FSCDHG, Ministry of Home Affairs), Bureau of Indian Standards (BIS), Maharashtra Fire Services (MFS), UL Standards & Engagement (ULSE) and Fire & Security Association of India (FSAI) on August 25, 2023, at the Jio World Convention Centre, Mumbai. The conference was attended by more than 100 delegates and had 25 subject matter experts representing policymakers, regulators, industry, academia, and research organizations to present, discuss, deliberate, and provide recommendations on strategies for building a *'Surakhsit Bharat'* (Safer India).

¹National Crime Records Bureau, MHA, GOI, https://ncrb.gov.in/en/ADSI-2021



FSAI President Shri. Ajit Raghavan welcomed attendees to the unique, interactive conference aptly titled as 'Manthan – मंधन' designed for active participation of the subject matter experts and delegates. The inaugural session was presided by Shri. Sanjay Pant, deputy director general, standards – II, Bureau of Indian Standards and dr. David Steel, executive director, UL Standards & Engagement. The role of standards and effective implementation for 'Surakshit Bharat' was emphasized by the speakers.

Manthan had three topics identified to discuss and arrive at actionable outcomes on which the stakeholders would collaborate and contribute towards building safety solutions. The topics were broadly classified as:

- 1. Operational challenges and competency gaps to build
- 2. Enabling emerging technologies to build a safe secure sustainable India
- 3. National building codes (NBC) & standards for a safer India

Three panel discussions had industry leaders, research professionals, standards development organizations, international speakers and all other delegates participating through breakout sessions. The recommended outcomes are:

- 1. Effective and stringent implementation of national building code (NBC)
- 2. Continued awareness building on NBC amongst all the stakeholders and end users
- 3. Synchronize competency enhancements with the pace of infrastructure growth and technological advancement
- 4. More digital enablement
- 5. Standardized training programs and training at schools and colleges to prepare future generations along with refresher courses at regular intervals
- 6. Awareness of codes and standards, stringent implementation of applicable standards with training on inspection for continued compliance to the safety standards and codes
- 7. Developing, as well as adopting/adapting global standards which address conditions in India for safer deployment of emerging technologies
- 8. Build consumer awareness programs on safer use of emerging technologies
- 9. Stakeholder awareness on safety standards and continuously upgrade competency of safety professionals

A collaborative task force shall be formed with defined timelines for working on the recommendations above. The organizers seek volunteers from across the stakeholder community for drawing action plans for an effective implementation.

The agenda for the national conference was as follows:



मंथन (Manthan)

National Conference on the Fire Risk Reduction and Mitigation

Date: August 25, 2023

Time: 10:30 to 17:40

Venue: Jio World Convention Centre, Mumbai (Physical Event)

From	То	Topic of Discussion	Speaker details	
10:30	10:45	Welcome address	Shri. Ajit Raghavan	
10:45	11:00	Keynote address	Dr. David Steel	
11:00	11:15	Opening address	Shri. Sanjay Pant	
11:15	13:15	Panel Discussion-1: Operational Challenges and Competency Gaps in Capacity Building for Fire Safety	Moderator- Shri. Ashok Menon Panellist – 1. Shri. Ram Madhav Kshirsagar 2. Shri. P. V. Sunil Kumar, IPS 3. Dr. Judy Jeevarajan 4. Shri. Ravindra Ambulgekar 5. Shri. Moreshwar Kudkilwar 6. Shri. Atul Garg 7. Shri. Y. Nagi Reddy, IPS	
13:15	14:15	Networking Break and Lunch		
14:15	15:45	Panel Discussion-2: Technological Advancement & International Benchmark to effectively Mitigate Fire	Moderator- Shri. V. Manjunath Panellist- 1. Shri. Prashant Gururaj 2. Dr. D. K. Shami 3. Dr. Denice Durrant 4. Dr. Prabhat Rahangdale 5. Dr. Shorab Jain 6. Dr. Sarthak Sarangi, IPS	
15:45	16:00	Tea Break		
16:00	17:30	Panel Discussion-3: National Building Codes & Standards for Safer India	Moderator- Shri. Sandeep Goel Panellist – 1. Shri. ArunKumar Saravanan 2. Shri. Santosh S. Warick 3. Shri. Wilbert Fletcher 4. Shri. Brian O'Connor 5. Shri. C. Lakshmiprasad 6. Shri. Vinod Kapse 7. Shri. Mandar Sawant	
17:30	17:40	Summarisation of action points and concluding remarks	Shri. V. Manjunath	