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Letter to the Editor

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Lessons Learned From the Collapse of the Metropole Building, Iran, 2022

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Despite the revolution in architectural design and building construction in the 21st century, the number of building collapses is still increasing worldwide, especially in developing countries.[1] Building collapses can occur for a variety of reasons including terrorist incidents and bombings, natural disasters, and poor building construction.[2] There have been many such incidents in Iran such as the Plasco Building accident in 2017. At 12:30PM on May 23, 2022, a 10-storey commercial building located on Tahlenji Amiri Street in Abadan, Khuzestan province, Iran collapsed. The result was the complete destruction of the building, and 43 dead, and 37 injured individuals. According to the investigations, the cause of the accident was overloading inside the building and poor quality of building construction. The present study aims to explore the challenges, strengths, and lessons learned from the Abadan Metropole Building accident in Iran in 2022.

The strengths of the taken measures included: (1) the presence of specialized rescue teams on the scene, (2) the presence of rescue dogs on the scene, (3) the presence of 50 ambulances, 4 ambulance buses, and a helicopter for the immediate dispatch of the injured, and (4) quick identification of the bodies. However, the weaknesses of accident management included: (1) the lack of proper management of bystanders and their overcrowding, (2) lack of a command unit, (3) improper management of streets leading to the building and their overcrowding, (4) possibility of street riots for political reasons in the region, (5) disconnection of the Internet for political reasons for slowing down the transmission of information about the accident, (6) advertising shows and the presence of very important people on the scene of the accident, (7) lack of a single spokesperson for the accident, (8) lack of an incident command system, (9) the presence of a large number of rescue workers and the creation of chaos on the scene of the accident, (10) irrational marginalization of the building instead of proper incident management, (11) slow demolition process and confinement of a large number of residents in the building, (12) non-compliance with health protocols due to COVID-19, (13) poor risk communication on the site of the accident, (14) very slow management of corpses and the spread of stench in the accident area, (15) improper choice of the accident command (fire department), (16) delay in making decisions and focusing on decisions, (17) delay in sending the equipment needed for rescue and demolition processes, (18) unsafe buildings around the Metropole Building, and (19) poor security of the affected area.

The lessons learned for future accidents include: (1) the periodic inspection of high-rise buildings before, during, and after construction, (2) prevention of systematic corruption in construction projects, (3) dealing decisively with officials and engineers of buildings with poor safety, (4) setting up an incident command system in such incidents, (5) proper management of bystanders, (6) decisive presence of military forces to maintain security in the affected area, (7) assignment of tower construction projects to highly committed organizations, (8) not allowing the presence of politicians on the scene, (9) proper management of the number of relief forces based on the extent of the accident, (10) equipping all provinces with different types of debris removal equipment and rescue dogs, (11) permanent presence of safety managers in high-rise buildings, (12) dealing seriously with the perpetrators of a building collapse accident, and (13) strengthen risk communication on the scene.

Today, the collapse of high-rise buildings is not far-fetched, just as events like Plasco had already occurred in Tehran, Iran in 2017. This indicates that, unfortunately, the lessons learned from the previous incidents were not used, leading to the repetition of these incidents at different times and places. In developing and third-world countries, unfortunately, with the change of governments, and politicians, disaster management laws change and become more political, resulting in repeated trials, and errors in dealing with accidents. The presence of disaster managers with sufficient experience and knowledge can help with the proper management of these events. Policymakers and municipal managers can also help prevent such accidents by developing strict and coherent laws and properly managing the building supply chain from pre-construction to the construction stage. Finally, strict inspections can play a critical role in improving the safety of buildings.

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References

1. **Boateng FG.** Building safe and resilient cities: lessons from Ghana. *Moving from the Millennium to the Sustainable Development Goals*: Springer; 2020:267-93.
2. **Group WB.** *Building regulation for resilience: managing risks for safer cities*: World Bank; 2015.

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