**Building collapse**

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| THREE people died and many were injured in the Sukkur building collapse on Jan 2. A few days earlier, a building in Karachi fell. While its residents were evacuated, all their belongings were destroyed.  Not too long ago, a five-storey building in Lyari collapsed, killing over two dozen people and leaving many others maimed for life. Disappointingly, these incidents continue unabated, causing damage to life and property. Behind each of these tragedies is a common cause: countless built structures that are unfit for human habitation.  The authorities concerned continue to declare buildings dangerous, especially before monsoon rains. In June 2019, the Faisalabadmunicipalityissuednoticesto500 buildings` owners urging them to carry out major repairs to ensure the occupants` safety.  In Karachi`s old quarters, the Sindh Building Control Authority (SBCA) has declared several buildings dangerous. No one knows the exact number of similar abodes elsewhere in the city and beyond. Buildings with proper engineering design, construction and supervision f are much better in the face of various disasters. But the existence of such safe edifices is extremely limited. More common are informal building practices, which rely on little or no technical input. Such structures become living death traps.  Locations in southern Sindh, in and around Karachi, resort to self-built construction comprising reinforced cement concrete and cement sand blocks. Most locations in Sindh, central and northern Punjab and Khyber Pakhtunkhwa have reinforced or unreinforced brick construction, with some use of timber and stones subject to cost and availability. Enactments by the poor are usually clad in mud construction. Roofing material also varies from cast-in-situ concrete to reed thatching. Improper design exposes these structures to multiple risks.  Absence of soil investigation, basic foundations, inappropriate geometry of construction, poor or total lack of grading of construction materials, disproportionate use of reinforcement (wherever used), poor ventilation, absence of emergency exits, and faulty electrical and plumbing work render many a building un-utilisable. Poor wiring and conduit work has given rise to instances of building fires. Building management committees in residential and commercial complexes are not able to carry out essential repairs and maintenance.  It is well known that the 2005 earthquake in Azad Kashmir and KP led to a scientific assessment of threats and vulnerabilities in the built environment, which revealed a dire need to properly plan and design buildings with threshold parameters for safe human habitation. Due to lack of adequate land userestrictions in city and regional planning laws, master plan rules or by-laws, cities tend to expand in all directions, occupying even the most hazard-prone areas. Realising this, it was felt that a proper techno-legal regime needed to be established.  Through a consultative effort under the federal government`s supervision, a national building code was prepared and notified over a decade ago. Local and provincial authorities were advised to apply the same and devise specific frameworks according to their needs. In Sindh, it is mainly the SBCA that has jurisdiction over the province`s cities and settlements. For federal territories and military estates, cantonment boards and other bodies exercise building regulatory functions.  While key documents such as building codes and zoning regulations have been enacted, anarchy in the domain of construction still prevails. Nor do the agencies display much efficiency on the ground when calamity strikes. The limited capacity oflocal institutions, weak interface between field stakeholders (eg, petty contractors and material suppliers) with local bodies, and malpractice have also compounded this issue.  Immediate action isrequired by the authorities to examine unsafe structures and inidate repairs or evacuations accordingly.  Several practical considerations must be kept in mind. Mere promulgation of by-laws and bureaucratic enforcement will not yield positive results. There must be independent oversight of building control bodies to maintain transparency and operadonal efhciency; the Sindh Building Control Ordinance explicitly mandates an oversight committee. Efforts must be made to enhance and standardise the quality of construction materials, such as cement, sand, steel, bricks and blocks. Many pilot projects have proved that construction quality is greatly improved with better-quality basic materials. Vocational training programmes in masonry and other building trades is another key consideration. Pakistan has a solid institutional framework of technical and vocational authorities in each province that must be engaged to develop outputoriented training programmes based on sound need analysis. The writer is chairman, Department of Architecture & Planning, NED University, Karachi. |