
Guest editorial: Reducing risk at the human-built environment-hazard nexus

Guest editorial

421

Dear Readers,

In our intricate web of human-built environment-hazard relationships, the risk reduction at this nexus underpins the urgent need for robust scholarship and praxis. This special issue, “Reducing Risk at the Human-Built Environment-Hazard Nexus”, explored key themes on *Hazard and Risk Assessment, Disaster Displacement, Behaviour and Risk Perception, Hazard and Risk Assessment, Emergency Evacuation and Equity and Inclusion*. Nine articles herein cast a global gaze, drawing on diverse perspectives and research findings from Peru to Australia, Sri Lanka to Nigeria, Malawi, the UK and the Solomon Islands, offering readers an enriched, multi-contextual understanding of how we can navigate and negotiate our intricate entanglements with the environments we inhabit and the hazards we encounter.

In exploring *Hazard and Risk Assessment* for Disaster Resilience, three compelling studies illuminate the complexities of disaster resilience in diverse contexts. The first article scrutinised El Niño Southern Oscillation-driven disasters in Peru and uncovered a critical gap between national economic growth and built environment resilience, emphasising infrastructure vulnerability. The second article on Fuzzy Logic Approach for Measuring Flood Resilience at Community Level in Nigeria developed a novel model for assessment flood resilience at the community’ level. Drawing on a synthesis of fuzzy logic literature, the study effectively applies three inputs of community flood resilience dimensions: natural, socio-technical and socioeconomic. Despite differing expert inputs, the developed Fuzzy Inference System consistently generated resilience indices, demonstrating its potential to bolster flood resilience measurement at the community level. In contrast, the third study critically examines and consolidates Sri Lanka’s tsunami-resilient building guidelines, highlighting discrepancies with international practices. The juxtaposition of these three papers reinforces the global urgency for heightened disaster resilience and emphasises the importance of context-specific, localise relevant solutions in building resilience.

The Disaster Displacement theme produced a poignant Australian study that reveals that while displacement issues permeate policy, current approaches focus more on crisis management than pre-emptive planning, underscoring a gap in the comprehensive provision for the displaced persons in existing policies and regulatory frameworks. The study recommendations for policy interventions for disaster displacement governance.

Focusing on behaviour and risk perception in disasters, two articles offered compelling findings. The first investigated social resilience in flood-prone, low-income communities in Mzuzu City, Malawi. It established a dearth of correlation between six out of eleven examined indicators of social resilience and the expected outcome. This inferred the complexity of quantifying social resilience. The second article challenged the legitimacy and effectiveness of standardised indicators for “resilient cities”, arguing that their application often disregards the political nature of resilience and risk reduction. It highlighted that standardised solutions are often rhetorically appealing but fail to reduce disaster risks. The authors concluded by making a case for including political factors as indicators of measurement of resilient cities.



International Journal of Disaster
Resilience in the Built
Environment
Vol. 14 No. 4, 2023
pp. 421-422
© Emerald Publishing Limited
1759-5908
DOI 10.1108/IJDRBE-09-2023-164

When confronting disasters, a key thematic area that requires urgent attention and continued academic exploration is emergency safe evacuations, both during emergencies and in post-disaster planning and recovery phases. A prime facet of this discussion is the resilience of our infrastructure. With escalating climate change threats, assessing the robustness of pedestrian evacuation infrastructure becomes critical. The complexity was uncovered in task feasibility difficulties of comparing one part of the system with another. Each aspect, whether road capacity, signage visibility or welfare provisions during emergencies, deserves meticulous evaluation for enhancing the overall human survival rate. In the same breath, animal evacuation during disasters is imperative. Animal evacuation poses a unique and complex challenge that often gets overlooked. Animals, both domestic and livestock, become silent victims when disasters strike. Animals' survival, rescue and safety are inextricably linked with decisions and preparedness during emergencies. Notably, in the context of Australia, it becomes pertinent to accord to the Australian Animal Welfare Standards and Guidelines even amidst catastrophic situations. Hence, integrating efficient animal evacuation guidelines into local council emergency management plans can be a significant leap forward.

Addressing the theme of equity and inclusion in disaster resilience, a study underscored the vital role of community disaster committees, robust governance and multi-hazard building codes in informal settlements in the Solomon Islands. Emphasising individual preparedness and recovery is key to fostering resilience.

The nine articles within this special issue illuminate a rich tapestry of challenges and potential solutions at the intricate intersection of humans, the built environment and hazards. Each theme explored brings unique perspectives, from hazard and risk assessment, displacement, behaviour and risk perception and emergency evacuation to equity and inclusion. The special issue accentuated the critical importance of robust, context-specific and holistic strategies for risk reduction, bearing testament to the global urgency of fostering disaster resilience. As researchers navigate this complex web of reducing risks in human-built environments, these studies contribute specific delineations of the crucial pathways towards more inclusive, resilient futures, highlighting the intricate links between human action, environmental interactions and hazard risk. The global focal studies from Peru to the Solomon Islands heighten the universal relevance of these issues and the need for continued scholarly attention and praxis to enhance disaster resilience across multiple contexts.

Temitope Egbelakin

*School of Architecture and Built Environment,
University of Newcastle, Callaghan, Australia, and*

Jason Von Meding

*Florida Institute for Built Environment Resilience,
University of Florida, Gainesville, Florida, USA*