ICCAUA Proceedings Journal
Proceedings of the international conference of contemporary affairs in architecture and urbanism-ICCAUA
Volume 9 (December 2026), 2610007

Journal homepage: https://journal.iccaua.com/

ICCAUA Proceedings Journal

DOI: https://doi.org/10.38027/ICCAUA2026EN0007

Determining Universal Risks in the Sustainability of Post-Earthquake Temporary Housing

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Received: 17.04.2026
Revised: 19.06.2026
Accepted: 01.07.2026
Available online: 10.07.2026

This article has been selected and peer-reviewed for publication in this journal as part of the 9th International Conference of Contemporary Affairs in Architecture and Urbanism, held on 7–8 May 2026 in Istanbul, Türkiye.

Abstract

Post-earthquake temporary housing (PETH) is critical to disaster recovery but is prone to sustainability threats. This study systematically identifies and categorizes 24 universal risks of PETH, based on a PRISMA-guided systematic literature analysis (n = 23) of peer-reviewed articles indexed in the Web of Science (WoS). The emerging risks are grouped into four thematic sets: environmental, economic, social, and operational. Results show that economic risks, e.g., Lack of Cost-Effectiveness (EC4), Low Potential for Reuse of Temporary Structures (EC5), are the most widely reported in 12 countries, indicating their relevance worldwide.
This study presents a new cross-national risk-matrix conceptualization that integrates diverse findings. It serves as a reminder to move from short-term technical fixes to long-term strategic and sustainability-oriented post-disaster housing solutions. The presented framework may enable policymakers, designers, and disaster response actors to successfully reduce long-term vulnerabilities and increase the resilience of housing responses to future disasters. In the end, it offers a framework that can be used globally to aid evidence-based planning and policy-making in disaster-prone areas.
Keywords: Post-earthquake; Temporary housing; Sustainability risks; Systematic literature review; PRISMA; Disaster risk management..

1. Introduction

A disaster is a community or societal-level event causing disruption that results in an opportunity for human, material, economic, or environmental losses and impacts, and that overwhelms the community's or society's capacity to provide resources for emergency response (UNDRR, 2009). Post-disaster reconstruction is not simply physical rebuilding, but also social, economic, administrative and environmental sustenance. It must be addressed through comprehensive, strategic rather than by short-term, incremental measures.
Among natural disasters, earthquakes are one of the largest in terms of both loss and occurrence. Hence, earthquakes should be treated as any other disaster. Disaster management processes are generally considered triphasic: pre-disaster, during-disaster, and post-disaster phases (Alrehaili et al., 2022). Each stage necessitates varying preparation and interventional methodologies. In fact, there are critical activities such as emergency response, provision of provisional shelter, and undertakings for long-term recovery included in the post-disaster stage (Alexander, 2002). Among them, breaking the shelter—an essential human requirement—is one of the highest hurdles (Hosseini et al., 2021). Displaced persons (DPs) need safe and hygienic housing to help them return to everyday life while their permanent homes are being rebuilt; this is known as transitional housing (Collins et al., 2010; Davis, 1978; United Nations Disaster Relief Organization (UNDRO), 1982). Temporary Housing Units (THU) have been subject to criticism for their lack of a holistic approach to sustainability. Earthquakes also often result in mass displacement, making the provision of sufficient temporary housing a key factor in vulnerability reduction and protection of human dignity (Johnson et al., 2006). For this reason, it is critical to effectively coordinate post-earthquake temporary housing (PETH) activities to maintain social order, minimize secondary hazards and facilitate sustainable reconstruction.
Yet, even though its importance is undisputed, PETH is still conceived as a technical, short-term fix to a problem. Improper planning and execution of temporary housing systems can lead to multiple sustainability risks such as damage to the environment, social fragmentation, economic inefficiency and failure in operations (Collins et al., 2010; Johnson et al., 2006). These risks are often compounded by weak stakeholder collaboration, a disregard for localized design solutions, and a failure to plan for the community's long-term needs (Chang et al., 2017). Given these challenges, a prioritization of universal threats to post-earthquake temporary housing sustainability needs to be established. While a number of case-specific studies are available, a framework overarching similarities of risks in different contexts and for different types of disasters is lacking. In the absence of this information, decision makers may repeat past errors, overlook long-term effects, and select housing options that weaken community, resilience, and sustainability. By identifying

methodically such universal risks, this research contributes to the formulation of more processual, generic and resilient strategies in planning and managing temporary housing so that reconstruction is enabled to more adequately attending both immediate needs and long-term recovery in the future.

2. Literature Review

Recently, academics and practitioners have been paying increasing attention to the need to identify, classify, and manage these sustainability risks in a systematic manner so as to achieve the effectiveness of post-disaster sheltering activities (Johnson et al., 2006; Ohtomo and Hirose, 2021; Hosseini, 2016). The post-disaster temporary housing literature analyzes sustainability across various aspects by means of both support solutions and decision-aid approaches. For example, in Japan, Ohtomo and Hirose (2021) underlined the importance of social acceptance and behavioral elements in achieving sustainable sheltering, while in Iran, Hosseini (2016) incorporated sustainability factors into site-selection models. Post-disaster temporary housing should do more than provide shelter. Eren (2012) asserted this and highlighted economic, environmental and social sustainability, with modular box system proposed as feasible solution in the context of Türkiye. Modular systems are those that are manufactured in a factory and installed on site, have advantages like high speed of building, low cost, low impact in environment, adaptability and easy maintainability. Although this type of modular solutions does provide significant advantages in the shelter supply chain, their adoption in real disaster situations is however very much constrained. This take on establishing creative design potential while confronting real world constraints is a continuing debate in the literature. Hosseini et. al. (2020) observed that uncertainties such as suboptimal site selection, plan changes, and absence of dependable information exacerbate the adverse economic, societal, and environmental consequences of disasters.

Recent empirical evaluations underscore that operational disruptions and high life-cycle costs remain the most critical impediments to sustainable recovery planning worldwide (Hosseini et al., 2021; Perrucci & Baroud, 2020). Studies conducted across diverse geographic contexts identify a lack of cost-effectiveness and low potential for reuse of temporary structures as dominant, universal vulnerabilities (Avlar et al., 2023; Hosseini et al., 2020). Furthermore, widespread deficiencies in multi-scalar governance, unpredictable inventory demands, and unplanned land allocation processes routinely compromise structural efficiency in temporary settlements (Perrucci & Baroud, 2020; Perrucci et al., 2025). Mitigating these persistent socio-economic and institutional threats requires a strategic transition toward integrated, data-driven decision-making frameworks that harmonize immediate shelter provision with regional long-term resilience goals (Bologna, 2020; Hosseini et al., 2022).

To tackle the above problems, they developed a sustainability–based decision-support system model that takes local conditions, type of disaster, and housing characteristics into consideration by applying indices of economic, social, and environmental sustainability. Overall, these studies underpin that temporary housing provision should be recognized also as a critical factor in contributing to social recovery, resource use and sustainable development of the city (Eren, 2012; Hosseini et al., 2020). However, the literature is fragmented with risk factors scattered between different disciplines and case studies. Significantly, these risks are almost never analyzed within a sustainability framework, and thus a critical nexus is omitted on how challenges posed by temporary housing intersect with the environmental, social and economic facets of resilience.

Consequently, the preponderance of single-country and single-disaster case studies inhibits broader cross-country investigations and constrains the transferability of results at the world level. More critically, although international attention to sustainability-related disaster recovery is increasing, studies focusing on post-earthquake temporary housing seldom analyze risks from a sustainability perspective. The exclusion of this perspective, however, leaves a significant knowledge gap regarding how environmental, social, economic, and operational aspects are integrated into the forms and functions of temporary housing.

In this context, this research aims to fill this void by contributing to a systematic understanding of the major risks of post-earthquake temporary housing and examining how they manifest across different national contexts. Employing a systematic literature review following the PRISMA protocol and considering publications indexed in the Web of Science database, the article integrates 24 risk factors into four major thematic clusters. It is expected that the results will guide the loosening of current standards and the introduction of new standards with the aim of enhancing resilience of and sustainability in the provision of post-disaster sheltering options.

3. Materials and Methods

This study applied a methodological approach involving two stages. First, a systematic literature review (SLR) was performed, followed by a content analysis to evaluate the sustainability risks of PETH at the global level that was detected by the SLR.

SLR is significant for the valid and credible synthesis of pertinent studies; nonetheless, a number of reports of systematic reviews are still unclear and not transparent, which diminishes the validity of the findings. A worldwide group of experienced researchers and methodologists developed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement to address such concerns.

Within this context, an SLR as per PRISMA can be considered a robust scientific methodology, being the search for primary studies on a specific theme/application domain exhaustive, and the results are assessed through predefined inclusion and exclusion criteria (Okoli & Schabram, 2010; Brereton et al., 2007). The PRISMA protocol is executed through a four-stage flow diagram as follows: (1) identification, (2) screening, (3) eligibility, and (4) inclusion (Liberati et al., 2009). Following this, the SLR methodology outlined in Tranfield et al. (2003), Denyer and Tranfield (2009) and Macpherson and Jones (2010) was adopted to permit data collection to be systematic, transparent, neutral and replicable and was fully compliant with the PRISMA protocol.

In the present study, the source for data retrieval was the Web of Science (WoS) database. WoS has been proven to produce better performance of the algorithms than Scopus (Valderrama et al., 2015), further justifying why it should be regarded as the main source of data (Song et al., 2016). The data were extracted and filtered from WoS for the SLR by applying the principles of systematic review standards (Liberati et al., 2009; Lame, 2019). They are applied to a set of existing studies and sift the research to select relevant studies in the SLR process (Wohlin, 2014). Search string was as follows:
ALL FIELDS = "post-disaster temporary hous" OR "post disaster temporary hous" AND "post-disaster temporary shelter*" OR "post disaster temporary shelter*" AND "post-earthquake temporary hous*" OR "post earthquake temporary hous*" AND "post-earthquake temporary shelter*" OR "post earthquake temporary shelter*" AND “sustainabil*” AND “risk*”.
Here, the wildcard (*) was employed as a wildcard search operator to capture different word endings or spellings of the root words. The searches in July 2025 yielded 29 related articles. To retain methodological rigor, conference proceedings, books, and book chapters were not included because of persistent concerns about the trustworthiness of their peer-review process.
The inclusion criteria were as follows: (1) studies on post-disaster sustainability risk, (2) articles published in peer-reviewed academic journals, (3) indexed in SCI-E, SSCI, or AHCI, and (4) articles published within 10 years. This selection procedure ensures the reliability and academic integrity of the results since articles satisfying these criteria are often considered to be methodologically sound and possess a good scholarly reputation (Shi et al., 2020). The PRISMA protocol used for this SLR is depicted in Figure 1.

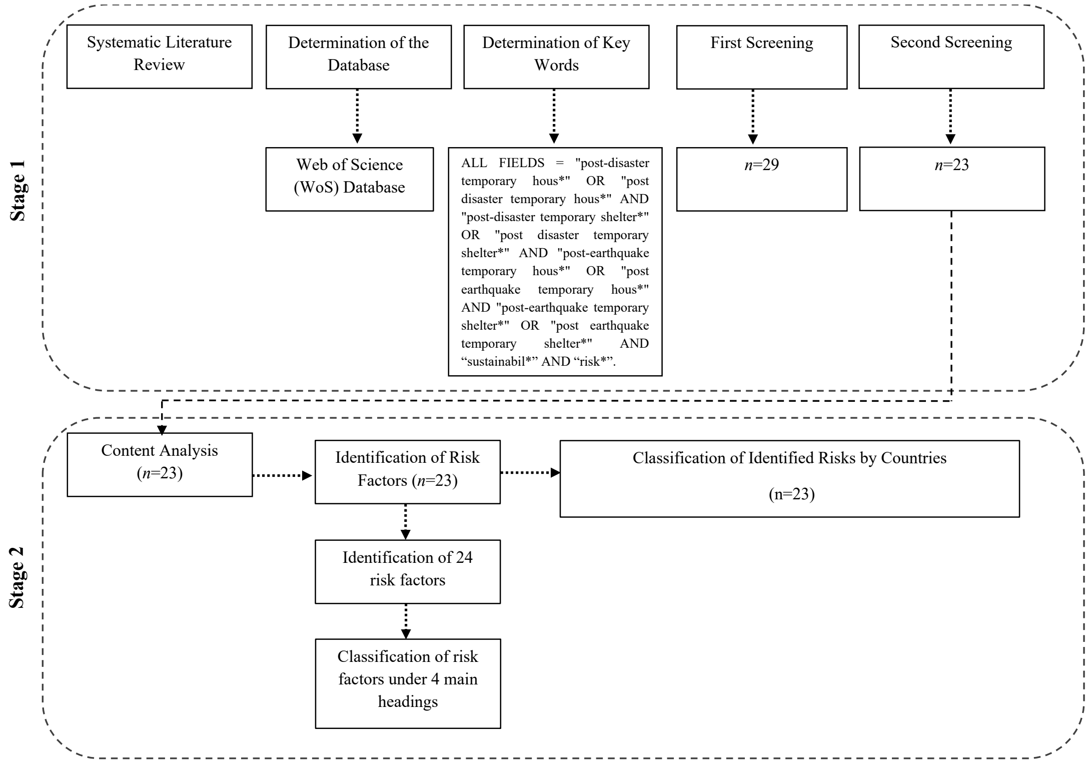

Figure 1. Method Flowchart (Developed by the Authors).

Following the application of all the inclusion and exclusion criteria, the researchers conducted a detailed analysis of the 23 articles and determined risk factors through content analysis, a qualitative method. The risk factors for each study were considered in detail and examined by frequency, context, and importance. Identified risks were clustered based on subject similarities, and subsequently, these risks were analyzed across the countries included in the articles.

4. Results and Discussion

As a result of the systematic literature review in the first stage, content analysis, which is a qualitative method, was applied to a total of 23 articles to thoroughly investigate the researchers. As a result of the analysis, 24 risk factors were identified (Table 1). Each study was reviewed in detail as risk factors were ascertained and the factors were considered for frequency, contextual relevancy and importance. Subsequently, the identified risks were thematically clustered and categorized into four main groups as follows.

Table 1. Sustainability Risks Related to PETH.

Coded	**Factor**	**References**
EN1	High Carbon Footprint	[1–14]
EN2	Energy Inefficiency	[1–11,13–15]
EN3	Use of Non-Recyclable Materials	[1–9,11,13]
EN4	Waste Management Problems	[1–5,7–14]
EN5	Overuse of Natural Resources	[1–11,13,14]
EN6	Lack of Adaptation to Climate Conditions	[1–11,13,14]
EC1	High Life Cycle Cost	[1–5,7–10,12–17]
EC2	Overestimation of Operation and Maintenance Costs	[3,4,8,15–17]
EC3	Resource Constraints	[1,3,8–20]
EC4	Lack of Cost-Effectiveness	[1–5,7–11,13–17]
EC5	Low Potential for Reuse of Temporary Structures	[1–5,7–13,15–17]
EC6	Unpredictable Demand and Inventory Management Challenges	[1,3,16–21]
SO1	Cultural Inappropriateness	[3,6,7,9,18,21–23]
SO2	Lack of Privacy	[3,6,7,18,21–23]
SO3	Psychological Health Problems	[3,7,18,21–23]
SO4	Weakening of Social Ties	[3,18,21–23]
SO5	User Dissatisfaction	[1–3,5–7,9,11,15,17,18,21–23]
SO6	Social Inequalities	[2,3,7,9,18,21–23]
OP1	Lack of Coordination Among Authorities	[1,3,7,12,14,16–20,23]
OP2	Unplanned Land Allocation Processes	[3,7,10,14,18]
OP3	Prime and Political Uncertainties	[3,7,10,14,18]
OP4	Lack of Long-Term Strategic Plan	[3,7,12,14,16–18,20,21]
OP5	Lack of Institutional Capacity	[1,3,7,9,10,12,14,16–20]
OP6	Inadequacy of Data-Based Decision Mechanisms	[1,3,9,10,14,17–20,23]

Notes: EN denotes Environmental; EC denotes Economic; SO denotes Social; OP denotes Operational.

[1] (Hosseini et al., 2020); [2] (Hosseini et al., 2021); [3] (Biswas and Puriya, 2020); [4] (Atmaca and Atmaca 2016); [5] (Afkhamiaghda et al., 2021); [6] (Reza et al., 2021); [7] (Biswas, 2019); [8] (Atmaca, 2017); [9] (Hosseini et al., 2003); [10] (Hosseini et al., 2016); [11] (Hosseini et al., 2020); [12] (Bologna, 2020); [13] (Avlar et al., 2023); [14] (Hosseini et al., 2022); [15] (Song et al., 2016); [16] (Perrucci and Baroud, 2021); [17] (Perrucci and Baroud, 2020); [18] (Oggioni et al., 2016); [19] (Perrucci et al., 2025); [20] (Wang et al., 2022); [21] (Watanabe and Maruyama, 2021); [22] (Sukhwani et al., 2021); [23] (Bris and Bendito, 2019).

In the second stage of the study, the goal was to categorize the 24 identified sustainability risk factors of PETH by country. A total of 23 studies analyzed through content analysis were assessed based on the countries where the risk factors appeared. The analysis showed that these studies covered 12 countries (Figure 2), and the country-specific distribution of risks is shown in Table 2.

Table 2. Distribution of Risks by Country Related to Sustainability Risks Related to PETH.

Coding	***Canada***	***China***	***Germany***	***Haiti***	***India***	***Indonesia***	***Iran***	***Italy***	***Japan***	***Korea***	***Türkiye***	***USA***
EN_1				x	x	x	x	x	x		x	x
EN_2				x	x	x	x	x	x		x	x
EN_3				x	x	x	x	x	x		x	x
EN_4				x	x	x	x	x	x		x	x
EN_5				x	x	x	x	x	x		x	x
EN_6				x	x	x	x	x	x		x	x
EC_1				x	x	x	x	x	x		x	x
EC_2	x	x	x					x	x	x	x	x
EC_3	x	x	x	x		x	x	x	x	x	x	x
EC_4	x	x	x	x	x	x	x	x	x	x	x	x
EC_5	x	x	x	x	x	x	x	x	x	x	x	x
EC_6	x	x	x	x		x	x	x	x	x	x	x
SO_1		x			x	x	x	x	x		x	x
SO_2		x			x	x		x	x		x	x
SO_3		x				x		x	x		x	x

SO_4		x				x			x		x	x
SO_5		x		x	x	x	x	x	x		x	x
SO_6		x				x	x	x	x		x	x
OP_1	x	x	x	x		x	x	x	x	x	x	x
OP_2						x	x	x			x	
OP_3						x	x	x			x	
OP_4	x	x	x			x	x	x	x	x	x	x
OP_5	x	x	x	x		x	x	x	x	x	x	x
OP_6		x		x		x	x		x		x	x

After assessing the risks identified within the study's scope on a country-by-country basis, the five most frequently cited risk factors are listed in Table 3.

Table 3. Top Six Universal Sustainability Risk Factors Related to PETH.

Ranking	*Code*	*Group Name*	*Risk Description*	*Number of Associated Countries*
1	*EC_4*	Economic	Lack of Cost-Effectiveness	12
2	*EC_5*	Economic	Low Potential for Reuse of Temporary Structures	12
3	*EC_3*	Economic	Resource Constraints	11
4	*EC_6*	Economic	Unpredictable Demand and Inventory Management Challenges	11
5	*OP_1*	Operational	Lack of Coordination Among Authorities	11
6	*OP_5*	Operational	Lack of Institutional Capacity	11

The result is an overview of the most severe problems, being the economic and technical risk, such as Lack of Cost-Effectiveness (EC4) and Low Potential for Reuse of Temporary Structures (EC5) that occurred in all 12 studied countries. These results give further support to the apprehensions presented by Johnson et al. (2006) and Hosseini et al. (2020a) that temporary housing is implemented with little to no consideration for the sustainability of use. Also, new operational problems (Lack of Coordination Among Authorities: OP1 and Lack of Institutional Capacity: OP5) were identified by 11 countries, adding credence to Chang et al.'s (2017) argument about gaps in governance in disaster housing logistics. These weaknesses at the systemic level illustrate the necessity of holistic planning that incorporates technical, institutional and socio-cultural considerations.

In contrast to previous research that concentrated on single countries (e.g., Eren, 2012 in Türkiye; Hosseini et al., 2021 in China), this study provides a global perspective, thereby enhancing the applicability of the results. It also enables comparisons, something a case-by-case approach cannot provide, and, as such, responds to a long-identified blind spot by Johnson et al. (2006), cross-national mapping of risk exposure. Furthermore, by incorporating risk elements like Cultural Inappropriateness (SO1) and Psychological Health Problems (SO3), the research broadens the notion of sustainability beyond the physical and economic facets.

The results have substantial implications for the design and delivery of temporary housing, suggesting that they should be based on modularity, reuse, and the integration with local contexts. Models such as the sustainability index model presented by Hosseini et al. (2020) can support authorities in selecting sites and in resource management. In addition, the often-cited Unplanned Land Allocation Processes (OP2) and the Inadequacy of Data-Based Decision Machineries (OP6) underline the urgency to institutionalize data-driven decision-support systems and pre-disaster scenario development. Disaster governance should involve community participation, particularly in areas of cultural diversity to mitigate social risks (such as User Dissatisfaction: SO5, and Social Inequalities: SO6).

The post-2025 academic discourse heavily emphasizes the integration of multi-dimensional risk assessment tools and advanced spatial analysis techniques to enhance the sustainability and resilience of disaster management strategies. Recent research underlines that effective post-disaster planning must comprehensively encapsulate both biophysical constraints and socioeconomic vulnerabilities to prevent operational failures. For instance, in the domain of site selection and infrastructure deployment, the utilization of spatial modeling frameworks—such as integrating the Best-Worst Method (BWM) with Geographic Information Systems (GIS)—presents high-precision pathways for determining optimal temporary shelter locations (Ersayin, 2025). Concurrently, from a technical perspective, optimizing these spatial models relies on precision environmental tracking, where capturing topographic indices, digital elevation models, and soil moisture variations becomes essential for mitigating field-level hydrological risks during structural deployment (Asfaw et al., 2025). Furthermore, risk management in sustainable construction projects increasingly demands the adoption of industrial assessment tools that can quantify operational hazards related to critical water and wastewater technologies, safeguarding the metabolic functions of temporary settlements (Trubetskaya et al., 2025; Wang et al., 2025). Beyond the engineering and spatial dimensions, contemporary frameworks argue that post-disaster housing solutions are deeply intertwined with broader social considerations, such as the direct impacts of hazards on the long-term health and livelihood stability of internally displaced populations (Gkoumas et al., 2025; Shah et al., 2025). Therefore, synthesizing multi-scalar risk factors within unified decision-support systems remains a foundational prerequisite for achieving holistic resilience in emergency sheltering operations.

The study contributes to the literature by providing a conceptualization on sustainability risks that caters both the discussion in academic as well as that in policy area. It fills a gap by organizing risks according to theme as well as geography—something that is uncommon in today's PETH literature. However, the analysis is confined by the reliance on published documentation, which may exclude informal or non-published local accounts. The risk typology can also be used in further studies with actual temporal data from field research, analyses of regional risk profiles, or examinations of how risk priorities change in recovery. There is also an essential requirement for multidisciplinary cooperation between architects, engineers and social scientists in disaster housing planning.

5. Conclusions

This paper presents a systematic derivation of 24 universal risks to sustainability in post-earthquake temporary housing (PETH), and categorizes them under 4 overarching themes: environmental, economic, social, and operational. Applying the PRISMA guidelines to peer-reviewed articles indexed on the Web of Science, the review reassembled dispersed knowledge into a comprehensive risk framework. Results show that the most recurrent risks - including non-cost-effectiveness, low potential for reuse of temporary structures, shortage of resources and coordination within institutions - can be found across countries, validating their importance and urgency at a global level.

These hazards and vulnerabilities suggest that PETH is not a short term or technical fix. Rather, it needs to be viewed as a critical element of long-term resilience planning that takes into account sustainability from the outset. The dominance of the financial and operational risks signals the need for improved planning, decision support, and governance. The cultural and psychosocial risk factors identified also highlight the need for more inclusive, community-based methodologies that honour local values and social relations.

In addition, through risk mapping across 12 countries, this research offers an evidence-based benchmark for comparative risk assessments and strategic policy formulation. The risk-based framework presented herein can enable policymakers, designers, and disaster response organizations to focus on interventions to mitigate long-term vulnerability and increase the resilience of future housing options. In contribution to the broader discourses on sustainable recovery, this paper argues for the adoption of integrated, multi-scalar and contextually informed approaches during post-disaster housing planning.

Acknowledgements

The authors express their sincere gratitude to the anonymous reviewers for their insightful comments and constructive suggestions, which significantly contributed to the improvement of the manuscript's clarity and overall quality.

Funding, Conflicts of Interest

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The authors declare that they have no conflict of interest.

Data Availability Statement

All data supporting the findings of this study are derived from publicly accessible sources. The literature dataset used in the analysis is available upon reasonable request from the corresponding author.

Institutional Review Board Statement

Not applicable. This study did not involve human participants or require primary data collection, and therefore, it did not necessitate ethical approval.

CRediT Author Statement

Merve Serter: Conceptualization, Methodology, Formal Analysis, Writing – Original Draft, Visualization.
Gülden Gümüşburun Ayalp: Conceptualization, Methodology, Writing – Original Draft, , Supervision, Validation, Writing – Review & Editing.

Reference List

Afkhamiaghda, M., Elwakil, E., & Kereshmeh, A. (2021). Creating a performance indicator for temporary housing. Canadian Journal of Civil Engineering, 48(9), 1093-1104. https://doi.org/10.1139/cjce-2020-0144

Alexander, D. (2002). Principles of emergency planning and management. Oxford University Press.

Alrehaili, N. R., Almutairi, Y. N., Alghamdi, H. M., & Almuthaybiri, M. S. (2022). A structural review on disaster management models and their contributions. International Journal of Disaster Management, 5(2), 93–108. https://doi.org/10.24815/ijdm.v5i2.27087

Asfaw, B. W., Fuka, D. R., Collick, A. S., White, R. R., & Easton, Z. M. (2025). Characterizing the topographic index as a tool to represent spatial soil moisture: The effect of classification approach, digital elevation model type, and resolution. Vadose Zone Journal , 24(4). https://doi.org/10.1002/vzj2.70031

Atmaca, A., & Atmaca, N. (2016). Comparative life cycle energy and cost analysis of post-disaster temporary housings. Applied Energy, 171, 429–443. https://doi.org/10.1016/j.apenergy.2016.03.058

Atmaca, N. (2017). Life-cycle assessment of post-disaster temporary housing. Building Research and Information, 45(5), 524–538. https://doi.org/10.1080/09613218.2015.1127116

Avlar, E., Limoncu, S., & Tızman, D. (2023). Post-earthquake temporary housing unit: CLT E-BOX. Journal of the Faculty of Engineering and Architecture of Gazi University, 38(1), 471–482. https://doi.org/10.17341/gazimmfd.1027894

Biswas, A. (2019). Exploring Indian post-disaster temporary housing strategy through a comparative review. International Journal of Disaster Resilience in the Built Environment, 10(1), 14–35. https://doi.org/10.1108/IJDRBE-09-2018-0037

Biswas, A., & Puriya, A. (2020). Comparative Assessment of Indian Post-Disaster Temporary Housing Strategies. Journal of Architectural Engineering, 26(1). https://doi.org/10.1061/(asce)ae.1943-5568.0000386

Bologna, R. (2020). Operational dimension of post-disaster housing temporality and technical control tools. TECHNE, 20, 213–221. https://doi.org/10.13128/techne-8232

Brereton, P., Kitchenham, B. A., Budgen, D., Turner, M., & Khalil, M. (2007). Lessons from applying the systematic literature review process within the software engineering domain. Journal of Systems and Software, 80(4), 571–583. https://doi.org/10.1016/j.jss.2006.07.009

Bris, P., & Bendito, F. (2019). Impact of Japanese post-disaster temporary housing areas' (THAs) design on mental and social health. International Journal of Environmental Research and Public Health, 16(23). https://doi.org/10.3390/ijerph16234757

Chang-Richards, Y., Wilkinson, S., Seville, E., & Brunsdon, D. (2017). Effects of a major disaster on skills shortages in the construction industry: Lessons learned from New Zealand. Engineering, Construction and Architectural Management, 24(1), 2–20. https://doi.org/10.1108/ECAM-03-2014-0044

Chang-Richards, Y., Wilkinson, S., Seville, E., & Brunsdon, D. (2017). Effects of a major disaster on skills shortages in the construction industry: Lessons learned from New Zealand. Engineering, Construction and Architectural Management, 24(1), 2–20. https://doi.org/10.1108/ECAM-03-2014-0044

Collins, S., Corsellis, T., & Vitale, A. (2010). Transitional shelter: understanding shelter from the emergency through reconstruction and beyond. ALNAP. Retrieved, 10(10), 2014.

Davis, I. (1978). Shelter after disaster. Oxford: Oxford Polytechnic Press.

Denyer, D., & Tranfield, D. (2009). Producing a systematic review. In D. A. Buchanan & A. Bryman (Eds.), The Sage handbook of organizational research methods (pp. 671–689). London: Sage.

Eren, O. (2012). A Proposal for Sustainable Temporary Housing Applications in Earthquake Zones in Turkey: Modular Box System Applications. Gazi University Journal of Science, 25(1), 269–287.

Eren, O. (2012). A Proposal for Sustainable Temporary Housing Applications in Earthquake Zones in Turkey: Modular Box System Applications. Gazi University Journal of Science, 25(1), 269–287.

Gkoumas, I., Mavridou, T., Seymour, V., & Nanos, N. (2025). Post-disaster housing and social considerations. In International Journal of Disaster Risk Reduction (Vol. 105537). Elsevier Ltd. https://doi.org/10.1016/j.ijdrr.2025.105537

Hosseini, M., Yazdani, M., Pons, O., & Hakim, S. J. S. (2021). Life-time performance of post-disaster temporary housing: A case study in Nanjing. Sustainable Cities and Society, 66, 102690. https://doi.org/10.1016/j.scs.2020.102690

Hosseini, S. M. A., De La Fuente, A., & Pons, O. (2016). Multi-criteria decision-making method for assessing the sustainability of post-disaster temporary housing units technologies: A case study in Bam, 2003. Sustainable Cities and Society, 20, 38–51. https://doi.org/10.1016/j.scs.2015.09.012

Hosseini, S. M. A., de la Fuente, A., & Pons, O. (2016). Multicriteria Decision-Making Method for Sustainable Site Location of Post-Disaster Temporary Housing in Urban Areas. Journal of Construction Engineering and Management, 142(9). https://doi.org/10.1061/(asce)co.1943-7862.0001137

Hosseini, S. M. A., Farahzadi, L., & Pons, O. (2021). Assessing the sustainability index of different post-disaster temporary housing unit configuration types. Journal of Building Engineering, 42. https://doi.org/10.1016/j.jobe.2021.102806

Hosseini, S. M. A., Ghalambordezfooly, R., & de la Fuente, A. (2022). Sustainability Model to Select Optimal Site Location for Temporary Housing Units: Combining GIS and the MIVES–Knapsack Model. Sustainability (Switzerland), 14(8). https://doi.org/10.3390/su14084453

Hosseini, S. M. A., Pons, O., & de la Fuente, A. (2020). A sustainability-based model for dealing with the uncertainties of post-disaster temporary housing. Sustainable and Resilient Infrastructure, 5(5), 330–348. https://doi.org/10.1080/23789689.2019.1583487

Hosseini, S. M. A., Yazdani, R., & Fuente, A. de la. (2020). Multi-objective interior design optimization method based on sustainability concepts for post-disaster temporary housing units. Building and Environment, 173. https://doi.org/10.1016/j.buildenv.2020.106742

Johnson, C., Lizarralde, G., & Davidson, C. (2006). A systems view of temporary housing projects in post-disaster reconstruction. Construction Management and Economics, 24(4), 367–378. https://doi.org/10.1080/01446190600567945

Lame, G. (2019). Systematic literature reviews: An introduction. Proceedings of the Design Society: International Conference on Engineering Design, 2019-August, 1633–1642. https://doi.org/10.1017/dsi.2019.169

Lame, G. (2019). Systematic literature reviews: An introduction. Proceedings of the Design Society: International Conference on Engineering Design, 2019-August, 1633–1642. https://doi.org/10.1017/dsi.2019.169

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., Clarke, M., Devereaux, P. J., Kleijnen, J., & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: Explanation and elaboration. PLoS Medicine, 6(7), e1000100. https://doi.org/10.1371/journal.pmed.1000100

Macpherson, A., & Jones, O. (2010). Strategies for the development of international journal publication in management learning. Management Learning, 41(2), 219–236. https://doi.org/10.1177/1350507609357393

Oggioni, C., Chelleri, L., & Forino, G. (2016). Challenges and Opportunities for Pre-disaster Strategic Planning in Post-disaster Temporary Housing Provision. Evidence from Earthquakes in Central Italy (2016-2017). IJPP-Italian Journal of Planning Practice, 9(1), 96–129.

Ohtomo, S., Hirose, Y., & Ohnuma, S. (2021). Public acceptance model for siting a repository of radioactive contaminated waste. Journal of Risk Research, 24(2), 215-227.

Okoli, C., & Schabram, K. (2010). A guide to conducting a systematic literature review of information systems research. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.1954824

Perrucci, D. V., & Baroud, H. (2021). Temporary housing operations: A simulation-based inventory management approach using the newsvendor model. International Journal of Disaster Risk Reduction, 65. https://doi.org/10.1016/j.ijdrr.2021.102512

Perrucci, D. V., Wilson, J., Brown, R., Mireles Camey, J., Doktycz, C., Perry, M., & Buitrago, G. C. (2025). Using the critical path method (CPM) for evaluating allocation potential of temporary housing units. Journal of Housing and the Built Environment. https://doi.org/10.1007/s10901-025-10196-z

Perrucci, D., & Baroud, H. (2020). A review of temporary housing management modeling: Trends in design strategies, optimization models, and decision-making methods. Sustainability (Switzerland), 12(24), 1–20. https://doi.org/10.3390/su122410388

Reza Mojahedi, M., Vafamehr, M., & Ekhlassi, A. (2021). Designing post-disaster temporary housing inspired by the housing of indigenous nomads of Iran. International Journal of Low-Carbon Technologies, 16(2), 436–446. https://doi.org/10.1093/ijlct/ctaa061

Shah, A. A., Ullah, W., Khan, N. A., Khan, A., Alotaibi, B. A., Alam, E., & Ullah, A. (2025). Health and livelihood impacts of flood hazards on internally displaced persons in Pakistan. International Journal of Disaster Risk Reduction, 119. https://doi.org/10.1016/j.ijdrr.2025.105295

Shi, J., Duan, K., Wu, G., Zhang, R., & Feng, X. (2020). Comprehensive metrological and content analysis of the public–private partnerships (PPPs) research field: a new bibliometric journey. Scientometrics, 124(3), 2145–2184. https://doi.org/10.1007/s11192-020-03607-1

Shi, J., Duan, K., Wu, G., Zhang, R., & Feng, X. (2020). Comprehensive metrological and content analysis of the public–private partnerships (PPPs) research field: a new bibliometric journey. Scientometrics, 124(3), 2145–2184. https://doi.org/10.1007/s11192-020-03607-1

Song, Y., Mithraratne, N., & Zhang, H. (2016). Life-time performance of post-disaster temporary housing: A case study in Nanjing. Energy and Buildings, 128, 394–404. https://doi.org/10.1016/j.enbuild.2016.07.019

Song, Y., Mithraratne, N., & Zhang, H. (2016). Life-time performance of post-disaster temporary housing: A case study in Nanjing. Energy and Buildings, 128, 394–404. https://doi.org/10.1016/j.enbuild.2016.07.019

Sukhwani, V., Napitupulu, H., Jingnan, D., Yamaji, M., & Shaw, R. (2021). Enhancing cultural adequacy in post-disaster temporary housing. Progress in Disaster Science, 11. https://doi.org/10.1016/j.pdisas.2021.100186

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. British Journal of Management, 14(3), 207–222. https://doi.org/10.1111/1467-8551.00375

Trubetskaya, A., Hennessy, A., Ryan, I., Stockil, K., & Gaskin, C. (2025). Industrial Assessment Tools of Risks Associated With Wastewater and Water Technologies. ACS ES&T Water, 5(10), 6131–6151. https://doi.org/10.1021/acsestwater.5c00839

United Nations Disaster Relief Organization (UNDRO). (1982). Shelter after disaster:Guidelines for assistance. New York: UN.

United Nations Office for Disaster Risk Reduction. (2009). 2009 UNISDR terminology on disaster risk reduction. United Nations. https://www.undrr.org/publication/2009-unisdr-terminology-disaster-risk-reduction

Valderrama-Zurián, J. C., Aguilar-Moya, R., Melero-Fuentes, D., & Aleixandre-Benavent, R. (2015). A systematic analysis of duplicate records in Scopus. Journal of Informetrics, 9(3), 570–576. https://doi.org/10.1016/j.joi.2015.05.002

Valderrama-Zurián, J. C., Aguilar-Moya, R., Melero-Fuentes, D., & Aleixandre-Benavent, R. (2015). A systematic analysis of duplicate records in Scopus. Journal of Informetrics, 9(3), 570–576. https://doi.org/10.1016/j.joi.2015.05.002

Wang, C., Costa, R., & Baker, J. (2022). Simulating Post-disaster Temporary Housing Needs for Displaced Households and Out-of-town Contractors. Earthquake Spectra, 38(4). https://doi.org/10.21203/rs.3.rs-1374097/v1

Wang, F., Antwi-Afari, M. F., Anwer, S., Umer, W., & Mehmood, I. (2025). Risk management in sustainable building projects: A systematic literature review and scientometric analysis. Cleaner Production Letters, 9. https://doi.org/10.1016/j.clpl.2025.100111

Watanabe, H., & Maruyama, T. (2021). Residential preference transitions of disaster victims: A case using three-wave panel data in Mashiki following the 2016 Kumamoto earthquake in Japan. International Journal of Disaster Risk Reduction, 54. https://doi.org/10.1016/j.ijdrr.2021.102062

Wohlin, C. (2014). Guidelines for snowballing in systematic literature studies and a replication in software engineering. Proceedings of the 18th International Conference on Evaluation and Assessment in Software Engineering, 1–0. https://doi.org/10.1145/2601248.2601268

Wohlin, C. (2014). Guidelines for snowballing in systematic literature studies and a replication in software engineering. Proceedings of the 18th International Conference on Evaluation and Assessment in Software Engineering, 1–0. https://doi.org/10.1145/2601248.2601268