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CALL FOR PAPERS: special issue

Climate Change Risk and Decision-Making

Guest Editors: Simon Foxell and Ian Cooper

Deadline for abstracts: 09 June 2025 (noon GMT)

What understandings and processes do built environment actors need to address mitigation and adaptation risks in the built environment?

Aims

How should built environment actors (individually and collectively) respond to the increasing risks resulting from the changes to the global and local climates? How can the sector improve its understanding of risk factors and potential responses? What obligations do decision-makers have to act and explain their actions relating to avoidance and mitigation of risk? What processes and shared understandings are needed for identifying, communicating and responding to climate risks? What are the appropriate approaches to thinking about and acting on built environment risk (across a spectrum from 'probability times consequences' to 'how far is safe enough' that locate risk in a larger cultural context?

The Special Issue will examine who owns (or should own) responsibility and accountability for making and recommending decisions about the production and management of the built environment in relation to climate risk. What are the qualities of the risks involved? Who will be impacted by them? And who is responsible/accountable for managing them throughout a building's/built environment's life cycle? What are the particular circumstances surrounding the longevity and interdependencies of the built environment and these responsibilities?

The Special Issue will explore the nature of risk assessment, examine case study responses to climate risk to and arising from the built environment at different scales (buildings, places, neighbourhoods, building stocks, cities, infrastructures etc), and address practical, educational and policy responses to that risk.

The aim will be to examine and discuss built environment decision-making in response to perceived climate risk, to propose a consistent language to describe it and to understand and test the validity of communication and decision-making processes that deal with climate risk in the built environment.

Context

Over the past several decades there has been an extensive discussion of climate impacts within the academic, practitioner and regulatory communities. This has led, in particular, to programmes to mitigate or slow down the pace of climate change, through better understanding, education, legislation, international treaties and agreements, practical (and impractical) solutions and the development of a huge body of research - including a substantial proportion relating to the built environment. There have also been attempts to ascertain whether any of this works in practice, although the continuing rise in levels of global carbon emissions suggest only modest levels of hope for a sufficient application of effective solutions (Friedlingstein *et al.* 2024).

Against the size of mitigation literature and practice there is a more limited output aimed at achieving and testing solutions that adapt the built environment to climate change as a result of past greenhouse gas emissions (UNEP 2022). Similarly, discussions and solutions for avoiding the impacts of climate change through strategic decision-making mainly focus on larger scale propositions such as climate-induced relocation of entire cities or settlements (managed retreat) rather than examine more everyday requirements (Marchman 2022).

In comparison there is even less information on assessing climate risk and practical implementation of responses to that risk; although some matters, often treated as stand-alone concerns, such as extreme weather events, flood risk and overheating have attracted considerable attention. This is potentially a consequence of limited structured discussion and training on risk issues and, as a result, the capacity or ability to assess, analyse and communicate future risk to or from the built environment, whether at a whole system or project level, is largely absent. This Special Issue is aimed at bringing together the work that is being done in this area, as the implications of climate risk become ever more evident.

Recent events; whether directly built environment-related, such as catastrophic structural collapses, fatalities from fires in high rise buildings and the impact of continent-wide heat waves; or pan-societal events such as the Covid pandemic of 2019-22; have made clear the need to envisage and to have adequately prepared for low probability, high impact events. It is preferable to ensure these are avoided altogether, but if not, then, at least, for significant harm reduction measures to have been put in place.

Risk identification

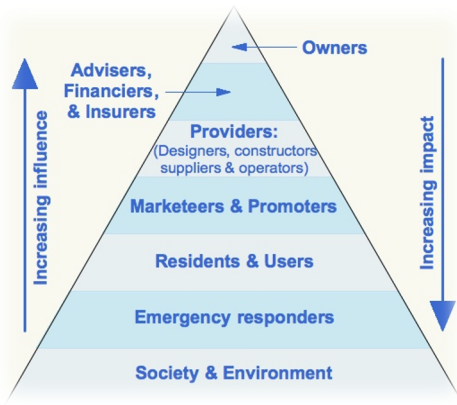
Multiple climate risks, to and from the built environment, have been identified by a wide range of individuals and organisations; including international, state, local, civic society and private bodies. There are readily available models available that provide probabilistic ranges for climate-related outcomes and many analyses emerging from these identify specific potential risks in terms of potential damage and likelihood. This has led not only to generalised concern over issues including the depopulation of cities, stranded assets or curtailment of available resources, but also to specific mapping of potential harms including wildfire, flooding and poor air quality (Alegria 2024). The challenge for the built environment professional sector is to develop an equivalent ability to identify risks resulting from climate change and their accompanying levels of hazard / impact and probability for relevant locations and populations as well as individual projects, and the expertise capable of recommending appropriate responses and actions.

Risks to the wider sector come in many forms (Reisinger 2020), as do potential solutions. Some hazards are one-off and apparently random, even when they can be seen to have a predictable overall frequency of occurrence. Other hazards increase in likelihood or harm level with each occurrence, especially as defences are incrementally weakened or structures deteriorate over time. Especially concerning are systemic hazards linked to other potential harms that may set off chains of events that cause cascading damage.

Given the longevity of built structures and their supporting infrastructures, it seems inevitable that almost all will face a range of climate-caused events, with greater and lesser degrees of threat, at some or more points during their lifecycle. They will largely be expected to survive them, especially as such conditions are already being predicted and should be allowed for. A duty of care also exists to protect the lives and livelihoods of inhabitants (accounting for different exposures and vulnerabilities), especially during adverse conditions. As likelihood ratings and projections covering these potential events are widely available; developers, designers, regulators, insurers and operators (individually and collectively) working in the built environment will need to know how to react and should be able to enact appropriate measures. Not responding to such warnings; without having made appropriate assessments, delivered warnings and recommended relevant actions; may come with severe consequences for those involved.

Responsibilities

Those responsible for making decisions in the built environment sector need to understand and factor in climate risk to their deliberations and proposals, but how should they approach this? In parallel sectors; some within the built environment, for example fire engineering, and in others like health and epidemiology, actuary analysis, investment economics and defence; an extensive set of approaches and systems for identifying, assessing and communicating risk has been developed. This, hardly unexpectedly, is especially true of climate science, which has created and established effective means of understanding and describing different risk profiles and their potential outcomes.



Who is then responsible for addressing climate risk in the built environment? A hierarchy of responsibility will include those who own, and may wish to transfer, the risk or are those responsible for identifying, assessing, managing and reducing it. Undoubtedly those who will bear the brunt of harmful events will be those at the bottom of the pyramid, occupiers and users as well as emergency responders, but others may share some of the financial risk and still others again much of the reputational harm that can occur.

The built environment sector has been grappling with these questions for some time now. What examples already exist of dealing effectively with risk? What lessons have been learnt? What tools, systems and protocols are already available for the sector to expand on or adapt from elsewhere to help it cope meaningfully and responsibly with future climate risk?

Suggested topics must be specific to the built environment and might include:

- **Understanding risk**
 - Making sense and societal understanding of risk
 - Sources of information
 - Risk profiles
 - Risk interdependencies
 - Worst case scenarios
 - Tolerability of risk
 - Tipping points and irreversible harms
 - Navigating risk
 - Future trends
- **Risk ownership and responsibilities**
 - Hierarchies and models of ownership
 - Risk transfer
 - Legal frameworks
 - Stranded assets
 - Managed retreat
- **Risk ethics**
 - Risk, morality and equity
 - Duties to and involvement of society and individuals
 - Professional and organisational ethics
 - Balancing responsibilities
- **Modelling risk and risk outcomes**
 - Assessment models (for building stocks & project stages: planning, design, construction, occupation, etc)
 - Economic models for risk / alternative approaches accounting for inequity and fairness
 - Choice and deployment of evidence
 - Framing and boundary setting
 - Metrics for assessing and quantifying climate risk
- **Risk management**
 - Risk avoidance
 - Climate adaptation
 - Resilience
 - Regulation
 - Behaviour change
 - Balancing options
 - Timescales
 - Emergency planning
- **Decision-making**
 - Scales of actions and agreements (international, national, regional, local, site-specific)
 - Policy-making
 - Decision-making processes and tools
 - Prioritization protocols
 - Forward programmes
- **Information management and communication**
 - Communicating and reporting risk and risk factors – to supply chain and to civil society
 - Guidance and advice
 - Whistleblowing

Proposed timeline

Deadline for abstract submission	09 June 2025 noon GMT	<i>NB: authors can submit sooner if they wish</i>
Full papers due	22 September 2025	
Referees' & editors' comments to authors	15 January 2026	
Final version of papers	16 February 2026	
Publication of special issue	April 2026	<i>NB: papers are published as soon as accepted</i>

Briefing note for contributors

We welcome contributions from the research community in both the Global North and Global South.

You are invited to submit an abstract for this special issue. Please send a **500 word (maximum) abstract** to editor **Richard Lorch** richard@rloch.net by **09 June 2025 (noon GMT)**.

Your submission must include these 3 items in one DOCX file:

1. the author's and all co-author's names, institutional & departmental affiliations and contact details, email addresses and ORCID numbers
2. the question(s) or topic(s) in this Call for Papers that the abstract and intended paper address
3. the abstract (500 words maximum) defining the research question(s), scope, methods and results

Abstracts will be reviewed by the editors to ensure a varied, yet integrated selection of papers around the topic. Authors of accepted abstracts will be invited to submit a **full paper (6000-8000 words)**, which undergoes a double-blind review process.

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Questions?

The Editors are happy to discuss ideas with potential authors. Please contact: **Richard Lorch** richard@rloch.net, **Simon Foxell** sf@architectspractice.com and **Ian Cooper** icooper@dircon.co.uk

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