Building governance and climate change: regulation and related polices

Guest editors: Edwin Chan and Jacques Laubscher

Background
Although the contribution of buildings to climate change is widely acknowledged, the rationale and the requirements of current building regulations largely originate from the past. Historical issues concerning the safety of building inhabitants are still the main influence on the present regulatory system for the built environment, although regulations involving energy efficiency have considerably developed over the past 40 years. When considering the limited development of building codes against the background of the Brundtland Report (1987), the lack in progress is notable. For example, current building regulations and related policies take little account of dwindling resource availability and the impact of future climate change on buildings. Current challenges in the built environment necessitate a different governance approach in terms of the nature and scope of concerns, when/how the regulations apply to the various stages of a building's life and its application to the existing building stock. This raises the question of whether the existing focus of building regulations and control policies should expand from issues of inhabitant health and safety to include a wider remit of environmental health and safety. This will challenge traditional regulatory roles and responsibilities. It also raises wider questions of what alternatives exist or can be created for the governance of these issues. One promising model is the cap-and-trade program for buildings recently introduced in Tokyo (see http://tiny.cc/trl7tx)

Purpose
This Building Research & Information (BRI) special issue will explore alternatives for the role, processes (and politics), the system and its institutional structures, the formulation, the content and the organization of governance (normally thought of as ‘building regulations and building control policies’ and the influence of standards) in the following areas:

- Alternative governance approaches (e.g. building performance and reducing energy performance gaps)
- The application of life cycle thinking to governance
- The potential for the inclusion of resilience strategies (for long-term uncertainties) into governance
- The balance between command and control regulations versus incentive schemes
- New roles for control and supervision: widening the focus from the design stage to monitoring the construction process, testing the quality of the final building and monitoring/adjusting its occupied performance
- The role of regulations and related polices for existing buildings and adaptive re-use of buildings
- The contradictions between regulation as a barrier (e.g. for the construction of affordable housing) and as protection (e.g. health & safety, climate change, etc)
- Unintended consequences (e.g. higher requirements leading to the demolition of existing buildings, etc)
- Institutional frameworks for regulatory systems or other forms of governance
- The risks and effects of path dependence in regulations

This BRI special issue will examine innovative approaches and systems, both statutory and voluntary, against the backdrop of traditional regulatory systems. It will illustrate different ways of thinking to address both mitigation and adaptation to climate change. (It will focus on real field data, not just case studies of different countries).

Briefing note to Contributors
You are invited to submit an abstract for a journal paper in this special issue of Building Research and Information (BRI). In the first instance, please send a 500 word (maximum) abstract to the editor in chief: Richard Lorch richard@rlorch.net by TUESDAY 07 APRIL 2015. The abstract should make explicit which of the above questions are being addressed. Abstracts will be reviewed by the editors to ensure a varied, yet integrated selection of papers around the topic of the special issue. Authors of accepted abstracts will then be invited to submit a full research paper (of approximately 6,000 words), which will be subject to a double-blind review process. The research papers and information papers should represent a balanced, critical and systematic examination of the ideas & options under investigation and must be supported by evidence. Details about the format, style and submission of full papers can be found on BRI’s website: http://tiny.cc/2af7tx
Possible questions addressing governance options and regimes:

**Existing buildings**
- How might regulation respond to an average predicted 2-3°C change in the climate?
- How should regulation engage with resilience? For example, energy shortages & intermittency (i.e. what happens when a building's operating system does not have access to energy supply?)
- What roles should regulations have over the life cycle of a building? Is there a need for flexibility during the different stages of the building life?
- Do regulations encourage and facilitate upgrading and green retrofits?
- How might regulations accommodate or promote a phased retrofit over extended period of time (10-20 years)?
- How should regulations address changing building use?
- What detrimental effects / unanticipated consequences occur when current or new regulations are applied to existing buildings?
- Should existing buildings be considered as individual units in relation to the application of (new) regulations, or should they be considered in an aggregate scale (at neighbourhood level)?

**Demolition**
- Should demolition of the building stock be allowed or more tightly controlled by regulation?
- What roles do governance and regulation have on slowing or increasing the rate of demolition?

**An incremental approach**
- What are the benefits and problems associated with implementing only one set of building regulations versus different sets?
  - How can these be assessed and evaluated?
- What regulations should be applicable to temporary/ demountable/ disposable structures?
- How should informal housing address the same requirements of the so-called “formal” building regulations?
- What aspects would a life cycle approach to the governance of buildings need to embrace?
- At what stages of a building’s life (and at what frequency in use) should buildings be assessed?
- What are the advantages and disadvantages of applying the same rule to different stages over the lifespan of a building?
- How can actual building performance data be used in governance, and in setting targets?
- How could green labelling schemes be deployed as part of an incremental approach?

**Heritage**
- How should building regulations / codes be applied to a heritage building? What constitutes exemption?
- When alterations are made to a heritage building, which areas conform to the regulatory requirements?
- What kind of policies and regulations are needed to facilitate conservation of built heritage?

**Regulatory challenges**
- How can the question of uniformity be addressed?
- Should all buildings in a particular region meet the same code, or could a grading scale be used?
- What kinds of enforcement are effective when owners or occupants ignore the requirements?
- How might a regulatory system address mass migration influx over a short time period?
- How can voluntary compliance / green labelling schemes be integrated with (existing or new) regulatory systems?
- Detrimental effects: how regulations contribute to new norms & higher expectations of comfort rather than saving energy?

**Finance / Cost**
- What are the real cost of building regulations (i.e. transaction, friction, externalities and indirect costs)?
- What are the long-term societal costs and benefits?
- How do other governance models (i.e. a cap-and-trade) compare?
- How and/or what incentive scheme could be applied?

**Climate change, extreme weather conditions and resilience**
- Are buildings presently capable of facing extreme climatic conditions?
- Should regulations stipulate building’s resilience for extreme weather conditions?
- What roles can governance play to identify & incentivise buildings that offer aspects of resilience (e.g. heatwave refuge, etc)?

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**Questions?**
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