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**Item title:** Transport, Climate Change and the City

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Zegras, C. (2015). Transport, Climate Change and the City. *Transport Reviews*, 35(5), 672–674.  
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Book review of:

*Transport, Climate Change and the City*, by Robin Hickman and David Banister, published by Routledge, 2014.

Trying to understand what the future may hold and preparing for that future is the essence of planning. Uncertainty pervades planning and, typically, the further out the time horizon, the greater the uncertainties. For urban transportation planning, key long-term uncertainties relate to: technological evolution (across a range of communication, architectural, mobility, and fabrication technologies), societal and cultural factors (lifestyle preferences, attitudes, etc.), project implementation (e.g., time to deliver and consumer up-take), etc. Among the uncertainties, climate change looms large: both due to the scale, scope and timing of possible changes and their ultimate societal and ecological impacts.

To confront the latter uncertainty, Hickman and Banister have written a sprawling book – packed with a sometimes distracting mix of illustrations, quips and quotes from a range of media, scholars, artists, entertainers, etc. The book endeavors to help reduce climate change dangers by charting lower carbon urban transport futures, using “scenario building” as the methodological engine, and five case cities as the fuel. The roadmap starts with a predictably depressing outlook: arguing our continuously motorizing planet poses a major challenge to global sustainability and traditional planning approaches, and that status quo political and institutional capabilities cannot adequately respond to the challenge. Chapter 2 frames the approach, “scenario building” with backcasting, as an alternative to “conventional transport planning,” to help us transition onto a more sustainable path. The following five chapters detail case studies, ranging from megacities (Delhi, Greater London) to modest-size metropolises (Auckland, Oxfordshire) and a mid-size (by Chinese standards) Chinese one (Jinan). The authors conclude with methodological reflections and lessons, their distillation of common “components” of low carbon urban transport backcasted from 2030, and a call for using more “progressive” governance and greater public participation to “move beyond the hyperreality of car dependency.”

In some sense, the book reveals the conflict that Wachs (2001) suggests as one of the “defining characteristics” of the planning field: planners are both advocates trying to shape the future and technocrats simply accommodating it. Hickman and Banister deploy scenario techniques to play the advocate’s role here. They indict both conventional forecasting, as the “dominant methodology” in urban transport planning, and the roadway-oriented value system within a “socio-technical regime” that perpetuates itself in self-fulfilling policies and investments. The authors use the case studies, carried out over the period 2007-2012, in an effort to illustrate how scenario analysis with participatory methods can be used to help break this “lock-in” and achieve sustainable urban transport objectives.

With the cases, the authors have undertaken a difficult task, as each case on its own tells a full story. Integrated into a single volume they sometimes tend towards repetition, despite the variations in contexts and in the details in the approaches employed. The book would have benefitted from a chapter overviewing the cases, introducing, comparatively, key characteristics of relevance (e.g., income levels, mode shares, governance structures), the macro-forces at play in common across the places (such as global equity of emissions reductions targets), “emerging lessons” from exemplar cities, and the specifics of the analysis approach used in each place. This would streamline the cases themselves, aid in

understanding their generalizability, help many readers relate more directly to the cases, and improve the synthetic power of the argument.

Hickman and Banister argue that the climate change imperative requires “major bending” of current trends and they place “the development of scenarios” as “the central approach” in a stakeholder-driven process to generate a new vision and “concerted action.” Towards this end, the book’s contribution could have been strengthened with more details on the actual scenario exercises conducted in each case – thereby providing a valuable guide for practitioners and others to learn from. Is visioning, planning, policy-making and implementation necessarily different in Jinan versus Auckland? How can the approach be adapted to Boston, Buenos Aires, Dubai, or Durban? Relatedly, scenario planning proponents have long claimed the value of the process itself as a way of changing cognitive biases, building capacity, and improving organizations and cooperation (e.g., Wack, 1985). Hickman and Banister share this view and seem to suggest that participatory scenario planning can play a role in enhancing the “governance and governmentality” needed for meaningfully lower carbon urban transport futures. Yet, the pathway to urban transport “better governance” remains foggy and the potential for scenario planning to aid in clearing that fog remains more promise than reality, despite some efforts to examine this empirically (e.g., Zegras and Rayle, 2012). The cases presented in this book missed a prime opportunity to test the governance and institutional impacts of the scenario exercises conducted.

We need an alternative vision for a more sustainable planet and quick and large steps to move in that direction. This book challenges us to think boldly about lower carbon urban mobility futures and provides foundational pieces for doing so. We can build on this foundation in at least two ways. First, we need to challenge our own premises and conventional thinking. Certainly, urban transportation is a piece in achieving a lower carbon future, but we must remember that freight – and supply chains more generally - is a key piece of the urban transportation puzzle. Furthermore, much of our mobility’s carbon footprint extends beyond the urban boundary, and more efficient urban travel behaviors may simply rebound into longer (and more carbon-intensive) long-distance travel (e.g., Holz-Rau, et al. 2014). Also, low carbon futures must take a life-cycle accounting perspective, whether it be for biofuels or electric powered modes; in Jinan, for example, electric mobility has little hope in providing a lower carbon alternative without de-coaling Shandong Province’s electricity supply. Finally, viewing mobility’s carbon footprint in isolation of other urban systems (e.g., buildings) may produce unintended net consequences.

Second, we should revisit the key uncertainties underlying the possibilities to achieve long-term low carbon mobility in the next 30 years. There’s a good chance that some of those uncertainties fall outside our models – computational or mental – as they may relate to developments in robotics, nano-technologies, virtualization, digital fabrication, and the ever-shrinking, ever-more-powerful, increasingly ubiquitous personal mobile devices, epitomized by the smartphone. Evidence is already emerging that these technologies are disrupting the way we understand, plan and operate mobility systems. Arguably, every transportation revolution has been marked by a new technology (the wheel, steam engine, steel rails, automobiles, autobahns). The climate challenge demands a mobility revolution – I suspect we may not see it coming.

## References

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