



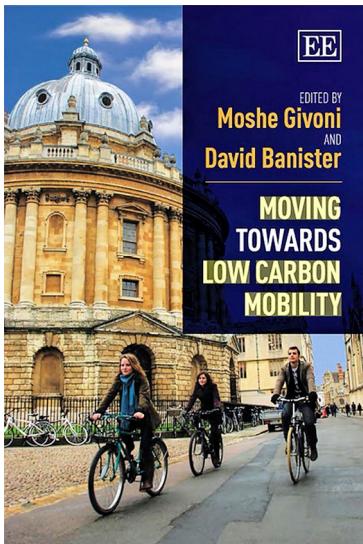
BOOK ‘MOVING TOWARDS LOW CARBON MOBILITY’ REVIEW

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Submitted 19 February 2014; accepted 27 March 2014

Reference to this paper should be made as follows: Bruun, E. 2014. Book ‘Moving towards low carbon mobility’ review, *Transport* 29(3): 342–344. <http://dx.doi.org/10.3846/16484142.2014.926447>



I have read this book (Givoni, Banister 2013) considering two target audiences – firstly, university students and secondly, practitioners in consulting companies and public agencies tasked with trying to develop plans and policies. I come to different conclusions for each audience. Then, I considered a third audience: would elected officials and other important decision makers read such a book?

The book is in two parts. *The first part* is designed to focus on an array of key elements needed to understand the issues involved in reducing carbon use substantially. It is a compilation of chapters by highly knowledgeable authors: Eda Beyazit, Julia Markovich, James Macmillen, Robin Hickman, Malek Al-Chalabi, Justin Bishop, Martino Tran, Nihan Akyelken, Jian Liu, Andre Neves. *The second part* discusses possible paths forward in light of

all of these issues, with chapters by the editors plus Tim Schwanen and James Macmillen.

The first part of this book is admirable in its comprehensive coverage, including the topics of mobility cultures, accessibility and equity, governance and policy, urbanization and the future, unpacking travel behavior, technology, future energy mix, finance and investment, supply chains, the environment, and finally, mobility as a complex system. I have minor quibbles, at most, with the accuracy and relevance of the content. The book would be an extremely good primer for university students who are relatively new to the field. It makes quite clear how wide the topic really is and how serious the interactions and unintended consequences can be when any particular aspect of the transport system is changed.

But, for seasoned practitioners, it is largely preaching to the choir. As someone who has spent a large part of his career in consulting, I have found most of my colleagues who have been working for a few years to be quite well read. Exceptions are specialists who might need a briefing on some subtopics, like transit experts who want to learn more about logistics’ impact on the environment, and vice versa. Many have even been quite involved in research, albeit usually focused upon a specific target nation or region, due to their professional responsibilities. This brings me to the one shortcoming of the book; it mostly references academic authors and thus posits research questions that have actually been explored in some detail in numerous specific instances. These results simply do not always make it into academic journals or proceedings.

To give one important example: Flyvbjerg *et al.* (2003, 2004) major papers about infrastructure costs are referenced. They claimed that ex-post studies are not usually performed, and it may have been true in

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the past. Yet this is out of date. See the ex-post study highlight compilation by Henry and Dobbs (2013), for example. The academic literature can lead readers to the conclusion that rail projects are mostly high risk and almost always underestimated in cost and this is certainly used to advantage by opponents of transit projects. Most major new LRT (Light Rail Transit) projects of which I have followed over the last 15 years have included an internally conducted survey of peers at the early stages in order to increase the accuracy of cost estimates and ridership forecasts before contracting begins. They usually show that the majority come in quite close to estimates. The exceptions generally have high risk elements like tunnels and river crossings or major delays caused by funding shortages or legal disputes. Some have even come in well under budget lately, due to a shortage of work in the construction industry and very competitive pricing. If improving PT (Public Transport) is urgent, as this book does indeed argue, this implies that now would be an excellent time to execute projects whose designs can be completed in a short period of time.

One more example: Metz (2008) paper is referenced. It does provide clear evidence that disappearance of time savings is true for the UK and it caused quite a stir in the academic community with numerous responses in following issues of *Transport Reviews*, where it was originally published. Yet similar arguments have been made for at least two decades in a variety of locations. Testimony at public hearings in the US by environmental activists and community preservationists fighting freeways would regularly argue that speeding up traffic only promotes sprawl and does not save time. Enough evidence has been available from enough locations that the overrated importance of travel time savings in cost-benefit analyses has been taken as a given by many planners and activists for a long time.

This brings us to the second part of the book. It includes chapters about alternative pathways to lower carbon, sociotechnical approaches to transition (as opposed to merely technocratic), issues specific to city transport, and suggestions about how to change thinking about transport. Many planning and engineering practitioners have not been exposed to the writings of sociologists, political scientists, social geographers and other social researchers. They provide some very useful frameworks for understanding and organizing coherent packages of policies and plans/projects.

The second part of this book and selected chapters from the first one could be used in tandem with additional materials to develop continuing education courses for a more advanced audience. Specifically, interesting findings could be compiled and case studies selected. These case studies should include both recommendations for major regional or national policy revisions and major transportation system design plans/projects. In this way, academic and consultant/agency studies can be merged to speed up learning processes about what already has been proven effective and what might be effective in moving towards low carbon mobility the next

time around. Criteria for case study selection could include:

- *Relevance*:
 - issues of national or regional concern;
 - nation(s) or regions affected;
- *Quality and clarity*:
 - top goals clearly stated;
 - objectives used to measure success well selected and justified;
 - thoroughness of data collection and analysis;
 - techniques and reforms suggested;
- *Documentation about follow up and implementation*:
 - what techniques and reforms actually worked (or not);
 - information availability about reasons for successes and failures.

The case studies could be deconstructed using Moshe Givoni's pathway analysis as to their likely long-term impact if fully implemented. Path A is Mobility with Lower Emissions, B is Growth with Lower Mobility and C is Changing Lifestyle. Or deconstruct using Tim Schwanen's clear exposition of MLP (Multi-Level Perspective), which consists of three interacting processes:

- niche innovations;
- landscape changes, i.e. the context under which recommendations and plans/projects are put forth;
- regime destabilization, which provides niches an opportunity to be scaled up and create a new regime.

Creation of such courses would also help academics to identify and focus where new research is genuinely needed rather than disseminated. But to be clear, the main thrust of this book is not that more and better research is central. To the contrary, it is clearly argued that 'innovation is centre stage' that almost the entire research establishment is focused upon this, and that this is simply not enough. In their last chapter, the aforementioned four authors jointly explain the need for change in transport thinking, and provide some guiding principles for new policies that involve change far beyond the transport system itself as traditionally defined.

The third audience, the high-level decision-makers, would benefit the most from the information in a book such as this one. But they are not going to read it. Those of us living in the US or UK, for example, suffer from a lack of proportional representation. As a consequence, national-level institutions are largely unconcerned with what kind of future the electorate wants. In the US, neither the President nor Congress currently favors an increase in the federal gasoline tax, which has not been raised in 20 years. Never mind externalities or making low carbon promoting investments – they won't even accept responsibility for raising the revenue required to maintain the existing infrastructure in good order. In the UK, on the other hand, its petrol tax is already one of the highest in Europe, yet the Central Government still refuses most transit investment outside of London. It

still clings to far-right wing ideology that private transit would be unfairly hurt from such investment, unconcerned that cities have been largely robbed of the right to plan their own destinies (modest quality bus partnerships notwithstanding).

By consistently asking for more investment in transit instead of highways, the United States Conference of Mayors (2009) shows its members are concerned about climate change and are responsive to citizen opinion, as polls show (Metro Magazine 2012). The UK Department for Transport (2006, 2012) writes reports saying that the public wants improvements to their bus and rail systems. Many cities, particularly in Europe, already have plans that would push towards low carbon development very much in line with what David Banister suggests in his final chapter. But very few cities have sufficient resources and are dependent upon assistance from the national government, and thus fall victim to ongoing austerity policies.

This is a fine book with no shortage of up-to-date facts and figures or cogent arguments. But in their closing chapter, the authors definitely underestimate the problems involved in trying to reduce global warming. A lot more needs to be changed than methods of evaluation and ways of thinking about transport. Higher levels of government largely ignore public opinion and ignore studies done by lower levels of government. A much more fundamental problem is the disconnection between politicians and the constituencies they are supposed to serve.

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