

Review: Transportation in a Climate-Constrained World

Andreas Schäfer, John B. Heywood, Henry D. Jacoby, and Ian A. Waitz (Eds.)

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Schäfer, Andreas, Heywood, John B., Jacoby, Henry D. and Waitz, Ian A. (Eds.). *Transportation in a Climate-Constrained World*. Cambridge, MA: MIT Press, 2009. xiii + 340 pp. ISBN: 9780262512343. US\$27.00, paper. Alkaline paper.

Whatever drivers think and wonder when they are stuck in their daily traffic jam, this rigorous book provides the answers! Addressing the costs of fuel and pollution, *Transportation in a Climate-Constrained World* is a detailed and precise demonstration about the possible consequences of overusing car transportation in our cities. In the (unsigned) preface, we are told that "this book is the first attempt to systematically integrate the various factors affecting GHG [greenhouse gas] emissions for all major modes of passenger transport on a U.S. and global scale" (p.vii). While countries in the European Union are imposing policies in order to meet the targets of the Kyoto Protocol, the U.S. does not (p.18). Therefore, the authors propose various solutions and strategies but, being aware of how difficult "changes for less" can be in a context of growing demand for travel, they "review the structural challenges that face the policy approaches that would be required to overcome them" (p.18). Even though the authors focus on the U.S., other countries are mentioned here and there.

Oddly, the first two chapters are perhaps the most demanding, mainly because they carry an impressive amount of data, formulas, and figures (that sociologists, economists and statisticians will surely appreciate). However, they are prerequisites for this admirable reflection about the various ways to reduce our energy consumption, energy efficiency, increasing levels of traffic congestion (p.52), with examples of transportation substitutes like telecommunications at work through electronic commerce (p.57). Perhaps the most stimulating, chapter 4 focuses on the new vehicle technologies like hybrid and electric cars, asking for example if more energy efficient engines would be worth their higher cost, and comparing their potential prices (p.122). Chapter 5 raises questions about how to improve the efficiency of aircraft propulsion, providing numbers and possible strategies for travelers. Chapter 6 investigates alternative energies, unconventional oil, compressed natural gas, hydrogen, questioning their potential for large-scale application (p.220). New technologies already exist, but "without public policy to support these improvements, their cost will limit their contribution to controlling ever-rising GHG emissions" (p. 221).

Finally, chapters 7 and 8 suggest some possible and perhaps inevitable choices in future policies: less car users, more public transportation, and more insensitive from governments. Another issue that could also be discussed would be urban planning: are cities now too big?

I liked this book. In many passages, the authors succeeded by putting their finger on some social problems that have limited our strategies to reduce energy consumption: "the rising share of urban travel" (p.84), the "limited consumer reaction to changing fuel prices" (p.85), or the "passenger response to changes in airline fares," depending if these moves are for leisure or business trips (p.96). Their style is sometimes complex, but at other moments light or concise, for example when they use the horse carriage metaphor in order to explain today's emissions and pollution emerging from cars (and previously from horses) (p.2). However, contrary to what the authors argued in their preface and despite its numerous qualities, I am not sure this dense book would be relevant or accessible for a general audience (p.vii). But on the other hand, I believe *Transportation in a Climate-Constrained World* will be very instructive for scholars in governance and public policy, but as well for environmentalists, social scientists, policymakers, and advanced undergraduates.

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