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Book review

Unsustainable Transport and Transition in China, Becky P.Y. Loo. Routledge, London (2018). (£115.00 (hardback); £39.98 (paperback, epub). ISBN 978-1-138-93451-1)

China has been undergoing rapid urbanisation and motorisation since its reform and opening-up policy was implemented. As the world's largest developing country, China's transport-related problems (e.g., transport carbon emissions, traffic congestion, traffic injury burden) have put great pressure on its sustainable development path (Pucher et al., 2007). The renowned transport geographer Professor Becky P.Y. Loo offers insights into key issues and challenges of unsustainable transport in China.

This book is one of a series of three Routledge Studies in Transport, Environment and Development. The purpose of this book is to explore the main topics, problems, and emerging strategies to improve transport sustainability in China. This book is a timely contribution to the literature concerning the pertinent topics and challenges of unsustainable transport in developing countries. The book is notable for three reasons: the book (1) presents a conceptual framework for analysing transport sustainability and potential solutions from the perspective of three spatial levels; (2) establishes a baseline and investigates unsustainable transport and transition in China in the year 2030 and beyond; and (3) provides a detailed analysis of unsustainable transport problems and challenges faced by China, based on rigorous statistical analysis and detailed fieldwork.

The book comprises nine chapters. Chapter 1 presents a brief introduction of the research aims and objectives, study approach, research design, and book organisation.

Chapter 2 first describes the three-pillar conception of social, economic, and environmental sustainability. Emphasis is placed on sustainable transport, including elements of transport systems, the accessibility concept, and the mobility concept. Chapter 2 then discusses transport sustainability concerns and debates in China by highlighting that road transport and rapid motorisation have resulted in rapidly increasing CO_2 emissions, traffic congestion, and traffic injuries.

Chapter 3 conducts an international comparison of transport development from the perspective of the economic, environmental, and social dimensions. A wide range of indicators which can quantify traffic volume, transport carbon emissions, and road fatalities are used in the cross-country statistical comparison. Through the international benchmarking, the statistical analysis identifies strengths and weaknesses of the sustainability and transport performance in China. The results show that although China performs poorly on some indicators, China does well in some areas. Notably, developed and developing economies have had successful aspects of transport sustainability and provide lessons that can be learnt (Loo and Banister, 2016).

Chapter 4 reviews and makes projections regarding China's economic growth and urbanisation for 2030 and beyond; proposes that high-technology vehicles and systems are potential solutions to unsustainable transport problems in China associated with large-scale economic development and rapid urbanisation; and expresses great concern regarding the sustainable transport transition in the context of China's increasing income disparity.

Chapter 5 proposes ten key mobility drivers: population, gross domestic product, motorisation, road network, current transport performance, current bus services, energy, availability of government support, citizens` expenditure on transport, and road fatalities. The largest 100 cities in population in China are selected and grouped into three city clusters that share similar transport challenges and opportunities, on the basis of statistical similarities on transport sustainability.

Chapter 6 provides a detailed analysis of the major characteristics of the ten key mobility drivers in three types of city clusters. After comparing growth potentials of the city clusters, the chapter explores potential solutions to emerging transport problems in their transition.

Chapter 7 discusses key advantages and potential disadvantages of emerging sustainable transport modes, including Bus Rapid Transit, bike/electric bike, light rail, Metro, and electric cars; discusses the concept of transit-oriented development and the smart growth strategy, which can improve transport sustainability in the long-run; emphasises that transport should be recognised as a major economic sector, due to its great significance in promoting economic development; and recommends initial strategies for sustainable transport for three types of city clusters.

Chapter 8 explores the applicability and feasibility of the proposed transport strategies in the local contexts of the three city clusters. Maoming, Changsha, and Beijing are selected as case studies. The proposed sustainable transport strategies for the respective city clusters are modified based on findings from the local-level questionnaire survey and observational survey.

Chapter 9 concludes. This chapter focuses on practical policy recommendations; highlights the importance of e-technologies, governance, and local participation in addressing unsustainable transport issues; acknowledges that the transport sector alone cannot solve all the issues and problems of unsustainable transport; and emphasises the importance of a more holistic approach to transport sustainability, including city transformation, economic transformation, vehicle transformation, modal–split transformation, and lifestyle transformation.

The merit of the book is in its multiple time–space dimension perspectives of transport sustainability issues, which provides readers with a much longer and broader view of transport problems facing developing countries. The presented analytical framework can be adopted by other developing countries searching for solutions to improve transport sustainability. As for the limitations, conducting a comparison on fieldwork findings from three case studies would be helpful to understand the applicability and feasibility of the sustainable transport strategies. In summary, this informative and enlightening book is for researchers and policymakers in search of a comprehensive understanding of transport issues, problems, and potential solutions.

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