

Editorial

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This special issue offers a selection of articles on synergy development of transportation and mega-regions. It was produced as a result of related research of Future Cities Co-Lab, Beijing Jiaotong University and University of Cincinnati (UC–BJTU Future City Co-Lab) and the University of North Carolina at Chapel Hill–Beijing Jiaotong University (UNC–BJTU) Consortium for Urban and Regional Transportation in 2015 and 2016. The papers using case studies both in China and the USA compare the path of urban growth and transportation development under different urban contexts.

All the papers are developed evolving the topic how to integrated urban planning with transportation planning under various circumstance. It begins with a paper on theoretical framework between land use, socioeconomic factor, travel demand, and carbon emission, offering a discussion on the impact mechanism and outcomes of travel demand from urban planning perspective.

Urban form change lead by rail transportation is next topic regarded in this collection of special issue. Specifically, job-housing relationship and job accessibility are discussed in both mega-region and intra-city scale in the case study of Beijing.

This special issue also includes a simulation study on innovation of no-stop high-speed rail and its application in Beijing–Tianjin–Hebei Area. It is believed to be a useful

tool to enhance the resilience of mega-region by improving the efficiency of inter-city commuting.

Next study looks the viability of light rail line planning by case study in Cincinnati. It discussed how neighborhood participated in the decision-making process and what are the difficulties in the process of light rail construction. The results also show the impact of light rail on surrounding neighborhoods by assessing the viability of light rail.

Comparatively, it also includes a light rail case of Yizhuang in suburban Beijing. By tracking the land use changes near subway station, it shows that there are still mismatch between urban planning and reality in aspect of land use. As a result, it fails to reach the initials to be an energetic suburban job center, partly because the lack of elasticity in dated urban planning and zoning code.

A discussion on passenger volume with urban transit station follows. Limitations on underground space are discussed using the case of Sihui Station in Beijing. Agent model are applied to simulate the passenger movement within the station. It reveals the fact that the benefit of urban rail transit for commuter is limited by the maximum capacity, which is often neglected by urban planners and developers.

A case study on the impact of rail transportation on pearl river delta mega-region is also discussed. It echoes the second paper on how rail transportation influence mega-region urban form in social economy aspects. Results show that inter-city transportation plays an important role in population and economic elements change in mega-region area.

Although it is still a long way toward urban planning and transportation both in China and the USA, this special issue offers a serious of papers to discuss about the current experiences, challenges, and trend by a collection of case studies. It might provide policy implications for decision

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makers on how to make vast investment on transportation infrastructure more benefit the whole mega-region area both in China and the USA. Also, special thanks to *Urban Rail Transit* (URRT) team for their efforts and contribution on scientific and technical support in producing this special issue. Thanks to all the authors, reviewers, and staff in making this special issue toward publication.

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