HISTORICAL BENEFIT AND CONTEMPORARY APPROACHES TO SUSTAINABLE (LOW CARBON) URBAN TRANSPORT IN JAPAN

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Abstract

The Millennium Cities Database for Sustainable Transport ranks Tokyo as top performer in comparison to 84 cities in providing one of the comparatively most sustainable transport systems worldwide. This finding is examined on the basis of land-use and transport energy consumption in order to unlock the underlying success factors. As a result, three main reasons could be identified: (1) a strong regulatory and institutional framework, (2) integrated spatial planning strategies, and (3) investment decisions in an appropriate socio-economic environment.

In the second part of the paper, more contemporary approaches to sustainable urban transport and road transport related initiatives in particular are examined. For this purpose the “No Diesel-Vehicle Campaign” and the “Top-Runner Regulation” are analyzed. In addition, a first glance is thrown at the promotion of electric and plug-in-hybrid vehicles. In conclusion, the Top Runner Regulation could be more congruent with its initial goal, if stepwise weight-categorized fuel consumption standards would be replaced by a linear standard as applied in the European Union. How significant the loopholes created by the Japanese weight-categorized standards are in comparison to the EU regulation remains unclear. The European standard, however, is obviously more stringent. The “No Diesel-Vehicle Campaign”, by contrast, has created positive results over the first two years of monitoring.

The third part discusses quality of life objections and argues that different from U.S. cases livability constrains in Tokyo are rather attributable to populousness than to urban transport infrastructure.

Keywords: land-use and transport energy, fuel consumption and vehicle emissions standards, EVs/PHVs, quality of life, Tokyo, Japan