論 文 要 旨

Thesis Abstract

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主論文題名 (Title)

TRANSIT-ORIENTED DEVELOPMENT ZONING INTENSIFICATION ASSESSMENT IN MALAYSIA: CASE OF KUALA LUMPUR MONORAIL

内容の要旨 (Abstract)

To promote greater urban sustainability, transit-oriented development (TOD) has been widely promoted as an urban policy in Malaysia. By recognising density as an important factor for TOD promotion, major Malaysian cities such as Kuala Lumpur has begun to incorporate such idea into its statutory zoning plan where the land parcels around the transit station are being intensify by allowing the market to deliver higher density development. However, how dense should it be? Many research has been largely focused on the minimal density or transit supportive density for cost-effective transit investment. Despite the fact that minimal density is essential for the economic feasibility of the transit investment particularly for TOD promotion in the low density suburban or new greenfield development setting, it may not sufficient to encourage most of the people to use transit. To address this concern, this research is aimed to examine the extent to what level of zoning intensification is appropriately dense for TOD using Kuala Lumpur monorail as a case study. Here, the study analyses a series of Kuala Lumpur monorail zoning intensification scenarios with the monorail capacity to identify the level of zoning intensification that could promote TOD significantly. The zoning intensification scenarios include the present early zoning intensification plan proposed by the draft Kuala Lumpur City Plan 2020 as well as the upzoning scenarios where this study suggest for transfer of development rights to address the weakness of the existing early zoning plan to restraint the future growth on the geographic space of weak transit influence by channel the growth to further intensify the development within the walkable transit catchment area. From the predicted potential monorail ridership results of Kuala Lumpur monorail zoning intensification scenarios, this study found that 60% upzoning is the preferable zoning intensification scenario for TOD promotion as the result show that it could fully capitalise the monorail capacity at various expected transit using rate by promoting most of the future growth to take transit. Drawing from the case study of Kuala Lumpur monorail, this research learned

that an appropriate TOD station area density must strike a balance to benefit most of the future population and employment to take transit while compromise with the given transit capacity to ensure a fine quality of transit service for the community. Despite the fact that the idea is derived from the research of using Kuala Lumpur monorail as a case study that mainly focused on the monorail transit with the geographic context at city centre of Kuala Lumpur, it is hope that the basic notion of this idea remains relevant to other Malaysian cities for TOD promotion in various context of the city that supported by diverse type of public transit services.

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