

Container Cargo Simulation Modeling for Measuring Impacts of Infrastructure Investment Projects in Pearl River Delta (PDF)

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Title: Container Cargo Simulation Modeling for Measuring Impacts of Infrastructure Investment Projects in Pearl River Delta

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摘要: In the Pearl River Delta (PRD), there is severe competition between container ports, particularly those in Hong Kong, Shenzhen, and Guangzhou, for collecting international maritime container cargo. In addition, the second phase of the Nansha terminal in Guangzhou's port and the first phase of the Da Chang Bay container terminal in Shenzhen opened last year. Under these circumstances, there is an increasing need to quantitatively measure the impact these infrastructure investments have on regional cargo flows. The analysis should include the effects of container terminal construction, berth deepening, and access road construction. The authors have been developing a model for international cargo simulation (MICS) which can simulate the movement of cargo. The volume of origin-destination (OD) container cargo in the East Asian region was used as an input, in order to evaluate the effects of international freight transportation policies. This paper focuses on the PRD area and, by incorporating a more detailed network, evaluates the impact of several infrastructure investment projects on freight movement.

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