

Welfare Effects of Regional Transport Infrastructure Improvement in a Developing Economy : SCGE Approach

Topic: Input-output applied to social issues II

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This paper looks into the impact on welfare of alternative improvements in water, air and land transport infrastructure in a low-income region in the Philippines like Mindanao, using a general equilibrium model. The welfare index used will be equivalent variation. It utilizes a five-region social accounting matrix as database for a spatial general equilibrium (SCGE) model of the Philippine economy subdivided among five regions with Mindanao as focal point. The four other regions are Northern Luzon, National Capital Region, Southern Luzon, Visayas and Mindanao. Each regional economy contains seven production sectors and three household income groups. The paper examines the impact of a 10% increase in capital inputs in Mindanao land transport services sector on welfare, income distribution and transport-intensity of production sectors. These are then compared with an alternative 10% increase in capital inputs in Mindanao water transport services sector and air transport services sector. After which, the Mindanao results are compared with other regions in the rest of the Philippines. In the end, the empirical results will serve as benchmarks in the optimal allocation of resources for transport infrastructure investment within Mindanao and also between Mindanao and the rest of the Philippines.