

Assessing the Impacts of Road Infrastructure Investment on Economic and Regional Development¹

by

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Post-construction assessment of road infrastructure development has not been given a proportional attention. This creates a lack of information concerning the effectiveness of road investment. This study aims to carry out an analysis on the impacts of road infrastructure development using regional development indicators. It also aims to support performance analysis based on the Integrated Road Management System (IRMS) that reflects short-term impact of road investment.

The study was conducted using Computable General Equilibrium (CGE) which is in principle based on a balance between capital and labour force on the one side and economic development component on the other side. A regression analysis was conducted to review the relation among road investment types, i.e., construction, improvement, and maintenance. The data used in the study included the measurement unit of road investment and Vehicle Operation Cost (VOC) as input indicators, economic growth, investment benefit ratio, and labour force absorption are used as output indicators. The study used time series data between 1998-2003.

The research results reveal that road investment in Java totally gives the biggest impact on the economic development, that is as much as 1.460 (0.942 of maintenance and 0.518 of improvement). It means that each rupiah of road investment will give as much as 1.460 rupiah added value to the economic development. In Sumatera, road investment gives an impact of 0.765 on the regional economy, and in Bali-NT 0.309. Kalimantan ranks in the next level, having a figure of 0.215, followed by Sulawesi 0.54. The smallest impact is identified in Maluku-Papua, which is 0.081. Further, the analysis shows that each type of road management investment has different impacts on regional economy in different regions. In Sumatera, the investment for road maintenance gives more than double impacts than the improvement (0.535 compared to 0.230). A similar type happens in Java where the maintenance gives 0.942 impact compared to the improvement, which is 0.518. In Kalimantan, it is only road construction that gives a significant impact of 0.215, while in Bali-NT and Sulawesi a significant impact is given by road improvement, which is 0.309 and 0.514 respectively. In Maluku and Papua, road construction contributes a slightly bigger impact than improvement, that is, 0.081 compared to 0.098.

The study recommends the needs to separate the budget for construction and for improvement as they give different impacts. Further researches should be directed to the improvement of method by reviewing other related indicator not included in this study i.e rate of poverty alleviation.

Keywords: road investment, economic growth, labour force, Indonesia

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