IMPACT ANALYSIS OF SHIP LANE DEEPENING ON TRANSPORTATION COST (CASE STUDY: MUSI RIVER)

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ABSTRACT

This research motivated by Musi River ship lane silting which is reach 2-3 million cubic meters per year with sedimentation rate of 0.6 meters per year. This resulted decrease in transport capacity of the ships who passing through the Musi River ship lane with increasingly high transportation costs and the unit cost of the cargo to be shipped as constrained laden shallow shipping channel. In order to analyze the impact ship lane deepening of Musi River on transportation costs, this final project use approaching method Cost Benefit Analysis.

This final project is simply to analyze the impact of deepening ship lane on transportation costs for three (3) types of cargoes they are liquid bulk cargo, dry bulk and containers. That types of cargo has the largest proportion of the total cargo throughput. Cost Benefit Analysis performed on several conditions (scenarios), among others to compare transportation cost between the existing condition (before deepening) and after the deepening ship lane with or without channel fee as well as the condition of the Musi River without getting treatment (when the next 5 years).

The results of this final project show that deepening ship lane of Musi River provide cost benefits in the form of cost reduction (cost savings) by 21% when without channel fee, and 12% with channel fee. However, when the condition in which the Musi River without getting treatment (when 5 years) get a deficit of 9% compared to the existing transportation costs (when the next 5 years).