



ABSTRACT

Road infrastructure in Indonesia has a vital role in national transport sector since approximately 92% of all passenger movement and 90% of freight transport are carried by road. Today, the total lengths of road network in Indonesia are achieved 492,398 km (Badan Pusat Statistik 2014). These large numbers of road network have to be maintained every year. As consequence, a large sum of money is required. Now the costs of road works in Indonesia are stand on the highest threshold level when compared to international norms (World Bank 2012). Where a large sum of money is being spend, there will be a major risk of corruption, and such corruption will impact adversely on the road condition and to the national economic (Snaith, Khan 2008).

This research attempts to sough the economic value of road works under the corrupted condition and compare it to the ideal condition. The corrupted condition was assumed in term of two conditions. The first one is by reducing pavement thickness but the intervention level is kept to represent the diminished of available fund of road project. The second condition is by reducing the intervention level, so the road works are applied after exceeding the level of intervention, makes the time period between treatments will be longer than it required, allowing the reduced budget to be met. These two conditions were adopted from previous research which has been conducted in Bangladesh. The tool analysis used is HDM-4, a road investment appraisal tool developed by the World Bank.

The result of analysis presents the rates of roughness progression are understandably increased under the corruption condition 1 (reduced thickness) resulting in more frequent applications of maintenance and increased both agency and user costs over the analysis period. While, the corruption condition 2 increases the intervals between treatments and results in considerably higher roughness levels over longer periods of time followed by increased in user cost, but the agency cost were decreased. Overall, both analyses suggest that the NPV were decreased as the level of corruption increase.

Keywords: Corruption, HDM-4, Road Maintenance.