

Improvement of Socio-Economic Activities at the Island of Semau based on Sustainable Road and Bridge Management Strategy

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[https://doi.org/10.35609/gcbssproceeding.2023.1\(203\)](https://doi.org/10.35609/gcbssproceeding.2023.1(203))

ABSTRACT

A stable functional condition of roads is a guarantee of smooth, safe and comfortable socio-economic travel in an area. However, there is a limited ability to provide and/or manage development funds to preserve the road and bridge infrastructure. So far, every year the government tries to update the data base based on the result of road and bridge functional condition survey, intended to determine their priority handling. Result of field observation shows that the condition of some road links was in a poor level category so that it may affect the accessibility and mobility around the island of Semau, especially on the main connecting road to the location of main tourism objects. In addition, the type of land use and/or the availability of various supporting tourism facilities is very limited. These might influence the tourism area's attractiveness and/or the trip attractiveness due to the required time travel as well as travel cost. The limited or unavailability of local pavement material make it worst (high construction and/or preservation costs). Accordingly, the aim of this study is 1) to identify the determinant variables behind such transportation system problems, particularly based on the current physical and functional connectivity of roads and bridges, including variables that influencing the institutional capability arrangement 2) to recommend the appropriate strategy in road and bridge preservation and land use utilization.

Keywords: Physical and functional connectivity; Surface distress index; Socio-economic trip; Sustainable management strategy; Transportation system management