

Panahatipola Mudiyansele Sethsiri Bandara Kandegedera 2009: Analysis of Delays in Highway Construction Projects in Sri Lanka. Master of Engineering (Civil Engineering), Major Field: Civil Engineering, Department of Civil Engineering. Thesis Advisor: Mr. Suphawut Malaikrisanachalee, Ph.D. 199 pages.

Delay is a critical issue in highway construction in Sri Lanka as half of the projects in past decades were delayed. The objective of this study is to identify various causes of delay on Sri Lankan highway construction. A structured questionnaire was developed to gather project participant's opinion on highway construction delays. The questionnaire focused on delay factors in pre-construction and construction phases. Sixty questionnaires were distributed to project owners and contractors while fifty one completed questionnaires were returned. The respondents were asked about the frequency and severity of each delay factor. Relative importance index and standard deviation were used to prioritize the delay factors according to their adverse impacts as well as frequency of occurrence. The different perception between the owner and the contractor was also examined by using rank agreement factor, percentage agreement and percentage disagreement. The results show that frequent changes of design, delays in acquisition of construction site, funding delay and incomplete design have significant impacts in pre-construction phase while contractor's cash flow problems, increased price of construction materials, scarcity of skilled labour, lack of resources and owner's cash flow problems are critical issues in construction phase. In addition, the project owner and contractor strongly agree on causes of delay in pre-construction phase but they are disagreed on several delay factors in construction phase.

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Thesis Advisor's signature

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