

**PERFORMANCE INDICATORS FOR
THE HIGHWAY NETWORK IN SRI LANKA**

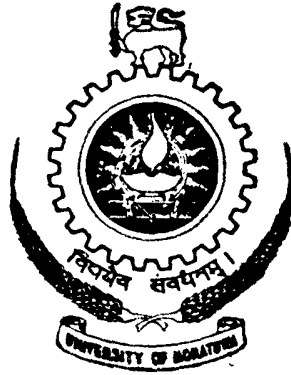


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**DEPARTMENT OF CIVIL ENGINEERING
UNIVERSITY OF MORATUWA
SRI LANKA**

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(This thesis was submitted to the Department of Civil Engineering of the University of Moratuwa in partial fulfillment of the requirements for the Degree of Master of Science)

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July, 2008

DECLARATION

I declare that the work described in this thesis, except where otherwise stated, is entirely my own work and has not been submitted for a degree, at this or any other university.

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ABSTRACT

Highway construction projects go through several processes such as appraisal, design, planning and construction before they reach the operational stage where the project goals intended at the beginning of the project are delivered. A process of a highway project is defined as the collection of all the activities engaged in producing outputs and outcomes through the mechanism of process function by using its inputs. Also these components such as inputs, outputs, outcomes, and process function are considered as the process attributes for the process under consideration.

Road sector stakeholders such as government, administrators and road users should play crucial roles in the functional aspects of each of the afore-mentioned processes. In the execution of these processes some of stakeholders are required to provide different types of inputs such as finances, labor and machinery etc. to achieve the target outputs and outcomes of the particular process, while others become the recipients of the outcomes of each of the processes of the project. Therefore the stakeholder involvement and the characteristics of process attributes become critical parameters in determining the performance of a particular process and also the entire project.

This thesis develops a paradigm for the stakeholder involvement and characteristics of process attributes for the performance evaluation of each of the process contributing to the progression of project starting from the conception of the project idea until the project goals are delivered at operational stage. Outcome of this thesis is to lay the theoretical platform for the performance evaluation of each of the processes as well as the entire project. For this purpose performance indicators and evaluation functions for each process are developed with respect to the perspectives of each stakeholder. An example with numerical application is presented at the end of the thesis to demonstrate the potential use in an actual road project.

Keywords: Process Attributes, Performance Evaluation, Performance Indicators

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