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## METHODOLOGY FOR DISTRIBUTION OF YEARLY ROAD MAINTENANCE ALLOCATION FOR A GIVEN REGION AT PROVINCIAL LEVEL

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A PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF ENGINEERING IN HIGHWAY AND TRAFFIC ENGINEERING



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## ABSTRACT

Allocation of money for road maintenance by Provincial Councils is done in an arbitrary manner based on past experience or requests just received from Engineer's office. Hence, funds are not efficiently and effectively used.

Often the present criterion used parameters that influence the maintenance expenditure such as, actual condition of the road, bus routes, public interests, recent improvement and rehabilitation works are not considered. Most of the time actual expenditure is widely vary from the budgetary allocation and require fund transfers from other accounts.

It is important to incorporate the above mentioned parameters influencing maintenance expenditure in the decision making process such that multiple objectives of the stakeholders could be accommodated and available funds are sufficiently allocated and effectively used.

As fund allocations are always limited, it is necessary to have a logical and transparent mechanism for fund distribution. Already rehabilitated roads have to be given higher priority and atleast minimum allocation is given to keep them in good condition.

A computer based programme that can incorporate multiple criteria's for selection and ranking process is developed to facilitate the maintenance fund allocation process to satisfy multiple objectives.

Baddegama Divisional area of Southern province was selected as a case study to demonstrate the method. However this programme is flexible to be used in any area depending on the data availability. It is also capable of incorporating variations in the criteria used for fund allocation.

It was shown that allocation using the proposed criterion is closely following the actual expenditure for previous year. A sensitivity analysis was done to arrive at suitable weightings to be used in the decision criteria.

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