

# Criteria Based Funds Allocation System for Sabaragamuwa Provincial Road Network

Ajith Panagoda<sup>1</sup>, J.M.S.J.Bandara<sup>2</sup>

## Abstract

Sabaragamuwa Provincial Road Network (PRN) consists of 2625 km length of class C and D roads. Majority of the roads are interconnected through Road Development Authority (RDA) road network. Sabaragamuwa Provincial Council (SPC) usually expends 750 million Sri Lankan rupees (SLR) for routine maintenance work and another 2250 million SLR in the form of capital investments. Provincial ministry of roads usually select roads for maintenance and improvement works are done on a random basis and as requested by politicians or the community.

On the other hand, well-constructed PRN is very important for the sustainable economic development of the country. PRN provides transport infrastructure facilities for agricultural products and agriculture based industries. Several Provincial roads provide access to tourist attractive places like as Adams peak, water falls etc. Population of the Sabaragamuwa province is approximately 2 million and nearly 800,000 people use PRN roads for transportation purposes. Some of the PR can be effectively used to reduce the traffic congestion in the main arterial roads.

As far as highways are concerned, at least there should be two lanes to accommodate the two way traffic. According to the National Highway Act, all C class roads are considered as highways. Recent survey carried out by SPRDA reveals that twenty five percent of the C class road segments have a traffic flow greater than 1000 PCU per day. However, all C class roads are still single lane roads with a carriage way width of 3.0 m to 5.0 m.

SPC has already invested nearly 50,000 million SLR for road works under the capital investment projects IRDP, JICA World bank and ADB etc. Present value of recurrent expenditure is also in the range of 20,000-25,000 million SLR. This gives a clear indication that after investment of 75,000 million SLR for the improvement and maintenance of provincial roads, desired targets could not be achieved.

Technical feasibility reports were prepared for individual capital investment projects and there was not any master plan to improve the entire road network cost effectively. According to the general definition, C class roads serve as collectors and connector roads and D class roads serve as collector roads and distributors.

This research paper deals with the fund allocation for the PRN under different conditions. Annual allocation starting from 100 million to 20000 million SLR will be considered for the analysis.

C class roads will be classified in to six groups depending on the vehicle flow rate, beneficiaries served by the road segment, interconnectivity, and present condition of the road. Similarly D class roads will be classified in to five groups. Cost benefit curves will be prepared for each group by considering capital investment as an independent variable. Dynamic programing method will be used to work out the optimum fund allocation at various stages.

**Key Words:** Provincial Roads, Network, C Class Roads, D Class Roads

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