

---

## **Suggestions to Improve Solutions Discussed in Western Region Megapolis Planning Project for Traffic Congestion**

S. A. I. A. Suraweera<sup>1</sup>, Ishani Dias<sup>2</sup>

### **Abstract**

Urbanization can be recognized as one of the major concerns when considering sustainable development of Sri Lanka after the end of civil war. Some of the issues that take place due to urbanization are a commuter rush, over concentration of the population, traffic congestion, environmental issues and rapid spread of diseases etc. This paper focuses on one major civil engineering related issue, which can be identified as the traffic congestion in urban areas. However, Sri Lankan government has already introduced an urban development project for the Western province called Western region mega polis master planning project (WRMPP), but many inconsistencies can be identified regarding the solutions introduced in WRMPP for traffic congestion. Therefore, the main objective of this paper is to identify inconsistencies in the WRMPP regarding traffic congestion and to suggest solutions and innovative concepts to develop the strategies discussed in WRMPP. The concepts discussed in the paper are influenced by urban development methods used in developed countries such as UK, USA, Singapore and mainly in Japan. In addition, this paper focuses mainly on suggesting new methods to reduce traffic congestion in intersections, to introduce advanced technologies used in developed countries for public transportation, which results in a reduction of traffic congestion and to propose ideas to design new roads (bypasses) as alternative routes for people to travel, in order to travel without interference of traffic congestions urban areas. Smart traffic control system, Maglev technology trains and Bypass roads are suggested as main solutions, which will be further discussed in this paper, as results of carrying out this research. However, it is clear that the current urban development trends in Sri Lanka paved the way towards many complex issues, therefore it is essential to introduce new urban development policies and strategies for the future development of the country.

**Keywords:** Western region megapolis master plan, Smart traffic lights, Maglev technology trains, Bypass roads, Congestion, Sri Lanka

---

1. Undergraduate, Department of Civil Engineering, Faculty of Engineering, General Sir John Kotelawala Defence University, Sri Lanka, amaayasuraweera@gmail.com
2. Senior Lecturer, Department of Civil Engineering, Faculty of Engineering, General Sir John Kotelawala Defence University, Sri Lanka, ishanidias@gmail.com