

Existing Sustainable Features in Sri Lankan Road Construction

MGK Hasanthika^{1#}, V Disaratna¹ and HC Victar¹

¹*Department of Building Economics, University of Moratuwa, Sri Lanka*

hasithchathuranga122@gmail.com

One of the world's greatest natural resource exploiters relies on the building and materials sectors for physical and biological support. The concept of sustainable development has been around for more than 30 years, and it connects development and the environment. The road industry emits the most amounts of greenhouse gases, both directly and indirectly, due to the usage of fossil energy in mining, transporting, and paving operations. As a result, road development contributes significantly to the pollution of Sri Lanka's environment, and as the success of environment-friendly road construction is not at a sufficient level, mainly a low level of attention is given to sustainable development in Sri Lanka. Hence, this research focuses on enhancing road construction success through a better understanding of sustainable development. An extensive literature synthesis was carried out to review the concept and key features of sustainable road construction globally and with reference to Sri Lanka. Following that, an expert interview and a survey were used to continue the study using a mixed research approach. Expert interviews and questionnaire surveys were conducted as data collection methods. The data analysis was conducted through manual content analysis and Relative Important Index (RII) techniques. The findings revealed the existing sustainable features in Sri Lankan Road construction and their advantages and disadvantages. The challenges and opportunities of Sri Lankan Road construction for sustainable development were identified. Thus, the applicability of existing sustainable features to Sri Lankan Road construction shall be reviewed further in empirical research.

Keywords: *road construction, sustainable features, Sri Lankan road construction*