BARRIERS FOR PROMOTING BAMBOO AS A GREEN BUILDING MATERIAL FOR THE DEVELOPMENT OF SUSTAINABLE RESIDENTIAL BUILDINGS IN SRI LANKA

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ABSTRACT

Currently, the world's building construction industry is emerging as a major leading compared to other industries. Therefore, it is clear that the focus is on sustainable development to minimize the adverse effects such as emission of carbon dioxide emission. Some countries have started using sustainable materials as a solution. Some countries have started using sustainable materials as a solution. Tests have led to the findings that bamboo is suitable for use as a sustainable material by the experts in the industry. The main objective in this study is to identify main barriers which affect to implement bamboo as a sustainable construction material in Sri Lanka. The objectives were accomplished through a mixed method approach using questionnaire survey and secondary data using both qualitative and quantitative methods to define strategies and obstacles. In the analysis, it was identified that the main barriers to promote the bamboo as a sustainable construction material and the characteristics of bamboo and the Factors to consider when using bamboo. Findings are provided for how to implement the bamboo as a green building material for the development of sustainable residential buildings in Sri Lanka. It was identified that there were many suggestions to prevent from barriers when using bamboo. Also, the relationships and barriers were proved through a correlation and regression analysis. Finally, recommendation should deliver to the construction industry and improve the knowledge and expertise in the bamboo construction to implement the sustainable construction in Sri Lanka.

Key words- sustainable construction, sustainable material, carbon dioxide emission