

## IDENTIFICATION OF MAIN OBSTACLES TOWARD GREEN OPERATIONS ON HIGHWAY CONSTRUCTION PROJECTS IN CAMBODIA

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### ABSTRACT

Highway construction projects are growing rapidly to reform infrastructure systems in developing countries, resulting in a higher level of pollutions generated from heavy equipment usage and construction operations throughout the project life cycle. An increase in the environmentally friendly momentum then drives the construction industry to start adopting green technology to reduce emissions over the community. Nevertheless, the obstacles on green technology implementation in highway construction still blocked many contractors to pursue sustainability and contribute their helps to the environment in developing countries such as Cambodia. This paper aims to determine the main barriers that prevent contractors to pursue sustainability in the Cambodian highway construction area. 27 lists of factors were determined under six dimensions of censorious obstacles: (1) funding issue; (2) cooperation and attitude; (3) green material resource; (4) government management; (5) time and schedule; as well as (6) training and knowledge. All the obstacles were preliminarily identified from a comprehensive literature review. The questionnaire was next developed and applied for an interview with professional contractors who have experience in highway construction projects in Cambodia. The results from the total respondents were collected and analyzed in terms of the descriptive statistic to rank the highest critical obstacles among six dimensions. The finding of this paper helps government agencies to identify the main obstacles on green implementation and suggest competent solutions for the contractors in Cambodian society towards sustainability.

**Keywords:** Sustainability; Contractor obstacles; Green Implementation; Highway construction; Cambodia