

**INVESTIGATING CHALLENGES OF
ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
IN SRI LANKAN ROAD CONSTRUCTION PROJECTS**

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Declaration

I declare that it is my work. This dissertation does not incorporate without acknowledgment any material previously submitted for a Degree or Diploma in any other university or institute of higher learning. To the best of my knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

Further, I acknowledge the intellectual contribution of my research supervisor, Dr. Sachie Gunathilake, to completing this research dissertation. I affirm that I will not make any publication from this research without the name of my research as a contributing author unless otherwise, I have obtained written consent from my research supervisor.

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Dr. Sachie Gunathilake

Dissertation Supervisor

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Date

**“Tireless effort of this dissertation is a replication of my
enthusiasm, hard work, and self-belief.**

**I dedicate it to my beloved wife and daughter for replenishing it in
me during the hard times, my batch mates for being my pillars of
support, and my alma mater for what I am today.”**

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“This page is dedicated to those who stood beside me and helped me succeed in accomplishing this dissertation.”

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Amarasekara P.M.

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Investigating Challenges of Environmental Impact Assessment (EIA) in Sri Lankan Road Construction Projects

The construction industry, notably road construction, is a primary contributor to environmental pollution, exerting major direct and indirect effects on the ecosystem. This research critically examines the environmental challenges in road construction projects in Sri Lanka, acknowledging their diverse ecological, cultural, and demographic contexts. The study identifies pollution sources from construction processes, including toxic gases, noise emissions, dust, and solid and liquid waste. Despite a robust legal structure and environmental protection commitments, certain projects exhibit environmental performance shortcomings, even post-EIA compliance. This study aims to critically analyze and prioritize challenges in the Environmental Impact Assessment (EIA) process for road construction projects in Sri Lanka.

The research commences with a comprehensive literature review to understand global EIA practices and constraints in Sri Lankan Road projects. Challenges are identified through a preliminary survey and interviews with key industry professionals. The study adopts a three-stage categorization - pre-EIA, EIA, and post-EIA - providing a nuanced understanding of challenges across project phases. The quantitative phase employs a questionnaire survey to evaluate challenges using the Relative Importance Index (RII). The study underscores the complexities of road construction in Sri Lanka and the need for a nuanced, context-specific approach to EIA. It advocates for improved regulatory frameworks, enhanced community engagement, and consistent adaptation of global best practices. The recommendations, categorized by EIA stages, provide a roadmap for policymakers, practitioners, and stakeholders to address challenges and foster responsible infrastructure development. This research contributes to the global discourse on sustainable development, offering insights relevant to Sri Lanka and beyond. It serves as a guide for informed decision-making, aligning development goals with environmental conservation and community well-being.

Keywords - *Ecosystem Conservation, Environmental Impact Assessment, Road Construction Sustainability, Sri Lanka*

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