

## Life Cycle Assessment in Road Pavements: A Literature Review and the Potential Use in Brazil

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**Abstract :** The article presents a literature review on recent advances related to studies of the environmental impact of road pavements, with reference to the concepts of Life Cycle Assessment (LCA). An introduction with the main motivations for the development of the research is presented, with a current overview of the Brazilian transport infrastructure and the projections for the road mode for the coming years, and the possibility of using the referred methodology by the road sector in Brazil. The article explores the origin of LCA in road pavements and the details linked to its implementation from the perspective of the four main phases of the study (goal and scope definition, inventory analysis, impact assessment, and interpretation). Finally, the main advances and deficiencies observed in the selected studies are gathered, with the proposition of research fields that can be explored in future national or international studies of LCA of road pavements.

**Keywords :** Brazil, life cycle assessment, road pavements, sustainable

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