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The gaps for future studies in life cycle analysis (LCA) of single-use plastic bags: A literature review.

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OBJECTIVES OF THE PAPER

This article aims to analyze what has already been published on the life cycle analysis of single-use plastic bags to identify the gaps and thus propose ideas for further studies

APPROACH USED

A systematic literature review was performed to identify the principal ideas about life cycle analysis of single-use plastic bags:

- The materials;
- The goals;
- The system boundaries;
- The function unit;

KEY RESULTS

With the identification of the materials used in the studies, their goals, their system boundaries and the functional unit, it was possible to identify the main gaps that the life cycle analysis of single-use plastic bags has, to be able to propose of future studies that can heal these problems.

MAIN CONCLUSIONS

With the systematic review of the literature, it was possible to identify that some materials do not have LCA, or that the study was conducted precariously. Thus, more studies for bio-based materials should be done to identify their impacts and compare them with fossil-based materials to have real proof that the use of a biological matrix has a lower environmental impact improving its sustainability.

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