

A review on LCAs of shopping bags alternatives for waste prevention

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Abstract

Waste prevention yields to the reduction of waste. Among the key practices towards waste prevention is the reduction of the use of plastic bags. But will switching from grocery bags made from polyethylene to bags made from some other material guarantee the elimination of unfavorable environmental conditions? It is well known that every product, through its production, use, and disposal, has an environmental impact. This is due to the use of raw materials and energy during the production process and the emission of air pollutants, water effluents, and solid wastes. Life cycle assessment can help us identify the trade-offs among the various shopping bags alternatives.

Life cycle assessment is the method being used in this study because it provides a systems approach to examining environmental factors. By using a systems approach to analyzing environmental impacts, one can examine all aspects of the system used to produce, use, and dispose of a product. This is known as examining a product from cradle (the extraction of raw materials necessary for producing a product) to grave (final disposal of the product).

The aim of this study is the presentation of the results of the review of the conducted LCAs for shopping bags alternatives.