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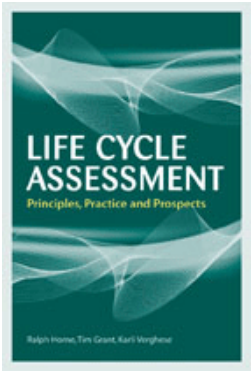
Measuring the cost of our consumption

What's the most sustainable choice of shopping bag – HDPE single-use bags traditionally provided by most retailers, woven 'green' polypropylene recyclable ones, calico, paper, or biodegradable bags made from plant-derived polymers?



Life Cycle Assessment
Principles, Practice and Prospects
Ralph E Horne, Tim Grant & Karli Verghese (Eds)
CSIRO Publishing
2009, Paperback
ISBN: 9780643094529 – AU$69.95
www.publish.csiro.au/nid/20/pid/5270.htm

This is the sort of modern conundrum that can only be solved through life cycle analysis (LCA), an approach to production and development that enables manufacturers, government and consumers to identify the true environmental cost – in terms of impacts and resources (including water) – of their products and services.

Life Cycle Assessment: Principles, Practice and Prospects describes the strengths and limitations of LCA, with an emphasis on practice in Australia, as well as its application in waste management, the built environment, water and agriculture.

Supported by examples and case studies, the authors – based at the Centre for Design at RMIT – investigate a range of challenges in the area of environmental assessment, including the growing demand to assess and reduce greenhouse gas emissions across different manufacturing and service sectors.

There is also an interesting discussion on the unique challenges of impact assessment in Australia, where water is scarce and biodiversity increasingly under threat.

For the record, there is in fact a discussion of the relative merits of different types of shopping bags (p. 66) and the answer is not clear-cut, depending on which impact is being assessed. In fact, as the discussion concludes, 'natural' biodegradable polymer and paper bags may not always be the best choice, which is why LCA is important in challenging 'intuitive' preferences.

While this book is aimed primarily at an academic and technical audience, it is a very good introduction for anyone –

managers, policy-makers and designers – needing to understand how LCA can help them make more informed choices and tread more lightly on the planet.