

Combining risk alteration and benefit generation in Social LCA

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One arm of the field of Social LCA which is equipped with a significant data basis for its practice is the arm related to social risk identification and reduction. Social risks relate to a host of problematic impacts on people, at work and in the communities where work takes place.

As with environmental LCAs, social LCAs can be conducted in both a screening assessment mode and a more resource-intensive case-specific mode which includes gathering and use of primary data on the social risks associated with “foreground” processes in the life cycle. And as with environmental LCAs, one way to potentially bring about progress in relation to social risks is by selecting and designing products in ways that reduce the total negative consequences per functional unit – in this case, the total worker-hours at elevated risks in relation to a comprehensive set of social indicators.

A second important way to address social risks in product supply chains and life cycles is gathering data which demonstrates a lower-than-generic or lower-than-background level of risk. And a third important way to address social risks is by actively introducing certification of compliant working conditions to processes which lack them.

But all of the above relates to risk reduction. There is another powerful dynamic possible in the design and expansion of product supply chains, particularly in contexts where economic opportunities are very low so that poverty and the risk of its related negative consequences are high. This dynamic is the introduction of social benefits of positive employment and community-scale benefits to such contexts.

This paper will present the results of a real-world case study that combines precisely these two different forms of social impact into a life cycle assessment: social risk alteration and social benefit generation. The case study involves the introduction of new production activities which are organized in ways that bring carefully documented increases to wages, working conditions, and several important community-scale public health-related indicators. The study also combines and applies primary and secondary social risk data for alternative product systems and their supply chains.

Social LCIA (impact assessment) methodologies are proposed and demonstrated for integrating these two forms of impact – risk reduction and benefit generation – into the social life cycle assessment of products.

Reference

Guidelines for Social Life Cycle Assessment of Products UNEP/SETAC Life Cycle Initiative on Integration of Social Criteria in Life Cycle Assessment. 2009