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# How not to compare apples and oranges: Generate context-specific performance reference points for a social life cycle assessment model

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## Abstract

In recent years the need to consider the social dimension of sustainability within life cycle thinking has been increasing, catalysing the development of many different social life cycle assessment approaches (sLCA). The demand to assess potential social effects has been strengthened further, due to the implementation of national bioeconomy strategies. The RESPONSA framework (REgional SPecific cONtextualised Social life cycle Assessment) has been developed to assess the social effects associated with wood-based bioeconomy products from Germany (Siebert et al., 2018a; Siebert et al., 2018b). However, a characterisation approach, based on a context-specific benchmark which is easy to understand and interpret, is still missing. In general, characterisation approaches provide meaning to social indicator values (i.e., the inventory data). However, there is no standardised sLCA characterisation method yet. Therefore, the aim of this paper is to outline a characterisation method based on context-specific performance reference points (PRPs), which can effectively reflect the social conditions influencing the various organisations involved in producing a specified product. Such PRPs should also qualify whether the social indicator values collected from the organisations in the production system corresponds to a negative (worse than sector average) or positive performance (better than sector average). Therefore, we considered the classification of *economic sector* of the assessed organisation and in some cases the *size of the organisation* as factors influencing the potential social effects related to our particular context. These were then applied to define context-specific PRPs, which relate the social indicators calculated in the inventory phase, to those benchmarks, thus generating *relative social performance scores* for producers of a wood-based product in Germany.

## Highlights

- A context-specific social LCIA approach was developed for assessing wood-based products from bioeconomy regions
- It considers the organisations' economic sector and size as factors influencing social performance

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