


Fig 1: Structuring of objectives and specification of attributes in life cycle impact assessment: Several impact chains can be grouped together because there is a common mechanism of action going from the insult to the value lost. The commonly used attribute for the acidification category – [H⁺] loading or SO₂ equivalents – describes an insult; the remainder of the causal chain is then left to be evaluated by 'valuation.' It can be described by a means-ends objectives network [3]

But what is now the role of areas of protection? In a decision-analytic framework, they can either serve as ends-objectives or, in the background, as strategic objectives. Strategic objectives are not operationalized, we just keep them in the back of our mind [5]. To implement them as ends-objectives is sensible only if there are fewer AoPs than means objectives, or if we have an easier time trading off AoPs than means objectives. I would argue that neither is the case. If AoPs are not operationalized, but exist only for the sake of argument, it is not necessary to achieve agreement on them.² We can all agree on what is good or bad without agreeing on the reason. While AoPs is a sensible topic of discussion for those of us involved in method development, I would advise against confronting LCA practitioners or decision makers with this term, or attempting standardization.

This note serves to suggest a better defined description of the impact web in terms of stressors, insults, stress, and consequence. It argues that a decision-analytic framework can be used to relate the impact web to our values, and to or-

² One might argue that damage function approaches such as EPS or EcoIndicator 99 operationalize AoPs. The EcoIndicator, however, uses 'damage categories' as objectives that have a corresponding attribute (e.g., DALY for human health). If indicators (attributes), AoPs, and endpoints are all at the same level, surely there is a redundancy of terms and no need to introduce AoPs in what is already a cluttered terminology.

ganize the assessment. Such a framework is more flexible and does not need to rely on abstract constructs such as 'areas of protection.'

References

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