

Impact assessment modelling of the matter-less stressors in the context of Life Cycle Assessment

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Citation

Cucurachi, S. (2014, October 21). *Impact assessment modelling of the matter-less stressors in the context of Life Cycle Assessment*. Retrieved from https://hdl.handle.net/1887/29300

Version: Corrected Publisher's Version

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Assessment

Issue Date: 2014-10-21

Propositions

Thesis:

Impact assessment modelling of matter-less stressors in the context of Life Cycle Assessment

By Stefano Cucurachi

- I. When working on the development of a new impact category in LCA, a modeller should avoid the oversimplification of complex mechanisms. (This thesis, Chapter 2)
- 2. The application of techniques of global sensitivity analysis gives the scientist the capability to statistically support the development of a characterisation model. (This thesis, Chapter 6)
- 3. Matter-less stressors are paradigmatic for the development of new impact categories. (This thesis, Chapter 7)
- 4. In a world of spatially explicit characterisation models, it is a great challenge for the everyday practitioner of LCA to gather enough inventory information to perform a complete LCA study. (This thesis, Chapter 8)
- 5. Developers and users should recognise the limits of LCA and LCA should not be the tool to hammer all nails. (This thesis, Chapter 8)
- 6. In line with the idea of model-dependent realism, characterisation models should be considered as just one possible representation of the real world; as such, the reality they present may always be perfected.
- 7. Even though 21 years have passed since the consideration of Guinée et al. (1993) that "a valuation of environmental profiles without an assessment of the reliability and the validity of the results is of little value", the topic of reliability and validity assessment are still in their infancy in LCA.
- 8. LCA should be used in the early stages of the development of new technologies to increase their potential to be sustainable.
- 9. The developers of LCA methodologies should have a sound level of statistical knowledge to help guaranteeing a bright future for LCA.
- 10. The patterns of the social and cultural life of humans are central to the sustainability discussion, thus, they should also be included in models.
- II. One of the major challenges for the contemporary environmental scientist is to manage to frame his/her own research into an ever complex international political instability and still make sure that some valuable insights come from the results to mankind.

- 12. The remark that Juvenal made around the first century AD in the Satura III: 'For, where can you lodge and enjoy a good night's sleep? You have to be filthy rich to find rest in Rome. That is the source of our sickness. The endless traffic in narrow twisting streets, and the swearing at stranded cattle, would deprive a Claudius of sleep, or the seals on the shore.' is of impressive actuality.
- 13. Loosely interpreting the thought of Walt Whitman in Song of Myself (1855), one should never forget to occasionally sound a barbaric yawp over the roofs of the world.