

The Areas of Protection Debate (DOI: <http://www.scientificjournals.com/db/PDF/ehs/2002.03/ehs2002.03.014.pdf>)

The debate started with a new version of the environmental scheme drafted by Helias Udo de Haes and Erwin Lindeijer in November 2000 for use in the final phase of SETAC Europe's 2nd Working group on (life cycle) Impact Assessment (WIA-2). This group convened the day after the 8th LCA Case Studies Symposium in Brussels, December 1, 2000. There was not enough time during this meeting to discuss the new scheme in detail, which contained an additional Area of Protection (AoP) or Safeguard Subject (SaSu) **Life Support System (LSS)**. This new AoP or SaSu has been suggested in order to represent the partly inanimate subsystems of the ecosystem earth which are the basis for life on this planet, as we humans know it and are part of it. These systems (e.g. the stratospheric ozone layer, the climate system and the bio-geochemical cycles or the fertility of soils) are in general not considered to have a societal value in itself, but rather to be supportive for the immediately convincing SaSUs or AoPs human health, biodiversity, man-made environments (e.g. cultural landscapes) and natural resources.

The proposed inclusion of LSS had repercussions on further discussions going on in the LCA community (e.g. midpoint vs. endpoint indicators, the role of subjective or normative elements in and beyond impact assessment) and posed principal questions about the borderline between technosphere and environment. Due to the general lack of an exhaustive and radical discussion about these topics (for an exception, see Patrick Hofstetter vs. Helias Udo de Haes in the **Global LCA Village 1999**), David Pennington induced the debate, documented now in the **Global LCA Village**, by an email addressed to all members of WIA-2. The debate evolved in the following few weeks in an avalanche of emails, resulted in a new scheme (December 2000), and another version of the scheme (February 2001).

The discussion climaxed mid February when a deadline for preparing the chapter on the areas of protection approached. Bo Weidema contributed a paper which complements his short contribution communicated by email. All these emails and papers are available in the documentation.

I found this discussion among several of the leading scholars of LCIA exciting and conducted at a high level. I therefore asked the contributors to the debate to consent to a documentation of the debate in the internet discussion forum **Global LCA Village**, now a section of the **Gate to EHS** (Environmental and Health Science), Life Cycle Management (LCM) area. In that way, the dispute can be followed and hopefully be commented by a broader public within the LCA/LCM community. The members of WIA-2 can consult the documentation, once their emails will be cancelled and, without documentation, only the remembrance of a vivid phase of LCIA development would remain. In order to preserve the fresh and lively style of the debate, only minimal changes have been made in the original documents (downloaded emails and appendices).

The result of this discussion should ideally be based on consensus, but there are doubts whether a common opinion about the subjective aspects can be reached at all and whether it is necessary (see comments by Patrick Hofstetter and Edgar Hertwich).

The contributors to this debate are:

Bare, Jane	Klöpffer, Walter	Pennington, David
Fava, James	Krewitt, Wolfram	Steen, Bengt
Hertwich, Edgar	Lindeijer, Erwin	Tukker, Arnold
Hofstetter, Patrick	Müller-Wenk, Ruedi	Udo de Haes, Helias
Huppés, Gjalt	Owens, Willie	Weidema, Bo

In addition to the email-debate contributions, the following documents are provided:

Title	Remarks
Areas of Protection, November 2000 by Helias Udo de Haes and Erwin Lindeijer	(21 November 2000) First Draft of Scheme
Areas of Protection, December 2000 by Helias Udo de Haes and Erwin Lindeijer	(22 December 2000) Second Draft of Scheme
Areas of Protection, February 2001 by Helias Udo de Haes	(1 or 2 February 2001) Third Draft of Scheme
Areas of protection and the impact chain by Bo Weidema	(15 February 2001) Last Version Bo Weidema
Draft Chapter by Helias Udo de Haes and Erwin Lindeijer	(2 February 2001) Draft of Chapter 8
Final Draft Chapter by Helias Udo de Haes and Erwin Lindeijer	(23 February .2001) Final Draft of Chapter 8
Dissenting Opinion (Epilog) by Edgar Hertwich	Epilog

The **final outcome of the debate** will be documented in **Chapter 8 (The conceptual structure of Life Cycle Impact Assessment)**, written by Helias A. Udo de Haes and Erwin Lindeijer, in the book 'Towards best practice in Life Cycle Impact Assessment', eds. Udo de Haes et al., SETAC, Pensacola, 2002 (in print). Not all ideas put forward in the debate could be taken into account in this final version. The readers of this documentation may form their own opinions on the basis of the email contributions, the earlier draft versions of the chapter, and the additional documents.

Walter Klöpffer

Editor, Gate to EHS – LCM area, and Global LCA Village section (free access)

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