Populating the life cycle perspective

... about new methods for analysing social/ organisational dimensions of product chains for management studies



WHY LIFE CYCLE METHODS NEED **'POPULATING'?**

The strength of the life cycle perspective is that it takes the whole product chain into account so that the shifting of environmental problems along the chain can be avoided. A weakness with conventional life cycle assessment (LCA) is that its enviro-technical analysis does not easily identify actors and their scope of action. However, it is actors and organisations that enable product flows, like the firemen passing water buckets.

FIVE NEW METHODS

Here we present the outcome of a decade of research: a portfolio of life cycle methods for management studies. Performed case studies are listed in the parentheses.

2. Product chain

organisation study - A management based method for studies of environmental management in one product chain (diaper fluff, certified cocoa supply from Ghana).

3. Global product chain organisation study

- A management based method for studies of environmental management in a large number of product chains simultaneously (earth metals in electric vehicle batteries/magnets, metal packaging).

1. Actor LCA - An LCA based method for studies of actors' environmental roles & influence (buildings, food). Actor I CA Environmental impacts 5. New Raw Technical Manu-Waste Use approaches processes to social LCA Companies, - New utilities. other actors approaches for assessment of Product chain Social emissionorganisation LCA LCA nodal point related social studv organisation impacts in study studies of product chains (airbags, 4. LCA nodal point organisation study catalytic - A management and LCA based method for studies of converter, gold environmental management performed by one important wedding ring). actor along a product chain (e.g., properties, bakeries).

NEW MANAGEMENT APPLICATIONS

Populated LCA methods can be used for analysis of and improving efforts in different organisations' sustainability work. They can be alternatives to or complement existing approaches found under labels such as:

- life cycle management
- supply chain management
- operations management
- corporate social responsibility



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CHALMERS