

International seminar in social LCA

Presentation of the programme from the scientific methodology point of view

The aim of this presentation is to display a range of scientific questions discussed during the present seminar. We will highlight which presentation is specifically focusing on which issue, even if nearly all the presentations do contribute to the whole range of scientific issues. We apologize in advance to the seminar speakers if forgetting something within their contribution.

What is social LCA?

In June 2009, the scientific field of social LCA has issued a major contribution, thanks to the coming out of the “Guidelines for social Life cycle assessment of products” by the working group of UNEP/SETAC. The definition of “social LCA” we can read page 37 is « A social and socio-economic Life Cycle Assessment (S-LCA) is a social impact (and potential impact) assessment **technique** that aims to assess the social and socio-economic **aspects of products** and their potential positive and negative impacts along their life cycle encompassing extraction and processing of raw materials; manufacturing; distribution; use; re-use; maintenance; recycling; and final disposal. ».

In fact, during this seminar, we are dealing with another definition of social LCA. First, we deal with it as a **method** (not as a technique). It means that we self-question our practices, we interrogate the grounds of the technique: what nature for impacts? What perimeter? And so on. Second, we think that social LCA may be used to analyse the social **impacts caused by the functioning** of chains of products (compared with the situation where the chain doesn't function), but also to look at the **difference between the potential variants** of one chain of product, and even to look at the **difference between two chains** of products delivering the same service. During the seminar, presented scientific works belong to these different scopes.

Why social LCA?

Why do we bother ourselves with social LCA?

Imagine the functioning of the technical system of any chain of products, embedded in the rest of the World. This system delivers several services. In the life cycle spirit, we deal with service one by one. So, for each service, LCA study defines one functional unit, which allows us measuring the service delivered by the system. If the system is delivering ice cream, the functional unit might be tons of such ice creams available at the retailer... Without this service, we would never mind about LCA. In fact, all the outputs of studies lead thanks to LCA, are **quantity of impact per functional unit**. Doing so, we highlight the balance between the advantages (the units of service provided) and often the drawbacks (quantities of health destroyed for instance).

When functioning, the technical system is producing a lot of **affects (positive and negative) upon human well-being**, which are experienced as social impacts by stakeholders involved in the life cycle: for instance workers, consumers, local society etc.

The purpose of Social LCA is providing a fair assessment of the social impacts caused by the functioning of the chain of products. “Fair” with two meanings. First, fair means that it takes into account **what is really worth** for human well-being; second “fair” means that we try to perform an assessment which could **help decision makers** to take fairer decisions than if they had to make a random choice (Jorgensen, 2010).

Now, we are displaying the different scientific questions at stake. What scientific questions one social LCA practitioner must answer before performing a social LCA ?

When studying the issue, we need (1)

All product system is delivering service, translated into “functional unit” in LCA. The talk by Syndhia Mathé pays special attention to this question, as well as the question “how to choose the categories of stakeholders”.

We must describe the chain of organisations involved in the life cycle. Some researchers (Hunkeler, 2006) have worked at the level of process unit, like in environmental Life cycle assessment. But in general, especially thanks to Dreyer (2006), there is agreement that social impacts are depending on the behaviour of organisations. So, we describe the chain of product in terms of chain of organisations. But the organisations contributing to the products are indefinitely linked with suppliers and other partners. We need cut-off criteria: what are the organizations whose behaviour and social affects will be taken into account, and what are the organizations let outside the perimeter? Among others talks, the talk by Deana Aulisio and the talk by Vincent Lagarde will suggest two different ways for dealing with the definition of the perimeter of the study.

When studying the issue, we need (2)

A main milestone in social LCA is deciding what are the impact categories worthy to be assessed. Legitimacy and real relevance of all the rest of the study depends on this choice. In the sense of the Impact Assessment scientific community, impacts are experienced by people or groups of people, like death in the community (Vanclay, 2002). In the field of social Life Cycle Assessment, the consensual patrimony to be protected when perform a social life cycle assessment, is the area of protection “human well-being”. But what does it mean in terms of impacts categories? From Aristotle, we know that there are two sources of scientific arguments. One is logos, delivering normative theories, the other is ethos (what the experts or stakeholders say). Claudia Reitingger suggests impact categories from a normative scope (logos), while Katja Lähtinen will present an illustration for defining the impacts from enquiries (ethos).

When studying the issue, we need (3)

We must decide if we understand “impact” like a state or like a change. If we consider impact like the result of a change, we need a baseline: impact is what happens by difference when we move from the baseline to the studied state (Jorgensen, 2010).

Here is the process from Vanclay (2002), who takes the example of constructions activities. The functioning of the chain entails a change process (for instance change in ecological conditions, changes in the traffic in the neighbourhood) delivering affects. Of course, the impact depends on the context. If these affects drop into the context 1, impact A (number of vectored diseases victims) will be high while impact B (injuries by traffic accident) may be low. Dropping into another context 2, the affects from the chain can deliver different impacts. For Vanclay, one **impact** results from the interwoven concept “affect caused by change within a certain context”. Actually, the speakers of the seminar support different positions for the calculation of “impact”.

Several positions on hand about calculation of “impact”.

Sometimes, general state indicators (for instance accounting for respect of labour rights) may be deemed sufficient, whatever the context. Interpretation is delivered according to the figures, for what they are. It is the case for the classical Corporate Social Responsibility field. In general, authors set explicitly or implicitly that the baseline is “no functioning of the chain”. So, they compare the affects caused by the non-existence of the chain with the affects caused by the functioning of the chain. They support the idea that state indicators are not

enough, **because there is a lack for integrating the context** (and so the interpretation would be irrelevant). Deana Aulisio highlights the “social hot spots” depending on the social context, which must draw our special attention. Catherine Brodeur does something close. Louise Camilla Dreyer introduces the risk of infringement of the labour rights by the manager, risk depending on the context. These two first approaches can be applied as generally as possible. The approach presented by Syndhia Mathé is less general (because the stakeholders define what impacts are) but takes into account the context, as far as possible. Katja Lähtinen does the same, but using one situation as the baseline of the three others.

The approaches supported by Pauline Feschet and Vincent Lagarde test calculating impacts like the result of the change between one specific baseline and another state. Moreover, the context is taken like one piece of the calculation of the impact.

So different methods for social LCA

The scientific field of the methodology “social LCA” is full of buds. We try presenting the different social LCA developing methods. Andreas Jorgensen, who has already published about the different methodologies on hand (Jorgensen et al., 2008) is presenting three different usages of social LCA methods. Pekka Leskinen will debate with us about what to do with social impacts in the framework of sustainability, by “Analysing tradeoffs between social and other dimensions of sustainability in LCA”.

Thanks a lot to all the speakers.

References

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