

Call for Papers

GOVERNANCE AND LIFE CYCLE ANALYSIS

Opportunities for going beyond ISO-LCA

Open Workshop within the EU-funded project
CALCAS – Co-ordination Action for Innovation in Life-Cycle Analysis for Sustainability

The Environmental Policy Research Centre (FFU), Berlin/D, and the Institute for Ecological Economy Research (IÖW), Heidelberg & Berlin/D, in co-operation with the Italian National Agency for New Technologies, Energy and the Environment (ENEA), Bologna/I, the Institute of Environmental Sciences (CML), Leiden/NL, and UNEP, invite papers for a common workshop to be held

from 27-28 SEPTEMBER 2007 in BRUSSELS

Scientific experts from the fields of Life Cycle approaches as well as researchers on governance aspects, policy observers as well as experts from public policy and administration, especially representatives from UN, OECD, EU and environment agencies will be brought together at the meeting. A special focus of the workshop will be to further the interdisciplinary exchange within these branches of research. We also invite representatives from civil society (NGOs etc.), business community, and government.

BACKGROUND: THE CALCAS PROJECT

One important analytical tool among different Life-Cycle Approaches is Life Cycle Assessment as described and standardised by ISO. ISO has been the main driver for LCA diffusion, but it has limitations regarding empirical mechanisms, spatial/temporal aspects and economic/social parameters. To increase the efficacy of sustainability decision making, LCA has to take into account broader externalities, broader interrelations and different application/user needs. These often have conflicting requirements, like richer dynamic models, integration of environmental, economic, and social aspects, against simplicity, accessibility and user friendliness, etc.

CALCAS stands for Co-ordination Action for Innovation in Life-Cycle Analysis for Sustainability, it is funded within the 6th Research Programme of the European Union and aims to develop (ISO-) LCA by

- “deepening” the present models and tools to improve their applicability in different contexts while increasing their reliability and usability
- “broadening” the LCA scope by better incorporating sustainability aspects and linking to neighbouring models, to improve their significance
- “leaping forward” by a revision/enrichment of foundations, through the crossing with other disciplines for sustainability evaluation.

Aims of the Workshop

The changing character of environmental challenges during the last decades is mirrored by a change in the political and institutional framework conditions. Governance for sustainable development has to cope with the ongoing depletion of abiotic and especially biotic resources, the overuse of natural resources (like water and landscape) and unsustainable emission rates from current consumption and production patterns.

However, despite some successes in the development and implementation of environmental policies in many countries, no effective institutions and steering capacities have evolved so far that internalise non-market effects or compensate the failure of markets. There is no sin-

gle actor able to deal with these challenges. Instead, collective and co-operative actions of social, economic, financial and political institutions and organisations are needed to change the present unsustainable pathway. Politics are taking place on a multitude of different levels and sectors, the choice of the right regulatory instruments is seldom clear, numerous stakeholders are involved at all stages of policy making, and new actors and actor constellations are appearing on the stage. In brief, policy making has changed, from a hierarchical perspective with the state as main actor to a more polycentric, multi-stakeholder and multilevel policy with an increasing importance of societal mechanisms not directly influenced by policies. In terms of coordination, new governance may be sketched as a form of *network coordination* based on communicative interactions, with each participant reflecting sustainability considerations to a certain degree. This variant of coordination is contrasted to *horizontal market coordination*, or a top down, rather *hierarchical coordination*.

During the past years this change in actor constellations has been accompanied by the emergence of so called “new” instruments in environmental governance, which can be characterised by a higher level of discretion for the target groups in contrast to traditional command-and-control approaches. Examples of such instruments are economic instruments, framework legislation or a stronger commitment to self-regulatory models. However, this focus on new instruments with a higher level of discretion does not necessarily imply a complete withdrawal of public actors. New modes of governance often take place “in the shadow of hierarchy”, leaving coercion as a dominant mechanism intact and thus still allowing public authorities to play a decisive role.

One new direction in discussions about new governance deals with the role of information generation and transmission and goal-orientation: “*Knowledge for transition*” aims to steer industry, agriculture, energy production, important actor groups (e.g. associations, NGOs), and other users of environmental resources and ecosystems. Life cycle approaches can play a dominant role in this regard. Within knowledge based approaches of governance in general, the generation, transmission and distribution of knowledge for reducing environmental pressures aims for decentralised, nevertheless collectively oriented decisions. However, while the value of knowledge based approaches for new forms of governance is generally accepted, there exists no general rule to explain at what point in the policy cycle these tools should be used, i.e. whether during the process of policy formulation, implementation or evaluation.

The relation between the broad background of policy development and the advances in LCA is considered from different points within the workshop:

- To what extent are political or societal goals and objectives considered within LCA?
- Are new and persistent environmental problems taken into account?
- To what extent are approaches for LCA providing the necessary knowledge base for governmental and societal actors to align their decisions according to the requirements of sustainable development?

The workshop will put special emphasis on learning from international experiences like case-studies, empirical findings or evaluations. We especially encourage scientists from outside Europe to participate in the meeting and to develop new questions based on their own research or problems in their respective countries.

A thematic focus will be laid on the development of sustainable waste management and recycling plans and the role of LCA. Researchers dealing with these aspects are especially invited to share their insights at the workshop.

On the background of these challenges, we aim to organise the discussion of the workshop along three different topics:

1. Inputs of policies and institutions for the construction of LCA

Future development of LCA and other assessment tools cannot be separated from important – primary environmental – goal settings, provided by variables and indicators of e.g. international, European or national environmental policies or the respective more comprehensive sustainable development strategies. From these overall strategy processes, indicators and objectives have to be derived for LCA to make a relevant contribution for the implementation of sustainable development. Even if the outcome may be that the micro level questions are essential in the end, the meso and macro level questions may bring focus to the relevance of the micro level, and may help shape micro level questions.

This first topic will deal with questions like:

- Are there any existing (scientific) studies or experiences relating to sustainability goal-orientation and LCA? Which research projects could be identified in order to analyse conditions for goal implementation on the micro level of LCA?
- Which criteria should be used for the selection of international or national Sustainable Development Strategies in order to give inputs to LCA development? How can contradictory goals be dealt with in LCA-findings?
- How are mandatory or voluntary environmental objectives dealt with in LCA-studies?
- Is it important to focus on the most important branches and industries or on dirty industries in the case of integrating sustainability goals?
- Are there possibilities to develop a broader Life Cycle Thinking, backed up by life cycle modelling?

2. Pressures from persistent environmental problems for the construction of LCA

Environmental Policies have succeeded in solving a number of environmental problems during the past decades. However, there remains a considerable amount of increasingly relevant problems that seem to be particularly hard to manage and thus “persistent”, such as the loss of biodiversity, climate change coming along with the overuse of natural resources, or the ongoing use of dangerous chemical substances. Finding solutions for them is not only constrained by technical circumstances. The persistent character of these problems is furthermore determined on a socio-economic dimension: the problem’s public perception is often weak, its origin not clear and technical or marketable (“win-win”) solutions are not available. Additionally, some industrial sectors simply rely on an extensive use of the environment as a basis for their production.

This second topic will deal with questions like:

- How can persistent environmental problems be properly incorporated in the methodology of LCA?
- How and where can LCA be utilised in the value chain in order to obtain the desired results, i.e. making material flows cleaner and more sustainable? Are knowledge based instruments like LCA at all suitable to solve persistent problems with their complex socio-economic background?
- Which inputs can be derived from other related research strands like the environmental flows debate or integrated chain management?

The role of LCA in the context of these socio-economic aspects of persistent problems has yet to be clarified. In relation to Topic 3 (below) the crucial question for governance remains how to deal with the different results generated by LCA. The trading off of different sustainability issues and the discussions between proponents of weak or strong sustainability must be kept in mind when dealing with LCA. LCA may be able to provide the necessary information for dealing with environmental issues, but any decision how to adopt

these results and to apply LCA where necessary will be left to the relevant actors in governance for sustainability.

3. Analyses of LCA as a knowledge base for sustainable governance

Life-Cycle Assessment can play a double role in the observed changing of governance patterns: LCA “stands” for a new type of knowledge generation and communication; it becomes a tool forming the scientific basis for public decision making. However, LCA possesses the “risks” of uncertainty, of methodological pluralism and of missing acceptance due to “open” scientific processes. In addition to that LCA also supports the active role of stakeholders, business and society within their contexts of decision-making.

This third topic will deal with questions like

- To what extent and how can LCA contribute to new forms of governance (as summarised in the previous sections) and to a better and leaner regulation?
- Which experiences exist with regard to LCA as an information generating tool in policy *formulation*? Could LCA provide public decision makers with better information during policy *implementation*? Is LCA used as a tool for policy *revision and reformulation*?
- Which experiences exist about direct or indirect incentives by policy about the application of LCA within business and society?

Abstracts dealing with this third topic should be based on conceptual and/or theoretical insights or based on empirical findings in areas like environmental-oriented product policy, the regulation of hazardous substances, waste management or resource management.

Documentation and expected results of the Workshop

We are aiming to publish the most relevant papers in a special issue of a major international journal.

How to participate

The workshop will be held in English. Please send your paper proposals by e-mail to hvagt@zedat.fu-berlin.de. The e-mail should contain

- (1) the title of the proposed paper or presentation,
- (2) the abstract of max. 1 page A4, Arial 10 single-spaced (i.e. around 500-600 words – longer abstracts will be rejected. No graphs, references, tables etc. in the abstract, please),
- (3) the complete address and professional affiliation of all (co)-author(s).

The **deadline** for proposals is **1 MAY 2007**. All submissions will be peer reviewed by a group of experts from the scientific field. Notification of the decision will be sent by e-mail no later than **1 JUNE 2007**. Full papers/presentations are expected by **10 SEPTEMBER 2007**.

Further information about the workshop will be available at

<http://www.fu-berlin.de/ffu/calcas>



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