

55th LCA Discussion Forum

ABIOTIC RESOURCES: NEW IMPACT ASSESSMENT APPROACHES IN VIEW OF RESOURCE EFFICIENCY AND RESOURCE CRITICALITY

Friday, April 11, 2014, ETH Zürich

We cordially invite you to the 55th Discussion Forum on Life Cycle Assessment
The official language of this event is English

Security of abiotic resources has become a growing political concern with increased focus at resource scarcity, natural availability and dependency on foreign supply. For a near-future time horizon, both the USA and the EU have identified so-called “critical raw materials” (including platinum group metals, rare earth elements, niobium, and tungsten), and resource efficiency has become one key element of the sustainability policy of the EU and Switzerland. For the long time horizon, new as well as updated approaches for abiotic resource impact assessment have recently been developed within the context of life cycle assessment. This development has been extremely diverse with no unifying practice on how to assess resource extraction from the natural environment. The goal of this discussion forum is to present and discuss these approaches with respect to

- the relevance of resources as a separate safeguard subject in environmental assessments;
- their interpretation of environmental mechanism related to resource extraction;
- usability and application relevance of resource depletion assessment methods, criticality assessment and resource efficiency assessment respectively;
- elemental coverage and alignment with other types of resources (biogenic and renewable abiotic funds and flows), and;
- the future direction for assessment of resource extraction within the framework of life cycle assessment.

We look forward to meeting you in Zürich!

Rolf Frischknecht (treeze Ltd.), Melanie Haupt (ETH Zürich), Jakob Rørbech (DTU), & Carl Vadenbo (ETH Zürich)

Organizing committee, 55th LCA Discussion Forum

Final Programme

Time	Title	Speaker [Chair]
8:30	Registration, coffee & gipfeli	
	Indicators and method development	[Carl Vadenbo]
9:00	Welcome and introduction	Carl Vadenbo (ETH Zürich)
9:05	Setting the scene: Overview of resource topics in LCA and MFA	Stefanie Hellweg (ETH Zürich)
9:30	Ore grade decrease as a basis for modelling impact assessment for mineral scarcity	Tommie Ponsioen (PRé Consultants)
10:00	Addressing natural resources as area of protection in sustainability assessment	Jo Dewulf (EC-JRC, Ghent University)
10:30	Coffee break	
	Indicators and method development (cont'd)	[Carl Vadenbo]
11:00	Abiotic resource availability in the context of sustainability–modelling environmental, economic and social constraints	Laura Schneider (TU Berlin)
11:30	Impact assessment of abiotic resources: the role of borrowing and dissipative resource use	Rolf Frischknecht (treeze Ltd.)
11:50	Comparison of resource depletion indicators: Quantitative differences and similarities	Jakob Rørbech (DTU)
12:20	Lunch break	
	Managing abiotic resources	[Melanie Haupt]
13:20	Assessing resource criticality of metals and its relationship to life cycle assessment	Philip Nuss (Yale University)
13:50	Short presentations (SP)	Xiaoyue Du (EMPA) David Laner (TU Vienna) Johannes Drielsma (euromines) Hans-Jörg Althaus (swisscleantech)
14:40	Introduction to workshop topics and formation of groups	Melanie Haupt (ETH Zürich)
14:45	Coffee break	
	Workshop	[Rolf Frischknecht]
15:15	Discussion in groups, tentative topics: 1: Resource indicators: Practicality versus scientific rigour 2: What are the potential role(s) of exergy and other thermodynamic concepts for managing resource use? And how to combine it with other aspects such as scarcity and criticality? 3: Borrowing or dissipating resources, does it matter?	
16:05	Summary of discussions from group leaders	
16:35	Wrap-up + announcements for next discussion forum	
16:40	Farewell	

1 Practical information

Application form

To register for the 55th DF, please fill in the application form (pdf) attached and send it to the LCA Discussion Forum secretariat (lcaforum@quantis-intl.com). Please do not forget to indicate your affiliation and if you are a student, a PhD student or a member of Swiss cleantech (special fees apply, see application form). Programme updates will be available at www.lcaforum.ch.

Invoice

Once the application form is sent to the LCA Discussion Forum secretariat (lcaforum@quantis-intl.com) and the registration is confirmed, an invoice will be sent by email to each participant.

If you cannot pay by transfer payment prior to the DF, you will have the possibility to pay in cash (only) the morning of the DF, at the reception desk, from 8:30 to 9:00 am.

Lunch

Vouchers for lunch at the ETH restaurant will be provided to all participants. A vegetarian meal option is always on offer.

Location

The DF will take place in the Alumni (GEP) Pavillon, Swiss Federal Institute of Technology Zurich, 8001 Zurich.

<https://maps.google.ch/maps/ms?msa=0&msid=205813047619347088253.0004e0af154b1fc2c1968&ie=UTF8&ll=47.376616,8.546441&spn=0.00287,0.006968&t=m&z=18&vpsrc=6&iwloc=0004e0af154df9d0190e4>



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