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The BAFU view on Mineral Resources' assessment in Impact Assessment

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Why the FOEN has been invited to present its view?

- mineral resources are a key topic of today's forum
- new since 2006:
eco-factor for gravel in «The Ecological Scarcity Method – Eco-Factors 2006» (EcoScaM 06)
- Switzerland is – as far as we know – the world's first and only country that utilises results of a LCIA for the assessment of taxes
(tax relief for biofuels requires proof of “positive aggregate environmental impact”)
- EcoScaM 06 is one element in this assessment
(aggregated environmental impact, climate impact, rainforest conservation, biological diversity)



Mineral resources in the Ecological Scarcity Method

Fact: there is an eco-factor for gravel in EcoScaM 06

- at first glance:
 - gravel is a mineral resource

But: is there an eco-factor for mineral resources?

- at second glance:
 - the eco-factor for gravel is not reflecting the scarcity of the mineral resource gravel,
 - but the scarcity of legal useable land (digging sites) for gravel mining



On what is impact assessment based in the Ecological Scarcity Method?

The ecological scarcity method (unit = eco-points EP, in German: UBP for «environmental impact points»)

- doesn't measure the damage to human health and ecosystems as well as resource depletion
- but represents the distance to target between
 - environmental goals and
 - reality
- in principle the method measures the distance of a real flow (material or energy) to a target (set by customer, based on customers value system)
- EcoScaM 06 is based on the targets set by the Swiss political authorities.



What resources and emissions are considered in EcoScaM?

- EcoScaM assesses three elements:
 1. resource consumption,
 2. emissions and
 3. waste disposal
- about **2**: considered **emissions** are such to
 - air (many pollutants),
 - water (surface and groundwater) and
 - soil
- about **3**: for **waste** are considered the specific Swiss demands on the quality of residues out of waste treatment



And which resources in EcoScaM?

- energy consumption (primary energy),
- fresh water (regarding regional differences)
- land use

But

- the depletion of mineral resources is not considered in EcoScaM 06 because a goal is not yet defined by Swiss political authorities

And once again:

- the ecofactor for gravel represents a particular form of assessment of land use, not of resource depletion
- the weighted resource is land, not a mineral (gravel)



Outlook

Two key questions with regard to mineral resources:

- 1) How the assessment of the consumption of mineral resources can be handled methodologically?
- 2) Are there set political objectives in Switzerland regarding the depletion of mineral resources?

The goal:

- BAFU/FOEN will try to be ready from a methodological point of view as soon as political objectives will be defined.

The time frame:

- for 1) we talk about 2-3 years,
- for 2) a forecast is hardly possible.



Thank you for your attention!

Links to publications (downloads):

1. The Ecological Scarcity Method – Eco-Factors 2006
<http://www.bafu.admin.ch/publikationen/publikation/01031/>
(report in English and German, 188 pages)
2. Swiss Ecological Scarcity Method: The New Version 2006
<http://www.esu-services.ch/ubp06/>
(paper in English, 4 pages)
3. Life cycle assessments: Pointing the way towards more environment-friendly products
<http://www.bafu.admin.ch/dokumentation/umwelt/08880/>
(article in ENVIRONMENT Magazine (edited by BAFU), in English, French, German and Italian, 6 pages)