

Zurich University
of Applied Sciences



Life Sciences and
Facility Management

Institute of
Natural Resource Sciences

Research Group for

Life Cycle Assessment



The Life Cycle Assessment research group uses Life Cycle Assessment (LCA) to quantify and evaluate environmental impact over the entire life cycle of a product or service according to scientific criteria. This assessment method plays a key role in the ecological optimisation of processes, products and services and can be used to communicate environmental benefits. The research group contributes towards the further development of LCA methodology and applies it in various subject areas, focusing on projects in the fields of nutrition and energy.

Areas of expertise

- Life cycle assessments, carbon and water footprinting
 - Improving the efficiency of resource use in industry and the service sector
 - Developing simple tools for the inclusion of ecological or sustainability criteria in decision making processes (environmental calculators/parameter models)
 - Environmental Product Declarations (EPD)
 - Performing potential assessments of activities to reduce environmental impact
 - Independent reviews
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Reference project 1

Eat-IT

Approximately one sixth of all greenhouse gas emissions in Europe result from food consumption. The aim of the Eat-IT project was to provide information on greenhouse gas emissions to restaurants and caterers. The project took into account emissions from various meals over their entire life cycle, including the production of ingredients, processing, conservation, transport and preparation.

Reference project 2

Life Cycle Assessment of Swiss Wind Power

Wind conditions in Switzerland are less favourable for wind power production than at offshore sites. This raises the question of whether the expansion of wind energy in Switzerland is worthwhile from an environmental point of view. The ZHAW LCA study showed that Swiss wind power is environmentally friendly and that further expansion could contribute towards a reduction in the environmental impact of Swiss electricity production.

Reference project 3

Comparison of Peat and Peat Replacement Products

Peat is a popular component of culture and plant substrates. However, the use of peat is associated with climate-damaging CO₂ emissions and other environmental impacts. For this reason, a study by the Institute of Natural Resource Sciences considered alternative products. In addition to being more ecological, these alternatives were associated with favourable social impacts and future supply of these alternatives is guaranteed.

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