



Project Proposal

For the Degree Program in Sustainability Studies

Complexity of sustainability

How ecology, economy and social issues can be combined

Duration: 5-6 Months (27,5 ECTS = 825 h)

Location: Home Office

Possibilities for a follow-up Master's Thesis: Yes (e.g. application of the determined Multi Criteria Decision Analysis (MCDA) method on a research project-related Case Study)

Potential Cooperation Partners (if applicable): None

Supervisor / Contact: Alina Kleiner, M.Sc.

Aim of the project: To support the interpretation of Life Cycle Sustainability Assessment (LCSA) results by identification of the potentials and challenges of different MCDA methods and derivation of one or more suitable methods. Therefore, to answer the following scientific question: To what extent can different dimensions of sustainability and extended aspects like e. g. packaging functionality be assessed in combination?

Project description: A holistic sustainability assessment (of packaging) requires the consideration of all dimensions of sustainability - ecology, economy and social aspects - as well as other aspects such as the functional properties (of packaging). However, the evaluation and interpretation of a holistic sustainability assessment poses a challenge due to the diversity of the aspects considered and consequently the different units of the results. MCDA (multi-criteria decision analysis) methods can help to overcome this challenge. The appropriate selection of a method from the multitude of MCDA methods is essential to support the interpretation of the results of a holistic sustainability assessment.

Suitable for / Requirements for the student: Can be carried out in German or English. The student should be interested in the topic, have an independent way of working and be willing to familiarize themselves with a sustainability assessment methods like Life Cycle Assessment (LCA), social LCA, Life Cycle Costing and Life Cycle Sustainability Assessment (LCSA) as well as in MCDA methods.