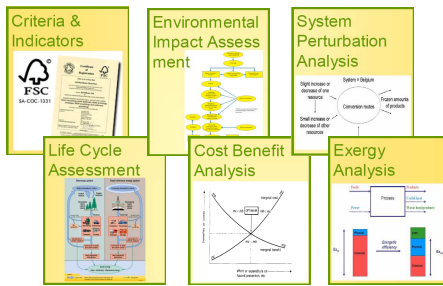


Towards integrated sustainability assessment for energetic use of biomass: a state of the art evaluation of assessment tools

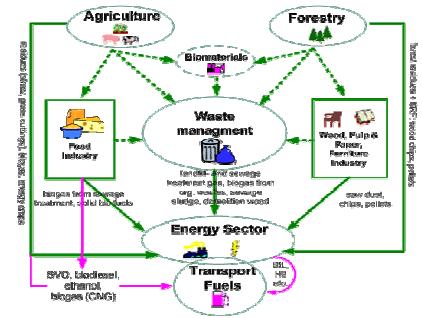
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HOW TO MEASURE SUSTAINABILITY OF BIO-ENERGY?

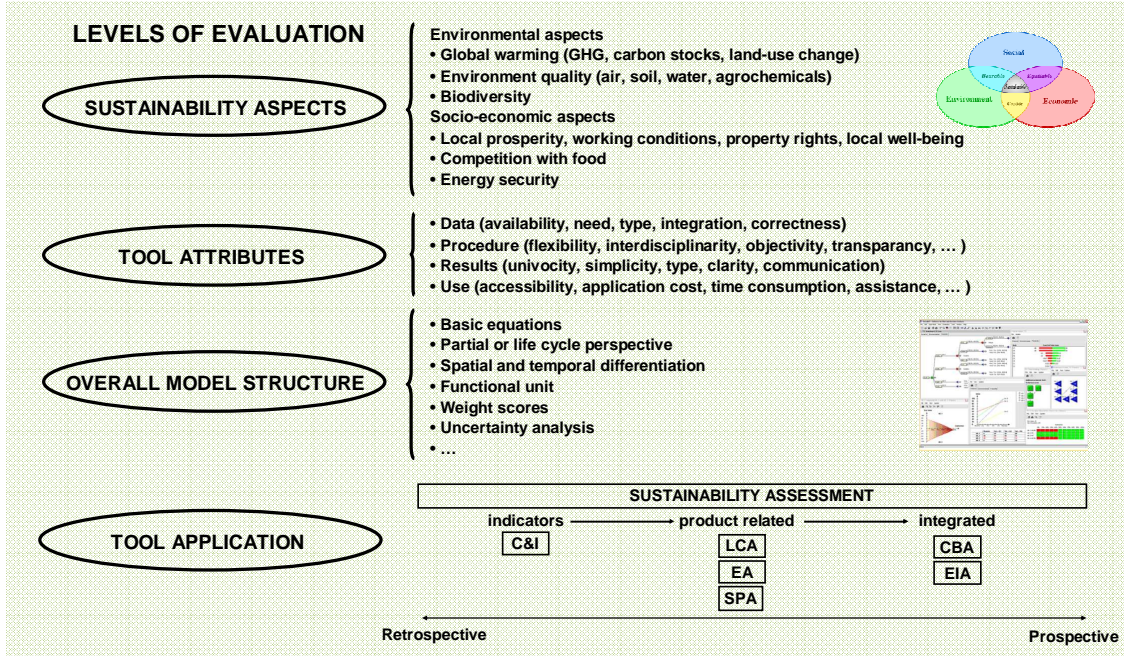
This study analyses and compares the applicability and performance of a number of basic sustainability assessment tools in relation to the evaluation of bio-energy systems.



Selection of existing assessment tools

Defining the assessment field

Construction of an evaluation framework



Based on literature review and with the help of a Delphi panel of experts, scores were attributed to the evaluation aspects for each of the assessment tools.

Evaluation of existing tools

A cluster analysis was performed together with a categorical principal components analysis (categorical PCA).

The results highlight strengths and weaknesses of the studied tools and help to optimise the choice and use of a certain tool with respect to a particular sustainability question. The shortcomings of the existing tools for the execution of an integrated sustainability assessment are identified and suggestions for their integration in a more comprehensive tool are made.

Operational sustainability assessment tool

