Indirect Land Use Change (iLUC) & Life Cycle Assessment (LCA): Scientific Robustness and Consistency with International Standards

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- Key Conclusions –

The study “Indirect land use change (iLUC) within life cycle assessment (LCA) – Scientific robustness and consistency with international standards”, by Prof. Matthias Finkbeiner, investigates whether iLUC can be included in the LCA or carbon footprint (CF) calculations of biofuels in a scientifically robust and consistent way.

Examining the academic literature and by making a thorough analysis, the study reaches at critical conclusions that point out:

1. As there are no primary data available for iLUC calculations, the data quality underlying iLUC factors is significantly lower than any other data used for LCA and CF.

2. While numeric values of estimated iLUC emissions are misleading and contain systematic as well as statistical errors, the models are even unclear whether the iLUC effect of certain biofuels is positive or negative. And there is currently no way to determine which of the iLUC factors published is more accurate and informative.

3. There is agreement among the scientific community that the current information content, reliability and integrity of exact iLUC factors are not on the quality level of well established economic models or robust scientific findings.

4. LCAs and CFs are acknowledged and used internationally for measuring the environmental impact of products. Currently, international LCA or CF standards and guidelines abstain from the inclusion of iLUC factors into their assessment. Moreover, there is no fact-based support for a scientifically robust and consistent inclusion of iLUC factors into LCA and carbon footprints (CF) assessments.

5. iLUC factors are a hasty reaction in method development and remain an arbitrary choice for political decision-making. The isolated application of iLUC for biofuels is scientifically not consistent.

6. Should policy makers decide to introduce speculative and inconclusive iLUC factors into environmental impact assessment, LCA and CF would fail and their credibility, robustness, integrity and reliabiltiy will be equally damaged.

7. In the absence of internationally acknowledged and robust iLUC method, more focus and resources should be directed towards proactive mitigation of iLUC effects, rather than reactive introduction of sham iLUC factors.