

Assessing the environmental impact of agriculture

Edited by Professor Bo Weidema
Aalborg University, Denmark



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Assessing the environmental impact of agriculture

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Description:

A prerequisite to improving the sustainability of agriculture are reliable methods to identify and quantify types of environmental impact. This collection summarises current research on the use of life cycle assessment (LCA) and other modelling techniques to measure and improve the sustainability of agriculture.

Part 1 looks at current best practice and key methodological challenges in life cycle assessment. Part 2 reviews ways of modelling particular types of impact, from nutrient and carbon cycles to freshwater balances, energy use, pesticide use and biodiversity. Part 3 reviews the environmental assessment and optimization of sectors such as crops, ruminant and other livestock production as well as by-products.

Assessing the environmental impact of agriculture will be a standard reference for researchers in agricultural and environmental science concerned with understanding and mitigating the environmental impact of agriculture.

Key features:

- Assesses current best practice and methodological issues in life cycle assessment (LCA) methodology for agriculture
- Looks in detail at particular types of environmental impact such as nutrient and carbon cycles
- Reviews the environmental assessment and optimization of sectors such as crops, ruminant and other livestock production as well as by-products.

Audience:

Researchers in agricultural and environmental science focussing on the environmental impact of agriculture; government and other agencies monitoring the environmental impact of agriculture

Editor details:

With over 25 years of experience in life cycle assessment research, Dr Weidema is a Professor at Aalborg University in Denmark, President of the International Life Cycle Academy, founder of 2-0 LCA consultants and former Chief Scientist for the Ecoinvent database.

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