



Food and Agriculture
Organization of the
United Nations

WEBINAR



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Life cycle assessment for sustainable food systems: integrating nutritional and environmental assessment

Wednesday 27 October – 9:30-10.30 AM (CEST)

[Zoom webinar](#)

CONCEPT NOTE

Agri-food systems are major contributors to environmental degradation. At the same time obesity and diet related diseases are on the rise due to over consumption of food which is high in saturated fat, salt and sugar.

The Life Cycle Assessment (LCA) methodology provides insights into the environmental impacts of foods, meals, and diets from production to consumption. However, to date, there is no agreed approach for integrating the assessment of nutritional value into the LCA methodology. Instead, a diverse range of approaches has emerged that provide different perspectives on nutritional value in the context of LCA of agri-food systems. It can therefore be difficult to identify where trade-offs exist between different life cycle-based environmental impacts (e.g. greenhouse gas emissions and water use), and the contribution of different foods to human nutrition. This is hindering the ability of food system actors and policymakers to develop robust multi-dimensional LCAs and to make evidence-based decisions that encourage the development of sustainable food systems that deliver healthy diets.

To address this challenge, FAO, with the financial contribution of the Governments of New Zealand and Ireland, embarked on an action-research project in May 2021. The project brought together an international team of thirty LCA and nutrition researchers who developed a state-of-the-art review to improve the environmental and nutritional Life Cycle Assessment (nLCA) methodology. The group identified the key LCA methodology limitations that are impeding the ability of food systems actors to capture and compare the environmental and nutritional impacts of food items. They developed best practice recommendations for an integrated nLCA to measure and compare these impacts, and defined future research needs.

The recommendations put forward by the group will be built upon in advancing the methodological developments which are urgently needed in informing the further development and implementation of the national transformative pathways articulated through the UN Food Systems Summit process.

The objectives of this webinar are to present the results of this project and to gather feedback on the applicability of this research to the policy needs of different stakeholders in advancing their agri-food systems transformation agendas.

AGENDA

9:30-9:35	OPENING OF THE MEETING <i>Moderator – Ms. Maryam Rezaei, FAO</i>
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HIGH-LEVEL PANEL	
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9:35-9:45	Opening remarks <ul style="list-style-type: none">▪ Mr. Jamie Morrison, Director, Food Systems and Food Safety Division, FAO▪ H.E. Anthony Simpson, Permanent Representative of New Zealand to the FAO▪ Mr. Bill Callanan, Chief Inspector, Department of Agriculture, Food and the Marine, Ireland
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TECHNICAL PANEL	
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9:45-10	Life cycle assessment tool for Sustainable food systems; integrating nutrition and environmental assessment - Project road map, process and results <ul style="list-style-type: none">▪ Professor Sarah McLaren, Professor in Life Cycle Management, Massey University (Project Technical lead)
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10-10.15	Translating research into action - Three Case Studies <ul style="list-style-type: none">▪ Dr. Camillo De Camillis, FAO, LEAP partnership▪ Dr. Ashley Green, ETH Zurich, Sustainable Food Processing Group▪ Prof. Thom Huppertz, Wageningen University and Research <i>Moderator – Professor Sarah McLaren</i>
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10:15-10.25	DISCUSSION – Q&A <i>Moderator – Professor Sarah McLaren</i>
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10:25-10.30	CLOSING REMARKS Mr. Jamie Morrison , Director, Food Systems and Food Safety Division, FAO

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