TS-39

LIFE CYCLE-BASED METHODOLOGIES FOR SUSTAINABILITY ASSESSMENTS IN AGROECOSYSTEMS, CIRCULAR ECONOMY, AND ENERGETIC/ECOLOGICAL TRANSITION PROCESSES

Keywords: LCA; LCC; SLCA; Sustainability; Agroecosystems; Circular Economy; Energetic Transition.

Ecological transition and circular economy geared toward better sustainability of systems, are currently the most discussed issues among researchers, politicians, and academics.
Life Cycle tools are widely recognized as useful to obtain proven information on the sustainability performance of products, technologies, and services so as to become crucial in environmental policy, supporting the shift to a green economy and beyond. Rethinking the current models of production and consumption is now an absolute urgency in all sectors as well as in agrifood systems, which must increasingly reconcile less environmental pressure with food quality, economic productivity and well-being in rural areas.
Therefore, exploring the potential contribution of circular approaches and agroecological practices to sustainable production also means understanding how to pay more attention to the social, economic, and environmental aspects of sustainability. To satisfy these purposes, sustainability evaluation tools in general and life cycle-based are required to be punctual, case-specific, and evidence-based but also comprehensive, systemic, multidisciplinary, and multicriterial. This thematic session proposal welcomes papers on theoretical discussions, studies review, methodological applications, and case studies in agrifood systems, also linked to renewable energy technologies and energy-smart agrifood systems, to investigate the potential of life cycle tools in the assessment of innovative transition pathways.

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