

Special Issue

Sustainable Life Cycle Assessment: Methods, Applications and Future Trends

Message from the Guest Editors

Sustainable development increasingly relies on scientifically rigorous approaches to assess environmental impacts across product life cycles. Life cycle assessment has become a foundational tool in evaluating sustainability metrics in industries such as energy, agriculture, waste management, and manufacturing. However, emerging challenges such as data limitations, dynamic modeling, and integration with circular economy frameworks necessitate advancement in LCA methodologies. This Special Issue ‘Sustainable Life Cycle Assessment: Methods, Applications and Future Trends’ aims to explore innovative LCA methods, diverse applications in industrial and policy contexts, and future trends, including digitalization and real-time environmental monitoring. Contributions may address sector-specific studies, methodological improvements, or strategic integrations like LCA in policymaking. We invite original research articles and critical reviews spanning methodological, applied, and strategic aspects of sustainable LCA. Researchers, practitioners, and policymakers are encouraged to share work driving the next generation of sustainability assessments. We look forward to your valuable contributions.

Guest Editors

Dr. Sharath K Ankathi

Department of Chemical Engineering, Michigan Technological University, Houghton, MI 49931, USA

Dr. Utkarsh Shailesh Chaudhari

Argonne National Laboratory, Lemont, IL 60439, USA

Deadline for manuscript submissions

15 April 2026



Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



mdpi.com/si/250392

Sustainability
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)





Sustainability

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 7.7



[mdpi.com/journal/
sustainability](https://mdpi.com/journal/sustainability)



About the Journal

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,
Columbus, OH 43210, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1
(Geography, Planning and Development)