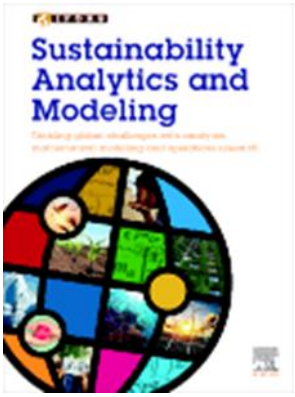

IFORS/Elsevier

Sustainability Analytics and Modeling

Special Issue:

Sustainability and Humanitarian Logistics and Supply Chain Management: Models, Applications, Emerging Topics

Call for Papers

1. AIMS AND SCOPE

This special issue invites papers that examine strategies for enhancing resilience against disasters and crises, with a focus on preparedness, response, and recovery. We seek contributions that explore how to design and implement efficient, effective, equitable, and sustainable solutions to mitigate the impact of such events and improve humanitarian logistics and supply chain management. The call is associated with the 34th European Conference on Operational Research in 2025 (https://euro2025leeds.uk/), but all studies that fit the topic of the special issue are welcome.

In an era marked by increasing global disruptions, ranging from natural disasters and pandemics to geopolitical conflicts and climate change, the role of sustainable and efficient **humanitarian logistics and supply chain management (HLSCM)** has never been more critical. Effective HLSCM ensures the timely and equitable delivery of essential goods and services to vulnerable populations while minimizing environmental and social impacts. This special issue aims to advance the discourse on **sustainability-driven strategies, innovative models, and emerging applications** that enhance the resilience, responsiveness, and efficiency of humanitarian supply chains.

2. TOPICS COVERED

Topics that are of interest for this special issue include, but are not limited to:

1. Optimization in HLSCM

- Facility location and network design for sustainable supply chains in crisis zones
- Resource allocation models for disaster relief and humanitarian aid distribution
- Inventory pre-positioning strategies for emergency preparedness and response
- Routing and scheduling optimization for last-mile delivery in affected areas
- Supply chain coordination and collaboration in multi-agency humanitarian operations
- Evacuation models and traffic management
- Multi-objective optimization for balancing cost, speed, equity, and environmental impact
- Methodology to model and incorporate uncertainty in HLSCM
- Modeling challenges for HLSCM
- Modeling victim and donor behavior

2. Simulation & Data-Driven Approaches

- Agent-Based & System Dynamics Modeling for Disaster Response Logistics
- Monte Carlo Simulations to assess supply chain risks in humanitarian operations
- Digital Twins & AI-powered Decision Support Systems for real-time crisis management
- Big data analytics for demand forecasting and scenario generation in humanitarian relief operations
- Information systems and (big) data analysis for sustainable HLSCM
- Remote sensing & GIS Applications for logistics planning in disaster-prone regions
- Intelligent technologies for disaster management

3. Policy & Strategy Development

- Sustainability policies in HLSCM (carbon footprint reduction, green logistics)
- Equitable distribution policies for fair access to humanitarian aid
- Public-Private Partnerships (PPP) in disaster relief for efficient supply chain collaboration
- Risk management & resilience planning in sustainable disaster relief efforts
- Ethical considerations & governance in humanitarian logistics decision-making
- Policy modeling and analysis for climate-induced crises

- Sustainable disaster management and strategic decision-making
- Sustainability metrics for humanitarian operations
- Quadruple bottom line approach to HLSCM
- Public health challenges in HLSCM
- Socio-economic resilience to disasters and policy-making for HLSCM
- Government investment and infrastructure development for HLSCM
- Strategies for organization of volunteers and capacity building for HLSCM
- Lessons learned and recommendations for practitioners

3. SUBMISSION GUIDELINES

IFORS will cover the APC (Article Publishing Charge) for all papers submitted by 30th December 2025. Submitted papers should be original works and should not have been previously published or currently considered for publication elsewhere. The manuscripts should be prepared according to the Guide for Authors available at:

https://www.elsevier.com/journals/sustainability-analytics-and-modeling/2667-2596/guide-for-authors.

All manuscripts should be submitted electronically using the journal's online manuscript submission system at https://www.editorialmanager.com/samod/default.aspx. When prompted for the article type, please select "VSI: Sustainable Humanitarian Logistics and Supply Chain Management".

On the Attach Files screen, please submit the Manuscript, Highlights, Cover Letter summarizing the contributions of the paper, and Conflict of Interest Declaration (template available at https://service.elsevier.com/app/answers/detail/a_id/286/supporthub/publishing).

At the Review Preferences screen, you may suggest potential reviewers for this submission and provide specific reasons for your suggestion in the comments box for each person.

Manuscripts submitted after the deadline may not be considered for the special issue and may be transferred, if accepted, to a regular issue.

4. IMPORTANT DATES

Eligible submissions will be quickly submitted to the peer review process by the guest editors. The guest editors will work to ensure a maximum time of three months for the initial peer review process. Papers that need moderate revisions will be maintained for

consideration for the special issue. Papers that need major revision will be transferred to a regular issue.

Beginning of submissions: May 1, 2025

Deadline for submissions: December 30, 2025

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