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Circularity with Reverse Logistics in Halal Sectors to Degrade Ecological Footprints: Evidence in ASEAN-5" -- "CHAPTER 9:Circular logistics and operations: Transportation across a product’s lifecycle" -- "CHAPTER 10:Impact of demand forecasting on environmental performance of coffee supply chain in Vietnam" -- "CHAPTER 11:Exploring Global Food Security Index: A Case Study of Indonesia".

Sommario/riassunto

The escalating tide of waste and environmental threats demands a paradigm shift in how we produce and consume waste. The circular economy emerges as a beacon of hope, offering a transformative approach that breaks free from the traditional "take make dispose" model. This innovative system prioritizes sustainable practices throughout a product's lifecycle, promoting reuse, recycling, and regeneration. By fostering the development of robust and closed loop supply chains, the circular economy ensures that resources are kept in use for as long as possible, thus minimizing waste and environmental impact. To achieve these ambitious goals, the circular economy leverages cutting edge technologies such as operations research and data science. These tools empower businesses by constructing decision support systems that effectively handle complex environmental and economic constraints. Operational research helps in optimizing resource allocation, production processes, and logistics, while data science provides insights through data analysis and predictive modeling. This book aims to detail the application of operations research and data science methods as decision support systems to manage complex constraints. This book presents the most recent advancements and real-world applications of these methods within the framework of supply chain management in the circular economy. Additionally, it explores case studies that highlight successful implementations and the benefits achieved. The book offers comprehensive insights and practical applications, serving as a valuable guide for students, researchers, and professionals looking to drive sustainability in their organizations and communities.