Sustainable aquaculture in halal food production

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Abstract

The increasing demand for aquatic proteins on a global scale necessitates the adoption of ethical and halal-compliant approaches. Focusing on sustainable aquaculture and halal food production, it weaves together ethical considerations, environmental responsibilities, and Maqasid Al-Shari'ah principles. The chapter addresses challenges in the aquaculture sector, introducing Life Cycle Assessment (LCA) as a key tool for evaluating and mitigating environmental impacts. Highlighting the importance of ethical considerations and integrating Maqasid Al-Shari'ah components, it explores sustainable aquaculture technology. Emphasizing technology's role in resource management and compliance with halal regulations, the article advocates for incorporating LCA into certification procedures. Real-world applications through case studies showcase global adaptability. The chapter concludes with an analysis of emerging trends and recommendations, underscoring the continued integration of LCA and Maqasid Al-Shari'ah principles for a sustainable and harmonious future in halal seafood production.

Author keywords

Aquaculture; Food security; Life cycle assessment; Maqasid Al-Shari'ah; Sustainability

Indexed keywords

Engineering controlled terms

Environmental impact; Ethical technology; Life cycle; Life cycle assessment

Engineering uncontrolled terms

Case-studies; Emerging trends; Environmental responsibility; Ethical considerations; Food production; Food security; Global scale; Maqasid al-shari'ah; Real-world; Resource management

Engineering main heading

Aquaculture; Sustainable development

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