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From the Editor

By Editorial

Welcome to the first issue of the Journal of Sustainable Energy and Environmental Development (JSEED). As we embark on this exciting new journey, I am pleased to present a collection of scholarly works that highlight some of the most pressing issues in the fields of energy, sustainability, and environmental economics. In this inaugural issue, we feature thought-provoking articles and insightful book reviews that reflect the diverse and critical challenges faced by both developed and developing nations in their pursuit of sustainable energy solutions.

The global energy landscape is undergoing a rapid transformation. As we witness growing concerns over climate change, energy insecurity, and the need for more sustainable economic practices, it has become increasingly clear that the time for bold action is now. Through this journal, we aim to provide a platform for researchers, policymakers, industry leaders, and academics to share their insights and explore new approaches to sustainable development.

The first set of articles presented in this issue exemplifies the interdisciplinary nature of our field. They span a range of topics, from the application of optimal control theory to the economic and institutional dynamics of energy transition, each contributing to a deeper understanding of how we can build a more sustainable future.

In “Optimal control and differential game approaches in environmental and resource economics”, Georgy K. Patorisantis provides a rigorous analysis of optimal control theory and differential games as tools for understanding environmental and resource economic models. By employing Pontryagin’s Maximum Principle and the Hamilton-Jacobi-Bellman equation, Patorisantis offers valuable insights into how these mathematical frameworks can be applied to renewable resource management and environmental policy-making. The article not only enhances our understanding of theoretical models but also opens the door to their practical application in addressing real-world environmental challenges. This work underscores the importance of innovative economic models in managing our natural resources effectively.

In the article “Energy and emissions on the African Continent: Can and will the COP21 treaty be implemented?” by Jan-Erik Lane, the complex

Journal of Sustainable Energy and Environmental Development

relationship between energy development, emissions reduction, and economic growth in Africa is critically examined. Lane delves into the region's unique position in the global climate conversation, pointing out that while African nations are minimal contributors to global CO₂ emissions, the continent is still vulnerable to the impacts of climate change. The article provides a compelling argument for the necessity of financial and technological support under the COP21 agreement to facilitate Africa's energy transition. Lane highlights the urgency of decarbonization efforts and the vital role that international cooperation plays in Africa's sustainable development trajectory.

Evos M. Karankago's "Institutional determinants of successful public-private partnerships in electricity generation: Evidence from Tanzania" provides a case study of Tanzania's efforts to address energy infrastructure challenges through public-private partnerships (PPPs). This article offers crucial insights into the institutional factors that influence the success of PPPs in the energy sector. Karankago identifies key barriers such as unpredictable payments, lack of transparency, and high electricity costs, which hinder the effectiveness of these partnerships. The findings emphasize the importance of robust governance structures, inclusive institutions, and sound regulations in fostering sustainable energy projects. This work contributes to the ongoing discourse on how PPPs can be effectively utilized to improve electricity generation in developing countries.

In addition to these compelling articles, this issue also includes two insightful book reviews that offer critical reflections on recent publications in the field of sustainable energy and industrial development. The first, a review of "The Circular Economy and the Global South: Sustainable Industrial Development", evaluates how the Global South can adopt circular economy models to achieve sustainable industrialization. Yossef Oukkalle's review explores the book's interdisciplinary approach, which combines economics, development studies, and environmental science to offer a comprehensive understanding of the challenges and opportunities in implementing circular economy strategies in emerging economies. The review highlights the book's strengths, such as its empirical richness, while also critiquing its limited engagement with the political economy of global trade systems.

The second book review, "Insights into the New Hydrogen Economy", provides an overview of the growing importance of hydrogen in the global energy transition. Oukkalle critically examines the book's multidisciplinary approach to hydrogen production, storage, and utilization, emphasizing its role in decarbonizing energy systems. The review underscores the importance of policy support, technological innovation, and international cooperation in realizing the potential of hydrogen as a clean energy source. This book serves as an essential resource for anyone involved in or interested in the future of hydrogen as a key element of the energy transition.

As we reflect on the contents of this first issue, it is clear that the field of sustainable energy and environmental development is both complex and

Journal of Sustainable Energy and Environmental Development

ever-evolving. The articles and book reviews featured in this issue provide valuable insights into how we can address the multifaceted challenges of energy transition, climate change mitigation, and sustainable economic growth. At JSEED, we are committed to advancing research that contributes to global efforts in achieving the United Nations' Sustainable Development Goals (SDGs). In particular, the issues of affordable and clean energy (SDG7), climate action (SDG13), and responsible consumption and production (SDG12) are central to the themes explored in this issue.

Looking ahead, we are excited to continue fostering a dynamic dialogue on the intersection of energy, sustainability, and development. Our goal is to create a platform that not only publishes cutting-edge research but also facilitates collaboration among diverse stakeholders from academia, industry, and policy circles. We hope that the research presented in this issue will spark further discussions and inspire innovative solutions to the challenges we face in building a sustainable and equitable future for all.

In closing, I would like to extend my sincere gratitude to the authors, reviewers, and editorial board members who have contributed to this first issue of JSEED. Your expertise, dedication, and commitment to advancing the field are invaluable. We are proud to launch this journal and look forward to continuing our journey toward a more sustainable and just world.

Editor-in-Chief

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