The Economics of Renewable Energy Adoption in Developing Countries

Alex Robinson
PhD
Indian Institute of Technology Delhi
Hauz Khas, New Delhi, Delhi 110016, India

Pat Mitchell
PhD
University of São Paulo
Av. Prof. Luciano Gualberto, 380 - Butantã, São Paulo - SP, 05508-010, Brazil

Adrian Allen
PhD
University of Nairobi
University Way, Nairobi, Kenya

Abstract. This article investigates the economic benefits and challenges of adopting renewable energy sources in developing nations. We explore the potential for renewable energy to drive sustainable economic growth, reduce energy poverty, and improve energy security. The paper also addresses the financial and infrastructural hurdles that developing countries face in transitioning to renewable energy, and suggests policy measures to overcome these barriers.

Keywords: Renewable Energy, Developing Countries, Sustainable Growth, Energy Security, Policy Measures

Introduction

As global concerns about climate change and energy security intensify, developing countries are increasingly exploring renewable energy sources as a viable path to sustainable development. This paper examines the economic implications of renewable energy adoption in these regions, focusing on its potential to foster economic growth, alleviate energy poverty, and enhance energy security. We analyze case studies from various developing countries to highlight the benefits and challenges associated with renewable energy projects. The paper also discusses the financial, technical, and infrastructural obstacles that hinder the widespread adoption of renewable energy in developing nations. Finally, we propose policy recommendations to support the transition towards a more sustainable energy future, including investment incentives, international cooperation, and capacity-building initiatives.

References

1. Chechelashvili, M. (2019). Contemporary business challenges in a globalized world. LAP LAMBERT Academic Publishing.
2. Chechelashvili, M., Koghuashvili, P., & Babunashvili, T. (2023). Cluster as a means of increasing innovation in the region. Annali d'Italia, 45, 15-20.
3. Ola, Mariam Hilda. "Financing mix and Financial Performance: Evidence from listed Consumer and Industrial Goods Sector in Nigeria."
4. MWANGANGI, A. (2016). The Political economy of terrorism in Sub-Saharan Africa (Doctoral dissertation, KDI School).
5. Moraliyska, M. (2021, January). Factors for the future of work and their impact on the european economy and labor market. In Eurasian Economic Perspectives: Proceedings of the 29th Eurasia Business and Economics Society Conference (pp. 297-315). Cham: Springer International Publishing.
6. Moraliyska, M. (2021). SOCIAL AND REGULATORY CHALLENGES TO DIGITAL LABOR DIGITAL PLATFORMS. Eastern Academic Journal, (3), 12-25.
7. Talibzadə, O. (2023). NATURE OF BUDGET PROCESS AND ANALYSIS OF BUDGET INDICATORS IN AZER-BAIJAN BANKING SYSTEM. Social and Technical Sciences Series, 3, 82–86.
8. Talibzade, O. (2022). Organization of expenses in budget management, enterprises and organizations. Geostrategy, 71 (5), 112–114.
9. Sipos, D. (2024). The Influence of Strategic Communication on Consumer Decision-Making in Social Media Environments. European Journal of Science, Innovation and Technology, 4(5), 14-21.
10. Удахина, С. В., & Мурадов, М. Ф. О. (2018). Использование маржинального анализа для расчета стоимости обучения в вузе, использующем дистанционные методы обучения. Экономика и управление, (8 (154)), 56-61.
11. Мошенський, С. (2020). Більше ніж гроші. Фінансова історія людства. Київ: Саміт-книга.
12. Мошенскій, С. З. (2024). Капіталізм і бізнес: уроки економічної історії україни. Kreatyvna ahent͡sii͡a" Artilʹ".
13. Мошенський, С. (2024). Зародження фінансового капіталізму. Sergei Moshenskyi.
14. Пугачов, М., & Кобець, М. (2004). Земельна реформа в Україні. Проект «Аграрна політика для людського розвитку». Київ.