



The Journal of Renewable and Sustainable Energy is an interdisciplinary journal covering specific areas of renewable and sustainable energy relevant to the physical science and engineering ???



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In recent years, rural areas have become significant battlegrounds for the implementation of energy transitions. Not only are they meaningful as the location for the siting of renewable energy (RE) facilities, but they also hold a great potential for the creation of significant synergies for sustainable rural development (RD) (e.g. Benedek et al., 2018).



? Renewable energy is essential for power system decarbonization, but extended and unexpected periods of extremely low wind and solar resources (i.e., wind and solar droughts) pose a threat to



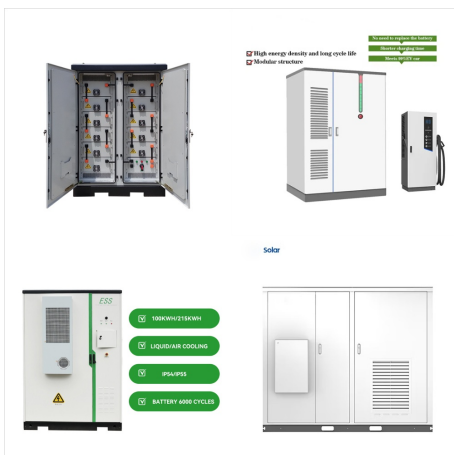
It is the clean, renewable and sustainable energy, which guarantees sustainable development. Because of the high correlation between renewable energy and sustainable development, the editorial team of this journal thought of offering a hub to researchers interested in these two important fields to present their work and share it with others who



Renewable energy transition is the initiative of the global energy sector to move away from fossil fuels (such as natural gas, oil, and coal) towards renewable energy sources (Hassan et al., 2024). The environmental Kuznets curve (EKC) illuminates the intricate association between environmental decline and economic growth (Wang et al., 2024b) and it is considered ???



Published on behalf of the International Energy Initiative, Energy for Sustainable Development is a journal to promote ??? initiate, strengthen and advance ??? the efficient and clean production and use of energy for sustainable development of developing nations (i.e. any country outside the high income category as per the World Bank definition). It publishes original, applied



In the SDEWES special issue of the journal Renewable Energy that this article targets in particular, Herc et al. [16] address the transitional phases of decarbonization by specifying the share of renewable energy in different stages. The optimization's goals are to reduce the system's cost and achieve a predefined share of renewable energy and emission in ???



As per the estimates shown in Sustainable Development Goals Report 2022" for Goal 7, the share of renewables in total energy consumption attained 17.7% in 2019 i.e. 1.6% higher than 2010, while total renewable energy consumption increased by a quarter during the same period 2. In electricity sector, increment in renewables was witnessed from



Sustainable development goals can be achieved by the use of sustainable energy and by ensuring access to affordable, reliable, sustainable, and modern energy for citizens. With strong government support and increasing opportunity of using sustainable energy, India is among the top leaders in the world's most attractive renewable energy market.



Energy is a prerequisite for development and sustainable energy systems are a prerequisite for sustainable development [1]. While the world has seen rapid development over particularly the last few decades with penetration levels of renewable energy sources reaching double-digit percentages in electricity supply in several countries, many other countries and ???



Continuing the mission of the partner journal, Renewable and Sustainable Energy Reviews, the journal will address key challenges in the global energy transition, and the wider sustainable development and environmental issues related to it, and act as a forum for the best research to come together and provide solutions and pathways for us to



Due to its ability to address the inherent intermittency of renewable energy sources, manage peak demand, enhance grid stability and reliability, and make it possible to integrate small-scale renewable energy systems into the grid, energy storage is essential for the continued development of renewable energy sources and the decentralization of



To gain a better understanding of this issue, we analyzed the degree of alignment of seven aspects of the renewable energy production process with the Sustainable Development Goals (SDGs) and



It aims to compile new study findings and emerging techniques in the field of renewable and sustainable energy for sustainable development: (1) Biofuel production and its applications; (2) Hydrogen production and its application; (3) Advanced combustion techniques; (4) Algae biofuel production and its application; (5) Renewable energy potential



This chapter explores how renewable energy can support sustainable development in South Africa. It reviews the literature on four topics: the current and future trends of renewable energy use and production; the factors that influence renewable energy adoption and diffusion; the effects of renewable energy on different aspects of sustainability; and the ???



The achievement of sustainable development goals (SDGs) depends on the access of modern, sufficient, and efficient energy to all people. Currently, developing countries including sub-Saharan Africa (SSA) are the most vulnerable to the environmental problems associated with the use of non-renewable energy.



The outcomes of this study confirm the significant positive impact of renewable energy sources, such as hydroelectric, solar PV, wind, geothermal, and biomass power, on economic growth. Renewable energy consumption offers Asian economies a twofold benefit: reducing CO₂ emanations and advancing economic growth. The gradual level of



Energy comes from the natural environment and ecosystems. It is the basis of human activities, the driving force of socioeconomic development, and necessary for improving human well-being and living conditions [3, 4]. The use of energy also has feedback effects on the environment [5]. Therefore, energy is linked broadly with the sustainable development of ???



Energy is required for development, and sustainable energy technologies are required for development to be sustainable. Three key changes that need to be made to achieve sustainable energy development are emissions reduction, substitution of fossil fuel-based power with renewable energy (RE) and energy efficiency (EE) improvement (stergaard et al., 2020).



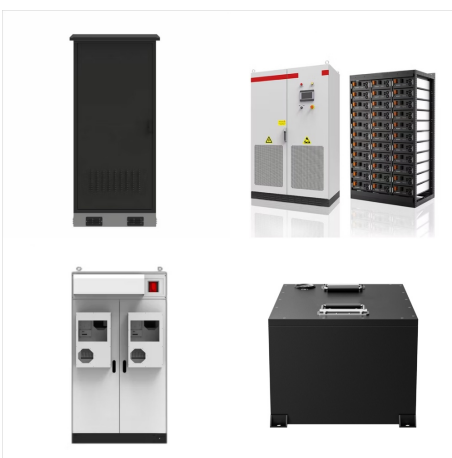
Renewable energy plays an important role in meeting climate change agreement targets, improving energy security, improving access to electricity, and reducing the impacts of fossil fuel consumption (Stern, 2009; UNFCCC, 2015). The United Nation's Sustainable Development Goal #7 for example specifies "Ensure access to affordable, reliable, sustainable ???



This study empirically investigates the impact of renewable and non-renewable energy generation on sustainable development for a balanced panel of 68 developed and developing economies from 1990 to 2019. This is done to scrutinise the intricate interplay between energy sources and sustainable development outcomes at the global level. The estimated ???



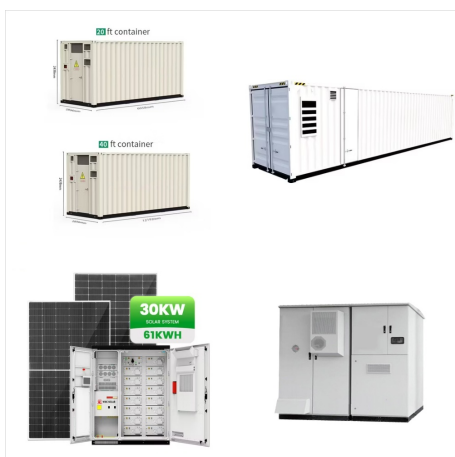
The results show that solar power is the most suitable renewable energy for sustainable development, followed by biomass, wind, and hydropower, but the optimal alternative is sensitive to the



targets laid out by the United Nations for the seventh Sustainable Development Goal (SDG 7) are clear enough: provide affordable access to energy; expand use of renewable sources; improve



The current climate and economic crises call for a swift transition to low-carbon energy systems. According to the Intergovernmental Panel on Climate Change (IPCC) [1], renewable energy must supply 70???85% of the world's electricity in 2050. Annual investments in these energy technologies as well as in energy efficiency must be multiplied by a factor of ???



This research conducts a comprehensive analysis of the intricate relationship between renewable energy and the sustainable development goals (SDGs). Employing diverse methodologies including latent dirichlet allocation (LDA) topic modeling, bibliometrics, citation analysis, and regression modeling, the study explores the evolving landscape of



This study aims to analyse the relationship between renewable energy, non-renewable energy, economic growth and sustainable development in high-income countries. This analysis uses data from 20 high-income countries covering the 1990???2015 period and finds that there is a cointegration relationship among the considered variables.



Against this backdrop, the study seeks to examine the potentials and trends of sustainable development with renewable energy sources and climate change mitigation, the extent to which it can help and the potential challenges it poses and how a shift from fossil to renewable energy sources is a sure way of mitigating climate change