

An Analysis of Renewable Energy's Contribution to Climate Change Solutions

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Abstract: *This literature review investigates the influence of renewable energy sources on the mitigation of climate change, with a particular emphasis on their ability to reduce greenhouse gas emissions, promote sustainability, and improve energy security. This section emphasizes the benefits of renewable energy sources, including solar, wind, hydro, and biomass, in terms of reducing dependence on fossil fuels and enhancing global carbon footprints. The review addresses the main obstacles to the large-scale implementation of renewable energy, such as technological, economic, and policy barriers, and emphasizes the necessity of innovative solutions to surmount these limitations. It also examines successful integration strategies and case studies in a variety of countries and regions, illustrating the positive correlation between the adoption of renewable energy and environmental protection. In conclusion, the review emphasizes the necessity of ongoing research, policy support, and global collaboration to expedite the transition to a low-carbon future, thereby underscoring the critical role that renewable energy plays in addressing climate change.*

Keywords: Solar energy, wind energy, hydro energy, biomass energy