

Renewable Energy and Ecosystem Services: A Geographical Classification in Azerbaijan

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Abstract : The transition to renewable energy sources has become a critical component of global efforts to mitigate climate change and promote sustainable development. However, the deployment of renewable energy technologies can also have significant impacts on ecosystems and the services they provide, such as carbon sequestration, soil fertility, water quality, and biodiversity. It also highlights the potential co-benefits of renewable energy deployment for ecosystem services, such as reducing greenhouse gas emissions and improving air and water quality. Renewable energy sources, such as wind, solar, hydro, and biomass, are increasingly being used to meet the world's energy needs due to their environmentally friendly nature and the desire to reduce greenhouse gas emissions. However, the expansion of renewable energy infrastructure can also impact ecosystem services, which are the benefits that humans derive from nature, such as clean water, air, and food. This geographical assessment aims to evaluate the relationship between renewable energy infrastructure and ecosystem services. Here, also explores potential solutions to mitigate the negative effects of renewable energy infrastructure on ecosystem services, such as the use of ecological compensation measures, biodiversity-friendly design of renewable energy infrastructure, and stakeholder involvement in decision-making processes.

Keywords : renewable energy, solar energy, climate change, energy production

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