

Digital Economy: Opportunity or Mirage for the Energy Transition in Sub-Saharan Africa? Results of an Empirical Analysis of its Influence on Renewable Energy Production

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Abstract: Our study analyses the impact of the digital economy on renewable energy production in Sub-Saharan Africa between 2005 and 2021. Using an adapted STIRPAT model and the Two-Stage Least Squares (2SLS) method, we demonstrate that the digital economy exerts a positive and significant effect on renewable energy development. This impact proves particularly pronounced for the hydroelectric and solar sectors, compared to the wind energy sector. Based on these findings, we recommend that public authorities: strengthen the development of the digital economy, encourage renewable energy consumption through policies combining incentives and awareness-raising, improve institutional quality, and ensure human capital adequately meets technological requirements.

Keywords: Energy Transition, Digital Economy, Renewable Energy Production

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