

Dynamic Interaction between Renewable Energy Consumption and Sustainable Development: Evidence from Ecowas Region

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Abstract : This paper investigates the dynamic interaction between renewable energy consumption (REC) and economic growth using dataset from the Economic Community of West African States (ECOWAS) from 2002 to 2016. For this study the Autoregressive Distributed Lag- Bounds test approach (ARDL) was used to examine the long run relationship between real gross domestic product and REC, while VECM based on Granger causality has been used to examine the direction of Granger causality. Our empirical findings indicate that REC has significant and positive impact on real gross domestic product. In addition, we found that REC and the percentage of access to electricity had unidirectional Granger causality to economic growth while carbon dioxide emission has bidirectional Granger causality to economic growth. Our findings indicate also that 1 per cent increase in the REC leads to an increase in Real GDP by 0.009 in long run. Thus, REC can be a means to ensure sustainable economic growth in the ECOWAS sub-region. However, it is necessary to increase further support and investments on renewable energy production in order to speed up sustainable economic development throughout the region

Keywords : Economic Growth, Renewable Energy, Sustainable Development, Sustainable Energy

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