



**QUALITY OF THE ENVIRONMENT AND ECONOMIC GROWTH IN
MALAYSIA: THE CASE OF CO₂. AN EMPIRICAL ANALYSIS OF EKC**

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ABSTRACT

The relationship between CO^2 and GDP has been empirically tested by many researchers in quest to find the existence of Environmental Kuznets Curve popularized by Simon Kuznets from the hypothesized of an inverted "U" shape relationship with income and inequality, Kuznets (1955). In this study, Malaysia as one of the developing nations will be tested to find the inverted "U" shape existence and from the extensive analysis found that no shaped of inverted "U" but instead an "N" shaped normal was found in the form of cubic as our reduced-form implied. Long-run relationship among variables tends to exist where one cointegrated relationship was found by testing the variables in Johansen Cointegration test. Granger causality test was performed to identify the causality and it was found that there was an unidirectional causality between GDP and CO^2 where GDP does granger cause to the changes in CO^2 but CO^2 does not granger cause GDP. Thus, we can say that GDP lead to an increase in CO^2 emission. These findings hopefully might tackle the policy makers to readjust the existed policy in order to achieve sustainable development in the long-run. Investment on the green technology and other abatement expenses might not give big effect to the GDP and hurting the economic growth of Malaysia.

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1.0 Background of the study

1.0.1 Environmental Kuznet Curve and Economic Growth relationship discovery.

Environmental Kuznet curve and the Growth of economy has been discussed by many researcher in quest to find the inverted U-shaped as implied by Simon Kuznets (1955) in figure 1 below where he stated that at first stage the economy will cause a higher rate of pollution and at some point reach a turning point where growth still increasing while pollution reached its peak and will started to decline and achieve sustainable growth. This paper attempt to find the inverted U-shaped in Malaysia for the case of CO₂ as a single country analysis will be conducted using a reduced form model and need to discover the long run relationship with the test developed by Johansen (1988) Cointegration test and further tested the causality using Granger Causality test which he Granger has developed this test in 1969.