

# **ENERGY AND CLIMATE CHANGE: AN ALTERNATIVE APPROACH**

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**Bayram Yıldırım**

*Izmir Katip Çelebi University, Izmir, Turkey*  
bayram.yildirim@ikc.edu.tr

**Fatih Aksoy**

*Izmir Katip Çelebi University, Izmir, Turkey*  
fatih.aksoy@ikc.edu.tr

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## **ABSTRACT**

Energy consumption and CO<sub>2</sub> emissions have been become topic to a lot of previous studies by economists who analyze of current situation by estimating this relation with econometric models, and provide policy implications. As a result of empirical applications, which cover country or groups of countries, is estimated by modelling Environmental Kuznets Curve Hypothesis, and then test for Granger causality analysis, it is found that Environmental Kuznets Curve is valid in many developing countries, where energy consumption increases pollution emission in the long-run, and it is also found that energy consumption and growth Granger cause generally pollution emissions. Based on these results of survey of literature, it can be said that energy consumption with increased CO<sub>2</sub> emissions in the past and current causes climate change. It is confirmed that use of alternative and clean energy is inefficiency and insufficient level. Supporting of this opinion is that level of alternative and clean energy resources in total energy use is increasing, but it is too low increases. Since microalgae are highly rich in oil and able to produce biomass rapidly, they are considered as good sources in production of biofuel. Being specially used in production of biodiesel, the microalgae species are introduced and their main benefits are compared to the other biodiesel feedstocks which are accessible. Providing a short description of the latest state of development of algae cultivation systems, many different sides connected with the design of microalgae production units are presented.