ABSTRACT

High economic growth makes the need of energy rise. Increase in energy needs derive an increase in demand of energy, but in the other hand, the combustion residue from the energy use affected the quality of the environment.

The purpose of this study is to examine where Indonesia is in term of Environmental Kuznets Curve (EKC) hypothesis the effect of income per capita, subsidy on fossil fuel, price of diesel oil, and fossil fuel consumption to CO_2 emission per capita. The sample that used in this study is Indonesia that analyzed with ARDL model. The sample's time range used in 1981-2016 post-oil boom, where the petroleum production risen and usage of production machine that use fossil fuel have risen even more.

The ARDL analysis results, show that EKC hypothesis is proven in Indonesia and currently Indonesia is in industrial stage where Indonesia has reached the turning point in EKC. In short run, only GDP per capita squared that affects CO_2 emissions per capita. In the long run, consumption of petroleum and other liquids has a significant positive effect on CO_2 emissions per capita. In the long run, fuel subsidies and premium prices do not significantly influence CO_2 emission per capita levels.

Keywords: ARDL, Environmental Kuznets Curve, CO_2 emissions per capita, Fossil Fuel Subsidy, Premium Oil Price, GDP per Capita, Energy Consumption

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