

ABSTRACT

This research aims to prove the environmental Kuznets curve (EKC) hypothesis in ASEAN member countries in 2015-2022 and analyze the influence of GDP per capita, population, energy transition, foreign investment, and trade openness on carbon emissions in ASEAN member countries in 2015-2022. simultaneous and partial.

This research uses a qualitative approach with data sourced from the International Energy Agency and the World Bank. The analytical method used in this research is multiple linear regression with panel data from 10 ASEAN countries in 2015-2022.

The research results show that the environmental Kuznets curve (EKC) hypothesis is proven in ASEAN member countries in 2015-2022 with the turning point of the relationship between GDP per capita and CO2 emissions in the ASEAN region amounting to 17.11 trillion dollars. Singapore and Brunei Darussalam are among 11 other countries in the ASEAN region that have gone through the phase of scale effects and structural effects on the environmental Kuznets curve, while the others are on the left side of the EKC. GDP per capita, population, energy transition, foreign investment and trade openness simultaneously influence carbon emissions in the ASEAN region in 2015-2022. GDP per capita can increase or decrease carbon emissions significantly in the ASEAN region depending on whether member countries have experienced the turning point phase of the EKC curve. Population, foreign investment and trade openness can significantly increase carbon emissions in the ASEAN region. The energy transition can reduce carbon emissions in the ASEAN region but not significantly.

Keywords: Carbon emissions, GDP per capita, population, energy transition, foreign investment, and trade openness