

INTISARI

Lingkungan hidup telah menjadi salah satu isu internasional yang selalu diangkat bagi negara berkembang ataupun negara maju. Selama 1980 hingga 2014, kontribusi gas emisi CO₂ tertinggi terdapat negara Indonesia, Thailand, Malaysia, Vietnam, Filipina, dan Singapura. Penelitian ini bertujuan untuk menganalisis hubungan kausalitas antara pertumbuhan ekonomi sektor industri dengan gas emisi CO₂ tahun analisis 1980 hingga 2014. Metode analisis yang digunakan yaitu uji *Granger Causality*. Data yang digunakan dalam penelitian ini yaitu data PDB menurut nilai tambah sektor industri pengolahan atas dasar harga konstan 2010 dan gas emisi CO₂ yang bersumber dari *Worldbank* negara Filipina, Indonesia, Thailand, Malaysia, Vietnam, dan Singapura tahun 1980 sampai 2014. Hasil dari uji *Granger Causality* tahun analisis 1980 hingga 2014 menunjukkan hubungan kausalitas yang berbeda antar negara. Pada negara (1) Filipina, hasil uji *Granger Causality* menunjukkan tidak terdapat pola hubungan kausalitas antar kedua variable, (2) Hasil analisis di Indonesia menunjukkan terdapat hubungan kausalitas satu arah dari pertumbuhan ekonomi sektor industry terhadap gas emisi CO₂, (3) Hasil analisis di Malaysia menunjukkan terdapat hubungan kausalitas satu arah dari gas emisi CO₂ terhadap pertumbuhan ekonomi sektor industri, (4) Hasil analisis di Singapura menunjukkan tidak terdapat hubungan kausalitas antar kedua variable, (5) Hasil analisis di Thailand menunjukkan terdapat hubungan kausalitas dari pertumbuhan ekonomi sektor industri terhadap gas emisi CO₂, (6) Hasil analisis di Vietnam menunjukkan terdapat hubungan kausalitas dua arah antar variabel.

Kata kunci: Pertumbuhan ekonomi sektor industri, Gas emisi CO₂, *Granger causality*

ABSTRACT

The environment has become one of the international issues that have always been raised for developing and developed countries. During 1980 to 2014, the highest contribution of CO₂ gas emissions in Southeast Asia was in Indonesia, Thailand, Malaysia, Vietnam, the Philippines and Singapore. This study aims to analyze the causality relationship between the economic growth of the industrial sector with CO₂ emissions gas from 1980 to 2014. The analytical method used is the Granger Causality test. The data used in this study are GDP data according to the value added of the manufacturing sector on the basis of constant 2010 prices and CO₂ gas emissions sourced from Worldbank in the countries Philippines, Indonesia, Thailand, Malaysia, Vietnam and Singapore from 1980 to 2014. The results of the Granger Causality test in the analysis of 1980 to 2014 showed a different causality relationship between countries. In country (1) of the Philippines, the results of the Granger Causality test show that there is no pattern of causality between the two variables, (2) The results of analysis in Indonesia indicate that there is a one-way causality relationship from the economic growth of the industrial sector to CO₂ emissions, (3) Malaysia shows that there is a one-way causality relationship from CO₂ emission gas to economic growth in the industrial sector, (4) The results of analysis in Singapore show no causality relationship between the two variables, (5) The results of analysis in Thailand indicate a causal relationship of economic growth in the industrial sector CO₂ emission gas, (6) The results of the analysis in Vietnam show that there are two-way causality relationships between variables.

Key words: Economic growth in the industrial sector, CO₂ emissions, Granger causality