

Economic growth and transport energy consumption in the Latin American and Caribbean countries

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Transport is a strategic sector for economic development whilst being one of the most polluting sectors of the economy. The Latin American and Caribbean countries have been consolidated as the region with significantly faster energy consumption growth. This paper analyzes how the GDP per capita affects the transport energy consumption, testing possible non-linear relationships between variables. A transport energy consumption function depending on GDP and its squared and cubed value is estimated for 22 LAC countries, over the period 1990-2014. The results support an N-shaped curve, while the elasticity values of transport energy consumption, with respect to GDP per capita, do not show a tendency to decrease in the long term. Fourteen LAC countries show absolute coupling levels at the end of the period, while the rest exhibit partial couplings. Likewise, trade openness, population density, degree of urbanization and structural changes in the economy have positive effects on the transport energy consumption. This paper proposes some energy efficiency measures to control the growing energy use, and the promotion of biofuels and electric vehicles is also considered necessary to reduce the negative effects of transport energy use. ©

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Economic growth

Energy

Environmental Kuznets curve

Latin America and the Caribbean

Panel data

Transport

Economics

Energy efficiency

Energy utilization

Population statistics

Economic growths

Energy

Environmental Kuznets curves

Latin America and the Caribbean

Panel data

Transport

Economic and social effects

economic growth

energy efficiency

Gross Domestic Product

Kuznets curve

panel data

transportation system

Atlantic Ocean

Caribbean Sea

Latin America