Towards a sustainable growth in Latin America: A multiregional spatial decomposition analysis of the driving forces behind CO2 emissions changes

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This paper aims to understand the driving forces behind the growth of CO2 emissions in Latin America, as a region, by groups of countries according to their behaviour in terms of growth of income and CO2 emissions per capita and by countries during 1990?2013. The main drivers for the Latin America region are the activity and the population effects, followed by the fossil fuel and the carbonisation effects, while the intensity effect is revealed as the only inhibitor. The lessons from Latin America's group of countries are the following. First, the necessary decoupling between the growth of CO2 emissions and the economic activity has not taken place, the population growth also being an important driver effect. Second, the groups of countries with the highest CO2 emissions growth, show the highest population and fossil fuel effects. This latter confirms the scant efforts made to reduce the weight of fossil fuels in the total primary energy supply. Third, the energy intensity has become the most important inhibitor of CO2 emissions for those countries that are not able to substitute fossil fuels so easily. Finally, the desirable increase of less pollutant fossil fuels or even the increase of renewable energies has not yet been achieved. © 2018 Elsevier Ltd

CO2 Emissions

Energy policy

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LMDI Method

Spatial decomposition

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Carbonization

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