

Effects of lifestyle changes on carbon emissions in Malaysia for periods 2010-2015

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Studies show that household consumption is responsible for nearly three quarters of global carbon emissions. The level and pattern of carbon emissions contributed by household depend on their lifestyle that largely determined by the income level and standards of living. Thus, understanding the link between lifestyle and carbon emissions is important if we are to make progress towards a low carbon future. This paper aims to measure the impacts of lifestyle changes on carbon emissions in Malaysia for periods 2010-2015. An extended input-output table that combined with household expenditure surveys are used to model the impacts. In our extended input-output table, we introduce two vectors: (i) sectoral energy consumption in physical units that compiled from official census and (ii) sectoral carbon emissions that estimated separately. For a better policy design for households, we detail the consumption in household expenditure surveys by taking into account heterogeneity of households among different income groups across geographical locations. For Malaysia, this paper answers critical and policy relevant questions such energy efficient and the conservation initiatives under the Malaysia Energy Efficiency Action Plan and Eleventh Malaysia plan. For developing countries as a whole, it addresses the importance to have appropriate framework for measuring carbon emissions from consumption that taking into account heterogeneity of households.