

Determinants of Households Greenhouse Gas Emissions in European Union Countries

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Abstract:

Global climate change is mainly caused by greenhouse gas (GHG) emissions from human activities. Household consumption activities contribute to GHG emissions both directly, i.e., transportation, heating/cooling, etc., and indirectly, i.e., consumption of goods and services other than energy. Recognizing the responsibilities of households, therefore, an analysis of the determinants of the household GHG emission is crucial for carbon reduction efforts and future policy implications in order to fight against climate change. The aim of this study is to investigate the determinants of household GHG emissions in the European Union. To this end, we employ panel data estimation techniques for the time period between 2009-2016 and for 24 member countries. We obtained the necessary data from Eurostat (Air Emission Accounts database, European Union Labor Force Survey database, Energy Balances dataset) and World Bank (Climate Change Knowledge Portal). Our findings mainly in line with the related literature, and suggest that income, employment, energy consumption, and household size affect direct household GHG emissions positively in the European Union countries. On the other hand, education level and average January temperature have a negative impact on household emissions.

Keywords: Climate Change, Household GHG Emissions, Direct Emissions

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