

2<sup>nd</sup> Annual Congress on**ENVIRONMENTAL POLLUTION AND HEALTH HAZARDS**  
October 22-23, 2018 Osaka, Japan**A diagnostics of changes in residential energy consumption in Cameroon and main influence factors using LMDI****Earnest Nfor Koshi and Gao Xinwei**  
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Studies show that energy consumption in Cameroon is dominated by the residential sector which accounts for more than 60% of national total. This has made the residential sector a good candidate for studies relating to sustainability, energy security and emission control. Using 1990-2015 data, this paper performs a diagnostics on residential energy consumption in Cameroon, and then adopts LMDI to study factors that influence residential energy consumption in Cameroon. Furthermore, to comparatively evaluate the extent of decoupling of residential energy consumption from its key driving factors during the study period, decoupling analysis is performed. Results of the study show that residential energy consumption in Cameroon witnessed a 43% growth during the period under consideration. The growth encompasses biofuel, LPG and electricity consumption which grew 46%, 270% and 224% respectively, kerosene is the only energy source which witnessed a drop (62%). Population and income growth are the main factors contributing to growth in residential energy consumption in Cameroon while energy intensity and energy mix are main inhibiting factors. Energy intensity and switching towards more efficient energy sources played a key role towards decoupling from the key drivers of residential energy consumption during the period for which this study is carried out. The extent of decoupling has been mainly weak except during 2005-2007 when strong decoupling relationship is exhibited. These findings provide important reference for formulation of energy policy while taking into consideration Cameroon's role as signatory to some important international commitments notably INDC and REDD.

**Biography**

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