

Life satisfaction and electricity consumption

May 19 2016

A nation's electricity consumption has been seen as a useful proxy for measuring economic growth offering a useful alternative to conventional measures such as gross domestic product (GDP) by incorporating the assumption that greater consumption means a better quality of life. However, country-by-country analysis reported in *International Journal of Global Energy Issues* suggests that this may not necessarily be the case.

Sunderasan Srinivasan and Vamshi Krishna Reddy of Verdurous Solutions Private Limited, based in Mysore, Karnataka, India, have looked at the impact of aggregate electricity provision on all-round socioeconomic development as measured by the Human Development Index (HDI). The team analyzed data from a sample of 21 countries chosen on the basis of average annual HDI scores of 4.00 and above cumulated over the periods 1981-1990, 1990-2000 and 2000-2012.

They found that for four of the countries analyzed, specifically China, Egypt, Morocco and Nepal, there was the expected unidirectional causality linking electricity consumption to [human development](#). However, the reverse was true for five other countries, Algeria, Egypt, Myanmar, Sudan and Yemen. "Despite staggering improvements in energy efficiency of production processes as well as of end-user appliances, growth in emerging economies is as energy-intensive as witnessed among the industrialized nations four decades past," the team reports. Their new study avoids the limitations of traditional measures of aggregate production and consumption that ignore the effects of economic activity on individuals in whose name the macroeconomy is

said to be managed.

"The present study observes that the availability of electricity plays a significant role in achieving development outcomes in a few instances, while developmental outcomes such as higher incomes, themselves drive higher electricity consumption in others," the team explains. They suggest that if the production-consumption gap can be narrowed by managing technical and commercial losses in transmission and distribution more effectively, human development outcomes could be improved for those nations where a negative impact is seen in their data.

"Our paper takes the argument further to attempt and establish a causal relationship from [electricity consumption](#) through HDI to stated "life satisfaction" among citizens in the countries analyzed," Sunderasan explains.

More information: Srinivasan, S. and Reddy, V. K. (2016) 'Full Circle: Electricity, Development and Welfare', Int. J. Global Energy Issues, vol. 39, no. 5, pp.289-304.

Provided by Inderscience Publishers

Citation: Life satisfaction and electricity consumption (2016, May 19) retrieved 18 April 2024 from <https://phys.org/news/2016-05-life-satisfaction-electricity-consumption.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.