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THE NEXUS BETWEEN URBANIZATION, ECONOMIC DEVELOPMENT, CORRUPTION AND ECOLOGICAL FOOTPRINTS IN COMMONWEALTH OF INDEPENDENT STATES COUNTRIES

Abstract:

Developing countries have achieved significant economic growth over the past few decades. Economic growth contributes to the development of infrastructure facilities, reducing poverty and improving the standard of living of the population. To achieve rapid economic growth, developing economies sacrifice their reserves of natural resources, which leads to serious environmental degradation. The same economic structure, trade ties, similarity in the mindsets of population, common economic environment and history bound the current Commonwealth of Independent States (CIS) countries. In this perspective we assume possible similarities in terms of ecology and ecological footprints within the CIS countries. Therefore, this study investigates the impact of economic growth, natural resources, urbanization, foreign direct investments, trade, corruption on the ecological footprint of the CIS countries in the time frame spanning from 1996 to 2018. For empirical analysis we follow the log-linear form of the Stochastic Impacts by Regression on Population, Affluence and Technology (STIRPAT) model. STIRPAT is a coordinated research program dedicated to understanding the dynamic relationships between human systems and the ecosystems on which they depend aimed to identify the major drivers of environmental harm and to reveal the levers to reduce that harm (Dietz & Rosa, 1994; York et al., 2003). Results of Pesaran's CD test and Bias-corrected LM test evidence the cross-sectional dependence across countries. The unit root test show stationary of variables at 1st difference. Besides, testing for slope heterogeneity allows us to reject the null hypothesis and conclude that slope coefficients are heterogeneity. Additionally, our study explores the effects on ecological footprint in CIS counties by using the pooled mean group (PMG) estimator. We also report estimates applying the mean-group (MG) estimator and dynamic fixed-effects (DFE) estimator for comparison and robustness purpose. The empirical evidence from PMG estimations shows positive and significant influence of economic growth, urbanization, natural resources rent and foreign direct investments on the ecological footprint in the group of CIS countries. Our findings demonstrate the negative impact of these factors on environmental quality. Finally, the CIS countries' governments should collaborate to reduce the excessive use of natural resources and promote institutional development favorable for the environment.

Keywords:

Urbanization, Economic development, Corruption, Ecological footprints, Commonwealth of Independent States, STIRPAT model, Pooled mean group (PMG) estimator

JEL Classification: Q01, Q59, O10