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The Thesis for obtaining a master's degree in agricultural economics

Effect of government size and quality on agricultural energy consumption intensity in selected MENA countries

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Abstract

One of the main problems in most countries is energy consumption and its pollution. Accordingly, identifying the causes of this problem is necessary. In this study, the effect of government size and quality on energy intensity in agricultural sector in selected MENA countries has been investigated. A descriptive-exetitor method has been used to conduct this research. Secondary data collected by the Central Bank, the World Health Organization, the World Bank Development Indicators, the United Nations, the World Labor Organization were used. Other data were collected by library method from global governance index database, energy information center and global development index database. All data are considered for long-term analysis on average over an 18-year period. The results of spss test indicate the existence of a nonlinear relationship between the studied variables and propose a mild transduction regression model of two regimes with a transfer function and a threshold limit for a complete explanation of the nonlinear behavior of variables. The results show that in the selected countries of MENA, in the first regime, the effect of size and quality of government and population on energy consumption intensity is negative and significant and the value added of agricultural sector is positive and significant. In the second regime, the size and quality of the government have a positive and significant effect and the value added of the agricultural sector has a positive and significant effect, but the population has a negative and meaningless effect. Therefore, countries in the region should direct their economic growth and financial credit system to the use of efficient and knowledge-based technologies in order to lead economic growth in order to create a sustainable development in the region.