

## The role of institutional framework and technology on food security in short and long term in Indonesia: autoregressive distributed lag approach

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### Abstrak

#### **ABSTRAK**

The agricultural sector has been given the largest contribution to economy Indonesia. Besides being able to absorb large numbers of workers, the agricultural sector also has an important role in reducing poverty vulnerability in rural households. This study aims to analyze the role of institutions and technological use in food security which proxied by the food production index in Indonesia, both in the short and long term. The analytical technique for estimating short term and long term relationships in this study is the Autoregressive Distributed Lag ARDL model using time series data from 1978 until 2014. The results showed that in the short term land availability, technological use in technology tractor machines and the availability of electricity had a positive and significant effect on food production in Indonesia. Whereas in the long term, land availability and GDP per capita are positive and significantly enhances food security. In addition, the institutional framework proxied by political rights and civil liberties has significant positive and negative effects in the long term. Variable land availability is the biggest factor in increasing food security in Indonesia so that a policy that effectively regulates agricultural land use needs to be made. Interaction between the society, farmers and the government is also needed to create synergies and contributions related to food production. The provision of social security to farmers, especially when there is a shock, and the policy of procurement of agricultural technology must also be considered to maintain national food security in the long run.