

Path analysis of farmers' knowledge and practices concerning adapting to the climate changes, and their impact on food accessibility in Musayar village, Kafr El-Sheikh governorate

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Abstract

This study aimed to identify the impact of farmers' knowledge and practices concerning adapting to the climate changes on food accessibility as one of food security dimensions. A causal model is proposed to explain the relationships among some independent (Exogenous), intervening, and dependent (Endogenous) variables.

Data were collected through personal interviews with a systematic random sample of 168 farmers in Musayar village, Kafr El-Sheikh governorate, by using a questionnaire designed and tested to achieve the aims of the study. Frequencies, percentages, arithmetic mean, range, **governorate**

Cronbach's Alpha coefficient, and path analysis were used for data presentation and analysis. The most important results were that: the independent and intervening variables contribute together to the causal direct, indirect, and overall effects on the studied dependent variable. The independent variables that collectively contribute to direct, indirect, and the overall effects on the dependent variable were respectively: exposure to the information sources, farmers' practices concerning adapting to the climate changes, education, agricultural animal holdings, age, formal social participation, farmers' knowledge concerning adapting to the climate changes, income, agricultural land tenure, farmers' concept of climate change, in addition to the use of information and communication technology. The model is significant at 0.01. The value of the R^2 is 0.29, which indicates that the variables included in the model explain 29% of the variation in the dependent variable.

Key words: food security, climate changes, access to food, Kafr El-Sheikh farmers, knowledge and practices, path analysis.