Investigating Farmers' Beliefs and Strategies to Adapt to Water Scarcity and Factors Affecting Them in Mamassani County

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Abstract

Water resources scarcity and increasing pollution and the rapid increase in water demand due to population growth and higher livelihood standards along with climate change have created a widespread scope for water crisis in Iran and the world. Accordingly, water in agricultural production has become a limiting factor. Hence, farmers have adopted various strategies to reduce the effects of water scarcity in their agricultural practices. The purpose of this survey was to investigate farmers' beliefs and adaptation strategies for managing agricultural water under conditions of water scarcity and effective factors in selection of farmers' adaptation methods in Mamassani County of Fars province. The statistical population of this study was 4033 irrigated farmers. In order to select the sample, a random-quota sampling method was used. A sample of 351 farmers was selected based on the Krejcie and Morgan's table. The results of the study showed that the farms distance to the city center, agricultural experience, awareness of the consequences of danger, sense of commitment, risk taking, and access to credit could explain 42.2% of farmers' changing beliefs about water scarcity. Regression results of the factors influencing the selection of adaptation strategies showed that variables of farm size, intention for water conservation, risk salience, and social capital could predict 27% of the variability of adaptation strategies.

Keywords: Climate change, Risk Perception, Water conservation, Intention, Water management

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