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How does social capital promote adaptive behaviour among Iranian farmers?

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Abstract

Climate change is a global challenge among humans and their socio-economic activities, health, livelihood, and food security, and is the most serious threat to agricultural productivity. Adaptation to climate change and its effects is a complementary response to reducing vulnerability in particular agriculture-based economies. Adaptation measures are urgently needed to reduce adverse consequences of climate change on ecosystems and food systems. Social capital has provided a new outlook to examine the variances in individuals' abilities to adapt to climate variability. Nevertheless, the fundamental role of social capital in adapting to climate variability in agriculture has not been entirely discovered. Consequently, the current study considers how social networks, norms, participation, trust, and solidarity (as aspects of social capital) may explain climate change adaptive behaviour among Iranian farmers. Survey data (employing a questionnaire) were collected from 250 farmers randomly selected in Susangerd city, within Khuzestan, Iran. An integrated model combining social capital, beliefs on climate change, and risk perceptions are used. Results of structural equation modelling show that the proposed integrated model explained 69% of the variance in adaptation behaviour and 66% and 40% of the variances in risk perception and climate beliefs. Such results demonstrate the robustness of the model in predicting adaptation strategies. Based on the findings, social solidarity and climate beliefs were the most effective predictors of risk perception, while farmers' social networks were the most important predictors of behaviour. This study, by confirming the importance of social capital on the farmers' beliefs, risk understanding, and adaptation behaviour, offers suggestions for fostering and implementing more practical adaptation strategies.

Keywords: Adaptation strategies, climate change, participation, social solidarity