

# Determining Farmers' Awareness About Climate Change Mitigation and Wastewater Irrigation: A Pathway Toward Green and Sustainable Development

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## Abstract

The present study was conducted in one of the major agriculture areas to check farmers' awareness of climate change, adaptation measurements, and use of wastewater for irrigation. A semi-structured questionnaire was adopted from the existing literature, it was divided into different parts such as demographic information, use of wastewater for irrigation, farmer's livelihood assets, climate change deciding factors, and adaptation measures, and some statistical tools (correlation and regression) were used to analyze the data. The farmers with enough resources and assets regarded themselves as safer and have enough capacity to bear the negative impacts of climate change. Farmers' assets (FA) with determinants of climate change (DCC) and adaptation measures (AM) are highly significant with the correlation values of 0.440 and 0.466, respectively, and DCC with AM (0.269). The correlation values for other variables are: gender with cultivated land 0.202, wastewater use (WWU) 0.419, farmers' assets (FA) 0.766, determinants of climate change (DCC) 0.381, and adaptation measures (AM) 0.449. Floods and droughts variables have shown a significant relationship with adaptation measures at p-value 0.000 and coefficient 0.176 and p-value 0.021 and coefficient 0.063, respectively. The study will aid in the implementation of effective monitoring and public policies to promote integrated and sustainable water development. Copyright © 2022 Sohail, Elkaeed, Irfan, Acevedo-Duque and Mustafa.

## Author keywords

change; climate; development; farmers; green; sustainable and resilient