

# Farmers' Perception and Knowledge of Health Risks in Wastewater Irrigation

Ezekiel N. Ndunda , Eric D. Mungatana

## **ABSTARCT:**

This paper uses cross-sectional survey data to evaluate the farmers' perception and knowledge of health risks in urban wastewater irrigation in Nairobi, Kenya. In order to identify the determinants of farmers' perception on health risks of wastewater irrigation to farm workers and consumers of produced vegetables, analysis of the study used the ordered probit model. The results show urban and peri-urban farmers are aware of health hazards attributed to untreated wastewater irrigation.

Empirical estimates indicate that age, gender, household size, education level, farming experience, credit access and farm income are key determinants of farmers' perception on health-related risks due to wastewater irrigation. Therefore, there is need to sensitize the urban and peri-urban farmers about the health hazards and risk-reduction measures in wastewater irrigation. Additional research is required to analyse the health-risk perception of urban consumers of leafy vegetables in Kenya. This will provide additional information to decision-makers for policy formulation in wastewater irrigation by considering the demand side in the agricultural sub-sector.

Keywords: ordered probit model, peri-urban farmers, risk perception, untreated wastewater, wastewater irrigation.