

Rainwater Harvesting for Sustainable Water Resource Management in Eritrea: Farmers' Adoption and Policy Implications

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ABSTRACT Rainwater harvesting techniques are required to obtain a sustainable supplemental water source for groundwater, which is being depleted through time in arid and semi-arid countries including Eritrea. The aim of this study was to examine the factors that influence farmers' decisions to adopt rainwater harvesting techniques in Central Province (*Zoba Maekel*) of Eritrea, using a household survey of 307 farmers and a Probit model. The results showed that farmers who participated in a seed multiplication program, received extension services, and accessed credit were more likely to adopt water harvesting technology. The study recommends that the government should promote an integrated and holistic approach in order to provide technical and institutional support for farmers in order to sustain scarce water resources by enhancing access to credit, facilitating more extension service and encouraging farmers' seed networks for agricultural development.