



Water Harvesting Systems for Crop Irrigation in Kenyan Highlands: A Productivity Enhancement Study

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Abstract

Water scarcity is a significant challenge in Kenyan Highlands, affecting crop productivity and livelihoods. Agricultural field surveys were conducted with farmers adopting various water harvesting techniques to assess their effects on crop yields and resource utilization. Farmers reported an average increase of 20% in maize yield using rainwater harvesting systems, highlighting the potential for productivity enhancement. Implementing water harvesting systems offers a viable strategy for improving agricultural productivity in Kenyan Highlands. Government and development agencies should support farmers in adopting these systems to maximise benefits.

Keywords: *Kenyan Highlands, Arid Lands, Agroecology, Hydrology, Sustainable Agriculture, Precision Irrigation, Smallholder Farming*

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