African Rural Economics (Economics/Agri/Geography crossover)

Incentive-Based Irrigation Management Programmes in Semi-arid Kenya Highlands: Farmer Cooperatives and Watershed Health Assessment

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Abstract

In semi-arid regions of Kenya's Highlands, farmers face challenges in managing water resources effectively due to unpredictable rainfall and soil degradation. The study employed a mixed-methods approach including surveys, interviews, and hydrological data analysis to assess the impact of these programmes over two years. Farmer cooperatives demonstrated significant improvements in water conservation practices (reduction by 30%) and soil erosion control measures (increase by 25%), contributing positively to watershed health. Incentive-based irrigation management programmes have shown promising results in mitigating environmental degradation, particularly through enhanced cooperation among farmers. Further research should focus on scaling up successful models and integrating climate-smart agriculture practices for broader implementation. Irrigation Management, Farmer Cooperatives, Watershed Health, Semi-arid Highlands, Kenya

Keywords: *Kenya Highlands, Soil Erosion, Water Conservation, Farmer Cooperatives, Irrigation Management, Participatory Research, Sustainable Agriculture*

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