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THEME: Strengthening Research and Innovations for Climate Adaptation and Sustainable Development

An Assessment of Climate Change Adaptation Strategies by Smallholder Agribusinesses in Mau Ranges, Nakuru County

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Abstract

Smallholder agribusinesses contribute to the employment of grey and blue collar jobs. Majority of the individuals who run these businesses do not have the guarantee of the sustainable drive and market competition. Climate change has a variation in global or regional climates over time. It reflects changes in the variability or average state of the atmosphere over time scales ranging over decades. The government efforts and support on the smallholder supply chain optimization programs requires a participatory process to ensure that there is a capacity building for any future uncertainty. Smallholder production systems can help mitigate climate change by reducing both the production of greenhouse gases and the consumption of fossil fuel-based energy. Such as greenhouse gas emissions can be reduced by implementing energy conservation measures, through energy efficient lighting and space heating, incorporating greater recycled content in products and selecting production processes that either emit or use less greenhouse gases. This study sought to investigate the strategies employed by smallholder production systems in climate adaptation. The research focused on three independent variables; Business innovation opportunities, Smallholder risk assessment measures and Smallholder supply chain optimization programs on climate change adaptation. The study adopted a cross sectional survey research design targeting 94 smallholders and agribusinesses in Mau Ranges in Nakuru County through purposive sample size of 47. Data was collected through both structured questionnaire and structured interviews. Quantitative data was analyzed descriptively and qualitative data using content analysis. The finding of the study shall be useful to the stakeholders especially the local farmers and businesses that benefit from agriculture. The supply chain optimization and value addition technologies will be enhanced hence Smallholder production systems can capitalize on climate change adaptation and biodiversity loss by developing technologies, products and services that help to improve resilience to the effects of climate related risks and opportunities.

Key words; Climate change adaptation, business innovation, risk management, supply chain optimization, biodiversity loss