

## **Abstract**

Increasing calls for an African green revolution are being made so that Africa can increase its food production; thus enhancing its ability to feed its high population while exploiting emerging opportunities in developed country markets. This will involve an increased use of agro-chemicals. Use of agro-chemicals by sometimes lowly educated farmers in developing countries is associated with health and environmental degradation risks. Health risks to consumers manifest themselves through high levels of pesticide residues in food commodities; this led to development of the mandatory GLOBALGAP standards. Though primarily focused on consumer interests, compliance with GLOBALGAP standards is increasingly being associated with farmer level benefits.

Besides conferring market access; studies show the existence of quantifiable health benefits which accrue to GLOBALGAP compliant farmers. Studies also allude to existence of environmental benefits of compliance. Through data obtained from farmers in Eastern and Central Kenya, this paper uses Contingent Valuation Approach to estimate the economic value of changes in soil quality to empirically analyze the environmental benefits of compliance with GLOBALGAP standards. Further, factors (including compliance) influencing the economic value of changes in soil quality are analyzed.

Compliance is found to have quantifiable environmental benefits to smallholder farmers as seen by the higher economic value of changes in soil quality and the positive and significant influence of compliance on the economic value of changes in soil quality. Agri-regulation is thus a useful tool that can be applied to enhance sustainability in Africa's increasingly intensive agriculture