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Health and Environmental Impact of EU Private Standards: Evidence from Kenyan Export Vegetable Growers

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Abstract

The proliferation and enhanced stringency of food-safety standards represent potential barriers to producers in developing countries seeking to expand their trade in high value crops. Yet, they may also represent a catalyst for the upgrading and modernisation of production systems, which can help reduce hidden environmental and health costs. The specific objectives of this paper are to: **(1)** estimate the effect of EU private standards on pesticide related incidence of acute poisoning symptoms and its associated cost-of-illness and **(2)** explore impact of private standards on improved crop management practices as proxy for environmental benefits. To attain the objectives, a theoretical non-separable farm household model is used as a starting point. Based on the optimal health demand functions derived from the model's first-order condition, an empirical model is formulated and estimated. Farm level data were collected between August 2005 and September 2006 via a cross-sectional survey of 449 households of Kenyan export vegetable producers.

Results show that adoption of production standards like GlobalGAP significantly reduces pesticide ascribed incidence of acute poisoning symptoms and its associated cost-of-illness. *Ceteris paribus*, farmer's who adopt standards experience 78 % lesser incidence of acute illness and spent about 50 % less on restoring their health compared to non-adopter farmers. Although the health costs examined in this study are limited to treatments related to a few acute health impairments (which could be just a small part of the total health cost), they still account for about 86.4 % of the mean household pesticide expenditure per cropping season for non-adopters and 39.6 % for adopters. Likewise adoption of standards has a significant positive impact on environmental outcomes corroborating the view that standards induce changes in farm production systems in developing countries. Improved pesticide management practices entail less pesticide intoxication by farmers and farm workers, improved environment and efficiency gain. Generally this study strongly indicates that adoption of private standards can play a positive role, providing the catalyst and incentives for the adoption of safer and more sustainable production practice.

Keywords: Adoption, environment, export vegetables, GlobalGAP standards, Kenya, pesticide

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