

Project Summary

Title	Engaging Urban and Peri-urban Farmers in Sustainable Soil Nutrient Management to Enhance Produce and Environmental Safety in Gaborone Environs in Botswana
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Purpose	The overall aim of this project is to determine the sustainability of UPA production practices in relation to long-term soil quality and productivity of the system. Issues related to environmental quality, food and product safety will be indirectly addressed and areas for further research will be identified.
Project Summary	Urban and peri-urban agriculture (UPA) employs millions of urban migrants in African cities where lack of skills / education excludes them from available employment opportunities. Increasingly, therefore, UPA is relied upon to supply fruit and vegetables to the rapidly growing and expanding population of African cities. Because of the high input intensity of UPA production systems, it carries the ominous risks of soil and environmental pollution, food chain contamination and high production cost. This project will use an action-based participatory

	<p>research approach with UPA farmers to determine environmentally friendly and sustainable soil management practices that ensure produce safety, soil productivity and protect ground water from excessive leaching of nutrients. The research project utilizes a nutrient balance approach, which quantifies inflows and outflows of nutrients in agricultural production systems, to assess the sustainability of UPA production systems in Gaborone environs; explores the possibility of increasing nutrient use efficiency (NUE) and profitability of UPA enterprises by reducing nutrient losses through the manipulation of nutrient cycles, and to determine options for mitigating groundwater, food and vegetable contamination and soil pollution inherent in high-input UPA production systems.</p>
Country and Specific Location(s)	Glen Valley in the South East Agricultural District and Thamaga in the Kweneng South Agricultural District.
Participating Institutions	University of Botswana
Start Date	August, 2012
End date	August 2014
Amount of Funding	US \$ 59 984

