Project Summary

Title	Evaluation of the effect of soil fertility and soil quality on nutritive value of selected crops in the physiographic units of Mbeya Region, Tanzania
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Purpose	The main objective of the project is to evaluate changes in top soil organic matter, soil fertility and environmental quality under different cropping systems and geo morphological setting in southern highlands of Tanzania.
Project Summary	Capacity building through research and training in soil fertility management, among others, is essential if the African green revolution is to be achieved to meet the Millennium Development Goals. The main objective of the proposed project is to evaluate the effect of soil fertility and soil quality on the quality and nutritive value of selected crops in Mbeya Region, Tanzania, involving the training of two MSc students. The research project will be conducted by the students and project team to address specific objectives including: (i) improve understanding of the severity and frequency of macronutrients (N, P, K), secondary nutrients (S, Ca, Mg) and micronutrients [(Zn, Fe, Cu, Se, and Iodine (I)] in cereal producing areas by small scale farmers and how the deficiencies affect crop nutritional quality, (ii)

	develop detail information of soil type of cereal producing areas under small scale farming through soil classification for correct and site specific recommendations for soil fertility management, (iii) develop practical and site specific guidelines for correcting both macro- and micro-nutrient deficiencies in cereal producing areas that can be correctly applied in other areas of similar soil types, and (iv) develop capacity in soil fertility and crop nutritional quality research through training two postgraduate students and increase experience of young staff on research and training. Farmers and extension staff in the area will be incorporated into the research project to sensitize them of these problems. The key outputs and outcome of the project includes; two MSc graduates in the area of soil fertility - crop quality relationship and soil classification, properly characterized and classified soils of the study area using internationally known soil classification systems, identification of specific micronutrient deficiencies for soil fertility improvements and their incorporation into the current fertilizer packages so as to increase crop yields and improve human health. The research findings will be shared and disseminated to a wide range of stakeholders to popularize the project outcomes.
Country and Specific Location(s)	Mbeya Region, Tanzania
Start Date	October, 2009
End date	September, 2011
Amount of Funding	US$ 59,995