Sustainable coffee-banana agro-forestry systems to adapt to climate change, enhance food security and alleviate poverty in Uganda

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Introduction

- Coffee and bananas are some of the most important cash and food crops in Uganda
- Both crops are often grown on the same farm either as sole crops or intercrop but also inter-planted with trees
- The 3 complement each other in terms of socio-economic benefits to farm household
  - ✓ Coffee – income and food security
  - ✓ Banana – food security
  - ✓ Shade trees – environmental, income, food security
- However, limited research has been done on how to intercrop the three – optimum planting arrangement, shade management
- Promotion of some pests and diseases e.g. black coffee twig borer

Objectives

- To characterize the existing coffee-banana agroforestry systems of Uganda
- To identify the major biotic and abiotic constraints of coffee and bananas in the coffee-banana agroforestry systems of Uganda
- To assess existing farmers' coping strategies for the biotic and abiotic constraints in the coffee-banana agroforestry systems of Uganda

Results

- Coffee-banana agroforestry systems characterized
- Major abiotic and biotic constraints in coffee-banana agroforestry systems identified
- Farmers coping options for biotic and abiotic stresses in the systems identified
- Black coffee twig borer (BCTB) observed infesting field cocoa for the first time in Uganda
- Shade trees that are alternate hosts for BCTB documented
- Red blister disease observed as an important disease on Robusta coffee

Impact on stakeholders

Entry point for promotion of coffee & bananas in mid-northern Uganda

Farmer training materials developed

Albizia coriaria seedlings produced at NaCORI

- Technical advice documents generated – shade trees & BCTB management to inform policy
- 4 manuscripts submitted for publication
- 2 MSc graduates in Agroecology

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