

PROJECT PROFILE

<u>Sector</u>	Agriculture
<u>Sub-sector</u>	Crops
<u>Code</u>	AG 21(A)
<u>Title</u>	Banana Cropping Systems
<u>Implementing Agency</u>	NARO
<u>Location</u>	Nationwide
<u>Total Plan Exp.</u>	US\$ 0.27m
<u>Funds Secured</u>	US\$ 0.27m
<u>Funding Gap</u>	Nil
<u>Start Date</u>	1992
<u>Completion date</u>	2002

Background

Uganda has the largest banana germplasm in the world and yet this resource is not exploited to the full because of two main hindrances. Firstly, germplasm has never been fully characterised, and utilisation and/or research is often hindered by a high degree of cultivar synonyms. Secondly, the germplasm has not been evaluated in order to realise its full genetic potential. In the face of devastating diseases such as Black Sigatoka and Panama Wilt, germ plasma evaluation is extremely urgent. This evaluation should also involve germplasm selected elsewhere against diseases and pests found in Uganda. Prevalence of disease and pests has forced farmers to replant every 5-10 years. Both the change from bananas to root crops and increased frequency of replanting has exposed soil to erosion and oxidative insulation with a consequent drop in yields. In 1986/87 there was widespread toppling of bananas in the key production areas of Masaka, Mbarara and Bushenyi. This was attributed to weevils and nematodes and the unscrupulous use of pesticides. By 1988 food security was threatened, especially with the confirmation of the existence of Black Sigatoka in 1989. In order to reverse the situation GoU with the assistance of IDRC and the Rockefeller Foundation initiated an intervention programme.

Objectives

To restore food self-sufficiency and maintain the cultivated hectareage as well as improve the productivity of the present banana stands.

Expected Outputs

- By the close of Phase II of the project it is expected that 200 cultivators will have been characterised and evaluated; and that major banana diseases will have been put under control.

Performance Indicators

- Number of cultivators characterised and evaluated annually.
- Number of technical studies accomplished.
- Number of farmers/staff trained locally/abroad.

Technical Description

- Carry out characterization and evaluation of the 200 cultivars which have been assembled at Kawanda Agricultural Research Institute.
- Biological control of banana weevil.
- Study the interaction effects of soil fertility and disease/pest relationships.
- Crop loss assessment studies.
- Banana Cropping Systems Analysis.
- Post harvest handling and losses studies.
- Training and workshops.

Feasibility Studies

No specific feasibility studies have been carried out.

Financing

Funding of Phase I and II has been provided by IDRC and Rockefeller Foundation. Phase III which is on station/on farm research is also to be funded by Rockefeller (US\$ 582,500) and IDRC (US\$ 350,000).

Plan of Operation

The project will conduct both on-station and on-farm research. On-station research will include breeding for resistance to pests, diseases and improved yields amongst "Matooke" cultivars; introduction and evaluation of foreign germplasm, testing of green manure to improve yield in banana cropping systems and conducting of experiments for efficacy and cost effectiveness of different fungicides in controlling key leaf Black Sigatoka disease. On-farm research will establish farmers' knowledge and practices in the optimum and declining production areas and evaluation of the efficacy of the banana pest and disease management practices in these areas. Other activities will involve impact assessment of transferred technologies, management of Banana Steak Virus and developing and strengthening linkages with NGOs and extensionists.