



Food and Agriculture Organization of the United Nations (FAO) Nigeria Country Office



Using Biotechnology to Boost Banana and Plantain Production in Nigeria

Banana and plantain are among the horticultural crops of high economic value in all the States of Nigeria. The country is the fifth largest producer of plantain in the world and first on the African continent. However, production is also limited by the low quality of planting materials, incidence of diseases and high post harvest losses. Post harvest losses in the banana value chain are estimated at over 60 percent of production.

Nonetheless, government is taking steps to expand production at national level to meet both domestic demand and export. One of the key steps was to establish the National Initiative on Tropical Fruits Production, with a target of achieving 10% of world production output of these tropical crops, among others.

FAO is supporting the Government to improve and increase production of clean planting materials using tissue culture technology, developing community nurseries and demonstration plots, improving skills of farmers and other entrepreneurs on crop husbandry, post-harvest handling and processing.

FAO has provided both technical and financial support through a project that helped to upgrade the national tissue culture laboratory at the National Horticulture Research Institute (NIHORT), enabling it to produce high quality planting materials for distribution in the four states of *Abia*, *Cross River*, *Delta* and *Oyo*, where production is highest in the country. The states cover an area of 70,000 km² with a total population of 29 million people. In a short time, NIHORT

produced over 28,000 plantlets which were distributed to farmers in the states. The laboratory also transformed *meristems* of a new banana variety imported from Costa Rica into 225,000 plantlets using the newly installed laboratory equipment provide by FAO.

Dr. S.O.S Akinyemi, head of the laboratory, cited the improved efficiency and effectiveness of the laboratory as a major advancement, from producing 800 samples per month to 5000 per month. In addition, he said, the laboratory is attracting universities and interns wishing to do some work on tissue culture.

The overall objective of the programme is to increase production and enhance trade opportunities for plantain and banana farmers as part of the ongoing government intervention for food and nutritional security; employment and income generation; as well as increasing foreign exchange earnings. These efforts have been well appreciated and applauded by the farmers and state officials. As said by the Delta State Commissioner for Agriculture, "Post harvest losses is an issue for our farmers. I am happy to learn that the farmers had keyed into the programme and those that benefitted are already reaping from it" while welcoming the FAO team that visited the state recently. The over 200 farmers were trained on production of clean planting materials using

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A technical co-operation project implemented in Abia, Cross River, Delta and Oyo States.

new technologies that can be applied at farm level.

Future Actions

Given the success of the programme, the N10.5 million being released by the Federal Ministry of Agriculture and Rural Development to FAO will be used to upscale the programme in four additional states - Akwa-Ibom, Imo, Edo and Ondo -

based on the key areas as contained in the MoU signed by FAO and the FMARD. The key component activities include:

- a) Continue capacity building for 300 VEAs and farmers
- b) Establish 16 community cooperative groups
- c) Establish nurseries in the new 4 participating states



FOR MORE INFORMATION CONTACT:
Food and Agriculture Organization of the United Nations (FAO)
Representation in Nigeria
Old CBN Building, Zaria Street, Garki II, Abuja
Tel: +234 9 7812154
E-mail: FAO-NG@fao.org

