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The role of community based organisations, NGOs and farmers in technology transfer

Jeremiah S.C.[1], Kulembeka H.P.[1], Kanju E.[2], Chirimi B.[1] and.Amour R.[1]
[1]ARDI Ukiriguru, Box 1433, Mwanza, Tanzania.
[2]IITA/SARRNET, Box 6226, Dar es Salaam, Tanzania

Abstract. Cassava (*Manihot esculenta* Crantz) and sweetpotato (*Ipomoea batatas*) are key food crops in Tanzania in general and in the lake zone in particular. Cassava and sweetpotato are household food security crops in addition to being a source of household income. Availability of the new improved varieties to farmers has been a problem in Tanzania. A project was initiated to transfer improved varieties of both cassava and sweetpotato in the lake zone to farmers. In collaboration with community-based organisations (CBOs), non-government organisations (NGOs) and farmer groups, the project distributed different varieties of cassava and sweet potato in Shinyanga and Mwanza regions through CIP/ASARECA. The CBOs, NGOs and farmer groups were very instrumental in facilitating the delivery of improved varieties to farmers. Through this informal seed delivery system using CBOs, NGOs, and farmers groups, farmers have been able to access, use and adopt improved varieties suitable for their areas. The project has also established a system that can be used for future technology transfer activities. Through this system more than 988,000 and 1,752,711 cuttings of improved cassava and sweet potato varieties, respectively, were distributed in three regions of the lake zone. The distribution activity went hand in hand with training of farmers in rapid multiplication techniques of planting materials.

Introduction

Cassava and sweet potato are the most important roots and tuber crops in the lake zone and in Tanzania in general. The crops are grown mainly for home consumption with the excess sold to generate income. InTanzania, the major growing areas are found in the lake zone while in southern zone the major producing regions are Mtwara, Lindi and Ruvuma. Other important production areas are Tanga and Kigoma (Msabaha and Rwenyagira, 1989). Sweet potato is grown almost everywhere in the country although production differs from one place to another.

With the outbreak of cassava mosaic disease, the need for planting materials especially in the Lake Zone of Tanzania has become great. This has triggered the need to have a system for multiplying and distribution of clean planting materials. In 1999, the ASARECA-CIP technology transfer project was initiated in the lake zone. The aim of the project was to multiply and distribute to farmers improved varieties of both cassava and sweet potato that combine resistance to major biotic stresses and other desirable traits. The project also aimed at establishing a system that could be used for future technology transfer activities.

Methodology

The project recognised and involved farmers in the project. Farmers selected fields for multiplying the crops. From these fields, planting materials were harvested and distributed to individual farmers within the group for further multiplication. At harvest individual farmers retained 50% of the planting materials for further multiplication. The rest of the materials was given to other members

of the group. This arrangement was facilitated by a formal contract between the project and individual farmers. The project involved six partners from different organizations. These partners are described below:

Plan international (Mwanza Branch). This NGO is involved in agriculture, youths, education and health. Its main role was to purchase and distribute sweet potato planting materials around Mwanza Municipality. It also supervised farmer groups and organized training for extension staff and farmers.

CARE International (Magu district). This is an NGO involved in agriculture. Their role was to organize farmers in establishing village secondary multiplication sites. The NGO purchased and distributed cassava and sweet potato from the research station and also facilitated the training of both extension staff and farmers.

Bukoba District Rural Development Programme (BDRDP). This organisation concentrate on activities that aim at improving household food production in Bukoba. In this project, its role was to establish secondary multiplication plots at farmer extension centres (FECS). It also purchased and distributed sweet potato and cassava planting materials.

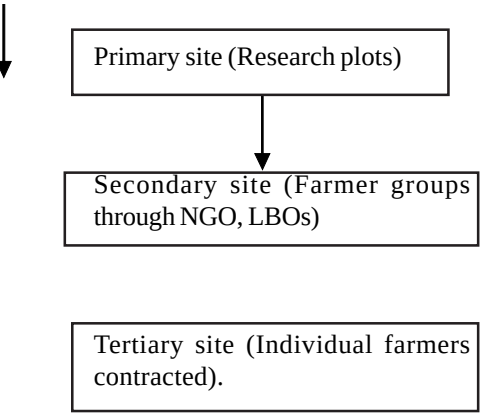
International Potato Centre (CIP). The main role of CIP was to provide technical backstopping on project planning and regular monitoring of the project.

Tanzania Home Economics Association (TAHEA). This is a local NGO which is involved in household food security and agricultural technology transfer activities. Its role was to organize secondary multiplication sites and prepare training programs for farmers.

Masalakulangwa (CBO). This is a community based organisation which is involved in both agricultural and environmental activities. Members were involved in multiplication and distribution of planting materials.

Achievements. Farmers in the project area now have access to improved varieties of both sweet potato and cassava. The widely adopted cassava varieties are: TMS 4(2) 1425, Msitu Zanzibar, and TMS 83/01762 (b) while for sweet potato, the adopted varieties include SPN/0 (simama), sinia and mavuno SP/93/94.

Farmers now earn money from the sale of both roots and planting materials. This is the first record of farmers earning money from planting materials in the zone. Another achievement of this project was the establishment of a system of multiplication and distribution of planting materials for the two crops and will be exploited for future technology transfer activities. The system is summarised below:



This system creates a sense of variety ownership by farmers and increases the chances of variety adoption. Linkage with various stakeholders has been strengthened. These linkages enhanced cost sharing, and thus made technology transfer overall cheaper.

Lessons learned. Some important lessons were learnt from this project. Increased food

production without market outlets can defeat the whole purpose of introducing improved technologies. Therefore sub-sector analysis is important before embarking on a large – scale multiplication of planting materials. This analysis will identify constraints and find solutions early enough. When farmers get involved in all stages of the project, they get a sense of ownership which makes them committed to the technology and promotes sustainability of the technology. Market forces can change cultural traditions. The high demand for planting materials of improved varieties encouraged farmers to pay for these materials. This resulted into farmers earning some income and motivated them to grow large areas and hence increasing the chances of wide distribution of improved varieties.

Recommendation

A holistic integrated approach linking farmers to market must be adopted to make technology transfer effective and sustainable.

Reference

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