

Improving the Contribution of Agricultural Research to Economic Growth in Tanzania



In brief

- Agricultural production in Tanzania continues to disappoint, although there has been an improvement in recent years. The Tanzanian government is giving more attention to agriculture through the *Kilimo Kwanza* (Agriculture First) process.
- The Tanzanian government invests heavily in agricultural research stations which work alongside private research stations and international research organisations to support the main traditional export crops of Tanzania.
- This study explores what needs to be done so that farmers can benefit from research through looking at case studies of six of Tanzania's most important food crops.
- The main challenges facing the Tanzania agricultural research community are:
 - Lack of basic resources in the government research stations.
 - Failure to maintain working relationships with extension services in many places.
 - Difficulties in developing commercial markets for seeds and other materials.
 - The extension service performance is very patchy and often not well focussed.
 - Researchers in different zones across the country do not work well together.
- The system for seed licensing and multiplication is under review due to various factors, including: pressure for a common seed registration across East Africa and differences in effectiveness of a registration system for hybrids and open or self-pollinating seeds.
- Policy Implications:
 - Tanzania needs to better fund and make full use of the resources and expertise of the international research organisations.
 - The research stations need closer working relationships with the extension services.

Policy Motivation

“Tanzania...invests heavily in a network of government-funded agricultural research stations”

Agricultural production in Tanzania continues to disappoint, though some of the figures have slightly improved in recent years. Yet the country invests heavily in a network of government-funded agricultural research stations, now working alongside privately run research stations which support the main traditional export crops. It also benefits from research and investment from international research organisations, including those coordinated by CGIAR (the Consortium of International Agricultural Research Centers), AGRA (Alliance for a Green Revolution in Africa) and ASERECA (Association of Agricultural Research in East and Central Africa). This research was commissioned to explore what needs to be done for Tanzanian farmers to get more benefits from this research.

The research was timely. Not only is Tanzania giving increased attention to agriculture through the *Kilimo Kwanza* (“Agriculture First”) process, but it is also committed to increase its expenditure on research and development.

The issues were looked at through case studies of recent research undertaken on six of Tanzania’s most important food crops (Rice, Maize, Cassava, Beans, Pigeon peas and Irish potatoes). This narrowed down the research task – but was also consistent with the influential World Bank report (Binswanger and Gauthier, 2010) which suggests that Tanzania’s best comparative advantages in agriculture lie in food crops, especially rice and maize.

Key Findings

“There have been important successes, especially in the Southern Highlands, which has become the bread basket of Tanzania”

The case studies identify a series of challenges facing the agricultural research community in Tanzania: the lack of basic resources in the government research stations, the failure to maintain working relationships with the extension service in many places, and the difficulties of developing commercial markets for improved seeds or other planting materials, especially when these are self-propagating.

There have been important successes, especially in the Southern Highlands, which has become the bread basket of Tanzania, with hybrid maize, potatoes, and other crops.

The Government research is organised around seven zones which cover the country. But the system does not always work well. Thus researchers working on the same crop but in different zones may not meet each other very often, and international organisations are not always clear as to where the appropriate point of contact is for work on a particular crop.

Many experienced researchers have retired but continue to work on short term contracts. Meanwhile, there is a concentration of agricultural researchers at SUA (Sokoine University of Agriculture), but this is governed through the Ministry of Education, and the researchers there have many other commitments.

The extension service has been decentralised to the district councils – but performance is very patchy and often not very well focussed.

“The research stations need closer working relationships with the extension service, and with farmers”

The system of seed licensing and multiplication is under review. This is partly because of pressure to have a common system of seed registration for all of East Africa. But it is also because it is recognised that, while a licensing system can work well for hybrids, where it is necessary to buy new seeds each year, it works less easily for open or self-pollinated seeds, or plant materials such as cassava or potatoes spread by planting tubers or cuttings, where farmers propagate seeds themselves. Hence the value of the system of “Quality Declared Seeds”, under which groups of farmers are empowered to multiply improved seeds for their own or local use. This approach can be developed and promoted.

Commercial agriculture depends on efficiency through whole value chains, from production to marketing, transport, and processing. Only if all of these are working well can the specific contributions needed from agricultural research be firmed up, and the service funded and planned reliably, on a medium to long-term basis.

Policy Implications

For Tanzania to benefit from its extensive infrastructure in agricultural research, it needs to fund it properly, and to make maximum use of the resources and expertise, and assistance in staff training, of the international agricultural research organisations coordinated by CGIAR, AGRA and ASERECA.

The research stations need closer working relationships with the extension service, and with farmers, to listen to their problems and to create and promote packages of innovations which meet their problems. This will almost certainly include the developing the markets for improved seeds and planting materials, both through private seed companies and through the system of Quality Declared Seeds.

Dissemination

For more information on this paper and related work, please contact

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Further Reading

Coulson, A and Diyamett, B “Improving the contribution of agricultural research to economic growth: Policy implications of a scoping study in Tanzania”, Working Paper 12/0093, International Growth Centre, 2012.

Binswanger-Mkhize, Hans and Madhur Gautam “Towards an Internationally Competitive Tanzanian Agriculture”, World Bank, Dar es Salaam, 2010.

Lokina, R, Nerman, M and Sandefur, J “Poverty and productivity: Small-scale farming in Tanzania, 1991-2007”, International Growth Centre, 2011.

About the authors

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