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SIMLESA
Sustainable Intensification of Maize and Legume Systems for Food Security in Eastern and Southern Africa

TARI
Transforming Agriculture

Australian Government
Australian Centre for International Agricultural Research

COUNTRY POLICY BRIEF

ENHANCING AGRICULTURAL RESILIENCE AND SUSTAINABILITY IN TANZANIA

From farms to landscapes: Multiplying the benefits of Conservation Agriculture-based Sustainable Intensification in Tanzania

Summary and key facts

Farmer use of productive agriculture technologies is well below their availability in rural Tanzania

Providing capital to private sector and farmer organizations to promote CASI practices improved reach to more than 50,000 farmers in two seasons

Relying on local level CASI demonstration sites and farmer visits is effective but within a limited geographic scale

Creating funds and seed capital to catalyze private investments in scaling sustainable agricultural intensification is warranted

What is the problem?

Productive agricultural technologies are available, but limited use is costing food security

While the research system in Tanzania has made a range of modern techniques available to farmers, the most critical issue appears to be that the technology delivery mechanisms are not adequate to move even the existing number of technologies to farmers.

What solutions were identified from research?

A multi-pronged approach to scaling is key to innovation adoption

Through piloting farmers get to see demonstrations of better technologies and practices first-hand and experience their benefits. With the right scaling approaches, much progress can be made towards increasing the number of farmers consistently applying fertilizers, planting better varieties and using better resource management methods. In 2010, the Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA) project was introduced in Tanzania. SIMLESA research involved trialing a paradigm shift towards Conservation Agriculture-based Sustainable Intensification (CASI).

CASI technologies involve promoting practices that emphasize minimizing tillage, crop rotations and intercrops, and maintaining soil cover using crop residues. Along with using inputs such as improved seed varieties, fertilizer and agricultural machinery. CASI trials showed a package of practices could be tailored for the benefit of farmers. Results showed increases in productivity, efficient use of time and, and environmental benefits, including increased soil fertility and water retention.

To promote awareness of the initial piloting of CASI technologies on the local level, strategic partners like farmers, researchers, local government authorities, religious institutions and farmer networks were involved. To extend the reach and scale out the CASI trials and foster wider impact the project launched a set of outreach initiatives. These included, a competitive grants scheme (CGS), Agricultural Innovation Platforms (AIPs) and Short Message Service (SMS).

CGS

Competitively select public and private partners to drive scaling out initiatives to promote SIMLESA proven technologies.

AIPs

Multi-stakeholder forums connecting farmer groups, agribusiness, government extension, policy makers and researchers with the common goal to increase farm-level food security, productivity and incomes through the promotion of maize-legume intercropping systems.

SMS

Using cell phone based messaging to share market information, send and receive remittances, receive weather reports and seasonal outlooks, receive agronomic information, for farmer to farmer networking, send and receive photos, ask questions to extension services / other farmers.

Through CGS, participants who won scaling grants were contracted to disseminate SIMLESA proven technologies. Selected partners were the farmers network of Tanzania known by its Swahili acronym MVIWATA, a seed company SubAgro and an NGO named Research, Community and Organizational Development Associate (RECODA).

Adoption monitoring surveys show CGS as a key tool to reach more farmers in less time and fast track technology transfer

Traditional scaling out, through researchers and government extension system, proved to be much slower, reaching 22,057 farmers over four seasons. In contrast, SIMLESA developed CGSs directly reached 50,481 farmers in the same time involving three partners, nonprofit RECODA, private seed company SUBA-agro and the farmers group network MVIWATA.

RECODA (NGO)

Introduced CASI technologies to farmers in areas where they have projects and established relationships with farmers.

MVIWATA (Farmer group network)

Distributed information on CASI practices within its established network of farmers.

SUBA-Agro (Private seed company)

Invested in CASI technology demonstration plots along main roads and distribution of climate-resilient seed sachets and leaflets detailing complimentary agronomic practices.

SMS was used in SIMLESA project sites to share relevant information instantly. The web designed technology offers its users market information, the ability to send and receive remittances, receive weather reports and seasonal outlooks, receive agronomic information, for farmer to farmer networking, send and receive photos, ask questions to extension services other farmers. The service was provided by NEXMO through SIMLESA funds. The system had a total of 3,284 beneficiaries as per December, 2018. Each message costs 100 Tanzania shillings ($0.04 as at the time of writing).

SMS messaging was used to share important input and market information with more than

3,000

farming families in SIMLESA sites

Opportunities for policy action

Invest in public-private partnerships for scaling

Initiate funds and seed capital to catalyze private investments in scaling sustainable agricultural intensification

The synergies created in the CGS-enabled partnerships with MVIWATA, RECODA and Suba-Agro show opportunity for the establishment of similar models in other locations. The CGS approach can be adopted by government for strengthening the scaling out of CASI in Tanzania. It can also ensure the scaling out of CASI in the country thus the establishment of CGS in other regions is important.

The approach used by CGS partnerships allowed greater access to information, technical assistance and production of inputs by farmers through the involvement of different actors, including agro-dealers.

Why act now?

It is very expensive and time consuming to develop high valued agricultural technologies. However, a majority of the developed technologies remain restricted to their point of origin. For true scaling to happen, agricultural technologies must be scaled to the farthest communities. Without specific resource allocation in approaches such as CGS and SMS, new and better technologies will remain only in limited communities.

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Acknowledgements

Financed by the Australian Centre for International Agricultural Research (ACIAR), the SIMLESA project was led by the International Maize and Wheat Improvement Center (CIMMYT) in collaboration with Tanzania Agricultural Research Institute (TARI), numerous partners, including national agricultural research institutes in Ethiopia, Kenya, Malawi, Mozambique, Rwanda and Uganda in collaboration with other CGIAR centers. Other regional and international partners included Queensland Alliance for Agriculture and Food Innovation (QAAFI) of the University of Queensland, Australia and the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), among others.

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