Scale up the scaling methods: Towards sustainable agricultural intensification and resilience

What is the role of scaling in mainstreaming sustainable intensification innovations?

Bringing validated agricultural technologies to scale is often recognized as a critical adjunct in the research-to-farmer uptake path. Investing in scaling modalities such as readily accessible demonstration sites can accelerate the diffusion of the given technology. Technology diffusion is a central goal in agricultural research for development.

While farming innovations are available to some extent, delivery mechanisms are often inadequate. Especially the initial steps of demand creation and market development. While agricultural research is a continuous process, technology delivery mechanisms must be strengthened for cost-effective and timely delivery of new innovations to farmers.

But what are the gaps in scaling approaches, and how do they affect technology delivery?

What can be done to close these gaps, and what did we learn from SIMLESA work?

The implementation of the SIMLESA programme was based on adaptive research at experimental stations and replicated in local communities. The reach within the communities was enabled by funding and sustaining demonstrations in those communities. It was also facilitated by involving multiple value chain partners in the demonstrations.

In Mozambique, for example, scaling started in six communities in four districts. The starting point was multi-locational trials in 36 experimental sites to test and adapt appropriate conservation agriculture based sustainable intensification (CASI) packages. Over time, demonstrations of adapted packages of practices were scaled to more than 100 communities in nine districts, representing an area of more than 1.6 million hectares.
How can research lessons be translated into action?

**Invest in networks of community-based farmer learning centers**

Evidence from SIMLESA and related efforts has shown that diffusion of agricultural technologies within the communities was enabled by funding and expanding the demonstrations and involving more partners in the agricultural value chain. This supports the notion of long-term demonstrations for farmer capacity building on CASI. It will also be difficult to scale CASI practices if continuing demonstrations (and learning centers) are not made in many communities across different agro-ecologies. Without these and similar actions, it will not be possible to achieve the impacts of CASI at a scale sufficient for society-wide impacts.

**About SIMLESA**

Since 2010, the Sustainable Intensification of Maize-Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA) has been implemented in Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania and Uganda. The project seeks to increase food security, productivity, income levels and resilience to climate change while simultaneously protecting the natural resource base through integrating sustainable intensification technologies and practices in African smallholder farming systems.

SIMLESA is financed by the Australian Centre for International Agricultural Research (ACIAR) and led by CIMMYT in collaboration with numerous partners, including the national agricultural research institutes of participating countries, the International Center for Tropical Agriculture (CIAT), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the International Livestock Research Institute (ILRI); the Queensland Alliance for Agriculture and Food Innovation (QAAFI) of the University of Queensland, Australia, the Agricultural Research Corporation, South Africa, the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) in addition to various national level actors.

**Further readings**

For further information on which this brief is based, please visit https://simlesa.cimmyt.org/resources/to access policy briefs, synthesis reports, journal articles, datasets and other information.