Not content to let the lack of maize seed deter maize production by small-scale farmers, community-based seed producers are moving in to fill the gap in southern and central Africa.

Victor Mulongo Mukalay, a former member of parliament, is now emerging as a small-scale maize seed entrepreneur in his home region of Lubumbashi, in Katanga province, in the Democratic Republic of Congo (DRC). In a province with nearly 750,000 households of small-scale farmers planting an average of 530,000 hectares of maize, it is unusual that there is no commercial seed company. Mukalay is working with his neighbors on three hectares of land to produce maize seed to fill this gap, and is planning to acquire a maize seed processing machine to enable him expand the scale of his operations.

“Although this is our first season, I’m very optimistic we’ll meet our target of producing enough good seed for 300 farm households,” he says. “I’d like to contribute in my small way to increasing the availability of quality seed of improved maize varieties for small-scale farmers.” Mukalay and his neighbors are multiplying breeders’ seed they receive through CIMMYT’s New Seed Initiative for Maize in Southern Africa (NSIMA). They are using the open-pollinated varities ZM623 and ZM721—developed by CIMMYT in Zimbabwe but showing good adaptability in the DRC. Variety ZM623, developed through CIMMYT research on drought tolerant maize for sub-Saharan Africa, is particularly popular with farmers, who like its intermediate maturity, disease resistance, and grain type.

“We’re encouraged by this interest from community-based seed producers who are investing their own resources in maize seed multiplication,” says John MacRobert, CIMMYT Zimbabwe seed specialist and NSIMA coordinator. “This will surely increase the availability of improved varieties to small-scale growers.”

Empowering farmers through partnerships
Two years ago, a cooperative project between World Vision International (WVI), Swaziland’s national research and extension system, and CIMMYT began working with a farmers’ group in rural Swaziland, providing technical and financial support for community-based seed production. Today, 86 farmers are proud owners of Lesibovu Community Company, involved in the seed production and marketing of the popular, drought tolerant variety ZM521. This season they will start producing and marketing certified seed of the newly released variety ZM611.

“The training we received from CIMMYT in seed production, certification, and marketing aspects was very useful in helping us scale up our production from just 25 kilos to approximately 41,000 kilos of seed annually,” says John Mamba, the group’s chairman. “We now feel empowered to produce good quality seed.” The company has purchased a simple seed packaging machine and developed its own packaging label.

“It was necessary to build the group’s capacity in producing open-pollinated varieties and hybrids, seed inspection procedures, and maize seed standards,” says Peter Setimela, CIMMYT maize breeder. “This was the only way of ensuring that they supply high-quality seed and of making them competitive in the market.”
Home-grown seed is best

The South African government, through the Limpopo Province Department of Agriculture, is also supporting similar initiatives. Although they began just eight years ago, these efforts have taken root and today are supplying as much as 5,000 kilograms of improved maize seed to hundreds of small-scale farmers who previously had little access to improved maize varieties. The bigger seed companies did not consider it good business sense to supply thousands of widely-dispersed, small-scale farmers. Through strategies such as marketing the seed in smaller, more affordable packets and working with rural traders, the schemes have increased access to and uptake of varieties such as ZM421 and ZM521. Farmers prefer ZM421, another variety from CIMMYT’s work, because of its comparatively stable yield, drought tolerance, and early maturity. The latter was especially attractive, because it eases the burden of guarding the crop from marauding baboons, a major menace. Farmers have also found ZM521 to be high-yielding and early-maturing, with good milling properties.

The South African National Seed Organization (SANSOR) has been involved in the certification of seed from the small-scale production schemes since 2002. SANSOR works closely with farmer producers to ensure their seed is of the required quality. Producers must register seed plots within 28 days after sowing, have plots inspected at different plant growth stages, and present seed samples for certification.

Being in close contact with farmers makes it easier to include their feedback in varietal improvement research or in key aspects of seed production, meaning for example that the varieties developed can be better suited to farmers’ cropping settings.

Maize is a major food staple not just in South Africa but in most of sub-Saharan Africa. Through NSIMA, the South African government is investing in training and extending financial and material assistance to community-based seed producers. This in turn helps ensure small-scale farmers access to affordable, quality seed of improved maize varieties, enhancing their food security and incomes.

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