Stories of change

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Bringing benefits of chickpea to more men and women farmers in southern Ethiopia

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Key messages

- In the first six months, the project has expanded its reach from 45 farmers in the previous research phase to 794, of which 20% are women.
- A multi-stakeholder innovation platform has been established to support and expand community-based seed production of improved chickpea varieties on 750 hectares, involving micro-seed enterprises, farmers' cooperatives and 30,000 farmers over three years.
- A learning approach, building on innovations developed during a pilot project, will define this phase of the project, prior to scaling-up in the next phase.

Context

Pulses occupy about 12% of cropland in Ethiopia and are the second most important staple in the national diet after cereals. As a nutritious legume crop, chickpea has the potential to improve both soil health and human nutrition. Performing well on residual moisture, chickpea also allows farmers to harvest two crops in a growing season (cereal followed by chickpea), boosting their food supply and income.

Unfortunately, chickpea varieties available in Ethiopia have traditionally been low yielding, and poor access to high quality, improved seed has prevented many farmers from adopting the crop. Between September 2010 and March 2013, scientists and crop breeders from Hawassa University and the University of Saskatchewan identified four high yielding varieties of chickpea which offer twice the grain and biomass yield of traditional varieties. However, a critical question remained: how to accelerate large-scale adoption of these varieties in order to reach more farmers, particularly women, and provide greater household food security and income?

In response, the researchers working through the *Promoting Adoption of Chickpea Technology* (PACT) project, have identified new areas in the highlands of Ethiopia as potential sites for chickpea seed multiplication. Following this, thousands of farmers have registered to access improved seeds to expand chickpea production. This is particularly encouraging as southern Ethiopia is not a region where the government had expected chickpea to be viable. In addition, a unique research and extension approach which

addresses other bottlenecks, such as poor management practices, high production costs and low productivity, will be tested. Identified best practices, along with multiplied seed varieties, will support subsequent mass expansion of chickpea production, through promotion by district, zonal and regional agricultural extension services.

Molla Assefa, a PhD student, collecting data

Objectives

The overall aim of this project is to understand and promote the key drivers and processes that will facilitate and accelerate large-scale adoption of chickpea production technology in the southern highlands of Ethiopia.

Conceptual framework

This pilot pre-scaling of activities is based on a scaling-up model (Linn *et al.*, 2010), which involves three phases: innovation, learning and scaling up. The innovation phase was undertaken in the initial research project, involving testing, verification and validation of chickpea technologies, while the learning phase will be emphasized in this pilot project. The project will provide essential elements to prepare for a scaling up phase that will deliver multiple impacts.

Emerging outcomes

Increased chickpea production amongst women

In the first six months, the project has expanded its reach from 45 farmers in the previous research phase to 794, of which 20% are women. All women participating in the PACT project are applying improved practices and it is expected that maximum yield of 3.1 tons/ha will be obtained from their fields - an increase of 1.4 tons/ha compared to average local yields. The performance of project beneficiary women has raised the interest of other female farmers in their communities. Consequently, during farmers' field days, many have asked to

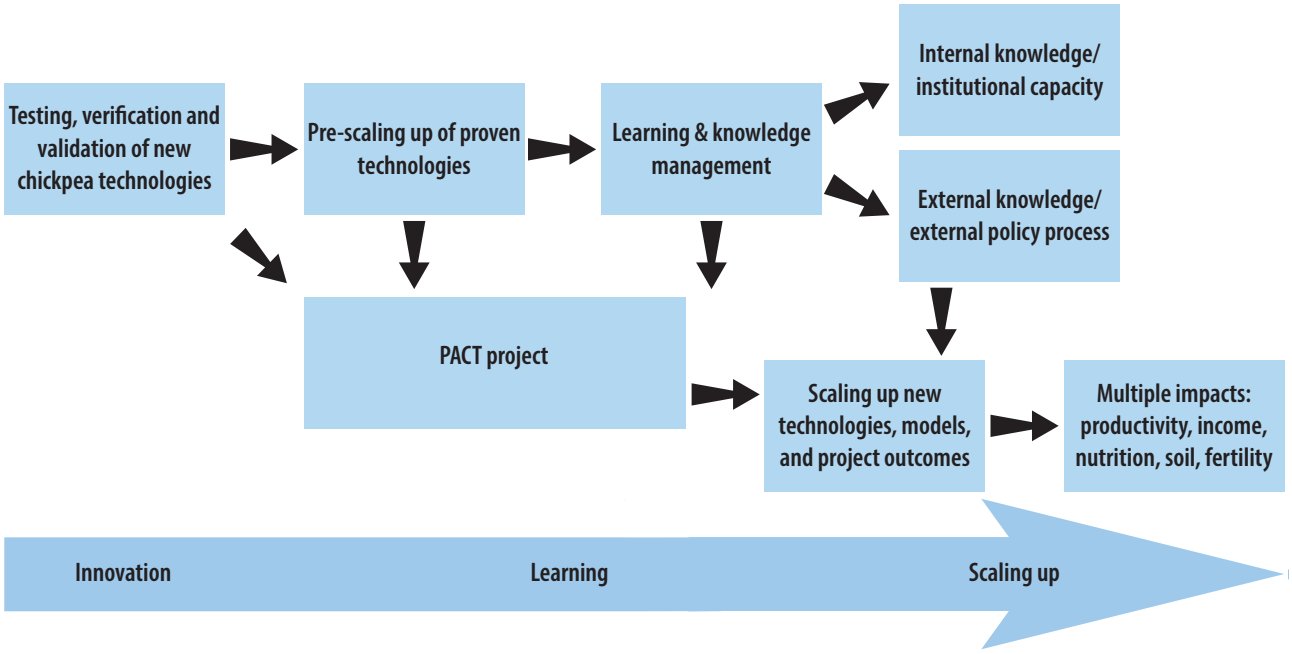

Figure 1: Scaling up model adapted from Linn et al.

take part in seed and grain production in the coming seasons. A multi-stakeholder innovation platform has been established to support and expand community-based seed production of improved chickpea varieties on 750 hectares, involving micro-seed enterprises, farmers' cooperatives and 30,000 farmers over three years.

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A farmer harvesting chickpea in Halaba

More women producing seed

During the pre-scaling up phase, the 158 women seed producers are being supported to establish voluntary groups in order to test the chickpea varieties and crop management practices, and thereby take part in production of improved chickpea varieties, mainly for seed supply. Within the various districts, the project's gender extension team will work with district marketing and cooperative offices in helping to organize women farmers. This will include both those who are already members of functioning cooperatives, and those who wish to form new ones for chickpea production and marketing.

Greater information sharing amongst women

A balanced mix of theoretical and practical sessions during the extension training has enabled 158 female and 636 male farmers to acquire knowledge and skills on seed production and better management practices, including row planting, spacing, fertilizer application and pest and disease identification and control. Training sessions, followed by house and farm visits by local development agents, have helped women farmers in particular to develop networks for sharing information. These have provided a good opportunity for women to share their experience and enhance their field management. As a result, women outside the project are also keen to join the networks.

Implications

In terms of the potential for scaling up chickpea cultivation in southern Ethiopia, a regional seed enterprise assessment indicates that nearly 150 tons of high quality chickpea seed will be available for planting in the next cropping season. This takes the region from zero level chickpea seed security to meeting over 60% of its seed requirement. Expanding the cultivation of chickpea to include more farmers in the project area is now a priority, not least to minimize the risk of theft of the crop. Other potential areas for scaling up have been identified.

However, scaling up cannot be achieved without the involvement of several key actors. The regional stakeholders' platform is key, but continued engagement with the extension

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Shewareg Zeleke, threshing improved chickpea varieties

system, research, seed supply and farmers' organizations is also vital. Bodies such as the Southern Regional Bureau of Agriculture, the South Agricultural Research Institute, the South Seed Enterprise, the Farmers' Cooperative Federation and the zonal and district agricultural offices have all provided essential support since the initiation of the project, and helped to remove long-standing bottlenecks.

A development agent analysing the performance of an improved chickpea variety in Halaba

Conclusion

The speed and success of efforts to scale up production of high yielding chickpea varieties in southern Ethiopia has resulted in no small measure from the involvement of farmers, including women. In the research phase, farmers were involved with selection of appropriate varieties and production technologies, and various communication channels were used to reach farmers beyond those who conducted seed trials. As the project has progressed from experimenting to the pre-scaling up phase, the participation of women farmers has steadily increased, giving confidence that large-scale adoption can have significant benefits for gender equity. Plans for a full scaling up activity will be implemented based on these lessons, using the established models of the regional stakeholders' platform and local farmers' organizations.

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