Transforming African agriculture through sustainable intensification *September 2015*

Bringing wheat, potato and faba bean seeds to market in the Ethiopian Highlands

Key messages

- Using improved seed varieties increases faba bean, potato and wheat productivity, benefiting farmers and traders.
- Enhancing use of improved seeds requires stable seed systems, capacities, investment, skills, and markets.
- Addressing inequality and gender relations in households and communities enhances uptake of improved seeds.
- Seed production system sustainability needs different business models so seed producers are driven by profitability and returns to investment.
- Structured linkages between seed producers and users encourage the development of a sustainable seed supply system by providing channels for communication and structured markets for the seeds.

The issue

In Ethiopia, seed systems for potato, wheat and faba beans are dominated by state entities, such as government bureaus and national, regional and locally-based research centres, local farmer cooperatives and cooperative unions. There are also some individual seed producers. An important function of research institutes is to produce and supply pre-basic and basic seeds.

The seed supply system is, however, constrained by a lack of capacity of many of the producers. They are unable to meet the demand of seed users, who in turn fail to meet the needs of produce buyers. Private investors have been slow or unwilling to invest in the seed sector, particularly for self-pollinated or propagating crops. There is scant information on the profitability or otherwise of seed production enterprises, hindering investment. Most seed businesses also highlighted lack of market linkages as major challenge.

Seed producers work without detailed or structured information about the market, hampering longer-term planning. Many producers appear to lack the skills to undertake business planning and establish sustainable linkages in the market. Consequently, seed producers continue to supply low quality products in quantities and types which fail to meet demands. Moreover, the producers continue to operate enterprises that may not be economically viable in the medium to long term.

Thus, the contribution of the seed enterprise to increased production and consequently food and nutrition security and incomes for the households remain low. Fundamentally, inconsistent supplies of seed and planting materials hinder agricultural production.

Table 1: Proportion of actors naming poor quality and inappropriate varieties as a major problem

Crop actor	Amhara	Lemo	Sinana	Tigray
Potato processors	5/8 (62.5%)	1/3 (33.3%)	5/5 (100%)	3/5 (60%)
Faba bean processors	6/10 (60%)	1/2 (50%)	4/6 (66.7%)	2/5 (40%)
Wheat processors	4/6 (66.7%)	4/8 (50%)	3/9 (30%)	5/5 (100%)

Findings

In a survey conducted to assess the constraints facing wheat, potato and faba bean value chain actors, most traders reported the quality, variety and supply of seeds as a major obstacle facing their business (Table 1).

Further, most processors were not satisfied with the variety, quality and quantity of produce supplied to them. Most of the potato processors require large sized potato of a specific variety, but most could only obtain varying varieties of potato at sub-optimal quality. The niches or market segment occupied by processors are determined by the type and quality of the produce and products they supply. If these niches are not well supplied, the market actors will remain unsatisfied.

Inconsistent supplies and insufficient quantities were reported by most processors while poor storage facilities and post-harvest management were reported as major issues by potato traders. Very few—14% of traders—had received training in post-harvest management. Storage problems faced by women traders were particularly severe, affecting 30% of women, even though they only accounted for 16% of traders.

Most traders believed that stronger market linkages and linkages with other value chain actors would help address these issues. Traders said that market linkages were weak with very few explicit contracts between traders and suppliers, fewer than 11% of the total. There are thus opportunities to enhance supplies and improve produce quality through the development of reliable seed systems and by enhancing the capacities of actors.

Recommendations

- Promote and build the capacities of community seed production as agribusinesses based on sound business principles and help them establish strong linkages with seed users and buyers, particularly for new faba bean businesses.
- Strengthen the focus of existing seed enterprises—individual producers and primary cooperatives—towards the needs and demands of seed users, particularly in wheat production, and make business development skills available to cooperatives.
- Enhance the quality of seeds produced by establishing irrigation facilities for research centres to produce quality disease free basic or foundation potato seed of improved varieties suitable for the processing industry, making better supplies available to seed producers on a more regular basis and building the capacity of farmers.
- Enhance seed management practices of seed producers, particularly for high value products, ensuring that farmers can obtain high quality seeds and gain the knowledge they need to maintain them. This will help bridge the yield and quality gap between current and potential production.

Methodology

The value chain assessment built on previous participatory community assessment surveys and telephone interviews carried out at farm and business level by Africa RISING. Value-chain mapping was used to identify value chain actors and service providers; methods used included focus group discussions, key informant interviews and innovation platform meetings. The work was carried by staff from the International Center for Tropical Agriculture (CIAT), the International Potato Center (CIP) and the International Livestock Research Institute (ILRI).

The Africa Research In Sustainable Intensification for the Next Generation (Africa RISING) program comprises three research-for-development projects supported by the United States Agency for International Development as part of the U.S. government's Feed the Future initiative.

Through action research and development partnerships, Africa RISING will create opportunities for smallholder farm households to move out of hunger and poverty through sustainably intensified farming systems that improve food, nutrition, and income security, particularly for women and children, and conserve or enhance the natural resource base.

The three projects are led by the International Institute of Tropical Agriculture (in West Africa and East and Southern Africa) and the International Livestock Research Institute (in the Ethiopian Highlands). The International Food Policy Research Institute leads an associated project on monitoring, evaluation and impact assessment.

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