

## **Enhancing potato production and market access in Uganda**

Mugisha, J.<sup>1</sup>, Katungi, E.<sup>1</sup> & Katwijukye, A.K.<sup>2</sup>

<sup>1</sup>Department of Agricultural Economics and Agribusiness, Makerere University, P. O. Box 7062, Kampala, Uganda

<sup>2</sup>Department of Agribusiness and Rural Development, Gulu University, P.O. Box, 166, Gulu, Uganda  
Corresponding author: jomugisha@agric.mak.ac.ug

### **Abstract**

Potato value chain in Uganda is characterised by many scattered small farmers and buyers facing high transaction costs, resulting from lack of mutually beneficial linkages between actors in the chain and market coordination problems in terms of quantity, quality and varieties. These problems contribute to low adoption of improved production technologies and consequent low productivity, which, in turn, contribute to limited access to profitable markets. The project will identify and analyse constraints along the value chain that hinder potato producers from accessing profitable markets. It will also identify and evaluate value-chain empowerment strategies that have the potential to link farmers to such markets. The identified strategies will be discussed with the key value chain actors and the potential ones selected, tested and recommended. The project will contribute to capacity building through degree training and creating a forum for involvement of value chain actors in interactive learning and knowledge sharing.

Key words: Market access, potato, Uganda, value chain

### **Résumé**

La chaîne de valeurs de pomme de terre en Ouganda est caractérisée par beaucoup de petits fermiers et acheteurs dispersés faisant face à des coûts élevés de transaction, résultant du manque de liens mutuellement bénéfiques entre les acteurs dans la chaîne et les problèmes de coordination du marché en terme de quantité, qualité et variétés. Ces problèmes contribuent à la faible adoption des technologies améliorées de production et ainsi à la faible productivité, qui, à leur tour, contribuent à l'accès limité aux marchés profitables. Le projet identifiera et analysera les contraintes le long de la chaîne de valeurs qui gênent des producteurs de pomme de terre d'accéder aux marchés profitables. Il identifiera et évaluera également les stratégies d'habilitation de la chaîne de valeur qui ont le pouvoir de lier des agriculteurs à de tels marchés. Les stratégies identifiées seront discutées avec les acteurs principaux de chaîne de valeurs et les potentiels choisis, examinés

et recommandés. Le projet contribuera au renforcement de capacité par le niveau de formation et en créant un forum pour la participation des acteurs de la chaîne de valeurs dans l'apprentissage interactif et le partage de connaissance.

Mots clés: Accès au marché, pomme de terre, Ouganda, chaîne de valeurs

## Background

Potato (*Solanum tuberosum* L.) production in Uganda is predominantly in the higher altitude areas (over 1500 metres above sea level) mainly in Kigezi highlands in southwest and Bugisu in southeast. Mid-elevation production is also becoming common with the introduction of short duration varieties that are compatible with many farming systems (Hakiza *et al.*, 2000). Various research interventions, including high yielding varieties that are adapted to the environment (Ferris *et al.*, 2001), have been put in place to improve potato productivity in Uganda. Since 1986, potato production has increased by 14% per annum, from 98,000 mt in 1986 to 478,000 mt in 2000, one of the highest growth rates of any food crop in the country (Ferris *et al.*, 2001). However, production is largely at subsistence level with few farm households participating in domestic markets. Farmers continue to face a challenge of market access, as also noted by Wiggins (2000). Access to profitable markets for agricultural products is a vital opportunity to enhance and diversify the livelihoods of poor subsistence or semi-subsistence producers (Narayanan and Gulati, 2002).

## Literature Summary

The central issue in agribusiness studies is a commodity systems approach that integrates the supply and demand chains. This requires exploring all the actors that are likely to be involved downstream the chain and key dimensions in the commodity chain (Eduardo de Oliveira and Fensterseifer, 2003). The linkages among key actors in the potato value chain appear to be weak, fragile and poorly coordinated (Ferris *et al.*, 2001). Farmers constantly complain of lack of markets when consumers pay higher prices as traders also complain of inadequate supply. This, according to Shepherd (2007), indicates that buyers have not been active in seeking new suppliers or they have been prohibited by high transaction costs from expanding their supply sources. There is also mistrust between the buyers and sellers as pointed out by Horton *et al.* (2010). The ultimate effect is low market incentives, a weak commodity chain and low adoption of improved technologies. Linking small farmers to profitable markets involves identifying the profitable markets, constraints

## Study Description

inhibiting linkages, the roles of different actors and development of capacity among the actors to address those constraints (Shepherd, 2007; Horton *et al.*, 2010).

To link farmers to profitable markets requires systematic analysis of the constraints faced by value chain actors, together with the chain actors themselves and evaluating the potential market linkage options as a first step in linking farmers to markets. This project is conceived within this contextual framework whose objectives include describing the existing potato value chains in Uganda, and determining efficiency at different stages of the chain and elements for successful improvement of the efficiency; and assessing existing alternative options for linking farmers to profitable markets and identify potential ones for scaling out. The project will also determine factors that influence farmers' decision to participate in potato markets and extent of participation; design and test alternative value-chain empowerment strategies with a potential to improve marketing linkages; and promote human resource development for research and development.

The study will evaluate the potato value chain whereby at each key node, actor profile, business organization and use of business development services will be analysed to get a Supply-Utilization Account (SUA). Snowball interviews of the chain actors will be the method for collecting data that will be used to draw a consolidated map of the value chain. An economic analysis of the potato business enterprise and marketing efficiency will be undertaken along the value chain.

Data will also be collected on current potato production systems, varieties and other technologies, yield, output and utilization, as well as on market participation variables, indicators of market access, farm and household characteristics. The study will define market participation as the proportion of output sold on the market to examine factors that explain heterogeneity among farmers regarding the decision on whether or not to participate in the market and the degree of participation. Econometric methods will be used to analyse the data. A two-step Heckman's procedure as used by Heltberg and Tarp (2001) and Goetz (1992) will be used in data analysis.

## Recommendation

The project will assess and evaluate the potential value-chain empowerment strategies. It will follow the three phases used in implementing a participatory market chain approach (Horton

et al., 2010), that is, familiarisation with the market chain and key actors; participatory analysis of potential business opportunities; and development of market-driven innovations. The identified potential value-chain empowerment strategies will be discussed with the key value chain actors and the potential ones selected, tested and recommended.

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