

# Promoting agricultural value chains

*Agricultural value chains link urban consumption with rural production. Changing demand, as a consequence of urbanisation, emergence of «modern» consumption patterns or new trends in international trade, impacts on rural areas along value chains and spills over to marketing and production systems. These rural-urban linkages bear challenges but also mutual benefits for producers and consumers and can be promising entry points for development interventions. This is illustrated with the case of the Kenyan potato value chain.*

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Photo: PSDA

For value chain promotion, knowledge of consumers' needs and of the right quality and quantity of products is needed. Listening to processors and consumers can be an eye-opener for producers and traders.

Value chains seem to be the keyword in recent agricultural development debates, often in conjunction with rural economic development and agribusiness promotion. What is meant by the promotion of agricultural value chains? And which role do rural-urban-linkages play?

Economic development involves the transformation of rural agricultural based economies into more urban industrial and service based economies. This implies that flows of resources, goods, services, knowledge and information between urban and rural areas change. Agricultural production in rural areas and consumption in urban centres are geographically more and more separated. However, rural production needs to provide the growing cities with affordable and quality food. Value chains have developed rural-urban linkages to meet these challenges and provide potential benefits for both, rural producers and urban consumers.

## Value chain promotion in agricultural development

Value chain promotion is an effective way of fostering rural-urban linkages. Firstly, the concept provides a useful analytical framework for market and sub-sector analysis. Value chains describe productive processes around a product from the provision of inputs to production, transportation, transformation, processing, marketing, trading, and retailing to final consumption. Since production only translates

into income once final consumers really demand and buy goods, the value chain approach encourages looking at the production process from the consumer's end. Secondly, the metaphor of the chain emphasises the fact that most goods are produced by a sequence of interlinked actors and activities. The approach focuses on the analysis of the institutional arrangements that link the various economic players (i.e. trust, vertical and horizontal integration and organisation, and contracts).

Thirdly, it highlights the importance of private sector development. For the purpose of fostering agricultural growth and aligning the agricultural sector development with urban and other trends in society, it provides a fairly holistic framework, which can encompass a number of different development activities.

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) has gained positive experience in working with value chain approaches over the past couple of years (<http://www2.gtz.de/snrd/english/topics/awf.html>). The starting point for value chain analysis is usually a participatory chain mapping workshop, in which representatives from all groups involved in the process develop a joint understanding of the respective chain. This exercise reveals strengths and weaknesses of the value chain and serves as a starting point for mutual trust-building. Discussions evolving around input quality, logistic arrangements or product standards often help producers to understand the real demand for their (raw-)product. Listening

to processors and consumers can be an eye-opener for producers and traders, when it comes to consumers' needs, the right quality, the right quantities at the right time in the right place.

Analysing the chain jointly can demystify a number of negative perceptions, such as «middlemen exploit us», or «farmers always break the contracts». Pointing out the weaknesses in the chain can help shaping the roles of public and private institutions to improve chain efficiency and to gain competitiveness. In the case of internationally traded products, e.g. fresh fruit and vegetables, following the value chain is the only way to fully depict the complex chain linkages, flows of resources, knowledge and logistics. (see also: J. Humphrey 2005, *Shaping Value Chains for Development*, GTZ Publication).

### The case of Kenya: urban consumers trigger rural production

In Kenya, population growth and rural migration led to high urbanisation during the past 15 years. Today, almost 30 percent of the 32 million Kenyans live in urban centres, with an increasing tendency. Urbanisation, income growth, international influences and modernisation of the urban society have changed food consumption patterns over the past decade. Maize, the number one staple food is gradually substituted by wheat, rice and potatoes and increasing incomes stimulate more demand for dairy products, meat, fresh fruit and vegetables. Chips and crisps production is a determining factor of growth in demand for potatoes. For 2003, total urban demand for potatoes was 600,000 tons, whereby 12 percent were processed into chips and 1 percent processed into crisps.

Consumption patterns of potatoes deserve special attention, since they fall between the categories of starchy staple food (inferior goods) and fresh vegetable (luxury goods). Three quarters of the urban households consume potatoes regularly, on average 5 kilograms per adult at a cost of 0.5 euro per month. Income elasticity for potatoes is amongst the lowest compared to other vegetables, but is significantly higher than for all other staple food. Children seem to be the primary consumers of potatoes since consumption increases during school holidays when the kids stay with their families. Apart from households, restaurants, hotels and canteens are major potato consumers. In urban areas, chips are a common menu item in hotels, restaurants and especially franchise-type fast food restaurants.

A profound understanding of consump-

tion helps to assess the real demand – in terms of quantity, but also of quality. During the past decade, farmers tried to respond as much as they could and potato production in Kenya doubled from 500,000 tons to more than a million and thus provides many farmers with a reliable income. However, demand is not always met – quality of the produce is sometimes poor, scarcities occur and prices seem to be higher than production costs would suggest (see also M. Ayieko et al. 2005: *Fresh Fruit and Vegetable Consumption Patterns in Urban Kenya*, Tegemeo Working Paper).

### Marketing between market failure and market functions

Currently, potatoes are marketed through a fragmented chain characterized by many handlers, hardly any cooperation, no integration, and market failure, which result in high supply risks, high transaction costs, price inefficiencies and quality losses. Analysing the chain, critical issues become evident and are often associated with weak rural-urban linkages: **Firstly**, the predominantly smallholder production is confronted with failing input markets. In addition, potato production is affected by poor quality and unreliable availability of seed potatoes. **Secondly**, scattered farms, limited storage facilities, poor road network, and insufficient transport facilities damage the potatoes and affect the post-harvest quality. **Thirdly**, the market value of potatoes is subject to very limited negotiation, given that almost all

### Potato production, marketing and consumption in Kenya

In 1927, colonial settlers introduced potatoes («Irish potatoes», *Solanum tuberosum*) to the favourable Kenyan agro-ecological conditions. Today, approximately 500,000 smallholder farmers grow potatoes in the high rainfall parts of Central Kenya and the Rift Valley. An estimated production of more than 1 million tons is achieved per year, on approximately 110,000 hectares.

Potatoes are almost entirely marketed in the domestic market, which is liberalised with little government regulation. The increasing demand for potatoes is linked to changes in consumption habits, mainly in urban centres, where chips became a more and more popular part of the diet during the past decade. Chips production has become the major form of value addition for potatoes. In urban centres, the industry employs thousands as marketing agents, transporters, chips and crisps processors, and vendors.

farmers sell to middlemen at the farm gate. In the absence of standardised packing and weighing scales, middlemen developed a tendency to enlarge the bag sizes but to keep the prices per bag steady. Additionally, local authorities impose road cess per bag transported, notwithstanding the size of the bags and therefore give an incentive to make the bag size even bigger.

Lastly, urban consumers buy most of their potatoes on open markets or in small shops, since potatoes are only sold as fresh produce and given the fact that potatoes are bulky and to a certain extent perishable. The challenges on logistics of marketing, the physical infrastructure of markets and on market information are enormous.

In Nairobi, potatoes are almost exclusively traded on Wakulima Wholesale Market, which is an entirely unregulated spot market for fruit and vegetables in the city centre. Potato wholesale is in the hands of a dozen brokers who serve large clients such as hotels, restaurants, canteens, supermarkets and traders, who retail smaller quantities to shops and kiosks. This small number of brokers ensures a cartel that realises margins of roughly one third of the wholesale price for their brokering services only. There is literally no competition and only little product differentiation (see also: W. Kirumba et al. 2004: *Potato Market Survey*, GTZ-PSDA publication). To sum up, potato marketing struggles between basic market functions and market failures at every single link of the chain.

### Facilitating a process of change

In August 2003, potato farmers complained about the insufficient input provision, absence of marketing standards, and exploitation by middlemen. They addressed their concerns to the Ministry of Agriculture and were supported by Members of Parliament from potato growing constituencies. The ministry engaged the bilateral GTZ-Promotion of Private Sector Development Programme (PSDA) to respond to farmers' grievances.

PSDA in cooperation with the Ministry of Agriculture identified the following areas of concern:

- production decreases, due to absence of input services and clean seed material;
- producers are seriously disadvantaged by the lack of standardised packaging and the absence of weighing scales on markets;
- trading of potatoes is overtaxed by uncoordinated cess collection on roads and market places (which is additionally prone to bribery and corruption); and

- wholesale marketing is inefficient due to market failure (expressed in the presence of cartels, lack of market transparency, and high transaction costs).

These results were presented in a workshop, in which input suppliers, potato producers, middlemen, transporters, traders, private sector and relevant public institutions were represented. Participants were facilitated to develop a joint understanding of the areas that needed interventions and to build consensus on the roles, public and private, rural and urban actors needed to play. A sequence of activities was suggested. Following the workshop, a task force was constituted to form a national potato farmer association giving farmers a private sector representation that would be able to lobby for better production and marketing services. The ministry established a working group of staff from the horticultural division, policy unit, researchers and PSDA, in order to address the necessary public interventions. Furthermore, a team that includes Local Government Representatives was initiated to meet the challenges arising around cess collection, competition and market entry barriers. Another team developed strategies on how to meet the challenges in seed potato production.

### Achievements and remaining challenges

Following a value chain approach in supporting the Ministry of Agriculture to address the development of the potato industry enabled in a relatively short time broad consensus building amongst rural producers and urban traders and consumers. The participation of all, private and public, rural and urban stakeholders in looking for solutions, accelerated the process, decreased bureaucratic hurdles, and contributed to important trust building within the chain. Mutual interest were expressed and potential benefits emerged as objectives for coordinated and concerted interventions.

Today, a standard bag size is set at 110 kilogrammes and other standards are in place

### Improved marketing via supermarkets?

In the case of potatoes, successfully emerging supermarket chains do not play any role so far. In Kenya, only 2 percent of all traded fresh fruit, vegetables and potatoes end up in supermarkets as final marketing outlets. Correspondingly, only 6 percent of urban households buy fresh fruit and vegetables in supermarkets, whereby potatoes are not likely to be the product of immediate choice for these limited fresh purchases, since prices for potatoes are comparatively high at supermarkets.

The total market share of supermarkets in all food categories is likely to grow over time. However, this growth is estimated to be much slower for fresh fruit and vegetables than for all other food items. In other words: supermarkets are becoming a more and more important outlet for processed goods in general and for processed food items in particular, but for fresh products, open air markets, small shops, kiosks and hawkers will remain the important outlets (above cited M. Ayieko et al.).



Photos: PSDA

In Kenya potatoes are marketed through a fragmented chain characterized by many handlers and hardly any cooperation.



for production, marketing and processing of potatoes. The Minister of Agriculture signed the potato industry policy and legal framework in April 2005. The National Potato Growers and Marketing Association has been formed and started to empower farmers in lobbying for better services. They have recruited 5 000 members so far. 100 members («lead farmers») participated in training courses on agribusiness to improve their skills in farming and marketing. Another 40 members were trained in seed potato production, as well as 40 extension officers to back up the producers in the production and marketing process.

Monitoring this process of chain facilitation, a number of lessons were learnt from all stakeholders. The chain approach encompassed all stakeholders and proves that public and private, rural and urban actors can achieve a lot, if they realise their mutual benefits and join hands for implementation. As a next step it is important to continue facilitating interactions of producer groups with urban markets and industries to better respond to consumer needs and exploit value addition opportunities.

Potato farmers have realised that producing for marketing chains requires a certain degree of organisation, of mutual trust and reliable two-way information and communication up-stream and downstream along the value chain in order to respond to market incentives. So far, small-scale producers, scattered all over the country, have very limited organisational skills, even if the educational level is fairly high, like it is in Kenya. Consequently, training in organisational development, leader-

ship skills and group dynamics are the most relevant support measures to producers. Liaising with politicians or other local leaders can play an important role in mobilizing farmers as well as the bigger players in the private sector.

### Opportunities for closer rural-urban linkages

Structural transformation of rural agricultural based economies into more urbanised economies opens up new market opportunities to rural producers, their trading and processing partners in the value chain – provided they succeed in linking up rural production with urban markets and ensure that economic benefits (e.g. employment generation) are geared to both, urban and rural areas.

The analysis of the potato value chain revealed investment opportunities for urban processors and growing markets for rural producers. Producers need to explore forward market integration in order to seize these opportunities; e.g. by forming marketing groups, by trading themselves or by cooperating more with the processing and trading industry.

Finally, value chain promotion challenges the delivery of public and private services, from agricultural extension to business development services for small and medium enterprises in urban agglomerations. The public sector needs to provide a business enabling environment for the private sector to perform efficiently. This requires not only a change of attitude, but also massive public investment in rural marketing infrastructure – by resources reallocations from urban to rural areas.