



5 Smallholder access to markets in Pakistan

5.1 Introduction

The agricultural marketing system plays a key role in the transfer of products from farmers to final consumers. Numerous intermediaries, a prominent feature of Pakistan's agricultural markets, provide services such as harvesting, postharvest handling, packaging, transport and storage, price determination, ownership transfer, and so on.

Governments play an important role in the success of markets in terms of the legal, physical and regulatory environment in which the markets operate. In addition, governments provide essential infrastructure (for example roads), which affect smallholders' ability to participate in markets. By influencing whether smallholders can access markets, and the conditions under which participants operate within a market, governments also affect the livelihoods of smallholder farmers and other market participants.

In Pakistan, smallholders are mostly isolated from markets and are dependent upon local contractors and middlemen to sell their produce. Smallholders are often severely cash constrained and sell rights to their crop well before harvesting, at low prices. In these circumstances, smallholders are easily exploited. This market isolation also reduces the flow of market information to smallholders and thus their ability to adjust to changes in market conditions.

The future growth of Pakistan's agricultural sector relies heavily on the development of an efficient marketing system providing useful and cost-effective services to all participants. Pakistan's agricultural marketing often does not meet these requirements. Inadequate market infrastructure, poor road access, poor harvesting and poor postharvest treatments severely restrict outcomes, leading to low prices for farmers and high levels of wastage, for example. In addition, the poorly functioning

marketing system is slow to adjust to changes occurring in the modern market environment, further compounding the situation.

A recent report by the Food and Agriculture Organization of the UN (FAO) stresses the importance of stronger linkages between cities/towns and their adjacent rural areas for developing efficient agricultural marketing systems and nearby urban food markets. FAO argues that by supplying appropriate infrastructure (roads, cold storage, etc.), and by providing enabling conditions for development of enhanced linkages between town/city food requirements and nearby farmers, governments can leverage agroindustry developments to improve livelihoods. Much of this is currently lacking in Pakistan. The report states:

Fostering rural-urban linkages through appropriate territorial strategies can create both favourable business environment for farmers—small and large—and the non-farm income opportunities vital for building prosperous and sustainable rural economies. (FAO 2017, p. xvii)

The report also argues that urban food demand is not sufficient on its own to improve smallholder livelihoods. Urban demand needs to be supported by public policies and public investment in agricultural marketing and this is the key to improving livelihoods (FAO 2017, p. vi).

5.2 Access to markets in Pakistan

Pakistan agricultural marketing has a complex set of intermediaries between farmer and retailers. Markets are often dominated by intermediaries with little active participation of farmers or retailers. Such markets increase the risks and cost for participants, and often operate with an unequal power balance between buyers and sellers.

5.2.1 Dairy markets

Milk marketing is done by village collectors who collect milk from small farms and sell to other wholesalers or use it within their own shops. Due to the lack of cold storage in the countryside, milk collectors often add ice to milk, thus increasing the quantity of milk but reducing its quality. As consumers are price conscious, demand for low-priced raw milk is high compared to processed milk. Hence, over 90% of the marketed milk is collected and marketed unprocessed through informal channels by a multi-tiered layer of intermediaries.

Smallholder dairy farmers face various other challenges in this regard. A fragmented farm base coupled with low productivity makes these collection practices inefficient. Access to proper infrastructure such as cold chains and adequate roads is limited and leads to significant postharvest losses in some areas. Farmers follow old and traditional dairy farming practices and the milk marketing chain from farm to consumer is both inefficient and costly for smallholders (PDDC 2006).

Price controls by capping the milk price also severely disadvantage smallholders, isolating them from market forces and forcing milk sales at below the cost of production. This isolation is also a strong disincentive to further increase production, even though domestic supply of milk is insufficient to meet domestic demand. Annual imports of milk, particularly powdered milk, have increased in recent years, rising to more than US\$200 million worth in 2016.

Householder survey—dairy respondents

Our survey of smallholder farmers confirmed that most of the survey respondents sold milk to Gwalas (Punjab 70%, Sindh 54%), directly to the consumers, or informally in the local village. Only 2% of the respondents' milk was sold directly to a local collection centre or to a milk processing plant. Interestingly, nearly all respondents did not expect these arrangements to change in the future. Thus, the smallholders appeared to be locked

into the current unsatisfactory marketing arrangements. Survey respondents also believed that increased sales of milk and livestock are their best options for increasing incomes in the future.

5.2.2 Mango markets

The mango marketing chain is fragmented, as it involves a large number of participants. Contractors are often involved in the preharvest stage and purchase rights to the fruit at flowering. They are financed by commission agents who control the flow of fruit from the farm to the wholesale market. The commission agents facilitate the sale to wholesalers, normally at auction, who in turn on-sell to retailers.

The whole system of production, harvest, postharvest treatment and handling is poorly developed, cumbersome, involves many transactions and favours the middlemen. Modern infrastructure like cold storage, grading, postharvest treatment, packaging and transport is lacking. Therefore, fruit quality is poor and there is much wastage with little to no further processing into other higher value products. As a seasonal crop, smallholders sell when supply is abundant and prices are low.

In export markets, Pakistan has a reputation for low-price, low-quality fruit and exports are often sold into low SPS requirement markets in the Middle East.

Improving the marketing chain efficiency and transparency, and reducing the number of steps in the chain, will reduce both risk and costs. Many smallholder farmers are in areas with poor infrastructure and are dependent on contractors to supply marketing chain functions; and they are the most disadvantaged participants.

Householder survey—mango respondents

Less than 1% of respondents sold their fruit directly into wholesale markets. However, Punjab smallholders are more likely to sell later in the production cycle—either at fruiting (39% of respondents) or directly in local markets

(35% of respondents). Sindh smallholders are more likely to sell earlier in the production cycle with half of the Sindh respondents selling at flowering, before harvest. Few respondents expect changes in future selling arrangements, and of those that did, most of them expect to participate in export.

5.2.3 Citrus markets

Similar issues apply for the citrus marketing chain. In both cases (mango and citrus), fruit is perishable and seasonal, and farmers are selling when supply is abundant, that is, they are selling into a buyers' market. Most citrus producers also sell the harvesting rights to their orchard at flowering to contractors.

Householder survey—citrus respondents

The survey results also confirmed much of our understanding of marketing for smallholder citrus farmers. These farmers are not directly connected to markets and sell their fruit to intermediaries. These intermediaries are contractors who purchase the fruit before the fruit is harvested, with 67% of respondents selling their fruit in this manner. Only 7% of respondents sell directly in local markets and only 2% sell directly into major wholesale markets. No respondents reported being directly involved in export markets. Only 12% of respondents expect future selling arrangements to change; thus 88% of respondents see themselves locked into their current selling arrangements.

5.2.4 Commission agents

Commission agents are important participants in agricultural markets in Pakistan. They extend short-term loans to contractors who harvest the fruit and bring the produce to the commission agents for sale. The wholesaler usually purchases fruit from commission agents and after purchase they clean, grade and standardise the fruit prior to sale to the retailer or exporter.

5.3 Key elements for improving smallholder access to market

5.3.1 Wholesale markets

Wholesale markets play a central role in the movement of agricultural product from farm to consumer. In Pakistan, commission agents dominate wholesale markets with little involvement of either consumers or producers. The performance of many wholesale markets is poor. Physical infrastructure is often in poor condition. Facilities for transport and cold storage are often non-existent, unhygienic or in poor repair. Market information is also restricted and not available to all participants. The markets are managed by market committees whose members are political appointments. Governance structures are poor and account for much of the poor state of existing markets.

Efficient access to markets plays a key role in ensuring farmers receive a fair price for produce. Many wholesale markets are regulated regional monopolies that do not operate in the interests of smallholders. Smallholder farmers in Pakistan are mostly isolated from markets and are often exploited.

Poor market access and performance is at a time when the importance of wholesale markets in fostering linkages between towns/cities and rural producers is recognised as a central component for agricultural industrial rural development (FAO 2017). In the towns/cities, urban consumers, supermarkets and export markets all require produce that is traceable, has extended shelf life, is hygienic, and has consistent quality and grading. Higher prices are available for such product attributes. Existing wholesale markets in Pakistan are a major restriction in enabling supply of such products.

The Punjab provincial government has recognised the importance of efficient agricultural marketing, and in early 2018 it established the Punjab Agricultural Marketing Regulatory Authority whose remit is to

modernise agricultural marketing, including virtual markets, encouraging new private sector investment, modernising product grading standards and enabling a fairer auctioning system. Growers or their organisations will be able to establish their own markets. All new markets will need to be registered with the authority and existing markets will need to be registered, and work within the authority guidelines, after two years. This development has the potential to introduce much new investment, competition and flexibility into agricultural marketing in Punjab and is a substantial change from past practices.

RECOMMENDATION 5.1

Develop policies for market deregulation to eliminate regional market monopolies and to encourage private sector investment and competition. New investment is also required to improve physical infrastructure, efficiency and transparency, to reduce wastage, and to increase access for smallholder farmers.

5.3.2 Price controls

Price capping has the effect of distorting market outcomes; a good example of this is the current supply and demand mismatch of fresh milk in Pakistan.

Under the *Price Control and Prevention of Profiteering and Hoarding Act, 1977* (PCPPHA), the federal government has authority to control prices of essential commodities, including fresh milk, meat, fruits and vegetables, through the National Price Control Committees for the welfare of the public. The problem is that the benefits of price regulation go to the consumers, while producers bear the cost. The intention behind dairy price fixing is to have affordable milk and dairy products for domestic consumers. However, the price capping is unsustainable because it occurs at the cost of dairy farmers. The price is capped

at the retail level. Well over 90% of milk is sold in this manner through informal channels. The formal corporate dairy sector has the remaining (small) share of the market and is exempted from price capping.

According to the Punjab Livestock and Dairy Development Department (2018), the capped milk price does not cover the farmers' cost of production, and farmers have responded by reducing production. Small and subsistence farmers barely survive and do so with the use of family labour and access to free grazing, both of which help in reducing costs. Large dairy farmers have also been withdrawing from the industry due to low profitability.

Consequently, milk production is less than demand and increasing imports are required using scarce foreign reserves. In addition, retail milk collectors and others in the supply chain regularly add other elements to 'stretch' the supply. Corporate milk processors have also been heavily supplementing the supply of locally produced milk with 'manufactured milk' made from imported milk or whey powder. It is alleged that 'manufactured milk' is also sometimes prepared from additives that are harmful for human health. It is estimated that by 2020, the gap between demand and supply of milk will increase to 55 million tonnes due to price capping and discouraged investment (TRTA 2013; Chaudhry and Miranda 2015).

The removal of price controls will increase returns to smallholders in the short term and act as an incentive to increase investment and production. In the longer term, Pakistan should be looking to replace imports and develop its dairy export potential. Thus, Punjab Livestock and Dairy Development Department (PLDDD) has recommended immediate removal of price capping of milk in the interest of rejuvenating the domestic dairy industry.

RECOMMENDATION 5.2

Remove price capping of milk and milk products to enable the dairy market to function more responsively to smallholder farmers.

5.3.3 Cold storage and related logistics facilities

An efficient and cost-effective cold storage and logistics infrastructure are prerequisite conditions for an efficient agricultural marketing system. The state of Pakistan's transport, storage and related logistics infrastructure is a major constraint to the development of efficient agricultural marketing chains.

The poor state of the road network combined with limited cold storage facilities leads to damage and loss of fruits, vegetables, meat and milk, which particularly disadvantages smallholders. The poor state of many roads requires that produce must be carried in small all-purpose, rather than larger refrigerated or special purpose vehicles, thus increasing costs and wastage. Poor postharvest handling further compounds the level of waste. The Planning Commission's Final Report of the Advisory Panel of Economists (2010) estimates the wastage of total fruit and vegetable at between 35% and 40% of production.

Clearly public and private sector investment in roads, electricity supply, cold storage, refrigerated transport, packaging and logistics is needed, and policies need to incentivise these investments.

Smallholder farmers are often located furthest away from main roads in more remote areas, and the extra cost they must bear to bring their product to market precludes them from participating in anything but local markets.

Another area where investment is required is product processing. There is little fruit processing in Pakistan; the sale of fruits is as fresh produce and not processed. The processing of agricultural products is an important agroindustrial development in rural areas, generating employment and income, and linking rural areas to increasing demand from urban markets.

RECOMMENDATION 5.3

Improve roads and other essential infrastructure for better linkages between villages and agricultural markets, and introduce policies to encourage private sector investment in an expanded network of cold storage facilities.

5.3.4 Market opportunities

The changing nature of urban diets towards increasing levels of animal proteins, fruits and vegetables and processed foods has been noted. This is a global phenomenon and much of the expected growth is located near Pakistan in North, Central and South Asia, the Middle East and in South-East Asia. These developments provide opportunities for Pakistan to leverage this for farmers, agri-businesses, input suppliers, and non-farm service suppliers. The key is to further develop efficient linkages between the rural areas and food service businesses in towns/cities, and ultimately to domestic and export markets. To take advantage of these opportunities, it is necessary to develop further, and strengthen the efficiency of, the agricultural and food service marketing chains.

Chapter 2 presents a detailed international trade analysis for mangoes and mandarins. In summary, world markets for these fruits are expanding, but Pakistan has a low market share, and exports small volumes to a wide range of countries—possibly to expatriates. The remainder of exports are highly concentrated in only a small number of countries. Pakistan exports significant volumes to only a small number of countries and tiny volumes to a large number. There are many potential opportunities to expand exports and some of these are identified in Chapter 2.

Product processing is another major potential export opportunity not grasped by Pakistan. Chapter 2 demonstrates the importance of

processed product for export. For example, a significant proportion of Indian exports of mangoes are processed product. In the large USA import market, around 40% of Indian exports of mangoes to the USA are dried mangoes, whereas there are little to no dried mango exports from Pakistan to the USA. Processing also allows for ongoing storage and for export supply continuously throughout the year, and not just when fresh in season, as is currently the case for Pakistan. Chapter 2 recommends policies be introduced to promote food-processing facilities in Pakistan to supply both the domestic and export markets.

5.3.5 Communication and market information

The survey of smallholders undertaken by ACIAR project ADP/2010/091 confirms there are two principal methods by which smallholders gain market and other information: by mobile phone or from other farmers. Other sources of information such as TV, radio and internet were not used by many smallholder respondents. The key implication is that the mobile phone network can be used as a major conduit to supply information to farmers, and as a method for smallholders to seek information from government agencies. Indeed, the PLDDD in its policy papers (2015) explicitly recognises the importance of the mobile phone network, and offers market and other information services via the phone network.

The survey results also confirm that smallholders do not currently receive any information from government. Over 90% of survey respondents stated this. The remaining farmers who did access government information are more likely to have higher levels of education, more land and higher gross revenues. They also tended to be citrus or mango growers and over 40 years of age.

However, the startling statistic is that information on existing government programs by and large has not been successfully delivered to smallholder farmers.

RECOMMENDATION 5.4

Build on the existing work to extend the supply of market information services via the mobile phone network in combination with the supply of extension services to smallholders and possible formation of collective arrangements.

RECOMMENDATION 5.5

Provincial governments should evaluate the benefits of farmers' markets, and provide some seed funding until sufficient scale has been achieved for self-sustained farmers' markets.

5.3.6 Concept of farmers' markets

Farmers' markets have become popular in many countries and are essentially markets for fresh produce where farmers sell directly to consumers. They are usually held in public places and at regular times each month. In these markets, sale of produce is usually restricted to local farmers and middlemen are mostly bypassed. Farmers' markets are different from public wholesale markets, which are generally located in permanent spaces and held on a more regular basis with central participation of wholesalers and other intermediaries.

In many instances, the farmers' market and the farmers selling within the market are accredited to provide consumers confidence they are dealing with actual growers. In addition, consumers benefit from slightly lower prices, fresher food which has not travelled long distances, and the opportunity to deal directly with the farmer. Farmers have the benefit of retaining some of the profit margin usually given to the middlemen. In addition, both parties gain from the more social nature of the relationship than in traditional markets.

Within a region, the establishment of a system of farmers' markets will often require the development of accreditation, branding, communication and other marketing/promotional activities. This will usually require the forming of some type of collective organisation, and this organisation may require start-up working capital until the organisation has sufficient scale to operate on its own. Government may be required to assist here.

5.4 Some existing initiatives

The Government of Punjab has recognised the needed for substantial reform of agricultural marketing in Punjab. Below are some recent initiatives undertaken to start to address many of the issues discussed in this monograph.

- Model Farms and Improved Supply Chain—a four-year demonstration project starting in 2017–18 tackling many of the supply chain constraints outlined in this chapter.
- Agricultural Marketing Information Service—a daily market information service providing timely, reliable and useable market information to growers and stakeholders. The Department of Livestock has already established a very successful service based on the mobile phone network.
- Punjab Agricultural Marketing Regulatory Authority—the modernisation of wholesale, discussed under Section 5.3.1.
- Strengthening Markets for Agriculture and Rural Transformation in Punjab—with funding from the World Bank, the Government of Pakistan will promote investment and innovation in agribusinesses through matching grants as well as capacity building.

5.5 Summary and conclusions

The specific aim of ACIAR project ADP/2010/091 was to develop policy options for addressing policy-related constraints faced by smallholders in the dairy, mango and citrus sectors of Punjab and Sindh. The aim of the project was to improve livelihoods of smallholders by connecting them with markets and modern supply chains on improved financial terms. An efficient agricultural marketing system in Pakistan is a prerequisite for this, yet the project's own survey of smallholders revealed that smallholders are mostly isolated from markets. Smallholders are dependent on local contractors and middlemen to sell their produce and are often exploited. This isolation reduces their returns and the flow of market signals to smallholders and thus their ability to adjust to these signals. It is necessary to develop a range of initiatives to link smallholders to markets and allow smallholders to participate in modern supply chains supporting domestic and export markets under fair financial terms.

Various constraints limiting market access are identified in this chapter and a range of policies recommended. Indeed, in recent times some of these initiatives have already begun to be explored, yet much more needs to be done.

A major strategic objective for the Pakistan agricultural sector should be to become a significant global supplier of key agricultural products into neighbouring countries in the coming years. Enabling smallholders to connect and interact with wider domestic and export markets is crucial for improving livelihoods.

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