

CHAPTER 6

Agrifood markets and value chains



Summary

The chapter makes three sets of points. First, agrifood markets in developing countries have been transforming rapidly in the past several decades, in particular in the context of a confluence of factors. These include policy change that liberalized and privatized markets formerly administered by government parastatals and controls, of urbanization and income increases, of diet changes driven by these two latter factors, of FDI spurred by the above and by technology change in supply and intermediation. Similar changes occurred across developing regions (albeit at different paces) in the structure and conduct of agrifood value chains, the backbones of marketing. The key trends were as follows.

There has been a change in the structure of food markets in developing countries. Food supply chains have shifted from local and fragmented chains to geographically much longer ones. Some segments have declined, with a reduction of the importance of traditional village traders and an increased importance of others, like urban wholesale markets and specialized modern wholesale and logistics. In the general context of overall market expansion, there has been at first a proliferation of small and medium firms and then, eventually, concentration in the segments (with a rise in scale of farms). This has often involved multinationalization. The leading players in the downstream changes tend to be a small number of large corporations, while the revolution in the midstream parts is, in large part, a silent one, with some large firms, but mainly with hundreds and thousands of small and medium-sized firms transforming the ways in which food production is supported and food products are processed, wholesaled and transported.

But there has also been a change in the conduct of food markets. There has been technology change (a capital-labour ratio increase) of food retailing, processing and wholesaling/logistics. Moreover, especially in the interface with modern processing and retailing, there has also been an emergence of private standards of quality and safety and the incipient rise of contract use. The changes in the conduct

and performance of markets usually start in the downstream segments of food consumption and food retailing. These have immediate institutional, organizational and technological implications that stimulate changes in the midstream and upstream segments of the value chains.

Second, this transformation has important implications for rural social inclusion of small-scale farmers and SMEs. Again some broad patterns can be discerned among the diversity of conditions.

The observed macro pattern of consolidation in the agrifood system has, as its counterpart, that the majority of small-scale actors (small-scale farmers, processors, traders, service providers and mom-and-pop food store owners) experience different types and degrees of exclusion. This can be a particular challenge for asset-poor and hinterland-based actors, including female-headed households, women off-farm entrepreneurs and farmers, and indigenous peoples who face constraints accessing needed financial and other resources to participate in transforming markets.

But the transformation does create new and large opportunities that some small- and medium-scale farmers can take advantage of and derive real benefits from, especially in the early stages of the transformation. The expansion of these segments has involved the poor as workers and firms in increased activity in food processing and wholesaling/logistics. Overall, the transformation certainly increases the size of the rural economy, even as it shrinks or even destroys parts of the old occupations and particular market segments and niches, creating opportunities that did not exist before, including for some of those excluded from their previous positions.

Third, there are tested strategies and policies that have been used to partially mitigate the exclusion effects of the agrifood system transformation, and expand its inclusion effects. Three options for these strategies present themselves.

A first strategy is to focus on the equity aspect directly, working at fair trade, organic production and direct selling to consumers. This

approach is appealing, but often does not create net benefits for the poor. It is also an approach that can help only a small portion of the food security needs of vast urban populations to be met and relatively few farmers can be involved. However, although this option will not address the broader exclusion problems of the majority of small-scale farmers and SMEs, it is advantageous to make use of these opportunities where possible and to address problems that prevent certain niche markets from being more beneficial, such as by reducing the cost of certification for organic/fair trade.

A second strategy is to focus on directly linking small farms and firms with large multinational and domestic companies in retail and second-stage processing. This again is appealing and has measurable benefits for those lucky enough to be involved in these programmes. But again the numbers of farmers and small firms covered is extremely small compared with the vast numbers of the latter that face changing markets.

A third strategy and one that we argue is the broadest and most important option, is to use broad policy and public investment to raise the asset base (collective assets, such as roads and electricity, and also the assets of specific groups, like women, indigenous groups and, broadly, the rural poor). This will allow these groups to participate in and prosper from the changing domestic markets, the mainstream of the market change. This requires the convergence of factors that help to induce the upgrading of small firms and farms and build their rural territorial development – the base from which they pursue the opportunities and face the challenges.

Drivers of value chain transformation

Value chain transformation is driven by two sets of changes downstream in the food system on the demand side. These include diet change (mainly driven by income increases) and urbanization. We discuss each of these in turn.

Diet change

Diet patterns

The diet has gone from mainly home-produced to increasingly market-purchased products. Even

the rural poor are heavily engaged in the food market as buyers. In the developing East and Southern Africa countries (ESA), for example, Dolislager et al. (2015) show rural households bought 44 per cent (in value terms) of the food they consume. A Reardon et al (2015a) study of Bangladesh, Nepal, Indonesia and Viet Nam, shows that rural households bought 73 per cent of their food (in value terms).

There has been substantial diet diversification into processed foods with penetration first in urban and then in rural areas. In ESA (Dolislager et al. 2015), urban households dedicate 56 per cent of food expenditures to processed foods and rural households, 29 per cent. In Asia (Reardon et al. 2015a), urban households dedicate 73 per cent of food expenditures to processed foods, and rural areas 60 per cent.

There has been much diet diversification beyond grains, with little difference between the urban and rural areas. In the ESA study countries, the share of non-grains in food expenditure was 66 per cent in urban areas and 61 per cent in rural ones. In Asia, the figures were 74 per cent for urban and 63 per cent for rural.

The middle class, at least in Asia and Latin America, has an increasing demand for food quality and safety, in particular for semi-processed foods, such as dairy, and, to a certain extent, to perishable foods (Pingali 2006; Ortega et al. 2012).

Diets remain basically local, with only a small share imported. Domestic supply chains account for 80-90 per cent of national food consumption. Imports are only 10-20 per cent (in 2010, for ESA, 15 per cent, West Africa, 11 per cent, South Asia, 10 per cent and South-East Asia, 21 per cent), based on our calculations from FAOSTAT food balance sheets and COMTRADE.

Drivers of diet change

Diet change is driven by a convergence of factors on the demand side. Income increases drive a relative shift towards non-staples (per “Bennett’s Law”). But that income increase does not have to be such as to result in a change of status from poor to middle class. Dolislager et al. (2015) shows for ESA that sharp changes in

diet occur over segments within the poor, with the rate of change steeper than between the poor and non-poor segments. With urbanization, women are increasingly working outside the home and thus have rising opportunity costs for time to shop for, process and prepare food. Men are increasingly working far from home, across cities. These trends spur the purchase of processed foods and restaurant-prepared foods.

Diet change has also been driven by factors on the supply side. The food-processing sector has grown fast in the past several decades (discussed further below). Agriculture has rapidly diversified beyond grains into horticulture, dairy, livestock, fish and pulses. Rural-urban food supply chains have developed enormously to move these products to urban as well as rural consumers. Reardon et al. (2015b) calculated that African food supply chain volumes increased six to eightfold over 1970-2010, with most of the increase occurring in the past 20 years.

There are a number of implications. As diets are 80-90 per cent "local", the transformation and performance of domestic food supply chains are extremely important. The rapid development of the non-grain and processed foods markets in urban and rural areas represents an opportunity for farmers, wholesalers and processors. The rural poor depend a lot on food purchases and thus, as consumers, depend on well-performing food value chains.

Urbanization and its "radiation or transmission" into a wide catchment area

Urbanization has advanced to the point where rural-urban food supply chains dominate food markets in Asia, Africa and Latin America. The impacts of urban markets have "radiated" out wider and wider into rural areas and value chains have grown longer, spurred by urbanization and aided by the spread of rural wholesale markets, rural roads and rural electrical grids.

The characteristics of urbanization relevant to agrifood system transformation are as follows.

There has been steady urbanization. Africa is urbanizing rapidly. Africa has caught up with the average urban share in all developing countries – and urbanization in Africa is the

world's fastest. A United Nations study (2014) shows that the urban share in East Africa in 2010 was 23 per cent, in West Africa 44 per cent and in Southern Africa 59 per cent. These rates are like those of LAC countries in the 1950s-1960s. Asia's urban share is predicted to be 60 per cent by 2025, up from 20 per cent in 1960 (James et al. 2008). A United Nations study (2014) shows 45 per cent in 2010, with 32 per cent in South Asia, 44 per cent in South-East Asia and 54 per cent in East Asia.

Urban population shares underestimate the share of urban areas in total food consumption and total food purchased. This is because urban incomes sufficiently exceed rural incomes to compensate for the higher income urban consumers (per Engel's Law) having lower shares of food in their total budgets. In ESA, 25 per cent of the population is urban, but cities consume 48 per cent of the food produced and sold in the countries. In Asia, Reardon et al. (2015) show that while 38 per cent of the population is urban, 53 per cent of the (purchased) food market is urban.

While the urbanization debate tends to focus on mega cities (cities with populations of more than 1 million) a large share of the urban population resides in secondary and tertiary (smaller) cities and towns. They form 50 per cent of the urban population globally. Compared with mega cities, which source from around the country, smaller cities are more reliant on their surrounding rural areas for food (Berdegue and Proctor 2014).

There are several implications for the above point. Urban markets have become the dominant ones for farmers. And urban market demand, especially for high-value non-grain products, is transmitted to rural areas via rural-urban supply chains.

Public investment in infrastructure has been a key driver of value chain transformation

In the context of policy change, in particular, market liberalization and privatization, which have increased the incentives for both small- and large-scale investments by the private sector and public infrastructure investments, have been crucial drivers of supply chain transformation.

Infrastructural investment has encouraged a lengthening of supply chains and the transformation of midstream and downstream segments. Small farmers' access to markets is also conditioned by infrastructure and distance to market. Barrett (2008) found the latter much more influential than macroeconomic and trade policies on small-scale farmer participation in markets.

Hard infrastructure encourages the development of value chains. Combined with rising urban demand, infrastructural investment has encouraged private investment by SMEs in the midstream of value chains. This is illustrated by the investments by teff millers, transporters and retailers for the growing market in Addis Ababa, Ethiopia (Minten et al. 2013) and by the providers of potato cold storage to serve the huge markets of Delhi (box 6.1) and Patna in Bihar (Minten et al. 2014).

Trends in transformation of value chains

Changes in the structure and conduct of food value chains have occurred over the whole length of the chain as a system, as well as at the level of each segment, downstream, midstream and upstream. In the following we discuss these changes.

Overall changes in value chains

Urbanization and better transport infrastructure have induced spatial lengthening and de-seasonalization of value chains, to draw from an increasingly broad market-catchment area to feed cities.

There has been first a proliferation of traditional intermediaries and then a reduction in their numbers and a rise of modern intermediaries. Traditionally, there was a short value chain (from farms to the local villages and towns). With urbanization, the value chains grew longer and there was a proliferation of rural brokers and wholesalers, urban wholesalers, urban semi-wholesalers, transporters, warehouse firms and retailers, all as small-scale firms.) As consolidation in processing and retailing occurred, there has been a shift – fastest in processed and semi-processed foods, slowest in perishables – towards the

exit (or absorption) of small rural brokers and small processors (Reardon 2015). With the rise of supermarkets and processors, there is also a “re-intermediation” with the rise of dedicated/specialized wholesalers (Reardon and Berdegué 2002, discussed more below).

In linkages between segments of the value chain, there is organizational and institutional change, albeit at very different paces depending on the product, the scale of the firm buying the product and the country. There is a start of vertical coordination through de facto semi-contractual relations, like supplier lists (Berdegué et al. 2005) and some formal (even if just verbal) contracts. The latter are still limited, but the former appears to be spreading, especially among large companies. There is a rise in private standards (Reardon et al. 1999) specified in the contracts.

Moreover, a traditional method of intersegment linkage, tied output-credit markets (Bardhan 1980) where a trader advances funds to a farmer and then expects his harvest at the end of the season, have declined substantially, as shown in Asia for the rice and potato sectors (Reardon et al. 2014).

Waves of diffusion of downstream and midstream transformation

Despite heterogeneous conditions, there is some regularity in “waves” of diffusion, over countries and within countries, over income classes and over products.

The first wave was in countries that started their post-World War II growth spurt, urbanized and started industrializing earlier – in particular, South American countries, East Asia outside China and South Africa. The start of processing transformation occurred with FDI liberalization and the start of privatization in the mid-1980s to early 1990s. Retail transformation “took off” from the early 1990s.

The second wave was in countries that had their growth and urbanization spurts later and/or had prolonged internal socio-political pressure to limit FDI. In Central America, Mexico and South-East Asia, processing transformation took off in the 1980s, but retail transformation did not start until the mid to late 1990s.

The third wave was in countries, such as China, India and Viet Nam, that had their growth and urbanization spurts mainly in the 1990s/2000s, and/or had lagged liberalization into the 1990s. Processing transformation occurred somewhat before retail, with the latter mainly in the late 1990s and the 2000s. There was also, as a late part of the third wave or a fourth wave, an incipience of processing and retail transformation in East/Southern Africa.

Retail change

The retail segment has changed, first as the result of direct government action, and then by the relinquishing of government involvement and the rapid diffusion of private-sector supermarkets. The modern retailers themselves had several phases of change in their conduct, in particular the shift from traditional to modern procurement systems. We recount these changes as follows.

Governments themselves directly induced a first stage of retail transformation from traditional, fragmented retail to state-run chain stores. This was prior to liberalization and privatization in the 1990s/2000s, when most of the state chains were dismantled. Examples are the Fair Price Shops (which are still there) in India.

After the liberalization of retail FDI and the privatization of state retail outlets, there was a huge surge in the 1990s and 2000s in private investment in supermarket chains in developing countries (Reardon et al. 2003). The “waves” of diffusion emerged in the spatial pattern discussed above.

The share of modern retailing in overall food differs over the wave of diffusion, with the deepest penetration to date being in the first wave countries where the share was nearly half by the late 1990s and 50-60 per cent in the 2000s. In the second wave countries, the share was about 30-50 per cent by the 2000s, and in the third wave countries, some 10-30 per cent. The fastest spread is in the third wave countries in Asia, where the supermarket sector is growing at three to five times the rate of GDP/capita growth (Reardon et al. 2012a).

Inside a country, diffusion has rolled out from large cities to small cities and finally into

rural towns in adapted formats, from upper to middle to poorer classes and from processed foods to semi-processed foods to fresh produce. These paths are essentially the same as in the United States and Western Europe.

To become cost-competitive with traditional retailing, supermarket chains have increasingly modernized their procurement systems. They have started to buy direct from processors including under contracts. In some cases, they specify private standards and use centralized procurement and logistics via distribution centres. The supermarkets also use specialized-dedicated wholesalers who distribute to their stores and organize procurement from suppliers according to volume and quality and timing specifications (Reardon and Berdegué 2002). This has gone by far the furthest with processed foods, but has started to be applied to fresh produce as well (Berdegué et al. 2005 for Central America).

The midstream segment's change: processing

Similarly, and in parallel with the retail sector, the processing sector has transformed in structure and conduct. We discuss these changes as follows.

The processed food sector has grown quickly in the past several decades. Packaged food sales are growing at only 2-3 per cent annually in developed countries, versus 13 per cent, 28 per cent, and 7 per cent in low, lower-middle and upper-middle income developing countries (Gehlhar and Regmi 2005; Wilkinson and Rocha 2009).

As in the retail and wholesale segments, the first stage of transformation of food processing was driven mainly by governments setting up parastatals, especially in grains (and in export crops like rubber). However, the actual effect on food systems was limited, as the parastatal processors were mainly confined to grain sold to urban markets and there were large “parallel markets” (not via parastatals).

The second stage of the transformation of food processing was driven by private-sector investment. As with the parastatal retail outlets, there was rapid privatization in the late 1980s or 1990s. Only a few countries still had substantial

government food-processing operations into the 2000s (India; Rashid et al. 2008). The late 1980s through to today has seen the changes detailed below.

The take off of the private-sector processing transformation

Privatization and liberalization combined with urbanization and increased income led to two phenomena. First, especially in the 1990s-2000s, there was a proliferation of SMEs processing grain, dairy, meat, fish and produce, both to fill the gap left by the demise of public-sector operations and to meet growing urban demand. Examples include in dairy, wheat and horticultural product processing SMEs in Brazil (Farina et al. 2005; Farina and Machado 1999), and maize, vegetable and fruit processing in Africa (Broutin and Bricas 2006; Jaffee and Morton 1995; Jayne and Jones 1997; and Rubey 1995).

Second, privatization and FDI liberalization led to an avalanche of FDI from Western Europe and the United States, then Japan. The consequence was that foreign firms formed a major share of the processing sector in a number of first and second wave countries by the end of the 1990s, and the trend continued in third and even fourth wave countries in the 2000s.

However, regional multinationals like CP (Thailand) and Bimbo (Mexico) were also buying domestic processors in their regions in the 2000s (Wilkinson and Rocha 2009; Reardon et al. 2007b). This is starting in Africa, such as the 2015 purchase of Blue Ribbon (large maize mill in Zimbabwe) by Bakhresa (large wheat and maize mill in Tanzania). Large regional multinationals have also acquired large processors in the United States and Europe. An example is the 2014 acquisition by Shuanghui (China) of Smithfield Foods (United States), which had been the largest pork processor in the world.

The processing sector concentrated rapidly in the 1990s and 2000s

A striking consolidation is occurring. For example, by the early 2000s, Nestlé had a 61 per cent market share in Latin America

for packaged foods (confections, soups, pet food, baby food, dairy and baked goods). This has been driven by the large processing firms having advantages over processing SMEs. Larger processors often have economies of scale, economies of scope, bargaining power and monitoring capacity and “resource provision contract” capacity, access to cheaper credit than small firms can obtain (Shwedel 2003), and more efficient marketing systems, such as via the use of distribution centres and logistics fleets. This latter has created a “symbiosis” between large-scale processors and supermarket chains.

SMEs have found it hard, especially in the medium term, to compete with large processors. Examples are large tortilla firms displacing traditional women’s tortilla firms in Mexico (Rello and Saavedra 2007). The emerging penetration of rural towns by modern retailers selling branded processed foods at a discount may accelerate this competition (Reardon et al. 2007a). With health crises, consumers have also moved away from small processors and wet markets as a result of food safety concerns (for Thailand, see Posri and Chadbunchachai 2006).

But the traditional small processing enterprise has some advantages it can use to resist or avoid competition with the modern segments. As the small processing enterprise is usually in the informal sector, it saves the costs of taxes and registration and largely avoids the costs of meeting regulations on food standards. It uses its own family labour flexibly and intensively. Its small size allows it to fit into nooks and crannies and shift its location. These sorts of advantages can create periods and cases of rapid and widespread growth in the numbers and volumes of SMEs, such as is documented for the maize-milling/retailing sector in Tanzania (Tschirley et al. 2015). But with the steady increase of the modern segments in the developing regions, albeit at different paces in different countries, products and segments, one can infer that these advantages of SMEs are not decisive or permanent, and are at the very least not automatic.

*The midstream segment's change:
wholesaling/logistics*

While governments played a major role in the development and transformation of wholesale markets, the overall segment of wholesaling and logistics underwent changes similar to those of processing. There was expansion and fragmentation following liberalization and privatization, and then concentration.

Initially, governments directly induced a first stage of wholesale transformation from traditional, fragmented wholesaling to government-run wholesale markets (of private wholesalers). This shift created economies of agglomeration and sometimes economies of scale relative to the traditional fragmented wholesale sector, such as in Africa (Tollens 1997). The markets created by this investment are huge, such as that in Mexico City, the largest wholesale market in the world. China's wholesale market volume increased 11,000 per cent between 1990 and 2000 (Huang et al. 2007; Ahmadi-Esfahani and Locke 1998).

Then, the "traditional" wholesale sector currently appears to be restructuring in several ways. The public-sector wholesale market segment is presently consolidating in some countries (over wholesale markets, as in South Africa [Louw et al. 2007] and over wholesalers within wholesale markets as in Mexico, [Echánove and Reardon 2006] and Peru, [Escobal and Agreda 1997]). Also in some countries there is evidence of a decline in the share of rural brokers upstream in the value chain, with the exit of village traders in Indonesia (tomato) (Natawidjaja et al. 2007) and in Bangladesh, India and China (rice and potato) (Reardon et al. 2012b). But in the rural towns to cities segment, it appears that SMEs in wholesaling and logistics are proliferating (what Reardon et al. [2012b] call the "Quiet Revolution in food supply chains," that is being observed in Asia and increasingly in Africa [Reardon et al. 2015b]).

Finally, beyond the traditional wholesale sector, a "modern wholesale sector" is appearing, with the emergence of the specialized/dedicated modern wholesalers noted above, as well as large-scale foreign and domestic logistics firms.

In some cases, large processors and retailers are buying direct from suppliers, this is most common with respect to procurement from processors (such as Carrefour buying from Nestlé).

Social inclusion impacts of agrifood system changes

The massive changes in diets, urbanization and the agrifood value chains discussed above had important consequences for farmers and the rural poor. We discuss these first with a focus on the impact of urbanization and diet change per se, without reference to value chain structure and conduct changes, and then discuss the impacts of the latter changes.

Impacts of an urbanizing national food market on small farmers and SMEs

Urbanization has indirect effects on rural households through spurring employment near cities linked to the food system – connected with the labour-intensive non-grain crops like horticulture, poultry, dairy and fish, as well as with first-stage processing and handling of crops.

Urbanization also has direct effects on rural actors by lengthening domestic food supply chains. The means that farmers and rural SMEs in more distant areas can access a large conglomerated market rather than selling to dispersed village groupings of consumers having lower purchasing power than the average urban consumer. The presence of a growing urban market, of road links to it and of the right conditions in a rural area with access to the city can be the convergence of factors that causes an explosively rapid rural transformation. Box 6.1 gives the example of the sudden surge in cold storage capacity for potato in western Uttar Pradesh (Agra) for the Delhi market, drawing from Das Gupta et al. (2010).

Additionally, urbanization can create a big market for farmers as sellers of food – but the share and types of farmers who sell vary by region and can be limited and precluded from this opportunity.

Commercialization of grain farming and horticulture in Asia, including by small-scale farmers, appears to be widespread. Thus

BOX 6.1 The meteoric development of potato cold storage in Agra, supplying the Delhi market

Technology and organizational change in the midstream can be rapid and dramatic, in particular when it is linked to increasing urban demand, improving infrastructure and a policy of encouragement and support. The case of the rapid rise of potato cold storage in Agra in western Uttar Pradesh near Delhi (Das Gupta et al. 2010) illustrates this. Their survey found very rapid and deep change in the cold storage sector in Agra and in turn in the seasonality and cost of potatoes in Delhi and intermediation patterns in the rural area. This transformation was driven by a combination of factors, including rapid development of a demand for the vegetable in Delhi, improvement of the road between Agra to Delhi, introduction of a disease-resistant and long shelf life potato variety, establishment of an electricity grid, partial subsidizing of irrigation pumps and cold storage equipment, and the local economy generating investable funds in the intermediate city's business sector. In the early 1990s few farmers grew potato in Agra and there was nearly no modern cold storage. By the late 1990s cold storage had risen to store 40 per cent of the vastly larger potato output, and by 2009, 80 per cent of the harvest could be accommodated. Traditional on-farm storage of potato went from nearly 100 per cent to 1 per cent. Delhi went from sharply seasonal potato consumption (from fresh harvest) to multiseasonal availability and 65 per cent of this consumption came from cold-stored potatoes, mainly from Agra. Rural brokers were sidelined by the cold storage and themselves became the main locus of intermediation with urban wholesalers coming to buy potatoes from farmers at the storage units.

Source: Das Gupta et al. 2010.

most small-scale farmers are affected by market change (Minten and Murshid 2010 for Bangladesh; Das Gupta et al. 2010 for India). However, even in Asia, grain (and potato, the main vegetable, and mango) sales tend to be somewhat concentrated among the upper small stratum and medium-scale farmers with a low share to the lowest tercile of land in the local farm land distribution (Reardon et al. 2012b with information on rice and potatoes for India, Bangladesh and China; Qanti 2014 with data on mangoes in Indonesia, and other examples).

The story is similar in Africa, but with just a lower share of sellers in the overall distribution of farmers, and perhaps an even greater concentration of sales volume among relatively few farmers – again among those in the upper portion of the land and asset distribution (for grains, Barrett and Dorosh 1996; Barrett 2008; Jayne et al. 2006; Mather et al. 2013, for ESA, and Hollinger and Staatz (2015), for West Africa). Chapoto et al. (2013) note that while the above patterns hold for maize, small-scale farmers can be switching into cotton and

horticulture crops and so can be more frequently in the “small but commercial” sphere than a “maize only” analysis would show. Overall, there is some exclusion of asset-poor small-scale farmers even if the market is just a conventional rural-to-urban one (abstracting from selling into modern channels like supermarkets). Barrett (2008) notes “...that net sales are positively associated with asset endowments and favourable geography, and that transactions costs exert considerable influence on crop marketing patterns.”

There is, nevertheless, inclusion underway in several categories as the market expands and urbanizes. In the initial period at least, there is a large increase in SMEs in transport, milling, cold storage, wholesale, retail, warehousing and upstream services such as harvesting teams. This is termed the “Quiet Revolution in supply chains” (Reardon et al. 2012b) and the rise of the “hidden middle” in the midstream segments of the supply chains in Africa, Asia and Latin America (Reardon 2015b). Small farms with the requisite infrastructural access and on-farm

productive assets portfolio can participate in the growing markets.

Many rural households buy food and thus are exposed to changes in domestic food value chains. The literature notes that there are many net buyers of food in rural areas, not just among the landless, but also among small-scale farmers (for India, see Mellor 1976; for Africa, see Weber et al. 1988 and Reardon et al. 1988, and this point frequently has been made in the debate in Africa [see Barrett 2008]). This implies that food value chain transformation and efficiency can be important to the rural poor, not just as farmers and labour sellers, but as consumers/buyers.

Impacts of a modernizing food system on small farmers and SMEs

Abstracting from the expansion and urbanization of the market per se, the modernized agrifood industry segments are broadly competitive with – and apparently, over the longer term, broadly destructive of – their counterparts in the traditional sector.

We focus in this section on the effects on modern suppliers. The impacts of modern companies differ broadly over the different types of buyers. Supermarkets directly affect those from whom they buy – wholesale/logistics and processing firms, and from non-processed product farmers (such as fruit and vegetable farmers) if they buy direct from the latter. But retailers can only have an indirect effect on farmers selling first to processors or wholesalers who, in turn, sell to supermarkets. Processors and wholesalers can directly affect any category of farmer as well as other SMEs in processing and brokering.

The literature on the effects of the modernizing of the food industry on farmers and SMEs has tended to focus on processors' effects on farmers (for example, Key and Runsten 1999) and the effects of supermarkets' direct agents on fresh produce farmers (Hernández et al. 2007, for example). Much less work has been done on the three issues below:

- The direct effects of supermarkets on SMEs in processing and wholesaling – this is actually the largest potential effect because processed and semi-processed products

account for 80 per cent of what supermarkets sell.

- The effects of the processing sector transformation on the wholesale/logistics sector.
- The effects of wholesale sector transformation on farmers and SMEs.

The evidence is mixed on the impacts on small-scale farmers (Reardon et al. 2009). Supermarkets and processors do tend to buy from medium/large-scale farmers if there are enough such farmers in the procurement area. Buying from bigger farms means buyers can cut the transaction costs of sourcing from many small farms and bigger farms often have more consistent delivery and quality, and can meet the requirements without needing help from the buyers.

But supermarkets and processors buy from small-scale farms where “that is the buyers' only option,” or perhaps the product requires special care and thus more focus and labour. But when they buy from small-scale farms, usually they buy from road-accessible (not hinterland) zones, and from small-scale farmers with the needed assets, such as irrigation and education or training (see Hernández et al. 2007 for Guatemala, with similar results in Indonesia, Nicaragua, China, Mexico and Mozambique). If large firms really need small-scale farmers and the farmers do not have the assets, the firms will supply them (or NGOs or sometimes government will do it for them so that the small-scale farmers can participate), such as by giving credit and inputs in “resource providing contracts,” (Austin 1981; Key and Runsten 1999; Schejtman 1998; Minten et al. 2009 for Madagascar for vegetables, Dries and Swinnen 2004 for Poland for dairy).

In terms of the impacts on the incomes of small-scale farmers selling to supermarkets or large processors, many studies report from moderate to substantial gains in incomes, comparing participants in modern supply chains with those in traditional, either between treatment and control groups, or before and after. But there are relatively few studies that control fully for the asset and liquidity situations

of farmers so as to isolate the effect of the relation with modern channels per se.

Some studies (such as Maertens and Swinnen 2008 in Senegal or Neven et al. 2009 in Kenya) show indirect effects on off-farm employment in agro-industrial firms and on farms producing labour intensively to market to processors and supermarkets.

Policy and programme implications

In this section we review three sets of strategies, which focus on reducing exclusion of small-scale farmers and SMEs and enhancing their inclusion in these processes of transformation. The third set is the most important for the vast majority of small-scale farmers – mainstream domestic food markets.

Strategies to help small farmers sell to markets

The fair trade market is large, about US\$7 billion in 2011 (Eliot 2010). A significant proportion of that is designed to be transferred from consumers to farmers through price premiums (de Janvry et al. 2015). There are 1.4 million fair trade farmers and workers in the world, of whom 80 per cent are small-scale farmers.

The organic market is 10 times as large, around US\$72 billion in 2013. There is no designed or explicit mechanism to ensure that price premiums (for organic versus conventional products) reach the farmer. There are almost 2 million certified organic farmers, of whom about 85 per cent (with 25 per cent of the certified organic land) are in developing countries⁹⁴ (Willer and Lernoud 2014).

Together the fair trade and organic markets account for about 3.1 million farms (of which the great majority are small) in the developing world. These two markets account for about US\$80 billion in sales, which is large as an absolute figure, but should also be viewed relatively, as it is only 1.5 per cent of the global agrifood sector which grosses US\$5 trillion (very rough estimate by the World Bank).

Short supply chains are those where "...the foods involved are identified by, and traceable to a farmer. The number of intermediaries between farmer and consumer should be 'minimal' or

ideally nil," (Santini and Gomez y Paloma 2013, p.13). Using this definition one can argue that all traditional food systems at one time were "short supply chains", and that tens of millions of small-scale farmers in the developing world sell at least a small part of their production in this way. Hence, one should distinguish between traditional food trade systems and development schemes that explicitly seek to promote this way of engaging with markets as an alternative to "conventional" or mainstream marketing channels. However, there are no data on sales volumes and farmer numbers in these schemes. It is likely, however, that they are several times smaller today than the fair trade or certified organic market channels in volumes and numbers of farmers.

There are several studies that show that these three types of markets often offer more favourable and fair conditions for small-scale farmers (Ruben 2008). Other studies, however, point out that these markets are not immune from the structural transformation downstream in the value chains, such as conventional markets are undergoing. For example, in the United States, by far the largest market for organic food, 93 per cent of organic sales, are handled by conventional and natural food supermarkets and chains. Farmers' markets and other direct sales outlets account for only a tiny share of United States sales (Dimitri and Richman 2000).

Klonsky (2000) had predicted this trend in a study that showed that organic farming is being affected by forces such as regulation, consolidation and mainstream entrants at the farm, manufacturing and retail levels. She noted that this was fostering a trend which resembled the organic and conventional food systems. Guthman (2014) portrays the conflict between "big organic" and "small organic", describing tensions that are similar to those facing "big conventional" and "small conventional."

The fair trade market has transformed in ways similar to the organic sector. It has been changed significantly through the growing participation of firms like Nestlé, Walmart, Tesco and Carrefour (Raynolds et al. 2007).

“Short-chain strategies” face a similar dilemma. They require direct contact between farmers and consumers. Practically, that would be extremely hard to scale up to the point where this direct approach could make a dent in feeding the 42 per cent of the world’s urban population that lives in cities with populations of 1 million or more. The contradiction is that for them to scale up they would have to use the same logistics and wholesale services that they are by definition trying to circumvent.

Moreover, a growing number of studies conclude that the economic benefits of the above three approaches are sometimes not large enough to offset the increased (relative to traditional or conventional channels) transaction and production direct costs. The upshot is that small-scale farmers are not necessarily better off in terms of net income. de Janvry et al. (2015) show that for small-scale farmers engaged in certified fair trade in Nicaragua, the price premiums largely flowed towards fair trade certifiers rather than farmers. Beuchelt and Zeller (2011) found that, in Nicaragua, farm-gate prices of certified coffees were higher for fair trade than for conventional coffee, but farmers did not necessarily get out of poverty or earn profits from certified coffee production. Over a decade, organic and organic-fair-trade farmers became poorer than conventional farmers in the area.

Weber (2011) looked at small, often indigenous certified fair trade – organic coffee farmers in Southern Mexico – and found an income gain of 5 per cent of total household income net of the cost of participation in the local cooperatives. But there was no income gain if the cost to the farmer of becoming organic and fair trade certified was taken into account. It appears that only when small farmers have especially high yields can they reap the potential income benefits of organic and fair trade production (Barham and Weber 2012). The challenges faced by certified small-scale farmers in achieving high yields are similar to those faced by conventional family farmers, although applied to a different set of technologies so that the specific constraints may be different.

Given this evidence, it is difficult to accept arguments hailing these three strategies as *the*

solution to the challenge of small-scale farmer market access. This is both because they often do not provide a net income increase over conventional approaches, when all factors are costed, and because they are just niche strategies, involving few farmers and consumers. After decades of hard and good work, only about 0.5 per cent (around 2.8 million⁹⁵) small-scale farmers in the developing world are certified organic or fair trade farmers.

Apart from the above three main strategies designed to be explicitly and directly pro-small-scale farmer access, there are others. Several countries have established public food procurement systems, which, while technically and institutionally complex, appear to have had a significant and positive effect on small-scale farmer development (Friedmann 2007).

An example of this is a new programme in Brazil for the public purchase of food from small-scale farmers to supply government-run food distribution systems (such as school meals, public hospitals, jails and the army). One scheme is run by the school meals system (National Programme of School Meals)⁹⁶ and the other scheme is more general (Food Purchases Programme).⁹⁷ The two schemes together buy about US\$735 million of food from small-scale farmers. However, this sum is only 5 per cent of the value of the output of all Brazilian family farms, or US\$171 a farm. This policy can have a positive impact if it is used to train and develop the capacities of small-scale farmers to market food, but is unlikely to make a major dent in the market share or performance of smallholders in national markets.

It is likely that with the above strategies, as in any of the other possible strategies that one could think of, the social-inclusion benefits will be case-specific, depending on the characteristics of the farmers, of the places where they live and work and of the markets in which they normally operate. The benefits will depend also on the programme design, and the conditions and characteristics of implementation.

However, a clear advantage of the three strategies over conventional schemes is the large educational role that they have played. Millions of consumers have been made aware of the way

food markets work, and of the environmental impacts of food production, processing and distribution, and of the quality of the foods we eat. The social and economic implications of these culture-based strategies should not be downplayed, as more educated consumers in turn have exerted pressure on conventional farmers, processors, retailers and food service outlets to change their behaviours in many ways. Without the sustained political and educational role of the organic movement, who knows what the standards would be now in the non-organic segment of the supermarket's food section.

Policy can support the above approaches by helping farmers to achieve higher yields (such as through extension assistance) and by dismantling the discrimination against small-scale farmers in the provision of publicly-supported services – technical assistance, training, information, finance, business advisory services and so on. These are legitimate and valid options for both farmers and consumers, and public policy preferences should be based on efficiency and impact considerations and not on cultural or ideological prejudices against alternative agrifood systems. Moreover, the three strategies depend on legally sanctioned and well-enforced standards (not only for export, but also for the growing urban middle-class markets in developing countries).

Strategy focused on international and high-end domestic markets through contracts with large food companies to source from small farmers

This is a strategy that has gained political and financial support from many international development agencies and NGOs over the past decade. It has been argued that bringing in the corporate private sector is a major step towards a solution to shortcomings of traditional strategies to help small-scale farmers. Porter and Kramer (2006) argue that businesses “create shared value” when they design their business strategies to address social and environmental problems. Drayton and Budinich (2010) argue for alliances between large companies and NGOs to build markets that are inclusive

of small-scale farmers. Several examples are highlighted here.

- The UTZ Certified label is a global multi-stakeholder programme led by Walmart, Metro and other global retailers, wholesale/logistics/processing firms, such as Cargill, and second-stage processors, like Nestlé and Kraft Foods. UTZ operates for example in the Côte d'Ivoire, paying a bonus to cocoa farmers who improve the quality of their crop (Endean and Suominen 2014).
- The Productive Alliances (Alianzas Productivas) approach has been used in many Latin American countries (including Brazil, Chile, Colombia, Mexico and Peru) to promote market access for smallholders through contracts with food processors, exporters, supermarkets and fast food chains. The first such programme started in the early 1990s (and is still underway) in Chile, when the Institute for Agricultural Development established a programme to develop contract agriculture involving small-scale farmers (Schejtman 1998). Since then this approach has been used by many governments, sometimes with the support of international development agencies such as FAO or the World Bank (CIAT 2013). In Colombia, for example, the Ministry of Agriculture's Programme in Support of Productive Alliances between 2002 and 2013 contributed to developing 775 alliances, with the participation of 49,000 families and 430 private firms (mostly food processors). The total value of the businesses developed is around US\$434 million, with a government investment of about 23 per cent of that amount (Lundy et al. 2015). Since 2002, the World Bank has supported about 20 projects with a Productive Alliances component, sometimes in a context of a community driven development approach. About 2,800 alliances have been created involving approximately 108,000 beneficiaries (CIAT 2013).
- Another scheme is the Grow Africa initiative joint proposal of the World Economic Forum, the African Union and the New

Economic Partnership for African Development, involving more than US\$60 million of private-sector investment in activities involving 800,000 small-scale farmers, generating sales of about US\$300 million (Endean and Suominen 2014).

- IFAD's project portfolio has shifted substantially from a "farm-to-market" approach, to a growing emphasis on participation of small-scale farmers to access value chains in collaboration with large firms (box 6.2). IFAD's "Four Ps" programme (Public-Private-Producer Partnerships in agricultural value chains) seeks to improve the participation and benefits of small-scale farmers in value chains. An analysis of several case studies of this programme showed eight main factors driving the outcomes (Thorpe and Maestre 2015):
 - define the rationale and underlying assumptions
 - ensure a clear "market pull"
 - prioritize farmer ownership
 - align the incentives of partners and build trust
 - manage risks through risk identification and mitigation
 - build the capacity to respond to changes in complex market systems
 - take a proactive approach to public accountability and transparency
 - create sustainable market systems.

Despite the significant resources invested in these linkage schemes and the unparalleled size, power and managerial, technical and financial capacities of the firms involved, a recent review of experiences concluded that, "Collaboration with the private sector has proven to be somewhat more challenging." (Endean and Suominen 2014, p.64). They found that:

- It is hard to find private-sector partners who are willing to work in the smaller, lower-income countries.
- There are low returns and high risks inherent to small-scale farmer agriculture.
- There are high transaction costs that private-sector firms are unwilling or unable to pay and that the public sector must take care of.

- There are the "hidden costs of attracting private-sector partners and overseeing these programmes, relative to their development benefits" (Endean and Suominen 2014, p. 67).
- Donors acknowledged a lack of capacity in their own staff to work effectively with the private sector.

Ion et al. (2014) reviewed private-public agrifood sector partnerships and showed several points. Partnerships are most effective when used to promote whole sectors or clusters. There is a large gap between available FDI and financeable projects. Most proposed projects lack good business plans or do not have the potential to have the socio-economic impacts required by investors. These schemes only reach the top farmers, even among the small-scale farmers, and not the poorest – even when it comes to consumers, businesses prefer to target those living on US\$3-4 a day, not those at the poverty level (below US\$2 a day). Even projects developed by multinational companies have problems reaching scale. Impacts are more likely when farmers are close to going to market and just need some additional help.

Ion et al. (2014) note that most of these schemes have not been evaluated for results or impacts. Companies report the same challenges that are well known to donors and governments when it comes to assessing results – difficulty in establishing attribution, short duration of the projects compared with the time required for impacts to be felt, the cost of rigorous evaluations and so on.

Some studies, however, offer partial evidence that appears to show that those farmers who partner with companies benefit through better prices, more access to technology, better risk management and less market uncertainty (Reardon et al. 2009; Biénabe et al. 2011; Michelson et al. 2012). The main causes of these benefits appear to be the significant resources that are mobilized in support of these projects, the high quality of the services that are provided and, above all, the fact that the farmer is brought into an environment where many of the constraints to production and marketing

BOX 6.2 IFAD's experience in value chain development in partnership with the private sector

IFAD's portfolio has shifted significantly towards value chain programmes over the past ten years. The greatest increase occurred around 2005, at the same time as IFAD's Private Sector Development and Partnership Strategy was adopted. The current generation of value chain development projects seeks direct collaboration with the private sector. Examples include the National Programme to Support Agricultural Value Chain Actors in Guinea, through which IFAD is putting development funds in the hands of farmers' organizations, allowing them to choose how and where they spend the money. The programme has benefited over 550,000 farmers. The Development of the Central Corridor Project in Ecuador uses a territorial approach to link geographically contiguous regions, on the basis of prioritized value chains. The project increased the income of 16,000 families in the project area. While some projects link small-scale farmers to supermarkets, exporters or large processing units, most projects work with small-scale farmers to link them to new and emerging value chains. Most IFAD-supported operations, even when they are called "value chain development projects", address only partial elements of a value chain. Based on their experience with these projects, IFAD provides recommendations that projects should:

- Not always try to develop an entire value chain.
- Adjust the value chain approach to each context.
- Encourage governments to create enabling environments for better functioning value chains, with public goods to address market failures, and with incentives for companies to make investments in partnership with small-scale farmers.
- First identify the product value chains for which there is a business case for involving small-scale farmers and in which value chain actors are committed to engaging in mutually rewarding arrangements with small-scale farmers.
- Consider less competitive and demanding domestic markets for the poorest rural segments often unable to meet the requirements for selling to modern markets.
- Pay attention to the roles and needs of women and youth within the value chain. They have opportunities in farming, wage work and off-farm microenterprises, but they often lack assets and are seldom members of farmers' organizations.
- Be designed to be flexible, and build capacity for participants to be flexible and anticipate rapid change in value chains that should be expected.
- Use a third-party facilitator to help with public-private linkages to identify challenges, build trust and adapt.
- Analyse all the possible business models for inclusion of small-scale farmers in value chains, in addition to IFAD's usual project entry point (farmer organizations in farmer-driven models). Buyer- or intermediary-driven models can be equally effective in achieving the necessary economies of scale.
- Use, where and as appropriate, contract farming, as well as management contracts, tenancies and joint ventures with modern company clients to create win-win arrangements.
- Make sure the quality standards and pricing structure are made clear from the outset. The project should support small-scale farmers in contract negotiations for these.
- Make value chain financing arrangements to help farmers rent or buy equipment and make other needed investments, via financial institutions, factoring and warehouse receipt schemes.
- Identify strategies to share risks and costs along the value chain to help farmers exposed to the risks in product specialization.

Source: IFAD 2014.

have been removed. In such far more favourable circumstances than the farmers normally find themselves in, small-scale farmers can and do display their considerable productive potential.

The problem, however, is with the expectations that have been created about the potential of these types of strategies to solve the production and market-access problems of the small-scale farmers of the world. Based on official company reports publicly available on their web sites, we find that, for example, three of the largest corporations that are prominent proponents of these arrangements (Walmart, Nestlé and Unilever⁹⁸, with combined sales of US\$750 billion) are committed to involving 2.6 million small-scale and medium small-scale farmers in direct procurement systems of different kinds. That is equivalent to 0.5 per cent of the world's 500 million small-scale farmers and slightly less than the 2.8 million small-scale farmers who are involved in the certified organic and certified fair trade systems.⁹⁹

There is no doubt that in contrast to the fair trade and short-chain strategies discussed above, large corporations do have the capacity to reach (and, in fact, do so daily) tens of millions of consumers with their products. What they do not appear capable of doing is involving as direct suppliers even 10 per cent or 20 per cent of the world's small-scale farmers (50 to 100 million of them), or, at least, not in the next 10 or 20 years.

With respect to this corporate private-sector led strategy, the first recommendation is that in the face of limited funding, donors and governments should carefully assess the relative merits of investing in this powerful option for fewer small-scale farmers. Alternatively the government should look at other markets that may be less beneficial for each individual farmer, but have the potential to uplift many more family farms.

The best uses of public funds in the context of these public-private schemes include:

- Investing in public goods that reduce transaction costs that the private sector is unwilling or unable to absorb or help solve, such as roads.
- Promoting coordination to form private-public partnerships at the industry or cluster level, rather than with individual firms, which helps the companies and ensures that small-scale farmers are not having to sell to just to one firm and the power asymmetry that that implies (Abdulsamad et al. 2015).
- Upgrading poor small-scale farmers to the levels of productivity and asset endowment that are required for them to be able to participate as suppliers of large companies.
- Investing in the innovation and bargaining capacity of small-scale farmers who may participate in private-public partnerships.
- Developing good business advisory and extension services that can work with local businesses and farmers' groups to help them technically upgrade as well as to identify and formulate solid investment projects, with good business plans and rates of return on investment that can attract the interest of medium- and large-scale firms.

The most important strategy for the vast majority of small-scale farmers, yet a strategy that paradoxically receives less international attention: the mainstream domestic food markets

The domestic food markets are where more than 80 per cent of the world's small-scale farmers operate and, as we have discussed, these markets are transforming rapidly. As any small-scale farmer will tell you, these mainstream domestic food markets have two serious problems, they are not profitable and they are unfair in the sense that prices and trade conditions are easily manipulated with impunity by a relatively small number of more powerful market agents. Also, they are hard to reform and improve from the perspective of social inclusion, as shown by the huge collection of failed policies, programmes and projects promoted by all kinds of public and private development agencies.

Policy recommendations with broad applicability include the following.

It is important to pay far greater attention to improving these domestic markets and the participation and performance of small-scale farmers in them. They must be the number one

priority in the policy agenda when it comes to improving small-scale farmers' access to markets. Everything else is secondary, even if it is more politically or programmatically appealing.

It is crucial to make public investments and provide public goods to enhance transparency and reduce the transaction costs of these all-important markets. Improving and extending rural roads, electricity grids and mobile phone systems are high priorities.

Investment is urgently required to upgrade and strengthen wholesale markets, which play a critical role in mainstream domestic markets. This should receive far more attention than it does today. According to an international association of wholesale markets, priorities for support and investment include:

“(a) economic and financial support for the construction of a market or, subsequently, in its modernization, rehabilitation or relocation, (b) the approval of a legislative framework suitable for wholesale and retail commerce, (c) the establishment of management criteria for wholesale markets and the setting of goals of public or general interest that need to be reached. On this basis, markets should be administered (whether by public or private entities or by public-private partnerships) in such a way as to offer to local companies suitable physical, logistical and operational conditions.” (WUWM 2014, p.9).

There are mainstream markets where the process of midstream and downstream transformation has generally progressed (such as dairy markets in many countries). Here, public-private partnerships have potential. Many of the specific policy recommendations in the section “Strategy focused on international and high-end domestic markets via contracts with large food companies to source from small farmers” apply here. A frequent strategy that has had success is the promotion of contract farming.

This leaves us with the hard-core problem of small-scale farmers (including probably the majority of the poorer ones who still manage to participate as food sellers in the market) working in low-value, “commodity” (not

quality differentiated) markets, which are still in the early stages of market transformation.

The position of these small-scale farmers can be improved significantly and sustainably. But this can only be achieved at significant cost and effort sustained over many years. There are four core components of a strategy to face this difficult challenge:

Some government or other public-action entity must take responsibility for the resolution of asset shortfalls and idiosyncratic market failures (to access inputs, capital and services) affecting a particular group of farmers working in a particular mainstream domestic market. In many developing countries the reforms of the 1980s and beyond saw the dissolution of extension systems and similar public infrastructure. Even before that, many of these services had become very ineffective, or worse. Re-establishing networks of public-action agents that can play these roles is a necessary step.

Increasing labour and land productivity remains a core component, without which almost everything else than can be done is likely to fail. Small-scale farmers with low productivity can only sustain their position in these markets at the cost of rewarding their own labour very cheaply – that is, by remaining poor. That is not an acceptable strategy, and hence enhancing productivity must be a central concern.

It is important to improve the bargaining power of small-scale farmers in these difficult markets, by supporting the formation and development of farmers' organizations and other forms of collective action (Berdegú 2001; Biénabe et al. 2011). But there are reasons for the many failures in this field. Despite the well-intentioned assumption that if small-scale farmers organize and engage in economic collective action of some sort, they will be able to beat these opaque, uncompetitive, imperfect markets, the evidence consistently shows that the odds are stacked against them. In many cases these efforts last as long as they enjoy external support. In the absence of significant transaction costs and when prices are defined in spot markets (as is often the case for basic food staples), it is difficult to see how 50 or 100 small-scale farmers with a few bags of produce each,

will manage to consistently obtain a significantly better price that can offset the direct and indirect organizational costs. To really reach sufficient scale to be able to operate successfully in these kinds of markets, farmers' organizations would need to have very large numbers of members and, in that case, new coordination problems arise. Farmers' organizations are likely to be better justified in these cases if they are focused on other important objectives – access to inputs, provision of financial services to their members, collective certification schemes to access new markets and so on.

In conclusion, we have shown that agrifood markets are transforming rapidly in developing regions. This has emerged as an opportunity for a number of types of economic actors – consumers (urban and rural), small and medium-sized firms in the midstream of value chains, including processors and prepared foods enterprises, and wholesalers and logistics firms and other service enterprises, and the upper stratum (in asset terms) of small-scale farmers. However, we have also shown that for the great majority of small-scale farmers the agrifood market transformation is a challenge. It is extremely important that both governments and international assistance agencies work to develop the accessibility and performance of the mainstream domestic food markets (for example through investment in roads and wholesale markets). They need to help asset-poor small-scale farmers and other rural microenterprises to have the assets to participate in the changing market. Also, market transformation needs to be “managed change” by making sure that public services and commercial regulations provide a level playing field for the rural poor.

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