

## Empowering Smallholder Farmers in Markets: Changing agricultural marketing systems and innovative responses by producer organizations

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## ESFIM Working Paper 2

## Empowering Smallholder Farmers in Markets: Changing Agricultural Marketing Systems and Innovative Responses by Producer Organizations

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#### 1. Introduction

#### 1.1 Background

This Working Paper is one of the key deliverables completed during the Inception phase of the IFAP-ECART-IFAD research project on 'Empowering smallholder farmers in the market'. It is intended to identify key issues as well as contribute to the development of a methodological framework for subsequent in-depth studies on producer organizations and the innovative mechanisms and institutions that can strengthen their position in markets. In conjunction with other preparatory studies – Working Paper 1, the Methodology Paper and the Review of ongoing/planned development agency initiatives in support of producer organizations – this paper is expected to generate issues to be investigated and help in the selection of countries for the larger research programme.

#### 1.2 Context

Agricultural marketing systems have changed and continue to change as a result of globalisation and liberalisation as well as demographic factors, particularly urbanisation. These changes have led to the emergence of new market players and created new market opportunities but have also exposed producers to increased risks in terms of uncertain access to markets, price instability and the risk of counterparty non-performance. For instance, globalisation has led to the accumulation of massive buying power by a limited number of companies, especially the international supermarket chains, with associated narrowing of the supply base. As a result, large and integrated agribusiness firms are edging out small family farms (Montemayor, 2007). Furthermore, changing consumer preferences have led to increasingly more stringent health and quality standards, which make it difficult for producers, especially those from developing countries, to compete. Though this situation also affects farmers in North America and Europe, the impact on the livelihoods of over two billion farmers in commodity-dependent developing countries is even more acute.

With agriculture re-emerging as important in achieving economic growth and poverty reduction in many developing countries, helping farmers address the new challenges they face as well as to exploit the new opportunities which have emerged is critical. According to DFID (2006), the sector creates jobs (both on and off-farm), stabilises food prices to the benefit of consumers and helps trigger growth in other sectors. Hazell (2006) also cites a number of econometric studies which generally find high poverty reduction elasticities for agricultural productivity growth<sup>1</sup>. It is partly in recognition of this that African leaders at the Heads of State of the African Union Summit in Maputo in 2003 committed to allocate up to 10 percent of their budgets to agriculture by 2008.

For many developing countries, especially those in Sub-Saharan Africa (SSA), prioritising improvement in the performance of the agricultural sector implies

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<sup>&</sup>lt;sup>1</sup> In one such study, Thirtle et al. (2002) estimate that a one percent increase in crop productivity reduces the number of poor people by 0.72 percent in Africa and 0.48 percent in Asia.

focusing on the predominant small-scale farmer<sup>2</sup>. Improving agricultural marketing systems is critical in this regard (Dorward, Kydd and Poulton, 2006). However, due to scale diseconomies associated with smallholder production and marketing, collective action is seen as important in enabling farmers to respond to new challenges in marketing (Schmidt and Nadvi 1999). Yet, the forces that are driving change in agricultural marketing systems also appear to have affected the forms of farmers' producer organizations (POs). The traditional cooperatives, which were well-integrated into the state-run commodity marketing systems, are virtually non-existent. New forms of cooperatives have emerged in developed countries (MacPherson 2003), while in developing countries new forms of farmer associations are being promoted by NGOs, donor/government-funded projects and the private sector.

Though some POs have enabled farmers to exploit new opportunities and/or cope with emerging challenges through developing and/or taking advantage of innovative mechanisms and institutions, there are many farmers who lack sustainable access to inputs and services as well as to remunerative output markets. This paper is intended to generate a better understanding of the conditions which make POs capable vehicles by which farmers, especially small-scale farmers in developing countries<sup>3</sup>, can reach markets in a dynamic and demanding trading environment, and respond to the needs of their clients and members. It aims at identifying lessons on the forms of organizations as well as the innovative mechanisms and institutions that POs can adopt and/or help promote in response to challenges in the changing agricultural marketing systems, in particular, to strengthen the bargaining position of farmers.

#### 1.3 Structure of paper

The rest of the paper is structured as follows: in Section 2 we review changes in agricultural marketing systems and the factors driving the changes. The focus of Section 3 is on Producer Organizations (PO) – the changes in form and functions as well as how these are affecting their capacity to respond to opportunities and challenges created by changes in marketing systems. Section 4 looks at various innovations which have been adopted by POs to improve access to new markets and/or address new challenges in markets for traditional commodities. Section 5 consists of a summary of the discussions and emerging issues which will require further study.

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 $<sup>^2</sup>$  For the purposes of this paper, we adopt a broad definition of a small-scale farmer. A small-scale farmer derives their livelihood from a holding of < 2-5ha (usually < 2ha); and around 10 to 20 heads of livestock (although often there is < 2 or none at all). Small-scale farmers may practice a mix of commercial and subsistence production (in crops or livestock) or either, where family provides the majority of labour and the farm provides the principle source of income. Many small-scale farmers who fit the above description actually possess little land or livestock as compared with the regional average.

<sup>&</sup>lt;sup>3</sup> Small-scale farmers constitute a significant proportion of the rural economy and the poor in developing countries. For example, small-scale farmers number 1.3 billion in South Asia; and account for 90% of agricultural production in SSA. Small-scale farmers constitute approximately 73% of the rural poor in SSA (Proctor, 2005); and 49% of the poor in Asia (Narayan and Gulati, 2002).

#### 2. Agricultural marketing systems in developing countries

## 2.1 Evolution of the agricultural markets

Prior to the late 1970s-early 1980s, agricultural marketing systems in most developing countries were characterised by pervasive government interventions which were intended to minimise the risk of famine and food shortages as well as to assure foreign exchange earnings and tax revenues from strategic agricultural export commodities (Akiyama et al, 2001). The dominant role of the state in marketing of agricultural inputs and outputs was also justified by the need to secure the participation of small-scale farmers in food and cash crop production. In Latin America, many government interventions in the cash crop sub-sectors, for instance in the coffee and sugar industries, had their origins in the 1930s reflecting to some extent a reaction to unequal land and wealth distribution (Akiyama et al, ibid).

As summarised by Varangis and Schreiber (2001), the institutional vehicles and policy framework employed by most governments in developing countries in promoting the production and marketing of strategic food staples and export crops included the following:

- a. Pan-territorial and pan-seasonal pricing policies, regardless of the cost of assembling produce from particular regions;
- b. Suppression of the private sector;
- c. Enforcement of formal commodity standards for most of the crops marketed by the boards, especially the export commodities;
- d. Sole distribution by the state of subsidised inputs to producers; and
- e. Promotion of cooperatives as intermediaries in the marketing chain distributing inputs, bulking produce and marketing to the boards.

These marketing systems were, in most cases, inherited from colonial administrations and subsequently reinforced as part of a state-led development strategy and social planning framework as influenced by the Soviet development model (Akiyama et al, 2001). By the beginning of the 1980s, there was mounting empirical evidence indicating global failure of this model. The interventions became an unsustainable fiscal burden, contributed to real decline in producer prices as producers bore the cost of such programmes, and failed to produce any significant increase in per capita output in food and cash crops (Hubbard 2003).

Consequently, many developing countries carried out major reforms in agricultural input and output markets. In reforming the markets, considerable attention was paid to primary agricultural export commodities, since many of the low-income developing countries, especially Sub-Saharan African (SSA) countries but to a lesser extent Latin American and South Asian countries, are highly dependent on export of agricultural raw materials. Domestic marketing systems for traditional export crops such as cocoa, coffee and cotton underwent considerable change during the 1980-90s (Shepherd and Onumah 2003). At the global level too, international stocks and price management mechanisms were dismantled, leading to steady decline and increased short-term variability in commodity prices (Brown and Gibson, 2006). Producers of primary commodities reportedly lost out partly because of these changes. According to

UNCTAD<sup>4</sup>, between 1980 and 2002, terms of trade in the commodity sector declined by more than 50 percent.

Marketing systems for major food staples in developing countries have also been reformed – most significantly with the involvement of the state in input and output marketing as well as in setting domestic producer prices for various commodities either being abolished or scaled back substantially. This led to increased private sector participation in commodity marketing. Tariff and non-tariff barriers were also reduced substantially, contributing to improved availability of imported inputs and foodstuffs but also intensifying competition faced by domestic producers (Greenhalgh and Kleih, 2000). Furthermore, food costs became relatively lower for consumers. There is also evidence that, following liberalisation of commodity markets, there has been a shift in the proportion of the global value of much international commodity trade to market participants located outside the producing countries (Davis, 2006).

The overall impact of these reforms on producers in commodity-dependent countries has been rather mixed, as illustrated below:

- Producer margins have been squeezed because of longer supply chains, involving large numbers of small-scale traders as assemblers, and the transfer to producers of the increased cost of assembling due to poor rural infrastructure<sup>5</sup> parastatal marketing boards used to absorb these costs and invested, for instance, in rural roads and appropriate transport facilities.
- Produce quality has become more variable due to a number of factors, including scaled down extension services, lack of inputs and weak enforcement of commodity standards by assemblers, who trade in volumes rather than quality. The consequent loss of quality premiums often implies lower household income.
- Access to markets is uncertain partly because the assemblers are severely undercapitalised and unable to absorb large volumes at the peak of the harvest, thus depressing farmgate prices. Supply uncertainty is also experienced by importers.
- The abolition of state-guaranteed pan-territorial/pan-seasonal pricing implies farmers face high price risks but lack access to mitigation mechanisms.

#### 2.2 Factors driving change in agricultural markets

Table 1 summarises the main factors driving change in agricultural marketing systems. Globalisation is one of the main external factors driving the changes, while urbanisation is a trend that is having a major influence on food supply and distribution systems.

#### 2.2.1 Globalisation and agricultural markets

Collier (1997) defines globalisation as the process of integration in product markets and financial markets in which producers and investors increasingly behave as if the world economy consists of a single market and production area rather than a set of national economies linked by trade and investment flows. It can be argued that the move towards a global economy, where national boundaries no longer matter, has

<sup>&</sup>lt;sup>4</sup> UNCTAD "Issues in Brief" No. 3 (2003).

<sup>&</sup>lt;sup>5</sup> DFID Annual Report (1999).

been underway for several centuries and reached its peak prior to World War 1. However, the current revolution taking place in communications technology, combined with the increasingly important role of the multinational corporations, make the scale and impact of globalisation much greater than previously.

Buying power is becoming increasingly concentrated in the hands of a few multinational companies and international supermarket chains, thus weakening the bargaining power of producers in both developed and developing countries. At the same time, large and integrated agribusiness firms are increasingly edging out small family farms, who are finding it more difficult to compete due to the following:

- i. Reduced government expenditure has led to a deterioration of physical and institutional infrastructure which in turn has increased smallholders' production and marketing costs<sup>6</sup>. The global players are better able to invest in the type of transport facilities and procurement networks required if the volumes of produce available are substantial. Their stronger bargaining position ensures that they are able to recover associated costs through reducing margins for producers and other intermediaries.
- ii. As vertically-integrated entities, the global chains are able to contain and reduce the cost of assuring produce quality and contract performance in terms of delivery. Quality deterioration, which often occurred following liberalisation of markets for most agricultural exports, makes it difficult for new, smaller players to assure trade counterparties of their capacity to deliver produce with consistent quality.
- iii. The large global players have relatively easy access to cheap international finance, while competitors in developing countries are either unable to borrow or do so at very high interest rates.
- iv. They (the large global players) are also better able to hedge against price risks, which have become more acute after liberalisation.

These factors have strengthened the competitive advantage enjoyed by the global players, a situation which is common, especially in markets for the traditional export crops in Africa (Baffes 2004; and P. Greenhalgh and S. Kitching 2005). The marginalisation of indigenous traders and producer groups from the trade sometimes leads to polarisation in communities. Market liberalisation has also shifted risk along the marketing chain away from parastatals towards traders and producers. For instance, the risk of contract default has increased and, therefore, commodities are increasingly sold for prompt payment. Access to inputs (e.g. seeds, chemicals and fertilisers) has often become more difficult as input distribution has passed from the public to the private sector and subsidies have been reduced or ended. This has invariably raised prices and the lack of affordability has either constrained usage or effectively reduced producer margins.

## 2.2.2 Urbanisation and growing influence of supermarket chains

Urbanisation is impacting on food marketing systems through demand for increased volumes of food as well as the type of food preferred. Urban populations tend to eat relatively more meat, dairy products, wheat and fresh fruit and vegetables, and there is

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<sup>&</sup>lt;sup>6</sup> "Rural transport costs in Africa for instance are often twice as high as elsewhere in the developing world and are a serious constraint to increased agricultural production" (DFID Annual Report 1999).

an increasing demand for high quality, processed and convenience foods (IFPRI, 1996; and U.N. Economic and Social Council, 2000). This is partly due to changes of consumption patterns as a result of rising incomes as well as changing lifestyles, exposure to new products and time pressures, especially for working women. This development is not limited to the developed countries but is a growing phenomenon in Asian countries such as China, India, and Thailand, which are experiencing major shifts in food consumption due to the rising purchasing power of the middle class.

As observed by Reardon et al. (2003), one effect of changing urban food demand patterns is what they term 'de-fragmentation' of the food marketing system, involving the shift to larger, centralised wholesale markets. The 'de-fragmentation' often starts in sub-sectors dealing with non-perishable crops such as grains but later includes fresh product sub-sectors (e.g. fruits and vegetables, meat, fish, eggs, and milk). The well-documented rise of supermarkets partly reflects these demand-side trends. Major improvements in retail procurement logistics technology and inventory management have enabled supermarkets to exploit the new market opportunities better than other players at either end of the value chain. For instance, supermarkets tend to establish supply systems that are outside the traditional wholesale systems, resulting in centralisation of procurement, growing use of specialised wholesalers or importers, increased use of quasi-formal and formal contracts, and a rapid rise in the enforcement of private standards (Reardon et al., ibid).

Latin America has been the frontrunner among developing regions in the growth of the supermarket sector, followed by Asia (first East/South-East Asia, and now South Asia), and Africa (first Southern then Eastern Africa). In the developing countries, the take-off in supermarket retailing was based more on processed, non-perishable and packaged foods than on fresh products such as horticultural produce, in which the supermarkets' retail market share tends to be significantly lower. For example, Tschirley et al (2004) state that in Kenya the supermarkets' share in the fresh fruits and vegetables (FFV) market of Nairobi is below 10%, with an even lower share outside the capital. The same authors expect that within 10 years, the share of the urban FFV market in Kenya controlled by the supermarket chains will almost double to about 20%. The rapid growth in market share for supermarkets represents an opportunity for producers of relatively higher value food products, particularly if they are able to comply with the exacting food safety and quality standards as well as supply schedules.

#### 2.2.3 Other regional and global developments affecting food markets

Growing consumer power and concerns about issues such as global warming, fair and ethical trade terms as well as with food safety, are creating new market segments and imposing new constraints in conventional markets. On the one hand, these trends have led to the emergence of new markets for producers, such as fair/ethical trade markets and organic produce markets. On the other, they have led to the imposition of new food standards such as EurepGAP, which make it difficult for small-scale producers to compete in the supply chain. For example, the number of small-scale producers in horticultural export supply chains is decreasing in countries such a Kenya and Uganda.

Concern about global warming is also driving growth in demand for locally-sourced food, a trend which may benefit small family farms in the developed world but could lead to increased marginalisation of small-scale producers elsewhere. It is also generating interest in alternative renewable fuels such as ethanol and bio-diesel which may represent opportunities for producers of grains, starchy roots and oilseeds in developing countries.

Ongoing international trade negotiations, such as the WTO Doha Round negotiations, which was suspended in July 2006 due to deadlock over issues such as agricultural subsidies, could further free up international commodity trade. Whether smallholder farmers would benefit or not depends on the specific commodities in question and their capacity to competitively link into the value chains. Increased regional integration is another trend that can potentially increase marketing opportunities for farmers in developing countries. For instance, DFID (2006) estimates the size of regional markets in Africa for the main staples (maize and cassava) at over US\$50 billion – and is expected to double by 2020. This market is worth more than five times the value of the traditional export commodity crops.

**Table 1: Summary of factors driving change in marketing systems** 

	Factors changing	Actual / Potential Impact on Smallholders
	markets	
	Market liberalisation	Led to the dismantling of marketing boards in many countries and abolition/reduced role of cooperatives.  At the same time, given that smallholders struggled to compete in a liberalised marketing chain it encouraged the formation of new farmer organizations.
	Urbanisation	Leads to larger quantities of food being marketed within a country, and 'de-fragmentation' of marketing systems (i.e. emergence of larger wholesale markets). This could provide new marketing opportunities for small-holder farmer groups.
Internal Drivers	Rise of supermarkets	Has been observed in Latin America, and parts of Asia and Africa. Depends on preconditions such as a relatively high degree of urbanisation and rising purchasing power. Unless small-scale producers and processors are well organised, they may find it difficult to meet the requirements of supermarket chains.
	Strengthening of civil society movement	Has taken place in many developing countries during the last decade. This should facilitate the formation of community-based organizations (CBOs), civil-society organizations (CSOs) and farmer organizations and is likely to improve advocacy for pro-farmer policies.
External drivers	Globalisation	Comes in many, sometimes contradicting, facets. For example, there is increasing international demand for certain high-value commodities such as fresh horticultural produce or fish, but at the same time non-tariff market barriers (e.g. stringent food standards) makes it more difficult for small-scale producers to participate in the marketing chain. Major emerging economies such as China, India and Russia are likely to require increased supplies of both traditional and non-traditional export commodities. This should provide opportunities for producers including smallholder farmers.

	Factors changing markets	Actual / Potential Impact on Smallholders
External drivers	WTO Doha Round	Although the negotiations are no longer on hold, little progress can be seen. If it comes to a successful conclusion it could mean some reduction of subsidies for producers in industrialised countries with beneficial knock-on effects for farmers in developing countries.
	Economic Partnership Agreements (EPAs)	EPAs, being negotiated to ensure compatibility of trade relations between the EU and ACP countries, are intended to strengthen capacity of producers in the latter to compete when preferential trade access is scaled back. The EPAs will include investment in physical and institutional infrastructure to improve market access but it is uncertain what impact they will have on regional integration and how ACP producers will be able to deal with a potential increase in competition from other producers.
	Global warming and environment concerns/issues	Will impact in different forms. For example, supply chains (and their producers) that rely heavily on air transport may be more exposed. Increased use of fuel from renewable natural resources will lead to increased international commodity prices, favouring countries (and producers) with good production potential. The capacity of POs to respond creatively to new opportunities and challenges will determine how these developments impact on producers in particular countries.
	Fairtrade and organic produce markets	Although seen by some as niche markets, they appear to be growing rapidly (e.g. UK) and for some commodities (e.g. bananas), providing smallholders with marketing opportunities.

#### 3. Overview of Producer Organizations (PO)

#### 3.1 Definition and generic roles of POs

In the preceding section, it emerged that the following limit the capacity of small-scale farmers to adjust to changes in market incentives and opportunities: atomistic production units which are widely-dispersed, hence raising the cost of assembling; difficulty in assuring counterparties of capacity to deliver quality produce; vulnerability to high price risk with minimum opportunity to hedge; and lack of liquidity, which often compels them to sell most of their produce soon after harvest and stretching the absorptive capacity of up-takers<sup>7</sup>.

Theory and experience suggest that Producer Organizations (PO) offer a means by which these constraints can be reduced, thereby enhancing smallholder farmers participation in agricultural markets (Stockbridge, Dorward et. al., 2003). In this paper, we adopt IFAP's definition of PO as including cooperatives, producer associations and other forms of economic structures, but which does not include unions, chambers of agriculture and other forms of non-economic associative bodies (IFAP, 2004).

We also distinguish between POs and informal groups in many rural societies, which often have an inward-oriented or "bonding" function to facilitate collective actions that mitigate against the uncertainties of agricultural production, and regulate relationships within the group. Such informal groupings include Labour Groups, which can be found in many rural African communities – for example called *Nnoboa* Groups in Ghana, *Nhymbe* in Zimbabwe, and *Nkumi* in Tanzania. These customary arrangements provide reciprocal labour exchange for farm work, especially during planting seasons and involve no cash payment (only meals and local *beer* are provided). The arrangements serve to reduce problems in accessing labour, especially during the planting season when most rural households are liquidity-constrained. These groups are also different from the more welfare-type organizations, e.g. funeral groups and women groups, which are often inclusive but are set up largely because of non-existent formal welfare safety nets.

In contrast, the formal POs, which are the focus of this paper, perform a "bridging" function to organize relationships between the group and the outside world. In many developing countries, formal POs typically have elements of both traditional and formal organizations. They are rooted in local customs, but organized on economic principles. Unlike traditional groupings, which tend to be inclusive, formal producer organizations are often more exclusive. POs are membership organizations created by producers to provide services and they differ from Non-Governmental Organizations (NGOs), which also provide services to producers, but are not necessarily membership-based. POs can be local and serve only at village and inter-village levels, or can operate at regional and national levels (as advocacy, apex organizations and federations).

POs have played a significant role in agricultural and rural development. However, in recent years the strengthening of POs has gained increasing donor attention owing to

<sup>&</sup>lt;sup>7</sup> These are large buyers, who may be processors or distributors.

their importance to increased commercialization of smallholder agriculture in response to structural adjustment policies, economic liberalization and globalization. In this framework, POs have also been identified as an important pathway towards rural poverty alleviation. Their role in agricultural production and marketing broadly includes:

- a. Easing access to input credit through member-based saving and credit schemes such as SACCOs and ROSCAs, or through group lending schemes involving microfinance institutions under which members provide "joint and several guarantees" for credit provided.
- b. Facilitating extension training as well as sensitisation on production and marketing programmes for members.
- c. Bulking commodities for sale, especially where they are linked to a major buyer (some of these cases are discussed below).

The capacity of POs to deliver these services and in particular link members into lucrative markets vary, depending on the type of organization, their history and type of support they receive, as is illustrated in the next sub-section.

#### 3.2 History and types of POs

#### 3.2.1 Cooperatives and their origins

The most common farmers' PO is the agricultural cooperative, which emerged in Europe and other developed countries in the 19<sup>th</sup> century. By definition, cooperatives are autonomous associations of persons who voluntarily unite to meet common economic, social and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. As formal, legal entities, cooperatives are often required to register under particular legislation. For instance, in the UK many cooperatives are registered under the Industrial and Provident Societies Acts but many also have, since the 1980s, registered under the Companies Acts. In the US most cooperatives are registered as limited liability companies. The European Cooperative Statute provides the legal framework for cooperatives in Europe.

Membership of cooperatives tends to be open and democratic control is usually exercised by means of the one-member-one-vote principle. Economic benefits, in the form of dividends and bonuses, are also distributed proportionally according to each member's level of economic activity in the cooperative – for instance, for a crop marketing cooperative, dividends are shared based on volumes sold through the cooperative by a member. The popularity of the cooperative movement is shown by the broad range of sectors in which they are found: housing, retailing, agricultural production, agricultural marketing, banking and insurance. They remain popular not only because of the economies of scale that members can potentially enjoy, but also because they can create an effective countervailing power for producers facing the highly consolidated retail/supermarket industry (Hardesty and Salgia 2004).

However, to respond to the changes in commodity marketing systems, as discussed in Section 2, cooperatives may have to transform their operations – becoming more like private companies and potentially compromising some fundamental cooperative principles. Reviewing the cases of cooperatives in California, Hardesty and Salgia (2004) observed that cooperatives which had been successful in the very dynamic and

competitive food marketing sector, were those which had creatively responded to business restrictions imposed by such cooperative principles as the:

- a. user-owned principle which tends to restrict raising additional capital from outside investors:
- b. user-benefit principle which could imply scale diseconomies due to the exclusion of non-members from, for instance, marketing their produce through the cooperative;
- c. user-control principle implying potential accentuation of principal-agent problem since members may lack requisite skills to control professional managers.

#### 3.2.2 Cooperatives in developing countries – their history and current state

Unlike cooperatives in developed countries, which were independent, farmer-controlled and -financed self-help organizations, cooperatives in developing countries were largely the result of government action. Colonial governments promoted cooperatives principally as structures for mobilizing rural people and to facilitate extraction of produce and to exploit natural resources (Davis, 1990). Post-independence governments followed a similar top-down approach in developing cooperatives, enacting enabling legislation that tied the cooperatives to centralised, state-led input distribution and output marketing systems and in some cases (e.g. in Tanzania, Ghana and Zambia) integrating them into party-political administration structures.

The emergence of independent, farmer-controlled POs was largely curtailed and collective action within farming communities mainly centred around social and welfare issues – e.g. through formation of funeral groups etc. No effort was made to nurture and broaden the activities of traditional farm-oriented informal groupings like the labour groups. Donors channelled additional credits and funds through these "colonial-cooperatives" which increased their dominance and dependence on the state. This was particularly so in Africa, but also to some extent, within countries of the Near East region (COPAC, 1991). The successes and failures of the cooperatives in the developing countries, especially in crop marketing, are typified by the Tanzanian and Zambian cases discussed in Box 1 and Box 2 respectively.

#### **Box 1: The cooperative movement in Tanzania**

The colonial administration promoted the cooperative movement through passing the Cooperative Societies Ordinance (1932). It also assigned District Commissioners to supervise their formation. The first of the major cooperatives to emerge was the Kilimanjaro Native Cooperative Union (KNCU) in 1933 with 11 primary cooperative societies (PCS). Most of the cooperative unions (CU) formed by 1950 were involved in the production and marketing of coffee and cotton. After independence, Government assigned responsibility for promoting cooperatives to the Ministry of Agriculture and Cooperatives (formed a year after independence in 1962). Two training institutes – Moshi Cooperative College and the Cooperative Education Centre – were established in 1963 to build capacity in the cooperative sector. To ease access to finance, savings and credit cooperatives (SACCO) were promoted and a Cooperative Bank established.

In 1973, under the Presidential Decree on Villagisation (otherwise referred to as the Ujamaa Villages Act), each village was to register as a PCS and all villagers had to join. They procured all farm inputs and marketed their output through the cooperatives. With government support, the CUs established coffee curing factories and cotton ginneries. The PCSs then bulked produce from individual farmers for sale to the CUs, which subsequently marketed the semi-processed coffee and cotton through the parastatal marketing boards. Retained earnings were invested in non-farm sectors including real estate (office blocks) and running hotels. Policy advocacy on behalf of farmers was effectively through the umbrella Federation of Cooperatives, which was closely allied to government.

Liberalisation of crop marketing in the early 1990s created space for private traders as the marketing boards lost their monopoly. The CUs lost market share as preferential access to finance was curtailed. They also failed to restructure their operations in response to the declining volumes traded, hence surrendering any competitive advantage to private traders.

Loss of quality premium and increased price uncertainty are among the challenges that producers have become exposed to after liberalisation. In Box 7, we discuss how some PCSs have managed to address these challenges and so enhance marketing of coffee and cotton by their members by taking advantage of the warehouse receipt system.

With the decline in the role of the CUs, farmers sought alternative advocacy vehicles, leading to the establishment of MVIWATA, which takes its name from the Swahili acronym for "National Network of Farmers' Groups in Tanzania". MVIWATA was formed in 1993 by 22 farmers from Morogoro, Iringa, Tanga, Kilimanjaro, Mbeya and Dodoma. These farmers met each other at a training sponsored by Sokoine University of Agriculture (SUA), and decided to create a lobbying organization. With support and guidance from SUA staff, they created MVIWATA, which was officially registered with the Ministry of Home Affairs in 1995. MVIWATA operates in 19 regions in Tanzania, and is made up of 120 local networks including fruit and vegetable producers, maize producers, livestock producers, natural resource management committees, social service groups for HIV AIDS and others. It is funded by membership dues and several French and Italian NGOs.

Source: Davis J. (1990) and Chilongo T. (2005).

#### Box 2: Cooperatives in domestic grain marketing – the case of Zambia

As was the case in Tanzania (Box 1), the post-independence government of Zambia inherited the modified "cooperative" structures and quickly began to harness them to meet their own national development plans. In 1984 the government decided to promote formation of provincial cooperative unions (PCU) in all the nine provinces of Zambia. As a result six unions were formed in addition to the three which already existed. The new PCUs were therefore the result of an external initiative, not backed by the PCSs, who were however obliged to buy shares in those PCUs. This process contributed to the erosion of cooperative autonomy and self-reliance and was followed later in the 1980s with the assumption by the ruling party (UNIP) of the undisputed lead role in the formulation of cooperative policy and the development of cooperative structures. As in Tanzania, one of the main functions of the PCUs was agricultural marketing, primarily as agents of the National Agricultural Marketing Board (Namboard), which was the monopoly buyer of maize at prices set by the government.

When in the 1990s Namboard was abolished, the cooperatives became marginal players in the grain trade. The grain market became segmented: a formal segment dominated by large-scale commercial producers who were able to access processors directly and under pre-negotiated (remunerative) terms; and a large informal sector dominated by smallholder farmers, which is

severely illiquid and characterised by uncertain market access, high price variability and considerable cheating on weights and quality. In Box 8, we describe how a group of smallholder farmers were able to access the remunerative market segment for grains through the use of the WRS.

Sources: Davis J. (1990)

### 3.3 Post-liberalisation POs in developing countries

Even though the state run system of cooperatives has largely collapsed in many developing countries, especially in SSA, many small-scale farmers see economic benefits in working together. Mercoiret, (2006) maintains that there is a consensus that POs can make an important contribution in determining and implementing sustainable pro-poor development strategies, if they are able to:

- provide services tailored to the demands and resources of their members;
- improve market-empowerment of rural producers by enhancing their bargaining power; and
- leverage decision-making at local, national, sub-regional and international levels.

Bardhan (2005) also highlights two problems associated with collective action, which often arise when some members of POs cannot credibly commit to behave *ex post* in ways that they might promise *ex ante*: (a) the free-rider problem of sharing out the costs of change; and (b) the bargaining problem of sharing out the benefits.

In attempting to reduce these problems, POs which start as "inclusive" could gradually become "exclusive" and internal cohesion could also be impeded (Mercoiret, 2006). There also appears to be a trade-off between engaging professional managers as well as adopting a more entrepreneurial approach to managing POs – as argued by FAO (2001). Furthermore, there is the risk of accentuating principal-agent problems. These issues are borne in mind in reviewing the POs in this section.

#### 3.3.1 Extension or commodity POs (out-growers)

These are self-selected groups of farmers producing the same crop, in the same geographic area, who join together to share labour or receive extension services. Typically these groups are not formally organized or registered, but may have a leadership structure. Ten to 30 members is a typical size, but this varies depending on the crop. Extension groups are also common in other sectors, especially health, where they are used to transmit health messages. Some extension groups are linked to a specific company or commodity, in what is called an "out-grower scheme".

The out-grower schemes are usually intended to reduce transaction costs and facilitate crop purchases (Uliwa et. al., 2004). They sometimes involve provision of inputs such as seed and pesticides to farmers on credit by the companies, which recover the cost of inputs at the time of sale. The companies may also assist in land preparation and often guarantee a base or minimum price before the planting season, though in many cases they pay the prevailing price at harvest time. In Tanzania, tobacco, tea and sugar, as well as minor crops like paprika, flower seeds and safflower are being

produced on an out-grower basis. In Indonesia, out-grower schemes in forestry plantations are reported to be emerging as a more viable alternative to government-run replanting programmes (Nawir et al., 2003). Though the linkages may provide opportunities for farmers to produce higher value crops, there are concerns that the arrangements are tailored more to suit the demands of the companies than the farmer-members. Bargaining power also tends to be skewed in favour of the company and farmers' voice in policy advocacy is rarely strengthened.

#### 3.3.2 Farmers' association

This is a self-selected group of farmers, who engage in collective business activities. Most commonly, the businesses involve collective marketing, where larger volumes of a given crop are easier to sell and/or attract higher prices. These POs may also be undertaking intermediate processing either locally or at regional depots and marketing semi-processed products. It is often the case in Latin America and SSA that POs are heavily engaged in processing and marketing activities. Hellin et. al., (2006) provide numerous examples of these activities in terms of scope and scale as related to POs' market access for high-value agricultural products in Meso-America (Mexico, Central America). Other businesses undertaken by farmers' associations include retailing of agricultural inputs or collective production. In all cases, the group members themselves select the business ventures they are going to undertake. **Business** planning and other training may complement the groups' initiative. associations typically have ten to thirty members, usually from the same village. They may be formally registered or not, and usually have a leadership structure and constitution.

The term "Agricultural Marketing Cooperative" has sometimes been used to describe this type of organization and distinguish it from a Primary Society or Cooperative Union. Being largely focused on collective marketing (Sunga, 2006), they rarely have secondary and tertiary level structures which allow them to influence in policy advocacy.

### 3.3.3 Donor and NGO-promoted POs

The decline of the formal cooperatives created a vacuum in terms of grassroots POs with which NGOs and donor-funded projects in agriculture could work to improve farmers' welfare. In response, and also in part to ensure that support to farmers reach them more directly, many NGOs and donor-funded projects actively promote POs. This may explain why, despite the decline in cooperatives, the number of active RPOs in developing countries is reported to be on the rise. Mercoiret, (2006) notes from recent surveys in Sub-Saharan Africa that 65% of villages investigated in Senegal have at least one PO or grassroots group while 91% of villages in Burkina Faso have similar groups (Arcand, 2004). On the average, rural households with a member belonging to at least one group is 67% in Senegal and 62% in Burkina Faso (Bosc, 2002). Though fragmented, available data for other countries point to a rapid increase in the number of local groups. Between 1987 and 2001, in the departments of Zou and Collines (in Benin), the number of village groups rose from 52 to 578. Women's groups which were nonexistent in the late 1980s were estimated at 250 in 2001 (Mercoiret, 2006). Throughout Tanzania, there are more than 6,000 active POs, with a total membership of about 250,000 small-scale farmers.

Though the development of RPOs in SSA is often driven by external agents, this not always the case, as some groups have emerged largely through farmer-based initiatives at the village level. For instance, about 70 percent of farmers groups which have recently emerged in Senegal are linked to villager initiatives (see Pesche and Nubukpo, 2004; De Janvry and Sadoulet, 2004 page 14).

The POs formed by NGOs and donor-funded projects tend to be registered as associations. Most are primary- or grassroots-level organizations with no link to similar organizations. Some have two tiers, where the primary-level organizations are linked to second-tier representative bodies that facilitate access to inputs and to markets. A good example of this is the Rural Group Business model promoted by the Cooperative League of USA (CLUSA) in Zambia (Box 3). As these forms of POs lack visible apex structures, they tend to be quite weak in terms of policy advocacy. The National Smallholder Farmers' Association of Malawi (NASFAM), however, provides an example of an apex PO, the membership of which includes both grassroots and second-tier structures. NASFAM is a member-owned, democratically governed, and non-political organization that provides business services to its smallholder farmer members. Founded on the principles of collective action and selfreliance, the organization works to empower farmers at the grass-root level, encouraging them to form cohesive village-based clubs and associations in order to realize increasing returns and contribute to economic development. Currently, NASFAM has a membership of over 100,000 smallholder farmers (in 32 Associations) and is well-cited as an effective farmer advocacy group in Malawi.

POs promoted by NGOs and donor-funded projects tend to be acutely dependent on the promoters and therefore their sustainability is often a major concern. The case in Box 7, involving the use of the warehouse receipt systems (WRS) by a smallholder group in Zambia, however, shows that group sustainability could be assured if institutions that assure access to remunerative market segments and other services are developed.

#### Box 3: Rural Group Businesses (RGB) promoted by CLUSA in Zambia

The Cooperative League of the United States of America (CLUSA) has, since 1996, been promoting the RGBs in Zambia as the main thrust of its programme aimed at increasing rural farm income through promotion of sustainable farming technologies. The RGBs were established to assist small-scale farmers' access to inputs and credit, and to overcome the problem of loan delinquency. Based on the out-grower model, CLUSA has promoted links between farmers who are members of the RGBs and agribusiness.

Using facilitators, CLUSA helped form RGBs to fill the gap of failing (mis-managed) cooperatives. The RGBs were initially primary village organizations which in turn organized secondary structures called depots (mainly for maize and soya) which typically comprise 15-25 members, whilst depots typically comprise 2-3 RGBs. The CLUSA RGB program was initially 100% funded by USAID, but subsequently attracted additional funding from IFAD, FAO and the World Food Program (Parker, 2003). However, as a largely donor/NGO-promoted PO, issues of financial sustainability beyond the donor support have been raised, which need to be addressed. Moreover, as compared to NASFAM, the RGBs are far less prominent in policy advocacy due to the lack of an apex structure.

Source: Parker, S. (2003).

#### 3.3.4 Market relations and embedded services for POs

There have been many examples of private-sector-promoted POs with functions that include input/credit delivery, extension services and bulking for delivery to private promoter organization/companies. For example, a number of innovative companies have established out-grower schemes for specific crops (see Section 3.3.1). Other examples include private companies which establish mutually-beneficial trading relations with POs, some of which are discussed in Section 4.

Unlike POs promoted by NGOs and donor-funded projects, these POs do not face the challenge of sustainability. The farmers get locked into long-term business relations with potential mutual benefits for them and the linked companies. However, with a lack of flexibility (since the relationship is often structured on the basis of single commodities) as well as asymmetric information and power problems being a common feature of these relations, the protection of farmer interests may be compromised in the absence of transparent and easily accessible dispute resolution systems. Farmers' capacity to influence the policy process is also likely to be in doubt since these POs tend not to be linked to any apex organizations.

### 3.3.5 Remnants of the cooperatives

Some of the primary cooperative societies (PCS) have managed to survive in countries partly through entering into long-term marketing relations with agribusiness or securing access to lucrative markets for members (as illustrated by cases in Boxes 4 and 6). Their function as direct marketing agents, rather than trading produce through the cooperative unions (CU) as occurred in the past, is being seen as rather more beneficial to farmers. For instance, the Tanzanian government recently passed a "New Cooperative Act (2005)", which attempts to create a framework for the PCS and other grassroots-level farmer organizations to market produce on behalf of members. However, most of the remnant CUs appear to be slow in adjusting to the new legislation.

Most second-tier cooperatives (the CUs) are struggling due to substantially reduced trade volumes and the discontinuation of the old support programmes from government. Those which remain active and relevant to farmers have transformed themselves into service organizations. Examples from Tanzania include the KNCU whose ginnery is offering toll-ginning services to primary-level POs in the cotton sector. Another is TCCCo, which runs a coffee curing factory that is registered as a warehouse operator, offering services to primary-level POs in the coffee sector. These CUs have not only found a financially viable function, which can support their significantly down-sized bureaucracy, but their services have enabled the primary-level POs to participate effectively in competitive crop markets. Another example is the Nyakatonzi Cooperative Union in Uganda which is also offering toll-ginning services to some member PCS.

#### 3.3.6 National and regional federations of producer organizations

These are national or regional organizations typically made up of, or representing, second tier organizations. The most visible examples of national federations of POs from Africa include the Uganda Cooperative Alliance, Zambia National Farmers Union, and the Kenya National Federation of Agricultural Producers (KENFAP) formerly known as the Kenya National Farmers Union (KNFU). They are registered democratic umbrella agricultural producers' organizations, which have been quite effective in lobbying and advocacy. They often receive significant support from donors and tend to work closely with governments. However, it will appear from the cases cited in Section 4, that their capacity to link effectively grassroots and second-tier POs to lucrative markets needs to be enhanced.

The emergence of federative farmer organizations at regional levels is another phenomenon observed by Mercoiret (2006) and Wennink and Heemskerk (2006). Regional integration has been one of the factors spurring the emergence of such organizations as the Network of Producer Organizations and Agricultural Producers of West Africa (ROPPA), the Regional Platform of Central African Producer Organizations (PROPAC), the Eastern African Farmer Federation (EAFF)<sup>8</sup> and by Southern African Confederation of Agricultural Unions (SACAU)<sup>9</sup>. Their main functions are lobbying at regional levels but their effectiveness is often limited by the following: (i) lack of sustainable funding mechanisms; (ii) absence of forums for fair and transparent consultation and dialogue with national governments; and (iii) access to information and training.

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<sup>&</sup>lt;sup>8</sup> Examples abound in Africa (Heemskerk, and Wennink, 2005), in Senegal (Mercoiret, 2006; de Janvry and Sadoulet, 2004), in Burkina Faso, (Arcand, 2004), in Benin, (Mercoiret), in Chad (Cirad, 1996), etc. One of the advantages of World Bank-funded agricultural services support programmes is actually to help isolated groups emerge from their isolation. Such was the case for instance of PSAPOP in Senegal (Mercoiret, 2006).

<sup>&</sup>lt;sup>9</sup> Southern African Confederation of Agricultural Unions (SACAU) was established in 1992 as a loose federation of Farmers' Organizations in Southern Africa, with constitution, rotating chairmanship and secretariat. The vision of SACAU is to attain regional co-operation and understanding among farmers' organizations, agricultural leaders, and the farming community in the SADC region. This is considered vital in strengthening the voice of agriculture in its relations with governments and other stakeholders to promote the well being of all the farmers and the overall viability of agriculture in the region. Currently, regional and international trade is regulated through agreements and protocols drawn up by member states of various trade pacts such as SADC, COMESA, SACU, WTO, etc. In this context, SADC plays an important role in representing farmers' interests in the negotiations for trade agreements and policies that have impact on farmers' sustainability. However, because of lack of finance and human resources, SACAU has been unable to perform active lobbying and advocacy with the various stakeholders and to significantly influence policies and agreements.

#### 4. Innovative marketing arrangements beneficial to POs

#### 4.1 Introduction

In this section, we review innovative institutional mechanisms and systems, which producer organizations have deployed to help farmers optimise benefits from and/or minimise the adverse impact of changes in input/output markets. The focus of the discussion is on developing countries, where small-scale farming is the norm and the capacity of producers to adjust to the challenges in the markets is more restricted.

#### 4.2 Marketing traditional export commodities

Marketing innovations which producers have adopted/developed to enhance their returns in the face of these constraints include the following: linkage to niche/speciality markets for traditional export commodities which are led by POs; long-term partnership arrangements involving international traders and POs to market traditional export commodities in mainstream markets; and the use of innovative market institutions such as warehouse receipts and commodity auction systems to access mainstream markets for the traditional agricultural exports. These are discussed below.

#### 4.2.1 PO-led linkage to niche/specialty markets

Partly driven by consumer concerns about the environment, labour and social policy issues, markets for fair-trade and organic products are growing very rapidly. For instance, Fair Trade Labelling Organisation International 10 estimates the global trade in fair-trade-certified products to be about US\$3.0 billion. Though this represents less than one percent of global trade in physical merchandise, about 1.5 million smallscale producers worldwide benefit from it. Annual sales of organic products in the United Kingdom, for example, exceed US\$4 billion<sup>11</sup>. However, access to these markets by smallholder producers in developing countries is restricted because of stringent certification requirements.

Kuapa Kokoo (Ghana), which is a farmers' cooperative, is one example of a PO which has succeeded in securing access to the fair-trade cocoa market for smallholder farmers (Box 4). Kuapa exports about 1,000 tonnes of cocoa annually under this arrangement, at a "fixed fair price", and has launched its own chocolate bar label ("Divine"), produced by a Europe-based manufacturer in which it has a 45 percent stake. In addition to enjoying premium prices, members can also obtain credit for farm maintenance and benefit from community projects funded by the PO.

Kuapa Kokoo entered the domestic cocoa trade in Ghana following the partial liberalisation of the sector in the 1990s. Financing for the domestic procurement of cocoa was provided by the Cocoa Marketing Company (CMC), which retained monopoly over cocoa export. Kuapa bought cocoa using its network of village

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<sup>&</sup>lt;sup>10</sup> Reported by the Fair Trade Labelling Organisation International on its website in May 2007 (www.fairtrade.net).

Estimate contained in the Soil Association's Organic Market Report (2007).

cooperative societies, which constituted its primary membership – a system that was promoted under the old state-led marketing system. Most of their purchasing clerks at the village-level were recruited from retrenched staff of the old parastatal "Produce Buying Company". Though it faced little or no competition from international buying companies due to the export monopoly enjoyed by the CMC, Kuapa Kokoo was keen to secure better terms under the innovative marketing arrangements that also allowed for value-addition.

The case in Box 4 illustrates how Kuapa Kokoo was able to achieve its goal of better trade terms for its members partly through selling into the fair-trade market. The PO obtained technical assistance in building its capacity to comply with the standards and certification system enforced by the Fairtrade Labelling Organisation. Effective leadership, particularly by its Chairman, also proved critical to its success. However, the bulk of cocoa produced by its members is still sold into the mainstream market.

#### Box 4: Farmer cooperative accesses fair-trade markets – Kuapa Kokoo (Ghana)

Following liberalisation of the cocoa market in Ghana in 1993, a number of leading farmers, including Nana Frimpong Abrebrese – who was the representative of farmers on the Ghana Cocoa Board – set up Kuapa Kokoo, a farmers' co-operative. Kuapa was originally licensed to buy cocoa from its members and sell to the state-owned Cocoa Marketing Company (CMC), which had monopoly over cocoa exports from Ghana. The intention was to minimise farmers' loss through cheating on weights and quality, through instituting a transparent procurement system and to share the benefit from trading with the members, through paying bonuses to them. It has over 30,000 members organised in approximately 1200 village societies.

In 1995, the cooperative earned accreditation from the Max Havelaar Foundation as a Fair Trade company, because:

- it deals directly with small-scale farmers;
- member-farmers get more for their cocoa beans than the prevailing market price, which includes a premium dependent on the difference between the wholesale price sold and the fixed minimum fair trade price;
- farmers can get credit; and
- the agreements with the farmers are long-term.

Kuapa exports about 1,000 tonnes of cocoa under the fair-trade label annually at a fixed "fair" price, which removes price uncertainty. The fair price is set by the Fairtrade Labelling Organisation, which is an independent, global Fairtrade Standard setting and certification organization. Kuapa also receives an additional "social premium" to finance community projects such as provision of clean water and health facilities and construction of school and education centres. Kuapa has promoted a credit union, which is reported to have eased dependence of farmers on moneylenders, who charge very high interest rates.

In 1998 the Kuapa launched their own Fair Trade chocolate bar called Divine – produced by a Europe-based manufacturer in which it has a 45% stake and with two representatives on its board. This represents a unique move to bridge the gap between the cocoa farmer and consumers, making it possible for Ghanaian farmers to have a say in how chocolate is produced and sold, as well as a share in the profits.

Source: William McKibben, "The International Herald of Taste", No. 38, January 2003.

#### 4.2.2 International trader-led linkages improving mainstream marketing

Supply uncertainty and quality variability have not only affected producers, as discussed above, but also tends to create difficulties for end-users of primary agricultural products (Laven 2005). In response large international traders, especially those with visible brands, and whose scale of operation is increasing partly through takeovers, have become increasingly involved in coordinating activities in value chains for various commodities. One such case, which has proved mutually beneficial to producers and the lead international trader, is discussed in Box 5. The main benefit to the trader is assured supply of high quality produce (coffee) while farmers gain from higher prices as well as quality-linked awards funded by the trader. Its success can be attributed to the significant investments by the trader in the provision of training in quality assurance and market information services. It is largely because of the focus of the trader in assuring high quality produce that it was, reportedly, not interested in certifying the linkage as fair-trade – which principally certifies the producer and payment of a fair price and has no mechanism to enforce commodity quality standards<sup>12</sup>.

### Box 5: Illycaffè and procurement of quality coffee from Brazilian farmers

Illycaffè, an Italian coffee roaster, which markets worldwide an elite Arabica coffee brand, procures superior-quality Brazilian green coffee, which accounts for about 60 percent of its coffee blend. Its products are marketed in over 70 countries through more than 40,000 outlets, which serve an estimated five million cups of coffee daily. During the early 1990s, coffee beans exported by Brazil were often of low quality, with 70 percent of supplies submitted to Illy's strict selection process being rejected.

The Company's strategy to ensure a regular supply of high quality coffee beans, involved identifying producer groups who were able to supply directly coffee which meet the required quality standards. The coffee beans bought are sealed in lots directly from the producer and labelled to ensure traceability. To expand its supplier base and ensure broad participation by small-scale farmers, the company reduced its minimum lot quantity from 150 to 100 sacks (7.5 to 5.0 tonnes). Small-scale producers were also allowed to aggregate their production and supply collectively.

Through collaborative effort instituted in 2000 between the School of Economics and Business of the University of São Paulo and the Illy Coffee University (Unilly), which is dedicated to sharing information on coffee production management techniques, the company provides training to the participating farmers in production processes. It also provides market information updates to farmers and has, since 1991, instituted an annual competition (Prêmio Brasil De Qualidade Do Café Para Espresso) for Brazilian growers of the best green coffee (cash prizes range from US\$1,000 to US\$30,000).

Over 600 small-scale and large-scale Brazilian producers participate in the company's programme, which has encouraged producers to invest in quality by paying the producers above-market prices. The company has also secured a supply of coffee that meets its demanding quality standards, while growers enjoy higher profits. The Brazil coffee industry has reportedly enhanced its reputation as a quality producer through this arrangement.

Source: Alianzas Productivas: Estudio de Caso - "Illycaffè e os desafios do crescimento no Brasil" (FAO/RLAC, 2001).

<sup>&</sup>lt;sup>12</sup> David Smith in an article in Guardian of 26<sup>th</sup> May 2007 entitled "Is fair-trade enough?".

#### 4.2.3 Using innovative institutions to market traditional exports

In the preceding cases described above, we see how specific producer organizations and relatively large end-users can structure long-term supply arrangements on the basis of internationally accepted standards and rules or mutually agreed terms and conditions. In this sub-section we describe how a variety of farmers (groups of smallholders and individual large-scale producers) can use a market-institution such as the warehouse receipt systems (WRS) to boost beneficial trade with multiple (non-specific) buyers of traditional agricultural export commodities. The WRS has proved to be a pivotal innovation because it simultaneously leads to a variety of benefits – as illustrated by the Tanzanian cases in Box 6 – including the following:

- a) Reducing transaction costs by independent enforcement of commodity standards and allowing trade by description to occur with minimum risk of counterparty non-performance. Under the WRS, a reputable third party (warehouse operator) guarantees delivery of commodities deposited by a named holder of a warehouse receipt, specifying the quality and quantity of the commodity deposited/stored as well as the delivery location. Where the system is regulated or if parties so wish, receipting can be subject to compliance with specified commodity standards. The guarantee of delivery is usually backed by insurance and performance bonds.
- b) Shortening the commodity chain making it possible for groups of farmers to bulk their produce and subsequently deliver to end-users, who are assured of the quality and quantity of the commodity being traded.
- c) Easing access to finance, thereby making it possible to finance initial bulking of commodities, without compelling depositors (farmers or traders) to achieve household or firm-level liquidity only through cash sales. This is because the WRS allows transfer of title to underlying commodities, hence making it possible to collateralise the commodity.

#### Box 6: WRS pilots to coffee and cotton in Tanzania

Under a project funded by the Common Fund for Commodities (CFC), a network of coffee curing factories (previously owned by cooperative unions) were certified as warehouse operators, and allowed to receipt deposits of parchment coffee (Arabica) that conforms to adopted grading standards. Depositors included primary cooperative societies (PCS), other farmer associations and private traders. Participating PCS – numbering 32 with membership of over 3,500 – procured parchment coffee from their members, making an initial payment representing about 60% of the market price. Finance of up to 80% of the value of the parchment is then provided by a bank, with the stocks being used as the collateral. This financing allows the PCS to buy volumes of more than 10-times its working capital as the credit provided depends on the volume deposited.

The certified operator processes the parchment into green coffee, which is marketed through a competitive bidding process at the Moshi Coffee Auction. Proceeds from the sale are channelled through the financing bank, allowing it to recover credit advanced. Since the 2002/03 season, financing to the tune of about US\$10 million has been provided to the range of depositors by two commercial and one cooperative bank in Tanzania. Members of the participating primary cooperative societies on the average obtain US\$1.10 per kg of parchment coffee sold using this system – usually paid out in three instalments. Comparative figures for farmers selling to their cooperative unions and to private traders are US\$0.75 (usually through two-to-three instalments) and one-off payment of about US\$0.65 per kg of parchment, respectively.

Using a similar systems, with a cotton ginnery owned by a cooperative union as the certified warehouse operator, one cotton PCS earned enough profits to finance area under cultivation by its members by more than 10-fold in three seasons. In the 2004/05 season, the PCS was able to market lint to a UK-based trader, thereby more than doubling farmers' margins.

Source: NRI reports (various).

#### 4.3 Marketing food staples in domestic and regional markets

Liberalisation of staple food markets in developing countries, especially SSA, may not have led to significant worsening in household food insecurity, as noted by Coulter and Poulton (2001), but these markets remain inefficient, often characterised by the following:

- a) periodic shortages and gluts;
- b) high price volatility, which is detrimental to both producers and consumers, especially the urban poor and poor households in food-deficit regions;
- c) wide distribution margins and cheating on quality/quantity, which tend to particularly affect poor smallholder farmers;
- d) weak bargaining position of farmers, due to lack of market information and limited capacity of under-capitalised traders to absorb surpluses at harvest; and
- e) high transaction costs.

Improving the functioning of these markets will help raise farm productivity as the inefficiencies reduce producer incentives to invest in yield-enhancing inputs and technology. Furthermore, if regional market opportunities in staple foods (e.g. maize in most regions in Africa) are developed, it is anticipated that earnings accruing to producers could equal or even exceed earnings from the traditional agricultural export commodities<sup>13</sup>. However, lack of harmonisation in commodity standards, disabling and unstable trade policies, under-developed regional payments and financing systems and physical infrastructure constraints severely limit regional trading opportunities.

Agricultural commodity exchanges are seen as crucial in boosting domestic and regional trade in staple foods in Africa<sup>14</sup>. South Africa has the most successful agricultural commodity exchange in Africa. Trading by the Agricultural Products Division of the South African Futures Exchange (SAFEX) – now owned by JSE Securities – has boosted agricultural trade, finance and risk management in the country. It has also enabled South Africa to effectively exploit regional grain market opportunities in the Southern African region (Box 7). Commodity exchanges can help address some of the major constraints in agricultural marketing systems, as outlined above, because of the following potential benefits:

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<sup>&</sup>lt;sup>13</sup> DFID (2006) "Promoting growth in Africa: agriculture", DFID Update produced for Africa Growth Conference and updated in June 2006.

<sup>&</sup>lt;sup>14</sup> In recognition of the potential benefits, African Trade Ministers at a meeting in Arusha, Tanzania in November 2005, resolved that AU members should promote agricultural commodity exchanges and warehouse receipts systems.

- a) The system creates a means by which sellers and buyers are brought together to trade on the basis of reliable information on the quality, quantity and location of commodities to be traded. It avoids the high-cost and time-intensive process of physical sampling of goods before purchase, which is predominant in the informal agricultural trade. Hence, it reduces the cost of sourcing produce for traders and processors, while lowering the cost of accessing markets, especially for premium quality produce, for farmers.
- b) The guarantee of delivery by the exchange, based on the guarantee by warehouse operators holding the traded stocks, reduces the risk of non-performance of trade contracts. Sellers are also assured of payment for the commodity, with systems being in place to minimise the risk of default by buyers, especially when the market moves against them. The greater security in trade transactions provided, leads to significantly lower cost (including time lost) associated with contract enforcement, especially where litigation is time consuming and expensive.
- c) Exchange trading improves collection and dissemination of market information to all players. Prices on the exchange, discovered through a transparent process, are widely disseminated. Brokers, who are expected to facilitate trade and provide market advice to their clients, receive and analyse price-sensitive market information, thereby assisting buyers and sellers in making trade decisions.
- d) The commodity exchange represents a transparent and often reliable means by which lenders can liquidate collateralized commodities in the event of default by the borrower and, therefore, facilitates access to commodity finance. The exchange also offers a means to hedge price risks, thereby allowing lenders to secure income flows sufficient to cover loan servicing obligations.

Lack of appropriate physical infrastructure (particularly storage facilities), underdeveloped financial markets, scale diseconomies due to lack of effective mechanisms for bulking produce from smallholder farmers, lack of a supportive regulatory framework and disabling policies are among factors detracting from the development of these market institutions in many developing countries (Coulter and Onumah, 2002). However, POs could play an important role in leading processes (including implementation of projects as well as advocating the creation and maintenance of supportive regulatory and policy environments) to establish these market institutions.

# Box 7: Boosting regional and domestic trade in staples – role of commodity exchanges (SAFEX, South Africa) and warehouse receipt systems (Zambia)

SAFEX started trading futures and options contracts for agricultural commodities in 1995, following deregulation of agricultural markets in South Africa. Starting with only five brokers it now has 52 active brokers representing over 12,000 clients. Maize contracts traded monthly on SAFEX represent over 50% of South Africa's annual output of the crop. This is possible because physical deliveries represent less than 10% of the contracts traded and are declining. It demonstrates that market players use SAFEX more for efficient, low-cost risk management than for trading. Factors which contributed to the success of SAFEX include the following:

- Deregulation of agricultural markets by the South African government in 1995, creating space for the private sector and making market-based price risk instruments viable.
- Government commitment to stable agricultural trade policy, including non-interference in price discovery, even when imminent deficits or glut could justify such an intervention.
- Collaboration of key stakeholders, including the National Farmers Union, Millers Council and the banking community on the Agricultural Marketing Council.

- Participation by major silo operators offering secure and reliable warehousing services trusted by lenders and depositors (many of which are large-scale farmers).
- An efficient and well-developed financial sector, which was willing to explore new financing and investment opportunities.
- A stable macroeconomy.

**Zambia** is yet to develop a viable agricultural commodity exchange but a warehouse receipt system, established under a project funded by the Common Fund for Commodities (CFC) and implemented by the Natural Resources Institute (NRI), has created the foundations for such an exchange and one which will be accessible by smallholder farmers. Implementation of the WRS project was launched in 2000 and its pilot use occurred in the 2003/04 season. Its most successful season was the 2004/05 season when the following outcome was achieved:

- 4 Certified warehouse operators (total capacity 105,000 tonnes)
- Grain deposits of over 65,900 tonnes (2,100 tonnes from smallholder farmer groups)
- Receipted stocks financed at average advance rate of 78.6%
- Participating banks: Intermarket Discount House, Barclays, Standard Chartered and Stanbic Bank

Though policy uncertainty has hampered growth of receipting activity in Zambia, the pilot successfully demonstrated that it was possible for smallholders to use such a system to trade with large processors and to obtain finance from lead banks such as Barclays Bank.

Source: JSE website, Bayley (2000) and NRI reports.

#### 4.4 Trader-led linkage to international markets for horticultural products

Horticultural export markets represent important trade opportunities for producers in developing countries. For instance, Argentina in 2004, earned about US\$4.5 billion from export of fruits and vegetables to Europe and America. However, the imposition of food safety and more stringent quality requirements is raising access barriers too high for many small-scale producers. Exports into Europe, for example, may need to comply with many of the following requirements: EurepGAP, HACCP/GMP, BRC, ISO9001, ISO14000 and Social responsibility norms (SA 8000) as well as meet special requirements demanded by the large supermarkets. Higher crop husbandry costs as well as the cost of certification are among the factors that discourage entry into these markets by small-scale farmers. In Box 8 we discuss a private-sector-led initiative that has enabled Ghanaian producers of horticultural produce to overcome these challenges.

## Box 8: Overcoming barriers to markets for high-value produce – the case of Blue Skies Company Ltd, Ghana

Blue Skies Company Limited was established in the Eastern Region of Ghana in 1998 by a private investor to process fresh chilled pineapple, mangoes, watermelon, passion fruit and papaya for export. Fruits processed are sourced mainly from Ghana, with supply gaps being filled by imports from Brazil, Egypt, Kenya and South Africa.

Blue Skies targeted the high value end of the European market, focusing mainly on the major European supermarkets. Its products therefore had to be certified as meeting the EurepGAP protocol for quality practices. To ensure this, the Company established linkages with farmers and undertook the technical and financial responsibility for certification for all

its suppliers. Those who are EurepGAP-certified are obliged to sell to them because of its investment in obtaining certification. The company sources from some 135 suppliers, including 77 small-scale producers of pineapple who have recently been certified as organic Fair Trade. Blue Skies does not work with formal cooperatives, which in Ghana were active mainly in the traditional export and staple crops, but with smallholders in groups which the company has promoted. It pays for fruits delivered to the factory or the farmgate two weeks after delivery. It does not provide credit to farmers nor link them to any financial agents, but offers inputs and equipment on hire-purchase without interest.

Farmers receive free technical training and advice from Blue Skies staff to ensure that produce meets safety and quality requirements, and experts from Europe and South Africa visit farmers to ensure that they comply with EurepGAP standards. Blue Skies has also adopted a code of responsible business practice that is partly in response to demands by its major customers, but extends beyond the minimum guidelines required by buyers.

The company has grown rapidly, increasing its processing capacity from one tonne to about 120 tonnes of fresh fruit per week. Prompt payment and higher prices have been the main attraction for the farmers involved in this programme. This has ensured regular supplies from producers, who are able to comply with the food safety and quality standards as a result of the training received and the inspection system which is funded by Blue Skies. In addition, improvement in road infrastructure has enhanced access to farms by company trucks, which therefore reduces the burden on farmers to transport produce to the processing plant.

Source: Angela Dannson, Stephanie Gallat and Alexandra Röttger (2005) - Report produced for FAO.

### 4.5 Linking smallholders to local and regional supermarkets/processors

As noted in Section 1, supermarkets have emerged as major players in food supply and distribution in developed as well as developing countries. Their influence in food supply chains in developing countries is, however, quite recent and offer opportunities for farmers to access more remunerative and/or more stable markets. Product quality standards set by the supermarkets, which are usually driven by consumer taste and preferences, tend to be more stringent than is the case in the informal food markets. Standards for vegetables, for instance, may include: clean produce, neat packaging, no evidence of insect damage, appropriate length and/or width (Ngugi et al 2006). They may also require that produce is harvested at particular stages and the use of clean water for irrigation. The supermarkets may even require that particular crop varieties are planted and definitely demand that suppliers deliver volumes which are agreed in their contracts.

Linking farmers to large-scale processors also provides opportunities for better and/or more stable marketing. For instance, smallholder farmers who sell maize directly to millers in Zambia make significant income gains by avoiding "cheating" on weight and quality if they market through informal intermediaries<sup>15</sup>. However, if they are to meet the stringent quality standards and delivery requirements related to volumes and schedule, then smallholder farmers are better-placed to do so as groups using a

<sup>&</sup>lt;sup>15</sup> G. Onumah in a study of the maize sector in Zambia in 2002 found that maize of smallholder origin was usually discounted by up to 15% because of perceived quality variability. In a similar study in Ghana (in 2000), it was observed that the difference in standard "bush weight" and "wholesale market weight" by almost 20%.

widely-accessible market institution (as in the case in Box 7) and/or linked to major buyers or processors (as in the cases in Boxes 9 and 10 below).

## Box 9: Private sector lead in linking small-scale producers to supermarkets – the case of Bimandiri Company Ltd., Indonesia

Bimandiri was established in 1994 and by 2000 had become a dedicated wholesale supplier of vegetables to Carrefour (Indonesia). The Company does not produce its own vegetables, but has production agreements with different smallholder farmer groups in West Java. Among the products it supplies is the exclusive Baby Black Watermelon, which will also be marketed to other Carrefour stores in SE Asia. The Company is also collaborating closely with Carrefour to supply standardized products of broccoli and chilli.

Partnership arrangements between the Company and farmer groups includes quantities to be delivered and quality standards. It supplies a range of inputs (seeds, pesticides, fertilizer), undertakes post-harvest handling operations (selection, preparation, packaging and transport) and arranges planting and harvesting schedules to ensure continuity of supply and consistent quality, to meet Carrefour's standards. It also provides extension advice on best farming practices and product standardization. The cost of these additional services to growers is covered through the margin that Bimandiri receives from Carrefour – which is reported and set transparently. Producer prices are either fixed in advance or related to returns within a floor/ceiling price range. As a result of this arrangement, Birmandiri's gross sales increased substantially since 2001 while participating farmers enjoy better returns.

Source: "Organizing the Supply of Fresh Product for Carrefour in Indonesia", by A. Rivani and Sandredo (Bimandiri, 2005).

#### Box 10: Brookside Dairies Ltd, Kenya

The Brookside Dairies Ltd was established in 1993 with an initial processing capacity of 5,000 litres of milk per day, its main plant being located 25 km from Nairobi. Its processed milk is sold mainly in Nairobi and other urban centres.

To expand its supply base and increase throughput, the Company developed an elaborate relationship with organized groups of registered farmers with formal supply contracts, indicating how much milk each farmer will deliver daily. These arrangements helped the company plan capacity utilization and optimal use of its transport. Farmers are normally grouped into collection centres, which serve to collect milk and provide such services as inputs. The delivery centre collects and tests the delivered raw milk, which is collected by the company and transported to its processing plant.

Brookside also provides extension services, artificial insemination and quality veterinary drugs, as well as animal feeds sourced from reliable companies at wholesale prices. These are resold to dairy farmers through the collection centres on credit, with recovery being affected from the milk proceeds. Prices charged for these services are usually set at the wholesale prices plus a margin to cover the cost of transport and other overheads.

This arrangement assures farmers of stable access to a market outlet, price, supply of inputs and therefore production costs. As a result, the Company is now supplied by more than 15,000 dairy farmers and its processing capacity has increased to 200,000 litres per day – becoming the leading milk processing firm in Kenya.

Source: "Farm-agribusiness linkages in Kenya", by Tom R. Wambua (report prepared for FAO 2002).

#### 4.6 Market information systems and commodity marketing

Market information systems (MIS) usually involve the collection, processing and dissemination of information on prices as well as demand and supply of widely-traded agricultural commodities and services from key markets, including rural assembly markets and wholesale and retail markets. The information, which is collected on a regular basis, is often delivered to farmers, traders, processors, lenders (especially those providing inventory-backed finance), government officials, policymakers and the general public. The media used in disseminating market information include print media, radio broadcasts, e-mails, web-based uploading of data, fax messages and text messaging via mobile telephones. In Box 11 is an illustration of the benefits of a MIS, which can potentially foster trade at domestic, regional and international levels.

# **Box 11: Caribbean Agribusiness Market Intelligence and Development Network (CAMID)**

CAMID was established in Trinidad and Tobago in May 2001 by a network of private agribusinesses and the public sector to promote market development through provision of information on the following:

- Spot prices for selected commodities allowing market participants to track current and historical price trends.
- Supply forecasts based on information collected from sub-district levels and collated at regional and national levels. This information reduces the search cost for buyers and facilitates contacts with potential sellers.
- Demand forecasts are based on historical data as well as surveys of major buyers. This information reduces the cost of searching for and initiating trade with potential buyers. Analysis of price trends as well as supply and demand forecasts allows producers and up-takers to forecast future price levels on the basis of which they can take informed marketing and procurement decisions.
- E-commerce trading facilities, which are linked to the MIS, allow sellers to post
  information on commodities and services (including for instance available freight
  services) and so attract a wide range of buyers. Furthermore, buyers can browse
  and select needed products from potential sellers and advertise their requirements
  online.

The Nairobi-based Regional Agricultural Trade Expansion Support (RATES) programme, funded by USAID, has developed a similar system – the Regional Agricultural Trade Intelligence Network (RATIN) – for Eastern and Southern Africa.

Source: A. Iton and S. Njukia in Proceedings of Expert Meeting on Market Information Systems and Agricultural Commodities Exchanges held in Amsterdam, The Netherlands (28-30 November 2005).

The main challenges in developing MIS include assuring the sustainability of the systems, especially when initial donor funding is exhausted as well as ensuring that the information provided is reliable, timely and accessible by smallholder producers (Kleih et al., 2006).

### 5. Summary and emerging issues

## 5.1 Summary of changes in markets and POs and their innovations

Agricultural marketing systems are changing, driven by both internal and external factors such as liberalisation, urbanisation, the rise of supermarket chains and globalisation. These changes do create new market-based opportunities for small family farms in both developed and developing countries. New opportunities have emerged in the form of niche markets for traditional primary agricultural commodities, e.g. organic and fair trade markets for cocoa, coffee, banana etc. Markets for non-traditional horticultural exports are growing while the rise of supermarkets and growing demand for processed convenient foods in developing countries is creating new market opportunities for even domestic staples.

The process of change in these markets, which is evidently set to continue in the foreseeable future, also creates significant market access challenges for smallholders, including the following:

- a) Difficulty in assuring consistent delivery of quality produce, an issue that has become particularly important not only because of evidence of increasing quality variability following the reforms in the old marketing systems but also because of growing consumer concerns about food safety and other standards.
- b) Ensuring regular and reliable supplies suited to the needs of end-users.
- c) Minimising transaction costs arising from the high cost of assembling low volumes from a large number of widely-dispersed production units and/or uncertainty regarding contract performance.
- d) Predictable prices that allow producers, intermediaries and end-users sufficient margins to make their investment worthwhile.

Hence, the future and prosperity of smallholder farmers depends on how their organizations can help them overcome these challenges, especially for smallholder producers in developing countries, who operate in a difficult environment with poor infrastructure, weak or missing market-supporting institutions, lack of finance and often disabling policy and regulatory framework. However, the pressures leading to change in markets are also contributing to changes in the form and functions of farmers' producer organizations (PO). The Government-led sponsored cooperatives have become marginalised in most developing countries following the dismantling of state-led "single channel" produce marketing systems to which they were closely linked in the past.

Grassroots/primary-level POs promoted by NGOs and donor-funded projects have become more common while the remnants of the cooperative movement have had to transform themselves – in some cases with the second-tier structures turning into service providers facilitating direct marketing by member primary cooperative societies. While grassroots/primary-level POs are growing in number, links to apex structures have not been strengthened, making it difficult to pursue critically-needed policy advocacy with visible credibility. It is also apparent that governments may have been slow to effect legislative reforms which will boost the new forms of POs and strengthen links with apex structures. Dependence appears to characterise POs promoted by NGOs and donor-funded projects, thus raising concerns about their sustainability, even if successes achieved make replication attractive.

A range of new marketing arrangements, most of which link primary (grassroots) producer groups to specific "uptakers" or identified niche markets have been discussed. Most of these tend to be mutually beneficial to players in the chain. However, the specificity of many of these linkages tends to limit scaling up participation by farmers – expansion is limited by absorption capacity of the participating end-users – and usually implies significant self-selection that leads to exclusion of large sections of the farming population. This situation may also limit replicability of any of these innovations though sustainability is not in doubt, so long as prospects for the specific "uptakers" or identified niche markets are good. Most of the new marketing systems are primarily based on trust (Shepherd 2007) and there is a dearth of evidence on transparent and credible systems to resolve disputes which are likely in these linkages which appear to be characterised by information and power asymmetry.

Only few of the innovations are centred around market institutions, such as the WRS, commodity exchanges and market information systems, which allow producers (of different sizes, etc.) to meet market-driven quality and volume demands but also enjoy the potential benefits of trading with a number of competing buyers. Access to these market institutions can also be broadened beyond a few groups. The development of these market institutions require supportive policy and regulatory environments, often more so than the private arrangements which have been discussed. The apparent marginal role played by apex organizations in promoting new POs and market linkages, as the process is increasingly being led by NGOs, donor-funded projects and the private sector, may have weakened capacity of farmer representative organizations to pursue policy and regulatory reforms which will foster such market-supporting institutions.

### **5.2** Emerging issues for further study

It is apparent that most of the marketing innovations are private-sector-led and tend to be mutually beneficial to them and producers. However, the specificity of many of the linkages often limits the scaling up of participation by farmers and implies significant self-selection that leads to exclusion of large sections of the farming population. This situation can also limit replicability of the innovations, which are often based on trust – a potential risk in contractual relations characterised by information and power asymmetry as well as lack of transparent and credible dispute resolution systems. Innovative market institutions such as the WRS and commodity exchanges, allow producers of different sizes to meet market-driven quality and volume demands and also enjoy the benefit of trading with a number of competing buyers. The cases discussed show that smallholders can access to these market institutions. However, to be viable, there is need for appropriate physical infrastructure, a supportive policy and regulatory environment as well as an engaged private sector actively contributing to development.

POs play an important role in organising and training producers to take advantage of the market innovations and especially those supported by NGOs, donor-funded projects and the private sector. However, limited support to apex organizations may have weakened the capacity of POs to effectively advocate policy and regulatory reforms which will foster market-supporting institutions. Based on these considerations, the following issues emerge as critical for further exploration:

- What generic and context-specific policy, regulatory and institutional reforms are required for viable market innovations which are also accessible to smallholders?
- What is the scope for aligning public/donor investment in storage, communications and transport infrastructure to programmes designed to improve market access?
- Can feasible, low-cost and credible systems of quality assurance and trade dispute resolution be developed and put in place to improve transparency and lower enforcement costs?
- What are the best mechanisms to strengthen the capacity of POs at different levels (primary, second-tier and apex) in order to build resilience and anticipate future changes in markets as well as develop appropriate innovative responses? Option might include:
  - Promoting lesson-sharing as well as fostering links between POs and researchers, policymakers, and other market players; and
  - Developing or strengthening national-level structures that foster policy dialogue by the farming lobby and also help embed lessons learnt by POs, especially on the development of viable market innovations.

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