

# The Importance of Forming and Funding Collaborative Marketing Groups for the Survival of Smallholder Farmers in Asia

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## Abstract

In developed countries such as the USA and Western Europe, the market share of fresh fruit and vegetable sales by the major supermarket chains can be as high as 80%. In China, with growth rates averaging between 30% and 40%, it is anticipated that supermarket chains will gain a greater market share in Asia. Because of their size, supermarket chains source their product globally and focus on maximizing returns for shareholders, keeping costs low for consumers, and providing a safe product. To be competitive, smallholder farmers need to supply a large volume of safe and high-quality fruit. However, unless they increase their bargaining power, they will become price-takers. Regrettably, most smallholder farmers in Asia lack the income to introduce new technologies such as fertilizing and irrigation to improve fruit quality. Sometimes these management inputs are funded by the trader and supermarket chains through outgrower schemes. However, this leaves the farmer vulnerable to exploitation. We suggest that the best means for smallholder farmers to remain viable in global supply chains is to establish economically sustainable collaborative marketing groups. We propose a new way to fund the establishment of these groups, whereby international aid agencies or national governments fund a core nucleus of farmers (10 to 50) and contract them to implement new technologies. This will deliver a greatly improved product and significantly increase grower returns, often in the order of 5 to 10 times their current net farm profit. We suggest that a portion of the improved profits from this core group be retained to provide short-term start-up funds for additional groups of farmers to implement new technologies. Consequently, the process of farmer improvement will become self-generating and self-sustainable without the need for additional support. Furthermore, we propose that the more successful farmers levy themselves to establish and maintain marketing infrastructure and activities such as training and cool chain management. Governments and aid agencies will need to support these

marketing groups by providing long-term technical assistance as well as social facilitators to develop trust and maintain unity within the groups.

**Keywords:** farmers; funding; international aid; marketing; supermarkets; supply chain

**Abbreviations:**

ABS - Australian Bureau of Statistics

ACIAR - Australian Centre for International Agricultural Research

AUD - Australian dollar

AusAID - Australian Agency for International Development

EurepGAP - European Good Agricultural Practices

FAOSTAT - Food and Agricultural Organization of the United Nations  
Statistics Database

MFI - microfinance institution

QA - quality assurance

USD - US dollar

USDA - United States Department of Agriculture

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## Introduction

With the exception of some tropical fruits, the production and consumption of fresh fruits and vegetables in the developed countries is leveling off. Conversely, production and consumption is increasing in the developing countries, including Asia. Due to changing diets, the returns from high-value agricultural crops such as fresh fruits and vegetables have increased significantly in Asia (Gulati and Reardon, 2007).

The world trade in fresh fruits and vegetables has risen by more than 30% between 1990 and 2001 to reach a value of USD 7.1 billion (Brown and Sander, 2007). Exports from developed and even some developing countries are being threatened by increasing competition from low-labor-cost countries (George et al., 2004; 2005; 2006).

More than 50% of the growth in global retail markets is anticipated to arise in the emerging markets (DFID-ODI, 2004). According to the Chinese Academy of Social Sciences (China View, 2004), China now has over 200 million middle-class consumers, with this number expected to double in the next 10 years. This group will have sufficient income (USD 10,000) to purchase high-quality fresh fruits and vegetables. However, timing and product selection must be optimized for sustained growth in the high-value fresh fruit and vegetable sector (Gulati and Reardon, 2007). Inclusion within the supply chain is contingent upon meeting the requirements of the preferred supermarket chains.

The world trade in fresh and processed horticultural products is coming under increasing control by global distribution companies and major supermarket chains. In the USA and some countries in Western Europe, the supermarkets share of fresh fruit and vegetable sales has risen to 80% (Brown, 2005; Brown and Sander, 2007). Grievink (2003) estimates that only 110 buying desks account for 85% of the total retail food sales in Western Europe. It is expected that supermarket chains will gain greater market penetration in developing Asian countries, for growth rates in China, for example, average 30% to 40% annually (Reardon and Timmer, 2005). Supermarket chains are demanding an assured all-year-round supply of safe, good-quality product which meets their quality assurance (QA) standards, e.g., EurepGAP (Cook, 2005; George et al., 2004; 2005; 2006). Oversupply has also led to a shift of power in the supply chain, where the supermarkets and the consumers have increasing discretionary choice.

These chains have tremendous power in their negotiations with producers. These requirements have tended to concentrate export trade in the hands of a few large firms, with undercapitalized small- and medium-scale producers being marginalized in favor of preferred suppliers with excellent quality assurance systems (Reardon and Berdegúe, 2006; Reardon et al., 2007). In Kenya, the formal participation of small-scale green bean farmers supplying exporters has fallen by about 60% (Vorley and Biénabe, 2007). In the place of smallholder farmers, exporters are sourcing their product from exporter-owned orchards and large independent commercial farms (Brown, 2005). Consequently, millions of smallholder farmers could lose their livelihoods without some intervention.

Fortunately, for smallholder horticultural farmers, fresh fruits and vegetables are generally the last product category to be developed by the supermarket chains (Reardon and Berdegúe, 2006). Furthermore, there is evidence to suggest that there is resistance in many developing countries to purchasing fresh fruits and vegetables from supermarkets, for the product can be procured more cheaply in local wet markets (Humphrey, 2007).

To stay competitive, smallholder farmers have to supply larger volumes, but with few economies of scale, poor market knowledge, and limited investments in inputs and infrastructure, smallholder farmers are often squeezed out. Compounding problems of scale are the supermarkets' own stringent quality standards and aggressive business practices (Reardon and Berdegúe, 2006; Brown and Sander, 2007).

Global sourcing has created new opportunities for labor-intensive and resource-intensive exports from low-cost locations such as Asia as it offers farmers in the developing world the prospect of selling their produce in high-value markets. Given the right incentives and support, smallholder farmers in developing countries can participate in these emerging supply chains and

benefit from increased access to inputs, such as better fertilizers, improved access to credit, and new innovative technologies.

However, smallholder farmers are at a disadvantage in their transactions with supermarkets due to numerous factors including the following: (1) the perishability of fresh fruits and vegetables, which often makes farmers price-takers not price-setters, (2) poor transport and cool chain infrastructure, (3) poor relative power of smallholder farmers within supply chains dominated by large multinational supermarket chains, (4) the reluctance by farmers to change varieties that are better accepted by consumers, (5) poor information transfer and awareness about competitors, (6) oversupply and market saturation and a low farm-gate price, (7) lack of education and negotiating skills, and (8) lack of capital and technical expertise to produce high quality produce (Dolan and Humphrey, 2001; Boselie et al., 2003; George and Nissen, 2006; George et al., 2007; Gulati and Reardon, 2007). The widespread abolition of marketing boards and the end of many commodity agreements since the 1980s has also further eroded the bargaining power of smallholder farmers (Brown and Sander, 2007).

## Materials and Methods

In this paper, we elucidate on one of the key strategies for increasing international competitiveness: the setting up of global, regional-based marketing companies, which we believe will be crucial to the survival of smallholder horticultural farmers in Asia. We explore alternative ways to fund the technical inputs necessary to produce high-quality and safe fresh fruits and vegetables to meet global customers specifications and how to fund the marketing infrastructure and operations.

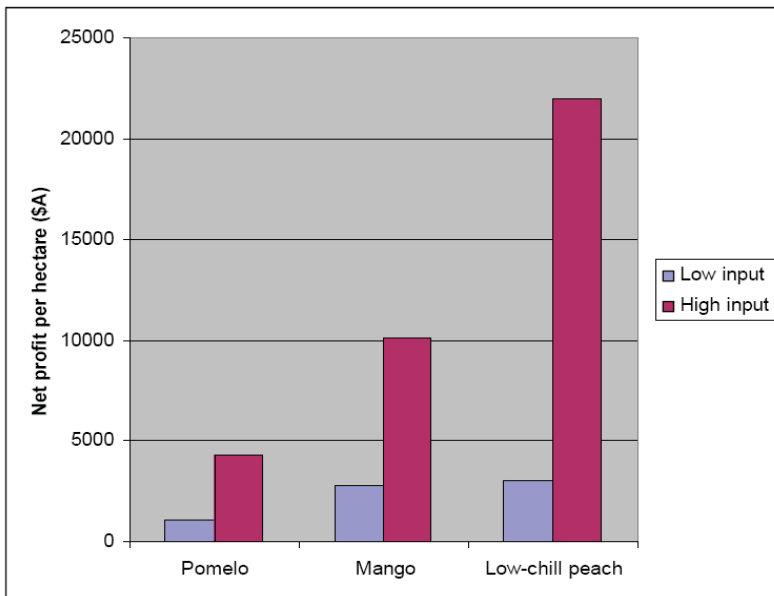
The strategies we present are based on the findings of six Australian government research and development programs (AusAID, ACIAR) from 1999 to the present, which the authors have led to develop improved supply chains for horticultural crops in Vietnam, Thailand, Lao PDR, and the Philippines, with additional supporting evidence provided from reviews of papers by global food supply chain analysts, interviews, presentations, and reports from leading horticultural producers and exporters (Brown, 2005; Martin and Luxton, 2005). We verify our findings through an analysis of the statistical data on fresh fruit and vegetable production, consumption, and exports for different countries (FAOSTAT, ABS, and USDA databases) and through an examination of company financial reports and farmer financial returns, as well as through supply chain audits for a range of fresh fruits and vegetables in selected Asian countries.

## Results and Discussion

The key that enables smallholder horticulture farmers to participate in global and supermarket value chains is the development of control mechanisms that ensure that they meet the customers' product specifications (size, appearance, and safety), quantity, quality, and food safety requirements (Humphrey, 2007). Most smallholder farmers in Asia have insufficient income to introduce new technologies, even when they are low-input and are adapted to Asian conditions, such as fertilizing and irrigation. George et al. (2007), Nissen et al. (2006), and Nissen (2008) have shown that for a range of fruit crops in Vietnam, Thailand, and Lao PDR, new orchard technologies and enhanced inputs can lead to four to tenfold increases in small farmer net incomes (Figure 1).

We suggest that governments and international aid agencies need to provide smallholder horticulture farmers with initial, start-up capital funding to enable them to implement new technologies, which would subsequently lead farmers to become more productive and more income self-generating.

Currently, the majority of inputs for smallholder farmers are funded by the trader and supermarket chains through outgrower schemes (Shepherd, 2005; Brown and Sander, 2007; Nissen, 2008). Under these arrangements, the smallholder provides their land and labor in return for technical assistance,



**Figure 1.** Effects of improved inputs such as fertilizer, pesticides, etc., on net profit for a range of fruit crops in Vietnam (Nissen et al., 2006; Nissen, 2008)

credit, and infrastructure support. However, this leaves the farmer vulnerable to exploitation by the financier. We and others (DFID-ODI, 2004) have suggested that the best way for smallholder farmers to remain viable and to establish some countervailing bargaining power in global supply chains is to establish economically sustainable collaborative marketing groups. Various alternative organizational forms exist for collective marketing including small-farmer economic organizations, cooperatives, and farmer-owned companies (Berdegué, 2001; Brown and Sander, 2007). Working together in a cooperative or a farmer-owned company can increase smallholders' collective ability to negotiate effectively with downstream buyers, to control supply, and to develop an internationally recognized brand name, as well as to share the costs of inputs and investments in infrastructure (Verheijen and Heijbroek, 1994; Brown and Sander, 2007). However, success depends on group solidarity and trust.

Preferably, these global marketing companies should be owned by farmers and employ their own professional marketers (vertical integration). This eliminates the problem of unprofessional traders cutting prices and sourcing poor-quality fruit for export. Because the farmers own the company (as shareholders), they have a vested interest in improving the performance of the company. Ideally, these global marketing companies need to market through a single desk with a single brand. Characteristics of such a company would be the following: employing professional marketers, enforcing quality standards, employing on-farm best practice consultants, and achieving economies of scale. An example of a successful global company is the New Zealand-based Zespri Ltd., which markets close to AUD 1 billion of kiwifruit globally. It licenses over 2,500 farmers in both the northern and southern hemisphere to grow and market its selected varieties through a single-desk system. There are other good examples of horticultural cooperatives working successfully in the developing world such as the Tha-yang Agricultural Cooperative of Thailand, where over 2,000 members export chemical-free bananas to Japan (Thuvachote, 2008) and Farmapine, a small Ghana-based cooperative, which exports over 4,000 tonnes of pineapple annually (Yeboah, 2005). For smallholder Asian farmers, these marketing companies may need to be inclusive of several thousand farmers to achieve the economies of scale in purchasing and logistics.

Many horticultural farmers have been reluctant to market cooperatively for many reasons, such as the following: (1) the lack of trust and transparency among farmers and regions, (2) factional infighting within many existing farmer commodity associations, (3) the tyranny of distance between regions, (4) lack of familiarity with single-desk marketing, (5) lack of effective industry leadership, (6) lack of entrepreneurial ability, (7) lack of education, (8) an aging farmer population, and (9) the lack of willingness to change (George et al., 2006; 2007). We suggest that new extension specialists with skills in group facilitation is needed to build trust between the shareholders of such enterprises. George et al. (2006) also suggests that collective marketing is too

complex to be undertaken by the farmer alone and that it must be conducted in collaboration with government and professional analysts and marketers.

These global companies have the potential to transact directly with supermarket chains, thus eliminating the commission paid to market intermediaries and, at the same time, reduce transactional costs. We estimate that about 15% to 20% of the costs in the supply chain could be eliminated by this strategy. Disintermediation will be driven and facilitated by e-commerce systems.

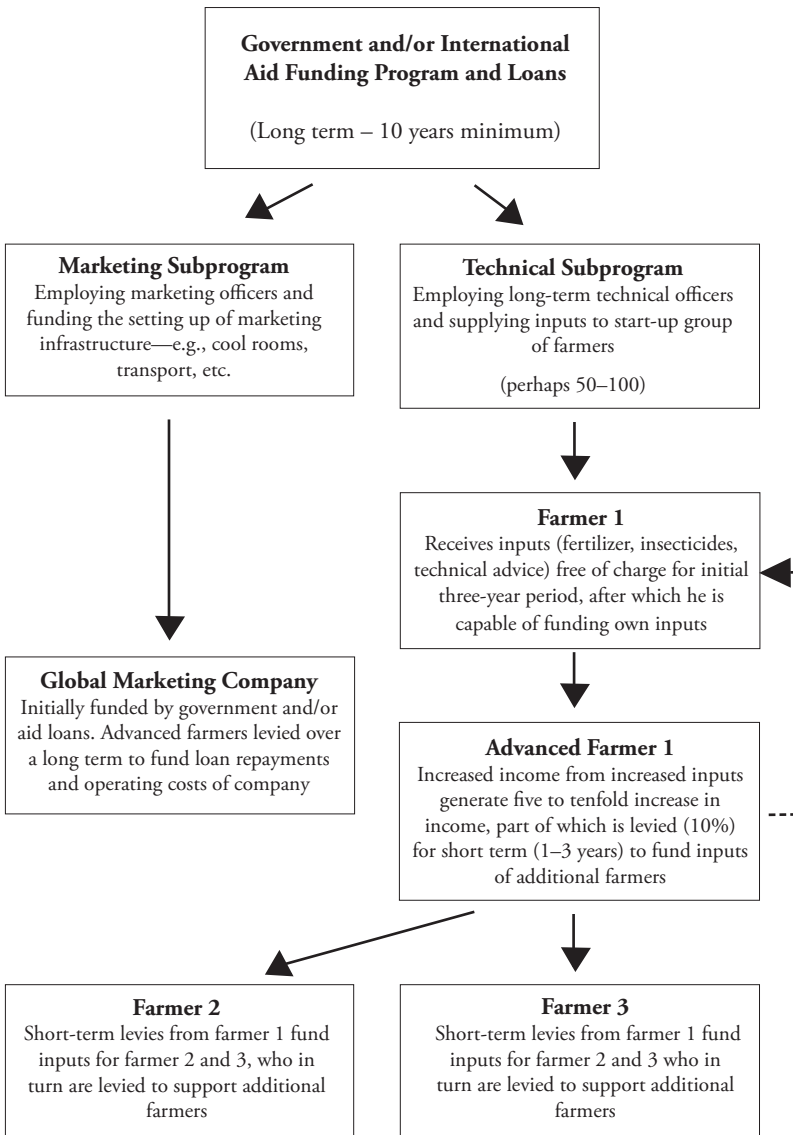
Banks and microfinance institutions (MFIs) do not appear to play a significant role in funding horticultural marketing or the development of small-scale farmers in Asia (Shepherd, 2006). Most farmers can only obtain very minimal loans from relatives, which are insufficient to fund technical inputs. Smallholder farmers are also reluctant to try new technologies, particularly if they perceive them to have a high level of associated risk. Furthermore, national and regional governments seldom have the funds to support development activities for smallholder farmers, which exacerbates their rate of decline. This is a real tragedy, given that inputs of only USD 1,000 per farm may be all that is needed to initiate a self-generating income cycle.

We propose a new way to fund the establishment of these farmer-owned marketing companies. We suggest that international aid agencies or national governments fund a core group of farmers (10 to 50) and contract them to implement new technologies that deliver a greatly improved product and significantly increased returns (Figure 2).

This core group should be selected on the basis of their entrepreneurial ability, financial capacity, and technical skills. After the initial establishment of the marketing company, resource-poor farmers would be specifically targeted and invited to participate. We suggest that a proportion of the profits achieved by this core group be retained to provide short-term start-up funds for an additional group, including resource-poor farmers, to implement these new technologies. Consequently, the process of farmer improvement would be self-generating and sustainable without the need for additional support from outside funding.

We also propose that the advanced farmers impose a longer-term levy to establish and maintain the marketing structure and activities such as training and cool chain management. Governments or aid agencies would need to support these marketing groups by providing long-term marketing and technical assistance, as well as social facilitators to develop trust and maintain unity within the marketing groups.

A major problem with many previous horticultural development programs has been their short duration of technical assistance and funding, often less than five years. We suggest that the duration of this type of assistance needs to be in the order of ten years or more for sustainable development. Development proposals need to be championed by strategically thinking teams of experts in both production and marketing.



**Figure 2.** Schematic diagram showing proposed self-generating funding and development program for small-scale horticultural farmers in Asia. Arrows represent flow of funds from government and aid agencies and from levies on advanced farmers.



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