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Private food standards, trade and institutions in Vietnam

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Abstract: International horticulture markets are increasingly governed by transnational private regulatory regimes. A key concern in this shift is the potential exclusion of groups of producers from high value markets. It has been suggested that a variety of institutions including donors, multilaterals, development banks, trade organisations and governments will be required to assist in capacity building, from the farm right through to the marketplace (FAO 2009), however how and where support should be targeted to ensure the inclusion of a range of stakeholders is unclear, and little is known about the outcomes of interventions to date. This paper argues that creating a thorough understanding of the barriers and enablers to capacity building within these supply chains, a broader conceptualisation of institutions should be included in analyses. This should, for example, incorporate cultural relations, political histories and local (non-formal) institutions.

This paper presents the results of a recent study undertaken in Vietnam that aimed to determine how institutions, defined both economically and sociologically, impact upon outcomes within value chains governed by GLOBALG.A.P, the leading horticulture standard. A global value chain framework was used to identify relevant participants and frame key questions, while a qualitative approach was taken to data collection. The study was based in Binh Thuan, where substantial resources have been focused in an effort to competitively position the province. Outcomes, however, have been varied, with some success for smallholders both in increasing revenue and in penetrating international market, while others have struggled to meet these standards, even where technical and financial assistance has been forthcoming. This study found that the reasons for this difference are largely rooted in informal institutions that shape behaviour, including political legacies and differing stakeholder capacity. As a result, many producers may fail to share in the development benefits associated with these changing market governance arrangements.

Background

Transnational private regulatory regimes increasingly govern the production and trade of agriculture products. One such standard is GLOBALG.A.P, a leading standard for horticulture products. GLOBALG.A.P goes beyond the requirements of public standards in that it sets a higher standard for product attributes; increases the scope of activities within the standard so that multiple nodes of the supply chain are included; incorporates additional elements of production, such as social and environmental

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factors; and is more prescriptive about how to meet the desired outcomes of the standard (FAO 2009). While there may be negative implications for poverty reduction through agriculture in transition economies if large groups of producers are excluded (Garcia Martinez and Poole 2004; Graffham et al. 2006; Humphrey 2008; Jaffee and Masakure 2005; Kleinwechter and Grethe 2006; Mausch et al. 2006; Henson and Jaffee 2006), those able to demonstrate compliance with market requirements in an open and transparent manner may benefit significantly from competitive market positioning (Henson and Jaffee 2006; Maertens and Swinnen 2006, 2009; World Bank 2005). Reflective of this, a “standards as barriers” and “standards as catalysts” dichotomy has emerged in literature on the subject (Jaffee and Henson 2005).

The “standards as barriers” literature has as its strongest concern the high costs of compliance to private standards for producers. With prescriptive production requirements and a high annual certification cost, this is of particular relevance for GLOBALG.A.P. Group certification provides a mechanism through which smallholders are able to reduce compliance costs, however studies have found compliance costs including capital and recurring costs range from 11 – 213 per cent of total annual profit (Graffham et al. 2006; Graffham and Macgregor 2006; IIED NRI and DFID 2008; Ellis and Keane 2008; FAO 2008; Ouma 2010; Jaffee 2003), while establishment of packing infrastructure for larger suppliers is estimated to be US\$4-5 million (Jaffee 2003). A related issue in many economies in transition is the availability of finance to producers who do wish to pursue certification. Compliance is also complicated by the significant institutional and scientific capacity required to support compliance activities, which is often lacking in developing countries. Agricultural extension, for example, important for underpinning capacity development, has eroded over the last few decades in many countries.

The “standards as catalysts” literature suggests that the outcomes for developing countries are often better than widely presented (Jaffee and Henson 2005), in particular relative to the value of exports (World Bank 2005). Indeed, there are multiple examples of countries that have (re-)positioned supply chain strengths in international markets through standards like GLOBALG.A.P. Horticulture industries in Kenya and Thailand have been highly successful in this regard, with the stringent food safety and quality requirements behind GLOBALG.A.P providing incentives for these countries to upgrade their export capacity (FAO 2008; Humphrey 2008; Jaffee and Masakure 2005; Mausch et al. 2006; McCulloch and Ota 2002; Ouma 2010; UNCTAD 2008, 2007; Vandergeest 2007; Wiboonpongse and Sriboonchitta 2004; Jaffee and Henson 2004). Nonetheless, these trends can mask what is occurring at a micro-level with, in some cases, larger production and packing operations reaping the rewards of compliance while smallholder farmers are excluded from international market access (Lee 2006).

In spite of the ‘barriers’ or ‘catalysts’ outcomes from studies that have occurred, a key commonality between studies is the inclusion of a variety of institutions including donors, multilaterals, development banks, trade organisations and the governments of both developed and developing countries, in building compliance capacity among producers in developing countries (FAO 2009). With questions prevailing regarding how and where support should be targeted to ensure the inclusion of a range of stakeholders, and little known about the outcomes of interventions to date, this paper argues that to create a more rounded understanding of the barriers and enablers to capacity building within these supply chains, a broader conceptualisation of institutions should be included in analyses. This should, for example, incorporate cultural relations, political histories and local institutions.

GLOBALG.A.P

There is a great deal of variation between the features of the numerous private standards relevant for agriculture including target audience, scope, purpose, financial returns for stakeholders, governance within management and so on (table 1). It is therefore important to avoid the pitfalls of early literature on the subject that tended to refer to private standards as a single entity, with a lack of clarity of the delineations between the standards and their varying targets, development and, ultimately, outcomes. The focus of this paper, and perhaps the most prevalent standard for trade in international horticulture products currently, is GLOBALG.A.P.

Table 1: Select existing food standards

	<i>Public Mandatory</i>	<i>Public Voluntary</i>	<i>Private</i>	
			<i>Collective</i>	<i>Individual</i>
<i>National</i>	<ul style="list-style-type: none"> • Legislation eg pest control, chemical residues 	<ul style="list-style-type: none"> • Hazard Analysis and Critical Control Point • Australian Standard for Organic & Biodynamic products 	<ul style="list-style-type: none"> • ThaiGAP • Freshcare (Australia) 	<ul style="list-style-type: none"> • Coles Safe, Quality Foods • Woolworths Quality Assured • Tesco Natures Choice
<i>International</i>	<ul style="list-style-type: none"> • European Union regulations • Country level regulations (for imports) 	<ul style="list-style-type: none"> • ISO 9000 • ISO 14001 • ISO 22000 	<ul style="list-style-type: none"> • Rainforest Alliance • GLOBALG.A.P. 	

Source: Modified, Henson (2006)

GLOBALG.A.P is a set of individual standards for products including fruit and vegetables, cut flowers, coffee, pigs, poultry and aquaculture, that was developed by a consortium of leading UK retailers in 1997. Initially called EurepGAP, the GLOBALG.A.P partnership has grown and spread geographically, now representing 45 transnational retailers and food service business globally. Among its members are most of Europe's largest fruit and vegetable buyers including Tesco, Carrefour, Aldi, Asda, Metrogroup and McDonalds Europe. There are also a growing number of retailers signing onto GLOBALG.A.P from nations including South Africa, Japan and the United States, including McDonalds and Wal-Mart, and retailers from many more countries utilise GLOBALG.A.P as a benchmark for their own in-house standards. Producers are unable to supply to these chains without GLOBALG.A.P certification and, in contrast to organic or fair trade standards, GLOBALG.A.P is not associated with higher returns for producers and is not marketed to consumers. Relevant organisations in countries including Uruguay, Chile, New Zealand, China, Japan, South Korea, Kenya and Thailand have formally

benchmarked previously existing standards within those countries against GLOBALG.A.P to ensure domestic producers are not disadvantaged in key markets, and GLOBALG.A.P forms the basis of ASEAN-GAP, a standard developed by ASEAN to harmonise national certification programmes within the ASEAN region. At a national level, governments are developing standards based on GLOBALG.A.P to underwrite food safety and quality. Relevant bodies in Vietnam, for example, have moved to develop national food safety standards that also act as a stepping stone for meeting the production requirements of GLOBALG.A.P, and production to these standards are required by domestic and foreign retail chains in that country.

Institutions

A number of authors have argued that institutions are important in defining economic and social patterns. Perhaps most renowned is new institutional economics (NIE), attributed to North (1981; 1990), Coase (1988; 1994) and Williamson (1985; 1993). NIE suggests that organisations (groups of people and the governance arrangements they create) and institutions (the 'rules of the game') have a critical influence on the outcomes of individuals. According to North:

In the jargon of the economist, institutions define and limit the set of choices of individuals. Institutional constraints include both what individuals are prohibited from doing and, sometimes, under what conditions some individuals are permitted to undertake certain activities. (North 1990: 3-4).

Thus, it is supposed that functional institutional engagement will lead to effective market outcomes (North; 1990) and this forms the basis of much of the emphasis on institutions as a determinant of economic development. Indeed, within standards related studies, the extent to which stakeholders are able to benefit from private standards appears at face value to be a function of proactive and strategic private sector and government responses, with weak public sectors and fragile private sectors lacking capacity to both establish and support regimes of transnational private governance like GLOBALG.A.P. In Kenya and Thailand, for example, substantial capacity building projects have been undertaken by local lead firms, transnational retailers, donors, development banks, multilaterals and research organisations.

More broadly, it is recognised that a sufficient need exists in developing countries for support from a variety of sources, though what and where capacity development is needed, and how this is best developed is yet to be established (World Bank 2006; FAO 2009; Fulponi 2006; Giovannucci and Purcell 2008; IIED NRI and DFID 2008; UNCTAD 2007, 2007, 2008; Lee 2006). What is known is that a number of actors may have a role to play in this process. First, through the provision of technical and financial assistance and the establishment of quality management systems (Graffham et al. 2006; Humphrey 2008), lead firms in developing countries are able to provide a strong support basis for producers to upgrade production processes and develop technical capacity. Similarly, foreign direct investment (FDI) in transnational supply chains for upgrading facilities, maintaining industry infrastructure and training has assisted in some cases. Produce cooperatives in North America have entered into joint ventures with Peruvian and Argentinean suppliers to upgrade facilities, for example, while large corporations such as Dole have invested in upgrading capacities for fresh produce suppliers in Brazil and the Philippines (Reardon and Flores 2006). FDI, however, tends to be focused in

countries with reasonable levels of sustained economic performance, good governance, reliable legal and financial frameworks and infrastructure facilities (Ruben et al. 2006). Third, multilaterals such as the FAO and ASEAN can provide expertise in the harmonisation of quality and safety standards, food control systems and regulatory frameworks between countries and between the public and private sectors. Finally, reflective of the constraints in governance and in private sector resources, donors have a role to play in building capacity in the public and private sector (FAO 2009).

The role institutions have played in certification related projects, however, has been inconsistent, both in approach and in outcome. Some have operated at the smallholder level with individual farmer groups while others have been focused at a higher level, addressing governance and prioritising the establishment of supportive institutional frameworks. In general, projects at the smallholder level that have shown most success have involved a lead firm to assist in the dissemination and transfer of knowledge, technology and institutional support. However, observations of and from these projects to date have found a number of issues, including high drop-out rates, even with substantial institutional investment (Graffham and Macgregor 2006; Campbell et al. 2008). Furthermore, support delivered to lead firms and other large exporters has potentially delivered perverse outcomes for smallholder competitors (FAO 2009). While North's work is important in its assertion that institutions have a defining influence on economic processes, however the focus on formal societal institutions is problematic. It fails, for example, to provide an adequate framework for examining how economic actors are endogenously motivated to follow non-state regulations (Greif & Laitin 2004) or, in the example highlighted above, why substantial drop out occurs where institutions are theoretically engaged to deliver market outcomes.

A broader conceptualisation of institutions exists with sociological analyses, where it is argued that assessing interplays between social networks and economic rationalism is vital in determining how institutions function, shape, engage with and are engaged by, outcomes (Granovetter, 1985). The institutional framework described by Gereffi (1995) is of particular relevance for this study, and was defined as that which "identifies how local, national and international conditions and policies shape the globalisation process at each stage in the chain" (Gereffi 1995:113). This is an important aspect of local value chain nodes, as the agency and leverage of local suppliers, retailers and other relevant businesses are dependent on the "institutional and regulatory framework in which they are embedded", in addition to their own capabilities and the competition they face (Gereffi and Lee 2009:5). Thus, producers' opportunities for participation in value chains are, to a large extent, determined by non-transparent localised political economic processes, or institutions, that define access to economic resources (Thomsen 2007; Hess and Coe 2006).

GVC is one step further towards a more rounded definition of institutions, however it has been criticised for treating culture and non-firm institutions as external to institutional frameworks (Hess and Coe 2006). With few exceptions (Graffham et al. 2006, Hatanaka et al. 2005, Konefal et al. 2005, Neilson & Pritchard 2007, Neilson & Pritchard 2009, Ouma 2010), little has been made of the role that non-firm institutions such as local public sector institutions or multilateral development partners play in determining value chain entry barriers or support for building compliance capacity, nor is the specificity of place in shaping supply chain relations generally well addressed. Thus, while (a limited) academic literature and reports from projects ongoing in developing countries indicate that institutions facilitating the establishment of compliance capacity can play an integral role in certification-related projects, little is

known about the informal social institutions that also impact outcomes. More specifically, how do local institutional frameworks mediate outcomes for producers? By placing institutions at the centre of analysis, this study will broach a void in current understandings of value chains governed by private standards like GLOBALGAP.

Methods and materials

This study adopted GVC as a methodological tool. It has been particularly useful in assessing the role that standards play in the governance of food production networks (Dolan and Humphrey 2004; Henson and Reardon 2005; Tallontire 2007; van der Grijp et al. 2005), and necessitates examining the path of a particular commodity, investigating the roles of each actor or process along the chain. As this study aimed to include a number of institutions in the analyses, a value chain with donor and multilateral involvement was selected. With literature dominated by studies carried out in Africa and Latin America, sites in Asia were preferred. A study project was identified in Vietnam, with the intent of establishing a more comprehensive empirical understanding of the specifics of the institutional setting in the Asia-Pacific region. This project was focused specifically on establishing compliance capacity among dragon fruit smallholders, enabling them to become GLOBALG.A.P certified, and linking these producers with international markets³. Through the process, a number of formal institutions were engaged, including AusAID, USAID, the World Bank, the Vietnamese Ministry of Agriculture and Rural Development (MARD), METROGROUP. Local institutions including the Southern Fruit Research Institute of Vietnam, local farmers and industry groups, farmers, packers and post-harvest specialists were also included. Vietnamese national and local culture, politics, history and local customs were considered a vital aspect of the research process. A case study was undertaken to provide an “intensive, holistic description and analysis” (Merriam 1998:27). While this is a common methodological approach within global value chain studies it is recognised that there remain limitations regarding the generalisation of these results. Nonetheless, generalisation was not a specific aim of this study. Around forty semi-structured interviews were conducted with key informants identified through analyses of interactions along the value chain, and snowballing was used to identify other relevant informants. The majority of these interviews were undertaken with a translator⁴. Policy documents and publications were also used for content analysis. A secondary data analysis was conducted on published academic and industry research.

Agriculture in Vietnam: a historical perspective

Vietnam is a country in transition. The country has made substantial economic progress, shifting from low to middle income status in 2010, and reducing the number of

³ This study focused on one particular project funded by AusAID under the CARD program. Successive projects (037/04VIE and 029/07VIE) were financed through two funding rounds in 2004 and 2007, though the second project was essentially a continuation of the work of the first, and in this paper, is described as a single project.

⁴ The direct words relayed by the translator have been used in portraying the data. For this reason, personal pronouns (he/she/they) reference the subject(s) of the interview. Grammatical errors have been left uncorrected.

people living below the national poverty line from 37 % in 1998 to 14 % in 2008. This is largely due to government reforms that increased income by modernising the economy and moving towards building a market based, socialist oriented economic model. Having had a closed economy for many years, Vietnam joined ASEAN in 1995 and, in 2006, accession to the WTO was approved by the General Council. Nonetheless, markers of the past still remain and characterise contemporary Vietnamese society and culture. State-owned enterprises, for example, generate about 40 % of the national GDP. Traditionally an agrarian economy, agriculture remains an important part of Vietnamese life. The industry comprised about 20 % of GDP in 2010, about 60 % of the workforce in 2006 and more than 30 % of exports in the same year. However, while agriculture has long been central to Vietnamese economy and culture, the ways in which this industry has changed over the last several decades have had profound effects on the agriculture industry seen today.

Following the division of Vietnam into North and South, land ownership in the capitalist South was driven by political interests, while in the North, land ownership was used to reward farmers for their war efforts. As Communism gained strength in the North, the government began collectivising land and, despite significant declines in output, by the mid 1960s 90 per cent of peasant households and more than 70 per cent of agricultural land was established in cooperatives (Do and Iyer 2003). Under this system, producers had no decision making abilities, and cooperatives were forced to follow plans laid down by the central government. Profits were distributed regardless of individual contribution, stripping incentives for increasing output or efficiency (Kirsch 1997). Upon completion of the Vietnam-American war in 1975, a reunified government extended the pre-1975 North Vietnamese command and control economic model into southern Vietnam. Land collectivisation began in the South, although it was particularly unsuccessful due to earlier exposure to capitalism that led to resistance among farmers. Along with other elements of the Communist experiment, this established a misallocation of natural resources which promoted inefficiency and low productivity and, when coupled with a lack of incentive for workers, led to a gradual and severe curtailment of economic activity (Murray 1997). Faced with the realities of a severe food security crisis, the Vietnamese government was forced to recognise the failings of the centrally planned approach. In the early 1980s, early evidence of reform was apparent, with government contracting an output quota with individual rice farmers rather than the rice cooperatives dealt with previously. Rewarding effort and private investment stimulated agricultural productivity, which increased between four and ten percent per year during the early 1980s (Murray 1997). Nonetheless agriculture, and the country as a whole, had suffered immeasurably under the centrally planned approach and a process of policy renewal with particular emphasis on agriculture was commenced in the mid-1980s. In 1986 a process of, *doi moi*, literally “renovation”, was established to move Vietnam towards a market economy with elements of state regulation under a single-party communist government.

The renovation process was both experimental and gradual however, by the late 1990s, private businesses had grown in numbers, poverty had substantially declined, capitalism was thriving and the economic growth rate grew from negative to more than seven percent on an annual basis. Agriculture was reinvented. Though a goal of *doi moi* was to transform the economy away from dependence on agriculture towards industrialisation, land reforms, the availability of technology and resources, and price and trade liberalisation promoted growth rates in agriculture above 4 % per annum between 1992 and 2004 and helped to establish Vietnam as the world’s second largest

rice exporter. Credit, that had been sporadically available through government institutions, became available commercially, and the reforms also helped to build trust between farmers and government through recognition of the farm as a key unit of agricultural production. Household farming replaced collective farming, while land use and decision making rights that enhanced the freedom of farmers coupled with an essentially open international market for trade prompted shifts towards higher-income generating crops such as fruit and vegetables.

Nonetheless, challenges face Vietnamese agriculture, and any development efforts within this industry. Insufficient incentives exist for farmers to make long-term investments in agriculture, as land ownership remains with the broader population/ GoV (Hung 2006); access to credit is poor (Marsh et al. 2006; Seibel et al. 2005); technical efficiency of farmers, in particular in the south, is poor (Marsh et al. 2006); agriculture extension is characterised by insufficiently qualified staff, poor coordination and management and lack of funding (Marsh et al. 2006); and resistance to cooperative participation and distrust of formal institutions remain common among farmers (Hayton 2010; Seibel et al. 2005; Rankin and Russell 2005). The establishment of support for agriculture will need to address these challenges to ensure success.

GLOBALG.A.P in the Vietnamese context

As a result of the reforms laid out under *doi moi*, the number of horticulture businesses in Vietnam increased rapidly in the last several decades, and a growing number of these companies are linked to international markets. Private standards like GLOBALG.A.P are important for Vietnamese horticulture not least because of a history of pesticides residues in fruit and vegetables and the competitive market positioning of countries such as Thailand, where the government has been proactive in developing a horticulture industry with an international reputation for safe, high quality produce. While Asian markets that do not yet require complex certifications appear, at face value, to be preferable to EU markets based on market size and proximity, the higher and (comparatively) stable produce prices available in EU markets and the lack of political influence over market outcomes make that market desirable for producers. In addition, there is a growing awareness of food safety issues in China, a key market for Vietnamese produce, and it is expected that food safety certification will be required in that market from 2012 onwards. Consequently, over the last decade the Government of Vietnam (GoV) has included objectives specifically relating to international certification schemes for agriculture in strategic planning for the industry at the national level. Although government policies and actions promote competition between agriculture and industry for land and labour, rural development largely depends on the inclusion of agriculture in national and global markets. At the Ministry of Agriculture and Rural Development (MARD), the '2020 Vision' for the department is one where higher priority and more administrative resources will be allocated to managing international trade rules and standards (Ministry for Agriculture and Rural Development (MARD) 2008) and the 5-year plan for agriculture (2005-2010) included actions to promote the development of product certification and trademarks in line with regional and international standards (Ministry for Agriculture and Rural Development (MARD) 2005). These plans are being slowly translated into on the ground change through, for example, funding and in-kind support for workshops and training on the challenges of engaging in international markets; preferential funding for research to meet SPS and other international trade requirements; and partnering with international organisations on relevant projects.

While this level of support from MARD for policies promoting a more open economy is indicative of the substantial change Vietnam has undergone in the last two decades, challenges from the old days remain. As one MARD staff member explained, funding is often devolved on the basis of the political connections or interests of particular people within MARD, providing little transparency throughout the funding allocation process. For potential recipients of this funding, this leaves little room for feedback and improvement of applications. Nonetheless, a number of research organisations have been involved in increasing the national capacity for meeting international market requirements.

The first moves towards meeting the challenges posed by GLOBALG.A.P were the result of partnerships between development organisations and the GoV. MARD had identified dragon fruit as having strong potential for development based on under-pricing on international markets and the success of dragon fruit smallholdings in reducing levels of rural poverty. Leveraging off this, dragon fruit specific projects were funded under two international donor funding programs; VNCI (funded by USAID) and CARD (including the dragon fruit project, funded by AusAID) in 2004. This study was concerned with the AusAID dragon fruit project specifically. The emphasis of this project was on increasing the competitiveness and capacity of smallholder dragon fruit farmers to assist in accessing higher value markets. While the focus was on establishing GLOBALG.A.P certification capacity, project goals were framed in the context of meeting international SPS requirements, and training and extension was provided on the importation requirements for fruit and vegetables to the US and the EU, as well as general market details and HACCP. No financial support was provided to project participants. Binh Thuan province, in the south of Central Vietnam, was selected as an appropriate project site due to favourable climatic and environmental conditions and the large number of pre-existing dragon fruit producers. In addition, the Binh Thuan Provincial government sought to develop the industry further due to higher prices commanded by Binh Thuan dragon fruit. For the most part MARD played a coordinating role to promote efficient information sharing, policy development and resource coordination.

Inclusion of smallholder farmers

At the commencement of the project, 157 smallholder farmers (0.01 – 0.5 ha) were identified for potential inclusion in the project, and a baseline study was completed within this group. Within this group, 60 growers with a production area of 20 ha were selected on the basis of their having strong potential to upgrade their practices to that required for export. The initial aim of the project was to familiarise the farmers with GLOBALG.A.P (then EurepGAP) by establishing quality systems that could be learned from by these farmers and the wider agriculture community in Binh Thuan. Certification for the group was not an explicit aim of the project in the initial phase. The obvious hurdles at the beginning of the project were that farms were not equipped with the infrastructure required (eg toilets or appropriate chemical storage facilities) and poor knowledge of farmers of international farm hygiene practices, maximum residue limits (MRLs) and chemical management practices. As a supply chain project, packer/exporters were also included in the project, and those with the capacity to establish end-to-end traceability of fruit and to influence farmers were invited to participate.

A dragon fruit quality manual was produced in English and Vietnamese, and intensive training commenced for project participants in record maintenance, traceability, chemical management, farm hygiene and safety standards and maximum residue limits. Farmers were initially enthusiastic. However, as subsequent training sessions continued there was a gradual decline in farmer participation to the point that the project was unable to continue. A number of internal and external factors were found to have contributed to this decline. Internally, farmers lacked the financial resources to make the required changes to their farms, and tended to be dependent on collectors - traditional market intermediaries that provide pre-harvest advance payment for entire crops from smallholders - for financial support. Of the initial 157 farmers involved in the baseline study, 143 sold at least some of their produce through a collector in exchange for financial assistance, and 78 pre-sold their entire crop to collectors.

While credit is more readily available in contemporary Vietnam, the banking system remains dominated by State-owned commercial banks that have historically provided priority credit for state-owned enterprises and the private sector, crowding out consumers. The communist takeover of foreign and domestic banks, and the savings within them, in 1975, remains strongly implanted in the minds of the Vietnamese. Lacking in confidence, few households use bank accounts and the banking system remains poorly capitalised. Where finance is available, interest rates are as high as 23%. On the ground, farmers maintain the traditional dependence on informal credit providers, such as collectors, for financing farming needs. As one farmer explained:

If he didn't sell to collector, he owe money. In the next season, could not work with same collector because relationship broken, lost. Farmers always need money, so that why they build up strong relationship with someone to help with advance investment. He is dependent on the investment from collector to survive. He could not go to the bank for this.

Farmers were also concerned about being involved in a farmer group with pre-set parameters as required by EurepGAP – a residual fear of the cooperatives of earlier days:

Earlier, we had cooperatives from government. When the project began, the people are still afraid of the former cooperative where they have to work at the same time, stop at the same time, do the same thing. They like to make their own group – they form the group protocol.

This is not to suggest that farmer groups have not been established in Vietnam. To the contrary, the GoV has as an ongoing priority the development of the cooperative economy, and this was set out in MARD's five year plan ((Ministry for Agriculture and Rural Development (MARD) 2005). On this basis, substantial resources have been dedicated to the establishment of cooperative laws, delineating formal and informal farmer groups. In Binh Thuan, in recognition of the cooperative model providing a more cost-effective framework for certification to standards and other projects, the Dragonfruit Research Centre established a set of guidelines for the development of farmer groups. These guidelines can be adapted by farmer groups as required.

During the early phases of the dragonfruit project, markets for dragonfruit were healthy. Dragonfruit of varying qualities were sold for high prices and demand was strong. There was little awareness of residue matters and chemical management, and farmers were able to manage production as they had in the past. For project

participants, the benefit of raising production standards to that required by European markets was thus unclear:

When he did the training, he found the standard was too demanding. He could sell his products so why he do this over-demanding standard? He think, "why we do this record keeping, special way of spray chemical when I sell product, good price, no problem?"

Project staff suggested they found it difficult, without financial resources, to convince farmers to make the changes required. Nor were they able to guarantee an increase in profitability from dragon fruit crops. As a result, farmers found the benefit of continuing with the project questionable, and eventually ceased participating.

Nonetheless, a number of benefits have transpired for these smallholders. The technical assistance provided in the early stages of the project improved the knowledge of plant protection and management, and production techniques, while familiarising participants with GLOBALG.A.P requirements. Chemical management and application regimes, for example, changed after this training. In subsequent years, declining dragon fruit prices due to an increase in supply and declining demand, and constraints in exports to high value Western markets due to increasing production requirements and a lack of producers able to meet these requirements, prompted renewed interest in certification. The group has successfully gained VietGAP certification with the support of the provincial Department of Agriculture and Rural Development (DARD) and the Dragonfruit Research Centre.

Changing scope: smallholders to larger farmers

The project scope was subsequently shifted from smallholders to larger producers with the capacity to upgrade production practices. The focus moved towards the packhouse included in the original project, a successful lead firm that contracted supply from several larger farmers in the province. The packhouse faced none of the problems the smallholders faced. Having successfully exported dragon fruit to the European market for a number of years, there was a strong awareness of the increasing need for GLOBALG.A.P certification in the EU and beyond. There was little or no dependence on collectors for finance, though dragon fruit was sold through these means occasionally, and the packhouse had been sourcing produce through an informal farmer group for several years to meet demand. The project provided technical assistance to the packhouse on crop management, quality standards and packhouse management. The project was ultimately successful in establishing GLOBALG.A.P certification for the packhouse and three suppliers in October 2007, largely due to this producer facing none of the barriers of the smallholder farmers. These farms were substantially larger (230 ha, 22 ha and 7 ha) than the smallholder farms which averaged at 0.65 ha.

For the packhouse and packhouse suppliers, the results have been overwhelmingly positive. The packhouse has secured market access to the EU, experienced growth in this market of around 15 % between 2005 and 2010, receives higher prices for produce than in Asian markets, and has a choice of markets in which to operate. Suppliers are paid 10-15 % more as an incentive for retaining GLOBALG.A.P certification. While this does not cover the full cost of retaining certification, other benefits have accrued to these suppliers including better management practices and reduced chemical inputs.

Regional flow-on benefits

Resources were developed during this project that have benefitted the broader dragonfruit industry. These include Vietnamese language field manuals for producers; Vietnamese language standards manuals for packhouses; substantial market research analysis for European markets; and the training of provincial extension officers. In Binh Thuan, this project, along with a simultaneously implemented USAID dragonfruit project, stimulated an influx of funding for dragon fruit into that province. The Binh Thuan People's Committee issued a guidance to establish a trademark for Binh Thuan dragon fruit and agreed to increase the land area dedicated to dragon fruit. The Provincial DARD has taken considerable effort to introduce Integrated Pest Management (IPM) as a means of reducing the use of pesticides and aligns production practices with that of GLOBALG.A.P and has invested in dragon fruit treatment facilities. Additionally, these projects rapidly increased the awareness of industry leaders, policy makers, government officials, research institutes and farmers of the requirements and challenges in meeting the requirements of GLOBALG.A.P. At SOFRI, the Vietnamese partner organisation for the dragon fruit project, several scientists have been trained in GLOBALG.A.P methods and principles, and strategies have been developed for the extension of the standard to other fruit sectors across southern Vietnam. Several dragon fruit farmers have sought technical assistance from SOFRI, which now provides training to farmer groups willing to commit their own resources to upgrading their practices in line with GLOBALG.A.P. At a national level, MARD established a national program to boost GLOBALG.A.P certification in major fruit sub-sectors. In 2008, 7ha of star apple and 12ha of mango were certified to GLOBALG.A.P and this has been followed by further horticulture certifications across the country for pomelo, pineapple, longan and oranges. The World Bank Agricultural Competitiveness Project provides ongoing support explicitly for certification of agro-products to VietGAP and GLOBALG.A.P and for strengthening provincial capacity to deliver training to farmers, processors and traders in these standards. A number of other donors have delivered GLOBALG.A.P-specific horticulture projects with the aim of establishing compliance capacity, including USAID, JICA and GTZ.

Lead firms, too, have seen the benefit in investing in GLOBALG.A.P certification. When it appeared a group of farmers would allow their GLOBALG.A.P certification, attained through donor support, to lapse, a lead export company stepped in to fund certification. Realising the financial benefits associated with GLOBALG.A.P, this exporter is currently developing a certified demonstration farm for educating and ultimately recruiting farmers. German retailer Metro Group (Metro Cash and Carry) has also funded around 2,000 farmers to develop the skills required to obtain GLOBALG.A.P certification. This has been based largely on moving farmers towards achieving certification to METROGAP, Metro Group's in-house standard that is based on GLOBALG.A.P, to establish guaranteed suppliers for key fruits and vegetables within Vietnam. While much of the fresh produce in store remains uncertified due to challenges obtaining a consistent large supply of certified produce, METRO Group intends to continue to promote METROGAP through their supply chains.

Secondary outcomes – the transformation of food safety

By the early 2000's pressure was mounting for the establishment of a national food safety program, in large part to address the high levels of residue in fresh produce that

were damaging Vietnam's reputation on international food markets and threatening the health of consumers. Opening the Vietnamese economy to the international market in the late 1980s availed the country to agrochemicals that previously had been unavailable, and uptake was rapid. Between 1991 and 2007 pesticide use in Vietnam increased from 15,000 to 76,000 tons per annum, while expenditure on pesticides increased almost 10-fold over the same period (Van Hoi et al. 2009). Similarly, fertiliser use increased from 40 kilos per ha per year in 1981 to 150 kilos per ha in 2010. Internationally, succession to the WTO, increasing export quantities, the establishment of ASEANGAP and the implementation of national food safety systems across ASEAN nations also increased pressure on the GoV to establish appropriate national safety production standards.

The increased focus on GLOBALG.A.P from donors and other international agencies was also influential in raising the profile of food standards that included a food safety component. As one project officer explained:

The impact of CARD and VNCI [the AusAID and USAID dragonfruit projects] was so big! VietGAP, which is around now, was part of the influence of the projects. There was no anything-GAP in Vietnam but this really helped raise the profile that was needed.

In response, first, a temporary ordinance on the Hygiene and Safety of Food stuffs was introduced, and in 2008, a national standard, VietGAP, was released. Like GLOBALG.A.P, VietGAP in its current form aims to minimise the risk of hazard occurring during the production, harvesting and postharvest handling of fruit and vegetables. The standard is underwritten by a legal framework that sets out practices for ensuring food safety, environmental management, worker health, safety and welfare, and produce quality, supported by third party auditing and certification. MARD has authorised a number of private third party certifiers to audit and certify producers in their attainment of VietGAP. This represents a step away from the usual process of public auditing food safety standards and aligns the auditing process with that of GLOBALG.A.P.

The development of VietGAP involved the translation of ASEANGAP, GLOBALG.A.P and Freshcare into Vietnamese and assessment of the experiences of farmers in implementing these standards, and was supported by departments of the GoV with some international assistance. A key issue was balancing food safety issues with what could realistically be actually be achieved in the short term, as well as with what will enable the food export industry to expand production practices and consistency with GLOBALG.A.P. For Vietnam, the top-down approach typical of government was replaced by a participatory approach through the inclusion of a number of stakeholders in the standards development, and it was hoped this would contribute to a broader acceptance of the standard.

To date, uptake of VietGAP has been modest, with around 8.5 per cent of farmers certified almost three years after its release. Expectations were that certification would be achieved at a much higher rate, though technical and financial difficulties have provided hurdles for farmers. Financially, the certification is costly and realistically only an option for progressive farmer groups and large agricultural enterprises. Individual farmers are generally unable to meet certification costs, with the exception of the largest farmers. Government attempts to remedy financial issues to date have been based on subsidising a declining proportion of certification costs over the first three years of certification. There are, however, complications with this model, with farmers in some

provinces unable to access this funding and no clear answer as to whether farmers achieve higher prices to sustain the costs of certification. As one researcher explained:

They say they subsidise but where you get the money? No, they don't subsidise. Until now, very difficult to get the money. In Ho Chi Minh City, they set up DARD to pay. In Da Lat, there is no office for payment. They go to Ho Chi Minh City, but this for Ho Chi Minh City people only, not Da Lat people. Da Lat people cannot get it.

Ensuring the adequate legal framework is in place to support VietGAP implementation across the country requires long-term planning, and multiple government departments, facilitated by the FAO, are working to ensure food safety laws are consistent and supportive of VietGAP. On the ground, the FAO is also working with farmers through farmer field schools to promote the implementation of Integrated Pest Management, a compulsory component of VietGAP that will benefit all farmers through reducing pesticide use, regardless of VietGAP status.

As with GLOBALG.A.P, group certification may reduce certification costs substantially, however, overcoming the concerns of some farmers regarding cooperatives and group farming is vital. In Binh Thuan, dragonfruit producers can benefit from the cooperative model established by the Dragonfruit Research Centre and strong support from the Provincial DARD. Farmer support differs between the provinces, however, and Binh Thuan farmers benefit from a comparatively homogenous agriculture sector that has simplified the provision of extension services, as well as the dedication of vast resources by international donors. Similar support may not be available across all provinces.

Nonetheless, it may be demand from consumers that propels the growth of VietGAP. With 23,000 food poisoning incidents (including from fruit and vegetables) between 2001 and 2005, food safety is of increasing concern for middle class consumers. Government promotion of VietGAP to consumers in print, television and online media has helped to raise awareness about VietGAP and anecdotal evidence suggests that in Ho Chi Minh City, demand for VietGAP produce increased by around 300 % in 2010. Local grower cooperatives suggest this prompted their decision to expand their cultivation fourfold to meet demand. To date, the slower than expected implementation of VietGAP and early phase of this transition have limited the availability of data on food safety incidents relating to VietGAP. If trends in Vietnam mirror those in other countries, however, wide implementation of VietGAP should be followed by demonstrable declines in food safety incidents.

Conclusion

The increasing role that private interest groups play in the regulation of international horticulture markets is redefining the nature of market operations. Where traditional public sector regulation has arguably been answerable to the WTO and to other nation-States, powerful private regulators are not held to the same degree of accountability. The establishment of GLOBALG.A.P by a handful of the world's most powerful retailers exemplifies this shift. The authority of this group to define market behaviour, and ultimately market access, has been met with concerns by interest groups suggesting that the stringent requirements necessary to comply with GLOBALG.A.P may place smallholder farmers at a disadvantage within international horticulture markets. In

countries where national capacity is lacking, a number of institutions would be required to assist smallholders in attaining certification.

To explore the extent to which the engagement of a number of institutions can promote a more inclusive approach to negotiating this changing regulatory environment, this study examined the outcomes of one institutional (donor funded) project that aimed to assist smallholder farmers in developing certification capacity for GLOBALG.A.P in Vietnam. In developing capacity for certification, both to public and private standards, Vietnam has had support from lead firms, FDI and international donors and lenders. Binh Thuan acts as an epicentre for this, with substantial investment into the region from a range of sources. The outcomes, however, are varied. While suggestions are that smallholders will not be excluded through institutional support, this study provides evidence of there being a number of difficulties for smallholders which, in some cases, are rooted in political and/or cultural legacies. In this context, the 'standards as barriers' literature resonates, though not only for financial reasons. Indeed, even where high levels of technical support were forthcoming, smallholders were still unlikely to certify to GLOBALG.A.P. While collaborative institutional support for smallholders may increase the likelihood of their inclusion in global supply chains, this support will need to provide at least some financial assistance, be supported by extensive in-country public infrastructure and find ways to overcome legacies or non-formal institutions that determine behaviour and may threaten the outcomes of projects. These issues that may act as certification barriers have not been addressed in literature on the subject, with the major emphasis on financial hurdles. As this study demonstrates, any support for smallholder certification must also be sensitive to cultural constraints.

However, support was also found for the standards as catalysts literature, with certification to GLOBALG.A.P assisting the packhouse and its suppliers establish a favourable market position. While the primary benefits of establishing certification capacity for this group are questionable, engaging a lead firm did in fact provide an important entry point for several institutions in their engagement with smallholder farmers, and the secondary implications of the provision of support for larger farmers in developing certification capacity have been substantial, both for local smallholders and for Vietnam more broadly. For smallholders, the focusing of agricultural development efforts around dragonfruit supply chains in Binh Thuan and the allocation of resources to the provision of administrative, institutional and scientific capacity at a regional and national level resulted in greater awareness of the importance of certification and enhanced extension support. It has also prompted growing investments from the private sector in smallholders to develop certification capacity. No evidence was found to support the assertion that, through support for larger producers and lead firms, institutions may inadvertently be enhancing the competitiveness of established producers at the cost of smallholders. The smallholders in this study were working within quite different markets, where market entry requirements differed substantially.

The value in establishing VietGAP cannot be overstated. While it is probable that this will lead to fewer food safety incidences nationally and assist producers in meeting more stringent requirements of international markets, slow implementation rates means the outcomes have not been assessed to date. Perhaps most importantly, the introduction of a national food safety standard reflects the increasing levels of economic development in Vietnam.

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