Governance, Institutional, and Pro-Poor Analysis of Cassava Contract Farming in Quang Tri Province, Vietnam

Nham Phong Tuan
Vietnam National University, Hanoi
E-mail: tuannp@vnu.edu.vn, tuan-dhtm@gmail.com

ABSTRACT

Contract farming is seen as one of the measures to facilitate participation of farmers in commercial agriculture, adding more value to agricultural products. Vietnam, however, shows mixed evidence on the well-known advantages of contract farming to small farmers such as reduced cost of accessing the market; access to credit information on market opportunities or new technologies, inputs, and product markets; and reduced price fluctuations. This study analyzed the impact of contract farming on farmers and identified policies that may facilitate farmers' entry into beneficial contractual relationships. In addition to the literature review, an intensive case study of cassava contract farming was conducted. Data were analyzed using a dual-method approach—governance and institutional analysis and a pro-poor analysis. Factors found to be important to contract farming are extension services, farmer empowerment (technical and managerial), and capacity building of the farmer organization. The results from the study have direct relevance to stakeholders of contract farming, either through practical field support or through policy advocacy.

Keywords: contract farming, impact, farmers, income, livelihood, case studies
JEL Classification: Q12

INTRODUCTION

Contract farming (CF) in Vietnam is considered as a measure to foster better linkages in agriculture, particularly among farmers, scientists, the government, and the agribusiness sector. It is formally recognized and encouraged by the government through the issuance of Decision 80/CP-2002/CT-TTG on 24 June 2002, which encourages the selling of agricultural commodities through contracts. Thus, a deeper understanding of the impact of contract farming on farmers would help both the government and development agencies take advantage of this mechanism.

Many past studies on contract farming in Vietnam and other countries have shown that it enables small-scale farmers to have better access to market and production inputs, the ability to mitigate risks, and higher returns, as well as offers solutions to disputes among CF parties. These earlier studies had a number of limitations, however, especially in Vietnam, because the analyses were mostly from the companies' perspective rather than the farmers'. None of them analyzed the dynamics and context specific factors of the CF parties.

This study attempts to fill this gap by building on previous studies on the general contract farming modalities and by conducting a thorough analysis of a cassava contract farm in Quang Tri province, central Vietnam. The analysis was done considering the perspectives of both the farmers and company involved, but with a stronger emphasis on the former. The study specifically assessed both negative and positive impacts on income and livelihoods of small-scale farmers involved in a multipartite contract farming. It also identified the key ingredients for mutually beneficial agreements in contract farming, leading to recommended action points for the government, nongovernment organizations (NGOs), and farmers. The following research questions guided the conduct of the study:

1. Does the CF model determine the increase of benefits for small-scale farmers?
2. Which elements in the CF arrangements that facilitate a risk-sharing mechanism would increase the benefits for small-scale farmers?
3. Which elements in CF implementation or supporting factors would increase the benefits for small-scale farmers?

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Overview of Contract Farming

Contract farming can be defined as "an agreement between farmers and processing and/or marketing firms regarding the production and supply of agricultural products under forward agreements, frequently at predetermined prices" (Eaton and Shepherd 2001, 2). Contracts are often initiated by agribusiness firms (processors, traders), which undertake backward linkages by forming alliances with groups of smallholders and, through written or verbal agreement, specifying provision of farm inputs such as credit and extension, in return for guaranteed delivery of products with specific quality often at predetermined prices.

CF is commonly done for commodities that are exported (e.g., high-value crops) or processed at a large scale, where a steady supply of raw materials is needed. It is rarely done for basic staple foods produced for local consumption but commonly for industrial crops (e.g., sugarcane, tobacco, and tea), poultry, dairy, and horticulture, particularly when destined for high-income consumers willing to pay a premium for quality and food safety (Minot 1986; Jaffee and Morton 1994). It has been found to be cost-effective only when large-scale buyers (e.g., processors or exporters) need to introduce a new crop, to obtain special product characteristics, to stagger harvests throughout the year, or to control some aspects of the production. It is also typically used to organize the production of perishable, high-value commodities for a quality-sensitive market (Minot 1986).

According to Eaton and Shepherd (2001), contract farming, which comes in several forms, can be categorized either by the intensity of the contractual arrangement or the schemes of the organizational structures (i.e., organization of stakeholders within the scheme). From an objective perspective, a contract could be drafted to transfer decision rights as well as risks. Mighell and Jones (1963) presented three typologies of contracts: market provision, resource provision, and production management specification. In terms of schemes according to organizational structures, these depend on the nature of product, resources of the processors, and the intensity of the relationship between farmers and processors.

Contract Farming and Its Benefits for Farmers

This subsection reviews the relationship between CF and its benefits (income and livelihood) for small-scale farmers. Then, an overall hypothesis was set up and investigated through one case study, which is presented in the succeeding sections.

Earlier, Minot and Roy (2007) and Reardon et al. (2003) predicted that CF would be a growing trend in Asia due to its high-value agriculture, supermarkets, processing, and export-oriented agriculture. These suggest the growing importance of contract farming. Bijman (2008), in a review of CF literature, noted the inducement of contract farming by development agencies to link farmers to the market.

CF critics argue that large agribusiness firms use this scheme to take advantage of cheap labor and transfer production risks to farmers. They further contend that because companies tend to prefer to work with medium- and large-scale growers, smallholders get marginalized, exacerbating rural inequality (Little and Watts 1994; Singh 2002). Also, environmental sustainability concern is lacking (Torres 1997). However, there is ample evidence, also in literature, of contract farming resulting in higher income for farmers, among many other benefits. Because the contracts often involve the provision of seed, fertilizer, and technical assistance on credit and a guaranteed price at harvest, this form of vertical coordination simultaneously solves a number of constraints on small-farm productivity, including access to inputs and credit as well as risks. In this view, contract farming is viewed as an institutional solution to the market's failure to provide credit and agricultural inputs (Grosh 1994; Key and Rungsten 1999). Warning and Key's (2002) study of contract farming of peanuts in Senegal found that the increase in gross agricultural revenues associated with contracting was statistically significant and large, equal to about 55 percent of the average revenue of non-contract farmers. Simmons, Winters, and Patrick (2005), which studied contract growers of poultry, maize, and rice in Indonesia also concluded that the contracts increase income and welfare, reducing absolute poverty. Ramaswami, Birthal, and Joshi (2005) also found that farmers in contract arrangements gain from the management assistance and credit provided by the contracting firm, reducing the variability of gross margins across production cycles.

Bjeb (2008) reviewed the empirical literature on the inclusion of small-scale farmers in CF and found mixed evidence. For example, he cited a Key and Runsten (1999, 396) research that showed a clear preference of (foreign) processing companies to contract large-scale growers due to transaction costs associated with providing inputs, credit, extension services, and product collection and grading compared to small-scale growers. Similarly, Singh (2002), Guo, Jolly, and Zhu (2005), and Simmons, Winters, and Patrick (2005) found that agribusiness firms prefer to deal with relatively large producers. However, other studies—such as by Miyata (2009) on horticulture CF in China and Birthal, Joshi, and Gulati (2005) on milk, broilers and vegetables in India—did not find this bias against small farmers.

The Vietnamese government promotes agricultural CF between farmers and processors/traders via its issuance of Decision 80/2002/QD-TTG in 2002. Accordingly, enterprises in all sectors are encouraged to sign contracts on farm product sales with producers. The aim is to link production with commodity processing and consumption in order to develop its production in a stable and sustainable manner. The contract serves as legal basis for binding the parties in their responsibilities and obligations, protecting the rights and legitimate interests of the raw material producers and the production, business, processing, and exporting enterprises under contractual provisions. To implement this decision, several other documents were issued at the ministerial level, such as Decision 52/2002/QD-BNN of the Ministry of Agriculture and Rural Development, which provides guidelines on and sample of agricultural contracts. Circular 05/2002/TT-NHNN of the State Bank provides loan guidelines for producers and enterprises signing agricultural contracts. Circular 04/2003/TT-BTC of the Ministry of Finance, on the other hand, provides guidelines on finance issues that may arise with the implementation of Decision 80/2002/QD-TTg. In 2008, the Prime Minister signed Directive 25/2008/CT-TTG, which is aimed at enhancing the implementation of contract farming. In addition, other policies have been issued to create a legal environment for contract farming, such as the Law on Association, Law on Cooperatives, numerous programs supporting the production of specific commodities, the New Rural Program, and public-private partnership promotion.

Contract farming began to gain the attention of researchers and practitioners around 2002, after the issuance of Decision 80. Its adoption has been observed in a wide range of agricultural products in Vietnam, particularly staple food (rice), industrial crops (cassava, sugarcane, fruit), forestry products (timber, herb), livestock (poultry, milk), and fishery products (shrimp, shellfish). The Asian Development Bank (ADB) (2005) conducted one of the first comprehensive documentation of CF of commodities such as vegetables, jute and cotton, tobacco, rose, pineapple, and pig in Vietnam; it categorized contract models into multipartite, centralized, nucleus estate, and informal and intermediary modalities. As regards CF modality and benefits for farmers, ADB (2005) recommends the multipartite modality as an effective mechanism to ensure the protection of farmers' benefits. Costales et al. (2008) saw the potential of informal CF with cooperatives, particularly in the swine industry, because CF allows the engagement of smallholders and provides them access to credit.

Many other researchers such as Dang Kim Son et al. (2005), Dieu (2004), Tran Cong Thang et al. (2005), Nguyen Do Anh Tuan et al. (2005), ADB (2005), and National Institute of Agricultural Planning and Forecasting (2010) noted that CF could potentially be an effective way to draw the poor into commercialized agriculture. Saigenji and Zeller (2009), who investigated the effect of contract farming on production and income of tea farmers in northwestern Vietnam, found a positive impact of CF on tea production in Moc Chau district; it provided higher technical efficiency and slightly higher income to households.

To assess the impact of CF on small-scale farmers, CREM (2008) proposed a list of criteria based on an extensive review of CF experiences in Southeast Asian countries, categorized as economic, agriculture production and management, governance, environmental, and development aspects. This research used some of these criteria to guide the pro-poor analysis. In addition, it used governance analysis, taking into account the rules and regulations as well as guidelines on enforcement and services, which stimulate the contract.

Based on the studies cited above, CF in Vietnam is seen to have attracted serious concerns from the state and government. It has been adopted in the production of many commodities. Although there have been both successful and unsuccessful cases of contract farming, it can be hypothesized that CF has positive effects that benefit small-scale farmers. Among five available models in Vietnam, the multipartite model is considered as the best because it benefits the small-scale farmers. In this regard, the following hypothesis was tested in this study: the multipartite model of contract farming has a positive impact on small-scale farmers.

RESEARCH DESIGN AND METHODOLOGY

Methodology

A dual-method approach using governance and institutional analysis and pro-poor analysis was used in this study. The governance and institutional analysis investigated power within production and exchange relationships in the contract. The contracts were analyzed using three dimensions: (1) rules and regulations, (2) enforcement, and (3) services. In examining the rules and regulations, the study identified the actors that set the rules and assessed how the rules affect the different categories of actors within the contract, how much the different actors know about the rules, and the rate of change of the rules. Regarding enforcement, the study looked at who monitors compliance to the rules, identified the system of sanctions and incentives used to promote the application of the rules, and assessed the effectiveness of the sanction/incentive system. For support services, the contracts were analyzed in terms of assistance provided to the linkage participants,

Table 1. Snapshot of the case study and observations

Province Commodity Company Contract type	Key Characteristics	Representativeness of the Population	Number of Interviews
Quang Tri Cassava Company A Multipartite	Cash crop Competitive buyers Extensive investment by the company Extensive NGO support Comparative advantage unique to the company	Multipartite contract farming with NGO involvement for monopsony, industrial crop with small investment from farmers and high level of processing	14

the available forms of assistance for the different categories of linkage actors, the degree of satisfaction of the different categories of actors with the services and assistance provided, and the linkages/services that need to be improved.

The pro-poor analysis relied on primary data collected through interviews of the local parties such as farmers and business experts, secondary analysis through desk research of existing contract farming, and qualitative analysis using key informant interviews and focus group discussions. Specifically, the study looked for cost distribution and risk sharing, evidence of inclusion of small-scale farmers, and perceived benefits from contract farming.

Data and Sample

The study examined cassava contract farms in Quang Tri Province through desk research and interview of key experts. Cassava was chosen on the basis of three criteria: (1) it is a strategic commodity that small-scale farmers and poor farmers can produce; (2) it has potential to improve livelihood of the small-scale farmers; and (3) contract farming arrangement, specifically the multipartite model, is available for the commodity. Table 1 shows several descriptive information on the case and number of in-depth interviews with stakeholders in Quang Tri Province.

The term "small-scale farmers" is used quite loosely in this study to denote two characteristics: having a limited farming area and not having resources to expand the farming practice on their own. They are typically average to poor households in the community.

CONTRACT FARMING OF CASSAVA IN QUANG TRI PROVINCE

Key Stakeholders

Local government

The government at the province and district levels plays a role in the development of an agribusiness company and the planning of a crop. There was limited information from the provincial government on its support for cassava, especially in cassava contract farming, as stipulated in Decision 80. However, a concrete support given to Company A had been the subsidy from Quang Tri Department of Agriculture and Rural Development (DARD) for the period before 2010 to cover transportation cost. Particularly, each cassava truck carrying 10 tons received a support of USD 5–7, depending on the distance.

Company A

Company A is a fully (100% capital) state-owned agribusiness firm located in Quang Tri Province. The majority (90%) of its product is exported to China; only 10 percent is retained for the domestic market. It was established in 2004 in Thuan Commune, Huong Hoa District, which it developed to become its supply area. This area is isolated from other areas and has only one main road access, making it easy for the company to control the supply area.

Currently, the company sources 95 percent of its raw materials from Quang Tri. Its operations had changed the farming habits of the ethnic people in the area. With the attested economic benefit from cassava growing, farmers had made use of almost all areas suitable for cassava; these had been abandoned traditional grazing areas. Within seven years (2004–2011), the company had expanded its supply areas fivefold, reaching 4,500 ha, the province's maximum land allocation for cassava production in the district.

The production process at Company A is a closed cycle, in which raw cassava materials and the wastes of the process are utilized. The main product is cassava starch, which is packed for export markets by the holding company. By-products include cassava pulp for livestock feeds and ground cassava wastes for organic fertilizers. The processing wastes are kept to produce biogas, which is used as fuel for frying cassava flour in the factory.

Farmers

Farmers contracted by Company A are mostly ethnic minorities, accounting for half of the total number of cassava growers in the district. Since 2009, with support from a project funded by SNV Netherlands Development Organisation (SNV), a nongovernment profit organization of the Netherlands, the farmers had been organized into 70 groups, each having 30 members. The total number of contract smallholders made up half of the total number of cassava growers in Huong Hoa District. The team leaders of the farmer groups received training in cassava-growing techniques and skills to equip them in coordinating and monitoring their respective groups' activities. They played a key role in training their members, coordinating labor to support other members, and addressing cultural differences between the farmers and officers of the company during contract implementation.

The contracted farmers received the same price for cassava as the non-contracted farmers. The former however, received more training and preferential arrangement in their transactions with the company.

SNV Project

In 2009, SNV implemented a three-year project (2009–2011) funded by Ford Foundation aimed at increasing the income of poor rural households within the cassava and acacia value chains in three provinces: Thua Thien-Hue, Quang Tri, and Quang Binh. The inclusive business approach was introduced to Company A as the entry point for engaging the poor through sustainable investment and commitment to good governance. An agreement was reached with the local department of planning to coordinate a value chain development program. SNV initiated the spread of sustainable production methods (e.g., intensive cultivation, prevention of soil erosion, and staggered cropping) by developing expertise within the company, the local service provider (e.g., extension staff of district and commune levels), and the farmers. It also provided technical guidance for the company to initiate contract farming, linking with the farmer groups they support. The contracted farmers received support on management and group governance.

Middleman/Trader

Company A assigned 14 local collecting agents in eight communes within Huong Hoa area. These agents collected cassava from small-scale growers. It was noted that the use of the delivery truck for the collection was not cost effective. However, due to the monopsonistic power of the company, there was no active private agent or microprocessor in the region.

Governance Analysis of Contract

Rules and regulations

Contract formation and terms

The company signed a contract with each farmer group, through the group leaders. Endowed with prestige and reputation, the group leaders, who normally were hamlet leaders also, were expected to play their role in ensuring the participation of their group members.

The contracts between the company and cassava growers specified the quality requirement, timing, and payment procedure for the cassava products. The company advanced organic fertilizers and organized the delivery service from the farms to the company's storehouses; it committed to buy all the outputs. Contracted farmers were also provided with free technical training and agricultural extension advice through the SNV Project.

The farmers, on the other hand, committed to provide cassava roots at quality standards determined by the company and to settle the cost of the organic fertilizers advanced once the crop had been harvested. The farmers also agreed to deliver all their cassava products to Company A.

The pricing term in the contract was specified as a price that is at least equal to the market price. The company preferred to specify a floor price or an insurance price for farmers, however, the farmers did not want this provision, worrying that the company would only buy at this fixed price. Therefore, the payments were made in cash directly to the contracted farmers when they delivered their products to the company. No cash advance was provided to the farmers prior to harvest. During the interviews, the farmer respondents exhibited understanding of their contract's terms and conditions.

Enforcement

Monitoring compliance to the rules

Without the green light from the local government, Company A would have not been able to establish Thuan Commune as its supply area. The company said it received political support from the local government in terms of agricultural planning and was given exclusive rights to buy cassava produced in the area. The local government at the commune level legalized the contract between Company A and the leader of each farmer group. On the other hand, no explicit provincial policy can be cited for the engagement of the company in CF, except for the provision of transportation support prior to 2010. Such support had undoubtedly enabled the company to reach out to a large number of farmers.

During contract implementation, the government's role was limited to protecting both the rights of the farmers and the investment of the company. Since the company had been given monopsonistic power, it is reasonable to expect the commune's People's Committee to protect farmers from being underpaid by the company. In reality, however, the People's Committee had not been monitoring the price setting, leaving the farmers unprotected. Pricing had been left to the company. On the other hand, the People's Committee has limited capacity and measure to protect the company from opportunistic buying by other companies in times when supply is scarce. In 2010, for instance, when a company in Hai Lang district nearby approached Company A's contracted farmers with a competitive price for their cassava, the local government was unable to provide effective intervention to protect Company A.

In such case of side selling, the company management generally preferred not to bring the farmers to court. This is one of the reasons why the company signs contract agreements with farmer groups, rather than with individual farmers. When some farmers sold their cassava to the other companies, Company A used mediation measures rather than took formal legal action, which is impractical due to the lengthy and ineffective procedures involved.

System of sanctions and incentives to promote the application of the rules

When needed, sanctions were applied to the group, which was helpful to the company because the management cost is passed on to the farmers. In terms of incentives, the key resource that gave the Company power over the cassava farmers is its control of the transportation system, not the contract itself. As cassava roots are bulky, farmers would be hard put to sell their products without the transportation provided by the company. On the other hand, the company had been passing some management tasks to the farmer groups. Specifically, the group leaders were expected to inform the company on the delivery of a contract farmer's products, decide on the rotation system of harvesting, and book the truck's collection service. The company, on the other hand, coordinated the truck drivers to match with the processing capacity of the factory.

The company signed a contract with a farmer group only after its first three months of operation. While the farmer groups understood the terms and conditions of the contract, they had not really utilized the power of the contract to protect their income when the market price fell. The power in deciding the price rested with the company.

Effectiveness of the sanction/incentive system

There had not been many cases of major disputes among farmer groups and the company. However, since the farmers had become more organized, it is likely that they have more opportunities to influence the company. In addition to using mediation when an individual farmer broke the contract, the company initiated activities to promote trust and strengthen its bond with the farmers, such as by establishing the Club 100 Million. The system has proved to be effective in Huong Hoa.

Overall, the contract enforcement mechanism depended on the code of conduct of the company manager and the company's concern to maintain a long-term partnership with the community, rather than on a formal legal intervention. This reflects the business attitude of the company; it places a high value on building trust. For Company A, the key in ensuring a stable input supply is by building the growers' trust through the provision of inputs and technical support to ensure high yields and by arranging the timely collection of products. The contract serves as a foundation of trust and its relevance is largely in the beginning of the process only.

Services

As discussed above, government support provided a legal framework for the company to start its operation. However, the provision of support throughout the production cycle had been limited. The most valuable assistance that the company regarded as "more important than institutional support" was from SNV, which triggered the adoption of a successful CF arrangement in the area. SNV helped the company set up the right model of collaboration with farmers. It developed the technical and management capacity of the farmer group leaders, which had contributed to the overall success of the CF scheme. As such, the company had been able to cut down on some transaction costs on selecting and managing individual farmers. In 2006, for example, the company signed contracts with individual farmers, without establishing a strong support and monitoring system for them. Consequently, many farmers reneged due to lack of trust and ineffective internal control.

Pro-poor Analysis of the Impact of Contract Farming

Economic

Pricing mechanism and profit margin

Overall, the fieldwork confirmed that the multipartite contract model and good governance in the contracting practice promoted greater participation of small farmers and resulted in higher farmers' income. Evidence includes the increasing membership in the Club 100 Million (including farmers with income of at least USD 5,000/year) and the expansion of the farmers' production areas. The contracts had given farmers more confidence to invest in cassava growing.

Access to market and marketing arrangements

Contract farming had provided cassava smallholders access to a production system that was technically demanding and where economics of scale in processing and marketing would usually hinder their participation. In particular, the company shared the cost of marketing for farmers and made this service available to farmers.

The remote location of the commune posed as an obstacle to farmers in bringing their products to the market. Through CF, the farmers were able to have access to a stable market. On the other hand, the commune's location gave the company a unique advantage in that it made it easy for the company to know cases of side selling because there is only one way to access the community. In terms of access to agricultural input, farmers received organic fertilizers on credit from the company to improve their yields.

Cost distribution and risk sharing

The farmers faced market risk and suffered from income fluctuation when they tied the price of their produce to the prevailing market price. Thus, they relied on the goodwill of the company in setting a fair price when the market price fell.

Agricultural production and management

Extension services

The company did not offer a differentiated price between contracted farmers and non-contracted farmers. However, the contracted ones had the advantage of having access to organic fertilizers on credit and extension services to improve higher cassava yields and quality, which received a higher price. Participating farmers reported higher yields, better management of soil, and more motivation to expand their production areas.

Outputs quality and productivity

By differentiating the price for cassava with higher starch content, the company encouraged farmers to invest in farming techniques. Membership in a farmer group obviously gave the farmers more opportunity to receive extension and technical support from farmer-trainers, who in many cases were the group leaders. It emphasizes that sustainable contract farming arrangement is only possible when parties commit themselves to a long-term partnership.

Farmer empowerment

Farmer groups exhibited a strong performance on collectively managing their agricultural resources. There was no evidence though of a spillover to other crops.

Governance

Transparency in the contract's terms (especially in price determination) reflects fairness. By having access to the truck pickup team, the company got to control the schedule for buying the products. On the other hand, by working on a pre-planned system or schedule, the farmers can allocate and rotate among themselves the timing of harvesting. As the price varies during harvest time, the rotation system monitored by the farmers themselves helps to average out the income of individual farmers in a group and also provides stable inputs for the company. The process of price renegotiation and price setting, however, was not clear in the contract as well as in practice.

The farmer group exhibited a strong capacity in technical knowledge and skills and in management. Collectively, they had a stronger bargaining power than individual farmers. However, it was not obvious if they had been able to negotiate the price term with the company.

From Company A's perspective, there was a two-way association between the company and the contract farmers. The company had invested in a system supporting the farmers in cassava production and marketing, thus, building up their trust.

The case study strongly demonstrates how contract farming could facilitate the capacity development of a farmer organization. A characteristic of ethnic people is that they are afraid of signing individual contracts, worrying that the company would betray them. However, they were willing to join a group and work with the company through that group. Once in a group, individual farmers became confident. They contributed ideas and, together, arranged the resource sharing and support in farming. Thus, when the company changed its policy from having contracts with individual farmers to having them with farmer groups, with incentives for contract farmers, it encouraged farmers to work together.

Social aspects

There is no clear evidence on how contract farming changes the gender power dynamics. This aspect is neither specified nor required in the contract. Women farmers involved in the contract continued to carry out housework and worked directly on farms, mostly on tendering and harvesting. Men tended to make decisions on such matters as selling products to the company and participating in training courses; they also helped with tasks considered as heavy such as soil preparation and harvesting.

Environmental aspects

The company advanced and sold organic fertilizers at a cheap price to the contract farmers. Reinforced by the training, the use of organic fertilizers changed the farmers' cultivation practice. Before, farmers did not use fertilizer, thus the soil quality decreased quickly.

Development aspects

The poorest farmers had difficulties in joining the CF scheme. Since the company worked with farmer groups, which bound themselves with the company to an agreed performance, the groups were not inclined to accept the poorest households, which were normally without labor resources.

Company A's contract farming scheme has proven to be a successful case. The keys are in the product collection system, for which the company provided a truck pickup service, and the internal coordination among the farmer groups.

The model discussed above may be applicable only to Company A. Another company in Hai Lang District, for example, had a different CF scheme. It adopted a spot market model, in which the contract farmers grew and transported their cassava products by themselves to the collectors or to the company's gate.

DISCUSSION OF THE CASE

The case above describes the multipartite CF model used in Quang Tri. The following are the analysis and discussion of the case vis-a-vis the hypothesis of the study.

A common trigger for CF adoption is the need of the business. Contract farming is a backward linkage that helps companies have a stable supply of inputs or raw materials. For companies with large investment such as in cassava processing, this stable supply reduces production cost. A company with a long-term business plan is more likely to find the benefits of contract farming as a way of establishing a partnership with farmers.

Government subsidies provide leverage for companies to start contract farming or to expand their contract farming practice. In other words, government subsidies and policy support either cover some of the transaction cost or investment or share some of the risks of investment of companies that choose CF as part of their business model.

While the company in the case study was able to mobilize farmers and set up their input zones with the political support from the local government and concerned agencies, the role of government in contract reinforcement, especially the People's Committee at the commune level, is noticeably weak. The rights of both farmers and company had not been protected in the formal system. In particular, there was no mechanism and no instance when the People's Committee partook in the negotiation for a better price term for farmers. The People's Committee was also ineffective in stopping opportunistic buying of produce by other companies.

The form of support also affects the level of success of contract farming. In particular, technical support in terms of setting up the right governance and supporting conditions to increase internal monitoring of farmers seems to have contributed to the success of cassava CF with Company A. The company earlier tried to set up a CF system with individual farmers, however, it failed because it could not manage the volume of contracts. With support from an external entity (SNV), the company identified the weakness in its contract arrangements and address the critical points in its business model—that is, controlling the transportation/collection component and having a rotating harvest system to ensure a steady flow of inputs.

Agribusiness management skills likewise contributed to the success of the CF arrangement. Particularly, maintaining a good relationship with farmers during contract implementation is the key. Company A considered trust building as more crucial than the contract itself. The implication for the company was that it needed to invest in terms of personnel to strengthen its good working relationship with the contracted farmers.

An effective way to improve the partnership between actors in contract farming is by supporting farmer organizations. From a cost perspective, empowering farmers enables companies to transfer some of the transaction cost to farmers. This involves building up the capacity of farmers to work in groups so that they can provide mutual support, especially during harvest time when labor resources are scarce and the farmers can negotiate among themselves how to manage the flow of inputs to the company. In this case study, these are the most critical contributions from SNV, an NGO that worked with Company A. In organizing farmers, farmer leadership and team building are important interventions. Prior to SNV's intervention, the rate of farmers quitting their contracts was high. This was because Company A focused only on the village head to do the internal monitoring, accompanied by a commission incentive, and did not invest in setting up a system to empower the participating farmers.

A common factor that attracts farmers to CF is access to technical extension support. Access to extension services for increased productivity particularly is seen as an intangible incentive that leads farmers to be strongly committed to the contract scheme. In Quang Tri, farmers received both training and technical advice on cassava cultivation, thus improving cassava productivity and quality and soil management.

Depending on the commodities, CF might increase the inclusion of small farmers in production systems, as in the case of cassava production. On the other hand, the evidence that contract farming helps to improve income of farmers is not strong. In Quang Tri, contracted farmers experienced a higher income mainly due to significantly higher farm yields.

In terms of price setting, the contracted farmers in the case study had not yet utilized the full capacity of contract farming in protecting themselves from market volatility. By agreeing to be paid the market price, the farmers provided themselves an assurance only that their produce would be bought. The practice of specifying an insurance price to support farmer livelihood is not guaranteed in the current contract farming practice. In the case study, the company offered the same contract for all farmers. This reduced the company's cost of monitoring the contracts.

Table 2. Summary of impacts of contract farming on small-scale cassava farmers

Impact	Contract	Hypothesis Testing
Economic		
Pricing mechanism and profit margin	Yes, to some extent	+
Access to market and marketing arrangements	Yes	+
Access to agricultural input	Yes	+
Access to credit	No	
Agricultural production and management		
Extension services	Yes, significantly	++
Farmer empowerment (technical and managerial skills)	Yes, significantly	++
Outputs quality and productivity	Yes	+
Spill over to other crops	Not evidenced	+
Governance		
Transparency of the contract (esp. for determining price)	Yes, to some extent	+
Fairness of scheme (farmer's flexibility/autonomy)	Not evidenced	
Capacity building for farmer organization	Yes, significantly	++
Social aspects		
Gender effect and family labor	No clear impact	
Environmental aspects	Unable to assess	
Development aspects		
Equity and distribution of impacts	Unable to assess	
Relevance with regional food security	Unable to assess	
Inclusion of the small farmers	Yes, to some extent	+

Note: + positive impact; ++ significantly positive impact

However, Warning and So Hoo (2000) argued that a differentiated contract might benefit both firm and farmers: “Differentiated contracts might benefit the firm, and possibly the growers, in a number of ways. For example, if the firm has a relatively low cost of credit, it can structure the terms of a credit-providing contract so as to extract a poorer grower’s risk premium. This might involve offering a credit-providing contract with a lower price for the final product, in addition to a contract with no credit that pays a higher price for the product. The smaller, more credit-constrained growers will opt for the credit-providing contract and the firm will extract the difference between its shadow price of credit and that of the grower.”

The above analyses and discussion are presented briefly in Table 2, which also summarizes the impact of CF on small scale farmers and presents the study’s conclusion vis-a-vis the hypothesis and research questions. The hypothesis is accepted for three factors, namely: access to extension services, farmer empowerment (technical and managerial skills), and capacity building of farmer organizations. Some factors have a positive but not significant effect, indicating a slight support only for the hypothesis. The other factors did not indicate an effect at all, thus the hypothesis is rejected in these cases.

CONCLUSION

This paper analyzed the impact of contract farming on small-scale farmers. After literature review, it set up a hypothesis that assumes a positive relationship between CF and the benefits of small-scale farmers. Using the case study method, the study investigated a company involved in cassava CF in Quang Tri Province using the dual methodologies of governance and institutional analysis and pro-poor analysis. The results of the study support the hypothesis as far as the following factors are concerned: access to extension services, farmer empowerment (technical and managerial skills), and capacity building for farmer organizations.

Key Success Factors

Some of the key factors or ingredients for mutually-beneficial agreements to improve the livelihood of small-scale farmers can be identified and generalized from the case study, namely: support of government agencies, support of a development project, and provision of access to credit and agricultural inputs as incentive for farmers along with fair price condition.

Government’s support is quite critical, ranging from general development policies to certification of the contract. In addition, the support of development projects, including farmer coordination and technical support provision or acting as an intermediary between a company and a farmer organization, has added value to the involved parties. The latter is advantageous, particularly in terms of hands-on training and application of knowledge, skills, and technology to the local context.

Good governance by the company is another key factor, particularly to the efficiency and effectiveness of a contract. Examples of good governance are setting up a systematic transporting system so that farmers can control the flow of their inputs to the company, agricultural extension services provided in the form of training, and provision of technical advice throughout the production cycle.

From the producers’ side, good collaboration among the farmers and their ability to organize themselves are important. It helps to reduce transaction costs for both parties. CF is more likely to succeed when there is more support for farmers to organize and they are empowered to manage their contract through training, support to the group formation, and group management.

Likewise, CF is more likely to succeed if it can draw on farmers to join with distinctive advantage to non-contractual arrangements. Some upfront incentives for farmers such as credit scheme and access to agricultural inputs can be used as preconditions for farmers to join in an alliance of production. With these initial supports, the linkage or bond between the company and the farmers become stronger. Moreover, when a fair price setting process is present, farmers are more likely to commit to the scheme. In this process, it is critical that a committee decides the price with the participation of farmers and the company, and that an arbitration body protects the rights of farmers. However, given the volatile price, the price benchmarking should be flexible to enable quick decisions. A company might consider having differentiated contract conditions.

RECOMMENDATIONS

For national and local governments

While the study did not focus much on soliciting recommendations for companies, some suggestions have emerged, particularly relating to modifying Vietnam's Decision 80/CP-2002. The most critical recommendation is to make Decision 80/CP-2002 mandatory rather than recommendatory as it is now. While a more thorough consultation is needed to advocate a change at the national level, at the provincial level, CF should be more integrated with budget lines and appropriate financial incentives to encourage agribusiness to participate in such arrangements. Access to credit for agribusiness that promotes the selling and buying of commodities through CF is a critical factor to leverage the development of agribusiness.

To protect farmers, local governments need more training and increased involvement at the district and commune levels. Currently, there is a significant gap in the provision of marketing support for outputs of the farmers. Most of the support currently is for production and crop techniques. The extension services should include other aspects of production such as coordination among farmers to increase productivity and reduce transaction cost.

For development agencies

The case study results highlight the potential of an external body (e.g., an NGO) to facilitate the CF process, ensuring that the farmers are represented and protected. Some of the interventions could be advocacy work, empowerment of local authorities and local providers and farmer groups, and good governance.

Advocacy work

Based on the experience from the field and successful cases, development agencies can support the process of modifying Decision 80/CP-2002. Points of advocacy can be done in the development strategies of sectors as well as provincial and district planning to ensure that contract farming, as a market arrangement, is included along with its supporting policies. Supporting government at different levels so that their plan and development programs include value chain and market analysis of potential crops would benefit farmers. Coordination with other NGO networks or research institutes is crucial in this work.

Empower local authorities and local service providers

Interventions could include supporting local authorities so that they understand the implications of contract farming on farmers and the local district/village plans and that they identify situations affecting the interests of involved parties, particularly farmers.

Empower farmer groups and improve their skills

Agricultural technical knowledge provides short-term wins for farmers. In the long run, the following activities are crucial to empowering farmers: technical support in setting up farmer groups, building up skills in negotiation, helping farmers to understand the impact of contract farming, analysis of market, and financial management.

Good governance

The company will receive support indirectly through the work of the NGO with farmers as it represents a cost saving for the company. However, this could be used as a mechanism to encourage the company to implement good governance in its partnership with farmers. At the minimum, support to increase information sharing between company and farmers will help to bridge the gap.

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