

AN ANALYTICAL TOOLKIT FOR SUPPORT TO CONTRACT FARMING

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ACRONYMS AND ABBREVIATIONS

ADR	Alternative Dispute Resolution
CF	Contract Farming
CSR	Corporate Social Responsibility
FAO	Food and Agriculture Organization of the United Nations
FOB	Free on Board
GAP	Good Agricultural Practices
HQCF	High Quality Cassava Flour
ICT	Information & Communication Technology
IFC	International Finance Corporation
IRR	Internal Rate of Return
NGO	Non-Governmental Organization
PCE	Projet Croissance Economique
ROI	Return on Investment
TIMB	Tobacco Industry and Marketing Board
TTL	Task Team Leader
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
ha	Hectare
t	Tonne

1. INTRODUCTION

Over the past century or so, a wide assortment of pre-harvest agreements, joint ventures, deals and pledges that can be termed “contract farming” have been brokered between farmers and buyers. Many different farm products and markets are involved. In most cases, but not all, the primary goal in integrating vertically, for both farmer and buyer, is an improvement to profitability. The buyer gains through a reduction of the cost base and/or in increased reliability of supply, while the farmer benefits from an increased gross margin through higher yields, or new and more profitable products, lower transaction costs, or higher prices. Together with other supplementary benefits—such as stability for the supplier or linkage with the community for the buyer, or product branding for both—as well as potential detriments, these add up to a landscape of advantages and disadvantages.

During the 1980s and 1990s, contract farming was frequently criticized as a potentially exploitative arrangement, which favoured the more powerful buyer and left the small-scale farmer and the environment vulnerable to abuse. More recently, there is renewed interest from policy makers and their development partners in contract farming as a means of leveraging the recent wave of large-scale investment in land and agriculture to include small-scale farmers and to link them to new market opportunities. Commentators from a variety of perspectives have reviewed the potential advantages, disadvantages, risks and regulatory mechanisms, and many broadly favour the promotion of contract farming as a means of inclusive growth to benefit the most vulnerable groups of youth, women, disabled and subsistence farmers over and above the strictly commercial benefits available to private sector participants. The establishment of contract farming becomes a means to link small-scale farmers to markets, which might otherwise be inaccessible for reasons of distance, standards, processing, or any of the other disconnections and impediments that hold them back.

However, the enthusiasm of these commentators to promote contract farming must be tempered by the number of published examples where contract farming has not performed as well as expected. Contract farming is clearly not a panacea to eliminate rural poverty. Many problems, such as market failure, side-selling, difficulties in establishing fair pricing models, abuse of power, inability to manage quality or performance, compliance and inappropriate dispute resolution, reveal the gulf that lies between theory and practical reality. The concept of farming under a contractual arrangement is, therefore, too broad to be either dismissed as exploitative or promoted as universally beneficial. Each case must be evaluated on its own merits and failings.

The desire among development organisations to support small-scale producers through contract farming has resulted in a number of descriptive publications and manuals. These have been written to help establish successful contract farming schemes as well as to provide advice to public sector officials seeking to promote such schemes often with the help of case studies describing their success, or failure (see, for example, Eaton and Shepherd 2001, Action for Enterprise 2009, TechnoServe 2011, Prowse 2012, and Will 2013). **However, there have been few attempts to evaluate donor-supported contract farming projects, either financially or economically, or to measure their inclusiveness and their impact in the community. This document aims to provide a task team leader with tools for a critical evaluation of projects promoting contract farming schemes before, during and after the life span of the project.**

This toolkit has three objectives:

- Provide guidance on what kinds of contract farming schemes work well, and in what circumstances (the best practice function)
- Provide guidance on how to analyse inclusive contract farming schemes in order to identify those with a good chance of success/sustainability - 'the right horse to back' (the diagnostic function)
- Provide a framework for applying socio-economic and financial analysis to operations that support such schemes (the cost-benefit function)

2. WHAT IS CONTRACT FARMING?

Arrangements linking farmers and buyers for producing and marketing farm products

Contract farming is the term applied to commercial arrangements linking farmers and buyers for producing and marketing farm products. It is simply a label to distinguish a farming venture in which there is a reciprocal obligation with a buyer to produce and to purchase from an operation where no such undertaking is present.

...which have evolved over time to cover the inputs and services provided by the buyer in return for the supply of specific quantities and quality of output

The contractual arrangements would include, at a minimum, a promise of a consideration (e.g. money, inputs, services) in return for the product to be supplied at a specified time, quantity and quality. The contract farming label could be applied to any forward agreements, from the farmer using the futures market to hedge his harvest sales, or a small trader pre-financing a tree crop, to the integrated nucleus estate where, year after year, the collaborating farmers produce exclusively for a firm that provides a centralized management. They have all evolved to fit particular circumstances of crops, local conditions and markets, and the appraisal of an opportunity for contract farming should not be constrained by the limitations of a label.

Different types of contract farming models exist

Various definitions for contract farming have been proposed (Prowse 2012). Each seeks to include or exclude different sorts of pacts and bargains depending on the author's point of view, and a number of typologies have emerged within this broad scope.

Production and marketing contracts in the USA

In the USA, the U.S. Department of Agriculture (USDA) distinguishes production and marketing contracts (MacDonald and Korb 2011). In 2008, 39% of the value of agricultural production in the USA was produced under contract; 22% under marketing and 17% under production contracts (see [country case study – USA](#)).

Production contracts are becoming increasingly popular, especially in the USA, but also in Asia

Production contracts are increasingly important in the USA and the EU, especially for poultry and seed production, and are starting to gain prominence in Asia and Africa (see [poultry case study](#)). A production contract makes use of a farmer's services and some of the assets in return for payment, while the contractor provides the inputs and retains ownership of the output. For example, farmers provide labor, equipment/buildings, while contractors provide other inputs such as feed, veterinary and livestock

transportation services, and young animals. The farmer's remuneration is a fee paid for the specific services instead of a payment for the market value of the product. Additionally, farmers can effectively be paid a bonus depending on yields, mortality rates, etc. Since contractor-provided inputs may account for a large share of production costs, the fee paid to the farmer may be a small fraction of the commodity's value.

Marketing contracts tend to form the bulk of the contract farming arrangements in developing countries

In contrast, **marketing contracts** focus on the commodity as it is delivered to the buyer. They specify a commodity's price or method for calculating the price, the delivery point, and the quantity to be delivered. The parties in a marketing contract agree to its terms well before harvest, preferably before the planting of annual crops. Variants of this, often of longer duration, specify a method or formula for determining prices, rather than a specific price, at the time of agreement. Contract pricing may limit a farmer's exposure to the risks of wide fluctuations in market prices, and they often specify price premiums to be paid for commodities with desired levels of specified attributes (such as sugar content in cane). The farmer owns the commodity during production and retains substantial control over major management decisions, and, hence, retains more autonomy in decision making than is available under production contracts.

With a perspective focused on developing economy agriculture, Eaton and Shepherd (2001) recognized five different outgrower models depending on the intensity of collaboration as a key feature.

The **informal model** is usually a seasonal arrangement, without a formal written contract, between smaller buyers (for example, traders or agrochemical dealers) and a number of farmers.¹

The **intermediary model** makes use of agents or intermediaries between the farmers and the contractor. The contractor cedes some control to the agent but has outsourced the procurement process. In practice, the intermediary has a contract with the contractor and a back-to-back contract, or agreement, with farmers.

The **multipartite model** requires the collaboration of a number of different organizations, which are likely to include statutory bodies in, for example, extension. The farmers may be organized into cooperatives or producer associations, and financing institutions would provide support.

The **centralized model** is a direct linkage between a buyer such as a vegetable exporter, and a large number of surrounding farmers. The buyer

¹ It is often claimed that this model is very important to many small-farmers in developing countries where village traders supply small groups of farmers with inputs and reclaim their value at harvest when they market their produce. However, the scale and relative importance of this model has not yet been convincingly quantified, though Shepherd (2004) concluded that in Asia these vertical linkages between farmer and intermediary which provided working capital were generally "non-exploitative and generally serve to secure supply, guarantee markets and reduce transaction costs".

provides all the services and support that might be added by other organizations in the multipartite model. The input from the buyer can range from minimal to a close engagement in the production process.

The **nucleus estate model** is again a direct linkage between buyer and producers but here the buyer also manages a central estate or farm. From its own production, the buyer can guarantee a minimum availability of raw material for a factory processing, for example, rubber, sugar or oil palm.

All types have success stories and failures

No one type fits all contexts, and no one type is intrinsically more successful than another. So, although we may define different models, the promoter of contract farming needs to focus on the specific situation rather than the generic institution. There can be hybrids between the above models; for example, an agribusiness may use agents to supply a specific crop in an intermediary model, but the same agents may also supply inputs and market other crops in an informal model.

Contract farming works best when both parties take a long-term view allowing the development of mutual trust

Contract farming need not imply a multi-season relationship, but that is the overall tendency of contracting in developing countries. Where a long-term collaboration is possible, trust can be built up, and the buyer and seller can grow their business together. The essence of trust is built over time – and all parties need to work towards this. Yet, contracting as a means of financing for the season is a common starting point, where, for example, a trader will provide agrochemicals on credit at the appropriate time in the season and take delivery of the crop in payment after harvest.

Contract farming: a response to market failure which comes at a financial cost that must be recovered

The public sector is interested in supporting contract farming in developing countries because it delivers inputs and extension, which may not be available in many rural areas. However, the provision of these involve costs and credit risks that the buyer has to carry, and will have to be recovered later.

This toolkit considers all of the production models because each has a role to play in improving the inclusiveness of small-scale farmers. It is recognised that this toolkit gives less recognition to the informal and production models because they have received less attention from Governments, their donor partners and researchers. However, when future efforts are considered to support contract farming, it is important that these models are not ignored, because for some farmers in some countries, they could be an excellent starting point to increase participation in contract farming (see [case study on sustainable coffee: Vietnam](#)).

3. WHY IS IT IMPORTANT?

Contract farming should ensure the availability of product

Contract farming offers an opportunity to develop the linkages that are missing for the small-scale farmer. It is common that the small-scale farmer wants reliable access to the inputs necessary for commercial farming, yet the credit, mechanization, seed, agrochemicals, technical information are either not available or beyond the means of the asset

poor. While on the downstream side, the connections from the farm gate onwards to the processors and markets are, at best, weak.

It can deliver benefits to farmers

Extension services to develop farming and management skills are often poorly delivered and costly, while the small-scale farmer is usually coping with an unmanaged production risk and marketing an irregular surplus in a spot market.

These circumstances conspire to a likely outcome of increasingly marginalized small-scale farmers who are less able to compete in a globalized marketplace. Here, contract farming seems to offer a solution: a contractor provides some or all of the inputs in exchange for product thus easing the immediate production issues, and, with the improved husbandry following from the supply of extension services, productivity, profitability and livelihoods can hopefully be enhanced. If the contractor also links to the market, then the chain is complete, and small-scale farmers become full participants in the agricultural economy. While this may seem to be the answer to improving the incomes of many disadvantaged small-farmers, such a contract farming solution is only sustainable if it provides incentives, usually profits, for all the actors in the value chain.

What does the small farmer want from contact farming?

Despite the considerable amount of literature and research on contract farming, there is poor understanding of what small-scale farmers really want; their desires tend to be simply assumed. Further research is required to understand the motives and rationale for small-scale farmers wanting to join contract farming schemes.

Of course in practice there are many pitfalls and issues along the way, but contract farming succeeds in many environments on different continents with different value chains. Fundamentally, however, there remains doubt about “inclusiveness” and just how to ensure that the most marginalized in the rural economy can benefit from the vertical integration that contract farming might offer.

The concept of inclusiveness looks to ensure that the rural disadvantaged, the smallest-scale farmers, women, youth, ethnic minorities and the disabled, can all benefit from growth and are not left behind. Some analytical reviews of contract farming have looked at farmer selection in an effort to understand levels of inclusion or exclusion, and the findings are mixed (see, for example, Sartorius and Kirsten (2004), ADB (2005), Miyata et al. (2007), Junning Cai et al. (2008) and Singh (2009)). For example, the fruit juice processor looking to fix procurement costs at a low level will logically select the larger scale farmers able to provide a predictable and consistent volume; meanwhile, the rice processor, surrounded by smallholders, may not have access to enough larger scale farmers to provision tranches of a 20,000 tonne annual requirement but can work with cooperatives and producer associations to secure aggregated supplies from many small-scale farmers.

Contract farming is not suitable for all small-scale farmers

A segmentation of smallholder agriculture is helpful here in setting our expectations of contract farming to be inclusive. Various authors have provided a taxonomy of small-scale farmers, using characteristics such as assets (Berdegué and Escobar 2002), land holding (Hazell et al. 2010) and markets (Torero 2011)². Vorley et al. (2012) summarized these in defining three Rural Worlds:

- Rural World 1 comprises the producers with access to capital, some organization, information and infrastructure, and a capability of “stepping up” to formal and coordinated markets. Vorley et al. describe these as the richest 2-10%, matching a survey of four East African countries by Jayne (2012) who found this segment to be less than 4% of the rural population.
- Rural World 2 consists of the majority of smallholders, largely self-sufficient but occasionally selling surpluses to the informal sector; they vary from being net sellers of food crops to net buyers. A part, often substantial, of the household income will be derived from non-farm activities.
- Rural World 3 comprises the rural households approaching landlessness. A wider survey by Jayne et al. (2002) estimated that 25% of households in sub-Saharan Africa were in this position. These are tenant farmers and wage laborers and a population transitioning out of agriculture into the labor market.

On this understanding of the smallholders (and the proportions will of course vary throughout the developing world) generally only a tiny segment are potential beneficiaries of contract farming at its simplest. It is likely that only Rural World 1 may have the capability **as individuals** to match the requirements of the contracting firm directly.

Clustering of farmers increases opportunities

Rural World 2 can best benefit through supply aggregation into co-operatives and producer organizations. Indeed, the producer organization that is not simply an aggregator of produce but also a negotiator and manager can equalize the imbalance in power between buyer and seller in this environment, **if** it has the necessary human and financial capabilities that are so often missing.

Rural World 3 will benefit directly if production by Rural World 1 and 2 farmers expands thus creating more on-farm employment opportunities as well as in the expanding local economy.

The primary goal of support to contract farming is to increase rural revenue

Overall, the opportunity to increase the revenue to a community through contract farming is the primary goal of those who would support contract farming. The expectation that contract farming can engage all local households is unreasonable and risks neglecting the benefits of increasing the local income, and risks ignoring the rather different support needed

² In the past, a distinction was also made between farmers who participate in the economy and those who do not, i.e., subsistence farmers. While there are those rural producers completely isolated from the surrounding economy, it is more common to find an increasing proportion of household livelihoods derived from off-farm activities (e.g., hunting, fishing, charcoal, forest products, trading and so on) that give access to the economy for those who have no farm surplus to sell. Perhaps a better distinction is in those who are net sellers of farm produce and those who are net buyers, with a grey area in between of occasional sellers.

by Rural Worlds 2 and 3. Few farmers in Rural Worlds 2 and 3 will be capable of collaboration unless there are sufficiently robust producer organizations to intermediate. Measuring success simplistically through targets of farmer numbers involved in a contract farming scheme implicitly assumes a homogenous base of smallholders to approach, and it overlooks the practical realities of collaboration.

In conclusion, support for contract farming should moderate expectations of inclusion with an interpretation that gives due weight to the increased revenue derived for the local economy, rather than placing all the expectations simply onto the number of farmers involved. Contract farming has the potential to contribute to inclusive agriculture, but it will also impact significantly by creating off-farm employment due to increased prosperity.

4. RISK IN CONTRACT FARMING

Contract farming is not inherently more precarious than other agricultural investments, but the initiation of a contract farming venture has an impact on the risks endured by both parties to the contract, and these are not always well understood. Any agricultural investment involves risk, and risk should feature in management planning, but, in practice, risk management may get less attention than the more immediately pressing elements of costs and profit.

The perception of risk also shapes behavior with respect to the contract. The position of the small-scale farmer, who has a low capacity to bear risk and is so justifiably averse to risk, is not always factored into the planning of integrated ventures. The assumption that behavior is rational, and led by the logical weighing of costs and benefits, has a place in modeling on paper but in practice is less appropriate.

From the outset, the contracting parties should understand how risks may be increased or decreased by the contract and what measures to mitigate or cope are necessary. The development partner or policy maker will want to know that any additional risk is manageable, and that its sharing is equitable.

The integration of producers and buyers in contract farming leads to a change in the profile of risk for each enterprise. Table 1 below briefly reviews some examples of changes in risk noted in published case studies and descriptions.

TABLE 1: Impact of contract farming on risk

FARMERS		BUYERS
PRODUCTION RISKS		For those not already engaged in production (e.g., processors), investing in production will involve them in production risk, though contract farming can also be used to mitigate this same risk
Weather related	Unchanged in likelihood, but the threat may be reduced by infrastructure, such as irrigation, or by crop insurance schemes organised by the buyer or others, including government	
Biological	Risk may increase with a new crop, but availability of inputs and credit to make them accessible, plus the provision of good extension and training by the buyer, can reduce the risk	Poor crop management skills by small-scale farmers, perhaps with limited literacy, can be overcome by good extension
Diversification	Risk averse small-scale farmers tend to rely on a diversity of crops plus non-farm income. The consequences of crop failure are more severe in production focused on a single crop, which may contribute little to the household nutritional balance	
New product or technology	Might be inappropriate for the region; might require technical support and learning; needs to be minimised through support from the buyer	
Loss of control	Loss of flexibility to adjust to market opportunities	Loss of flexibility to seek other sources
Asset or investment risk	The investment by all parties in contract farming can be substantial, for the buyer in infrastructure, human resources and procurement structure, while the producers of poultry or tree crops have significant set-up costs. Long-term commitment and trust is needed	

	FARMERS	BUYERS
MARKET RISKS		
Counterparty	Non-payment; buyer invoking quality issues to reject; late payment; contract manipulation; lack of transparency	Side-selling; non-delivery; sub-standard quality delivered
Single buyer/ multiple sellers	Dependence on the financial health of a buyer; dependent on management decisions, maybe taken remotely; monopsony possibility of fixing prices low	High transaction costs; high management costs – might be managed by focusing on few larger sellers or working with farmer groups, e.g., cooperatives. Inclusion of small-scale farmers is politically more acceptable
Financial	Volatile market price (and possibly input prices) risk is reduced depending on nature of contract; farmers may take on new levels of debt with the contract	Volatile buying price risk reduced depending on nature of contract; credit diversion with advances of cash or inputs diverted to other uses or users
OPERATING ENVIRONMENT RISKS	For the most part, exogenous and not affected by contract farming. Exceptions have been noted	
Environmental damage	The move to monoculture, higher chemical use and possibly mechanisation can have a negative impact on the environment	
Food security	As noted above, specialisation, and in particular to non-food crops, may have a negative impact on food security particularly in areas without well-connected markets	
Gender dynamic	Changing household dynamic; for example, where women are responsible for production but not involved in the contract	
Publicity		Adverse publicity from contract enforcement

While we can look at past experience in Table 1, and we might learn through case study of misfortune something of the severity of a risk, the probability of the risk is specific to each project, and accordingly should be assessed specifically.

Risk can be broken down into an evaluation of the potential impact, the probability and the manageability. A matrix can be built up to place individual risks on a table of likelihood against severity or impact, and so assign priorities and encourage a review of manageability.

Strategies for risk management fall into three categories:

- **Coping:** the ability to deal with the consequences through financial reserves or buffer stocks
- **Transfer:** the reassignment of the risk to another willing party; for example, to an insurer or through a contract with a futures market
- **Mitigation:** reducing the probability or the severity of the threat; for example, investment in irrigation or ensuring that non-contracted crops are also planted

The application of each depends on the balance of likelihood, severity of the consequence and the manageability, since a likely hazard is best managed actively whereas a rare threat might be withstood by advance provision of reserves, for example, or transfer of the risk to an insurer.

One of the key risks in contract farming is the counterparty risk of contract misbehaviour (see Table 1), and this is discussed further below in Section 5.2.3 together with the value of alternative dispute resolution (ADR) mechanisms that recognize the importance of the relationship.

5. OBJECTIVES, ELEMENTS AND EVALUATION OF CONTRACT FARMING

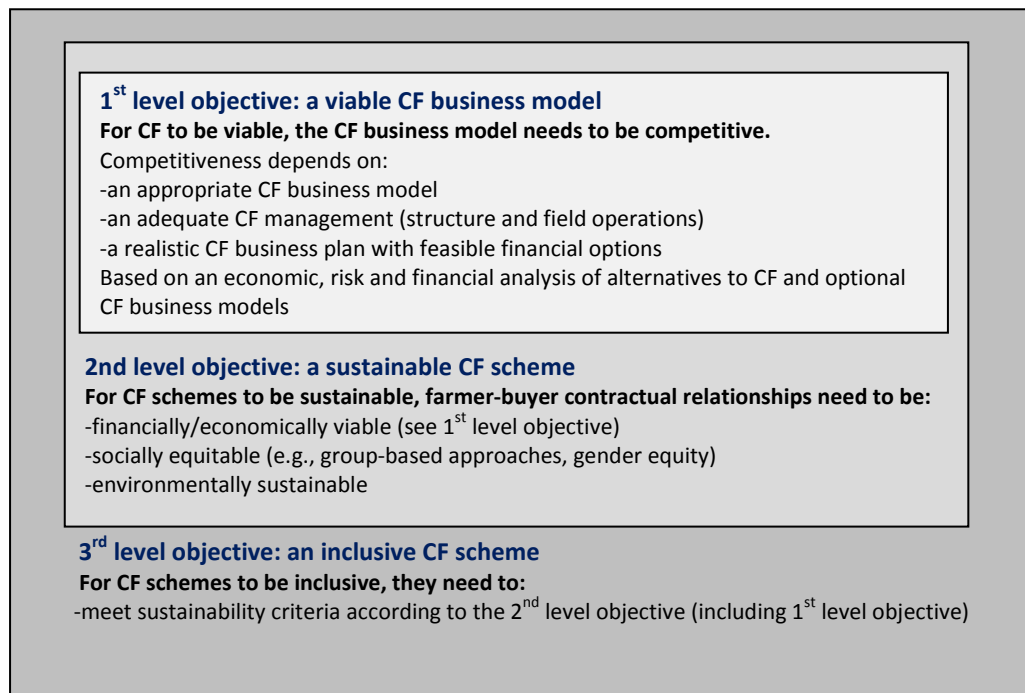
5.1 OBJECTIVES

The private and public sectors' support of contract farming are different: essentially, the private sector is driven by profit while public sector actors are driven by socio-economic benefits, for example, inclusiveness. The separate aims lead to disparate criteria for success using financial and socio-economic yardsticks. In reality, both sectors do interact, because governments establish laws to protect their citizens and the environment, as well as by enjoying the benefits of increased tax revenues from successful contract farming whilst investing in improved infrastructure to improve the flow of inputs and outputs. Also, if the public sector wants to see greater levels of inclusiveness, this can be achieved by supporting the private sector's business drivers.

The objectives of the private and public sector complement each other. For example, Will (2013) regards the establishment of successful inclusive contract farming as three sequential steps (Figure 1), which stress that the objectives of inclusiveness in contract farming must be

built on a viable business model. Similarly, Shepherd (2013) notes that one of the problems of the donor's support for contract farming is the tendency for it to be seen as "a development tool where commercial principles do not apply". **A successful inclusive contract farming scheme must be built on a viable and competitive business model that should be sustainable.**

Figure 1: Multi-level model of objectives of contract farming



Source: Will, Margret (2013) – personal communication

There are a number of business elements that form the basis of the commercial viability of contract farming (Section 5.2). These are:

- The product and market, which includes the market opportunity and the participant's capability to supply it
- The characteristics of the participants who are commercially involved in the contract and third party supporters who can be vital to ensuring its success
- The responsibilities and terms described in the contract, including the pricing mechanisms
- The management of the contract; both buyers and sellers have an important human commitment to the success of the relationship (and its reinforcement through ADR rather than recourse to the state courts)
- Plans for scaling-up the business, which may be required to maintain the competitive status of the value-chain

Understanding and implementing the appropriate activities within each of these five elements are the crucial building blocks to the success of the contract agreement. From the perspectives of both the buyers and farmers, the critical measure of success is how these

building blocks combine and contribute to the **financial analysis** of costs and revenues that determine its commercial viability (Section 5.3).

Once the business case is proven, the public sector will want to understand the socio-economic impact of the contract farming arrangement at community and national levels and evaluate its impact on the environment. Therefore, a **socio-economic analysis** will be needed (Section 5.4).

The final evaluation required of public-sector support for contract undertaking is the **measurement of the level of inclusiveness** (Section 5.5). This will determine the level of support that could be made available by government and donors.

Any agency that aims to support contract farming will wish to appraise a project before investment and also evaluate it during and after completion of support to the project. While the initial appraisal would be made on projections, subsequent evaluations would be based on actual results.

5.2 BUSINESS ELEMENTS

5.2.1 THE PRODUCT AND THE MARKET

As with any successful business investment, there must be a clear market opportunity and the chosen product should have a clear comparative advantage to compete. Therefore, there are some guiding product and market principles that can help decide whether to support contract farming investments or not (Table 2).

Processors and supermarkets have been important catalysts for contract farming

Processors have been catalysts to establishing contract farming in developing countries (see [Papain case study](#)). The need for a reliable supply of high-quality raw materials has stimulated efforts to contract farmers; for example, many small-scale farmers in Africa grow cotton for ginning or supply milk to dairies under contract. More recently, the traceability standards demanded by the European supermarkets have encouraged exporters to establish systems to both train and monitor their growers in good agricultural practices.

Products and markets needing regular farmer contacts, that are difficult to mechanize or create monopsonies, are more successful

Criteria for successful contract farming with small-scale farmers include:

- The existence of a monopsony: by definition, the existence of only one buyer eliminates side-selling, but the buyer has a very strong negotiating position; third-party support to farmers and farmer groups can help redress this imbalance
- The need for regular communications between the buyer and sellers: the daily collection of milk linked with a regular supply of inputs and payments ensure that contracts with dairy farmers are more likely to be effective
- Crops that require considerable seasonal labor and are difficult or costly to mechanize are well-suited to smallholder-based contract-farming if there is sufficient family labor available. For example, in Zimbabwe, almost 300,000 farmers are contracted to grow cotton and tobacco (see [Zimbabwe country case study](#)). However, the

aggressive competition between buyers of these crops can sometimes lead to considerable problems associated with side-buying and side-selling

Contract farming with staple crops is much more problematic and is rarely successful

... except when the end-product is tailored to suit the factory

... a third party catalyst is required to eliminate a constraint

Plantation crops work well

Trying to establish contract farming with staple foods is much less likely to succeed; the multitude of buyers creates too many opportunities for side-selling ([see cassava case study](#)).³ Contracting staple crops only works when:

- The buyer can identify a variety that is more valuable than the ones normally used by farmers ([see potato processing case study](#))
- High levels of management input and imaginative marketing are used to improve margins in the value chain; these can make staple food contracts work, but may not be sustainable in the longer-term
- A value chain is constrained by lack of credit, then a financial institution can be the catalyst to the establishment of contracts

Plantation crops are often successful contract farming models. This is because the buyer is effectively a monopsony; the contracted farmers are near to the nucleus estates of factories ensuring close communication and sometimes the central estate can help the farmer undertake activities.

³ The case study notes that efforts to set up contract farming by industrial processors of cassava in Nigeria have been disadvantaged by side-selling. In contrast, cassava production for processing in Thailand has been very successful. However, it is not consumed as a staple food in Thailand, as virtually the entire crop is used for industrial-scale processing.

TABLE 2: Market and product characteristics that impact on contract farming with small-scale farmers

Market	Product	Issues	Driver of success	Key comments	
				Agri-business	Small-farmer
Staple food for local market	Maize, cassava, rice	Very often not successful due to side selling	Very close & frequent contact with farmer	Why contract if there is a large vibrant local market?	Too easy to side-sell and escape repayment of inputs, not over-reliant on one buyer
Staple food for adding-value	Cassava	Often not successful	Very close & frequent contact with farmer	Maybe differentiate product (specific varieties) to make it more valuable for processing	Too easy to side-sell and escape repayment of inputs, not over-reliant on one buyer
Processing	Potatoes, cotton, fruits & vegetables for preservation	Factories need reliable supply, monopsonies can be exploitative	Monopsony, good prices for high-quality, dedicated varieties	Generally less options for side-selling; saves investment in farming & corporate social responsibility (CSR) benefits	Access to reliable and new markets and inputs. Producer associations, supported by third parties, can help negotiate better prices
Export – high value crops	Horticultural crops	Many farmers have to adhere to standards; perishable	CSR benefits, and buyer does not have to invest in land, etc.	Often a sales premium; saves investment in farming but significant costs with extension	New & higher-priced market opportunities, access to inputs & good agricultural practice (GAP)
Export – lower value crops	Tobacco, cocoa, dried chillies	Income for farmer, low investment in farming for buyer	Profitable value chain with little competition	Often a premium for sourcing from small-scale farmers	Higher-priced market, access to inputs and GAP
Plantation crops	Sugar, rubber, oil palm	Monopsony with little chance of alternative markets	Proximity to nucleus factory ensures control	Control over production without investment. Donors will support smallholder investments	Establishment costs sometimes carried by processor or public sector, but no alternative market
Dairy	Milk	Need collection centres & reliable producers	Regular farmer contact and payments	Increased throughput and wider farmer base	Assess to larger markets, regular payment and supply of inputs
Poultry	Chickens	Can be established as a production contract	Mutually beneficial to both buyer & seller	Increased throughput with little investment. Rapid turnover of birds gives close control	Assured larger market; Provision of inputs and technical services

5.2.2 PARTICIPANTS

Financial institutions can have an important role to play	Beyond the buyer and the seller in the contract, other organizations can have an important role in contributing to the success of the relationship (e.g., Government and its agencies, donors and NGOs). The role of these other participants should be to support the successful and equitable development of the relationship and not control it. In addition, there can be an important role for financial institutions if credit is a major constraint (see rice processing in Senegal), and independent bodies for dispute resolution.
The buyers should first target asset-rich farmers first and then become more inclusive	Most rural households in developing countries are net buyers of food and do not have the assets and expertise to increase their production (Rural Worlds 2 and 3). Naturally, businesses who want to establish contract farming target the asset-rich farmers. However, once the viability of the relationship is proven, it then becomes easier for motivated smaller-scale farmers to join. The strategy of starting with larger-scale farmers and then becoming more inclusive has a number of advantages. For the buyer, initial targeting of larger-scale farmers means that there are fewer contact points, which reduces aggregation costs, and those farmers are more likely to have expertise of commercial transaction. For the farmer, the fewer initial contact points means they get regular communications.
The development of functioning clusters benefits both parties	There has been much written about the benefits of developing farmer clusters, cooperatives and producer-based organizations (e.g., Strohm and Hoeffler (2006), Ton and van der Mheen (2010)). This is certainly the case in contract farming where it helps with communications, distribution of inputs and aggregation of outputs. In theory, operating as part of a cluster gives farmers greater powers of negotiation

5.2.3 ESTABLISHING THE CONTRACT

Contract farming is different from traditional agricultural marketing, which can be characterized as a single transactional process.

Characteristics of transactional and contract farming

Transactional farming	Contract farming
Focused on a single transaction	Orientated towards repeat sales over many years
Buying price determined at time of sale	Actual buying price (or formula) fixed pre-planting
Limited buyer/seller interaction	Close, frequent buyer/seller contact
Limited additional services provided	Provision of inputs & extension services
Minimal focus by the buyer on improving yield/quality, etc.	Continual emphasis on improving quality of service and product by all parties

Enforcement of contracts is difficult	If an agribusiness invests in supplying inputs and advice and then does not receive the output, considerable losses can be incurred. In developed countries, the farmer/producer will sign a contract with penalty clauses that enables the agribusiness to reclaim the investment. This is much more difficult in developing countries when the small-scale farmer usually has
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few assets other than the land⁴ and house on which he depends and the state courts may not function optimally.

It seems that signing contracts in these circumstances might be pointless other than as a reminder of the terms. However, a more relational approach would put less emphasis in the contract on the transaction and more on the relationship and the mutual benefits that accrue from such a relationship.

A working relationship between both parties might be a better target

It is important to keep contracts simple. There is little to be gained from a complex contract that defines every possible eventuality over a period of time and yet cannot be enforced. Instead, the contract might define the basic parameters of the contract in terms of product, quality, and quantity and the consideration of inputs, services and payments. The conduct of the relationship, and the resolution of disputes, should be given due attention with a view to preserving the longer-term stability of the venture. It might be sensible to have a formal contract with a cluster or cooperative and a relational, or verbal, agreement with the individual farmers so they understand the parameters without signing a document or pledging their assets.

The importance of trust

The buyer can still advertise the market buying conditions, and both parties would behave with each other as if there were a legal contract. However, the relationship would be established on trust, and as such, it would be important to have a system in place to ensure that all farmers understand the terms and conditions of the relationship, and that there is a communication channel for the farmers to give their opinions and views back to the buyer.

CONTRACT RISK

The key to effective risk management in contract farming applies not only to the individual parties fulfilling their roles and objectives, but also to the conduct of the contract. Here, the risks of adverse behavior by the other party to the contract (also called counterparty risks) should be given priority, as the behavior of the opposing party (the “counterparty”) is so often the primary cause of dissent in contract farming, through, for example, side-selling or late payment. Recourse to the state courts is not a realistic solution generally, and the best approach is mitigation.

Where the contract is expected to last over a longer period of time the relationship becomes more important than the transaction itself. While a legal approach to the contract will attempt to cover the risk of every eventuality that might arise in the life of the contract, a more relational approach (McNeil 1978) will look to secure the relationship between contracting parties for the duration of the contract and how to resolve disagreements. It is then incumbent on the parties to the contract to work towards building the relationship through trust.

⁴ Even then, the farmer may only have customary tenure with no right to sell or mortgage

Dispute resolution process

It is important that the dispute resolution procedures have been agreed in advance, and that the appropriate processes are available. These might range from arbitration, with a decision reached by an arbitrator or a panel, to mediation where the disputing parties, through the facilitation of an independent mediator, work out a solution. The presence and clear understanding of the dispute resolution process should lower the risks perceived by investors and agribusinesses contemplating entry into contractual arrangements⁵.

PRICING

The factor that has the biggest impact on profitability for the farmers and indeed the agribusiness is the price of the contracted product. In some cases it is relatively easy to agree a price at planting or well before harvest, for example, if the buyer:

- Has a fixed price marketing agreement for its end-product⁶
- Is a monopsony
- Adds considerable value to the farmer's raw material

The need for flexible pricing models

It is not always possible to fulfill these requirements; in fact, the majority of agricultural marketing does not meet these parameters, and flexible pricing models become essential. Both parties can reduce risks and also share in gains that might accrue between agreeing a contract and delivery.

Pricing models are crop and market dependent

There is a range of pricing models that can be used (Table 3). The key issues to choosing the successful pricing models are:

- Flexibility
- Transparency
- Ensuring that everyone in the value chain gets a remunerative return for their investment over a number of years and does not attempt short-term gain.

Farmers might need support in establishing the correct pricing model and setting the terms

Before a contract can be established, price negotiations will need to take place. Small-scale farmers may require some support to have sufficient information to achieve a remunerative price. The formation of groups, or the collaboration with an external agency or NGO, can assist them with this. It is always hoped that the buyers and sellers will be transparent with their costs, but sometimes it can be difficult to get all the details required.

⁵ The IFC is working on an Alternative Dispute Resolution toolkit where this is discussed in greater detail.

⁶ Examples of this can include processors who have an agreed price for their end-product. A rice mill in Senegal negotiated a series of deals with rice wholesalers before the processing season so they were in a position to offer farmer groups back-to-back contracts (see [Senegal rice case study](#)).

TABLE 3: Typical pricing mechanisms that can be used in contract farming: advantages and disadvantages

Type	How it works	Examples	Advantages	Disadvantages
Fixed price	Price agreed when contract is agreed before harvest, preferably at planting time for crops. If negotiated fairly, all parties can make an acceptable return on investment. Good for production contract farming models	Processing crops, milk, poultry	Works well when there are no other buyers competing and/or when the buyer has also a fixed price agreement for its end-product	Fails if there are many alternative buyers or if the buyer exploits its negotiating power
Local market price	The buyer agrees to pay based on local market price; or a fixed percentage of it to allow for cost recovery of inputs	Generally crops for the local market	Reduces temptation to side-sell	Agreeing the basis of market price is difficult. Buyer has little incentive to supply inputs and farmers' yields suffer
Exports - Based on international market prices	The contracted price is based on the international markets with a percentage or fixed value deduction to cover inputs, transport and other marketing costs	Cocoa, cotton	Transparency; it is relatively easy to identify international commodity prices ⁷	Farmer is vulnerable to international factors. Changes in international exchange rates can cause issues
Imports - Based on international market prices	The contracted price can be based on import parity price	Maize, wheat	Can be relatively easy to obtain import parity pricing – from importers	Variations in exchange rates or erratic changes in Government policy on importation
Maximum/ minimum price contract	The farmer receives local market price between an upper and lower limit; the farmer therefore has a floor price and the buyer a ceiling price	Normally used for processing in developed countries	The price is pegged within a range that allows both parties to at least cover their direct costs whatever the market situation	

⁷ For example, cotton prices are published at: <http://www.cotlook.com> and cocoa prices can be found at: <http://www.icco.org/statistics/cocoa-prices/daily-prices.html>

5.2.4 MANAGING THE CONTRACT

Patience and persistence Contract farming, in the sense of longer-term relationships, does not develop spontaneously, and it will take time, often several seasons, to smooth out problems as they develop in the venture. If there is a fixed price arrangement, it might take a few years for the “average” to be seen to work in both parties’ favor. Where new crops are introduced, or new technology is adopted, 7 to 10 years is not an unreasonable expectation for a project to reach maturity.

Good management involves good communications and listening skills The quality of the management is a critical factor and yet it is the most difficult to define. Perhaps, the biggest managerial impact in contract farming is achieved by establishing good communications, listening and acting on each party’s issues and honoring agreements. This is the basis of trust between the buyer and seller.

In the case of the agribusiness, good management means establishing frequent dialogue with the farmers, or farmer groups, supporting with inputs and extension, providing appropriate information and having the flexibility to quickly react to unexpected circumstances as and when they occur. The frequent dialogue can be aided by contracting a cluster of farmers near good roads.

Characteristics of good management

Small-scale farmer	Agribusiness
Attends and contributes at meetings	Good and regular communications, and listens to feedback
Provides prompt feedback on potential problems (e.g., disease, weather)	Provides timely inputs and technical advice/extension
	Issues prompt payment
Honors agreements	Honors agreements
Reports issues quickly	Responds to issues quickly
Determined to continually improve yields and quality	Determined to continually help farmers improve yields and quality
Long-term commitments	Long-term commitments

The use of ICT is becoming increasingly helpful Over the last few years there have been tremendous advances in the use of Information and Communication Technologies (ICT), which have had a radical impact on the connectivity of farm communities into the value chain. Mobile phone text messaging is used to communicate agronomic and other technical advice, collection and marketing plans as well as to handle payments. The farmer can use the same service to inform the buyer of potential problems.

Contract indiscipline is a common cause of failure in contract farming ventures. Since enforcement through the state courts is often not an option, other management strategies are needed. From the buyer’s perspective these management strategies include:

The importance of farmer selection

- Selection of the farmers. If an agribusiness invests in resources for a farmer, it is important that they get sufficient output to recover the initial investment. However, not all farmers are capable of producing the necessary yields and quality nor can they always deliver reliably. Therefore, contract farming is not an option for all farmers and the selection process is critical to its success (Ton and van der Mheen 2010)

Coherent and responsible group formation

- Work with farmer groups, where the group takes responsibility for the supply so that a shortfall by one member can be made good by others

Regular communications

- Develop close links with the farmers; regular meetings, opportunities to share concerns, giving participants voice in decisions and transparency all add to the cohesion of the venture

The importance of incentives

- Incentivize - without strong incentives to participate in the venture, there will be no commitment. Small-scale farmers are generally risk averse and manage with a range of coping strategies, such as diversifying their income beyond farming and cultivating reliable if low-yielding crops; specialization and single buyer programs may not be attractive

Prompt payment and the buyer should take on the burden/risk of storage

- Prompt, reliable payments will reduce the risk of side-selling. If the product must be stored, perhaps for aggregation, prior to purchase then it is preferable that it is not stored by the farmer, but in a central warehouse as this reduces the temptation for side-selling and should help reduce the chances of quality deterioration

Penalize misbehavior – sensibly

- Penalize misbehavior by exclusion from the venture. This depends on making the membership aspirational and again understanding the incentives that drive behavior

Buyers also need to be controlled

However, contract ill-discipline is not confined to farmers: buyers fail on their side of the contract by, for example, changing buying prices, down-grading the quality of produce to a lower price band, or over-charging the cost of inputs. Too often there is little possibility of the producer taking the dispute to court, and, in the absence of contract oversight by the state or other agency, an alternative dispute resolution procedure is essential.

Regular and open communications are important and need to be promoted

Published experiences of contract farming shows that regular, open communication is a key strategic investment. The farmer who rarely sees the buying agent is more likely to sell to the next buyer passing through the village than the farmer who has frequent contact through company extension agents who will also buy the crop. It is not surprising that contract farming works well in the dairy sector where the milk is collected daily. Companies that set up an agreement with farmers growing staple crops are particularly vulnerable to side-selling in the readily accessible markets. The relationship with the suppliers needs specific attention in the management of the contract, and developing trust via close contact and prompt payment will have consequences for the costs in procurement.

Communication becomes even more important when problems arise, positions become entrenched and the contract is at risk. The approach that seeks a resolution of the issues behind a problem is more likely to lead to an enduring relationship than one that seeks a judgment from a third party. In

addition, the constructive involvement of national and local politicians can be essential in ensuring that accurate messages are communicated.

Some well-established industries have respected dispute resolution processes

Arbitration and mediation as procedures of alternative dispute resolution are becoming more widespread, but may need to be established. Examples in some more established and formalized industries are seen in the tobacco industry in Zimbabwe (ASI 2012)⁸ and the Tanzanian sugar industry (PADEP 2006)⁹. Both of these two industries are well established, and the respect that parties have for the arbitration process has built up over time.

5.2.5 SCALING UP THE BUSINESSES

It is important that efforts to establish contract farming operations include plans for increasing efficiencies and expansion. Both the buyers and farmers are entrepreneurs and need to improve their returns, achieve higher yields, reduce production costs and improve quality to ensure that the value chain continues to be competitive. Farmers can be helped to get better yields through continued extension support and agricultural research; which should lead to lower production costs. Buyers can expand their business by contracting more farmers to grow for them and by innovation to improve their efficiency. Importantly, small-scale farmers should have the opportunity to diversify their operations and the relationship with the contractor can support this.

5.3 APPRAISAL AND EVALUATION OF THE BUSINESS MODEL

Before evaluating the details of proposed contract farming models, it is necessary to understand the objective or aims of the business model and evaluate if it is **commercially** logical and whether it is likely to give both parties a competitive edge. For example, buyers may want to establish contract farming to obtain a reliable supply of raw material at a specific location of the correct quality or to save investing in land and land clearance, etc. The farmer needs to have a business objective for entering into a contract (e.g., to secure inputs and technical advice) or an assured market and buying price, etc.

Once the logic of the business objectives have been substantiated, all the business elements discussed above need to be considered. However, the most important aspect of the appraisal of the business model is the financial analysis (i.e., whether the elements have created a business whereby both the buyer and seller make an acceptable return on their resources or whether they would be better off investing their time and money in other businesses). As with any value-chain, all parties have to consistently make an acceptable return on their investment for relationships to be sustained. In conjunction with the financial evaluation, it is important to understand the risks that

⁸ The Tobacco Industry and Marketing Board (TIMB) plays a supervisory and monitoring role for all related contract farming agreements. TIMB representatives are present during all tobacco sales and promptly settle any disputes that arise through arbitration.

⁹ A Regulation (GN. No. 173 of 2005) provides the conditions for compensation in case of a manufacturer's failure to buy cane or a grower's failure to deliver. Furthermore, the Tanzanian sugar board is empowered to intervene as arbitrator in case of failure to agree on compensation.

are involved with the investment and the processes in place to minimise them. Obviously investments that have higher levels of risk should project better returns.

Need to produce farm budgets to calculate the benefits of involving small-scale farmers in contract farming

Any financial analysis of contract farming needs to demonstrate that the farmer will have a positive gross margin and an acceptable rate of return for their labour and/or their investment. This should be compared with other uses of their resources (e.g., the returns for producing other crops). It may well be necessary to prepare whole-farm budgets for the small-scale farmers to fully understand the projected impact on their incomes through contract farming. It will be necessary to understand how the change will impact the risk profile for the farmer.

If the buyer has made capital investment in processing equipment, use conventional financial analysis tools

When evaluating contract farming schemes from the perspective of the buyer, there are normally two different financial calculations that need to be considered. **The first is for the overall business, and the second is just for the contract farming operation.** For the overall investment in the business, and especially if there is significant capital expenditure, it would be necessary to undertake the traditional financial analysis such as internal rates of return (IRR), return on investment (ROI), payback period, etc. This analysis is often undertaken assuming a steady price for the raw material produced by the contracted farming. However, the level of risk will determine the minimum IRR needed to make the investment attractive.

Contract farming must deliver product to the buyer at a price similar to other sources

When appraising the establishment or expansion of contract farming operations, the analysis is simply based on how much it costs to deliver a unit of raw material. As the contract farming is designed to produce raw material for the business, the costs of production must be comparable with other sources of supply. For example, a business might want to compare the cost of sourcing from contract farming with production on their own farms, purchasing from larger commercial farms, purchasing on the open market or even importation in order to ensure its longer-term competitiveness. Like the gross margin undertaken for the small-farmer, the first part of the evaluation is based on a simple cash analysis and as noted by Da Silva (2005) “Both parties have to see the partnership as a source of gains—financial or otherwise—that could not be matched in the next best alternative.” However, as with the evaluation of IRRs, it is necessary to consider the degree of risk. As with cassava production in Nigeria (section 5.2.1), the lack of reliability of supply from small-scale farmers has resulted in processors having to invest in their own farms to secure a more consistent supply of raw material; a significant investment for the processor, but necessary to overcome the risk of non-supply by the contracted smaller-farmers.

Buyers need to consider the financial cost of backward integration and the risk of being reliant on a few large commercial farmers

When a processor considers what the best model to obtain raw materials is, supporting contract farming has considerable advantages over backward integration into commercial farming. It saves investment in purchasing and clearance of land and investment in machinery. If it relies on purchasing from a few large commercial farms, it becomes dependent on a few suppliers who could have significant negotiation power. Therefore, despite the effort needed to establish contract farming with small-scale farmers, it has some advantages providing the total cost of the operation does not

make it non-competitive.

There are other benefits associated with contract farming which should be passed on the farmer

There are some benefits for a business to obtain raw materials by contracting with small-scale farmers:

- Corporate social responsibility (CSR) benefits may not only fit with the ethical dimension to a corporate mission but also have market benefits where the agribusiness can be seen to be working inclusively
- Contract farming with small-scale farmers can improve the standing of businesses within the community
- Purchasing produce from small-scale farmers can result in tax breaks

These should enhance the returns to the business, which could in part be used to cover the costs of establishing contract farming, but it is hoped that some benefits would be passed on the farmer.

5.4 SOCIO-ECONOMIC ANALYSIS

Identify how contract farming reduces market failures

If a potential investment is to receive support, a Task Team Leader (TTL) will want to evaluate the socio-economic implications of a successful intervention. For example, how it will address market failures, how it benefits small-scale farmers and their community, etc.

Economic analysis can lead to increased investment in public goods

The economic analysis is often regarded as being more important to the public sector and donors than to the private sector. In reality, it can provide leverage for the private sector to negotiate with Government for better infrastructure and appropriate policies.

Normally, the economic analysis of World Bank investment would take a traditional approach and undertake a simple cost/benefit analysis or an evaluation of the economic rate of return. The socio-economic analysis would also estimate the jobs and businesses that would be created as a direct and indirect result of the project. Ideally, there would be “counterfactual” areas to fully evaluate the economic returns from the investment.

When undertaking the economic analysis, the TTL needs to consider:

- The project’s development impact in terms of traditional economic analysis. This can be based on the financial data collected on gross margins/farm budgets and the buyer’s costs/benefits even if there are the usual concerns about the counterfactual and the appropriate shadow price. Using these data, it is possible to calculate expected economic IRRs and other economic indicators
- How much extra revenue is returned to the rural areas and what are the numbers of direct beneficiaries? In addition to the number of direct beneficiaries, the community surrounding the project area will benefit from the extra revenues; this needs to be

evaluated

- Have the farmers benefited from increased prices and have their incomes/food security/nutrition been improved because of better agricultural practices?
- How sustainable is the investment? Does it have a significant environmental impact?
- What is the impact on the infrastructure of the rural areas? Has there been a negative impact (e.g., on the degradation of roads) or has it resulted in improvements (e.g., new roads, schools, medical facilities being built, improved marketing facilities)?
- What has been the impact on the country's trade balance through exports or import substitution?

The rural income and other benefits that have been created and identified should then be compared to a counterfactual where there has been no support for contract farming.

Scaling up operations

In addition to expanding their farming operations by supplying the contracted commodity, it is hoped that the relationship will transfer agricultural and business skills to the farmer to be able to diversify production and take advantage other market opportunities to supply other buyers.

5.5 MEASUREMENT OF INCLUSIVENESS

Part of the economic analysis of any donor support to projects will include some measurement of inclusiveness. However, potential contract farming investments will have greater emphasis on the measurement of inclusiveness.

Measure a range of indicators

The success of an inclusive agribusiness intervention may be judged by evidence of reduced vulnerability and insecurity among beneficiaries. A number of proxy indicators for determining whether or not the project contained measures aimed specifically at generating increases in the incomes of the poor smallholder farmers include, for example:

- a) Increased job opportunities: It is preferable that jobs resulting from contract farming are, as far as possible, permanent but even seasonal opportunities are very valuable to Rural World 3 households
- b) Increased farm-gate incomes, as a result of the introduction of new product opportunities, better yields resulting from technology transfer and training or higher prices due to improved quality or complying with specified standards. Farm-gate revenues can be improved due to shorter marketing chains, establishment of aggregation centers and reduced input costs as a result of bulk purchasing
- c) The number of farmers that are involved, including average size and which category they fit into (see section 3), gender, etc.
- d) Spillover effects: increasing rural incomes will result in non-farm job and business opportunities, as the increased farm revenues are recycled

- e) Contributions to import substitution and/or exports
- f) Contributions to improved food security and/or nutrition in rural areas

The dilemma of supporting non-competitive contract farming models

It has been noted that a monopsony can be the basis for successful and long-term contract farming relationships and, also, it is easier for the buyer to address some market failures such as input supply and extension. Such models therefore tend to lead to higher farmer yields and better quality. Yet, because of the lack of competition, the cost of inputs may be higher and the farm-gate prices offered may not be as good if there were more suppliers and buyers. However, encouragement for the establishment of farmer clusters and associations with some support and information from third parties can help achieve better returns for the farmers.

...as opposed to competitive models

In contrast, competitively structured models might lead to higher farm-gate prices but less provision of inputs and extension, which could deliver lower yields. They might also score poorly on quality, which limits the price advantage they can pass to farmers.

Measurement of inclusiveness can be difficult to project accurately before a potential investment, but estimates can be made. During the first few years of a contract farming scheme, these data can start to be collected more accurately and a better understanding of the inclusiveness and economic benefits can be estimated. The private sector will be able to supply some of the necessary information, such as the numbers of farmers and the money returned to the rural areas, but it will be necessary to employ an M&E team to gather data on the wider impact in the community.

One of the aims of inclusive agriculture is to increase the involvement of women, especially in the financial benefits that arise from successful contract farming. However, the culture in some countries makes it difficult for women to sign contracts and/or retain the remuneration from commercial agriculture.

6. WHAT HINDERS CONTRACT FARMING? A SUMMARY

This section examines some of the reasons why contract farming models may be absent or weak in an environment that might benefit from closer linkages.

Lack of investment in industries that could drive contract farming

The food processing industry, with its needs for year-round reliable supply of raw material, or the capability to store sufficient quantities, is often a key promoter of contract farming. It is particularly advantageous when there are specific quality requirements that justify a premium among the contracted producers.

Past contract failures lead to suspicion

Trust is critical for contract farming and easily squandered by poor discipline in the contract by either party. Particular effort and significant costs may be needed to restore confidence.

Some products and markets are less suited to contract farming

Different products have different needs, and, as noted earlier, the contracting of staples is less likely than the contracting of high-value horticultural crops or products for monopsony buyers.

Lack of clusters and meaningful surpluses in underdeveloped areas

In areas of agriculture where most of the production is focused on supply to the farming household, sales only become available when the season generates a surplus or when the household is in a position or need to sell. Contracting in these circumstances of opportunistic marketing is difficult; it might become feasible if the producers are assembled into small groups that can collectively fulfill the contract, but this would depend on a surplus generally being available in sufficient quantities at the same time.

On the buyers' side, the organization and administration of the contract model may need a caliber of management that is not available locally. A training program might provide support.

Government policy can sometimes be disadvantageous

Where national governments intervene either in the supply of inputs or in the marketing of commodities, the interference or potential interference may deter any contractual arrangements, particularly in staple crops. This is one of the reasons why staples are rarely contracted successfully.

Macroeconomic stability is important. Contract farming can represent a significant investment, which would be deterred by instability, and changing circumstances in the operating environment may weaken the contract itself.

Entering into contract farming can often increase the risk for many of the less asset-rich, small-scale farmers

Risk, or the perception of risk, is a poorly understood constraint to participation in contract farming. From the contractors' side the risks in contract farming can be managed or transferred, but from the farmers' side, particularly in the case of those more accustomed to coping strategies, the concept of commitment to a single crop or a single buyer may be far from attractive. This is an area easily overlooked, and the design of the incentives to participate should take into consideration the changes in the status of risk for the producer.

7. HOW CAN CONTRACT FARMING BE STARTED AND STRENGTHENED?

State and donor support and facilitation for contract farming is given to stimulate the private sector's involvement and encourage greater inclusiveness. This should be done in such a way that it does not uncompetitively benefit one enterprise over another. Support should be focused on the provision of public goods, targeted finance, minimising risk and help with technical assistance with innovation. There is also an argument for reviewing oversight and regulation.

Much of this toolkit focuses on the more formalised relationship between large-scale buyers and small-scale farmers. It is important that the many informal traders and farmers operating at the village level are evaluated and possibly considered for support. In some circumstances, they are

vital for delivering inputs, finance and market information and the provision of markets to farmers in a way that the more formal contract farming arrangements cannot deliver.

7.1 REGULATION

Regulation needs to be light. It is too easy to smother the spark of creating a joint venture with regulations that undermine the incentive while giving an illusion of control that cannot be implemented. These are private sector initiatives that identify and invest in a need, and boundaries and norms, while important, can be too restrictive.

Little need for more regulation...

For the most part, regulatory measures that might be needed in the area of contract farming are likely to be on the statute books already and will concern areas of:

- Competition
- Employment and labor
- Environmental issues
- Safety and health
- Land

...perhaps some refinements

These general policies might gain from some refinement, but, in view of the diversity of contract farming schemes, and the widespread use of informal contracts, it is unlikely that regulatory policies specific to contract farming would be able to cover the breadth necessary without being unduly prescriptive. Compulsory oversight of each contract by an “independent” agency has been suggested; however, caution is needed because, in practice it could be a restriction (and the accompanying potential for rent-seeking actions) to the establishment of joint ventures, and could also be useless without the ability to implement across a multiplying number of schemes. It would also be difficult when many contract farming arrangements are informal and without contracts.

Unreasonable contracts are not sustainable

In general, successful contract farming benefits both sides of the contract, and, since the goals of each party are not mutually antagonistic, unreasonable contracts are unlikely to be sustainable. Where repeated malpractice and contract abuses are found, of course, regulation—or at least intervention by an authority invoking existing regulations—may be necessary. Manipulation of the contract itself, by either party, is most common, and a dispute settlement procedure is more pressing than an additional burden of regulation, which might impede the creation of vertical linkages.

Tough regulations are difficult to implement

The bottom line: regulation is a feeble substitute for well-managed collaboration.

Regulations can seem to be tough and give the illusion of protection, but, in practice, the ability to implement may be weak. Regulation on its own will not equalize an imbalance of power unless there is strong implementation, and note that the imbalance can also favor the producer who abuses the contract by failing to deliver. The implementation of regulations enforcing contracts is difficult anyway, with small-scale producers financially unable to take legal action, and large-scale buyers unable to recoup losses from impoverished farmers even if they wanted to. Here it would seem that aggregation of product through a producer organization would be the most secure way of ensuring a fairly negotiated agreement and maintenance of a code of conduct that benefits all the players.

7.2 FACILITATION WITH PUBLIC GOODS

Government support to the emergence of contract farming can develop on a number of levels:

- Market promotion – trade and investment policy should be supportive of investment and development of exports; encouraging investment and competition downstream
- Logistics – improvement of roads, especially at the farm level, and storage facilities in conjunction with private operators add to the capability of small-scale farmers to participate in contract farming
- Seed import legislation – the import of improved planting material can be a bottleneck to upgrading production and can be a particular problem where the sponsor intends to introduce new varieties or new crops
- Producer groups and cooperatives – the advantages of working with farmer groups has been discussed in terms of lowering procurement costs, and also in facilitating the distribution of inputs and technical knowhow. The policies and legislation around formalizing producer groups should be in place
- Innovation and extension - innovation is key to competitiveness, and the ability to disseminate knowledge and technology through extension by the participating firms can be encouraged through cost sharing
- Finance – access to finance is a persistent issue in the rural economy and contract farming offers scope for innovation through the use of contracts to increase the ability of farmers to access finance if it is made available

7.3 TARGETED FINANCE

Both buyers and sellers will benefit from financial support – especially during start-up

Both producers and buyers need finance to start a farming operation, but there are often too many risks to attract commercial money. The initiation or expansion of contract farming ventures may need support and there is an argument for donor assistance. The buyers need support to become more inclusive, otherwise the temptation is to target the larger asset-rich producers. The farmers need support with training and aggregation to form

viable clusters. There have been some donor-supported efforts to give financial support to the tripartite agreements between buyers, extension providers and farmer groups (see [Rice case study](#)).

Initiate a challenge fund to support contract farming?

There is a range of funding instruments that can be used:

- Public funds can be used to establish necessary infrastructure to open up new areas, establish water sources for irrigation, provide market information, etc.
- Matching grants can be made available to both buyers and sellers, preferably as part of a challenge fund
- Long-term patient capital can provide the opportunity to establish plantation crops, building of storage and rural processing facilities

There will always be the need for short-term finance to cover direct costs of both production and processing, but such funds tend to be more available commercially once successful contract farming relationships are established.

7.4 THE ROLE OF POLICY AND EXTERNAL SUPPORT IN RISK MANAGEMENT

While the management of the contract itself is key to success, government policy can also be directed in support and there are opportunities for interventions to reduce risk:

- Production risk – water management infrastructure (irrigation/flood control); development of research and extension services in conjunction with the contract partners; phytosanitary border controls; seed service
- Market risk – contract law; logistics infrastructure of storage and improvements to roads
- Operating environment risk – competition policy; encouraging insurance capability

7.5 TECHNICAL ASSISTANCE

One of the attractions of contract farming is that it provides a vehicle for farmer training that might be needed where public extension systems are not delivering quality support. Obviously, extension provided by contract farming is mainly focused on the product needed by the buyer, but it can be broadened if partially public sector financed or if the buyer attempts to market a wider range of the farmers' products. Given that contract farming in some cases can be perceived as a result of the failure to deliver farming messages, there is an argument for public funds to at least partially support the provision of technical support.

ANNEX 1: SUMMARY OF RECOMMENDATIONS FOR A PROJECT LEADER

In theory, there are many advantages for contract farming, but some of the problems highlighted above make it difficult for it to be applicable to all crops and for all farmers. A checklist is provided here to assist project leaders to evaluate the potential for supporting contract farming. These checklists need to be studied pre-project, during the project and post-project to evaluate whether the proposed contract farming value chain is likely to be successful and sustainable.

A. HOW DOES A PROJECT LEADER EVALUATE POTENTIAL SUPPORT TO CONTRACT FARMING (CF) PROJECTS?

Checklist for evaluating potential involvement in contract farming

<p>a) Background on the buyer</p> <ul style="list-style-type: none"> i. What is its main area of work, its size (turnover, number of employees), etc.? ii. What is the motive for wanting to start contract farming? 	<ul style="list-style-type: none"> iii. How much product does the buyer want to procure each year and how much money will this represent (i.e., what will be the rural income generated as a result of the CF)?
<p>b) What is its involvement in CF?</p> <ul style="list-style-type: none"> i. Why start CF? ii. What products will be involved? iii. What is the CF business model? iv. Is the company a monopsony? v. What services/inputs will be provided to the farmer? vi. What are the alternatives to CF for obtaining raw material? 	<ul style="list-style-type: none"> vii. Is there a formal contract with farmers or groups? viii. Is there an independent overview of the contract? ix. How are the details of the contract conveyed to the farmers? x. What are the quality standards and how will this impact on prices paid to the farmer? xi. Is there a system for dispute resolution? xii. How will the buyer measure the success/sustainability of CF?
<p>c) Involvement of farmers</p> <ul style="list-style-type: none"> i. What is the target number of farmers? ii. Are they in groups/associations? iii. What is the total area of land contracted? iv. How are the farmers and/or groups selected? 	<ul style="list-style-type: none"> v. What % of farmers does this represent in the area? vi. What are the opportunities for side-selling? vii. How will the farmers measure the success/sustainability of CF? viii. Have there been meetings to understand what the farmers expect to get from the CF model?
<p>d) Pricing model</p> <ul style="list-style-type: none"> i. How is the seller's price calculated? ii. Have farm budgets been projected? 	<ul style="list-style-type: none"> iii. Do farmers make a better return on CF than alternative products? iv. Are there opportunities to renegotiate/is there any flexibility in the arrangement? v. When will the farmer be paid?

<p>e) Budgets</p> <ul style="list-style-type: none"> i. Has a budget been prepared for the company's involvement with CF? ii. How are these costs broken down? 	<ul style="list-style-type: none"> iii. How will these costs be recovered? iv. What is the average cost of support per farmer?
<p>f) Market perspective</p> <ul style="list-style-type: none"> i. What will the buyer do with the product? ii. Do they have an agreed market and price for their end-product? 	<ul style="list-style-type: none"> iii. What competition do they have for buying product from farmers and selling their own end-product?
<p>g) Involvement of local community</p> <ul style="list-style-type: none"> i. Are there plans to support any activities in the local community? 	<ul style="list-style-type: none"> ii. Is a baseline survey of the local community being undertaken?
<p>h) Success/failure/lessons learnt/impact</p> <ul style="list-style-type: none"> i. How will the progress of the CF model be monitored? This needs to be considered from the perspective of the producer and buyer. 	<ul style="list-style-type: none"> ii. Will there be any independent surveys to determine whether the model can be improved?
<p>i) Public sector support</p> <ul style="list-style-type: none"> i. What support is expected from the public sector? 	<ul style="list-style-type: none"> ii. What actions have been put in place to measure the returns on this support?

B. HOW DOES A PROJECT LEADER EVALUATE ON-GOING SUPPORT TO CF PROJECTS?

Checklist for evaluating on-going involvement in contract farming

<p>a) The buyer's perspective</p> <ul style="list-style-type: none"> i. Is CF delivering the expected results? ii. How has it impacted the overall business of the company? iii. Has the original business model worked? 	<ul style="list-style-type: none"> iv. Will the business model be amended for the future? v. If so, how, and have the farmers/groups been consulted? vi. Overall, how much product was bought each year and what was the total money paid into the rural economy?
<p>b) How CF has worked</p> <ul style="list-style-type: none"> i. What has been the average price of the delivered product? ii. How did this compare with the budget? iii. How did it compare with buying from alternative sources? iv. How did the quantity of delivered product compare with the target? v. What % farmers/groups fulfilled their contract? 	<ul style="list-style-type: none"> vi. How many farmers failed to deliver? vii. Was there any side-selling? If so, to whom and why? viii. Was the product quality satisfactory? ix. If not, what actions were taken? x. What was the level of rejections due to quality? xi. Was there any need to invoke the dispute resolution process?
<p>c) Involvement of farmers</p> <ul style="list-style-type: none"> i. What was the farmers/groups opinion of how the contract farming system operated? ii. Did they get increased yields? iii. Were their profit margins as expected, better or lower? iv. How did the profitability of CF compare with other crops/products? v. Are the farmers willing to continue being part of the process? vi. Did the delivery of technical advice and services work as planned? 	<ul style="list-style-type: none"> vii. How was the collection of the product? viii. How quickly were the farmers paid? ix. Did they obtain the price they were expecting? If not, why not? x. How can the farmers improve their performance? xi. If the farmers are in groups/associations, did the groupings work? xii. Did the buyer organize sufficient communication meetings? xiii. Was the dispute resolution process needed?
<p>d) Pricing model</p> <ul style="list-style-type: none"> i. From the perspective of both the buyer and seller, did the pricing model work? If not, why not? ii. Can the buying model be improved? 	<ul style="list-style-type: none"> iii. How is the seller's price calculated? iv. Was there any need to alter the prices during the season?

<p>e) Budgets</p> <ul style="list-style-type: none"> i. Were the costs associated with CF the same as planned? ii. What were the main line items that cost more, or was money saved? 	<ul style="list-style-type: none"> iii. What was the average cost per farmer of the CF operation?
<p>f) Market perspective</p> <ul style="list-style-type: none"> i. Was the market for the end-product as good as hoped? ii. Was the market price as expected? 	<ul style="list-style-type: none"> iii. Were there any benefits arising from establishing CF? iv. Has the procurement from small-scale farmers created any positive marketing benefits?
<p>g) Involvement of the local community</p> <ul style="list-style-type: none"> i. Did the local community benefit from the establishment of contract farming? ii. Is this measurable? 	<ul style="list-style-type: none"> iii. Are there any future plans to support any activities in the local community?
<p>h) Success/failure/lessons learnt/impact</p> <ul style="list-style-type: none"> i. Have there been any farmer surveys undertaken to monitor the success/failure of CF? 	<ul style="list-style-type: none"> ii. If so, what were the results?
<p>i) Public sector support</p> <ul style="list-style-type: none"> i. What support was given by the public sector? ii. Was the support useful to the buyers and sellers? 	<ul style="list-style-type: none"> iii. Can this support be quantified?

C. HOW DOES A PROJECT LEADER EVALUATE POST-PROJECT SUPPORT TO CF?

Checklist for evaluating involvement in contract farming post-project

<p>a) The buyer's perspective</p> <ul style="list-style-type: none"> i. Did the CF deliver the expected results? ii. How did it impact the overall business of the company? iii. Did the original business model work? iv. If not, how was it amended? 	<ul style="list-style-type: none"> v. Were the farmers/groups involved in any of the changes to the business model? vi. Overall, how much product was bought each year and what was the total amount paid into the rural economy?
<p>b) How CF has worked</p> <ul style="list-style-type: none"> i. What has the average price of the delivered product? ii. How did this compare with the budget? iii. How did it compare with buying from alternative sources? iv. How did the quantity of the delivered product compare with the target? v. What % farmers/groups fulfilled their contract? vi. How many farmers failed to deliver? 	<ul style="list-style-type: none"> vii. Was there any side-selling? If so, to whom and why? viii. Was the product quality satisfactory? ix. If not, what actions were taken? x. What was the level of rejections due to quality? xi. How did quality and yields change with time? xii. Was there any need to invoke the dispute resolution process?
<p>c) Involvement of farmers</p> <ul style="list-style-type: none"> i. What was the farmers'/groups' opinion of how the contract farming system operated? ii. Did they get increased yields? Were their profit margins as expected, better or lower? iii. How did the profitability of CF compare with other crops/products? iv. Are the farmers willing to continue being part of the process? v. Did the delivery of technical advice and services work as planned? vi. How was the collection of the product? 	<ul style="list-style-type: none"> vii. How quickly were the farmers paid? viii. Did they obtain the price they were expecting? If not, why not? ix. How can the farmers improve their performance? x. If the farmers are in groups/associations, did the groupings work? xi. Did the buyer organize sufficient communication meetings? xii. Was the dispute resolution process needed?

<p>d) Pricing model</p> <ul style="list-style-type: none"> i. From the perspective of both the buyer and seller, did the pricing model work? If not, why not? ii. Can the pricing model be improved? 	<ul style="list-style-type: none"> iii. How is the seller's price calculated? iv. Was there any need to alter the prices during the season?
<p>e) Budgets</p> <ul style="list-style-type: none"> i. Were the costs associated with CF the same as planned? ii. What were the main line items that cost more, or was money saved? 	<ul style="list-style-type: none"> iii. What was the average cost per farmer of the CF operation?
<p>f) Market perspective</p> <ul style="list-style-type: none"> i. Was the market for the end-product as good as hoped? ii. Was the market price as expected? 	<ul style="list-style-type: none"> iii. Did any benefits arise from establishing CF? iv. Has the procurement from small-scale farmers created any positive marketing benefits?
<p>g) Involvement of local community</p> <ul style="list-style-type: none"> i. Did the extra payment coming into the rural areas create any identifiable benefits? ii. Did the local community benefit from the establishment of CF? 	<ul style="list-style-type: none"> iii. If a baseline survey was undertaken, what was the economic IRR of the investment?
<p>h) Success/failure/lessons learnt/impact</p> <ul style="list-style-type: none"> i. Have there been any farmer surveys undertaken to monitor the success/failure of CF? 	<ul style="list-style-type: none"> ii. If so, what were the results?
<p>i) Public sector support</p> <ul style="list-style-type: none"> i. What support was given by the public sector? ii. Was the support useful to the buyers and sellers? 	<ul style="list-style-type: none"> iii. Can this support be quantified?

ANNEX 2: CASE STUDIES

CASSAVA PROCESSING IN NIGERIA¹⁰

[Contract farming with staple foods for processing is difficult](#)

Background – Nigeria produces over 50 million t/year of cassava; the vast majority is processed and consumed as garri. The prices paid by the garri manufacturers establish the fresh cassava market price floor. Cassava can also be used as a base for processing into High Quality Cassava Flour (HQCF – used as a partial substitute for imported wheat flour) and ethanol. Two large investments were made in 2008/10 in factories with capacities to convert 70,000 and 75,000 t/year of cassava roots into HQCF and ethanol respectively (which is less than 0.3% of Nigeria’s total production). The aim was to support local farmers and contract groups of small-scale farmers to supply raw material. Contract prices were agreed at slightly higher than market prices, inputs were provided and the farmers initially supplied roots.

Issues - during the first years, whilst the processors were building their markets, the factories were able to obtain sufficient roots. However, in 2011, flooding wiped out nearly 500,000 ha of cassava crop (about 8% of total plantings) and in 2012, the market prices almost doubled mainly due to inadequate supply. The contracted farmers in the areas surrounding the factories, which did not suffer from the adverse weather conditions expected to be paid local market prices to supply the factories. This made the production of HQCF and ethanol uncompetitive.

The response – the processors recognized that their businesses would not be viable if they were subjected to such wide variation in raw material costs, which are the biggest costs in their process. They responded by acquiring large tracts of land with the aim of producing well over half their raw material using mechanized agriculture. Their projections showed that despite the large capital investment in land clearing and equipment, the increased yields associated with higher levels of input would mean that the cassava roots would be cheaper than from small-farmer production.

Lessons learnt –

1. Relying on contract farming for cassava in Nigeria is extraordinarily difficult. When traditional buyers hike prices, small farmers seek the best prices. The processors cannot simply pass on cost increases, as both industries have to compete with imports.
2. Perhaps the processing companies did not invest sufficient resources in ensuring good communications with farmer groups, but even if they had, the farmers still expect to be paid market prices even if it meant breaking any agreements.
3. The processors believe that the only sensible way forward to ensure commercial viability is to produce a significant proportion of raw material on a large-scale. They believe that through better management, mechanization and use of inputs, they will get higher yields & can deliver cassava roots less expensively to their factories.

The challenge for donors and other public sector actors is to try to grow farm sizes and introduce mechanization for improved efficiencies, higher yields and lower unit costs so that farmers can profit at lower prices.

¹⁰ Based on author’s interviews with processors.

RICE PROCESSING IN SENEGAL¹¹

<p>Contract farming with staple crops is much more problematic</p> <p>... except when a third party catalyst is required to eliminate a constraint</p> <p>Financial institutions can play an important role</p>	<p>Background – In Senegal, the demand for rice exceeds local production systems: imports are more than 700,000 t/year (\$350 million/year). The climate in the Senegal river valley is good for rice production and the local demand should provide an opportunity for import substitution. However, farmer involvement is constrained by a lack of formal credit. This has acted as a constraint on technology uptake, market integration and competitiveness. The USAID/PCE project aims to develop structured production to link smallholders to urban markets.</p> <p>Issues - To become efficient, rice millers need to buy and stockpile enough paddy rice to process for six months after each harvest. This has proven to be challenging because farmers generally do not accept credit terms from millers since historically many went unpaid. In late 2011, a large scale milling operation (VITAL Agro-Industries), in the heart of the river valley, did not have sufficient funds to hold stocks but relied on trucks roaming the valley to pick up sporadically available cash-purchase loads. Therefore, USAID/PCE brought together VITAL with leading water-user Unions (representing the producers) and the National Agriculture Credit Bank (CNCAS), with the aim of increasing market opportunities for farmers.</p> <p>The response – The following steps were put in place:</p> <ol style="list-style-type: none"> i) The mill required wholesalers to sign contracts for processed rice, stating the price, and/or provide promissory notes ii) CNCAS and the farmer Unions agreed on seasonal finance iii) VITAL agreed to no side-buying iv) The farm gate price was agreed between VITAL and the farmer Unions at meetings convened by the Agriculture Ministry v) VITAL contracted directly with the individual farmer groups <p>The system has been in operation for two seasons and 20,000 t of rice was bought from 6,800 farmers, valued at \$4 million. The farm gate price has increased by 15%. The mill operated efficiently and CNAS loan reimbursements improved from 80 to 95%.</p> <p>Lessons learnt – the system brings together the buyer, farmers, wholesalers and lenders and gets them to work supportively. The model works because:</p> <ul style="list-style-type: none"> • An external agency recognized that a number of elements could be brought together into a strategy to benefit small rice producers • This included 12,000 t of storage made available to the farmer groups by a grant by Spanish Aid. However, further significant expansion will be dependent on future investments in storage • The rice mill is by far the biggest single buyer of rice in the valley and is the dominant player in the market • The rice mill established selling prices ahead of buying from the farmers, so farm gate prices can be fixed
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¹¹ Based on interviews with project staff and a concept note on the approaches and results of the USAID/Senegal Economic Growth Project (USAID/PCE).

POTATOES FOR PROCESSING: BANGLADESH AND INDIA¹²

<p>Contract farming with staple crops is much more problematic</p> <p>... except when the end-product is tailored to suit the factory</p>	<p>Background – Manufacturers of potatoes chips (or crisps) prefer to use high dry matter varieties because they absorb less fat during the frying process. Higher dry matter varieties not only give better quality end-product, but as they use less fat, they reduce processing costs. Therefore, securing a reliable supply of high dry matter potatoes is vitally important to chip manufacturers.</p> <p>Issues – to get a constant and reliable supply of processing quality potatoes.</p> <p>The response - In Bangladesh, Bombay Sweets & Co., a major potato chip manufacturer, introduced contract farming in 2008 to secure their raw material supply base. Starting with farmers with above-average farm size and forming groups with a minimum of 8 ha, they distributed seed of their preferred varieties, agrochemicals and technical advice with an agreement to buy the end-product at prevailing market prices. The savings in processing of high dry matter varieties and the good chip quality covers the cost of servicing the farmers. The farmers are not tempted to side-sell because they receive market price. This has worked sufficiently well for the company to expand and help their farmers grow and market other crops. They have 500 farmers contracted.</p> <p>In India, PepsiCo developed a similar contract farming system to supply raw material for 'Frito Lay' potato chips. PepsiCo has different models depending on the skills of the farmers and their socio-economic status. In West Bengal, they operate under a 'vendor model', in which the vendor is a local person hired to liaise between the farmer and the company, and who also ensures the availability of seed and other inputs, and monitors the crop with technical experts. The vendor's remuneration is based on the performance of the farmers. In 2008, PepsiCo worked with 1,800 farmers (6,500 ha) producing 12,000 t (less than 0.2% of the West Bengal's production). The farmers were given inputs, including specific varieties suitable for processing, and a fixed buying price. With extension advice and the correct inputs, farmers achieve higher yields.</p> <p>Lessons learnt – The key driver for the success of these contract farming operations is that specific varieties are chosen which improve the factory's efficiency. Therefore, higher-than-market prices can be paid. The success is also helped by the raw material cost being a small portion of the final selling price. Other lessons include:</p> <ul style="list-style-type: none"> • Differentiate the end-product to improve factory efficiency • Target larger farmers in close proximity to each other who have the potential to improve yields • Appoint agents (vendors) and remunerate based on the farmer's performance
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¹² Based on the author's interviews and: Punjabi, Meeta. 2008. *Supply chain analysis of potato chips: Case study of PepsiCo's FritoLay in India*. Food and Agriculture Organization of the United Nations.

POULTRY IN ANDHRA PRADESH, INDIA¹³

Production contracts are becoming increasingly popular, especially in the USA, but also in Asia

Background – Andhra Pradesh is the leading poultry producing state in India, at over 1.4 million tonnes of meat in 2004.

Issues – The industry is prone to production and market risks, which affect profitability within the value chain, and particularly leave small farmers vulnerable. These risks threaten other businesses in the value chain, especially the hatcheries.

The response - Some large poultry firms (e.g., Venkateshwara Hatcheries Pvt. Ltd., Suguna Hatcheries, Pioneer Hatcheries, Diamond Hatcheries, etc.) began integrating their activities with others in the value chain in the late 1980s. This integrated operation would typically include raising of grandparent and parent flocks, rearing of day-old-chicks, feed milling, provision of veterinary services and a market outlet. The poultry firm provides day-old chicks, feed and medicines, while the farmers supply land, labor and other minor variable inputs. At the end of the cycle, the farmer receives a net price (by weight) that is pegged to an industry price set by a group of hatcheries (not the retail price). The industry price fluctuates within a narrow range and is much more stable than retail price. However, if the retail price does rise sharply, the farmer gets a bonus to remove the temptation of side-selling. The contract assumes mortality rates up to 5%; beyond that, the farmer carries the risk. The processor spends time and resources in screening producers for reputation and prior experience.

Lessons learnt – An analysis was carried out to evaluate the benefits of contracting with large poultry input suppliers. The survey showed that:

- The importance of credit, insurance and the reduction of market risk are attractive to the farmers
- Contract producers are more efficient than non-contract ones, but margins per bird were lower. However, they had larger flock sizes, probably due to the credit and assured markets
- The whole value-chain generated more money, but the researchers concluded that most of the gains are appropriated by the buyers
- Processors choose farmers with poor prospects as independent growers because of poor access to technology, credit, etc.
- The case study suggests that contract farming is a useful institutional arrangement for the supply of credit, insurance and technology to farmers—all of which are otherwise very demanding problems

¹³ Based on: Ramaswami, Bharat; BIRTHAL, Pratap Singh; and Joshi, PK. 2006. [Efficiency and Distribution in Contract Farming: The Case of Indian Poultry Growers](#). IFPRI.

MILK PRODUCTION IN RAJASTHAN, INDIA¹⁴

<p>More success with products that require regular farm visits ... and livestock</p>	<p>Background/Issues – Farmer’s income from crop production in Rajasthan is seasonal. In contrast, dairying generates a stable cash income on a regular basis, which is an important economic incentive. With limited crop opportunities in the state, livestock provides employment opportunities and livelihood security.</p> <p>The response – The World Bank’s District Poverty Initiatives Project (DPIP), launched in July 2000 in seven of the poorest districts and 7,039 villages in Rajasthan. It supported the formation of Common Interest Groups (CIGs), comprised of 10-15 villagers, and helped to identify and implement commercial activities, the majority being dairy activities. The DPIP worked with the Rajasthan Cooperative Dairy Federation (RCDF, an apex body in the state), the District Milk Cooperative Unions and a range of NGOs to promote institution building and social capital development, and to create backward and forward linkages. In general, most CIGs established marketing linkages with RCDF for an assured market and stable prices. The RCDF provided training to producers and invested in the necessary infrastructure: cold storage tanks, cattle sheds, management and milk testing equipment. After suitable training, it also provided one-time grants for each member to obtain two cows and production support, such as cattle feed, fodder, vaccinations, medical aid and fodder seed.</p> <p>CIGs on a milk route linked to RCDF received an assured market, twice daily collection, transparency in pricing and payment every 10 days. In contrast, non-contracted dairy farmer CIGs sold in local markets to private traders and suffered significant wastage and lower returns.</p> <p>Lessons learnt –</p> <p>Benefits to the farmer from the partnership include:</p> <ul style="list-style-type: none"> • Access to milk marketing routes with no limit on supply volumes, an assured market and a transparent price • Availability of technical skills and subsidized finance • Regular and prompt payments • Improved incomes <p>Benefits to RCDF from the DPIP partnership include:</p> <ul style="list-style-type: none"> • Increased throughput giving better economies of scale and increased profits • Assured supply of consistent quality of milk
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¹⁴ Based on: Ghosh, Sanchita; Das, Samik Sundar; Khan, Asmeen. 2009. [Rajasthan - Milking profits from dairy farming](#). Livelihoods learning series; series 2, note no. 1. Washington, DC: World Bank Group.

COTTON PRODUCTION IN ZAMBIA¹⁵

Contract farming can play an important development role in some traditional crops, such as cotton, but the contractual arrangements need to evolve

Background – In the early 1990s, the Zambian cotton industry was run by one parastatal company, the Lint Company of Zambia (LINTCO). The company provided inputs, loans and marketing services to all cotton farmers, almost all (97%) being smallholders. In 1995, LINTCO was privatized and its assets were bought by Lonrho Cotton (Zambia). To meet its processing requirements, Lonrho had an outgrower program providing inputs and extension; in 1998/99 it invested over \$3 million into 88,000 farmers.

Issues – After privatization, five other ginning companies were established to form a “competitive” industry in the country. These companies competed for a limited amount of cotton that led to large-scale side-buying and side-selling. This led to non-payment of loans and shortfalls in cotton to process, and contributed to the decision to sell Lonrho Cotton to Dunavant (Z) in 2000.

The response – Dunavant developed a new way of working with small-scale farmers that became known as the Distributor Model. It streamlined input credit and technical support, which became focused on distributors—the intermediaries between the company and the farmer groups. Over 150,000 farmers grow cotton for Dunavant, with an average of 1.2 ha/farm. The farmers are formed into village groups of usually 50-60. A group leader is elected by group members to represent their interests with the distributor. The group leader’s responsibilities are to assist the distributor to mobilize farmers, and allocate inputs and technical support. The farmers deliver to a local depot where their crop is weighed, graded and recorded by the distributor. The farmers are given a pay slip indicating the amount owed minus the credit repayment outstanding for inputs, and Dunavant makes monthly payments.

A distributor should be an experienced cotton farmer, and live in the locality of the group. They are not ‘employees’ of Dunavant, but are contracted legally through an ‘Agreement for Micro Credit Financing’ to supply inputs and technical support to groups. Dunavant provides agricultural, administrative and business training to distributors who are paid a commission based on loan recovery and crop volume produced. If the distributor fails to recover the full amount lent to farmers, the debt will be carried forward. Since the introduction of the distributor system, the company’s loan recovery has increased significantly, from around 50% when it was owned and operated by Lonrho to about 90%.

Lessons learnt – It is vitally important to incentivize intermediaries operating small-farmer outgrower schemes.

¹⁵ Based on author interviews, the *Zambia Smallholder Commercialization Synthesis Study – Final Report* (2005) by Tim Purcell and Rudy Van Gent (Agrifood Consulting International).

MAIZE FOR PROCESSING: SENEGAL

Sometimes flexible pricing models are needed

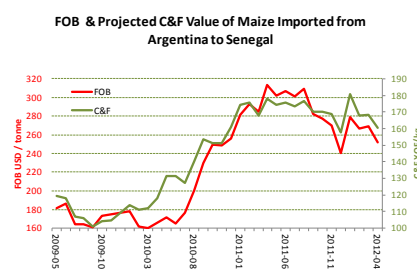
Background - Every year Senegal imports substantial volumes of maize to supply the industrial mills involved in animal feed and human corn-based food products, as well as the local wholesale market. Since 2009, the United States Agency for International Development/Projet Croissance Economique (USAID/PCE) has promoted Senegal's industrial maize value chain by supporting the emergence of integrated local production and marketing networks, in particular, through the development of seasonal contracting.

Issues – For the first three seasons, the producers and consolidators used fixed price purchasing clauses. Such clauses set the seasonal harvest price at the outset of the season. The absence of clear price adjustment clauses generated chronic disruptions in the marketing process and strongly limited contract compliance ratios as the maize market in Senegal moved with international prices. As global prices fell, the processors preferred imported maize if the price went below the contracted price for local production.

The response - USAID/PCE convened a stakeholder workshop bringing together producer leaders, consolidators and financial institutions party to the 2011 rain season program. The group reviewed the input procurement practices as well as price setting approaches. It was agreed that value chain stakeholders should agree on certain price setting benchmarks and develop a flexible pricing formula adjusting to import values with the requisite set of contractual clauses.

Analysis of the imports showed that Argentina was the major and most consistent supplier of maize to Senegal, and that the market for maize in Argentina could be used as a starting point for estimating Dakar values.

The Agricultural Secretariat of the Government of Argentina publishes official Free on Board (FOB) prices based on exporter declarations daily. The International Grains Council publishes freight rates (not to Senegal, but shipping sources indicated an approximate constant for delivery to Dakar). Together with other variables for financing costs, risk charges, bank charges, margin for the trader and exchange rates, a simple spreadsheet provided an estimate of the price of maize in Dakar, which lagged in relation to the market in Argentina. A review of data over three years showed an acceptable match with wholesale prices in Dakar. From this, a more flexible approach to seasonal pricing could be negotiated.



SUSTAINABLE COFFEE: VIETNAM

	<p>Background - Nedcoffee Vietnam is a leading coffee exporter. It is a wholly owned subsidiary of Amtrada Holding, a Dutch group of companies engaged in the origination, procurement and trading of coffee, cocoa and tree nuts. Nedcoffee Vietnam was established in 2008 with the construction of a factory and warehouse in Buon Ma Thuot with a fully integrated, state-of-the-art processing line and designed capacity of 60,000 tonnes per year. Nedcoffee is now Vietnam’s third largest exporter with annual exports of around 90,000 tonnes per year.</p> <p>Issues – Under current trade regulations in Vietnam, exporters are not permitted to buy coffee directly from farmers. This presents a difficulty for those companies seeking recognition for coffee certified as produced sustainably/responsibly (under the 4C, Rainforest Alliance or UTZ schemes) since traceability through the value chain is a key element.</p> <p>The response – About 15% of the coffee handled by Nedcoffee is certified as sustainably produced. Nedcoffee supplements its regular procurement through a network of traders with buying through 22 “partner collectors”. Mrs. Giam is a typical partner and runs a coffee collecting business from a small store beside the road some 3 km from the Nedcoffee factory. All of the 500 t/year of coffee that she buys is sent to Nedcoffee. She also trades pepper and rice and supplies agrochemicals. Her annual turnover will easily exceed USD 1.0 mn, and from May each year she starts to pre-finance the crop with advances of fertiliser. The apparent small-scale of the 40 t store and neighbouring house belie the scale and complexity of this business. Mrs. Giam provides the linkage between Nedcoffee and the farmers that permits the development of traceable certified sustainable coffee.</p> <p>Coffee verified or certified as produced under sustainable conditions attracts a premium of USD 40-60/tonne for the exporter in the World market. Of this, half will stay with the exporter to cover the costs of handling the coffee separately and for maintaining the traceability of the supply. The remainder is split equally between the collector and the farmer. There is, therefore, an incentive for each player in the supply chain to maintain the integrity of the certified or verified coffee.</p> <p>Lessons learnt –</p> <ul style="list-style-type: none"> • Incentivized market intermediaries can be a “vital cog” in the linkage of small farmers to international markets • The assured market offered by Nedcoffee gives Mrs. Giam the confidence to loan inputs to nearby farmers
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PAPAIN PRODUCTION IN TAMIL NADU¹⁶

<p>Processors...have been important drivers of contract farming</p>	<p>Background - Papain is product isolated from papaya latex and has a wide range of industrial uses, particularly in food processing. As the product had export opportunities, a number of companies encouraged farmers to grow papaya and tap the latex. As it was a new procedure, farmers did not have the confidence to try it without contracts to assure them of the market. One company, Senthil Papain and Food Products (SPFPC), established a contract farming scheme initially by targeting innovative and progressive farmers who were approached to produce papain. Besides providing inputs and extension advice, SPFPC guaranteed the market by contract. In 2009/10, the company allowed researchers to analyze the finances, efficiencies and motivation of the participants.</p> <p>Methodology –</p> <ul style="list-style-type: none"> • Randomly sampled 83 contracted papaya farmers and 28 who did not grow papaya or process papain • Calculated variable, fixed and, hence, production costs • Cobb-Douglas production function was used to study the technical efficiency of papain production, and the factors influencing farmer decision making was estimated using logit regression model • To identify the attitude to risk, a psychological game was played with the farmers <p>Results –</p> <ul style="list-style-type: none"> • Papain production was profitable • Attitude to risk was virtually the same in both samples • About 75% of farmers claimed that it was “moral to honour the contract and they were following rules and regulations of contract meticulously and don’t sell the produce out of the contract” • Majority of contract and non-contract farmers were found to be risk-takers • Contract farming of innovative products was good only under close supervision of concerned government bodies • Output elasticity was highest with labor employed, followed by use of fertilizers and plant protection chemical. The estimated mean technical efficiency (MTE) shows higher efficiency among papain producing farmers • The analysis shows that a farmer’s wealth, household size and age has a positive effect on participation <p>Lessons learnt –</p> <ul style="list-style-type: none"> • Adding value to traditional crops using new technologies is a good basis for contract farming
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¹⁶ Umamageswari et al. (2013)

ANNEX 3 : THE IMPACT OF CONTRACT FARMING BY COUNTRY

UNITED STATES OF AMERICA¹⁷

<p>Production and marketing contracts in the USA</p> <p>Production contracts are becoming increasingly popular</p>	<p>Background – In 2008, contracts accounted for 39% of the value the USA’s agricultural production. This has increased from 28% in 1991 and from 11% in 1969. Only 12 % of farmers had contracts, but of course, these were the bigger farms. Some products are much more likely to be grown under contract than others (for example, 90% of poultry production, 68% of pig, and 90% of sugar beet and tobacco). However, it was much less prevalent for field crops (26% of maize, 25% of soybean and 23% of wheat).</p> <p>Most production contracts (97%) are for livestock, whilst field crops were more likely to be under marketing contracts and most tend to only commit part of their production. Production contracts are rarely used in crops, except for seed crops and some horticultural produce.</p> <p>Farm size – Contracting is closely correlated to farm size. Nearly 70% of the largest farms (with at least \$1 million in annual sales) used contracts in 2008, compared with 7% of small farms.</p> <p>Interviews showed they help farmers reduce the income risks that arise from fluctuations in commodity prices and yields. Contracts assure farmers of outlets for commodities in markets with few buyers and they reward those who produce the attributes required by the buyer by linking prices to those attributes. But contracts can also have less benign effects. They can introduce new and unexpected risks for farmers (e.g., they can extend a buyer’s market power and can impact how farming is structured/managed).</p> <p>Financing – Contracts provide assurance that specialized capital investments can be recovered, particularly in the case of investments associated with products in markets with few buyers.</p> <p>Lenders also prefer assured market outlets because it reduces the risks of default on loans. Farmers that need substantial borrowings often need contracts before they can get a long-term loan. However, many of the contract farmers do carry substantial debt; contract farms have higher ratios of debt to net worth.</p> <p>Most farms in the USA are classified as <i>rural residence farms</i> (family-operated with annual sales below \$250,000) whose operators state that their primary occupation is not farming. Most of these farmers do not make use of contracts (less than 13%).</p> <p>Lessons learnt – the difference in agricultural modernization between the USA and developing countries is massive, but some lessons could be learnt:</p> <ul style="list-style-type: none"> • Contract farming has focused on larger farms • Production contracts are important for poultry production • Contracts are important for securing finance
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¹⁷ MacDonald and Korb (2011)

ZIMBABWE¹⁸

<p>Products and markets that are difficult to mechanize are more successful</p>	<p>Background – In 2011/12, at least 50 companies contracted 328,000 small-farmers to grow crops on 628,000 ha; this, therefore, impacts about 30% of rural households. The vast majority of contracted farmers grew cotton (85%), followed by tobacco (4%) and paprika (2%). Increased contract farming could help overcome some of Zimbabwe’s agricultural problems by providing a new supply base following the collapse of its large-scale commercial sector. It could also provide an acceptable vehicle to “access donor funds to reduce the risk of firm’s engagement”. A major study was undertaken to interview the main organizations involved with contract farming in Zimbabwe. The findings of the research included:</p> <p>Management - Well-managed contracts reduced transaction costs and increased returns to farmers and firms; when managed poorly, default on both sides leads to losses. Other important management issues included selection of farmer and geographic locations, adopting a good business model and building trust. Contracting companies required extra marketing and management skills developed for working with large numbers of small producers.</p> <p>Finance – Business in Zimbabwe is constrained by lack of finance. Smallholder farmers do not have resources to fund production and rely on contract farming. Finance is difficult for the contractor, which severely limits the expansion of lending to farmers. The introduction of ICT has helped.</p> <p>Farmer organizations – Formal groups have the potential to reduce the transaction costs improving the returns to all actors because they could provide the services to farmers at cost, but it is imperative to instill marketing skills. Most contract farming works through informal groups of between 5 to 200 farmers with a lead actor/farmer incentivized to liaise between group members and the contractor.</p> <p>Regulation – The legal and regulatory framework was not supportive of contract farming. There are many registration requirements for contract farming firms which come with fees resulting in a high cost of compliance, and which can reach \$20,000/year.</p> <p>Recommendations –</p> <ul style="list-style-type: none"> • Support efforts to increase yields, which will improve farmer profitability • Provide technical support to help establish new contracts • Create a conducive business environment for investment • Promote financial instruments that improve efficiencies • Harmonize laws and policies on contract farming • Create a body to help settle disputes • Traditional field crops have the biggest impact in terms of farmer beneficiaries, newer crops have less impact
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¹⁸ Based on: *Constraints and Opportunities in Contract Farming for Smallholder Agricultural Economy in Zimbabwe*. ASI (2012).

ANNEX 4: CONTRACT FARMING AND ADR

Types of Alternative Dispute Resolution (ADR)

The success of a contract farming arrangement depends on the existence of a relationship of trust among the parties, and on the buyer and intermediary in particular taking a long-term and good faith approach toward their relationships with growers. In addition, parties may take steps to mitigate the likelihood of any dispute arising, for example, in the structuring of the relationship and the design of the contract and overall arrangement.

However, if mitigation measures fail and trust breaks down, the existence of a reliable dispute resolution mechanism can help contain any fallout. Indeed, without such a mechanism, contract farming schemes can collapse altogether; widespread unauthorized side-selling by farmers has been known to undermine the viability of an arrangement and lead buyers to withdraw in the absence of any ability to counteract the practice. Moreover, provisions for dispute resolution can be powerful tools for protecting growers when buyers do not act in good faith. Growers often have little bargaining power and recourse if a buyer or intermediary acts in bad faith—as it may, for example, by unfairly rejecting produce. In addition, having an accessible and ready-to-use dispute resolution mechanism at their disposal could give both buyers and growers the confidence they need to enter into a contract farming agreement in the first place, as all parties can have greater assurance that their rights will be safeguarded.

Given that court processes can be costly and prone to corruption and delay, ADR likely offers the most practical solution for the majority of contract farming disputes. ADR simply refers to any process for resolving a dispute outside of an official court procedure.¹⁹ ADR differs from court proceedings in that it generally takes place in a private setting and is confidential.²⁰ Depending on the type of procedure involved, ADR can represent a more consensual and less confrontational approach, with the neutral third party playing a facilitative rather than an adjudicating role.²¹

In fact, ADR may be especially important for contract farming. Farmers in developing countries generally have limited means and/or familiarity with legal procedures, and so often face overwhelming barriers in taking a dispute to court. For example, if a grower delivers produce to a collection center and is told—as has been known to happen—to come back in a few days, or that the buyer or intermediary will not accept his produce, the farmer may be left with little choice but to try and sell the production in the local market at a loss, even if he or she feels that the agreement has been breached. If, on the other hand, some type of ADR mechanism were in place that allowed a determination to be made fairly and quickly, the farmer would at least have a chance to make his or her case. In fact, the very presence and availability of a viable mechanism may make a breach less likely in the first place.

ADR processes can generally be classified by the role of the neutral third party:

¹⁹ See “Alternative Dispute Resolution Guidelines,” Investment Climate Advisory Services of the World Bank Group, Washington: 2011, p. 2.

²⁰ The fact alone that decisions do not become a matter of public record may make ADR the highly preferred solution for many parties.

²¹ Notwithstanding, official court procedures may incorporate ADR as part of the normal dispute resolution process.

- **Facilitation-based** ADR processes lie at the consensual end of the spectrum. In these processes, the neutral’s task is to bring the parties together and moderate negotiations rather than recommend or issue a decision. The archetypal example of a facilitation-based ADR process is mediation
- **Recommendation-based** processes go one step further, where the neutral not only facilitates discussion but also is authorized to propose non-binding solutions to the dispute. An example of a recommendation-based process is conciliation
- **Adjudication-based** processes have the highest degree of intervention by the neutral. In these, of which arbitration is the most common, the neutral acts like a judge who hears and issues a binding decision that may be enforced in court.²² Because the outcome of an adjudication-based process is a final determination of the dispute, this type of ADR tends to be more adversarial. Adjudication-based processes generally follow set procedural rules and often take place in dedicated ADR centers

Type of ADR Process	Role of the Neutral	Typical Kind of Dispute	Preservation of Parties’ Relationship
Adjudication-based <ul style="list-style-type: none"> • Arbitration • Adjudication • Expert determination 	Providing a final and binding decision	Legal and technical questions prevail	Not important
Recommendation-based <ul style="list-style-type: none"> • Conciliation • Early neutral evaluation 	Providing nonbinding recommendations	Factual questions prevail	Important
Facilitation-based <ul style="list-style-type: none"> • Mediation • Stakeholder dialogue 	Facilitating dialogue, neither giving recommendations nor binding decisions	Factual questions prevail	Important
Hybrid processes <ul style="list-style-type: none"> • Dispute resolution boards • Ombuds processes • Mediation-arbitration/adjudication 	Varies	Combination	Varies

It is important to note that there is no “one-size-fits-all” ADR solution that is inherently suited to any single outgrower model, or indeed to contract farming arrangements generally. The suitability of any kind of ADR to a dispute depends on factors such as whether the parties have an arm’s length or a trust-based relationship, whether legal or factual issues lie at the heart of the dispute, time and cost constraints, the sophistication of the parties, and the importance of obtaining a final decision. Motivation may also play a role; a party bringing a dispute to ADR may prefer mediation if his or her goal is to change the behavior of the parties, but may resort to arbitration if he or she is more interested in getting to a final outcome.

Nevertheless, the choice of ADR in contract farming arrangements²³ is necessarily guided by one defining characteristic that sets contract farming apart from most other business relationships: the

²² In arbitration there may be more than one neutral; it is quite common for arbitrations to be presided over by a panel of three or more arbitrators.

²³ Contracts typically specify the ADR procedure to be used in a “dispute resolution clause”, so it is important that the choice of mechanism(s) be given due consideration at the outset. Dispute resolution clauses can incorporate some flexibility. For example, it is common for such clauses to call on the parties to try mediation first, and then to move to arbitration if that attempt fails.

fact that individual smallholder farmers or groups of farmers are likely to be on one side of almost all disputes. This holds true in cases where a buyer contracts with intermediaries like producer organizations, input retailers or lead farmers, since the intermediaries themselves will need to have arrangements with individual growers (or, in the latter case, be growers themselves). As a result, and especially in developing countries, contract farming arrangements are almost certain to reflect a far greater gap in legal and economic sophistication and means, bargaining power, tolerance for bureaucracy, and basic ability to access ADR mechanisms, than is typical for most commercial relationships. Where no provision is made for this disparity, the end result may be that farmers have no practical way to redress their grievances, which could lead them to suffer losses in silence or, in extreme cases, to make their grievances known through more disruptive means.

Thus, while arbitration and mediation—by far the two most widely known and used forms of ADR—may certainly be useful in resolving contract farming disputes, it is important to consider ways in which these procedures might need to be adapted or applied in the contract farming context. Thankfully, this task is made somewhat easier by the fact that the vast majority of contract farming disputes tend to arise over a common set of issues:

- **Delayed payment/non-payment by buyer:** The buyer fails to pay on time, or entirely
- **(Unfair) rejection by buyer:** The buyer rejects the produce for reasons that the seller sees as unjust
- **Side-selling by producer:** Instead of selling its entire production to the contracting buyer as agreed, the grower sells produce to a different party. This is of particular concern to buyers that have made a substantial investment in inputs, equipment, and/or services, or who are relying on contracts to supply the needed amount of produce
- **Grading disputes:** The parties disagree over how production is graded. This is a concern as contracts often stipulate that buyers will accept different grades of produce, but that farmers will be paid more for higher grades
- **Crop failure:** Crop failure occurs when no marketable surplus is produced. Contracts address this by assigning risk to one or the other party
- **Force majeure:** A *force majeure* event is an extraordinary occurrence, beyond the control of the parties, which results in the destruction or substantial loss in value of the grower's production. Such events include war, crime, arson, civil unrest, weather and natural disasters. Many contracts have *force majeure* clauses that place the risk on one or the other party if such events happen
- **Pricing disputes:** Some contracts may specify a base price and stipulate that the parties will agree on a final price or premium around the time of harvest. Vague price terms can often lead to disputes, especially in the absence of a trusting relationship between the parties

Moreover, contract farming arrangements possess a number of distinct characteristics that also inform the choice of ADR mechanism:

- **Accessibility:** Growers often live and work far from the towns and cities where dispute resolution centers are found, so the ADR process should take place in a location that growers can easily reach
- **Trust:** In some cases there may be a wide gap in bargaining power and/or legal sophistication between buyers and growers, so it is important to have procedures that growers trust and feel comfortable with
- **Reliability:** Buyers will want to know that ADR mechanisms are reliable and predictable in order to justify their investment. Reliability does not mean that the processes should favor

one party or the other, but that they should be neutral, work well, produce objective outcomes in line with the law and contractual terms, and not be susceptible to bribery

- **Cost:** The vast majority of contract farming disputes involve amounts that, while quite large in relation to growers' income, are small relative to the overall cost of resolving the dispute. Thus, the cost of a procedure must be low enough to make it worthwhile for both parties to use
- **Speed:** Many contract farming disputes naturally revolve around the quality of perishable produce. Such disputes must be resolved within a matter of days if they are to be usefully resolved at all
- **Confidentiality:** In many instances the buyer will not want proprietary information made available to the public or its competitors as a result of a public dispute resolution process. As a result, ADR mechanisms that preserve the confidentiality of such information as well as the ultimate outcome of the process may be of interest

Finally, it is important to note that while it is of course important to facilitate efficient procedures, the goal of ADR is to offer parties a better outcome rather than to simplify the overall process for resolving disputes. Thus, there will always be the risk that a dispute may go through mediation—perhaps followed by arbitration—and still have to end up in court. In most cases, however, making sure there are appropriate avenues for ADR should advance the goals of increasing confidence in business dealings and securing access to justice for farmers.

Suitability of Different ADR Types for Contract Farming

Keeping in mind the kinds of disputes that tend to arise between buyers and growers, it is possible to make a more nuanced evaluation of the suitability of some of the more common types of ADR to contract farming.

1. Mediation and Conciliation

Mediation is a type of negotiation moderated by a neutral third party who might be an industry or law expert, a government officer, or a respected member of the community. The mediator's role is strictly facilitative; he or she does not decide in favor of one party or another, but guides the parties toward a consensual resolution. Mediation is a flexible process with no fixed timeline, so it is most useful when buyers and sellers are interested in a long-term relationship, and when time is not pressing. Mediation can also be useful when non-legal measures—for example, an apology or explanation by one party—might help end a dispute. Mediated solutions rely on the good faith of the parties to put them into practice; they are not enforceable in court.

Conciliation is a similar process, but differs from mediation mainly in that the neutral evaluates the case and makes a non-binding recommendation that may favor one of the parties. It therefore offers parties a greater degree of authoritative guidance that might be persuasive in settling the dispute.

Mediation may be purely voluntary or it may be required by a court. In either case, the communications between the parties and the mediator, as well as the proposals for resolution exchanged during the mediation process, are usually confidential. This is important in order to facilitate good faith, as candid and honest communication between the parties increases the likelihood of resolution.

Because it is more consensual in nature, mediation is often tried before arbitration, which is a more confrontational process. In fact, it is not uncommon for contracts to make mediation mandatory, at

least at the outset, for all disputes. While this kind of provision has the positive aim of trying to defuse a disagreement consensually before it escalates, mandatory mediation may not be desirable for all types of contract farming disputes. For example, because mediation and conciliation can take a long period of time, and even then do not guarantee a final decision, they would not be the best choice in cases that must be ruled on quickly, such as disagreements over the rejection or grading of produce.

The consensual nature of mediation is relevant to the kind of relationship the parties have, as well as to whether they want to continue that relationship. Thus, mediation or conciliation might be used in side-selling cases where the buyer, notwithstanding the grower's alleged violations, is interested in maintaining the relationship, or more interested in changing growers' behavior than in punishing an offender. On the other hand, if a buyer wanted to send a strong signal to other growers, he or she might prefer an ADR method with a more final outcome.

2. Arbitration

Arbitration, along with mediation, is one of the better known types of ADR. Arbitrations are often held under the auspices of formal centers that offer meeting rooms, support services, rosters of qualified arbitrators and, most importantly, a set of procedural rules that parties agree to follow. Arbitration awards, unlike mediated outcomes, are enforceable in court. These features—the ability to choose specialized arbitrators, the adherence to formal rules, and the fact that arbitration awards are binding—appeal to parties who want a structured, enforceable decision that allows them to sidestep the cost, delays and bureaucracy of the courts. As with mediation, arbitration proceedings and evidence are generally confidential.

However, these same characteristics may also make conventional arbitration unsuitable for many contract farming disputes. Arbitration centers are generally found in towns and cities and may therefore be hard for growers to reach. In addition, their formality and bureaucracy—and therefore their expense—may be intimidating to some parties. And while they may offer a faster and less unwieldy choice than the court system, the expense and procedural rules of formal arbitrations still make them cost-effective only when large amounts of money are at stake.

A more workable solution for contract farming may be what is known as *ad hoc* arbitration—a less formal and simplified process that generally takes place without reference to a specific arbitration center and its rules. However, one drawback to *ad hoc* arbitration is that, because the parties do not agree to an institution and set of rules beforehand, they may not be inclined to use ADR once a conflict arises.

3. Adjudication

Adjudication is a simplified kind of arbitration used in industry-specific disputes. Adjudication addresses the problem posed by *ad hoc* arbitration; that is, the fact that the lack of reference to a specific ADR mechanism can leave parties without a framework when a dispute arises. To get around this, it may be feasible for a well-regarded institution to build an in-house ADR capacity, which parties could agree to use, for settling disputes. The institution could be a government or a private body, but to be credible, must be trusted by both sides.

While adjudication has generally been used most in the construction sector, the principle of having a sector-specific ADR framework could also be adapted to agriculture, where marketing, exporting or investment promotion boards might provide a suitable forum. The host institution could adopt simplified procedural rules and fee schedules that are appropriate to the sector and—ideally—

provide for adjudications to take place in rural locations that are accessible to growers.²⁴ Sector-based boards already play a facilitative role in negotiating disputes between buyers and farmers in some countries. In certain cases, such as the sugar industry in Tanzania and the seed cotton sector in Zimbabwe, these roles are authorized by law. Embedding a simplified ADR mechanism within such institutions could help solidify these roles and make available the decisiveness of an arbitration-like process while cutting much of the cost and bureaucracy that might otherwise come with it.

However, while the advantage of adjudication lies in its ability to customize the ADR process to fit contract farming situations, the flip side of this is that such a capacity most likely will need to be built from the ground up, and so it will not be a readily available option in many cases.

4. Expert Determination

Expert determination, as the term suggests, relies on a technical expert to resolve a dispute rather than on a neutral third party. While not as common as other kinds of ADR, expert determination could be a useful tool for contract farming, where claims related to alleged faulty grading or unfair rejection call for quick, on-the-spot decisions by persons with specialized knowledge. For expert determination to work, parties would need to agree beforehand on a list of experts whom they could call on at short notice. Expert determination could also be a feature of any in-house ADR capacity built up for adjudication.

However, while expert determination could be effective for resolving technical disputes, it would not be as suitable for disputes that require legal or contractual interpretation, or where the negotiations require a trained facilitator.

5. Traditional Dispute Resolution Systems

Many countries have formal or informal traditional dispute resolution mechanisms that are still widely used. In some cases, these mechanisms may rely on the recognized authority of respected members of the community. In Rwanda, the traditional system of *abunzi* mediation has been incorporated into the formal justice system so that local cases involving parties within the same district and falling below a set value threshold must attempt *abunzi* mediation before going to the courts. While *abunzi* mediation, by its own terms, would not apply to contract farming disputes, many contract farming arrangements have successfully piggybacked on existing systems to address at least some disputes. These systems have the advantage of being more likely to be known and trusted by—and accessible to—smallholder farmers.

The following table sets forth these considerations.

²⁴ For example, this might be possible if a government agricultural agency has a network of extension offices that are easier for growers to reach, or from where officers can travel to growers.

TABLE 4: Considerations for traditional dispute resolution systems

Factor	Characteristic	Suitability of ADR Type				Expert Determination
		Mediation	Conciliation	Arbitration	Adjudication	
Primary Factor:						
Type of Dispute	Contract interpretation	x	x	✓✓✓	✓✓✓	✓✓✓
	Delayed payment or non-payment by buyer	x	x	✓✓✓	✓✓✓	x
	Rejection by buyer	x	x	✓✓	✓✓	✓✓✓
	Side-selling by producer	✓✓	✓✓	✓✓✓	✓✓✓	x
	Grading disputes	x	x	x	✓	✓✓✓
	Crop failures	x	x	✓✓✓	✓✓✓	x
	Force majeure event	x	x	✓✓✓	✓✓✓	x
	Pricing disputes	✓✓	✓✓	✓✓	✓✓✓	✓✓
Secondary Factors:						
Types of issues being disputed	Legal issues predominate	✓	✓	✓✓✓	✓✓✓	✓
	Business issues predominate	✓✓✓	✓✓✓	✓✓	✓✓	✓✓✓
Relationship between the parties	Long-term relationship	✓✓✓	✓✓✓	✓	✓	Neutral
	Short-term relationship	✓	✓	✓✓✓	✓✓✓	Neutral
Size and complexity	Dispute is more complex	✓✓	✓✓	✓✓✓	✓✓✓	✓✓
Facilitative features of parties' relationship	Higher facilitation: • Parties open to problem solving • Parties eager to negotiate • Cooperative relationship • Willingness to compromise • High-ranking agents	✓✓✓	✓✓✓	✓	✓	✓✓
	Lower facilitation • Parties more antagonistic • Lack of trust • Unwillingness to compromise	✓	✓	✓✓✓	✓✓✓	✓✓
Enforceability	Enforceability more important	✓	✓	✓✓✓	✓✓✓	✓✓
Outcome sought	Keep a good relationship after the dispute is resolved	✓✓✓	✓✓	✓	✓	✓✓
	Quick decision, neutral to future relationship	✓	✓	✓✓✓	✓✓✓	✓✓
	Set precedent for/warn other producers	✓	✓	✓✓✓	✓✓✓	✓✓
	Change behavior of group	✓✓✓	✓✓✓	✓	✓	Neutral
Time	Quick resolution is important	Neutral	Neutral	Neutral	Neutral	✓✓✓
Cost	Keeping costs down is important	✓✓	✓✓	✓	✓✓	✓✓✓
Accessibility	Physical accessibility to farmers is important	✓✓	✓✓	✓	✓	✓✓✓

✓✓✓ High suitability ✓✓ Medium suitability ✓ Low suitability x Not suitable

Impact of Contract Farming Structure

In addition to the nature of the dispute presented in any case, the parties to a farming contract will want to consider the nature and structure of the outgrower model in place in selecting the method of ADR to be employed. As the contracting model becomes more complex, with more comprehensive contracts and more intense collaboration, the considerations of the parties will likely be somewhat different. The table below sets forth various considerations of the parties to farming contracts as reflected in various outgrower models.

TABLE 5: ADR considerations of the parties to farming contracts in outgrower models

NATURE OF CONTRACT FARMING RELATIONSHIP	CONTRACTING CHARACTERISTICS	ADR CONSIDERATIONS	PREFERRED ADR OPTIONS
Informal Model	Informal agreements	Cost-effectiveness	Mediation
	Basic contracts, if any	Perception of fairness Speed of resolution	Conciliation
Intermediary Model	Use of agents to procure supply	Consistent outcomes among agents	Mediation
	Basic contracts	Maintenance of agents' standing in community important to both parties Confidentiality important to buyer	Arbitration Adjudication Expert Determination
Multipartite Model	Use of governmental/non-governmental organization to procure supply Comprehensive contracts	Added complexity by addition of sophisticated agency/NGO Third part may provide expertise	Adjudication Expert determination
Centralized Model	Multiple, comprehensive contracts between producers and buyer	Consistency of outcomes critical for maintenance of buyer's system	Adjudication Expert determination
		Confidentiality important to buyer	Arbitration
Nucleus-Estate Model	Multiple, comprehensive contracts, including production contracts	Ability of buyer to cover for production losses important for buyer	Arbitration
		Consistency of outcomes critical for buyer	Adjudication
		Confidentiality important to buyer	

Conclusions

In summary, when evaluating ADR options for a contract farming arrangement, it is helpful to consider the following points:

- Features of ADR solutions that are particularly important for contract farming include: (1) physical accessibility; (2) low cost; (3) speed; (4) low level of bureaucracy; (5) having a mechanism that growers trust and feel comfortable with
- While there are multiple ADR mechanisms available, the parties will want to consider the likely types of disputes which could arise under the contract as well as the nature of the contractual system employed by the buyer
- ADR mechanisms to be used by the parties should be identified beforehand (for example, in a dispute resolution clause of a written contract). This will help reassure buyers of the viability of the arrangement, and also let farmers know where to turn in case a dispute arises
- Mediation and arbitration are the most widely known forms of ADR, but must be applied with forethought in contract farming situations:
 - Mediation is most suitable for consensual situations where time is not of the essence and the parties are interested in a long-term relationship. Disputes related to business issues that fall within these parameters are also well suited to mediation
 - Arbitration commonly refers to the resolution of relatively large-scale commercial disputes, can be quite expensive, and uses rules and procedures that generally require parties to hire lawyers to navigate. Arbitrations also tend to be held in centralized chambers that may be difficult for farmers to reach. For these reasons, arbitration is probably most useful for disputes between firms and intermediaries other than farmers
- If practicable, it may be appropriate to incorporate other ADR solutions such as traditional dispute resolution systems, agricultural expert determination, and authorizing (and building capacity in) a sector-focused agency to host a simplified ADR function

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