

Value Chains  
& Trade



# INCLUDING SMALL-SCALE FARMERS IN PROFITABLE VALUE CHAINS



# **INCLUDING SMALL-SCALE FARMERS IN PROFITABLE VALUE CHAINS**

**Review of case studies on factors influencing  
successful inclusion of small farmers in  
modern value chains in ACP countries**

Andrew Shepherd



The Technical Centre for Agricultural and Rural Cooperation (CTA) is a joint international institution of the African, Caribbean and Pacific (ACP) Group of States and the European Union (EU). Its mission is to advance food and nutritional security, increase prosperity and encourage sound natural resource management in ACP countries. It provides access to information and knowledge, facilitates policy dialogue and strengthens the capacity of agricultural and rural development institutions and communities.

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## Foreword

Although development and promotion of inclusive agricultural value chains are widely recognised as key strategies for achieving economic growth and ensuring social cohesion in most African, Caribbean and Pacific (ACP) regions, inclusiveness is often not documented or analysed.

Inclusive value chains generally do not arise naturally; they are the result of lengthy discussions, consultations and negotiations between the actors of the chain as they try to find a balance between sometimes divergent interests. Trust is a critical element in that process and often determines the success or failure of such collective initiatives.

Since 2010, CTA has been supporting the development of sustainable, inclusive and profitable value chains in ACP countries using a three-step approach: building the evidence, strengthening the capacities of value-chain actors and facilitating multistakeholder dialogue. Documenting success stories and in particular the factors influencing inclusiveness is extremely important if we are to really understand the dynamics of such value chains and more importantly to be able to scale them up.

The six cases presented in this report (jatropha in Burkina Faso and Mali; oilseeds in Uganda; litchi in Madagascar; cashew in Benin; milk products in Senegal; and bananas, pigs and aquaculture in Uganda) are concrete examples of how smallholders can effectively participate in value chains and identify the main criteria for success in establishing inclusiveness. These are analysed to provide a list of key issues that appear to be preconditions for ensuring long-term inclusiveness.

We would like to thank again the non-governmental and research organisations that responded to our initial call for papers and for the richness of their analysis. We strongly believe that such lessons need to be systematically learned and shared and we invite all our partners and readers to help us in disseminating the findings as widely as possible. There is simply no time to reinvent the wheel.

**Michael Hailu**  
Director  
CTA

# Acronyms

<b>AVSF</b>	Agronomes et vétérinaires sans frontières
<b>GRET</b>	Groupe de recherches et d'échanges technologiques
<b>HVP</b>	L'huile végétale pure (pure vegetable oil)
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFPRI</b>	International Food Policy Research Institute
<b>IIED</b>	International Institute for Environment and Development
<b>ILRI</b>	International Livestock Research Institute
<b>IRAM</b>	Institut de recherches et d'application des méthodes de développement
<b>LdB</b>	Laiterie du Berger
<b>PEPSICA</b>	PEPSICO Initiative for Cashew in Africa
<b>SIDI</b>	Solidarité internationale pour le développement et l'investissement
<b>SNV</b>	Netherlands Development Organisation
<b>WBCSD</b>	World Business Council for Sustainable Development

# Executive Summary

This paper reports on six case studies commissioned by CTA to examine factors contributing to the success of inclusive value chains in ACP countries. All six studies are from Africa. They cover: (1) jatropha chains in Burkina Faso and Mali; (2) oilseeds in Uganda; (3) litchi in Madagascar; (4) cashew in Benin; (5) milk products in Senegal; and (6) bananas, pigs and aquaculture in Uganda.

There is a range of definitions of inclusive value chains but such chains are generally considered to be those that seek to obtain supply from poorer farmers, thereby maximising farmers' access to market opportunities. Recent developments in production and marketing systems do not automatically benefit small-scale farmers and conscious efforts need to be made to achieve positive results for them. Even so, not all farmers can be included, for reasons such as their location, farm size and natural resources, capacity to meet increasingly strict product standards, and the farmers' aversion to risk.

According to FAO, features likely to be found in an inclusive value chain include: suitability for households with few assets; reliable and profitable trading practices; diversified market opportunities; a strong element of capacity building; and full and transparent consultation. Although "inclusion" tends to emphasise the position of farmers within a chain, the strength of the value chain approach is that it moves development efforts away from being farmer-centred to considering the entire chain from producer to consumer. Some of the case studies well illustrate the value of this approach, such as litchi in Madagascar where efforts to develop export sales had a positive benefit for all in the chain.

A major factor in the success of inclusive chain development is the extent to which the buyers provide "embedded" services, such as input supply and technical advice, for which the farmers only pay indirectly through lower final



prices for their products. Not only does this practice overcome the financial constraints of farmers but it also gives them access to inputs and support that might otherwise be unavailable. Even where such support is not fully embedded and farmers are required to meet some costs directly, the provision of improved seeds and other inputs specifically tailored to the needs of a particular product buyer can be very beneficial.

Efforts to establish inclusive value chains may fail if the buyers make little effort to understand both the agricultural practices and skills of the farmers and their socio-cultural environment. For example, yield projections should be based on the local farm situation and not on yields achieved on commercial farms or on research stations. The capacity and willingness of farmers to follow recommended practices should be fully assessed. The implications of new farming practices on household and employed labour, and on gender relations, must be fully reviewed.

Trust between farmers and buyers is essential if inclusive chains are to be successful. Developing such trust can be complex and time-consuming and the role of outsiders, such as NGOs, in supporting this can be beneficial. Regular meetings between buyers and farmers are important, as are multi-stakeholder approaches that bring together all involved in a chain, including government officers and local politicians. A major cause of discord is slow payment and companies should ensure that they pay on delivery or as soon as possible thereafter. Delayed payment jeopardised the oilseeds chain in Uganda.

Risk minimisation is a major factor in farmers' production and marketing decisions. Farming always involves risks and inclusive value chains should be set up in such a way that the risk is certainly not increased and, preferably, is reduced. Risk reduction should result from farmers having access to reliable markets, price guarantees, and advice that can help them address climate and other production risks. Creating a dependence on just one crop should be avoided and there are good recent examples of where companies have encouraged their farmers to diversify.

Projects and businesses seeking to promote inclusive value chains do, therefore, need to carry out a realistic assessment of the capacity of small-scale farmers to take on production activities. Because a particular investment by a farmer seems like a good idea to the manager of a contracting company, or to an NGO staff member, it does not mean that the investment will be seen in the same light by poor farmers, particularly if it appears to them that this will increase their risk.

While households may benefit from efforts to promote inclusion, this does not mean that benefits will necessarily be shared equally. Depending on the particular culture of an area, women may see few rewards and may actually lose out. They sometimes face an increased workload, while financial benefits go only to the men. Training courses and meetings are often held only for men, even when the women do the bulk of the work. The potential negative impact of involvement in value chains on household food production is of particular concern. This can result from allocating land previously used for food gardens to cash crop production or from the increased workload faced by women.

Companies rarely want to deal directly with thousands of individual small-scale farmers. Farmer organisations and cooperatives can play an important role, either as agents of a company or as the prime movers of an inclusive value chain. The use of full-time business management appears to be essential for farmer organisations seeking to become involved directly in value chains as there are many risks associated with poor management skills.

NGOs working to support inclusive value chain development have tried various approaches. One model is to work only with established organisations and not try to set up new ones. Bodies set up solely to bring about inclusion often have a short life span. On the other hand, where no suitable organisations exist an inclusive value chain may require some consolidation of farmers into groups in order to promote communication, provide training and facilitate logistics to deliver inputs and collect the products.

The case studies show that inclusion of small-scale farmers often requires a “trial and error” approach by both companies and NGOs, in order to arrive at the most suitable model for a particular environment. Changes in approach are fairly common as companies struggle to identify the best method of working with farmers, and NGOs discover how best to link the buyers and farmers.

The research also suggested that the tendency in development work to ignore the traditional trading sector may be misguided. While not suitable for the handling of products requiring export quality and traceability, traditional marketing intermediaries do have a capacity to provide transport from remote areas, to buy small quantities per farmer and to pay in cash. Farmers are often inclined to sell to them despite agreements with other buyers. However, in contrast to the frequent support provided by donors and NGOs to farmer organisations, it is presently rare to find projects and programmes that provide either technical assistance or direct support to traders.

Availability of finance is essential if inclusive value chains are to succeed. Finance can be provided to farmers directly by companies buying the product or through a multipartite agreement involving company, farmer, bank and, perhaps, input supplier. Even where new farming activities are clearly profitable, cash-flow constraints may make it impossible for farmers to become involved if they lack funds to pay for land preparation, inputs and harvesting at the right time. Those working to promote inclusion should work with financial institutions to develop sound financing arrangements based on commercial principles, while being aware of the dangers of creating excessive indebtedness amongst farmers.

The case studies provide several examples of successful NGO activities to promote inclusion. While donor and NGO support can have a very positive impact on value chain development, the question arises as to what happens when that support comes to an end. The model followed by such assistance often cannot be maintained once the assistance is no longer available. Collaboration with development agencies makes sense for the private sector when it has few costs to bear, but subsequently taking on those costs itself may not represent a sustainable business model. Care must therefore be taken to avoid giving a false picture of the viability of an inclusive business model if companies lack the resources and skills to continue implementation after donor support has ended.

# Introduction

As a component of CTA's project on 'Research, capacity building and institutional development in support of inclusive value chains in ACP regions', six case studies were commissioned in response to a request for proposals to either (1) carry out original research into the factors affecting the development of inclusive value chains or (2) prepare case studies of successful and innovative inclusive value chains. All of the proposals received concerned Africa. This paper provides a summary of the main issues arising out of those studies, which were as follows:

- 1) A study by the Institut de recherches et d'application des méthodes de développement (IRAM) and JatroREF looked at efforts by around 15 projects to develop value chains for jatropha in Burkina Faso and Mali. The majority concentrated on promoting smallholder production of the crop, which, although not widely exploited, has been known to farmers in Africa for some time. While early promotional efforts were often based on the possibility of exporting biodiesel, this was found to be uneconomic and emphasis is now on growing the crop for vegetable oil fuel (l'huile végétale pure, or HVP), which can be used locally as a substitute for diesel by mill owners or rural electrification schemes. Jatropha can also be used to manufacture various other products, such as soap.
- 2) The Netherlands Development Organisation (SNV), in partnership with the UK-based International Institute for Environment and Development (IIED), submitted a paper on the oilseed sector in Uganda. This primarily addressed sunflower development in areas of the country recovering from rebel activities in the 1980s and 1990s. The study described the business model adopted by the country's largest oilseed processor, Mukwano Industries, in which farmers were supported with provision of specific seeds, technical assistance and guaranteed markets, in association with government programmes, the International Fund for Agricultural Development (IFAD), and with support from agencies such as SNV.

- 3) Agronomes et vétérinaires sans frontières (AVSF) submitted a study of the Madagascar litchi industry, specifically about the Fanohana cooperative, which had succeeded in developing a profitable fair-trade market for its members, both for export and domestic processing before subsequent export. This was achieved in spite of the fact that nationally the litchi industry provided poor returns for farmers, for whom rice is the dominant crop.
- 4) Self Help Africa contributed a study on a project to promote the inclusion of small farmers in the cashew value chain in Benin. This was known as the PEPSICO Initiative for Cashew in Africa (PEPSICA) and received funding from PEPSICO. Cashew processing facilities were not working to capacity because many of the nuts were being exported raw. The project worked with one processing company, Tolaro Global, and with the African Cashew Alliance to increase the production of 1,200 farmers and to link them more effectively with Tolaro Global.
- 5) A study carried out by the Groupe de recherches et d'échanges technologiques (GRET), the International Food Policy Research Institute (IFPRI) and Jokkolabs in Senegal looked at the interaction between value chains and nutrition in Senegal. Specifically, it reviewed the experience of a pilot project to assess the impact of supplying *cakry* - a traditional dairy product of Senegal which had been fortified with iron - to families with small children who supplied milk to the Laiterie du Berger (LdB) dairy. This dairy has become well-known outside Senegal for its innovative and inclusive value chain activities, and has attracted considerable support from international dairy companies, donors and non-governmental organisations.
- 6) The final case study was contributed by Shoreline Services, in association with the International Livestock Research Institute (ILRI). Based on interviews with 300 farmers, the case study concentrated on identifying the factors influencing the successful inclusion of smallholders in three Ugandan value chains, i.e. cooking bananas, pigs and fish from aquaculture.

This paper begins with a brief summary of what is generally meant by 'inclusive value chains' and then considers the main factors underlying the success of such chains. Arguably, the most important factor is the development of trust between the parties, so this issue is reviewed in the third chapter. Farmers everywhere face risks: chapter four then discusses these, with a particular emphasis on risks from involvement in value chains. While the promotion of inclusive value chains can have very positive outcomes, the benefits may not be equally shared so the fifth chapter reviews potential gender impacts. This is

followed by two chapters that consider the role of producer organisations in such chains and other approaches to working with small farmers that do not necessarily involve producer organisations. The importance of value chain finance is then reviewed in chapter eight, followed by a consideration of the role of donors and non-governmental organisations (NGOs) in providing technical assistance in chapter nine. The paper ends with some brief conclusions.

Each chapter, apart from the conclusions, provides a brief summary of the main recommendations arising from the research. These recommendations are aimed at those working to promote inclusive value chains, whether they are private companies, donors, NGOs, farmer organisations, banks and other service providers, or governments.



# 1 What do we mean by 'inclusive value chains'?

Small-scale farmers face numerous difficulties in moving from being producers of produce sold in an *ad hoc* way at local markets, to village or itinerant traders or to local mills or oilseed crushers, to producing for more sophisticated markets that are based on supplying products that comply with specific consumer demand. Such difficulties can include: poor access to planting materials, good animal breeds or fingerlings in the case of fish; cost and reliability of other inputs such as fertiliser or feed; access to veterinary services; lack of information about sustainable agricultural techniques to increase yields or about disease prevention; inadequate farmer organisation, limiting the economies of scale necessary to attract reliable buyers and the ability of farmers to negotiate from strength; insufficient transport; difficulties in meeting quality requirements; and lack of access to credit for equipment, inputs and, sometimes, for labour for land preparation, weeding and harvesting.

In general, efforts to promote inclusion attempt to address some or all of such constraints. The CTA Call for Proposals considered 'inclusive value chains' to be those that "obtain supply from smaller farmers, although value chains that actively involve small and medium-sized enterprises, such as small traders and processors, could also be considered". From a review of the literature it can be noted that the definition of 'inclusion' usually refers to poverty rather than to size. However, while inclusive projects aim to work with the 'poor' the definition of 'poor' is often imprecise. Do they constitute the poorest half of farmers, the poorest quarter, or almost all? Is the definition of 'poor' universal or is it based on relative poverty in a particular country? Perhaps the easiest approach is that taken by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), which defines inclusive business as any business that interacts with smallholders (GIZ, 2012). But in that case the question arises as to what is new about the concept of inclusiveness, given that farmers have been interacting with buyers for generations.



Haggblade *et al.* (2012) address this question. They see actions to promote inclusiveness as a response to changes to production and marketing systems that have opened up opportunities for some rural suppliers to access new markets but have exposed others to new threats as a result of quantity and quality requirements. They argue that agribusiness investments are not inherently pro-poor and that the move towards stressing 'inclusiveness' responds to this, by promoting interventions that benefit the poor. Desired outcomes of such an approach include higher income earnings for the poor as well as greater participation of women and youth in value chains.

This approach does, however, raise the question of how to make value chains more inclusive for poor farmers without hampering competitiveness. Harper, Belt and Roy (2015) aim to show that it is possible and profitable for businesses to build and maintain such value chains, without subsidies or other non-commercial assistance. In other words, working with the poor can "do good and be good business". They consider 'inclusive' value chains to be those that include and substantially benefit large numbers of poor people. These are often smallholder farmers, but could also be artisans, or small-scale retailers or customers.

A workshop organised by FAO in 2013 (FAO, 2014) provided guidance on the criteria necessary for businesses to be regarded as inclusive. The guidance stipulated that businesses should:

- be accessible to farmers with less assets, including women and minority groups
- use trading practices that provide benefits for smallholders, including profit, stable market outlets, shared risks, and access to services and finance
- not create dependency on any one value chain or buyer, and provide profitable diversified market options for smallholders
- build capacity of farmers and farmer groups according to market needs
- use transparent platforms and forums to identify and solve problems.

At the same time as trying to promote inclusion, there is now widespread appreciation that for meaningful development to be achieved it is not enough just to work with farmers. The particular benefit of the value chain approach is that it has permitted a movement away from a simple concentration on producers

towards an understanding that farmers are just one part of the system and that if other parts are not working well development assistance to farmers will achieve relatively little. This is, for example, now central to the approach of SNV whose case study notes that the organisation's theory of change aims to "improve the system as a whole to contribute to sustainable poverty reduction and improved living conditions rather than targeting smallholder producers directly". From the case studies, implementation of this approach is best represented by the study of Madagascar's litchi sector, where AVSF improved linkages between the cooperative and potential buyers in overseas markets.

SNV's case study of oilseeds in Uganda defined inclusion as the participation of smallholder farmers in the value chain, by committing a part of their farm's enterprise to the production of a particular crop. The inclusiveness of the chain is considered by SNV to be defined by the formal and informal opportunities provided by joining and by barriers to participation, if any exist. However, while chains may offer considerable scope for farmers to join, the actual level of inclusion will still depend on their choice to participate or not participate. In making this choice, risk and the level of risk aversion, discussed below, is a particularly important variable. The SNV study defines an inclusive business as a socially responsible entrepreneurial initiative, which integrates low-income communities in its value chain for the mutual benefit of both the company and the community (SNV and WBCSD, 2010). This, therefore, involves the expectation that large processors will relate with farmers in an equitable manner.

An important factor in inclusion is location. Even if committed to working with poor farmers, companies are likely to seek to minimise their costs by buying within easy access of their facilities and/or by organising a large number of farmers in one location to provide scale economies for technical support, purchasing and transport. The attractiveness of location to a company is not simply measured by distance. An organised group of farmers 100km from a factory along a good-quality road may be more attractive than the same number of scattered farmers 20km away down a pothole-filled dirt track.

Similarly, efforts to promote inclusion need to recognise that, without efforts to strengthen the capacity of small farmers and to achieve economies of scale, richer farmers are also more likely to be more attractive to companies. Companies will often conduct detailed assessments of potential farmers before deciding which ones to work with. Understandably, they usually have a preference for linking with those who have greater production potential, whether measured by land size, soil suitability, farmer skills, capacity to handle risk, or all of these. Thus, while inclusion does permit smallholders to play a

greater role in more sophisticated value chains, in many cases the smallholders who benefit tend to be the larger ones in any particular area. The study of pig farmers in Uganda, for example, found that there was a strong correlation between the number of pigs reared and participation in organised value chains. In Uganda, Vorley *et al.* (2015) found that being more active in oilseed value chains, measured by having higher proportions of land allocated to the crops, was correlated with total land ownership. On the other hand, the Ugandan study of fish farming found that the better educated and better off farmers were less likely to be involved in inclusive value chains, largely because they had alternative income-earning opportunities and, as a consequence, regarded farming as just a part-time activity.

The picture is somewhat different when the driver of the value chain is a farmer organisation. In this case, the organisation is likely to make every effort to ensure inclusion, and donor support is likely to make that a precondition for assistance. In the case of Fanohana in Madagascar, the cooperative's statutes limited membership to farmers with no more than ten hectares. The average landholding in 2013 was just 2.6 ha.

Also influencing the adoption of an inclusive business model is the fact that products targeted at export markets, in particular, are increasingly becoming subject to certification. Exporters need to be sure that the farmers they work with are capable of meeting the standards required by the certifiers. Unless donor support is available, farmers need to have the financial resources to provide facilities (e.g. toilets and washing facilities for employees) specified by certifiers as well as the education levels and technical skills to carry out the necessary production practices.

Certification continues to expand but, unfortunately, Kuit and Waarts (2014) conclude, from a review of many certification programmes, that there is little evidence that farmers are benefitting from it. This conclusion is supported by a study cited by the Madagascar case study, which found that litchi farmers certified as GlobalGAP did not receive statistically higher prices than non-certified farmers (Subervie and Vagneron, 2011). Unlike the Fanohana cooperative's investment in fair-trade certification, which was the main focus of the case study, GlobalGAP was driven by exporters, not producers. Certified farmers were, however, able to sell greater quantities as a result of GlobalGAP certification, providing support for another emerging conclusion about certification, that it is becoming more of a precondition for selling products than a way of obtaining higher returns. Given that Madagascar's litchi exporters limit exports in order to guarantee reasonable returns on European

markets, the conclusion must be that higher sales for certified farmers result in lower sales for non-certified farmers. As certified farmers tend to be much larger than those who are not certified, certification in this case would appear to be working directly against inclusion of smaller farmers. Indeed, if the industry decided to go for 100% GlobalGAP certification, smaller farmers could be excluded altogether.

Competition from other buyers can challenge the contract farming model that involves contractual arrangements with farmers to provide inputs and technical support in exchange for a commitment to sell the crop or deliver animals to the company supplying the support (Eaton and Shepherd, 2001). Successful attempts to provide inclusive support could attract other buyers who may be less keen on providing production support, such as inputs on credit, while being in a position to offer prices as good as, if not better, than companies following inclusive business models. Such 'side-selling' was reported to varying degrees by all four of the studies that looked at value chains involving contractual relationships.

As a consequence, the oilseeds study from Uganda argues that development agencies pursuing a vertical coordination model of inclusive value chain development need to consider working with more diversified sets of buyers, including small traders. It notes that "innovative inclusion efforts are shaped by the realities of oilseed production and marketing". Clearly, strong linkages between companies and farmers become much more difficult when there are multiple competitive buyers operating in rural areas, where production is primarily for the domestic market and where there is little premium for providing high-quality or safe products. For this reason contract farming has rarely been successful for staple crop production and markets for crops such as oilseeds bear many similarities to those for staples.

Finally, the study of the Senegalese dairy sector was somewhat different from the other case studies in that it examined an attempt to use an existing value chain to promote nutritional improvements. At the same time it also aimed to benefit the dairy, by tying supplies of fortified cakry to milk sales by producers. 'Inclusion' in this context meant the extent to which producers were able to qualify to receive cakry, which was based both on the age and number of qualifying children and the level of milk deliveries. Particular difficulties were faced in the dry season, when milk deliveries are low. Initially, cakry was given to producers when they sold more than one litre of milk per cow per week. In the dry season this had to be reduced to 0.5 litres and, subsequently, 0.3 litres.

### **BOX 1: INCLUSIVE VALUE CHAINS**

- Seek to maximise income-earning opportunities for poor farmers by allowing them to address new opportunities presented by agribusiness.
- Usually involve donor and NGO facilitation, but there are good examples of development by the private sector.
- Emphasise the development of the whole chain and not solely upgrading of farmers.
- Aim to provide profitable options for farmers with fewer assets.
- May still exclude some farmers on grounds of location, farm size and natural resources, capacity to meet increasingly strict standards, and farmer risk aversion.
- Can be jeopardised by competition from other buyers, leading to side-selling.

# 2

## What are the main factors affecting success of inclusive chains?

The case studies identified a wide range of factors contributing to a greater smallholder involvement in value chains. Provision of inputs and technical support are usually central to the development of more inclusive value chains. In the case of cashew in Benin, quality-testing equipment, known as Kernel Outcome Result (KOR) kits, was supplied by one processor, Tolaro Global. This enabled producers to test the quality of cashew nuts before delivery to Tolaro and also negotiate better prices with other buyers, which producers were previously unable to do. The company's quality control manager also trained the farmers on developing and maintaining high-quality production and on the use of KOR kits.

The introduction of sustainable agricultural practices for cashew producers by the company, and attention to the supply of inputs for this to be achieved, enabled farmers to access more remunerative markets as a result of better seedlings, improved weeding, pruning, organic composting, tree spacing, back-burning, harvesting and post-harvest handling. These and other efforts resulted in average yield increases from 350 kg/ha in 2012 to 550 kg/ha in 2014.

The introduction of a 'lead farmer' system in Benin also proved very successful. These farmers received training on appropriate technologies and practices and shared these with groups of other farmers through practical demonstrations in orchards in their villages. Grouping of farmers to negotiate with and sell to buyers provided the economies of scale necessary to achieve higher prices through direct linkages with the buyers. Lead farmers managed around 40 producers each. Their incentive to be a lead farmer was that they had priority access to improved planting materials.

Although the business model in Uganda was not strictly a contract farming agreement, as the company did not supply seeds on credit, farmers still benefitted from closer linkages with Mukwano. The main benefit was an agreement to buy

their produce at an agreed minimum price, as long as the hybrid seed supplied by the company had been used. Other benefits included having access to planting material that was likely to result in much higher yields than other varieties, extension support, and the fact that the company organised transportation. In order to have the opportunity to buy hybrid sunflower from farmers and then sell it to the company, some traders were apparently buying the seed imported by the company and selling it to farmers. As a crop, sunflower was appreciated because it matured quickly, was easy to manage and could be grown as a second crop after the more traditional crops in the area.

In Madagascar, the cooperative was able to obtain benefits for its members through a variety of means. First, good planning, together with well-organised logistics and transport organisation, made the cooperative more efficient than traders who carried out speculative purchasing visits and would often have to decline to purchase fruit because their trucks were full. It also enabled the cooperative to control costs. Second, with assistance from AVSF, the cooperative was able to identify higher priced markets involving certification (fair-trade and organic) and value addition through both bulk processing and preparation of consumer products for sale at retail level. Third, by negotiating pre-financing with buyers and by using sales contracts as guarantees for loans, the cooperative was able to compete with traders who offered advances to farmers. Also, farmers reported benefitting from improved access to production and post-harvest training.

The litchi case study also considered that sales to the cooperative made farmers more active participants in the value chain, as they were involved in decision-making, and that this increased their status in their communities. However, with success can come problems. Farmers were reportedly unhappy that the cooperative was not in a position to buy all of their production, as it concentrated on supplying only certified markets that were limited in size, and did not attempt to compete with traders for non-certified supply.

Whether formal contracts involving small farmers are needed is often a topic for discussion. In general, verbal agreements can often be adequate as long as safeguards are taken to ensure that farmers are fully aware of what they are agreeing to. In the case of jatropha in Mali one company did introduce formal contracts to be signed by producers. Another tried something similar but this was resisted by producers as it was considered both too complex for a small emerging industry and unnecessary. One consideration was the lack of reliable data on yields that could be used to calculate production quantities to

be sold by the farmer and inserted in the contract<sup>1</sup>. Another company just agreed a simple 'moral commitment' with farmers.

Despite different arrangements being used, agreements reached by the various jatropha companies, particularly in Mali, aimed to achieve an integrated approach by agreeing to: a guarantee to purchase jatropha seeds and pay cash on delivery; discuss the price at the beginning of every season; provide planting material and assist with establishing village nurseries; provide extension advice for both jatropha and other crops; provide pre-financing; and support farmer group formation. In turn, producers agreed to follow specified technical requirements, sell only to the company with which they had an agreement, harvest and sell only mature seeds, and support group formation activities. However, interviews by the case study team ascertained that farmers generally had an inadequate understanding of the terms of the agreement, particularly when it was reached between the processor and the farmer organisation, rather than directly with the producer.

For any company wishing to become involved in inclusive value chain linkages or even contractual linkages that are not particularly inclusive, it is essential to understand both the agricultural practices and skills of the farmers and the socio-cultural environment. Particular difficulties were experienced in the dairy sector of Senegal, both in developing the dairy value chain and in attempting to introduce fortified food for children. These were caused by the multiplicity of family and community groupings within a pastoralist context, which included: a household (*ménage*), which may include a man and one or more wives; a *gallé*, approximating an extended family, including parents and adult children, and usually associated with one communal herd of animals; and a *wuro* (village or community), that could consist of several *gallé*. This complexity caused difficulties in identifying who was responsible for milk production and, in the case of supplying fortified foods, in identifying who should qualify to receive such foods, when the qualification was based on milk deliveries.

1 See UNIDROIT/FAO/IFAD "Legal Guide on Contract Farming" (2015) for a full discussion on contractual issues.



## **BOX 2: WAYS OF INCREASING CHANCES OF SUCCESS**

- Ensure that technical packages introduced will result in a significant increase in income for farmers, with minimal additional risk, if any.
- Develop a full understanding of the socio-economic structure of the area and the implications of this for value chain development.
- While working to ensure inclusiveness, ensure that farmers selected do have the potential to take advantage of the opportunities provided.
- Consider options for group and/or farmer organisation development appropriate to the socio-economic context.
- Ensure that all farmers involved endorse agreements reached with group or farmer organisation leaders.
- Address smallholder credit constraints by providing inputs and other assistance on credit.
- Organise meetings with farmers to ensure that they understand the implications of such credit in terms of repayment through deductions at the time of delivery and the long-term benefits of honouring repayment commitments.
- Seek to identify and develop new markets that can offer higher returns in a cost-effective way. Options include sales to new buyers or countries, branding, processing, quality upgrading, certification, and exploitation of the products' origin.

# 3 How can trust be promoted?

Both in traditional and more modern chains, buyers need to trust farmers to supply agreed products, particularly when formal contracts or unofficial agreements have been reached that involve input supply, technical assistance or other financial advances. Farmers have to trust their buyers to provide the agreed support and to make payments on a timely basis. Buyers further along the chain must trust intermediaries who work directly with the farmers. Developing such trust can be complex and time-consuming and the role of outsiders, such as NGOs, in supporting this can be very beneficial. For example, the Madagascar case study reported that the involvement of AVSF overcame the doubts of a litchi processor about the wisdom of working with a cooperative.

The complexity of arrangements in the Senegalese dairy industry, described at the end of the previous chapter, tended to cause confusion among the community and contributed to the development of a measure of mistrust. Also, farmers alleged that the dairy did not send collection vehicles as agreed and that farmers considered that the payment they eventually received did not reflect the quantities that were collected from them. This was attributed to the lack of formal weighing at collection and to reductions in weight due to rejection on quality grounds when the milk reached the dairy. Such clear issues of trust suggest the need for greater communication between the dairy and the farmers and the possibility of organising occasional visits to the dairy so that producers could witness milk reception, grading and weighing in person.

The PEPSICA cashew project promoted open discussions between all relevant actors prior to and during design of the project, which facilitated a climate of trust between the stakeholders. Later in the season the willingness of the leading cashew processing company to pay immediately on delivery was an important factor in ensuring continuity of market linkages. Even so, difficulties were experienced. As reported by the case study authors: “when the prices increased, the farmers didn’t want to sell their cashew nut at the prices agreed

with the processor. When the price decreased, the processor didn't want to pay the price agreed with the farmers". This is a common problem with contract farming-type arrangements and creative ways of minimising the danger of contract disruption need to be developed. One approach is to have two payment arrangements: one part of the farmer's delivery is paid for at the contracted price while the other part is purchased at the market price.

In the Ugandan oilseeds sector the leading processor was to some extent a victim of its own business model. Its success in building up production through importation of hybrid seeds attracted other sunflower seed buyers, thus creating incentives for farmers to breach their contract. The incentive to side sell was increased because the processor was very slow in paying the farmers, making it difficult to compete with traders buying for cash, even if at a slightly lower price. In Mali, one jatropha project found that some of the farmers it was supporting were side-selling to other buyers who were offering a higher price for the jatropha seeds. However, other farmers continued to support the project because they saw the potential advantage of the planned usage of fuel from jatropha for rural electrification.

Promotion of trust in various agricultural sectors has been shown to be enhanced by the existence of multi-stakeholder organisations, or commodity associations, that have the capacity to bring together the large-scale private sector, smaller traders, farmers and others working to support the sector (Shepherd *et al.*, 2009). For example, the Oilseed sub-Sector Uganda Platform (OSSUP) has played an important role in promoting the industry and in improving linkages between the various parties. OSSUP was developed by SNV and other Dutch organisations, working together with the Uganda Oilseeds Producers and Processors Association and Makerere University.

Despite the role of OSSUP, there were still trust problems in the Ugandan oilseeds sector. As is often the case, these seem to have been mainly related to the price paid. The quickest way to lose farmers is if they feel cheated. Although the company advertised its buying prices by radio and other means, farmers complained that they were not receiving that price. This may have been because the price given out by the company included commissions given to their site coordinators and agents, and that this was not understood by farmers. Another cause of dissent was that farmers were required to pay cash for seeds supplied by the company but were only paid for the output after 2-3 months. Farmers had to wait for agents and coordinators to bulk up the production to send to the company, receive payment and then return it to the farmers.

### **BOX 3: WAYS OF PROMOTING TRUST**

- Maximise communication between buyers and farmers. Hold regular meetings to ensure that farmers understand what is expected of them and why.
- Organise meetings with local authorities to ensure their full understanding of the arrangements.
- Ensure that farmers fully understand and are in agreement with the buyer's requirements in terms of cultivation practices, input use, harvesting and delivery.
- Explain payment arrangements, the method of price calculation and any deductions for inputs supplied on credit or advances given to farmers.
- Agree on quality criteria and on how quality shall be measured. Make arrangements for farmers or their representatives to be present when quality is assessed.
- Pay farmers on delivery or as soon as possible thereafter.
- Where possible, work with local intermediaries respected by the farmers to minimise the potential for disagreement.
- Encourage the development of industry-wide associations with membership drawn from all stakeholders.



# 4 What are the risks faced by farmers?

Farmers face numerous risks and the case studies covered many of these. Risk minimisation is a major factor in farmers' production and marketing decisions and, as already noted, in their decisions about whether or not to take part in inclusive value chains. Such risks are usually faced, whether farmers are part of inclusive value chains or are just making *ad hoc* sales on local markets, but there is an expectation that inclusive value chains will involve an element of risk sharing (FAO, 2014). Belonging to organised chains can often reduce some risks by, for example, providing easier access to pest control chemicals or technical advice in the event of an infestation. Under formal contractual arrangements there may be an element of risk sharing. For example, large companies with long-term investments may agree to waive repayment for inputs provided if production difficulties are experienced, or, at least, defer repayment until the following year.

The study of three value chains in Uganda by Shoreline and ILRI identified several major risks. Bananas are subject to Bacterial Wilt, nematodes and Black Sigatoka disease and a major shift of the cultivation area to the west of the country has been reported as a result of soil exhaustion in previous production areas. Climate change is also beginning to have an impact. Other banana problems include praedial larceny (the theft of crops from the field) and damage from roaming animals. There is also a significant marketing risk in view of the perishability of the product and frequent shortage of transport. Pig chains in Uganda reported that swine fever outbreaks are common and can wipe out the entire stock. Fish farming has inherent production and marketing risks. Protecting the quality of the water and maintaining the cold chain necessary to keep the fish fresh from harvest to the final consumer are costly undertakings that can easily go wrong. Fish pond poisoning is not unknown. The unreliable quality of both fingerlings and feed are also risks. Perhaps surprisingly, there is also a market price risk as farmed fish competes with captured fish, the output of which is extremely variable.

Also in Uganda, the study of oilseeds, found that risk factors played a major role in farmers' decision-making, particularly for sunflower. Risks associated with the market, such as price risk, timeliness of payment or, simply, whether it would be possible to sell the product, were often perceived by farmers as being more important than production risks. Farmers seeking greater inclusion were presented with a complex risk equation in balancing the opportunities from increased cash-crop production against the risks and the possible loss of food production as a consequence of concentrating on oilseeds.

In the case of litchi, production is very responsive to water and the subsoil cannot be allowed to become dry. Average production in Madagascar has reportedly varied between 407 kg per household in 2007 and 165 kg in 2008. This production risk can be offset, as prices can double in years of poor rainfall, even though the case study suggested that much of the production is never marketed. Browning of the litchi and post-harvest decay during storage and transportation are currently controlled by using sulphur dioxide fumigation although limited quantities of fruit are exported by air freight without this. Fumigation must be carried out as soon as possible after harvest but farmers in remote districts run the risk of not being able to get their fruit to fumigation centres in good time. With this need for speedy transport, smaller farmers often have to accept the offer made by the first trader to arrive, even though the price may be low, for fear of not being able to find a buyer in time. Further risks faced by Madagascar's litchi farmers include the time at which the fruit reaches maturity. Almost all of the country's litchi exports are timed for sale in Europe during the Christmas period. If the climate results in the litchis maturing either early or late they are more or less worthless. Vessels to take the fruit to Europe are pre-booked and prices rise in the 3-4 days prior to the scheduled sailing when exporters need to get sufficient supply to meet their orders. The crop can also be damaged by cyclones. Given these risks it is no surprise that litchi is just one of many crops grown by Madagascar's farmers. In addition to rice, breadfruit and jackfruit, cassava, bananas, sunflower, and coffee are commonly cultivated.

Farmers entering into contracts to produce new crops, in particular, are often dependent on the companies they work with to provide them with a realistic assessment of likely yields and, hence, potential profitability. They face the risk that, by accident or design, false expectations are encouraged. Shepherd (2013) noted that jatropha yields had been significantly exaggerated by its proponents in other countries and the JatroREF study found that yields were below expectations in West Africa. In turn, these yields were jeopardising the viability of the processors and in both Burkina Faso and Mali processing is now

close to being abandoned. Original plans were for plots of jatropha to be grown on relatively poor soils; these were subsequently replaced by promotion of intercropping with maize, groundnut and black-eyed pea, or by encouraging the use of jatropha as a hedge.

Another risk-related issue to arise from the jatropha study was that commitments to provide advances to farmers were sometimes not honoured and financial difficulties experienced by the processors meant that some were unable to purchase all of the farmers' production. A further concern was that while the harvest took place at a time when families had significant expenses – such as the purchase of food to bridge the gap when there was limited food availability, the purchase of seeds and fertiliser and the paying of school fees – and was thus thought to be a potentially beneficial crop, it also coincided with a time when they had significant other work to do, such as land preparation, weeding and the harvest of other crops. This emphasises the need for promoters of inclusive value chains to be fully aware of the labour and other socio-economic implications of farmers taking on new production activities.

As noted earlier, a factor influencing milk production is its seasonality. For producers this is not so much a risk as an annual occurrence that they have learned to live with. For dairies, however, such seasonality can present considerable problems. If they install facilities adequate to handle production at its peak they will be running far below their capacity during the low season and risk being unable to cover their costs. If they install facilities insufficient to handle peak production they risk alienating their producers by being unable to take all of their milk. During the dry season in Senegal, LdB experiences problems both because of lower milk yields and because of seasonal transhumance of the pastoralists. The company's cost-controlling responses have included changing collection arrangements to maximise milk collections per trip and the use of motorised tricycles for collection, thus reducing transport costs.



#### **BOX 4: WAYS OF REDUCING FARMER RISK**

- Recognise importance of risk minimisation in farmers' decision-making and plan their involvement in value chain development with this in mind.
- Conduct a full analysis of the socio-economic viability of smallholder involvement in the value chain, including a reliable assessment of yield potential based on local conditions.
- Consider how risks should be shared between buyers and farmers to ensure sustainable long-term relationships.
- Promote development of new varieties that can, among other things, help overcome consequences of climate change and address disease problems.
- Ensure appropriate post-harvest systems are in place to maintain quality and minimise delays between harvest and delivery.

# 5 What are the gender implications of greater chain involvement?

While activities to link farmers in more sophisticated markets may well lead to broader inclusion, it cannot be assumed that all within a farming family will benefit. Depending on the particular culture of an area, women, in particular, may see few rewards and may actually lose out. In Senegal, for example, the dairy case study found that payment was more often than not collected by the men, even if they played little part in rearing the animals and milking the cows. However, field research also found examples of where men were quite happy for women to handle the money from milk production. Unfortunately, during the pilot project to use the dairy industry to promote rural nutrition, the information about the project was shared mainly with the men. It became apparent that a proportion had not passed on this information to their wives. The project concluded that it should have conducted specific training activities targeting women.

In Benin, men usually take control of cash-crop production. Women accounted for less than 10% of cashew farmers and none were selected to be a lead farmer to provide advice to other farmers. Although women do much of the work on cash crops, the financial aspects are nearly always controlled by men. Thus, as elsewhere, there is always the danger that greater inclusion will increase the workload for women while financially benefitting only men. Furthermore, women do not usually have land rights and therefore it is difficult for them to own cashew orchards. In trying to address this problem, the next phase of the project has been designed to incorporate women through promoting intercropping of leguminous crops in cashew orchards and establishing apiaries in orchards, both of which have the dual function of providing a source of income to women and increasing cashew productivity.

In contrast, the study of value chains in Uganda found that pig farming was more the preserve of women, who were involved in animal rearing and marketing as well as decision-making about the proceeds from sales. The

Ugandan oilseeds study, however, noted that women were generally more concerned about the importance of growing food crops and were worried about sunflower cultivation attracting pests and causing soil exhaustion.

The West African jatropha case study found that meetings of producers to discuss the industry were relatively rare, around two or three times a year. The one exception was a women's cooperative in Mali, which met twice a month. However, on the whole women expressed dissatisfaction with the introduction of jatropha as a commercial crop because they were often required to do the harvesting but the crop was usually sold by the men. In some cases there was the opportunity to make soap from by-products of processing and some women also purchased HVP in order to make high-quality soap for sale.

#### **BOX 5: WAYS OF ADDRESSING GENDER CONSIDERATIONS**

- Ensure maximum consultation with both women and men prior to reaching a contractual agreement.
- Develop mechanisms for sharing information with both women and men throughout the contract.
- Be aware of implications of contracted production on women's food crop production and ensure this is fully discussed with both women and men.
- Be aware of the implication of new value chain activities on the workloads of both women and men.
- Wherever possible, ensure that contracts are signed, or agreements reached, with the family members doing the bulk of the work and that payment is made to those family members.

# 6

## Can producer organisations play an important role?

Most of the case studies touched on the role of producer organisations and cooperatives in facilitating value chain linkages. Notable among the successes was the Fanohana cooperative in Madagascar, which, as described in Box 6, succeeded in upgrading production of litchi and other crops, negotiating fair-trade and other export contracts for its farmers, and adding value to products by working with a local cannery. Such markets could not have been developed by farmers acting individually and fair-trade certification generally depends on farmers working through a farmer organisation that is able to apply the fair-trade premium for community development purposes.

### **BOX 6: DEVELOPING THE MARKET FOR LITCHI IN MADAGASCAR**

Prior to the involvement of AVSF in supporting the development of the Madagascar litchi industry, there had been another attempt by an NGO to work with a cooperative to develop litchi exports in 2003. This reportedly failed because of the limited role given to the cooperative leaders and the inadequate attention paid to logistics, with the disastrous consequence that most of the litchis purchased from members had to be thrown away. However, the experience did alert a few cooperative members to the possibilities of grouped sales to exporters, which they carried out in 2005 and 2006, but not through the cooperative. In 2007, AVSF selected three cooperatives to work with from among 12 farmer organisations. A fourth was added soon after, following pressure from the cooperative itself to become involved. These cooperatives were subsequently merged into one union, Fanohana, before it eventually became a cooperative in its own right, rather than a union. Farmers became members of Fanohana, rather than the original cooperatives, thus enabling it to offer a consistent service to all 265 members.

In 2008-09 an agreement was reached with a fair-trade organisation in France and with a processor in Madagascar to supply 14 tonnes of frozen litchi pulp (equivalent to 35 tonnes of fresh litchi). Each of the 152 members was given a quota of 320 kg, representing 5-10% of their annual production. The fair-trade premium was not paid to the farmers but served to increase the funds of the cooperatives. From 2010, the French buyer required production certified as organic and cooperative members were successfully certified. Supplies of organic litchi pulp increased from an initial 14 tonnes of pulp to 42 tonnes in 2011-12.

Following this success with pulp exports, the cooperative, with support from AVSF, identified fair-trade markets for fresh litchi, but the arrangement only lasted for a year, following failure to agree on the price. However, in 2012-13 agreement was reached with a major French fair-trade importer and, working through two local exporters, Fanohana was able to export 166 tonnes of fresh litchi. Many farmers from the cooperative had also been certified as GlobalGAP compliant and in 2013-14 exports amounting to 243 tonnes were certified as fair trade and GlobalGAP. In 2012-13 Fanohana also developed a market for fair-trade litchi with a local processor, which made sales of syrup in retail units to France, with sales doubling the following year. Trials were also made with dried fruit exports, which were seen as a way of expanding the European market beyond the traditional Christmas period and making exports possible when no ships for fresh litchi were being chartered.

The strengthening of the management skills of the cooperative had enabled committee members to carry out the necessary audits of farmers' land in order to guarantee that organic and fair-trade procedures were being followed and to facilitate traceability. Contracted volumes were allocated on the basis of production potential and delivery schedules were worked out and agreed with the members. Committee members also negotiated with transporters in Tamatave, the export port, and the capital Antananarivo. Following the success with litchi, Fanohana diversified into marketing other crops grown by its members, including pepper, vanilla and cinnamon. As with Madagascar's rural traders, this permitted cooperative staff and facilities to be productively employed over a much longer period, when there was no demand for litchi, and also generated working capital.

Source: Adrien Brondel, AVSF

Approaches of NGOs to working with farmer organisations varied. AVSF in Madagascar decided that it would only work with established organisations and would not try to set up new organisations in order to deliver technical assistance. Self Help Africa in Benin also worked to strengthen existing cooperatives. On the other hand, SNV's work in Uganda involved consolidating farmers into groups and then consolidating those groups into larger organisations.

Only 102 of the 1,200 farmers targeted by the Benin cashew project were initially cooperative members but as a result of the project 850 people signed up to one of the cooperatives. Negotiations on prices were carried out by cooperative board members or, in some cases, representatives of smaller groups, who returned to the farmers to discuss the deal as a group before proceeding. To ensure full transparency during the sales process, producers transported their product to the cooperative and received a delivery slip. The nuts that were collected were delivered to the buyer who paid on the spot. Producers then presented their slips to the cooperative to receive payment.

In Uganda, farmer groups were initially consolidated into High-level Producer Organisations (HLPOs), which each represented between five and ten groups, and had the economies of scale to procure inputs collectively. Subsequently, efforts were made to merge these HLPOs into formal cooperatives that would be able to autonomously engage in business activities. However, their potential to function as independent value chain partners was not fully achieved and the cooperatives remained dependent on the seed supply and extension services offered by the processor. While better prices can be achieved through economies of scale, few of the organisations had been able to develop sufficient capital to pay farmers in cash, given that the company only paid after three months. Thus, despite the fact that farmers did show some loyalty to their organisation, the organisations were still subject to side-selling by their members to cash-paying traders.

A further, rarely considered, difficulty for farmer organisations, was that cooperatives in Uganda were obliged to prepare formal accounts and submit annual tax declarations. This put them at a disadvantage to informal traders because of the possibility of paying tax, the costs involved in preparing accounts, and the fact that, in Uganda, some of their smaller potential customers were also in the informal sector and were unable to provide the necessary documentation.

Apparently independent of external assistance, over 1,000 fish farmers in Uganda, seeking to avoid reliance on selling through spot markets, established

a fish farmers' cooperative society. This aimed to help members have access to essential services and inputs, while also developing market linkages and adding value through sales to a company that marketed fresh fish to supermarkets and also made fish sausages.

In the West African jatropha industry, the various processors used different approaches to link up with farmers. Some sought to strengthen producer organisations so that they could provide extension advice and bulk up their members' production for subsequent collection. Others collaborated with farmer groups but purchased from their members individually. One, Mali Biocarburant, originally involved around 3000 producers as shareholders of the company but changed its approach when it became clear that production would be insufficient to develop the planned export market. Instead, it worked with a large cooperative to organise the farmers into 15 groups, with the intention that they would produce HVP. Another company decided to set up an informal body that could be developed over time as needs emerged, rather than creating the structure unnecessarily for a farmer organisation. Only one company chose to work directly with individual farmers.

The difficulties faced by the jatropha industry as a whole do not permit any conclusion as to which approach was the most successful. The relatively small quantities produced in both Burkina Faso and Mali, together with the small marketing and processing margins available, meant that funds to support farmer organisation development were limited. The low profitability of jatropha and small individual production levels also meant that farmers faced difficulties in paying their membership subscriptions. In fact farmers seemed to have rapidly formed the opinion that there was little economic benefit in jatropha and were thus perhaps less enthusiastic about cooperating than they would have been with more profitable developments. However, some groups, formed originally to promote production, continued to operate subsequently to carry out other activities such as nursery operation or marketing. On the other hand, groups that received most initial support were reported to be largely inactive.

The oilseeds case study from Uganda argued that development agencies needed to critically reflect on the comparative advantage of producer organisations. The evidence presented by that study and by the jatropha study would seem to support that view, although the Benin and Madagascar cases both showed cooperatives in a positive light, albeit with the advantage of considerable technical and financial support. Certainly, both farmer associations and cooperatives have in the past seemed to be a bottomless pit for development resources. Strong evidence that there are major problems

with such organisations, at least as far as carrying out value chain activities is concerned, is usually met with the response that additional time and funds are required, rather than serious consideration of the development model.

#### **BOX 7: WAYS OF WORKING WITH PRODUCER ORGANISATIONS**

- Where possible, ensure that producer organisations working in inclusive value chains are financially sound (independent of subsidies) and able to finance their activities.
- Where funding is required, develop a detailed business plan to ensure that the organisations can be self-sustaining by completion of the project.
- Maximise communication between buyers and farmer organisations to identify the most appropriate models for farmer organisation involvement, including working through small groups.
- Encourage organisations carrying out value chain functions to have professional management teams for these activities and support such teams with appropriate training.
- Identify and facilitate linkages with new market outlets that producer organisations may on their own have difficulty in assessing.





# 7

## What are the alternative approaches to linking farmers with buyers?

One lesson learned from the various case studies is that adaptation of the business model as the project proceeds is often very necessary. In the Ugandan oilseeds sector, the company started out by working with individual farmers. Contracts stipulated exclusivity in selling the oilseeds to that company when the inputs it supplied were used, even though the seeds were not supplied on credit. There were complaints that the company was exploiting its monopoly import role. At one time the contract with farmers mentioned the possibility of legal action for non-compliance, although such action against small farmers would be practically impossible. With NGO assistance, the company then moved on to working with farmer groups, as described earlier. The hope was that the embedded services, such as extension, would lead to loyalty from the farmers when it came to selling their crop. Individual farmers were still required to sign contracts and these were to be witnessed by the village council chairman. In practice, however, such contracts appeared to have achieved little, with the only real sanction open to the company being to refuse access to the hybrid seed the following season.

With all of these problems, the company's programme to tie exclusive access to seed to an exclusive market for the product was effectively abandoned and by 2008 it was estimated that around 40 percent of the company's 'contracted' oilseeds were actually bought by traders, including in remote areas that the company's programme had not reached. The number of cash-paying traders had continued to grow while the company continued to pay slowly through an arrangement involving agents and coordinators. From 2012, the company reportedly adjusted its programme to more of a marketing contract. However, it retained site coordinators and piloted a loan scheme with a local bank that both enabled the coordinators to pay cash for the crop, thus avoiding the payment delay, and reduced the company's transaction costs.

Such changes in approach are fairly common under contract farming arrangements as companies struggle to identify the best method of working with farmers. While, in the case above, the company tried to find ways of avoiding working with individual farmers, there have been other examples where companies have found working through farmer organisations to be unsatisfactory and have decided to work directly with farmers. In other cases, companies may have recognised the need to work with groups but have struggled to identify the best way of coordinating them, as appointment of local coordinators can lead to rivalries.

In the case of the Senegalese dairy industry, formal contractual arrangements were not entered into by the dairy, LdB. The case study attributed this to the fact that most producers were pastoralists, and hence very mobile, so would not be supplying on a regular basis. Contracts were also deemed unsuitable because of literacy problems. However, to try to ensure that the milk supplied to the dairy was delivered by producers familiar with its requirements in terms of quality, all families or extended families were provided with numbered, 18 kg-capacity churns, and this registered number was the basis for the monthly payments. To maximise their cash income producers would sometimes sell all of their fresh milk and consume powdered milk, with possible implications for family nutrition.

There has been a tendency in development work to ignore the traditional trading sector. Traders are often portrayed as 'unscrupulous middlemen' who cream off profits from the chain while contributing little. Thus NGOs and others have often tried to develop market linkages that by-pass traders and connect farmers directly with the end buyers. Where the products involved are highly perishable there are good reasons for this, as an extra hand in the chain could slow activities and lead to loss of quality. Exporters of fresh fruit and vegetables, for example, would not usually want to procure their products through traders.

However, in the case of less perishable products, the attempt to by-pass the trader may not only be misguided but also a recipe for the failure of the whole venture. Traders are not going to suddenly disappear just because an inclusive value chain is being developed. As seen in the Ugandan oilseeds case, for example, their capacity to offer transport, travel to remote areas, buy small quantities per farmer and pay in cash meant that farmers were often inclined to sell to them despite their agreements with the company. A further issue to emerge was that traders were usually less fussy about product quality than the more demanding standards of the lead company working with SNV, largely

because their customers, the competing oilseed crushers, were themselves less demanding. As the SNV study puts it, “traders have not been side-lined by the vertical coordination efforts of other [value chain] actors”. Farmers like to keep their access to different marketing channels open and not put all their eggs in one basket.

Ugandan traders are able to be competitive in this situation in part because they handle a range of products and are thus able to work throughout the year to build up capital. Litchi traders in Madagascar also handled a range of crops throughout the year. However, in some cases the problems faced by traditional traders are not dissimilar to those faced by companies who attempt to develop inclusive linkages. Traders build up linkages with farmers over time and these are often trust-based or based on kinship. Advances from traders to farmers are not unknown but, as with more formal contract farming, these advances are sometimes misused and the production sold to others. However the SNV case noted that, by and large, traders did tend to respect each other’s ‘territory’. Despite their apparent capacity to pay cash, traders invariably reported that their biggest problem was the availability of working or operating capital.

In Madagascar traders face considerable risks, particularly from long queues at the exporters’ premises and the possibility of being unable to sell their products to exporters for reasons of poor quality. The alternative local market is small and low-priced. The case study noted, however, that farmers and traders often had longstanding relationships and sometimes reached verbal supply agreements. In remote areas there was often only one trader operating. Studies have estimated that around 3,000 traders handle litchi in the country, as well as other crops. More professional traders own their own vehicles. They often provide advances to farmers, primarily to guarantee supply and know in advance how much of the crop they will be able to buy. Sometimes the larger traders provide extension advice, in an attempt to improve quality and grading. At the other extreme some occasional traders include people who sometimes hire vehicles to go on a buying trip and others such as minibus drivers who take advantage of their presence in the producing area to buy small quantities. These have little interest in promoting quality improvement.

### **BOX 8: ALTERNATIVE WAYS OF PROMOTING INCLUSIVE VALUE CHAINS**

- Examine all potential linkage models and do not automatically assume that producer organisations represent the best approach.
- Recognise that inclusive value chain models have to be flexible and should be adapted in the light of field experience.
- Identify ways of working with the strengths of rural traders as an alternative to involving producer organisations.
- Where farmers produce a range of products, consider chain upgrading strategies for more than one product.

# 8

## How important is finance to successful chain development?<sup>2</sup>

All of the case studies touched on the topic of finance as being both a constraint for inclusive value chain development and a problem also experienced by competing small-scale traders. Farmers often experience significant cash-flow problems. While their farming activities are, in themselves, profitable they do not generate cash at the right time in order to meet necessary costs. For example, labour costs, often underestimated, were reported as a constraint in Uganda, where application of cow dung on banana land cost around €80/ha. Advances to farmers were reported by all of the case studies, whether by the inclusive value chains studied, traditional traders, or both. However, both institutional lenders and value chain companies are often reluctant to lend where there is a high level of risk associated with an activity. The study of pig chains in Uganda found that no financial institution would lend to pig farmers because of the risk of swine fever.

A stumbling block during the PEPSICA project in Benin was the lack of access to credit by producers who, in order to meet household expenses such as school fees and labour, were obliged to sell part of the cashew crop early in the season when prices were low. To address this, the leading processor, with advice from the project, decided to make an advance payment to the farmer groups to enable them to buy from farmers in advance of the harvest, thus reducing their incentive to sell early to outside buyers. The project also linked cashew producers to a micro-finance institution through their producer group and cooperative. However, uptake of the loans was rather low, despite subsidised interest rates, with cashew producers using them mainly to hire labour for orchard maintenance activities. Advance payment was also reported by fish farmers in Uganda with buyers paying for fish from aquaculture two to three months in advance of the harvest. Some limited pre-financing was offered to farmers by one processor in the Burkina Faso jatropha sector.

2 For a detailed review of this topic, see Miller and Jones, 2010.

Membership of a group was a precondition to obtain such financing although repayment liability was at the individual, not group, level. However, this support to farmers became jeopardised by the lack of financing available to the processor; a problem that, in time, also meant that the processor was unable to buy all of the jatropha offered by farmers, who became frustrated and lost interest in producing.

In Senegal, the dairy company provided forage to producers, in particular to ensure feed availability during the dry season. The price was fixed in advance and producers were able to pay in cash or credit, with repayment deducted from payment due for their milk. The amount of feed allocated to each producer was theoretically controlled so that no producer could owe more than a set percentage of the expected monthly milk payment. However, this caused problems because the time that producers required the feed the most was the time when they made the smallest deliveries. Despite the dairy's controls on credit advances there were occasions when producers found that they owed money at the end of the month. At the end of 2012, LdB was forced to forgive the debts of all producers because their debts had become unsustainable. Debt forgiveness of this type is not generally recommended by development finance professionals on the grounds that it creates the possibility of 'moral hazard'. This means that the borrower fails to use a loan efficiently, confident that, whatever he or she does, the debt will eventually be forgiven. Under such circumstances it becomes difficult for a rural financial institution to develop a viable business model or for a contracting company to run a profitable contract farming operation. Thus, in the long run, politicians in some countries who dictate that debts should be forgiven may actually be harming rather than helping farmers, by reducing the availability of rural finance or contracting opportunities in the country.

In Madagascar, the French fair-trade buyer pre-funded 39% of the value of the contract, paying the remainder after three months. Pre-financing support was also supplied by a French 'solidarity bank', SIDI. The Fanohana cooperative was also able to negotiate some pre-financing from a local processor for the supply of fair-trade fruit for processing and export to France, and was able to use its confirmed export contracts to obtain trade receivables financing, whereby the lender could use the contract as collateral. The traditional marketing channels for litchi in Madagascar also involved significant pre-financing by the larger traders. This suggests that the majority of farmers had little capital and, acting individually or even as groups, would not have been able to finance their own marketing activities, even if the marketing channels were equipped to buy from them. Given the lack of funds available to most

farmers, the capacity of farmer organisations and cooperatives to develop value chain activities without outside assistance would appear to be minimal. As noted earlier, jatropha farmers had experienced difficulties in paying their membership subscriptions.

### **BOX 9: WAYS OF IMPROVING CHAIN FINANCING**

- Conduct detailed studies of the financial constraints facing farmers in order to understand the impact of these on the potential for inclusive value chain development, and the ways of addressing such constraints.
- Within a contract farming context, consider providing loans for inputs, as well as other advances. However, ensure that farmers do not reach a level of indebtedness that will jeopardise repayment.
- Require investors in inclusive value chains to demonstrate that their resources and cash flow are adequate to honour commitments to provide inputs and make timely payments for the products.
- Investigate the potential for warehouse receipt financing for non-perishable products or for financing against confirmed orders.
- Wherever possible, work with local financial institutions, both to increase the flow of finance into the chain and to promote the availability of financial services in rural areas.





# 9

## What role can technical assistance play?

Companies may lack both the capacity and the resources to develop inclusive value chains even if, in principle, they recognise the need to work more closely with small farmers. As noted earlier, depending on the crop, there is generally a preference to work with larger farmers as these offer economies of scale, both in terms of the quantities they produce and when delivering technical and other assistance.

While there are examples of companies working directly with many thousands of small farmers, either by choice or for want of an alternative, the general practice seems to be for smallholders in value chains to be organised into formal or informal groups. The majority of companies lack staff qualified to carry out the specialised and time-consuming work necessary to ensure effective group organisation, and lack the resources to employ such individuals. Similarly, while companies are increasingly employing their own extension staff, they usually lack both the facilities and the qualified trainers to carry out formal training of farmers.

Thus, the support that NGOs and development projects can offer enables companies to work with smaller farmers without having to develop a whole range of new skills. In Benin, for example, a cashew processor established a 1.5 ha model farm and a Cashew Farmer School which were then used by the PEPSICA project to build the capacity of lead farmers that the project had identified after forming farmers into groups. The project also facilitated meetings between cashew producer organisations and the company, which built relationships between the two parties, and permitted the company to clarify quality and quantity requirements and arrangements for purchase.

A similar role was played by SNV in the oilseeds sector in Uganda. Prior to 2009, the leading company, Mukwano, had worked individually with 45,000 farmers but this proved unsustainable. With SNV support it developed a

cluster approach in which farmer groups were coordinated by lead farmers and connected to 'site coordinators' who were working on contract for the company and were supported by the company's extension agents. Each group managed around 30 farmers and had access to hybrid seeds at cost, technical support and a guaranteed market and minimum price, with the opportunity to negotiate before harvest for prices above the guaranteed minimum.

In Madagascar, as described in Box 6 in Chapter 6, the NGO, AVSF, played a major role in developing market linkages with buyers in Europe. This seems to be an important technical assistance role because both cooperative managers and owners of small-scale export businesses are unlikely to have any experience of market research and development. Indeed, exports from ACP countries are often made to contacts in the diaspora - even though exporting in this way is quite risky - rather than to more established food importers. A further problem faced by ACP exporters to Europe is that even if they have the skills to identify and develop markets, they are finding it increasingly difficult to obtain visas for visits to explore those markets, a problem not faced by international staff of NGOs.

While donor and NGO support can have a very positive impact on value chain development, both in terms of the technical assistance provided and the funding made available, the question arises as to what happens when that support comes to an end. Often, the model followed by the development assistance cannot be maintained once that assistance is withdrawn. This is likely to be because of a lack of resources, both financial and human, to carry on activities that were previously being provided largely free of charge. Collaboration with development agencies makes sense for the private sector when it has few costs to bear, but subsequently taking on those costs itself may not represent a very good business model. In Uganda, for example, the oilseed processor that had worked with SNV did not independently take over the activities after SNV's project ended.

### **BOX 10: PROVIDING TECHNICAL ASSISTANCE**

- Enables companies to link with farmers they would otherwise be reluctant or ill-equipped to work with.
- Facilitates provision of training on topics, such as group formation, on which companies have no expertise.
- Can promote essential communication between farmers and buyer, without which inclusive value chains cannot work.
- Can enable companies and cooperatives to access new markets they may otherwise be unaware of and can promote trust between them and these markets.
- May give a false picture of the viability of the inclusive business model if buyers lack the resources and skills to continue implementation after the technical assistance has ended.



# Conclusions

The papers used for these case studies inevitably provide a slightly biased approach to the topic of value chain development for small farmers. This is because the organisations applying to CTA for funding to prepare such studies are likely to be the NGOs involved in supporting their development. Indeed, five of the case studies were prepared by NGOs and concerned activities in which those NGOs were, or in some cases still are, actively engaged. It is improbable that any of the chains described in this report, other than the banana, pig and fish chains in Uganda analysed by the Shoreline study, would have emerged in the form described without NGO or other intervention.

While the Fanohana cooperative in Madagascar benefitted from some earlier moves towards cooperative litchi trading by a few farmer leaders, the development of export markets for fresh and processed certified products, particularly fair trade, would not, according to the French fair-trade importer, have been possible without involvement of the NGO, AVSF. Fanohana was also able to obtain funding from a government project to pay for a salaried management team as well as for infrastructure investments. In West Africa, one reason for forming cooperatives in the jatropha sector was that official registration would qualify the cooperative for various subsidies from the government or NGOs. In Senegal, the dairy admitted that it could not have operated the programme of nutrition development out of its own resources and that the contribution of partners was essential for it to work. This suggests that the benefits of the programme in terms of increased milk deliveries may have been relatively small.

The use of full-time business management appears to be essential for cooperatives and farmer organisations seeking to become involved directly in value chains as there are many risks associated with a lack of management skills. However, there is often a chicken-and-egg situation in that embryonic business activities generate insufficient surplus to pay for such managers.

This would appear to provide a convincing case for external funding of management, as long as realistic projections indicate that the activities will eventually be able to cover such costs, and as long as the subsidies are not used solely to increase farmer incomes, thereby providing false perceptions of the value chain's profitability. However, none of the case studies provide indications that such considerations were taken into account.

Studies of contract farming and similar arrangements have always stressed that extensive communication between the parties is essential in order to build up trust. While making considerable efforts to achieve this seems to have been an important factor in the success of the Fanohana litchi cooperative, other case studies, such as that on jatropha, identified problems in this area. Farmers need to be consulted from the outset, both about the wisdom of introducing a new product to an area and about the structure proposed for the value chain. The jatropha case study also concluded that where contracts were used for jatropha they were often extremely vague. Contracts do need to be kept simple, so that they can be easily understood, but they also need to clearly indicate the responsibilities of both the producers and the buyers and be fully explained to farmers.

In contrast to the frequent support provided by donors and NGOs to farmer organisations, it is rare to find projects and programmes that provide either technical assistance or direct support to traders. However, a case can be made, as suggested by the SNV study, that investments in the informal sector can achieve as much if not more than investments in producer organisations or even investments to support linkages with poorer farmers by large commercial concerns. Traders respond to smallholders' needs and may contribute to their inclusion in value chains. Strengthening traders - for example by facilitating their access to finance from financial institutions, improving post-harvest handling and storage, introducing a capacity to advise farmers on production and on input use, and developing trader associations, together with efforts to improve transparency in the informal sector - could benefit producers by improving services to farmers who, for various reasons (see Chapter 4), are unable or unwilling to be incorporated in more sophisticated value chains. This could lead to greater inclusion of smaller, asset-poorer and more risk-averse farmers. However, few traders are, on their own, in a position to invest in production intensification and quality improvement.

With one exception, the studies used for this paper each looked at the development of an inclusive value chain for just one product, i.e. jatropha, litchi, sunflower, dairy, and cashew. However, some of the studies noted that

the products being promoted represented one of several or many products being produced by the farmers. One of the strengths of traditional traders is that they can handle a range of products. Particularly when these products are harvested at different times of the year, traders can maximise the use of their storage and transport by buying a range of products and can also use profits from the trading of one to buy another later in the year. Where inclusive value chains are promoted using producer organisations, such economies are not normally available to the organisation, particularly if the new chain is its first venture into trading activities. This makes it more difficult to compete with traders. Indeed, the Fanohana cooperative in Madagascar had recognised this and was beginning to work with its members on other crops in addition to litchi. In certain circumstances there may therefore be a case for donors to move away from concentration on one product at a time to more of a 'whole farm' approach to value chain development, where emphasis is placed on upgrading the skills of those working in a variety of product chains relevant to farmers in a particular area.

Projects and businesses seeking to promote inclusive value chains do need to carry out a realistic assessment of the capacity of smaller farmers to take on risk. Because a particular investment by a farmer seems like a good idea to the manager of a contracting company, or to an NGO staff member, it does not mean that the investment will be seen in the same light by poor farmers, particularly if it appears likely that such an investment will increase their risk. Similarly, other socio-economic implications must be considered from the beginning. Will farm families have the necessary labour resources when labour is required? If not, will there be people available to be recruited to carry out casual farm work, and will farmers have access to the cash to pay them? If not, could involvement in value chains lead to increased levels of child labour?

Consideration of gender implications is also vital. Will participation in inclusive value chains increase the workload of women? Will it result in less land for food production for their families? Will it have other nutritional implications, such as in the Senegal dairy case where households sold fresh milk for cash and purchased powdered milk for their own consumption? Will women share in the monetary benefits of value chain participation or will the payments all be taken by their husbands? If the answer to some of these questions is 'yes' or 'perhaps' then a re-examination of the approach is likely to be necessary.

Financing of agriculture is a complex issue. Creative approaches to providing value chain finance are now being developed. These aim to address the high level of risk usually experienced by lending institutions when making short or



medium-term loans to farmers or other value chain actors. Much remains to be done, however. It seems essential that value chain finance must be placed on a sound commercial footing from the start if it is to be sustainable. Those developing inclusive value chain projects therefore have a responsibility to avoid direct subsidies and work with financial institutions to develop sound financing arrangements based on commercial principles. Unsustainable interventions not only jeopardise the project they are applied to but also put at risk the entire rural financial structure, as those not benefitting from subsidies seek similar arrangements to those who are.

Government agencies and NGOs can only intervene in a limited way to promote inclusive value chains. Thus the prevailing concern is how to replicate apparently successful large-scale interventions and how to scale-up activities that have been successful on a small scale or as a pilot. As noted at the end of Chapter 9, private businesses may not always wish to carry on donor-led activities once a project has ended. This suggests that new project activities need to be planned in close collaboration with companies and with a strong emphasis on developing affordable interventions that, if successful, will provide a business case for the private-sector partner to continue implementing them. In turn, demonstrated profitability should provide the model for future replication or scaling up.

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