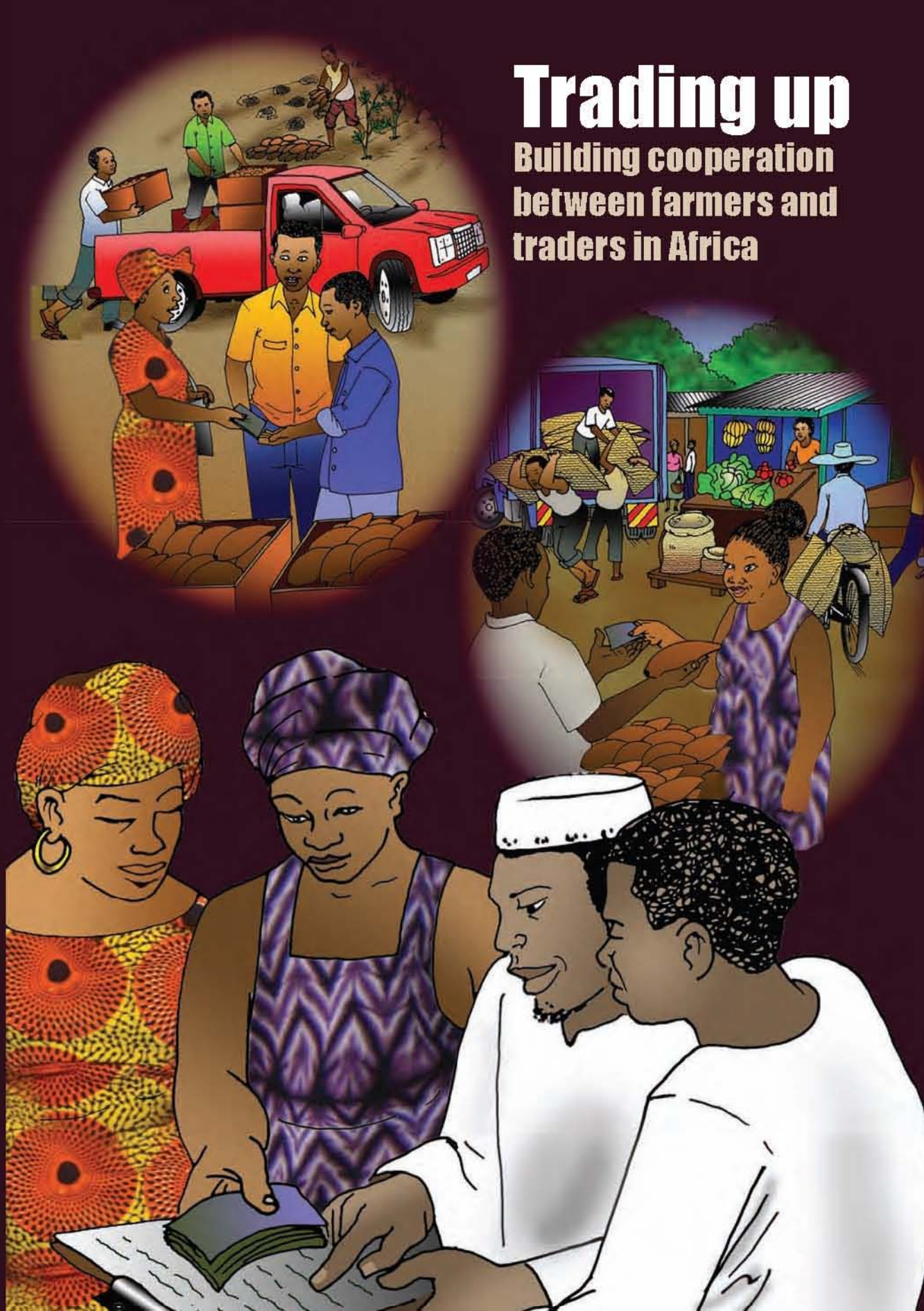
Trading up

Building cooperation between farmers and traders in Africa



TRADING UP

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BUILDING COOPERATION BETWEEN FARMERS AND TRADERS IN AFRICA

Royal Tropical Institute

IIRR

This publication is jointly produced by:

Royal Tropical Institute (KIT), PO Box 95001, 1090 HA, Amsterdam, The Netherlands
development@kit.nl, www.kit.nl

International Institute of Rural Reconstruction (IIRR), Africa Regional Centre, PO Box 66873, Nairobi, Kenya
admin@iirr-africa.org, www.iirr.org

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Cordaid, PO Box 16440, 2500 BK, The Hague, The Netherlands, www.cordaid.nl

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Coordination: Lucian Peppelenbos

Editing and layout: Paul Mundy, www.mamud.com

Artwork: Nyotumba Bonaventure and Alfred Ombati

Cover: Nyotumba Bonaventure

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Contents

Boxes

Figures

Tables

Foreword

VALUE CHAINS PROVIDE POTENTIAL benefits for both rural producers and urban consumers. The metaphor of the "chain" emphasizes the fact that most goods are produced by a sequence of interlinked actors and activities. Producers have received particular attention, as they are perhaps the most apparent manifestation of the value chain. Receiving less attention, but of equal importance, are traders.

This publication sets out to give attention to this group. It looks at the role that traders occupy in the value chain. Traditionally, the idea was to get rid of the traders. Often farmers think negatively of traders, accusing them of exploitation. Erroneously, farmers often believe that if they could just get rid of the trader, their profits will improve. By contrast, traders fulfil a vital role in the value chain. In fact, with the appropriate trading partners, farmers are better off, not worse.

Unknown to most producers, traders operate in a climate of great uncertainty and encounter all sorts of risk. Traders search for commodities to buy, visit sellers, and negotiate deals individually. This is time-consuming. And because they are searching for products to sell, far away from markets, they too do not know how much they should pay for a certain product, let alone how much it will fetch when sold in the market later. Most private traders have little working capital; they often rely mainly on their own funds, advances from wholesalers, acceptance by farmers of deferred payments and, at times of peak financing requirements, moneylenders. Poor transport infrastructure means long, arduous trips that can jeopardize the quality of agricultural produce and livestock, and can translate to heavy losses for the trader.

Indeed, traders are not the villains that producers so often paint them as. The case studies presented here start off by recognizing the specialized role of all actors in the chain. Whether it is transporting livestock in Kenya, selling yams at Kumasi Central Market in Ghana, exporting Tanzanian coffee to European markets, or exporting tomatoes from Burkina Faso to Ghana, the case studies describe the actors in the chain, the challenges they face, the actions taken to deal with them, and the changes this has brought to the market structure.

In fact, one of the keys to value chain development is to reinforce linkages and partnerships along the chain. This involves analysis of the relationships between the various actors involved. There are issues that affect both traders and producers. Weak institutional arrangements, and high transport and handling costs that are the result of weak public infrastructure, hurt traders and producers alike. Once

traders and producers see the value of working together, they can progress to improve institutional issues. These improvements don't mean that traders lose out. In fact, traders can assume new responsibilities such as bulking and transport.

All of the case studies highlight how organizing both farmers and traders alike improves business relations. Traders have improved their performance by paying frequently and on time. All these reflect better business relations and contribute to more transparent prices. Improved chain relations can translate into benefits for farmers, traders and consumers. Finally, actors in the chain who work well together and trust each other can become partners and engage in dialogue with the government to create more supportive policies and actions on such key issues as taxation, research support and infrastructure.

Cordaid, ICCO, and Oxfam Novib are promoting the value chain approach as part of their policy to improve small-scale agriculture. The publication in 2006 of *Chain empowerment: Supporting African farmers to develop markets* focused on small-scale producers. This book, focusing on traders, is a logical next step. It leaves the role of African consumers in market chain development as possible future step.

It is worth noting that this is a new field for these three agencies. There is a growing literature on value chain approaches. The experiences here will add to this. We hope that this publication contributes to ongoing exchanges and mutual learning and will help us and others become even more effective in our support to agricultural development and poverty reduction. We also hope the book will make lobbying organizations aware of the need to include those ministries responsible for trade and small and medium enterprises in their lobby efforts as well.

René Grotenhuis, Executive Director, Cordaid

Jack van Ham, General Secretary, ICCO

Theo Bouma, Director, Project Department, Oxfam Novib

Preface

In 2006 KIT and IIRR published a book on experiences with empowering African producers in value chains. The book was written through a "writeshop" approach that gives voice to practitioners who represent interesting experiences that generally remain unpublished. We believe that there is much to learn from practice and that we need to do more efforts in bringing this untapped knowledge to the surface. The book is downloaded from the KIT website about 200 times every month, and was reprinted in 2007. There is clearly a big demand for this type of innovative knowledge generation.

One of the general conclusions of the value chains book was that empowerment of producers cannot be addressed without taking into account their relationship with other chain actors. Empowerment is a process that impacts on various social structures and personal relationships. The role of traders in value chains was identified as a subject that needs more attention if we want to understand empowerment processes of producers in Africa. When scrutinizing the literature, we observed relatively few references to the role of African traders in value chains. So we decided to organize a writeshop on this, and invite both traders and producers to share their experiences.

Worldwide and throughout history, traders have been object of general public indignation as well as mystification.[1] Who doesn't know the archetype of the manipulative trader, depicted in novels as exploiting and misleading people? One of the best-known "middlemen" is Ebenezer Scrooge, a character invented by Charles Dickens to represent the evil side of mankind. Many cultures worldwide have their own versions of such stereotypes that depict bad elements of society. These negative connotations are sometimes based on the nature of trade itself. For example, in West Africa middlemen have been associated for ages with slave trade. And in Nigeria traders prospered during colonial rule, because the British were reluctant to move into the interior themselves and used the traders to do so.

But traders also have a second, more positive image. People secretly admire their freedom. Traders operate in both the formal and informal economy, and switch between the two at will. Traders are not easily brought under the sway of government. It is hard to tax them or force them to obey rules. A successful trader is seen having a highly entrepreneurial, free mind.

Historically, traders have fulfilled an important role in getting items from the producer to the end user: from farmer to broker, to distributor, to food store, to

1 This Preface draws on the following sources: Chandler (1977), Gadde and Snehota (2001), Nwabughuogu (1982), and Sheth and Parvatiyar (1995).

consumer. The trader interprets, translates, checks quality, catches errors, transports, sorts and bulks, provides finance, takes on risk, and in many other ways facilitates transactions. Many skilled suppliers, such as farmers, do not want (or cannot afford) to become experts at marketing.

In the pre-industrial era, trade involved producers selling directly to consumers: farmers sold their own produce to townsfolk, and each craftsman had his own shop to sell the goods he had made. Relationships with customers were vital. With industrialization, the producers naturally became separated from the users, and the emphasis shifted from the relationships towards the transaction.

But we can now detect a shift back towards relationships. Once again, direct marketing – albeit in a different form – is becoming popular, and consequently so is the relationship orientation of marketers. Direct marketing is growing in both business-to-business and business-to-consumer markets. Today's technology advances permit producers to interact directly with large numbers of consumers.

International development projects and programmes have generally ignored traders, or have tried to bypass them. Many government and NGO interventions have been geared towards eliminating traders and replacing them by producer organizations. Only rarely have traders been appreciated for their role in value chain development. It is only recently that some governments and NGOs have realized that sustainable value chains require traders who bridge the gaps between producers and users.

This book is about "good" and "bad" trading practice. Traders and producers do not generally write papers and articles. They often feel reluctant to discuss their mode of operation, especially with the general public. This book aims to improve the relationship between producers and traders, thus contributing to more sustainable value chains that provide access to markets for local producers in Africa. Each trader and producer involved in the writeshop was assisted by writers, analysts and artists – and other traders and producers – to document and depict their experiences. Every manuscript was presented to the other contributors, challenged, and then rewritten. This approach has again proven successful: this book is full of short stories that are unique and rich in information. The analysis at the end of each story, and the introductory and concluding chapters, put the cases in context and provide insights that we hope readers will find valuable.

KIT and IIRR share a mission to develop capacities that are critical for the evolution of sustainable value chains in Africa. Through this second book on the role of traders, we hope to help mobilize the untapped knowledge of producers and traders. If our goal is to empower African producers and traders, we have to understand their interrelationships. In my opinion, improved relationship management will prove critical to enhancing market access and developing sustainable value chains for African produce.

On behalf of KIT and IIRR, I want to thank all contributors to this book for their openness and commitment to share their experiences with a public that has not always done justice to them. This book may help to change stereotypical think-

ing. It may inspire producers and traders to work on their mutual relationships. I hope it will also stimulate policy makers to listen more often to producers and traders when designing rules and support measures. This book is proof that their voice matters.

Bart de Steenhuijsen Piters

Area leader, Sustainable Economic Development

KIT – Royal Tropical Institute

List of contributors

For further information and contact details, see page 273.

Participants

Burkina Faso

Fruiteq SARL
Zongo Adama

Ethiopia

Ethioflora Plc
Mulugeta Abebe Adugna

Meki Batu Horticultural Cooperative Union
Etefa Getahun

Self-Help Development International – Ethiopia (SHDI)
Belew Damene G/Hiwott

Ghana

Centre for the Development of People (CEDEP)
Aba Oppong

Eastern Regional Tomato Traders Association
Theresa Amakye Fiawotos

Ghana Agricultural Producers and Traders Organisation (GAPTO)
Haruna Agesheka

International Center for Soil Fertility and Agriculture Development (IFDC)
Musa Salifu Taylor

Network for Women's Rights in Ghana (NETRIGHT)
Patricia Blankson Akakpo

Savanna Farmers Marketing Company
Janet Chigabatia-Adama

Yam Sellers' Association, Kumasi
Dora Opoku-Mensah

Kenya

Anglican Church of Kenya–Western Region Christian Community Services (ACK–WRCCS)
Maureen Susan Oduori

Dairy farmer
David Kipsang Kiptoo

Elreco
Julius Kipchumba Lagat

Kenya Agricultural Commodity Exchange Ltd (KACE)
Mary Wambua

Kenya Livestock Marketing Council (KLMC)
Sonkolo Abdikadir Mohamed

Kinna Livestock and Products Marketing Co-op Society Ltd
Rashid Wako Guyo
Dub Dabasso Jaldesa

Milk trader
Edwin Kiplagat Bett

Ministry of Livestock and Fisheries Development
James Kariuki Ngugi

Western Farmers Association
Charles Kasembeli Khisa

Netherlands

Royal Tropical Institute (KIT)
Maurits de Koning
Lucian Peppelenbos

South Africa

Mngcunube Development
Alfred Carlyle "Lyle" Kew

Tanzania

Lima Ltd
Benjamin Dotto Majanga

Tanzania Coffee Board
Fidelis Joachim Temu

UK

School of Oriental and African Studies, University of London (SOAS)
Nigel David Poole

USA

Indiana University
Gracia Clark

Zimbabwe

Damjesi Investments (Pvt) Ltd
Daniel Jemiard Mmasomwayera Sinkula

Farmers' Association of Community Self-Help Investment Groups (FACHIG Trust)
Thomas Mupetesi

Lower Guruve Development Association
Ephraim Murendo

Writeshop staff

Computers, logistics
Nicola Kiara

Coordination
Lucian Peppelenbos

Editing
Gracia Clark
Maurits de Koning
Paul Mundy (chief editor)
Aileen Ogolla
Lucian Peppelenbos
Nigel David Poole

Facilitation
Isaac Bekalo
Janet Nyaoro

Illustrations
Nyotumba Bonaventure
Alfred Ombati

1
Introduction

The villagers of Enomis[1] were annoyed. No – they were angry. They had found out that the traders who bought their cattle were making a killing. The traders drove a hard bargain – they found fault with perfectly healthy animals, underestimated their weight, and haggled down the price until the livestock raisers felt they were giving their animals away. Then they loaded the cattle onto lorries and trucked them to the capital, where – the livestock raisers had heard – they sold them for a huge profit.

"We can do better ourselves", thought the farmers. "All we have to do is to get enough animals together, hire a truck, and we can share that profit between us."

But they quickly found that things were not so easy. Enomis was remote, and hiring a truck was expensive. Some of the animals were injured when the lorry hit one of the many bumps in the road. The abattoir graded the animals as "Economy" class – even thought the farmers were sure they were "Choice". The abattoir did not pay for several weeks, so the farmers who accompanied the animals had to stay in the city to wait for the money. They had to pay for food and accommodation, and missed important work back home. When they counted up the money that was left, they found they were not that much better off.

"Maybe the traders offer a useful service after all", the farmers decided. "Perhaps we can work together rather than against each other." They approached a group of traders to discuss how to improve relations.

For their part, the traders realized that they had to do things differently. They realized they needed the farmers just as much as the farmers needed them. How could they work together to smooth things out?

* * *

In large parts of Africa, smallholder farmers face serious difficulties in selling the produce that they have grown with so much effort and care. At the same time, the people who specialize in marketing the produce are treated with great suspicion, not only by farmers themselves, but also by extension officers, development practitioners, policymakers, researchers and consumers. Ask one of them

1 The village of Enomis is imaginary, but the farmers' experience is real (see page 50). All other names and locations in this book are real.

what they think about traders, and the words "manipulation", "exploitation" and "speculation" will soon crop up.

This book argues that the lack of market access for smallholders in Africa is closely related to this limited respect for the role of traders. Hindered by adverse policies and popular attitudes, traders cannot run their businesses properly. More respect and support for traders would enable them to develop markets, find new customers, add value to products, invest in new businesses, and improve the efficiency of the food distribution system. This would generate demand for more and better farm products, and thus help to improve the incomes and livelihoods of the rural population. In sum, traders can multiply development, not only for their own benefit, but also for that of farmers and consumers.

Traders not respected...

Many people tend to see traders as redundant. They think traders take an unfair amount of profit, without adding value or providing services in return. Traders are accused of taking advantage of uninformed farmers: offering low prices, cheating on quality, swindling with weighing, not paying after taking products on credit, and making price agreements with other traders procuring in the same region. Traders are also accused to take advantage of consumers. They are said to create artificially high food prices through informal cartels which control the supply of foodstuffs entering the markets, limiting the number of traders allowed to sell, and preventing others, such as farmers, from selling in the market.

There are some elements of truth in these accusations. In many situations traders do indeed coordinate amongst themselves to regulate the flow of trade in a particular marketplace. But this is not necessarily bad: nobody benefits when too many tomatoes enter the market and they rot away. Furthermore, there are indeed traders who cheat to take advantage of farmers. But then again, many farmers swindle on quality, for instance, by putting overripe tomatoes at the bottom of the crate. Unfortunately in any economic sector there are fraudulent "free-riders" who damage the reputation of the majority of hard-working businesswomen and men. In other words, swindling traders are as much a problem to honest traders as they are to farmers.

In judging so quickly, people fail to understand the trader's point of view. They often neglect that the trader's business is full of risks, problems and uncertainties – like those encountered by the villagers of Enomis. It can be a long way from the farm that grows the food to the marketplace where consumers buy, and a lot can happen in between. In most countries there is no reliable information on the supply and demand of produce. Traders may spend a lot of time searching for produce to buy, sometimes without success. When they do find some merchandise, it may be ruined by bumpy roads, unreliable trucks and poor storage facilities. Formal systems for quality grading and contract enforcement tend to be weak, so traders may face unpleasant surprises. Products may not be properly graded and selected, or customers may fail to pay their debts. Additional costs may arise

from "informal taxation" at roadblocks, or from theft. On top of all that, traders are subject to physical insecurity, as they travel and sleep at low cost, exposed to dangers with natural and human causes. This particularly affects women traders, who in large parts of Africa dominate the trade in food products.

Even in this adverse business environment, traders somehow succeed in providing consumers in the cities daily with fresh fruits and vegetables, at affordable prices and in the right amounts. Farmers are spared from the trouble of travelling large distances under harsh conditions to sell their products. Instead, the traders come to their villages to buy the products on the spot, often paying in cash. In particular situations, traders may provide the farmers with credit, inputs and information about market prices. So we can say that African traders fulfil vital functions for their countries. Traders are not only the principal channel through which farmers send their produce to the market, but they are also crucial in ensuring food security for the people in the cities. The difference between the price the trader pays farmers and the price he or she sells the produce for reflects the high costs and risks of trading, as well as the significant expertise and time that the trader contributes.

... farmers without a market

As their businesses are not properly understood, traders' needs and wishes get little attention from governmental and non-governmental agencies. Authorities may raise market tolls or implement new measures without consulting the traders who work there day after day. Ministries and product boards may require licenses or impose regulations which small-scale traders are unable to comply with. It is seldom that traders obtain credit from formal financial institutions, and only a handful of donor agencies work with traders, as compared to farmers who receive the bulk of support for rural development. Farmer organizations, development agencies and rural services providers tend to go even further, implementing marketing strategies which simply cut traders out.

It is not just traders who are handicapped by this anti-trader bias. It is also a problem for consumers and farmers. Value chains (Box 1.1) are only as strong as their weakest link. When one link in the chain is not respected, the whole chain does not work properly. The various actors in the chain mistrust and seek to take advantage of each other. The chain becomes inefficient, as the business processes of one actor are not well tuned to its partners in the chain. It becomes hard to improve products, processes and markets, and gaps emerge in support services and infrastructure.

In other words, when the midstream segment of the chain (trading) does not work properly, it has negative repercussions upstream in the chain (farming) as well as downstream (consumers). Inefficient trading inevitably leads to higher consumer prices and fewer market outlets available for farmers. In conclusion, if traders cannot run their business properly, food supply systems will be inefficient and African agriculture can hardly be expected to become truly market-oriented.

Box 1.1 Chain actors, supply chains and value chains

Chain actors

Chain actors are those involved in producing, processing, trading or consuming a particular agricultural product. They include direct chain actors which are commercially involved in the chain (producers, traders, retailers, consumers) and indirect actors which provide financial or non-financial support services, such as bankers and credit agencies, business service providers, government, researchers and extensionists.

Supply chains

A supply chain is a set of linkages between actors where there are no binding or sought-after formal or informal relationships, except when the goods, services and financial agreements are actually transacted. We are all part of a supply chain: as consumers, we buy tomatoes from a retailer, who gets them from a wholesaler, who buys them from a trader, who gets them from a producer. Unless you are one of those very few people who makes or grows everything you produce yourself, you are part of numerous supply chains that provide us with everything that we eat, drink, wear and use. But if you are one of those rare individuals, you are probably not reading this book.

Servicing the supply chain itself are a multitude of other players: those who provide transport, processing, finance, packaging, quality control, book keeping, and so on. And let us not forget government and private agencies that provide information on prices and quantities, that set the rules that govern the market, etc.

At each stage in the chain, the price of the product goes up. That is because each actor in the chain adds to its value – by growing, harvesting, sorting, grading, packaging, processing, labelling, transporting, storing, and putting it on shelves for us to buy. Each of these steps costs money, which the actor recoups by charging for the service.

Some supply chains are impersonal: traders buy from farmers through an auction, then sell to wholesalers through another auction. The actors may not know one another, they may never meet, and they may never do business with each other again.

Value chains

A value chain is a specific type of supply chain – one where the actors know each other well and form stable, long-term relationships. They support each other so they can together increase their efficiency and competitiveness. They invest time, effort and money to reach a common goal of satisfying consumer needs. That enables them to increase their profits.

Traders as agents for development

Traders have the potential to efficiently multiply development throughout the market system. Expanding agricultural markets can generate development of other markets such as finance, food processing and rural employment. Farming can gain much in efficiency and value-adding if products are traded and marketed more effectively.

In recent years the development potential of traders has been acknowledged and capitalized in various interesting pilot experiences. In various countries traders

have organized themselves in formal trader associations, in order to improve dialogue with farmers and market authorities (see the cases on trader associations for tomatoes in Ghana (page 62), yams in Ghana (page 132) and livestock in Kenya (page 181)). Some donor agencies have set up projects that support a handful of traders in order to improve the livelihoods of thousands of farmers (see the cases on wool in Lesotho (page 146) and coffee in Tanzania (page 205)). Other projects aim to boost business relations between farmers and traders by establishing systems for market information and business matchmaking (see the cases on the commodity exchange in Kenya (page 159) and the market information system in Ghana, page 108). Some donors have ventured into setting up their own commercial trading houses as a strategy to improve the businesses of smallholder farmers (see the cases on mangoes in Burkina Faso (page 168) and soybeans in Ghana (page 194)).

Though young and still emergent, these pilot experiences may provide pathways for the future development of African markets. It is vital to take a closer look at these experiences and assess their potentials and limitations, their positive aspects and bottlenecks. This will provide important lessons to guide policies and practices elsewhere. By learning from these innovative experiences, we are better able to build cooperation between traders and farmers in Africa, and "trading up" the business for the benefit of all.

What is this book about?

This book explores how to unleash the potential of African traders in developing markets and enhancing rural development. It tells the stories of traders, how their businesses are operated, the challenges that they face, and their attempts to get organized and improve trading conditions. The book also tells the stories of farmers and how they get organized to develop better markets. Sometimes they find that they can bypass the traders, sometimes they find that things are worse without the traders' services, and sometimes they find ways to improve their relations with traders.

The book is about how to create mutual understanding between farmers and traders, and build relationships of cooperation. It is about how to create a better business environment for trading, by building stronger market institutions that facilitate trade. We believe that the combination of stronger chain relationships and stronger market institutions will benefit all actors involved: farmers, traders and consumers.

The book is about real people who are trying to build better markets to improve their businesses and livelihoods, irrespective of what they trade. The book does not analyse specific commodity sectors, assess macro-economic conditions of trading in Africa, or clarify the position of Africa on the world market. Rather it tells the stories of farmers and traders in Africa who are struggling to overcome poverty by organizing themselves and jointly find new business solutions.

The book has the following objectives:

- Create awareness about the role of each actor in the chain, particularly traders, who tend to be regarded as redundant or exploitative.
- Create awareness about opportunities for more cooperation in the value chain.
- Provide strategies and practical solutions for improving chain cooperation and market institutions.
- Influence policymakers, donor agencies and the private sector to provide supportive policies and services.

Who is the book for?

The book is written in easy-to-understand language so that it will be used by:

- Extension officers and development practitioners working with farmers and traders.
- Farmers and their organizations wishing to improve their markets.
- Traders and their associations wishing to professionalize and improve their reputation.
- Civil servants and policymakers, especially at local level such as city councils, dealing with food markets and trade policies.
- Decision-makers at donor agencies supporting rural development.
- Banks and micro-finance institutions interested in traders as a new client group.
- Students and teachers at agricultural colleges and universities.
- Researchers and NGOs advocating sound policies.

Parts of the book

The rest of this book is divided into seven chapters:

Chapter 2, Understanding African markets, focuses on the challenges facing agricultural markets in Africa, and the role of traders in ensuring that the markets function.

Chapter 3, A framework for trading up, explores how marketing can be made to benefit both farmers and traders more. It outlines two broad strategies to improve trading relations: strengthening chain relations, and strengthening market institutions. It also describes how to interpret the tables and diagrams (at the end of each case in Chapters 4–6) showing value shares and market structures.

Chapter 4, Strengthening chain relations, presents five cases where the focus has been on strengthening the relations between actors in the chain. These cases

depict experiences with marketing livestock and fertilizer in Zimbabwe, tomatoes in Ghana, and milk and tomatoes in Kenya.

Chapter 5, Building market institutions, turns our attention to how creating and strengthening market institutions can improve the market system. It presents five cases on marketing onions and yams in Ghana, coffee in Tanzania, wool in Lesotho, and various commodities in Kenya.

Chapter 6, Fostering chain partnerships, combines the two strategies of strengthening chain relations and market institutions. It contains a further five cases: on mangoes in Burkina Faso, livestock in Kenya, soybeans in Ghana, coffee in Tanzania, and green beans in Ethiopia.

Chapter 7, Strategies for trading up, pulls experiences from the cases together to identify their main lessons and insights. It defines strategies and guidelines for promoting trade and cooperation between farmers and traders in Africa. It also suggests policy implications for various stakeholder groups: farmer organizations, trader associations, local authorities, national governments, and non-governmental organizations and donor agencies.

Chapter 8, Resources, lists organizations, websites and publications that focus on the issues raised in this book. It also gives the contact details of the many people who contributed to the book.

How was the book produced?

This book is part of wider efforts to generate practical knowledge for organizations that work on the development of markets, value chains and financial services in Africa. In 2006 KIT, IIRR and Faida MaLi jointly produced a book, *Chain empowerment: Supporting African farmers to develop markets*, that reflected the experiences and views of many organizations assisting African farmers in value chain development. The book was well received as many organizations found it useful as a guide in their programmes and activities with the farmers.

We soon found, however, that we needed a special book on the role of traders in value chains. Many organizations working on value chain development are unfamiliar with how to deal with traders. They therefore encourage the farmers to do the marketing themselves, which in many cases has yielded disappointing results. This book intends to show that cooperation with traders is indeed possible, and can bring benefits for all.

For this book, KIT played an overall technical coordination role, developed a conceptual framework and raised funds, while IIRR advised on the overall process, assembled the technical team, facilitated the writeshop, organized the logistics, and took charge of the book editing and printing. Cordaid, Oxfam Novib and ICCO funded the writeshop. Others, including IFDC and Self-Help Development, contributed by supporting the participation of their staff.

The body of this book was produced through an intensive participatory "writeshop" from 29 August to 5 September 2007 in Nairobi, involving over 30 traders, farmers, development professionals, researchers, facilitators, artists and editors.

Potential cases were identified through an open "call for cases" sent around the partner networks of KIT, IIRR and the donor organizations. On the basis of one-page case abstracts, 15 cases were selected for participation in the writeshop. The participants were sent guidelines on how to write their case, as well as a sample case to use as a model. The participants were also asked to bring with them other printed materials and photographs relevant to their case.

Each contributor brought to the writeshop a draft manuscript describing a change in the marketing system for a particular commodity. Each case focused on how a particular group of farmers or traders had faced and overcome a problem in marketing produce. The change may have been the result of a donor-funded intervention, with a development organization in some kind of facilitating role, or the result of an indigenous organization responding to specific needs.

As might be expected, many of the cases did not conform to the guidelines that had been sent out before the writeshop (and the final form of the cases emerged only during the writeshop itself). So a lot of rewriting was necessary to incorporate new information, eliminate unnecessary text, and analyse the case in light of the writeshop discussions. This was done during the writeshop.

The writeshop process

The writeshop began with an introduction to the process to be used, followed by a presentation of the first case. The author presented the manuscript, and the other participants were then given an opportunity to ask questions, make comments, and critique it.

The framework that underlies this book – a matrix showing how chain relationships and market institutions can be improved – was then described, using the first case as an illustration. This framework enables an understanding of the types of interventions that may improve the functioning of the marketing chain to benefit farmers and traders alike. It is described further in Chapter 3.

On the second day, participants presented and discussed three further cases, using the framework to analyse them. Now they were familiar with the framework and the style planned for the book, they divided into teams to rewrite their own cases, with assistance from the resource persons and editors. This gave them the opportunity to include further relevant information and provide details of the marketing system before and after the change described in their case.

The participants then presented their revised manuscripts to the plenary (or to one of two sub-plenary groups). For each case, the other participants provided comments and critique, and the author and editor took notes. After each presentation, the author, editor and one of the team of resource persons discussed the

manuscript, revised it to incorporate the comments, and commissioned one or more line drawings from the team of artists.

The participants then presented their revised drafts to the group a second time, along with the illustrations, which allowed other participants to make further suggestions. The editors and artists again helped revise the text and illustrations.

By the end of the writeshop, the participants had completed drafts of their manuscripts that required relatively minor editing before they could be published. These cases form the bulk of the book – Chapters 4 to 6.

Also during the writeshop, the participants divided into several smaller teams to brainstorm and write drafts on the other chapters and boxes in this book. These drafts were also presented to the plenary, and participants were able to provide comments and suggestions on the text.

One day of the writeshop also included a "traders' forum", where government officials, researchers, traders and development professionals discussed policy issues relating to the marketing of agricultural produce in Africa. One day was also devoted to a field visit to vegetable and livestock wholesale markets in Nairobi.

After the writeshop, considerable restructuring and rewriting were necessary to ensure the style and content of the various chapters was clear and consistent. The chief editor in collaboration with KIT and IIRR was responsible for finalizing the book.

Throughout the writeshop process, the initial manuscripts were revised substantially or were completely rewritten. The information they contained was selected, sifted, and combined with ideas from other sources, and was distributed throughout the book. A single chapter may contain information provided by many different participants. This means it is not possible to label a particular chapter or section as the work of a particular participant. The "authors" and resource persons of the book are thus the contributors listed on pages xvii–xviii.

Writeshop advantages

The sequence described above is an adaptation of the writeshop approach pioneered by IIRR at its headquarters in the Philippines. IIRR–Africa has used this approach to produce extension and information materials on a wide range of subjects. Writeshops have several advantages over conventional methods of producing a publication. They speed up the production process, taking full advantage of the participants' range of expertise. The process of writing, getting comments, revising and illustrating takes place at the same time, considerably shortening the often-difficult process of writing, editing and publishing. A large number of participants contribute to each topic: in effect, the writeshop provides an opportunity for technical peer review by a large number of reviewers, as well as pre-testing for understandability and field relevance by a group of the intended readers.

In addition, writeshops bring together a large number of people from various institutions and walks of life, each with different perspectives and expertise. They are an excellent training and networking opportunity, with individuals learning about each other's work and exchanging ideas and experiences that will be of value for them when they return home. It is hoped that the relationships and networks forged during the writeshop will continue long into the future.

2
Understanding African markets

Food markets in Africa are probably the most vibrant in the world. Nowhere else do you find more small-scale entrepreneurs and micro-businesses making their incomes from the buying and selling of foodstuffs. The open market is of much greater importance in Africa than in industrial countries, where large corporations and government agencies control the exchange of resources within their management structures. In Africa the distribution of food is largely left to the invisible force emerging from transactions between millions of small businesswomen and men.

As a consequence, markets in Africa are strongly fragmented. Food products are traded in small quantities, and there are many steps in the value chain to take the product from the producer to the consumer. Millions of smallholder farmers produce small surplus amounts of fruits and vegetables, cereals and tubers, dairy and meat. These farmers live scattered throughout the country, often separated by long distances from the major centres of consumption. Thousands of small-scale itinerant traders travel there weekly to buy products to transport and supply the urban markets. In the cities, tens of thousands of micro-retailers buy small quantities of produce on credit, which they sell in a couple of days, after which they buy some more produce to resell. Finally millions of consumers buy small quantities of food products, often every day, as their wallets (and a lack of refrigerators) do not allow them to buy for the whole week at once.

This trade between millions of small-scale businesses takes place continuously, enabling consumers in the cities to buy fresh products every day. People may wonder how this fragmented system can actually work, as there are almost no formal market institutions to coordinate and support the trade (Fafchamps, 2004). In developed countries, markets are regulated through a complex system of rules, institutions and formal organizations that coordinate and support trade relations. But African markets function without many of the formal arrangements described below.

- **Standardization** When somebody buys food, she or he wants to be sure about the quality, the amount, and the safety of the produce. In Africa the formal systems to ensure reliable labelling, quality grading, objective weighing and food safety are often deficient. Most agricultural products are unsorted, and buyers need to personally inspect the produce to make sure that it is what she or he wants. Only a few agricultural sectors, mostly export commodities, meat and milk, are regulated by formal systems of standardization and quality assurance.
- **Contract enforcement** In any business transaction, breach of contract is an important risk. Buyers may not pay the seller for produce they took on credit; sellers may not supply the promised produce. Disputes may arise about the quality of produce, the exact amount, or possible contamination. In African markets, contract conditions, whether oral or written, are difficult to enforce through formal laws and regulations. Courts tend to work slowly and may be expensive. Even if courts were to work well, then how to get financial compensation from your business partner who often is small and has no capital assets to seize?
- **Market information** In Africa it is difficult to get reliable information on the supply, demand and prices of food products. It is equally difficult to get information on the reliability of buyers and sellers. Even though there has been a revolution in telecommunications recently, farmers and traders normally find it difficult to make informed decisions about when to buy or sell, to whom, where, and at what price. Formal systems for market information are either weak or absent. Buyers and sellers normally get the information they need through their personal networks.
- **Formal business organization** In many countries buyers and sellers are formally organized in, for example, farmer unions, trader associations, consumer organizations, and branch or sector platforms. These organizations not only represent their members' interests, but are also important in supporting trade: farmer unions bulk products, trader associations provide market information, consumer organizations demand proper quality standards, and sector platforms promote policy dialogue. In Africa these organizations tend to be weak or absent, and therefore markets are less well coordinated.

Hence, where farmers and traders in industrial countries can rely on a whole set of formal market institutions, in Africa they have to rely on themselves for getting food products from the rural hinterlands to consumers in the cities. This is a demanding task, full of challenges.

Challenges in agricultural marketing

Volatility

One of the main challenges in agricultural marketing in Africa is **volatility**. This means that market conditions change significantly over time, and vary widely

from place to place. There is a large variation in product quality because agriculture is not industrialized as in the EU and USA. Farmers are not specialized in a single crop, and they often use specific local varieties instead of the uniform, "improved" varieties offered by corporate seed companies. Prices fluctuate widely between areas, within a season, and between seasons. This is related to the dominance of rainfed agriculture, frequent harvest failures, the limited storage facilities, and the limited integration of markets due to poor roads. Within "normal" years, producer prices of staple food crops can be expected to double or more from immediately after the harvest to the "lean season" before the next harvest. Changes in consumer prices may be somewhat smaller, as the transport costs, which are a large part of the overall marketing margin, are more or less constant through the year (Poulton et al., 2005).

Integration of markets

Another major challenge is the **integration of markets**. Linkages between various markets in villages and cities tend to be weak due to poor infrastructure. Trade across national borders faces additional challenges: bureaucratic regulations, currency exchange, and differences in language and culture (see Box 2.1). Also the links with related product and service markets are weak. Farmers and traders have limited access to seeds, fertilizers, warehousing, processing, packaging, credit, insurance, transport, and other **business services**. This severely hinders the operations of their businesses, affecting their efficiency and growth.

Financial services

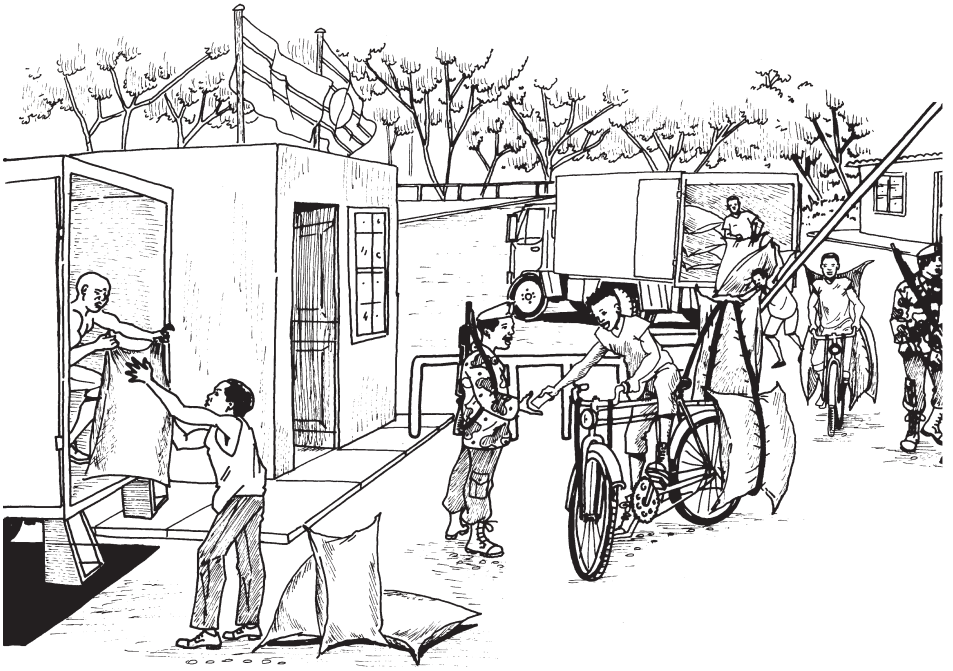
Particularly cumbersome is the limited access to formal **financial services** such as loans and insurance. Buyers and sellers are always in need of money, either for their businesses or for their families. If they know one another well, they often give each other informal credit. Depending on the market conditions, these loans flow either up- or downstream in the chain. At harvest time, when there is plenty of produce, traders may take farm products on credit. However, in the lean season, when there is little supply, traders may offer advance payments to farmers in exchange for the right to buy their products. These supply chain credit flows serve to keep the business moving, which is in the mutual interest of buyer and seller. But formal financial institutions seem to play no significant role in facilitating agricultural trade. Banks have few clients among farmers, who are generally considered not to be "bankable" as they have no collateral (or do not wish to use their major asset, their land, as collateral, so risk losing it to the bank). Traders often do have bank accounts, but they also find it difficult to obtain loans, also because of a lack of collateral. Micro-credit schemes may be a solution to some, but their outreach is limited, often to the cities only, and they operate with relatively high interest rates. The limited availability of formal capital for agricultural trading is one of the key factors restricting the size of business transactions and the growth of enterprises.

Box 2.1 Cross-border trade

Trading of food products across national boundaries is of great importance to Africa's economies and people. Cross-border trade is not only a business opportunity; it is crucial for food security. For example the countries in the eastern and southern African trade zones (COMESA and EAC) produce on average 22 million tonnes of maize per year, while the average consumption is approximately 16 million tonnes. This implies an average surplus of 6 million tonnes. Nevertheless there still are many places in these countries where there is a shortage of maize on the local market.

Hence, cross-border trade is very important. But there are many barriers that limit the extent and efficiency of this trade. The practice is often as follows:

1 Full trucks arrive at the border.
2 Before they cross the border the trucks are unloaded.
3 The merchandise is taken by bicycle traders across the border at a point where there are no controls.
4 On the other side of the border, an empty truck is waiting to be loaded and take the merchandise to its destination.



Why is this? It is not only to evade taxation. When Kenya, Uganda and Tanzania lifted the 2.75% import/export duty on maize in 2007, traders continued to use the "bicycle method". Apparently there many other barriers to cross-border trade:

- Unreliable crop forecasting and unreliable information about supply and demand
- As a result, ill-informed government policies, such as high import/export duties and import/export bans
- Laws that prohibit trucks that cross the border to bring merchandise back ("back haulage")

Continued...

Box 2.1 Cross-border trade (continued)

- Excessive paperwork, long queues, incompetent staff at the border
- Import/export licenses which are issued only in far-away capital cities
- Informal taxation, harassment, corruption at the border and along the way
- Different languages and currencies across countries
- Different quality standards and grading systems across countries
- The informal nature of the cross-border trade combines with money laundering and smuggling.

Possible solutions are:

- Reliable market information systems
- Reliable and harmonized market institutions (standards, contract enforcement, financial flows)
- Training of customs staff, and better facilities at the borders, including foreign exchange bureaus
- Training of traders on grades and standards and the importance of contracts and official documentation
- Public–private dialogue to know each other's needs and adjust policies and practices accordingly
- Better regional economic integration, and national taskforces that adjust national systems
- In-depth research into the problems of cross-border trade to understand better why bicycle trading continues.

More information: Eastern Africa Grain Council, www.eagc.org

Marketing context

Then there is a series of marketing constraints that are related to the overall context of widespread poverty and low economic development in Africa.

- **Poor physical infrastructure** Poor roads, telecommunications and rural infrastructure raise the costs and risks of transport, and they increase post-harvest losses. The high costs of transport increase the margin that is needed for marketing and lowers the price that the producer gets at the farm gate. Also the facilities at marketplaces leave much to be desired. Access roads, areas for loading and unloading, storage facilities, security and sanitation could be greatly improved.
- **Limited purchasing power** Despite the emergence of an urban class that can afford to buy luxury products from modern retailers (see Box 2.2), in most of Africa the majority of both rural and urban households have limited purchasing power. They devote a large share of their income, often 60–80%, to buying food (Lyon, 2003). This implies that the opportunities for high-value products are generally limited. As a consequence, despite the many steps between producer and consumer, the process of value adding in the value chain is limited.

Box 2.2 Trends in food marketing in Africa

Food marketing chains in Africa are rapidly becoming more sophisticated. The underlying driver is changing consumer demands that emerge from rising living standards and urbanization. Consumption is shifting away from basic foodstuffs to fruits and vegetables, livestock and fish products, and high-value, often imported, processed foods. To cater for this demand, international retailers are increasingly penetrating African markets, and South African retailers are expanding elsewhere in the continent. African "domestic" supermarkets are becoming the dominant outlets for local fresh produce, compared with export markets.

The emergence of a concentrated, powerful retail sector is both a challenge and opportunity for local producers and supply chains. Modern retailers firms are setting up dedicated value chains as opposed to relying on traditional fragmented relationships in spot markets. The new business model is characterized by large volumes and slim margins, strict quality standards and traceability requirements, and distribution systems dominated by specialized wholesalers. The high requirements in terms of investment, technology and business skills suggest that small and remote farmers will be excluded from such markets. Nevertheless there are opportunities for small producers and traders who can organize themselves effectively to meet these demanding standards.

More information: www.regoverningmarkets.org

- **Limited business skills** Because of low levels of educational attainment, entrepreneurial skills are relatively undeveloped. Basic skills for business, like accounting and planning, are rare. Particularly farmers, used to producing for parastatal marketing boards for many decades, lack commercial knowledge to market their produce on their own account.

Business environment

Finally, in large parts of Africa, governments fall short in creating a favourable **business environment** for agricultural trading. Public policies towards marketing have regrettably tended towards one of two extremes (FAO, 1982). In the 1970s and 1980s many countries had rigid government controls over commodities that were considered of priority importance, such as export and basic food crops. With the structural adjustments in the 1990s, policies swung to the other extreme, a complete hands-off approach, leaving it entirely to private businesses to work out how the market should operate, without any government support. As noted above, many governments fail to provide the basic public goods that are required for markets to operate efficiently and reliably, such as mechanisms for contract enforcement and standardization of quality grades. Also, government investments in agriculture have steadily declined over the past decades, which is evident from the state of the rural infrastructure and agricultural research. The current levels of investment are utterly insufficient to unlock agriculture's potential for economic growth (World Bank, 2008).

Paradoxically, at the same time the small business sector tends to suffer from over-regulation that imposes high costs on entrepreneurship and prevents start-ups and business growth. The World Bank has estimated the cost of starting a

Box 2.3 The informal economy in Africa

According to the World Bank, in 1999/2000 the informal economy in Africa was around 42% of the gross domestic product. Zimbabwe, Tanzania and Nigeria were at the high end, with approximately 58%. At the lower end were Botswana and Cameroon, with around 33%. The suggested underlying factors are high and complex taxes combined with excessive government regulation in such areas as business start-up and labour (World Bank, 2003).

The informal economy is usually perceived as a problem, because it takes place outside the reach of law. But there are other ways to look at it. In March 1992, then-president of Nigeria Ibrahim Babangida shared an interesting perspective:

> "Notwithstanding the drawbacks in the informal sector, such as the use of child labour, the informal economy is the base of the future growth of poor African economies. It is the sector that is most likely to absorb the growing numbers of people entering job markets. In most African countries, the public sector is evidently in retreat and unable to provide many new job opportunities… Frankly, I have kept on asking my economists why is it that the economy of this country has not collapsed up to now. What is it that is keeping it up? Surely it is not our knowledge, it is not our theories. It is not something we have read. I still have not found the answer. The Nigerian economy has defied all economic theories and I think we should be grateful that we have a society such as this" (Obadina, 2006).

business to be very high in Africa compared with other regions of the world. In sub-Saharan Africa on average there are more than 11 separate procedures to be undertaken, compared with 6 in the OECD, and it takes 62 days compared with 17. Compared with the cost of living in each region, it is six times more costly in Africa to start a business than in the OECD countries. In addition, traders are often heavily taxed in moving goods from one district or region to another, and may have to make informal payments – bribes – to public sector authorities on the road to ensure smooth travel. Some activities require people to buy licences, and health, safety and other regulations may impose punitive costs.

These adverse policies tend to push agricultural marketing into the so-called informal economy. These are economic activities that are conducted outside the official regulatory and fiscal frameworks. In many African countries in recent years the informal economy has been growing (see Box 2.3). This creates a vicious circle with the problems mentioned earlier: lack of business organization, limited access to formal finance, unreliable labelling and quality standards, etc.

The role of traders

Despite the many challenges in agricultural marketing, consumers in the cities are somehow provided each day with fresh fruits and vegetables, milk and meat, grains and tubers – all at affordable prices and in the appropriate amounts. This remarkable job is done by a myriad of small and medium-sized traders. The daily distribution of food, one of a country's most important concerns, is the principal function performed by agricultural traders.

Box 2.4 Many kinds of traders

Travelling traders meet the farmer at his or her farm to collect the produce. They spend their time mainly on the road, bringing goods from farmers or small village markets to an urban market. Travelling traders usually pay the transport costs. In many African countries, travelling traders have a bad reputation, and they are often called "middlemen".

Resident wholesalers stay in the larger markets to receive goods from travelling traders and large farmers, which they resell to retailers and large, regular buyers such as schools, restaurants and prisons. Each commodity is sold in complete wholesale units (such as 100 yams, or a crate of tomatoes), so consumers planning a big family event may also buy here.

Retailers sell goods in whatever quantity a consumer wishes buy at one time. They also offer goods at convenient times and in convenient locations, including small neighbourhood markets and roadside kiosks.

Hawkers carry goods for sale from house to house by foot, or sometimes on a bicycle.

Brokers match up buyers and sellers and help them negotiate a price. They do not buy the goods themselves and often earn a commission, so they are not really traders but service providers.

Exporters/importers buy and sell goods across national borders.

There are many kinds of traders, who operate in different parts of the food marketing chain (Box 2.4). Each of these traders has specific functions. Normally, several types of traders are involved in getting a product from farm to consumer. We focus on four of these types below.

Travelling traders

Travelling traders go to the farms to buy food products and transport these to a market elsewhere. Some slog on foot or bicycle through remote districts, collecting produce or animals from widely scattered farmers and processors in small amounts until they have enough to bring to town. These include many part-time traders who spend most of their time farming. This type of trading can be a risky operation – not only in terms of physical security, especially for female traders, but also in terms of their business. Travelling traders normally pay the farmers in cash and assume ownership of the produce at the farm gate. Then any losses that may occur because of unpredictable changes in price levels, transport charges, product losses or truck breakdowns are no longer the farmers' concern. The trader must bear all of the costs, predictable and unpredictable, until he or she in turn sells to someone else.

Wholesalers

Some travelling traders sell directly to consumers at their houses, or to larger customers such as hotels or schools. But most often the travelling trader sells the complete shipment to a wholesaler who operates only within a particular marketplace. The wholesaler buys from travelling traders and resells to retailers and

large customers such as processors or public agencies. Wholesalers normally bulk the products and they may also grade and store them for a while. Wholesalers are usually well informed about the buying and selling prices in their marketplace. The travelling trader can make an agreement always to patronize a certain wholesaler, encouraging him or her to offer a fair price quickly and to deal honestly. Then the wholesaler must make sure to be available whenever a travelling trader may arrive with the produce. When such relations exist, wholesalers often provide credit to travelling traders and retailers so they have working capital. Large wholesalers may employ travelling traders to purchase produce for them – these are then called "buying agents".

Retailers

Retailers include a wide range of entrepreneurs, from prosperous stallholders in major markets, to itinerant pedlars who circulate between a few remote villages. In between are retailers at roadside stands and small markets in villages or urban neighbourhoods. They sit for hours in the sun and rain, selling goods in the small quantities that poor consumers can afford. The larger retailers buy in wholesale units from established wholesalers. Small-scale retailers often buy in smaller amounts from these larger retailers. The smallest sell in tiny piles on a table beside their houses, or carry a tray of goods on their heads from house to house. In many countries, retailing is an important source of employment for those with few other opportunities. Many retail traders also work part time, selling on credit at their workplaces or spending the rest of the work day preparing goods for sale, in housework or farming.

The retailers provide the service of consumer targeting. They move the goods to a convenient location and offer them in the amounts that consumers prefer. For example, a cooking-oil seller may buy from wholesalers different kinds of oil in large, recycled 10-litre kerosene tins. She measures it out for her customers to take home in beer and soft-drink bottles. The poorest households buy oil for one meal at a time, so they choose among her collection of tiny perfume bottles as their measure, sometimes bringing the cooking pot from home to pour it into. Hard-pressed mothers can save time by sending a small child to a familiar trader near their home to buy a handful of tomatoes or onions needed for the family meal.

So the travelling trader, wholesaler and retailer all have a specific role in the value chain. Each of them specializes in a specific set of functions to get the product from the farms to the cities. However, not all value chains involve all three sorts of traders. Sometimes farmers sell directly to wholesalers, without intermediation by travelling traders. Sometimes travelling traders sell directly to retailers, without a wholesaler in between. Generally, as the chain becomes operationally more complex, more types of traders need to be involved. For example, long-distance trade tends to require the services of various traders to ensure that the product moves smoothly without delays. In perishable crops there are usually only a few steps between the producer and the consumer.

Brokers

In specific circumstances, the services of a broker may be required. Brokers come in when the buyer and seller cannot find or meet each other, or when they need a local person to look after their interests. This occurs often in high-value export chains, but it is also reported in domestic grain markets, such as in Ethiopia (Gabre-Madhin, 2001).

Finally it is important to note that agricultural traders not only distribute products to the consumer but also offer services to farmers. Obviously they provide for the main market channel through which farmers obtain income from their products. In addition, traders may provide farmers with inputs, technical advice and market information. Importantly, traders bring liquidity into the chain, paying the farmer in cash or providing them with urgently needed credit. Often popular opinion fails to take these services to farmers into account. This book will explore how traders can strengthen their service provision to farmers and act as motors for rural development.

The costs and risks of trading

Traders perform their distributive function in the food chain in return for a certain share of the consumer price. People often think that this share is too much: that traders take too large a portion from the value chain. It is true indeed that the value share of trading in Africa is relatively large, as compared to developed countries. But it is almost impossible to compare these situations. In developed countries traders can deal in large volumes, and the value chain is highly efficient in terms of handling, distribution and communications. But African traders deal only in small quantities, and they operate in chains that are far from efficient. The relatively large marketing margins do not automatically imply that African traders are greedy and exploitative. We need to take a closer look at their costs and risks.

Agricultural trading in Africa is in general a high-risk business, because there is no support from formal institutions such as quality standards, market information and mechanisms for contract enforcement. Roads and rural infrastructure are inadequate, and widespread poverty raises the likelihood of theft and swindling. Among the many risks of trading are: non-payment by clients, lack of supply, large price fluctuations, theft, physical insecurity, wastage of produce, "informal taxation" at road blockades, and cheating on quality grades, just to name a few. Traders can take no insurance against these risks, so they need to compensate in the margin that they make on the produce.

Some of the major costs faced by traders are as follows (the figures are based on research in Benin, Ethiopia, Malawi and Madagascar reported by Gabre-Madhin, 2001; Fafchamps and Gabre-Madhin, 2002; and Fafchamps, 2004):

- **Transport** The overwhelming majority of traders have no motorized transport, so they need to hire it from others. The physical transport of produce can account for 40–60% of the marketing margin.
- **Handling** These are the costs of loading the produce at the time of purchase and off-loading at the time of sale. They also include the costs of packing the produce, and of the packaging material such as sacks or crates. Research shows that these costs can represent 20–30% of the marketing margin.
- **Search** Normally there is no public market information, so traders may spend a long time looking for crops or animals to buy. They also spend money on bus tickets, lodging, meals, etc. These costs vary significantly from one situation to another, but they can represent up to 15–20% of the marketing margin.
- **Taxes, tolls, tips and fees** These include taxes from the government, tolls for market stalls, fees for brokers, membership fees, and tips at road blockades. Research shows that these costs account for 10–15% of the marketing margin.
- **Product losses** Traders inevitably lose some of the produce that they buy. Among the many causes are delays in transport, theft, improper handling, lack of storage space and refrigeration, post-harvest pest and disease attacks (for stored produce), selection and grading, inadequate packaging, and unsold produce. Obviously the losses are likely to be larger for perishable produce.

Research also shows the costs that African traders do not have. They have few finance costs, as they make little use of loans from banks and have few capital assets such as vehicles or warehouses. They also have low storage costs, which implies that they tend to sell the produce as quickly as possible and thus achieve high capital turnover, rather than store it and speculate on price increases (research shows that contrary to popular assumptions, storage is relatively unimportant, even for grains). Finally, traders have few personnel costs; most are self-employed entrepreneurs with nobody assisting them.

All in all, the marketing margins of traders should be interpreted in relation to the costs and risks that they face. It is impossible to generalize about the profitability of trading in Africa. It depends primarily on how competitive the market is. When there are only few traders and large numbers of suppliers and consumers, you can expect high profit margins in trading. But in other situations traders may compete so fiercely that their profit margins are low or even negative. Research has found that profit margins in the same products were 8.4 times larger in Malawi than in Benin, because the latter has a well-evolved, competitive market system (Fafchamps and Gabre-Madhin, 2002). The competition between traders varies from marketplace to marketplace, within the marketplace from commodity to commodity, and within the commodity from season to season. Traders may take advantage of situations where there are few market outlets, as much as farmers may take advantage when supply is scarce. This book will look into the margins in the value chain, and examine experiences where farmers and traders share information about their profit margins.

Box 2.5 Women traders and gender bias

In large parts of Africa, women play a key role in food production and trade. Women often have important tasks at the farm, such as weeding and watering the crop. Women also play a lead role in post-harvest activities on the farm, such as shelling grains, and storing, grading processing and marketing crops. Within the trade system, many women work as travelling traders, wholesalers and retailers.

A large proportion of women traders are found in the informal economy. It is relatively easy to operate in the informal economy since there are few entry requirements such as skills or capital. Trading thus becomes the best option for many women who have not acquired the education needed to enter the formal economy. Informal trading also enables women to combine their unpaid care work in the family with income-earning activities.

Compared to the roles of men, the position of women in the food marketing chain tends to be more vulnerable and less remunerative. When men and women are engaged in the trading of the same commodity, such as grains, women will tend to do the retailing while men do the wholesaling. Men tend to be engaged in capital-intensive business while women engage in labour-intensive activities which require less capital, such as travelling trading and petty trading in the marketplace.

Despite the central role of women traders in Africa, policies that regulate and support trading are generally gender-blind and fail to recognize the specific problems women face:

- The engagement of more women in low-income trading activities makes them more vulnerable than men to price fluctuations, economic shocks, harvest failures, etc.
- Women traders have more limited access to resources than their male counterparts. It

Continued...

Box 2.5 Women traders and gender bias (continued)

is often impossible for women to get credit because they do not own property, such as land, to use as collateral for loans.

- Women traders are prone to all sorts of vulnerabilities, including ill-health, accidents and injuries, due to the unhygienic and unsafe environment within which they operate. Many women traders are in their reproductive age, which makes good marketplace facilities even more important for them (health facilities, child care).
- Government policies create barriers for both women and men traders. But in addition women face unequal gender and power relations. Sexual harassment by those in authority is a problem faced by many women traders.

Given the importance of women traders in the economic development of Africa, it is important to strengthen women's abilities to run and expand their trade. Barriers should be removed to ensure easy accessibility of credit. Women traders should be consulted on policies that affect their working environment, and their needs for a safe and clean marketplace should be taken into account.

Social networks in trading

Much trading in Africa takes place as a "cash-and-carry" transaction. Buyer and seller meet personally to do business, inspection of the goods is done on the spot, and payment is in cash. There is no placement of orders, no invoicing, no brand name, no product specifications, no quality guarantee, no payment by check or through a bank. The only "paperwork" involved is the money that changes hands to pay for the product. To Western observers this form of trading may resemble a chaotic flea market, where you need good luck to get a good deal. But this first impression is misleading. Trading in Africa is largely structured through social relations and networks. Successful traders have a web of longstanding interpersonal relationships with their suppliers, clients and peers. These relationships are a key business asset that helps to reduce the risks and costs that traders are facing in their businesses.

Many traders have long-term relationships with farmers, buying from them year after year. These preferred supply relations serve to reduce risks for both parties: the farmer has a secure market outlet, and the trader has a secure supply base. They also facilitate the exchange of credit and the sharing of information on market conditions. However, despite these mutual benefits, cooperation between farmers and traders is relatively underdeveloped. Their inherent conflict of interest over prices puts the relationship under pressure. Most farmers are sceptical about cooperation, claiming that traders are not trustworthy and only interested in their personal gains. Traders tend to think the same about farmers, complaining that farmers fail to deliver produce that they promised, or hide low-quality produce at the bottom of bags or crates. Research in central Ghana shows that only one-quarter of farmers maintain longstanding relations with traders (Poole et al., 1999). In general, traders seem more interested in having regular suppliers. Half

of the traders in Kumasi market, central Ghana, said they maintain longstanding relations with farmers (Clark, 1994). Also in Madagascar, half of the traders reported they had regular suppliers (Fafchamps, 2004).

Long-term business relationships become more common as you go downstream in the value chain. Travelling traders, wholesalers and retailers tend to have close relations to ensure smooth business operations. When selling on a wholesale market, the travelling trader needs a friendly wholesaler to dispose of her goods as quickly as possible, so she can go on the road again to buy more goods. And when buying at a wholesale market, the travelling trader needs a preferred wholesaler to get a purchase at a good price and quality, especially in times of scarcity. Their major problem being a lack of working capital, retailers tend to buy exclusively from particular wholesalers or travelling traders. This allows them to get produce on credit, and they may even get discounts if they fail to sell all the produce. The wholesalers, in turn, may use the dependency of travelling traders and retailers to prevent others from selling in the market, thereby safeguarding the interests of their businesses.

Often the cooperation between traders is partly based on ethnic and gender ties. It is common for traders in a particular commodity to come from a specific ethnic group associated with that commodity's producing area. In addition to a common language, these ethnic ties can provide habitual commercial practices, methods of settling disputes and shared cultural values that make doing business more pleasant and extending credit less risky. For similar reasons, men or women often specialize in different commodities. Family ties are particularly important for startups. Extended family members can provide training, share market stalls, give startup capital, guarantee loans, and act as reliable suppliers or buyers. In some cases, larger businesses are staffed primarily with family members, paid or unpaid.

The social networks among traders can carry such serious economic weight that they actually function as trader associations. Many of these are informal forms of organization, where traders provide support to one another to cope with the many challenges in their business. Instead of written rules and regulations, they rely on mutual loyalty and a set of unwritten norms and values. Maintaining the social side of these relationships by attending family weddings and funerals, for example, can be essential in strengthening commitment among group members.

Associations offer various services to their members to reduce the costs and risks in their businesses. There is a general moral obligation to help each other with welfare support or emergency credit in case of illness, family crisis, or theft. The traders rely on one another to share information on prices, supply and demand, road conditions, and creditworthiness of farmers. Cooperation in sharing a lorry to bring their goods to the market gives small-scale traders access to helpful economies of scale. Informal dispute settlement is an essential function of trader associations. This avoids the long delays typical of court cases, and enables both parties to return promptly to work. Traders who respect these informal institu-

tions can extend credit more confidently without written contracts. The association further allows for more effective negotiation with the local authorities over market taxes, facilities at the marketplace, and other policy issues. Organized traders may also bargain as a group with farmers, transport drivers, or market porters.

Many trader associations have recently started to formalize their activities. They register officially, agree upon statutes with written rules and regulations, elect a board of directors, and install an office with an address and telephone number. Often they also start to formalize the value chain by introducing, for instance, calibrated weights and measures, or registration forms to trace the product, the buyer and the seller. Some associations try to guarantee good business conduct by registering traders and giving them an identity certification. The underlying drive for formalization is to improve the traders' relations with the outside world. It increases their access to formal financial services, such as bank loans, micro-credit and insurance. It improves their credibility and negotiating position vis-à-vis the government. It improves their general public image and it may open doors for cooperation with farmer organizations and donor agencies (FAO, 2005).

Trader associations are often accused of forming cartels, exploiting both farmers and consumers. It is indeed observed in many marketplaces in Africa that traders control the supply entering the market and the number of traders allowed to sell. Traders say this is necessary to reduce oversupply and prevent gluts and product deterioration, as there are generally no adequate storage facilities. However, the farmers then suffer because they cannot sell all their produce. Television pictures of rotten tomatoes are powerful, stirring up public opinion against the trader associations. But several considerations should be borne in mind for a more informed judgment.

First, supply control is customary practice in food chains all over the world. In industrial countries, it is an important and legitimate field of supply chain management termed "effective consumer response". Supply and demand need to be well matched, otherwise business is not sustainable.

Second, research confirms that trader associations prevent others from selling on the marketplace, but also shows that direct price manipulation is very rare. The degree of competition varies from marketplace to marketplace, within the marketplace from commodity to commodity, and within the commodity from day to day.

Finally, the costs of *not* having trader associations are not known. Associations allow large numbers of poor women to participate in a very high-risk business by performing functions that in industrial countries are fulfilled by formal organizations such as courts, banks, inspection agencies, supermarket chains and commodity exchanges. African food distribution chains operate in a volatile, high-risk environment with poor physical infrastructure and hardly any support from formal legal or financial institutions. Under these circumstances, trader associations are a very efficient way to organize food supplies. They enable flexible cooperation and coordination between large numbers of small-scale businesses, without the rigidities associated with large companies or cooperatives. This makes

trader associations better suited to the conditions of African markets. The relative absence in Africa of large distribution firms or supermarkets chains testifies to this (Peppelenbos, 2005; Fafchamps, 2004).

The history of trading in Africa

The problems of agricultural marketing in Africa have deep roots in history. Also the popular opinions about traders cannot be well understood without taking the past into account. Therefore this chapter ends with a brief historical background on trading in Africa, taking us from the colonial period, early independence and the structural adjustments in the 1980s, to contemporary times.

Colonial period

Functioning markets, long-distance trading networks, and taxation of trade by traditional authorities have been reported as early as the 9th century. But the colonial powers did not respect existing trading patterns. They intervened in agriculture to promote export crops in ways that acted against the trade function of private agents. For example, in 1905 the British Cotton Growers Association was granted monopoly rights to purchase cotton from the whole of West Africa. In the decade prior to World War II, state marketing boards were promoted to serve European strategic interests. Crops such as palm oil, cocoa and groundnut were brought under government control. At the same time, the colonial powers promoted producer cooperatives as a way to support the poor rural population and facilitate the transition to market-oriented agriculture. Private trading was seen as inefficient, disorganized and unresponsive, and policies explicitly aimed to supplant traders to reach economies of scale and allow better returns to farmers. Private trade was by no means extinguished, however.

Early independence

Many newly independent countries continued the colonial model of strict government control and state-promoted producer cooperatives in trading. The common view was that traders were enriching themselves at the expense of the farmers. In Tanzania, traditional cooperatives were transformed by the government's *ujamaa* policy of community advancement, which led to a loss of their autonomy and self-reliance. The government of Zimbabwe used cooperatives as a vehicle for transforming the economy and redistributing income and assets. Particularly where trade was in the hands of ethnic minorities, such as in Uganda (Asians) and Senegal (Lebanese), it was felt that the nationalization of trade would assist in the "Africanization" of the economy. Many governments fixed food prices and established parastatal companies to ensure food security, stabilize producer prices, and maintain low consumer prices. In Tanzania by the end of the 1970s, nearly 400 parastatals operated in the agri-business sector, and the prices of nearly 1,000 commodities were controlled. In that same period parastatals were administering one-third of the formal economy in Niger. Still in most parts of

Africa, private trade remained vital for the distribution of foodstuffs in local and export markets.

Structural adjustment

The expansion of state marketing could not have been undertaken without the aid from bilateral and multilateral donors. Marketing boards were a convenient counterpart for donors. Nevertheless, poor performance of state-controlled marketing led to substantial policy changes. Since the 1980s, international agencies such as the World Bank and the International Monetary Fund forcefully urged on the "structural adjustment" of African economies. The intention, in brief, was to introduce free competition. The new policies foresaw a key role for the private sector, while governments would need to be instrumental in developing an active and competent private sector. Regrettably, the latter part of the equation was poorly implemented. Most countries swung from state control to a complete "hands off" approach, leaving it entirely to private businesses to work out how the market should operate without any government support. As a result, agricultural sector performance has been disappointing in most African countries since the 1980s.

Growth with equity

Disappointing outcomes of structural adjustment led to the belief in the early 21st century that economic exchange should be "coordinated", rather than "free", to make markets work for the poor. And so the focus shifted from liberal market solutions to innovations in the institutional environment to optimize the role of various stakeholders. This includes both private sector initiatives, such as formalized standards and contracts, and public policy interventions like efficient commercial courts and inspection agencies. Direct intervention in markets is still regarded with suspicion, but there has been renewed interest in diverse forms of producer organization. Moreover, a clear role is now envisaged for civil society organizations in promoting market linkages, consumer awareness, and corporate social responsibility. It is within this philosophy of broad-based economic growth and multi-stakeholder collaboration that this book explores the opportunities for building cooperation between traders and farmers in Africa.

3
Framework for "trading up"

THE PREVIOUS CHAPTER SHOWED that agricultural trading in Africa is far from easy. Food products are marketed through long, fragmented supply chains in a volatile, high-risk business environment with poor physical infrastructure and little support from formal legal or financial institutions. Yet consumers in the cities are offered daily fresh vegetables, meat, tubers and other foodstuffs which are brought over large distances from the rural hinterlands. While traders do a remarkable job in making this happen, overall market development remains limited. There is little value-addition, investment is low, business practices are rudimentary, and the outcomes for farmers, traders and consumers are far from optimal. As experts say, African markets are "efficient but poor".

This chapter explores how agricultural marketing can become more beneficial to African farmers and traders. In fact, there are many ways to improve trading: farmers or traders can organize themselves for collective marketing, they can buy cell phones to know the latest prices, banks can provide short-term loans to pre-finance business transactions, traders and farmers can seek to build long-term trust relationships, formal contracts can be used to record business agreements, and many more. Such innovations can be clustered in two basic types of strategies for improved trading relations:

- **Stronger chain relations** Create well-organized business relations between the various actors in the value chain.
- **Stronger market institutions** Establish standards, regulations, policies and services to coordinate and support trading activities.

Whereas the first type of strategy seeks to improve the conditions for trading within the value chain, the latter seeks to improve the conditions in the business environment around the value chain. The first strategy is about the players of the game, the latter is about the rules of the game (cf. North, 1990).

Stronger chain relations

Imagine a situation where a group of farmers agree to grow vegetables for a trader to buy at a set price. The trader gives them a loan to buy seed and fertilizer. But just before harvest, another trader comes along and offers a higher price. The farmers, hard-pressed for cash, agree. The first trader then arrives with a lorry to pick up a load of veg, but finds the farmers have already sold their produce. The farmers may be better off in the short term, but the first trader is unlikely to trust them again. The farmers will get no credit next season; the first trader has lost a supplier, and the consumers will have to go elsewhere to find their vegetables. Almost everyone loses.

The relationship between the farmers and trader is a **chain relation**. There are many types of chain relationships, among many different chain players. The farmers may be organized into cooperatives. The traders may have their own association. The traders may work with brokers, wholesalers, credit suppliers, lorry drivers, loading crews and market authorities. Farmers may work with input suppliers, the village administration, extension workers, and so on. All of these are **players in the game**, rather than the rules of the game. They are influenced by the rules, and influence them in turn.

Some markets have strong chain relations. Farmers and traders are both well organized, and their organizations are strong, effective and inclusive. The different chain actors (farmers, traders, transporters, and so on) have relatively stable relations based on mutual respect and trust. Other markets have weaker relations – farmers and traders are not organized, for example, and there is a lack of trust and few permanent relations between the players.

We can visualize this as a continuum (Figure 3.1). At the bottom extreme are situations where farmers and traders are fragmented, do not trust each other,

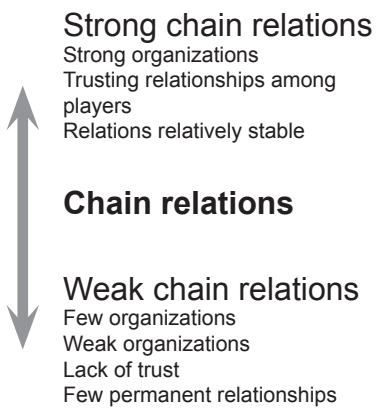


Figure 3.1 Chain relations: How well do the players in the game work with each other?

fight over prices, deliver poor products and services, try to swindle to make more money on the short run, while neglecting the long-term consequences of their actions. At the top is where farmers and traders are organized, understand that they need each other, specialize in their role in the chain, communicate openly and frequently, and cooperate to achieve mutual growth. Between the extremes are a variety of situations where farmers and traders cooperate to a greater or lesser degree.

Farmers and traders will benefit if they manage to make their chain relationships more stable, more transparent and better organized. Such chain relations will help both parties to reduce the costs and risks that they are facing in their businesses. Also, they can join forces to tackle issues of common interest, like expanding the market, or improving the quality of the product. Improved chain relations benefit all stakeholders in the value chain – the farmer, the trader and also the consumer.

How can they do this? Here are some possibilities:

- **Organize the chain actors** Farmers and traders need to organize themselves if they want to improve their businesses. As an individual most farmers and traders are too small to make a difference. But if they team up with their colleagues, they can support one another to strengthen skills and technologies, upgrade products and services, learn about consumer demands, gain access to finance, negotiate with clients, etc. Association of the chain actors in business organizations is a first necessary step to improve chain relations.
- **Create mutual understanding** The marketing chain will only function well if all actors in the chain respect the roles and needs of the other chain actors. Farmers should understand that traders are a vital link to bring farm products to consumers, whereas traders should understand that farmers need good marketing conditions to keep on producing foodstuffs. This seems obvious, but regrettably in many situations there is a lack of respect for each other. Farmers and traders may be so much focused on prices that they forget that they need one another. Open dialogue and exchange visits can then help to create mutual understanding.
- **Specialize on certain roles and services** Once farmer and traders recognize each other's roles in the value chain, conditions are there for both to specialize in their own businesses. By improving their products and services they strengthen the value chain to the benefit of all. Farmers can specialize in producing high-quality products in amounts and at times that the markets need. Traders can specialize in getting the best market for these products, developing new customers, and providing feedback from the market to the producer. This will generate a process of mutual growth.
- **Coordinate in the chain** As farmers and traders become specialized in their businesses, they also need effective coordination of their relationships and interactions. This will help to tailor the farm products to the demands of the consumer, and to minimize any losses, damage or inefficiencies that may occur at any stage of the value chain. Chain coordination is achieved through

continual communication between the chain actors. This can be steered by the business organizations of farmers and traders, but it may also be taken care of by a chain facilitator or service provider.

- **Develop a chain partnership** When chain relations are really strong, then farmers and traders can agree upon a shared vision and a joint action plan to strengthen the value chain as a whole. They may, for example, identify and introduce new crop varieties for specific market segments, establish a chain platform for permanent dialogue, set up a certification system to ensure product quality, or jointly undertake a marketing campaign. This idea may seem far-fetched, but as this book will show there actually are several experiences in Africa where farmers and traders have joined forces in a single organization to improve the performance of their businesses.

Stronger market institutions

Now imagine a marketplace where traders can set out their stalls wherever they want. A meat trader sets up next to a stall selling salads and fresh vegetables. Stalls selling fish, grain, fruits, cloth and hardware jostle for space with refreshment stands and hawkers selling watches and cassettes. Stallholders expand their displays and the narrow alleyways become clogged. Fights break out among stallholders; customers cannot make their way among the chaos; workers cannot deliver produce; rotting food piles up. The market quickly grinds to a halt. Customers stay away. Traders cannot sell their stocks, so buy less from farmers. Everyone – farmers, traders and consumers – is worse off.

The rules on where sellers can erect their stalls may be formal: set by the city government. Or they may be the result of informal, unspoken agreements among the traders. Whichever they are, they are clearly vital to the smooth functioning of the market.

These rules are just one of many **market institutions**. There are many others: security and cleaning services, arrangements for loading and unloading goods, credit arrangements, an agreed set of weights and measures, standards for grading produce, information systems for prices and quantities, and so on. A law that defines food safety requirements for dairy products is a market institution, and so is an unwritten but commonly respected etiquette among traders for bargaining in the marketplace.

Market institutions are norms, rules, regulations, policies or services that shape the way in which farmers and traders interact. They give structure and support to trade activities, thereby reducing the costs and risks that farmers and traders face in their businesses. Market institutions can be formal or informal, created or evolving, written and unwritten. They change over time. They include mechanisms for monitoring commercial arrangements, enforcing contracts, and ascertaining and punishing violations. They form the business environment that surrounds the trading activities in the value chain.

Figure 3.2 Market institutions: How strong are the rules of the game?

If chain relations are about the players in the game, market institutions are the **rules of the game**: they help shape the interactions and incentives in the market. They reduce uncertainty by establishing a stable structure within which people can negotiate, buy and sell, transport and distribute, borrow money and pay debts. Strong market institutions enable farmers and traders to do business in a more efficient and beneficial way. Weak institutions hinder trade and impede the creation of wealth.

Some markets are rich in institutions – they have many sets of rules governing how they work. The rules are enforced, and the markets work in an orderly way. Others have very few institutions, and the few rules that exist are not enforced consistently. These markets are more chaotic. We can also picture this as continuum (Figure 3.2).

Improving market institutions is a second basic strategy to improve trading. Here are some ways of doing this:

- **Standardize quality, weights and measures** Quality grades and calibrated weights and measures help trade to become more efficient. They avoid the need for personal inspection, reduce handling costs (weighting and bagging), and stimulate long-distance trade. They improve business returns and client satisfaction because quality will be rewarded with higher prices.
- **Develop contract enforcement mechanisms** Formal or informal mechanisms to prevent and punish breach of contract are also important to make trade more efficient. When farmers and traders can trust that agreements will be respected, they will be in a much better position to buy or sell on credit, trade at long distance, make long-term agreements, invest in business growth, etc. Contract enforcement can be a public service, e.g., courts and police, but they can also be private, e.g., certification schemes.
- **Develop market information systems** Market information is crucial for efficient trading. Buyers and sellers need accurate information for making good decisions as to where, when, to whom, and at what price to buy or sell. Incomplete or non-transparent market information leads to what economists

call "market failures". Market information systems can be a public service or private, and can involve various media, such as radio, television, internet, cell phones and SMSs.

- **Provide financial services** Without finance, trade cannot exist. Merchandise cannot move from farmer to consumer without somebody paying for the value of the goods while they are under way. This is called "trade finance". In addition to trade finance, chain actors need capital for investments in staff, a new truck, an irrigation system, etc., so their businesses can grow. Insurance and savings are also important. Access to financial services is vital to keep trade going and to make it grow and prosper.
- **Provide business support services** Besides financial services there is a series of other services that are important in supporting business and trade. Some of these are: transport, accountancy, security, research and development, utilities, road maintenance, etc. Some of these services are public, others are private. The better these services are organized, the better trade can perform.
- **Use policy leverage** Finally, it is important for trade and business to have some participation in decision-making over government policies. Policies influence business through taxes, permits, sector policies, trade tariffs, subsidies, etc. Often these decisions are taken without due consideration of the points of view of farmers and traders. When farmers and traders get organized to achieve policy influence, it is likely that the trading conditions will improve.

Market interactions matrix

We can combine Figures 3.1 and 3.2 to make a matrix, with the market institutions along the horizontal axis and chain relations on the vertical (Figure 3.3).

We can divide this matrix into four quadrants, each corresponding to a certain type of market interaction. Markets can be located in any of the four quadrants.

- **Thomas** is coordinator of a farmers' cooperative in Zimbabwe (page 83). As a result of misguided government policies, the fertilizer market in the country has collapsed. Powerful, well-connected people have cornered the market, and little fertilizer is available on the open market. Desperate to grow maize to feed their families, the members of Thomas's coop have to queue to buy the little fertilizer available at exorbitant prices. No one trusts anyone else, and there seems to be no rules – an extreme example of ***ad hoc* spot trading**.
- **Daniel** (page 50) is a livestock trader in Zimbabwe. He buys animals on a regular basis from livestock holders in Mbire District whom he knows well. He and his suppliers have agreed to share information about prices and quality in a highly volatile market. He transports the livestock he buys to Harare, where he sells them to an abattoir. Daniel is part of a **stable trade relation**: he has longstanding, trusting relationships with his suppliers and customers. They share information freely, and try to find each other the best deals.

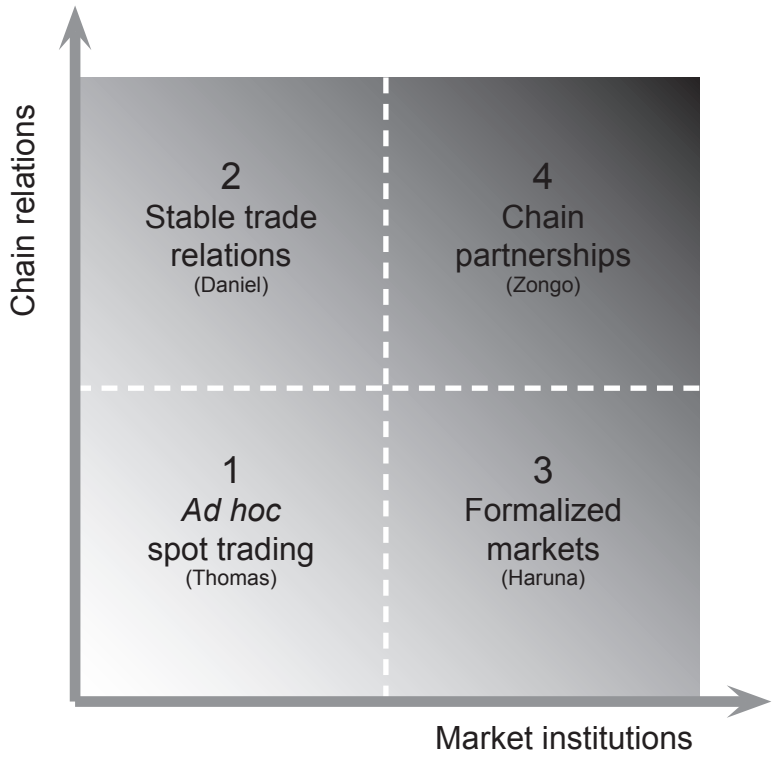


Figure 3.3 Market interactions matrix

- **Haruna** coordinates a traders' association in Ghana (page 108). Using a computer-based market information system, he and his colleagues have found a group of onion growers in Burkina Faso, and they have negotiated a contract to supply onions to the association's members. They have also arranged for a bank to provide the loans necessary to secure the deal, as well as transport to move the onions down to the coast. Haruna is part of a **formalized market**: there are a strong set of institutions (rules, financial services, transport arrangements) that facilitate the transactions, even though the buyers and sellers do not know each other very well.
- **Zongo** is manager of a firm marketing fair-trade mangoes grown in Burkina Faso (page 168). The firm works closely with cooperatives of mango growers, and includes them in discussions over prices and quality. Together with the producers and its customers, it has developed a joint vision of how they want the marketing chain to develop. The pricing structure is transparent; the importer pays Zongo's firm for produce in advance, and the firm in turn pays its suppliers in advance. The firm is also pressing the government on issues such as tax and research support for mango production. The firm is part of

a **chain partnership** that integrates good chain relations and strong market institutions to the benefit of all actors in the chain.

Let us look at each of these quadrants in more detail.

Ad hoc spot trading

In the lower left corner of Figure 3.3 are markets which have weak business relations and few business institutions. Traders and farmers engage in short-term transactions. Trust, quality assurance, value adding, service provision and innovation are low. Prices are negotiated on instant needs. Farmers claim that traders cheat on them – they want overfilled bags, charge exorbitant interest rates, and abscond with produce without paying for it. Traders make the same complaint about farmers – that farmers hide over-ripe produce at the bottom of the crate, they put stones in bags to make them weigh more, and they break contracts to sell produce at a certain price.

Farmers and traders do not know each other well, and do not trust one another. There is no partnership, no cooperation. Both farmer and trader have short-term visions, taking advantage of each other. They provide bad services and add no or little value to the product. They may be tempted to cheat on quality or weighting. This may be rational behaviour in a context of strong price fluctuations, weak infrastructure and failing institutions.

Stable trade relations

This is where there are still few market institutions, but chain relations are stronger (top left corner of Figure 3.3). Traders and farmers do business with each other for several years. Levels of mutual trust and service provision, such as credit, are higher. Farmers and traders may organize themselves to improve their businesses and their role in the value chain. They start to communicate and develop mutual understanding. This may result in more cooperation, lower transaction costs, lower risks, and better chain services. But the market institutions are still weak. There is a lot of unexplored potential for improving the trade system through quality standards and market information systems and by involving financial institutions and government agencies.

Formalized markets

This is the mirror image of stable trader relations: market institutions are stronger, but chain relationships are still weak (bottom right corner of Figure 3.3). Buyers and sellers engage in short-term transactions based on institutionalized standards and regulations. Prices are set as a function of general supply and demand. Buyer and seller no longer meet in person to do business, because market prices are transparent, quality grades are standardized and contracts are enforced by third-party institutions, such as an auction authority. However, due to the impersonal trade relations, there is little scope to work together on innovation, value adding and niche marketing. Trade transactions are governed by formal

standards and procedures. This can be through commodity exchanges, warehouse receipt systems, market information systems, etc. There is an array of supporting services from finance and policy sectors. This may result in more transparency, lower transaction costs, and lower risks. But it may also lead to exclusion of those who fail to comply.

Chain partnerships

This is where both market institutions and chain relationships are strong (top right corner of Figure 3.3). Farmers, traders and buyers engage in long-term business relationships with formal contracts to jointly work on, and invest in, up-scaling, quality improvement, market development, value-adding, service provision, risk reduction, etc. Prices are often negotiated for a longer period and farmers tend to obtain larger profit shares. Farmers and traders develop business alliances in which they acknowledge their specialized roles and together look for synergy. They agree on clear standards and procedures to regulate the business relation. This may result in added value, new markets, innovation, competitiveness, sustainability. But specialization also entails risks as it enhances dependency and reduces flexibility.

Changes in markets

As markets develop and become more sophisticated, the chain actors may move from one point in our diagram to another.

For example, a group of farmers may organize themselves into a marketing cooperative, and negotiate delivery contracts and prices with a trader. In our diagram, we can show this as an upward movement from *ad hoc* spot trading to more stable trade relations (Figure 3.4).

The farmers and traders may also agree to regulate their trading relations introducing standardized quality grades and calibrated weights. This is a horizontal movement, from left to right, in Figure 3.4.

Combining a series of such innovations in vertical and horizontal directions may transform a market from an *ad hoc* spot trading situation to a chain partnership – a diagonal movement in Figure 3.4.

In this book, we break such diagonal movements down into their vertical and horizontal components. That is a simplification, of course: in fact, improving chain relations (a vertical movement) is almost always accompanied by some improvement in market institutions (horizontal movement).

Which is best?

In our view the most beneficial position for traders and farmers is the chain partnership. That is where they interact as close business partners who cooperate to

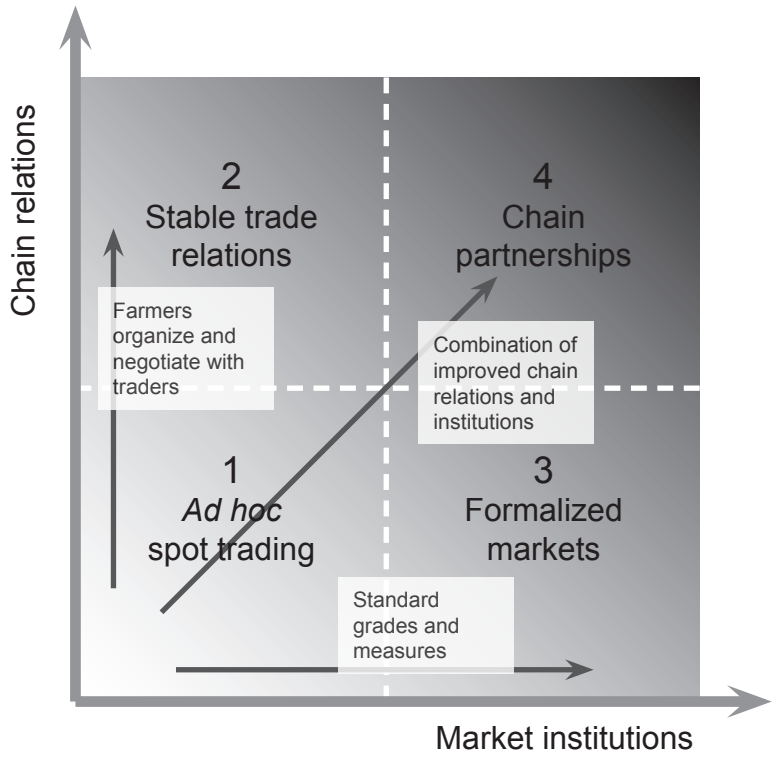


Figure 3.4 Movements in the market interactions matrix

add value to the product, reduce risks, innovate, and expand their businesses. However, this is not always possible. Some markets have, almost by definition, no place for long-term relations and face-to-face business. A good example of this are bulk products that are used as invisible ingredients in consumer products, such as maize and soybean. These are mostly traded on anonymous markets such as the Chicago Board of Trade. Other products can be traded in both ways. For example, most coffee in the world is traded between anonymous business partners. However there is also a market for speciality coffees, where business partners know each other for years and work together to improve the business.

The type of trade relation depends not only on the product but also on the wider environment. Drought or flood can ruin a harvest, damaging business relations and bankrupting farmers, traders and credit institutions. A flood of international food aid may undermine local markets. Economic shocks, such as a sudden change in exchange rates or the closure of a key processing factory, can eliminate a market. Changes in government policy can have the same effect. An example in this book is the fertilizer supply system in Zimbabwe (page 83), where a combination of government interference and hyperinflation led to the destruction of a smoothly operating system and its replacement by an illegal market – moving

from something close to a value chain partnership to an *ad hoc* spot market. In this case the movement was backwards and downwards in our diagram.

The stories in this book describe how a particular market in a specific country has changed. In some cases the changes were induced by the chain actors themselves – traders and farmers – in response to a problem or opportunity that they had spotted. In other cases, the changes were induced through the intervention of an external agent, like the government or an NGO. The stories describe the market changes that occurred, the background and reasons for these changes, and the implications, costs and benefits for the farmers and traders involved. We hope these experiences will give insights and inspiration for African farmers and traders to think about possible new ways to organize their trading relations in a more beneficial way – this is what we call "trading up".

Value shares in trading

Calculating profit margins in the value chain is not straightforward. It requires various types of information and takes several steps. It is necessary to know the following information about costs and revenues.

Costs

Variable costs These are costs that change according to the amount of produce handled. For a livestock raiser, the variable costs include the costs of feed and vaccinations. If a farmer has 10 cows and decides to raise two more, she or he needs 20% more feed and vaccinations for the new animals. For a livestock trader, the variable costs might include the purchase price of the produce, commission paid to brokers, the cost of health certificates for each animal bought, local taxes paid per animal moved, and interest on loans used to buy produce.

Fixed costs These are costs that are independent of the amount traded. For the livestock raiser, they include the cost of stables and land. Even if the farmer decides to raise two more cattle, she or he usually does not need to buy more land or build a new stable (at least in the short term). For a trader, the fixed costs may include stall rental, trading licenses and wages of assistants. In practice, it is hard to include some of these costs in calculations, so the tables in the case studies in this book leave these costs out.

Revenues

The selling price of the produce This is the actor's revenue. It is the money she or he earns by selling the produce, plus any other income earned by selling by-products or waste.

For some of the commodities described in this book, the product sold at the farm gate is essentially the same as that bought by the consumer. Yams (page 132), milk (sold locally via small-scale retailers, page 72) and fertilizer (page 83) fall into this group.

For others, some grading and sorting is needed: tomato traders, for example, may sell the top-grade tomatoes in a batch at one price, smaller tomatoes at another, and over-ripe fruit very cheaply (pages 62 and 94). Mangoes (page 168), green beans (page 215) and wool (page 146) are carefully selected before being packed for export.

For another group of commodities, some processing is involved. For livestock, for example, a slaughterhouse sells not only the meat, but also the offal, hide or skin of an animal (pages 50 and 181). Soybean processors may sell both oil and soybean cake (page 194). Parchment coffee is milled, roasted, ground and vacuum-packed (pages 118 and 205). Milk sold by a supermarket is pasteurized, skimmed, packed and cooled (page 72).

Profits and margins

Once we know the costs and revenues of each actor in the chain, we can calculate their financial positions. Here are some things to look at:

Gross income, or operating profit This is calculated by deducting variable costs from revenues:

> ***Gross income*** = *Revenue – Variable costs*

The gross income is easy to calculate, but it does not take the fixed costs into account.

The **gross margin** is the gross profit per unit of produce. Calculate this by dividing the gross income by the revenue earned from sales. Then multiply by 100 to give a percentage. Again, this ratio neglects the fixed costs.

> ***Gross margin*** = *Gross income x 100 / Revenue*

Added value is the amount of value that each actor in the chain adds. It is the difference between the price the actor pays for the produce, and the price she or he sells it for.

> ***Added value*** = *Price received by actor – Price paid by actor*

In most of the cases in this book, this is equal to the actor's revenue minus the previous actor's revenue.

Value share is the percentage of the final, retail price that the actor earns. Calculate this as the added value divided by the final retail price. Then multiply by 100 to give a percentage.

> ***Value share*** *= Added value x 100 / Final retail price*

Net income, or net profit, is calculated by deducting total costs (both variable and fixed costs!) from revenues:

> ***Net income*** *= Revenues – Variable costs – Fixed costs*

This is the real profit that the actor makes, so is a better measure than the gross income. However, it is hard to calculate because it is difficult to put a figure on the fixed costs. We have not tried to calculate it in this book.

Net margin is the net profit per unit of produce. Calculate this by dividing the net income by the revenue earned from sales. Then multiply by 100 to give a percentage.

> ***Net margin*** *= Net income x 100 / Revenue*

This is a better measure than the gross margin, but it also relies on knowing the fixed costs. We have not tried to calculate it in this book.

Example: Yams in Ghana

Table 3.1 is reproduced from Chapter 5 on the yam trade in Ghana (Table 5.4, page 142). It shows the costs and revenues (in Ghana cedis per yam) of each of the actors in the value chain. The actors are listed in column 1 of the table.

Costs and revenues

Column 2 in the table shows the **variable costs**. For the farmer, the variable costs total GH¢ 0.50. They include the costs of seed, hired labour, and renting land.

Table 3.1 Value shares of actors in the yam value chain, Ghana

GH¢ per yam, lean season, 2007 (€1 = GH¢ 1.35)

1	2	3	4	5	6	7
Chain actor	**Variable costs**	**Revenue**	**Gross income**	**Added value**	**Gross margin**	**Value share**
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer	0.50	1.00	0.50	1.00	50%	50%
Travelling trader	1.25	1.50	0.25	0.50	17%	25%
Wholesaler	1.54	1.70	0.16	0.20	9%	10%
Retailer	1.74	2.00	0.26	0.30	13%	15%
Total				**2.00**		**100%**

For the travelling trader (GH¢ 1.25), they include the farmer's selling price of the (GH¢ 1.00 – in column 3), plus the costs of loading and unloading, transport and a fee paid to the market authorities. The wholesaler's variable costs (GH¢ 1.54) include the price of yams bought from the travelling trader, and the costs of loading and the market fee. Finally, the retailer must also pay the wholesaler, plus other costs totalling GH¢ 1.74.

Column 3 shows the **revenues** of each actor. The farmer sells a yam for GH¢ 1.00 to a travelling trader, who then sells it on to a wholesaler for GH¢ 1.50, who sells it to a retailer for GH¢ 1.70. The final retail price – what the consumer pays the retailer – is GH¢ 2.00, shown at the bottom of this column.

Column 4 shows the **gross income** for each actor. This is the difference between the revenue (column 3) and the variable costs (column 2).

Column 5 shows the **added value** that each actor adds. It is calculated by deducting that actor's revenue (column 3) from the previous actor's revenue. Note that the total of the added values (GH¢ 2.00) equals the final retail price.

Gross margins

Column 6 in Table 3.1 shows the **gross margin** – the percentage of the actor's revenue that is profit. This is the gross income (column 4) divided by the revenue (column 3), multiplied by 100 to make a percentage. We can see that farmers have a gross margin of 50%, while the wholesaler has a gross margin of only 9%.

In an ideal market situation, with perfect competition and transparent information, the size of the gross margin reflects the amount of labour, expenses and risks that an actor has put into the product. The higher the costs and risks, the higher the gross margin – a fair principle. The fact that the yam chain in Ghana

displays this principle suggests that it is a competitive market with a fair relation between effort and reward.

Unfortunately, in the real world many markets are far from ideal. Monopoly markets or oversupplied markets put strong pressure on the gross margins of producers. Likewise, in so-called supplier markets, when produce is scarce, farmers' gross margins may rise at the expense of traders, consumers, and other companies downstream in the chain. When gross margins are excessively high in a certain part of the value chain without a reasonable explanation, this may be an opportunity for intervention to make the chain more efficient.

Value shares

Column 7 in Table 3.1 shows the **value share** – the percentage of the final retail price that each actor manages to capture. This is the actor's added value (column 5) divided by the final retail price (GH¢ 2.00), multiplied by 100 to make a percentage. Note that the value shares add up to 100%, but the gross margins do not.

The yam farmer earns 50% of the final retail price (GH¢ 1.00, in Column 5), while the travelling trader earns 25% (GH¢ 0.50) and the wholesaler earns 10% (GH¢ 0.20).

Like gross margins, the size of the value share also reflects the amount of costs and risks that an actor has put into the chain – at least, in ideal markets. In addition, the distribution of value share tells us something about the type of product. When the consumer buys a product in more or less the same state as it left the farm, such as a fresh, unwashed yam, then there has been little value added in the chain. So we can expect the farmer to have the highest value share.

However, when the consumer buys that same yam in a processed form, such as cooled yam flour in sealed, controlled-atmosphere packaging, then there has been more value added in the chain and we can expect downstream actors to have higher value shares.

In products where advertisement and lifestyle play an important role, such a Nike shoes or Dior perfume, we can expect high value shares downstream in the chain.

Actors can compensate for a smaller value share by increasing their efficiency (as in the warehouse receipt scheme for coffee in Tanzania (page 118)), or by handling higher volumes of the product (as with the cases on livestock in Kenya (page 181) and soybeans in Ghana (page 194)).

In any case, the gross margin and the value share are not meaningful by themselves. They need to be interpreted in relation to the costs and risks of the chain actors. Only a discrepancy at that level may be a reason for intervention in the chain. In many development projects this type of data analysis is missing, so the intervention is not well-informed and may produce disappointing results.

For each of the cases in Chapters 4–6, we show the gross margin and value share, where it is possible to calculate these. Note that the gross margin takes the costs

of each actor into account, while the value share does not. Accurate information on costs is hard to gather, so many of the cases do not have figures on costs – so it is not possible to calculate gross margins in some cases.

Presenting data

Bar charts of revenues and costs

It can be hard to interpret numbers in a table. So we also show the data for the variable costs and gross income as a bar chart. Figure 3.5 shows such a bar chart for the Ghana yam example, using data from columns 2 and 4 in Table 3.1.

Looking at the top bar in this chart, we see that the farmer's gross income (in black) is a big share of his or her total revenue. This reflects the amount of work the farmer puts into growing yams: the "profit" includes his or her own labour (the "labour" in the bar is hired labour which requires a cash outlay).

We can see from the second bar that the travelling trader has two main costs: the cost of buying the yams from the farmer, and transport.

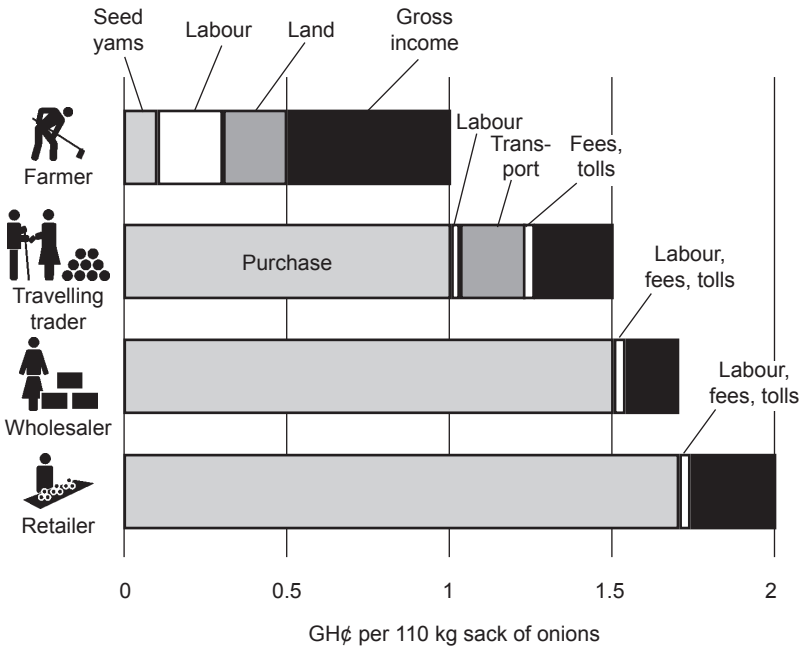


Figure 3.5 Costs and revenues of actors in the yam value chain, Ghana

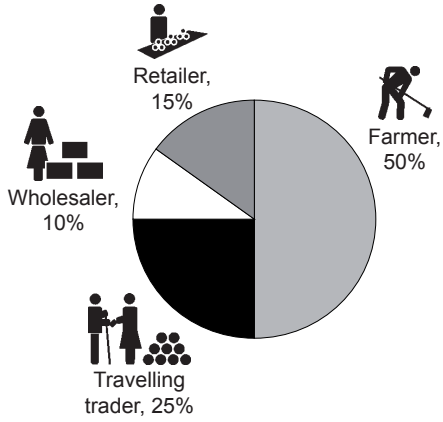


Figure 3.6 Value shares of actors in the yam value chain, Ghana

The graphic also shows us that the ratio of gross income (in black) to revenue (the whole bar) generally decreases as we go down the chain. There are two reasons for this: each actor in the chain has to spend an increasing amount of money to buy the yams, and the later actors own the yams for a shorter period, so put less work into them.

Pie charts of value shares

We also use pie charts to show the value shares of each actor in the chain. Figure 3.6 gives an example for the yams case, based on the data in column 7 of Table 3.1.

Where it has been possible to show two alternative marketing systems (or the situation before and after a change in the marketing arrangements), this book shows two or more sets of bar charts and pie charts, one set for each situation. The areas of the pies are proportional to the product's end prices: the bigger the pie, the higher the end price.

Numbers: handle with care

Readers should treat the figures given in the tables and graphics in this book with caution. Certain problems are common when calculating costs and revenues:[1]

Fluctuations Costs of agricultural products and services vary widely from season to season, from day to day, and even within a single day: produce that sells for a high price early in the morning may be sold at a loss towards the end of the day. Quality and size are important: depending on market, large or small tomatoes may be cheap or expensive. A minor blemish can demote an otherwise export-grade mango to a much lower-priced category. Fluctuating currency exchange rates and inflation also make it difficult to compare prices.

1 More information: Crawford (1997), M4P (2006)

Lack of information The numbers given in this book are based on the information that the book's contributors had available. They are inevitably incomplete. A particular actor may not know the costs and revenues of the others actors in the chain – and for some, it is hard even to estimate their own costs and revenues.

Variable or fixed? It can be hard to categorize a cost as fixed or variable, and there is not always a right or wrong way to do it. For example, is transport a fixed or variable cost? It costs the same to hire a lorry, whether you transport 10 cows or 12 (so the cost in this case is fixed). But if you transport 50 cows, you may need to hire extra lorries (so here it is a variable cost).

Labour Farmers and traders spend a lot of time growing and trading produce. But they rarely pay themselves (or their families) a cash wage, so it is hard to decide what figure to include. The tables in this book include this type of labour as part of the gross income.

Losses For perishable produce (such as tomatoes and mangoes), losses may be significant.

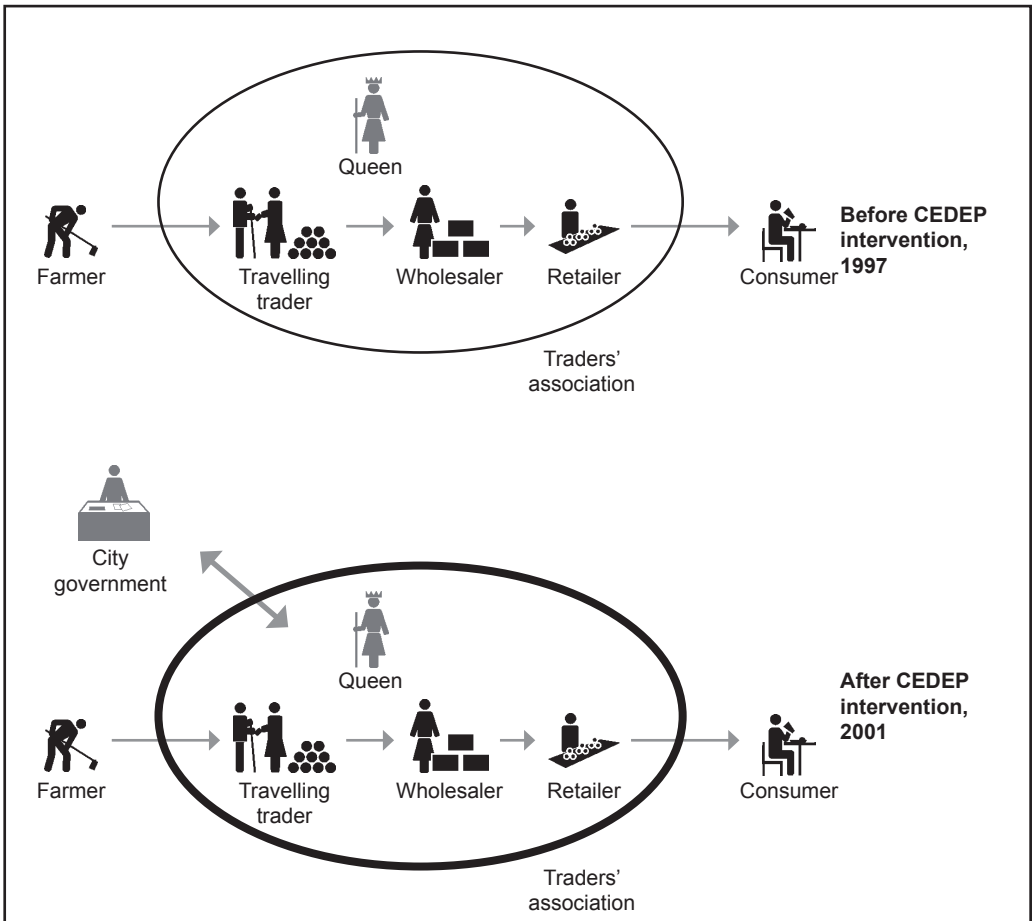


Figure 3.7 Changes in the yam market structure, Ghana

Processing Many commodities lose weight as they undergo processing: fresh coffee cherries weigh five times as much as dried "parchment" (page 205), and there is a further weight loss between parchment and the "green" coffee which is auctioned. At least half the live weight of animals consists of offal and waste when the animal is slaughtered (page 181). And a more rigorous analysis would take into account not just the main product (meat on supermarket shelves) but also the many by-products (hides, bone meal, etc.).

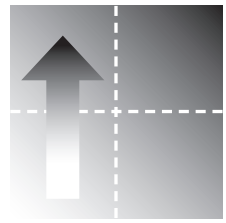
Depreciation means the wearing out of capital goods, such as machines and equipment. Most traders in Africa have few capital goods to wear out – they usually hire lorries rather than owning their own vehicle. But farmers do have capital goods, such as ploughs and draught animals, which have to be replaced every few years. They should set aside money each year to pay for this major expense. But this is difficult to calculate, so the tables in this book do not take it into account.

Market structures

The cases in this book depict changes in marketing systems. Such changes almost always mean changes in the structure of the markets: the actors in the marketing chain and the other players who provide various services at various stages in the chain.

A diagram in each of the cases depicts these changes (Figure 3.7). The diagrams show (in black) the chain actors – the actors who take ownership of the product by buying and selling it – those named in the first column of the "value shares" table in each case. They also show (in grey) the major service providers – the co-operatives, financial services and so on, as well as the linkages between them.

4
Strengthening chain relations



THIS CHAPTER FOCUSES ON improvements in the relations between the various actors in the value chain – the "players in the game". In our framework, this is represented by a vertical movement.

The chapter contains five cases:

- **Livestock trading in Zimbabwe** This case shows how livestock holders and traders came to see each other as allies rather than as adversaries.
- **Tomato markets in Ghana** This case focuses on how a traders' association and tomato growers managed to resolve a dispute that was threatening the livelihoods of both.
- **Milk production in Kenya** This case tells how a producers' cooperative and an informal traders' association are helping revive the milk industry.
- **Fertilizer in Zimbabwe** This story illustrates the danger of government tampering with a functioning value chain, and shows how a farmers' association is working with suppliers to overcome the problems this caused.
- **Tomatoes in Kenya** The final case in this chapter shows how a farmers' cooperative has managed to develop alternative markets for its members' produce.

Learning from experience: Livestock trading in Mbire District, Zimbabwe

"Traders are nothing but a group of manipulative, opportunistic, money-hungry swindlers who rip farmers off!"

That is what livestock farmers in Mbire District used to think. The traders would come to their villages to buy their animals – at what the farmers thought were cheap prices. And they heard from relatives that the traders were making a fortune selling the animals in town.

But the farmers of Mbire have learned they were wrong. They now realize that the traders fulfil a vital role in the value chain. Without traders, farmers are worse off, not better. The farmers have come to appreciate the traders' role – and the traders in turn have learned the value of a trusting partnership with the farmers.

The farmers learned this lesson the hard way – by trying to take the place of the traders and do the job themselves.

Livestock in Mbire

Mbire District lies in the far northeastern corner of Zimbabwe, some 282 kilometres from Harare, on the borders with Zambia and Mozambique. The district is dry: the farmers grow cotton and sorghum, and keep cattle, sheep and goats. Its 120,000 people live mainly in many small, scattered villages.

The farmers see animals as a symbol of wealth and prosperity, so they sell them only when they need cash urgently. They used to sell them to livestock traders, who transported the animals to the cities where the demand for meat is high.

There are surprisingly few traders in the district – only 8 men and 3 women who might be regarded as "professionals", who might buy a dozen or so animals at a time. Daniel Sinkula (Box 4.1) is one of these. In addition, there are perhaps 30 traders who occasionally buy individual animals. Most of the traders come from Mbire District itself, while a few hail from the cities. There are no livestock markets in the district.

Box 4.1 A livestock trader in Mbire

"My name is Daniel Sinkula. I'm an accountant, and also a livestock trader in Mbire District. I spend a lot of time in the villages in Mbire. I go there with my seven assistants. We take our food and bedding with us – enough to last a week. We ask the village head to find somewhere for us to stay, and if we run short of food, we ask the village head for help. Sometimes we get food for free, and sometimes we pay.

"My assistants and I scatter throughout the villages, looking for animals to buy. We look for livestock kraals or cattle grazing, then ask who owns the animals. We go from door to door if necessary. We cover an area 15 to 20 km around the main village. There is no mobile phone coverage, so communication is difficult. Sometimes we are lucky and find some animals to buy; at other times we cannot find any. I pay my assistants a commission of US$ 10 for each animal they find to buy.

"Once we have found a livestock owner who wants to sell, we select the animals we want to buy, and negotiate the price. We judge the animals' weight by eye, and check them for disease problems.

"When we have gathered 15–20 animals, I send one of my assistants to hire a lorry. We have an arrangement with a transport firm which keeps a lorry on standby for us.

"We take the animals to the nearest police station, and arrange to meet the owners and the village head there. We have to do this because livestock theft is very common in Zimbabwe, and we need to make sure we are buying animals legally. If we are caught with stolen animals, we could end up in jail for 6 or 7 years.

"The police verify the stock cards for each animal, and check them against the police records of ownership. The village heads have to sign these stock cards on the back to verify them. The police then issue a stock clearance certificate for the whole load, showing the number of animals.

"The local veterinary officer has the records from dipping the animals, so also verifies the ownership, and certifies that the animals are free of diseases such as foot-and-mouth and redwater. The vet officer also collects a fee of US$ 0.50 on behalf of the Ministry of Agriculture.

"I then pay the farmers for the animals. If they insist on an actual live weight price rather than our estimate, we take them to the abattoir, where the animals are weighed and the abattoir gives us a slaughter sheet with these details. A field officer from the Lower Guruve Development Association helps assure the farmers that I will actually pay for the cattle.

"Where do I get cash to pay the farmers? Bank loans are difficult to get because of the hyperinflation in Zimbabwe. So I borrow money on a short-term basis from businesses such as minibus operators and retailers. When I have got payment a couple of days later from the abattoir, I repay these lenders via bank transfers, plus 1% commission. I sometimes get cash by using collateral – I surrender a property title deed or insurance policy on a temporary basis, and take possession again when I repay the money with a commission.

"We transport the livestock to the abattoir on hired lorries, at our own risk. Most of the transport operators we use are not insured. Professional transporters are very expensive and even charge for idle time, so they are too expensive for us.

"I choose which abattoir to take the animals to depending on the price it is prepared to offer. We provide all the documents to the abattoir, and they give me a slaughter sheet showing the details of the sale. I take this back to the farmers so they know what the abattoir has paid me. The abattoir generally pays me via bank transfer."

The Lower Guruve Development Association

The Lower Guruve Development Association is a farmers' organization serving Mbire District. It has a varied development programme, which covers food security and livestock production, among other things.

The Association encourages its members to raise livestock as well as growing grain, which is a risky enterprise because of the area's marginal rainfall. The Association's livestock officer is a veterinarian who advises farmers on animal production and health. The Association also bulk-buys veterinary medicines to supply at cost to its members.

The Association helps its members get the best value for their animals by assisting with marketing – for example by organizing the farmers into marketing groups. When farmers complained about the low prices they were getting from traders, the Association did a study that found that prices were indeed much higher in town. The findings of this study reinforced the farmers' determination to take marketing into their own hands.

Misunderstandings

In the course of 2006, serious problems developed between Mbire's farmers and its traders. Frustrated by what they heard from relatives in town and from the Association's staff about the high prices of animals in Harare, the farmers decided to phase the traders out of the picture.

A large number opted to take their livestock to the city themselves. Refusing to deal with the traders, they switched to a different group, known as "agents". These agents were local people hired by various abattoirs on commission to source livestock from farmers. The abattoirs had discovered that dealing directly with farmers, rather than with traders, gave them higher profits. They found that the farmers did not know enough about livestock sales to question the price they were paid.

The agents' job was simple: go to villages in Mbire and source livestock from the farmers there, group them, then arrange transport (provided by the abattoir) to take the farmers and their animals to Harare, where they would sell their livestock to the abattoir. The farmer still owned the livestock until they reached the abattoir, so had to bear the full risk or accidents and delays – for example, if an animal died or was injured during the trip.

As a result of this new arrangement between the farmers and agents, the traders found it harder to acquire livestock. The farmers now treated them with contempt and mistrust.

Problems with do-it-yourself

But things did not turn out as well as the farmers had hoped. For the first time, they became exposed to the risks and challenges that traders faced every day. Here are some of the problems they discovered.

- **Transport** The journey to Harare was hard: the farmers had to sit on top of the cage containing their livestock as the lorry bumped along the road. Some farmers and their animals were seriously injured. And as they were still the animals' owners, each farmer had to ensure their livestock got to their destination safely and quickly. That meant paying bribes: it is illegal to transport livestock at night, but many vehicles are unroadworthy, so the drivers prefer to travel at night to avoid police controls and to minimize the journey time.
- **Late payment** The abattoirs often paid late, forcing the farmers to stay in the city longer than they had anticipated. Some had to stay at the abattoirs for more than 2 weeks, so missed important farm work back home. The abattoirs blamed the delay on the limited cash withdrawals allowed each day from banks due to the current economic crisis in Zimbabwe. They said they did not have the cash on hand to pay the farmers immediately.
- **Grading** The farmers did not understand the meat grading system. Most of their animals were classified in the Economy grade, which fetches the lowest price. The abattoirs, it was alleged, would sell the meat on to customers as the higher-priced "Choice" or "Super" grades.
- **Hidden costs** The abattoir paid the farmers nothing for the hides and offal. The abattoir managers said these items were used to cover the costs of transport – but the farmers were not told this when they loaded their animals on the lorry. Most of the farmers had been under the impression the abattoir was doing them a favour by providing free transportation – especially considering the difficult journey they had made.
- **Other risks** Several unfortunate farmers, unfamiliar with Harare, were robbed of their cash while in the city. Others squandered their money on commercial sex workers, or fell prey to tricksters who would take their money and promise to sell them cheap farm inputs – which they would never bring. Some desperate farmers committed suicide after falling prey to such criminals.

The farmers were not the only ones to have problems. The abattoirs also experienced difficulties in dealing directly with the farmers.

- **Number of clients** The abattoirs had been used to dealing with traders who brought in a batch of 10–20 cattle at one time. Most of the traders looked after themselves while they waited for payment. Now the abattoir was instead forced to look after a dozen farmers who had no cash to cover their expenses while waiting.
- **Payment mode** Most traders accepted payment in the form of cheques or bank transfers. The farmers demanded cash – which is in short supply in Zimbabwe due to the current economic crisis.

- **Business interruptions** Angry, unpaid farmers would disrupt the abattoirs' business.
- **Quality** The traders used to buy only good-looking, quality animals from the farmers for sale to the abattoirs. But the farmers just transported animals they no longer wanted – which meant lower quality. The abattoirs rejected a lot of animals as substandard. Neither the farmers nor the abattoirs were prepared to transport these unsellable animals back home, leading to further disputes.
- **Consistency** Some farmers would change their minds about selling animals after the abattoir lorry had arrived to pick them up from the village. No such problem arose with the traders, who made all the necessary arrangements before hiring the lorry.

Changed attitudes

Farmers For 3 months, the farmers tried selling the animals directly to the abattoirs. That opened their eyes to the challenges and problems in the livestock trade. They began to look at the traders in a new light. They realized that the traders were not swindlers: they came to see the value of the services they provided. They realized that livestock trading is a rough, tough, risky business – one that is better left to someone with the necessary experience and knowledge. As a result, most farmers have now returned to selling their livestock to the traders in a new spirit of partnership.

Traders For their part, the traders were forced to review their business strategy and make some serious changes. They were forced to acknowledge the power that the farmers have as suppliers. They realized the need to create a valuable, equitable and mutually profitable business relationship. In the past, business between the two groups consisted of short-term transactions, with each side accusing the other of cheating.

Finding common ground

The Lower Guruve Development Association was key in helping the farmers and traders find common ground. The Association convened a meeting for representatives of the farmers, traders and abattoirs to discuss the problems affecting the livestock trade. Everyone agreed a solution was needed. The farmers demanded transparency and a larger slice of the cake: as producers, they said they spent a lot looking after the animals, while the other players, though playing a critical role, benefited from a finished product. The three groups of players also agreed that the Association should constantly update farmers on prices, which were rising each week.

The abattoirs agreed to send price changes and other information for farmers to the Association's head office via email. The Association then relays the informa-

tion to its sub-offices in the project area (which has no phone service) by two-way radio. That enables the Association to help poorly educated farmers understand information the trader passes on to them.

To improve transparency, the traders have embarked on a number of initiatives to improve their business relationships with the farmers. Fair dealing and reliable information supply are central to these efforts.

Slaughter sheet This is a document that the trader receives on selling a batch of animals at the abattoir. It shows the animal's live weight, its owner, the grade, the price per kilogram, the total price, and the carcass weight (after the hide and offal are removed). The trader brings this document back to the village and shows it to the farmers. It has become the basis of a more trusting relationship between the farmers and traders: the farmers can see how much money their animals fetched, so they know that the trader has not swindled them. It forms the basis for price negotiations next time the farmers have animals to sell.

Improved relationships The traders now take time to get to know the farmers on a more personal level. This is easy for most traders, who are based in Mbire District. The aim is to create a new level of cooperation which will banish the mistrust that used to prevail. The farmers find it easier to relate with traders whom they have known and dealt with for a long time.

Buying and selling

After negotiating a sale with the trader, the farmer brings the animals to a central location in each village, along with the stock cards showing that he or she owns them. The village head and the police check the validity of the cards and the identity of the animals. After all the forms have been signed, money changes hands, and the trader takes ownership of the livestock. The trader then goes to the next village in search of more livestock. This process goes on until the trader has enough animals.

How long this takes depends largely on the season. Livestock are scarce in winter, from May to October, because most farmers will have recently harvested their crops so prefer to hold onto their animals. Livestock tend to be very expensive during this time, with a head of cattle costing US$ 200–243, and a goat going for US$ 7–10 (prices in June 2007). Animals are easier to buy in the summer, from November to April, when farmers are short of cash. The city markets are flooded with animals, and prices fall.

How many animals does a trader buy? That depends on how much capital he or she has. The professional traders in Mbire buy 15–20 cattle or 35–50 goats or sheep at one time, hire a lorry to take them to Harare, then come back for more. The smaller-scale traders may get together to share the expenses of hiring a lorry. Hiring a lorry costs US$ 235–250 for a trip from Mbire to Harare. This price changes constantly because of inflation and the scarcity of fuel.

Box 4.2 Actors in the livestock marketing chain

Key players

Farmers Own and raise the livestock.

Traders Source the animals and buy them from the farmers. Identify healthy animals to reduce the risk of rejection at the abattoir. Care for animals until they reach the abattoir.

Abattoir Buys livestock from the traders, weighs them, assigns a grade, and pays trader a price based on the dressed weight and grade. Slaughters the animals and sell the dressed carcasses to retailers.

Retailers Cut up the meat and sell it to consumers.

Service providers

Agents During the farmer/trader standoff, identified cattle on behalf of the abattoirs and arranged for abattoirs to send transport when 15 to 20 cattle were available.

Lower Guruve Development Association Facilitates dialogue, provides market information.

Village head Acts on behalf of the village chief. Must be present at negotiations between the trader and the farmer; serves as a co-witness to the sale. A toll-gate fee of (US$ 1 per head of cattle, US$ 0.35 per goat or sheep) is paid to the local authority upon leaving Mbire District.

Local veterinary officer Inspects the animals for possible infections and verifies their health. Collects fee of US$ 0.50 on behalf of Ministry of Agriculture.

Police representatives Certify the transaction as legitimate by checking the farmer's stock card as proof of ownership (this card is given to the trader upon buying the animal).

Transporters Ferry livestock from the village to the abattoir.

Food health inspector Inspects animals at abattoir.

Cash providers Minibus operators and retailers who provide short-term cash to traders.

Banks Arrange transfer payments from abattoirs to traders.

Almost all of the livestock traders who operate in Mbire District have long-standing business arrangements with big abattoirs in Harare. The abattoirs buy from different traders, then slaughter the animals and sell the carcasses to butcheries, restaurants, hotels and supermarkets.

When the animals arrive at the abattoir, a livestock officer there inspects them and may reject those that are not up to standard. Those that pass the inspection are then weighed, slaughtered, checked by a meat inspector, graded, and weighed again. The meat is graded into the Economy Class (which fetches US$ 1.20/kg), Choice (US$ 1.60/kg) or Super (US$ 2.00/kg). A dressed carcass from a bull from Mbire weighs about 180–200 kg.

Traders' risks

The livestock trade is a high-risk business. Here are some of the challenges.

- **Physical challenges** Walking around the countryside in search of animals to buy is exhausting and can be dangerous because of wild animals. There are no formal or regular organized markets for livestock sales because of the remoteness of the area, the lack of communication facilities and the small numbers of livestock available for sale.
- **Unplanned expenses** Traders often pay "informal taxes" (bribes) to facilitate the transport of livestock at night – which is not allowed in Zimbabwe.
- **Livestock health** The abattoir's livestock officer inspects each animal before slaughter, and the government food health inspector checks the meat afterwards. Both may reject it. The animal may also be condemned if laboratory tests reveal a problem. All these are risks for the trader, but occur rarely, maybe not more than five times a year. More cases occurred when the farmers brought cattle to the abattoirs on their own, since they lacked the skills and knowledge of the quality of livestock required. Some abattoirs have established feedlots where they can fatten up unfit animals and bring them back into shape. But that does not benefit the trader.
- **Communication** There is no mobile phone coverage in Mbire, so the traders are often ill-informed. They have often been surprised by developments in Harare that have a major impact on their business.
- **Hyperinflation and economic collapse** The current hyperinflation in Zimbabwe creates a very difficult business environment. Bank loans are impossible to come by, cash is in short supply, and prices may rise in the course of a single day.
- **Government policies** In its efforts to fight the economic problems, the government issues instructions that may in fact exacerbate them. For example, in July 2007, the traders found that the abattoirs had slashed prices by 50% on government orders. The traders were faced with huge losses – they received less from the abattoirs than they had paid to the farmers a few days earlier. And the government recently closed down private abattoirs, leaving only the government-owned abattoirs operating. (Some of the private abattoirs have since been allowed to reopen.)

The difficulties in doing business have meant that farmers have found it more and more difficult to sell animals. They have turned to customary markets and small traders who buy individual animals for funeral feasts and other events. As a result, these local buyers are becoming more important as an outlet for animals. But they still cannot absorb a large number of livestock.

Recognizing traders

The traders provide a vital service to farmers in Mbire, as well as providing much-needed meat to consumers in Harare. But this role is seldom recognized.

The traders say they need acknowledgement and recognition in the communities they deal with, in the business world at large, and by government. They hope this will take the form of bank loans and other initiatives that will enable them to expand their operations and reduce the level of risk they face.

The traders of Mbire know each other, and they collaborate on occasion. For example, they avoid sourcing animals from the same areas at the same time, and they may alert each other to a business opportunity if they cannot use it themselves. But they still compete with one another for business, and they have no association to coordinate activities either within the group of traders or with their suppliers and customers.

Organizing to overcome problems

The farmers of Mbire now realize that the trader is an essential part of the chain. But the farmers also want to improve their own situation.

- **Stronger position in the chain** The farmers want to strengthen their position in the chain – to become full partners in it. That means gaining more control over how the chain is organized. They need better information on prices and market forces, and training so they can make informed decisions.
- **Organizing** To gain influence, the farmers need to form a livestock producers' association that will represent them and keep them informed and involved in market activities. The Zimbabwe Farmers Union, the national organization of farmers in the country, is supposed to fill this role, but has been inactive lately because of funding problems.
- **Remote areas** Traders rarely venture into remoter areas in search of livestock – the roads are bad and distances too great. Farmers in these areas need a more reliable market arrangement so they can sell their livestock.

Improving chain cooperation

Strengthening the level of cooperation between traders and farmers would benefit both. From the traders' point of view, a system that would identify animals ready for sale would save the huge amount of time and effort the traders currently spend scouring the countryside for livestock to buy. The farmers, for their part, need a steady supply of reliable information on prices and market conditions. The slaughter sheet that the trader gives to the farmers after the sale is certainly a good start.

Organizing is key to avoiding problems like those in 2006, and is vital to create such a partnership and build mutually profitable business relationships. The farmers and traders of Mbire are still feeling their way towards such arrangements. The Lower Guruve Development Association can play a key role in helping both sides do this.

Table 4.1 Value shares of actors in the livestock value chain, Zimbabwe

US$ per head of cattle (€1 = $1.32)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer		222		222		41%
Trader	246	316	70	94	22%	17%
Abattoir*	316	462	146	146	32%	27%
Retailer	462	544	82	82	15%	15%

* Average of 11 abattoirs in the Lower Guruve Development Association study of livestock markets.

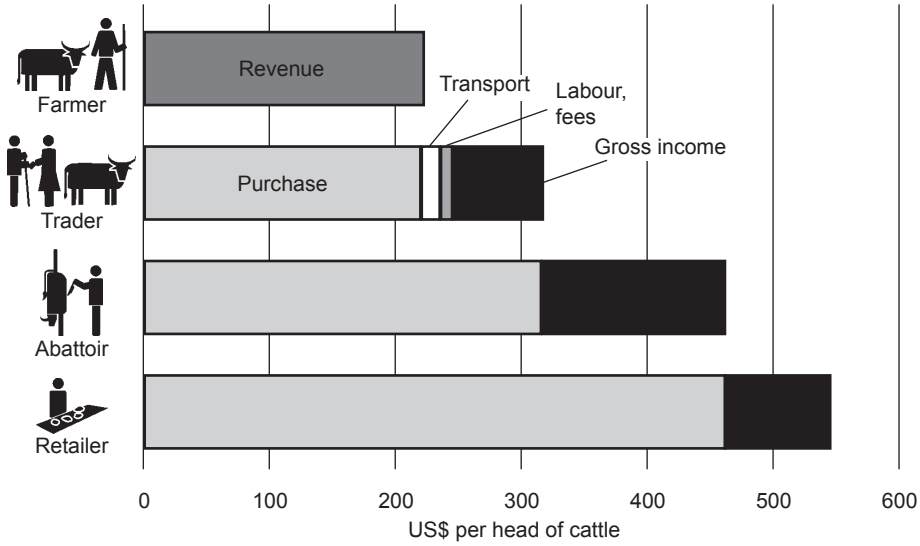


Figure 4.1 Costs and revenues of actors in the livestock value chain, Zimbabwe

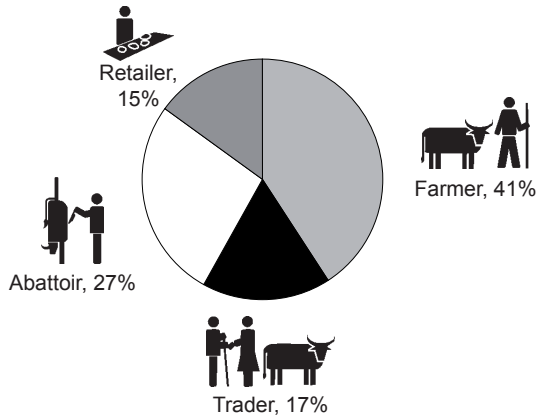


Figure 4.2 Value shares of actors in the livestock value chain, Zimbabwe

Value shares of actors in the marketing chain

Hyperinflation in Zimbabwe – in 2007 over 7,500% a year (and rising) – makes trading very risky. It also means that reporting prices is difficult. Table 4.1 shows some estimates in US dollars, converted from Zim$ at the then "parallel market" (black market) rate for the value shares of a cow raised in Mbire and sold at an abattoir in Harare.

The farmer receives an average of US$ 222 for a cow (41% of the final value, Table 4.1, Figure 4.1). This percentage reflects the time and expense required to raise the animal, as well as the costs of feed, health care, etc. that this entails.

The trader earns about 17% of the end-price of the cattle, but takes on much of the risk and provides many services to the farmers and the abattoir (Figure 4.2).

The abattoir earns 27% of the final value. This figure covers everything from inspecting the animals when they arrive at the abattoir to transporting the cooled sides of beef and other products to the retailer.

The retailer earns the final 15% of the retail value, reflecting the cost of preparing cuts of meat from the sides of beef, and of selling the meat to customers.

How the market structure has changed

Before 2006, the farmers sold directly to the traders, but relations were poor (Figure 4.3). In 2006, farmers tried to bypass the traders by selling directly to the abattoirs. After experiencing problems, they reverted to using traders, but under new conditions: more transparency and a greater sense of partnership.

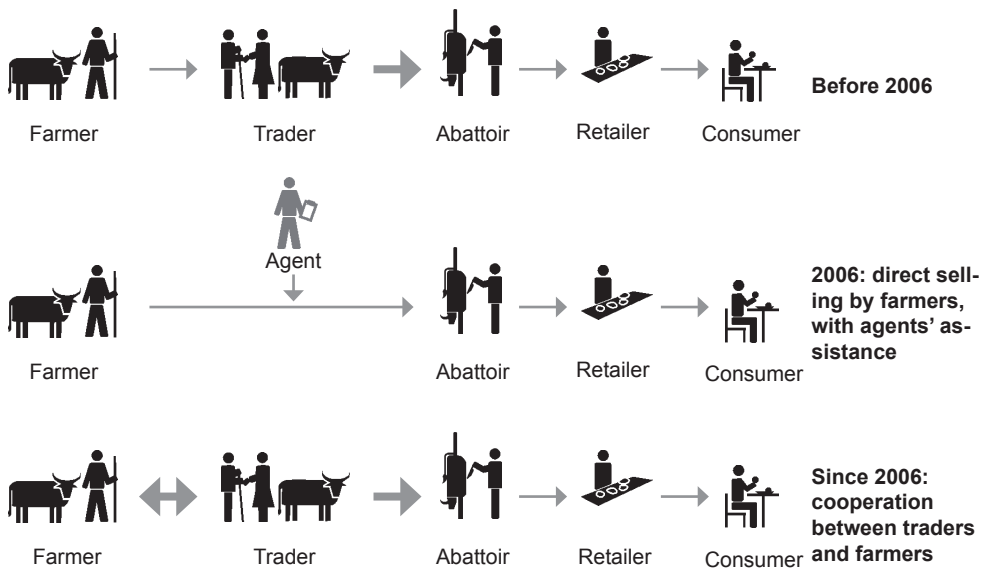


Figure 4.3 Changes in the livestock market structure, Zimbabwe

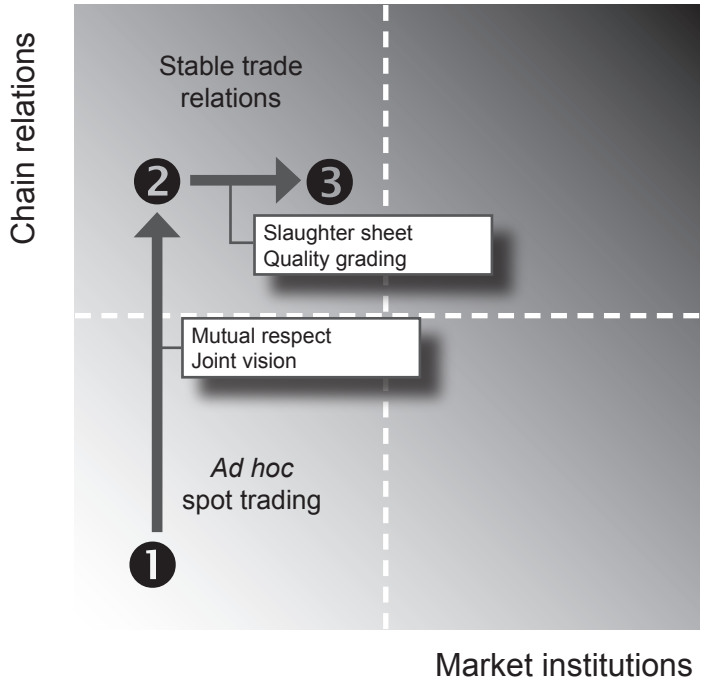


Figure 4.4 Chain relations and market institutions in the livestock trade, Zimbabwe

Chain relations and market institutions

The livestock traders and farmers of Mbire used to distrust each other, and there were few agreed rules for interacting ❶ (Figure 4.4). They have since have developed stronger chain relations: there is more mutual respect and better communication between the two, and they have a joint vision of each others' specialized roles in the livestock chain. ❷

They have also developed stronger market institutions. The slaughter sheet provides transparency, and the trader provides better business support services through brokerage (finance, certification by public authorities, health check, grading). ❸

More information

Daniel Sinkula, Damjesi Investments (Pvt) Ltd., jemiard@yahoo.co.uk

Ephraim Murendo, Lower Guruve Development Association, emurendo@telco.co.zw, lgda@mango.zw

Keep tomatoes moving: Strengthening cooperation between traders and farmers in Ghana

A CROWD OF ANGRY young Ghanaian farmers surrounded the lorries at Navrongo – 10 km from the Burkina Faso border. The lorries were on their way north to fetch tomatoes destined for Accra, the Ghanaian capital, and other cities in the south.

The farmers deflated the tyres of two lorries that tried to inch their way through the crowd, and attacked the drivers, women traders and their helpers who were aboard. A group of young men employed by the traders heard of the dispute, and gathered to defend their bosses. A tense standoff ensued.

The police – alerted by urgent phone calls from the traders' association – rushed in reinforcements and managed to defuse the situation. Some of the drivers and traders were beaten up and robbed, and four women sustained injuries. The police arrested 14 farmers.

Why did this battle occur? The farmers were protesting against the traders bringing in tomatoes from across the border. The farmers had been promised that a newly reopened processing plant nearby would buy their tomatoes. But the plant was still not up to capacity, and the farmers' crop was rotting in the fields. The farmers were faced with ruin. Unable to repay their loans, two had already committed suicide.

The traders had been buying from farmers in Burkina Faso for many years. Unlike the Ghanaian growers, the Burkina farmers allowed the traders to grade and select the tomatoes they bought. So the Burkina tomatoes kept well on the long road south. If the traders bought the ungraded Ghanaian tomatoes, they would lose money.

Reaching an amicable solution

The confrontation, on 1 March 2007, achieved national prominence – it even hit the international media. The government acted quickly. The Upper East Regional Security Council in collaboration with the Ghana National Tomato Traders Association and the 2006 National Best Farmer (the winner of a farming award) organized a meeting between the traders and farmers to resolve the dispute. The farmers apologized, and a deal was brokered between the two sides. A working committee has been formed to handle grievances between the two parties.

The traders agreed to buy a large quantity of tomatoes in the Upper East Region if farmers allowed them to grade the tomatoes beforehand and purchase only the best grade. A committee of traders and farmers was set up to negotiate prices each week. All traders in the National Tomato Traders' Association are obliged to buy at the agreed price.

The Minister of Trade formally commissioned the tomato processing plant a few weeks later, though it is still not connected to the electricity grid, so is not fully operational.

Delicate tomatoes

The tomato is a very perishable vegetable. Without good cooling facilities, the farmer or trader can face huge losses if the movement from farm to consumer is interrupted for any reason. An oversupply of tomatoes, either on the farm or in the market, can also cause massive losses. Since fresh tomatoes cannot be stored for the lean season, the supply fluctuates dramatically throughout the year.

Ghanaians use tomatoes in almost every meal, so the price rises sharply in the dry season when they are scarce. Traders have to invest a lot of capital at this time in order to buy the crop. When there are plenty of tomatoes, the farmers give the traders tomatoes on credit so they can sell them. When tomatoes are scarce, the traders may lend money to the farmers to ensure delivery when the crop is ripe.

Seasonal supplies

The cities in the south of Ghana draw their tomato supplies from different regions at different times of year. In the south, tomatoes are plentiful from July to December. Travelling traders buy them at the farm or at collecting markets where farmers bring their produce in from the villages.

From January to March, the only tomatoes harvested in Ghana come from irrigation projects in the remote Upper East Region, on the border with Burkina Faso. Conveyors from all the big cities in southern Ghana move to the Upper East Region in those months, competing to bring home tomatoes. They pack the tomatoes in big wooden crates of a standard size (58 kg). Despite the high cost of transport, the high price of tomatoes in the cities during this time rewards this extra effort by traders.

When the rains come, traders return south and buy tomatoes from closer to home. Upper East farmers turn to planting their staple cereals and other crops for sale through local markets.

The high risk of spoilage and fluctuating prices means that tomato traders face an uphill task in safeguarding their operating capital. A trader's livelihood can be wiped out completely if a truckload of tomatoes remains unsold, or if the vegetables rot when the lorry breaks down for more than a day (Box 4.3).

Tomato queens

Tomato traders are organized under "tomato queens". The queen settles disputes between traders, and represents them in negotiations. The tomato queen is selected by all the tomato traders, and is later introduced to the local traditional community leaders and the district assembly.

Queens are not removed. When they retire or die, they are replaced by their deputies.

Founding a national organization

The National Tomato Traders Association was founded around 1985 to address various problems: market gluts leading to price fluctuations, traders who failed to honour payment agreements or those who disappeared entirely, and exorbitant transport fees (a result of the traders' inability to bargain with truck drivers effectively). Freight charges were rising as fuel prices increased. Many farmers had stopped supplying tomatoes to traders on credit, and the traders did not have enough capital to purchase the entire crop at harvest time.

The tomato queen from the Makola market in Accra began the group, and she convinced tomato trader leaders in other cities to join as local chapters. Many traders were sceptical at first as they felt threatened, especially those who enjoyed

Box 4.3 A risky business

Abena Mansa started learning about tomato trading early – as a baby on her mother's back. At an early age, she helped her mother sell tomatoes in the market. And after she married and started a family, she branched out as a trader on her own.

At first, she sold tomatoes from her mother's retail stall. Her aunt brought tomatoes from Bolgatanga, in the Upper East Region of Ghana. When her aunt got too old to travel, Abena took over that end of the business.

One day on her way from Bolgatanga to Koforidua with other traders, the fully loaded tomato truck on which they were travelling developed problems and they had to spend 2 days on the road. The tomatoes rotted. Abena lost all her capital, and was unable to repay the loans she had taken.

Now she lives at the mercy of other travelling traders, who give her tomatoes on credit to sell in the market. She pays the traders back afterwards. She is still struggling to pay off her debt. Her problems have affected her family too, as her tomato business was their main source of income.

a near monopoly. They did not want to be tied down by rules and regulations that an association might impose.

The national umbrella group has grown to about 5,000 members. About 85% of its members are women. All ten regions of Ghana now have associations which regulate activities of the traders at the regional level. Each regional association is made up of locals (markets) within the region. Over 60 local associations range in size from a dozen members to several hundred, and they are grouped into the ten regional associations. The national and regional associations derive their strength from the locals. Regional meetings are held monthly in the regional capitals; national meetings are held quarterly and rotate among the regions. Elected officers are not paid.

To regulate trading activities between farmers and traders, the association designed a form which is completed by the trader, farmer and lorry driver. Copies of the completed forms are kept at the regional and national association offices. The form provides the contact details of the driver, trader and farmer. Farmers can consult a national registry at the association office to track down traders who may have defaulted on credit agreements. In the event of accidents, the form also helps the police to contact the association office in the trader's home town.

The Association has assisted farmers to locate rogue traders who have defaulted on credit. Those who provide false information on the form can be located by markings on their tomato crates, which are given code numbers for each region.

Some members of the association give farmers soft loans before the tomato harvest. But the Association has had to step in to resolve a number of cases where farmers who have taken such loans refuse to sell the tomatoes to the trader who gave them the credit, complaining that the traders offered them prices that were too low.

Box 4.4 From white collar job to market trading

Theresa Amakye Fiawotso came into tomato trading from white collar work. She worked as a technical assistant at the Cocoa Research Institute, and then as a women's organizer for the General Agricultural Workers' Union of the Ghana Trades Union Congress. She got involved with the Koforidua tomato sellers when the National Tomato Traders' Association was being formed. She accompanied the Koforidua tomato queen to the national meetings.

By 1993, Theresa was trading full time. She is secretary for her local traders' group and the Eastern Regional Association, and also one of two deputy secretaries of the national association. She played a leading role in the formation of the Eastern Regional Tomato Traders' Association.

In the dry season every year, she travels to Burkina Faso (1,000 km away) and the Upper East Region (750 km) to buy tomatoes to sell in Koforidua.

Some traders are still not members of the Association. These "floating" traders dump their tomatoes in any market, causing price fluctuations and local gluts.

Local associations

Each local association includes the travelling traders, city wholesalers (these exist only in Kumasi, Ghana's second largest city), and retailers. The local travelling traders are divided into smaller groups of traders who rent a lorry together and take turns going out to the farms in search of tomatoes. A trader pays membership dues in kind: in the Koforidua market, for example, the trader pays four tomatoes from each crate she sells. One tomato goes to the local tomato queen, and three go to the association to pay expenses and salaries.

Each local association represents one market, and reports to the tomato queen there. To join a local association, there is a registration fee of GH¢ 60–150, depending on the size of the market. Each trader has her own wooden crates with a symbol and code on them, for easy identification. She can give her crates to another trader in her group to buy tomatoes for her.

Traders in the local association elect officials under the supervision of representatives from their regional association. Each "car" (a group of seven or more traders who travel together) selects one member to represent them on the local council. Those local officials elect regional officers, who in turn elect the national officers.

Members face strong social pressure to obey the regulations of their association, and they can even be suspended from trading for several months if they refuse to comply.

The Koforidua association provides an example of such a regulation. The supply of tomatoes to the twice-weekly market used to be erratic, leading to unstable prices. So the association agreed to divide into two groups: one would bring in tomatoes to the market only on Mondays, while the other supplied retailers on

Thursdays. The association members agreed on the number of crates each member could send to the market.

New initiatives

The national Association has started several experimental programmes. Drivers who are members of the Cargo Drivers' Union are now also members of the Tomato Traders' Association. In 2005, the chairman of the Kumasi Branch of the Cargo Drivers' Union was appointed as the national chairman of the National Tomato Traders' Association. It is hoped that this will smooth negotiations over freight charges. Drivers of trucks carrying tomatoes do not pay dues, but the Association has proposed that each truck pay a fee of GH¢ 5 per trip to the Association.

The Association has tried to persuade its members to join government-sponsored social protection programmes such as the national health insurance scheme, voluntary savings, pensions and disability benefits. It has organized workshops to raise members' awareness on health issues such as breast cancer. It has given emergency support for school fees of children of traders in need, and is considering a formal scholarship scheme. It has also lobbied for direct government support through subsidized credit, transport or protection from tomato paste imports.

With the amicable settlement of conflicts between the tomatoes traders and farmers in the northern regions of the country, the traders are now supporting farmers in the other regions to form associations. They believe this will help to strengthen the trading activities between the two parties. A meeting in August 2007 at Bechem in the Brong Ahafo Region started the process of helping farmers to start tomato farmers associations.

Benefits

With the formation of the Tomato Traders' Association, tomato trading activities are now better organized than before, farmer–trader relationship have improved, and there is better collaboration between traders and the tomato cargo drivers. Benefits include the following:

- **Improved relationships** The relationship between the farmers and traders has improved since the association was formed. Mutual mistrust and suspicion and accusations from each side have been minimized.
- **Easy identification** The Association has assisted farmers to locate their clients based on information provided on the forms. Those who provide false information on the form can be located by the markings on their crates. This has led to the easy identification of fraudulent traders. In case of accidents, the security personnel are able to identify the traders involved through the information on the forms.

- **Market glut minimized** Fluctuations in the supply of tomatoes have been evened out, and prices are more consistent, reducing the losses suffered by traders.
- **Recognition** The Association has gained national recognition by government institutions, including the security services, which provide security whenever the need arises.
- **Consistency in transport charges** The Association acknowledges that the transport charges are still high, but there is now consistency. The Association negotiates with the drivers' union to agree on a standard fare for each crate of tomatoes, thus bringing uniformity to freight charges.
- **Social protection programmes** As a result of the Association's encouragement, many traders have joined government social protection programmes. Local associations also have their own informal social protection schemes to assist their members.

Challenges

- Floating traders who dump produce on the market are still a problem. A glut in the market makes it likely that traders will make big losses, which can mean they are unable to buy large quantities of tomatoes from farmers. Both farmers and traders lose.
- Imported canned tomato paste poses serious competition to tomato producers and traders alike. Many consumers buy canned paste, leading to a considerable loss of market share for the fresh tomato traders.
- Rising fuel prices raise the cost of transporting tomatoes, making it less attractive for southern traders to source tomatoes from northern areas. That means northern farmers may not be able to sell their crop, and consumers have to pay more for fewer tomatoes. The higher transport costs also raise the stakes in case of spoilage, when both the travelling trader and retailer incur huge losses.
- The overuse of agrochemicals by farmers reduces the quality and durability of tomatoes.
- The high cost of farm inputs, including agrochemicals, pushes up the cost of growing tomatoes, and is reflected in the cost of tomatoes paid by consumers.
- The poor basic infrastructure, including inaccessible roads to many farming communities, is a major constraint for the production and marketing of tomatoes.

Table 4.2 Value shares of actors in the tomato value chain, Ghana

GH¢ per crate of tomatoes, dry season (€1 = GH¢ 1.35)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer		5.00		5.00		21%
Trader	16.80	20.00	3.20	15.00	16%	63%
Retailer	20.00	24.00	4.00	4.00	8%	17%

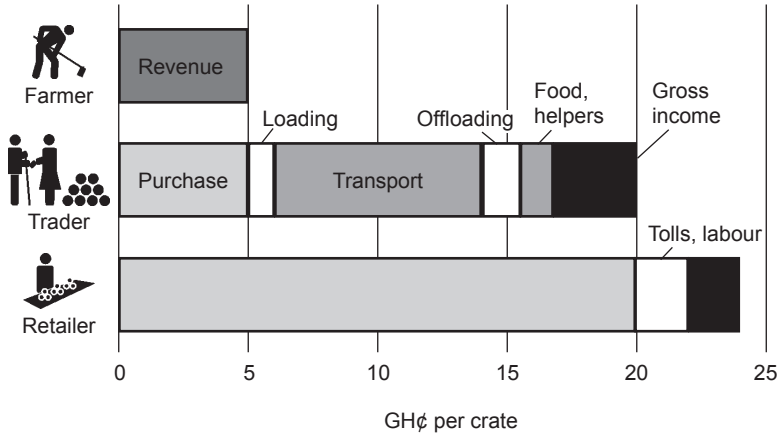


Figure 4.5 Costs and revenues of actors in the tomato value chain, Ghana

Value shares of actors in the marketing chain

The trader pays the farmer an average of GH¢ 5[1] for a crate of tomatoes in January to March, in the dry (scarce) season, when the traders buy form the distant Upper East Region. She sells the same crate to a retailer in the city for GH¢ 20, and the retailer sells the contents in small amounts to consumers for a total of GH¢ 24 (Table 4.2).

The trader has to pay for various expenses along the way (Figure 4.5). The biggest cost is transport, at GH¢ 8 per crate, or 40% of the sale price to retailers (Figure 4.5). Other costs include the purchase price of the tomatoes (25%), loading (5%) and unloading the crates (8%), and food and helpers' wages (7%). This leaves the trader with a profit of only GH¢ 3.2 per crate, or 16% of her sale price. These expenses explain why the traders's value share, at 63%, is so large (Figure 4.6).

1 The Ghanaian currency, the cedi, has recently been reformed. All prices here are in the new cedis: GH¢ 1 (new) = ¢ 10,000 (old) = €0.74; €1 = GH¢ 1.35.

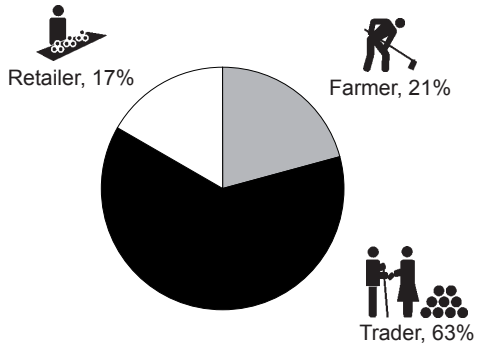


Figure 4.6 Value shares of actors in the tomato value chain, Ghana

How the market structure has changed

Before 1985, the various traders acknowledged the tomato queen, but they had not organized themselves to regulate the market. Tomato quality, quantities and prices varied widely (Figure 4.7).

With the formation of the Tomato Traders' Association, the travelling traders and retailers were able to regulate the market, control quality, and manage the flow of produce available for sale.

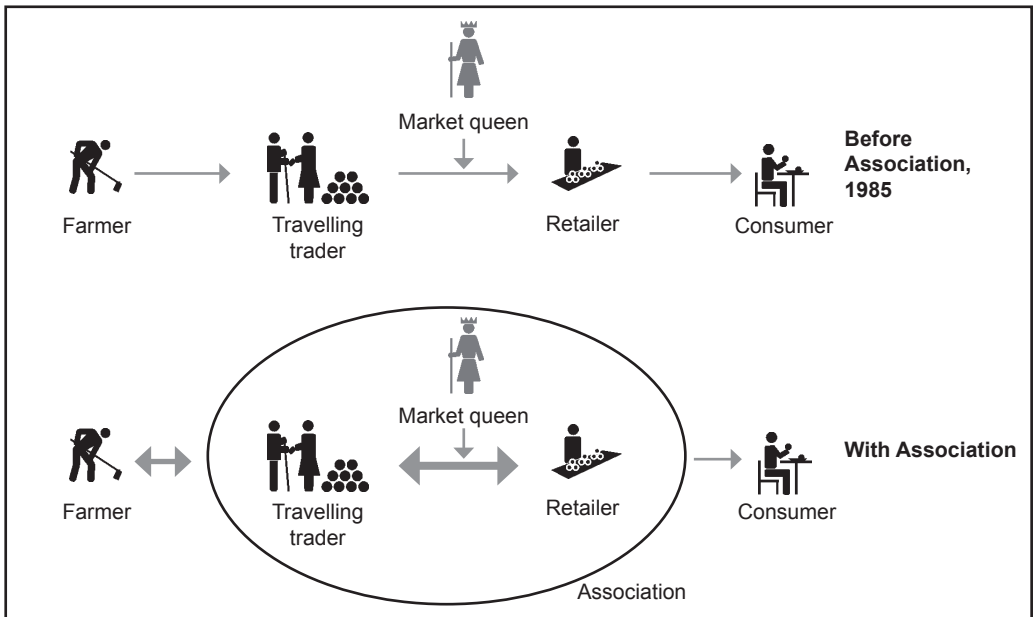


Figure 4.7 Changes in the tomato market structure, Ghana

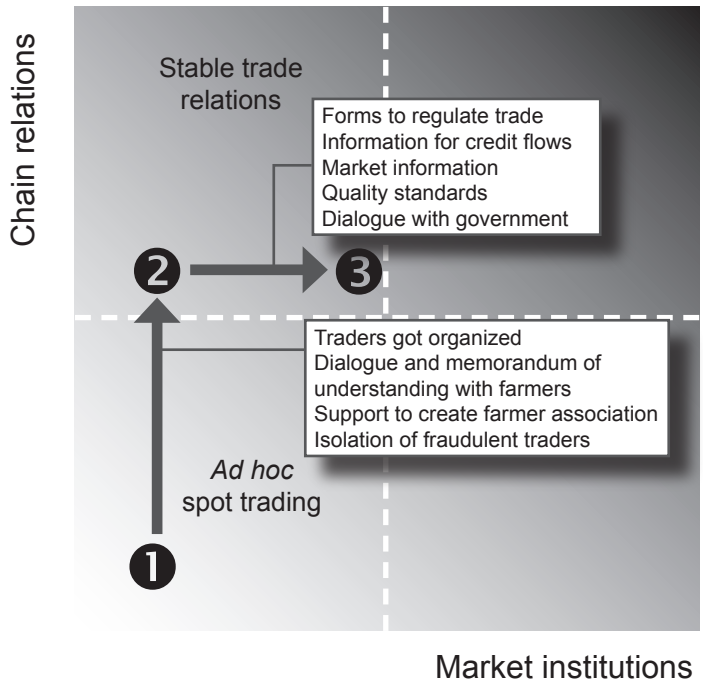


Figure 4.8 Chain relations and market institutions in the tomato trade, Ghana

Chain relations and market institutions

Initially, neither traders nor farmers were organized (Figure 4.8). Traders would act as individuals, and negotiate with farmers on an *ad hoc* basis. ❶

With the Association, the traders got organized. They negotiated with the farmers and reached a memorandum of understanding with them. The Association has begun moves to create a tomato farmers association to act as its counterpart. ❷

The Association has created a number of market institutions. These include the forms that regulate the trade, the codes on the traders' crates, the provision of information on credit and on individual traders, the improved availability of market information, and the setting of quality standards. ❸

More information

Theresa Amakye Fiawotso, Eastern Regional Tomato Traders' Association

Patricia Blankson Akakpo, Network for Women's Rights in Ghana (NETRIGHT), netright@twnafrica.org, triciaakakpo@yahoo.com

Gracia Clark, Indiana University, gclark@indiana.edu

Rebuilding the milk trade in Kenya

When Kenya Cooperative Creameries collapsed in the early 1990s due to mismanagement and political interference, dairy farmers in Kenya had limited options to sell their milk. The Creameries were the only large-scale milk processor in the country. Poor infrastructure and a lack of cooling facilities made it difficult for farmers to take their milk to the towns, where demand was high. The farmers reduced the number of dairy cows, and tended to manage their remaining animals poorly. Productivity per cow fell drastically, and local marketing cooperatives collapsed. Thousands of farmers abandoned dairying altogether.

Dairy farmers in Chepkorio in Keiyo district in the North Rift region were among the worst hit. For the next 10 years, they were able to sell milk directly only to local hotels and schools in Eldoret town, about 300 km northwest of Nairobi. Only a few farmers were in a position to transport their milk to these markets.

Several individual traders started buying milk, taking it to town and hawking it there. They would buy milk from farmers for as little as KSh 8 per litre, then sell it to customers for about KSh 20. That somewhat relieved the farmers from

having to find customers on their own. The emergence of several private milk processors in 2000 further increased demand for the milk, though they did not have enough processing capacity to take all the milk the farmers produced.

The government's revival of Kenya Cooperative Creameries in 2003 radically improved the price of milk. But the Chepkorio farmers still relied on the vendors to buy their milk, at low farm-gate prices.

Elreco and the Kong'asis coop

Elreco is a development organization affiliated with the Anglican Diocese of Eldoret, working with communities in the North Rift. In May 2006, as part of the ICCO-supported Economic Livelihoods Project, Elreco studied the milk marketing situation in Chepkorio. It found that the farmers lacked the bargaining power and organization to influence the marketing of their product. Without an organized market, the traders did not have the capacity to buy even the reduced amount of milk the farmers were still producing. The farmers and traders mistrusted one another and had no long-standing mutual relationships.

As a result of the study, Elreco mobilized the farmers of 16 self-help groups, with over 400 members, to form the Kong'asis Farmers Cooperative Society (Box 4.5). This society aimed to organize the marketing of milk and potatoes (a major crop in the area). Members, who must be dairy farmers residing in the area, pay a membership fee of KSh 100.

The members elect a committee of nine people to manage the cooperative. Elreco and the committee identified a milk processor, Brookside Dairies, willing to buy the coop's output. They negotiated a contract to supply this buyer with 5,000 kg of milk per day. The cooperative then arranged to collect the milk at seven collection points in the villages, and to transport the milk to the processor. The farmers sell milk to the processor via the cooperative for KSh 16 per litre, and the coop deducts KSh 2.70 to cover transport and administrative expenses. Brookside Dairies sells milk and other dairy products at supermarkets and other outlets throughout Kenya; the shelf price for 1 litre of milk is KSh 70.

Box 4.5 David Kiptoo joins the Kong'asis coop

"When Elreco started a cooperative in November 2006, I decided to buy two dairy cows and register as a member because I was now sure that help had come to enable me to sell my milk at a profit. Initially, we were getting KSh 7 per kg of milk. They are now paying KSh 16, with plans to increase it to KSh 19.50 in the near future.

"In addition to organizing the marketing for my milk, the cooperative has organized credit facilities with the local stores to allow me to get dairy meal and drugs. The credit even allows me to buy seeds and fertilizers for my farm. The cooperative also gives cash advances during difficult times. I personally prefer the cooperative because they pay a monthly lump sum which is easier to budget with."

The new cooperative has resulted in various benefits for Chepkorio's farmers:

- **Guaranteed market** The cooperative has negotiated a contract with the milk processor, which ensures a ready market for the milk.
- **Transport** The cooperative now organizes a vehicle to pick up the milk from the farmers and take it to the processor. The coop pays for this service and deducts the cost from the farmers who use the service.
- **Better prices** The better prices offered by the cooperative prompted the traders to raise their buying price at farm gate from KSh 8 to 15 (those traders who were unable to raise their prices went out of business). So the cooperative set a floor price for milk in Chepkorio.
- **Prompt payment** The cooperative pays farmers promptly at the end of each month. Traders have followed suit, and have even negotiated more frequent payments.
- **Increased yields** Elreco and the coop have arranged for the farmers to be trained on dairy management. This encouraged them to trade their low-

Box 4.6 "It's gold to me"

"My name is Edwin Bett. I started trading in 2000 after the collapse of the Kenya Cooperative Creameries because there was plenty of milk around but the farmers had nowhere to sell it. I used to pay KSh 8, but now I buy milk from the farmers at KSh 15 and sell it at KSh 25 a kilogram.

"I begin my day at 6 a.m. by collecting milk from various households and loading it on my bicycle. This takes me about an hour and a half. It takes 3–4 hours to cycle from the hilly Chepkorio to Eldoret town, about 40 kilometres away, with my heavy load of 120 kg of milk. When I have more milk, I use public transport. I drop off the milk at hotels, milk bars and learning institutions.

"Chepkorio's 20 milk traders cooperate by agreeing on the price of their commodity. There are the occasional renegades who short-change the agreement and reduce the price of the milk they sell to KSh 22 so that they can get more customers. The poor infrastructure, price fluctuations, lack of capital and strict regulations by the Kenya Dairy Board challenge my operations. Before I got a license, the Board sometimes arrested me for failing to register with them. They poured away the milk and my day came to an abrupt end. Licenses are costly and most of us small traders cannot afford to pay for them – there is a scheme where 10 traders can get a group license costing KSh 8,000 for a year.

"Having a dairy cooperative has not affected my business because several farmers in Chepkorio sell a portion of their milk to me as well as to the cooperative. I pay promptly for the milk, or according to an agreement with the farmers. The cooperative, on the other hand, pays on a monthly basis. In addition, the cooperative charges KSh 3 for transport on every kilogram of milk. To enhance my relationship with my producers I have arranged with the local stores to let them take feed and other farm inputs on credit.

"When I have excess milk, I ferment it and sell it to milk bars and hotels in Eldoret. So I never lose milk even though I don't have a proper way of storing it.

"From my milk business, I have bought a town plot, and I also own two dairy cows. On my farm at Chepkorio, I plant maize and other subsistence crops. I am even able to employ an assistant."

performing stock for high-yielding dairy cows, and to manage their herds better.

- **Credit** The farmers can access loans from commercial banks. The coop uses its agreement to supply milk to Brookside Dairies as a bank guarantee. One bank has a tailor-made credit facility for dairy farmers; it charges 12–13% interest a year, lower than the general commercial rate. Under this scheme, farmers who are organized can get loans as individuals. The banks check the coop's records for deliveries from the farmers who apply for a loan. Elreco educated the Chepkorio farmers about the existence of such loans, and facilitated the linkage to the bank.
- **Employment and business openings** The cooperative provides employment and generates business opportunities.
- **Standardized measures and record keeping** Some traders previously measured the milk they bought in non-standard-sized cups. The coop has introduced standard measures and keeps records of the amounts bought and sold.
- **Quality controls** The coop weighs and checks the quality of the milk from each farm every morning. It checks for possible disease and adulteration before pouring the milk into a common container. An extension worker tours the farms to check the animals' health, especially in areas where disease is a problem.

The farmers

Dairying is a major livelihood in the Chepkorio area, along with potato and vegetable farming. Milk is a perishable product that must be cooled or processed at most 8 hours after milking. Most households in Chepkorio sell the morning milk and consume the evening milk themselves.

After the revival of the dairy sector, most farmers have begun improving their milk production. They have raised their productivity from 3 to 5 litres per cow per milking.

Milk prices fluctuate during the rainy season (April–August) when production peaks but when the roads may be impassable.

Table 4.3 shows the costs and income for one dairy cow at peak production in Chepkorio. It does not show the capital costs (the costs of equipment, housing or buying the animals), or income from selling calves or cows after they have reached the end of their productive lives.

A profitability analysis that includes these costs and revenues would reveal that one or two animals are not very profitable. The Chepkorio farmers seem to know this: the average farmer keeps three dairy cows.

Table 4.3 Gross margin for a dairy cow per month in Chepkorio, Kenya

€1=KSh 96

		KSh	Total
Inputs			
• Salt, licks		50	
• Spraying, dipping		60	
• De-worming		55	
• Feed		1,785	
• Veterinary services		500	
Subtotal			2,450
Labour			
• Napier grass		750	
• Milking		188	
• Transport		63	
S**ubtotal**			1,000
Cooperative			
• Coop charge	10 kg/day x KSh 2.70 x 30 days	810	
S**ubtotal**			810
Total costs			4,260
Income			
• Sale of milk	10 kg/day x KSh 16/kg x 30 days		4,800
Gross margin			540

Table 4.4 Profitability analysis for a milk trader in Chepkorio, Kenya

Costs	
• Milk purchases (100 kg/day x KSh 15 per kg)	1,500
• Transport	100
• Others	400
Revenues	
• Daily sales (KSh 25 per kg)	2,500
Gross margin per day	500

Traders

The traders kept Chepkorio's milk industry going in the 1990s with the demise of Kenya Cooperative Creameries. They still play a vital role: about 20 traders buy milk in Chepkorio and take it to Eldoret to sell (Box 4.6, Table 4.4). They benefit from the presence of the coop, since it assures that a certain volume and quality of milk is produced in the area. Several cooperative members continue to sell milk to the traders: they are more flexible in making cash payments than the coop. That means the farmers have a choice: they can sell their milk to the coop or to the traders.

The 20 traders in Chepkorio have got organized. They have agreed not to compete on the price they demand from retailers – though they negotiate individually with farmers, so their purchase price may vary from farmer to farmer. They can arrange for farmers to buy inputs on credit from local stores. Their organization lobbies on behalf of its members. However, the traders face various bureaucratic and regulatory challenges (see also Box 7.9, page 261).

Table 4.5 summarizes the roles of the various actors in the marketing chain, along with the challenges they face.

Opportunities and challenges

Various opportunities are opening for Kenya's dairy farmers. Rising demand from processors, including the revived Kenya Cooperative Creameries, means the farmers have alternative outlets for their milk. Coming together in cooperatives can let them access services such as credit and extension. With minimum investment and skill, the farmers can add value to their milk, for example by making yogurt. Financial institutions have cautiously introduced services at attractive interest rates for dairy farmers, though many farmers view these with suspicion. Most banks will not provide loans to farmers who are not members of a cooperative. The banks are also bringing their services closer to rural clients through mobile banking.

Nevertheless, challenges remain. Poor infrastructure makes it difficult and expensive to transport milk. Storage facilities are inadequate, so milk may spoil. Processors prefer to buy fresh milk which they prepare hygienically. Coolers are very expensive and out of reach for smaller cooperatives.

Value shares of actors in the marketing chain

In the 1990s, after the collapse of Kenya Cooperative Creameries, farmers earned only KSh 8 per kilogram of milk – or 40% of the price that traders received (Table 4.6).

By getting organized into the Kong'asis coop, the farmers have been able to improve their situation. They now have a more assured market, and they earn

Table 4.5 Actors and their roles in the milk marketing chain, Kenya

Chain actors	Roles	Risks, constraints
Marketing milk through traders		
Farmers	• Produce milk	• Livestock diseases • Price fluctuation
Traders	• Buy milk • Provide loans for feed	• Long distances from farms to market • Increased prices from processors
Small-scale retailers	• Sell milk and milk products to consumers	• Interruptions in deliveries • Unsold product • Unpredictable market
Marketing milk through Kong'asis cooperative		
Farmers	• Produce milk	• Livestock diseases • Price fluctuation
Milk processor (Brookside Dairies)	• Buy milk from farmers • Ensure quality of milk is maintained • Pay on schedule • Provide extension services	• Market price fluctuation • Low consumer demand for milk • High overhead costs • Insufficient supply of milk
Supermarkets	• Sell milk and milk products to consumers	• Unsold product • High transport costs
Service providers		
Kong'asis Co-operative Society	• Bulk and organize transportation of milk • Pay farmers • Negotiate price	• Unreliable transport • Mistrust by farmers • Poor infrastructure
Elreco	• Link to markets • Negotiate prices • Organize farmers to join cooperative	• Unrealistic expectations from community
Ministry of Cooperative Development and Marketing	• Regulate/supervise co-operative movements in Kenya • Capacity building co-op officials	• Limited funding
Ministry of Agriculture and Livestock Development	• Technical support	

Table 4.6 Value shares of actors in the milk value chain, Kenya

KSh per kg milk (€1 = KSh 90)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
1990s, after collapse of Kenya Cooperative Creameries						
Farmer		8.00		8.00		40%
Trader	8.00	20.00	12.00	12.00	60%	60%
2007, marketing milk through traders						
Farmer	11.50	15.00	3.50	15.00	23%	50%
Trader	20.00	22.00	2.00	7.00	9%	23%
Retailer	24.00	30.00	6.00	8.00	20%	27%
2007, marketing milk through Kong'asis cooperative						
Farmer	14.20	16.00	1.80	16.00	11%	23%
Brookside Dairies	31.00	46.00	15.00	30.00	33%	43%
Super-market	50.00	70.00	20.00	24.00	29%	34%

more on each kilogram of milk. By selling through the coop to Brookside Dairies, which in turn sells to supermarkets, the farmers can earn KSh 13.30 per kilogram (after paying for the coop's services). That's 27% of the much higher supermarket price of KSh 70 (Figure 4.9).

Responding to competition from the coop, the traders now give the farmers a better deal. They pay the farmers KSh 15 per kilogram of milk, or 50% of the end price of KSh 30 when the milk is sold through local retailers. The farmers are in fact better off by selling to the traders, but only if the coop exists to set an effective floor price for milk in the area. The traders themselves receive about a quarter of the end price (Figure 4.10).

How the market structure has changed

Previously, farmers had little choice but to sell their milk to one of the few traders, who then sold it directly to consumers (Figure 4.11). Now, both farmers and traders have a choice: the farmers can sell through the coop or to traders; the traders can sell to processors or to consumers.

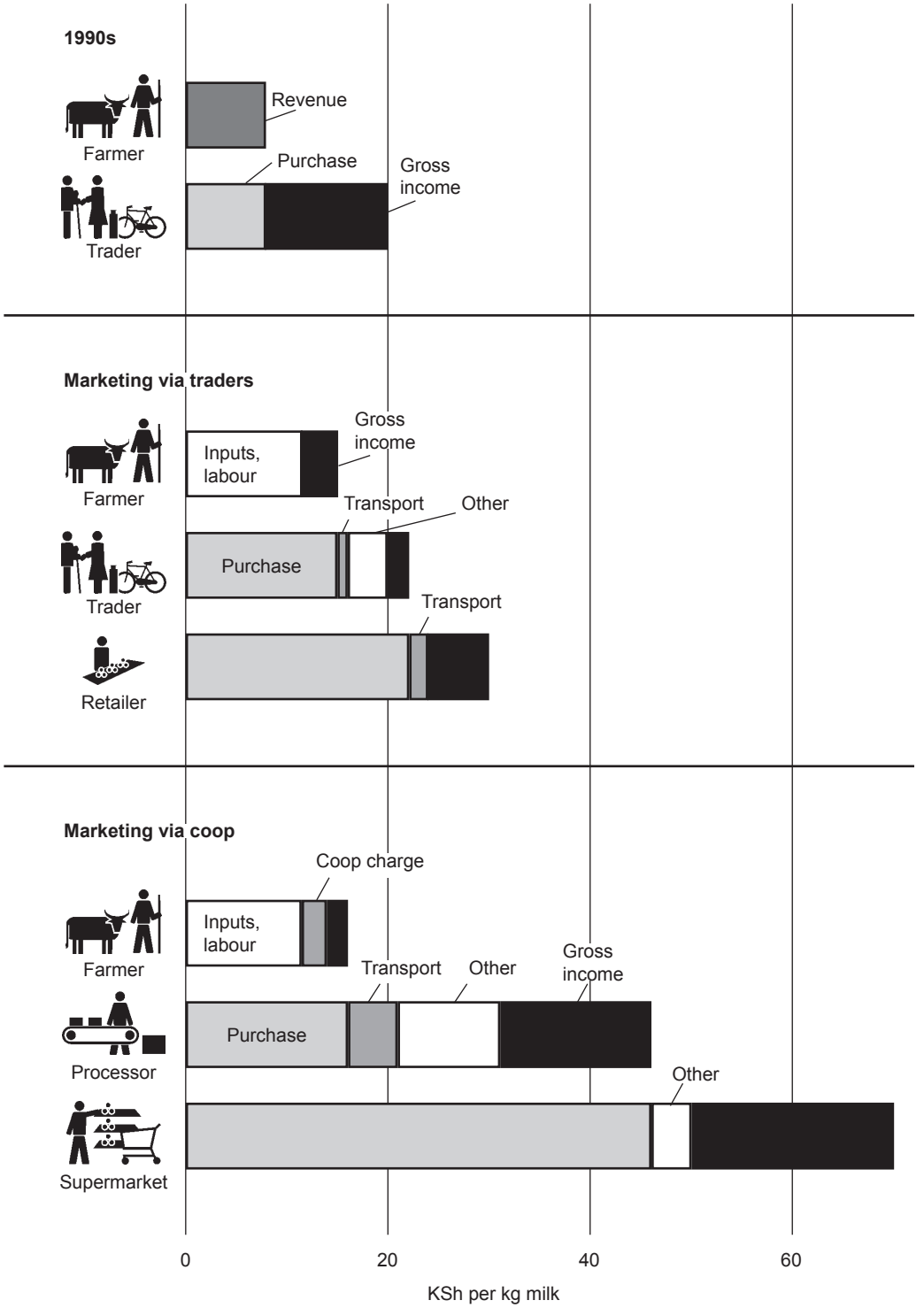


Figure 4.9 Costs and revenues of actors in the milk value chain, Kenya

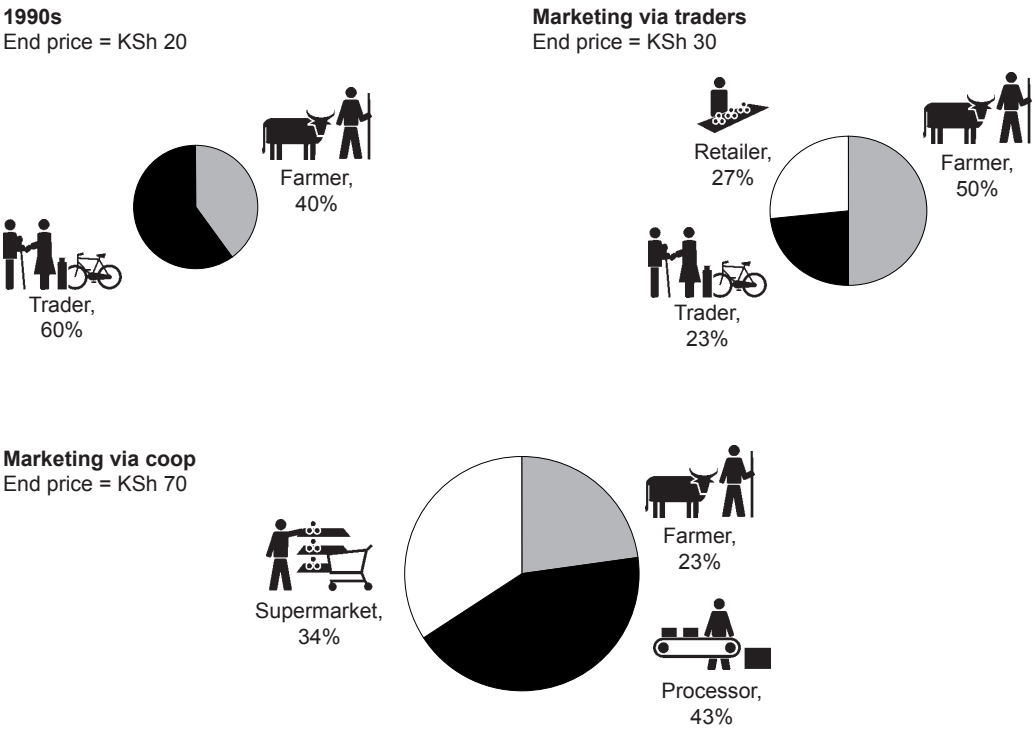


Figure 4.10 Value shares of actors in the milk value chain, Kenya

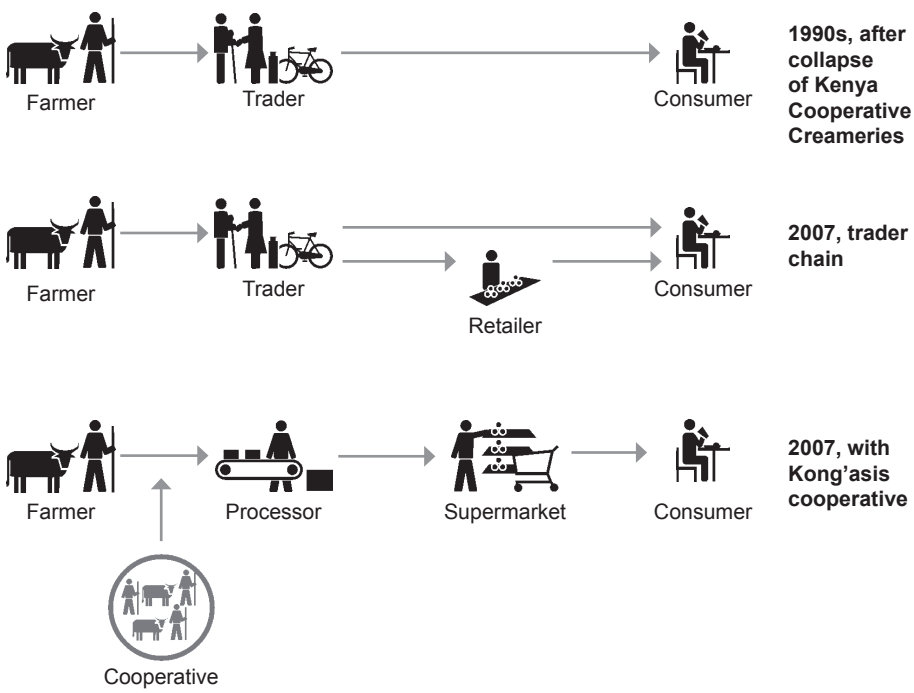


Figure 4.11 Changes in the milk market structure, Kenya

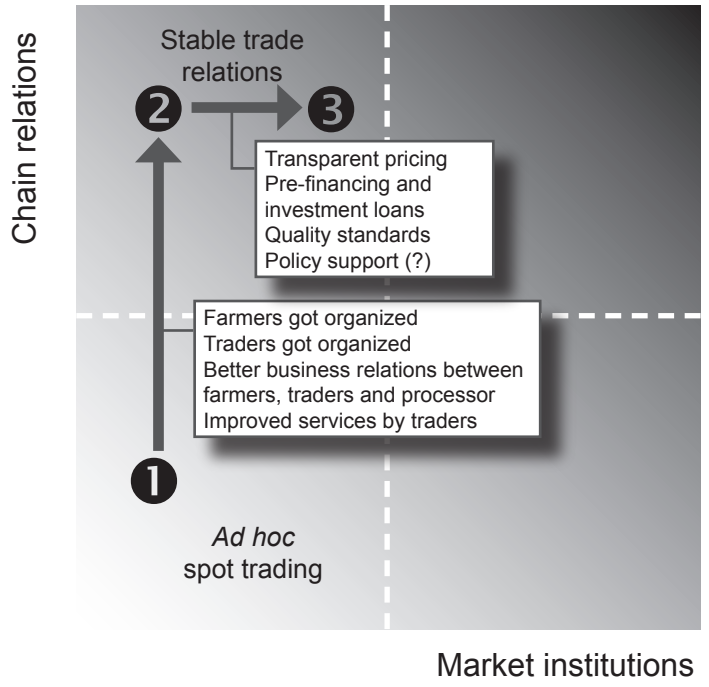


Figure 4.12 Chain relations and market institutions in the milk trade, Kenya

Chain relations and market institutions

In the 1990s, farmers and traders lacked a regular relationship (Figure 4.12). Milk sales were marked by distrust and by low, variable prices. ❶

Both farmers and traders have now got organized, and business relations between them and the processor have improved. Traders also provide services such as more frequent payments. All these reflect better business relations. ❷

Business institutions have also improved: pricing is now more transparent; traders provide guarantees for bank loans for inputs. ❸

More information

Julius Kipchumba Lagat, Elreco, elreco@africaonline.co.ke, cherutich06@yahoo.com

Edwin Kiplagat Bett, milk trader, Eldoret

David Kipsang Kiptoo, dairy farmer, Eldoret

Dealing with a market collapse: Fertilizer in Zimbabwe

WHAT HAPPENS WHEN THE government interferes in the market, controls prices and crowds out traders?

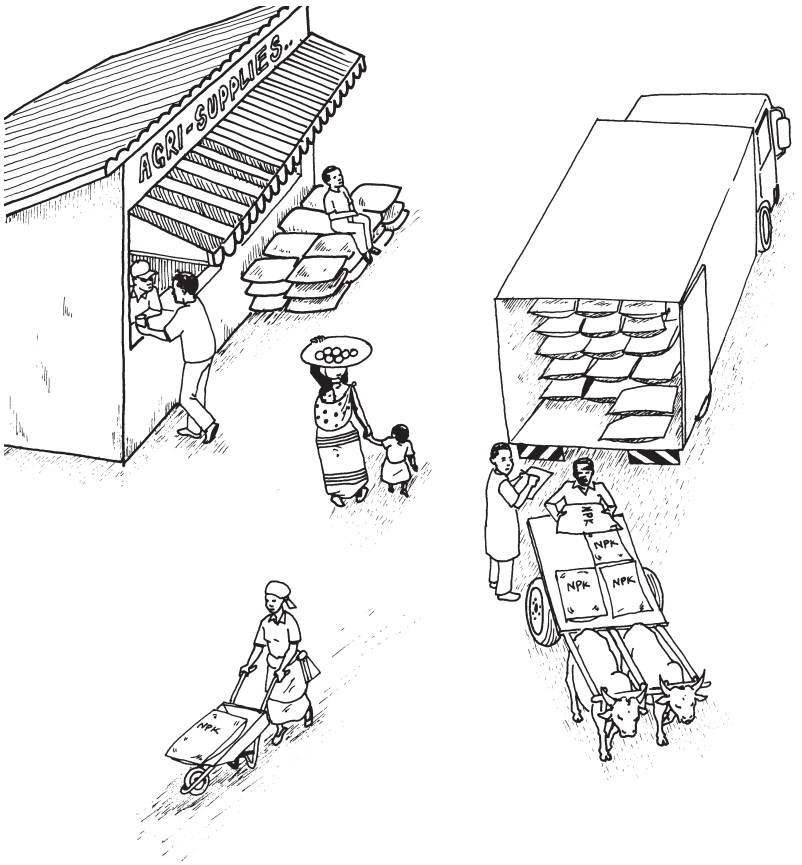
That is the situation in the fertilizer market in Zimbabwe. In an attempt to give farmers a better deal, the government has destroyed an efficient agricultural input supply system, thereby smashing the businesses of thousands of honest, hard-working input traders, while leaving hundreds of thousands of farmers with no access to the fertilizer they need to grow maize, the staple crop. The result: an illegal market, where fertilizers are sold by dodgy individuals on the black market and are available only at exorbitant prices or to well-connected individuals.

Most small-scale farmers in Zimbabwe have land with poor soils. They plant hybrid maize varieties, which grows well only if they apply fertilizer: about half of the country's fertilizer output goes into maize production. If there is not enough fertilizer, or if the fertilizer arrives late, the farmers prefer to plant a smaller area and devote more attention to it – in the hope of getting a decent crop so they can feed their families. That means they have less grain to sell on the market, reducing the country's food output and contributing to poverty. In addition, the prices of many farm products are controlled, and state marketing bodies that buy them do not pay a price that covers the costs of production.

Before 2000, the supply of fertilizer to communal farmers was assured through an organized marketing and distribution chain of manufacturers, wholesalers and traders. But the chain is no more. Government intervention in the supply and distribution of fertilizers has disrupted the chain, created fertilizer shortages and pushed costs way beyond the reach of ordinary farmers. With hyperinflation devastating the economy, producers and consumers alike are faced with ruin.

Chain actors

Until 2000, the supply chain providing fertilizer to Zimbabwe's farmers used to have just three major actors: manufacturers, wholesalers and retailers.



Fertilizer manufacturers

Zimbabwe's fertilizer industry was (and still is) dominated by four large firms. These used to be private companies, but the government is now a major shareholder in all of them. The raw material producers supplied these four firms, which in turn blended, granulated and packaged the fertilizers. The manufacturers then distributed the fertilizers through a network of their own agents in the larger towns, and sold to wholesalers and retailers in rural areas.

The fertilizer manufacturers also supported farmers through a network of sales representatives who, in collaboration with government extension agents, provided such services as soil testing, fertilizer demonstrations and extension support. A pan-territorial pricing policy ensured that fertilizers reached the farm gate at the same price throughout the country.

The main risks faced by manufacturers since 2000 have been government price controls in the face of massive inflation, rising costs, exchange rate fluctuations and associated supply shortages. These reduce the viability of the fertilizer industry, as the controls are imposed on the final product, not the raw materials, thus creating a price squeeze. The companies are forced to sell fertilizer at a price well below their cost of production. They cannot buy inputs, maintain equipment,

or invest. Therefore the production of fertilizer has dropped sharply, creating shortages all over the country.

Wholesalers

A network of wholesalers in major towns and cities used to distribute fertilizer. Their contacts, experience, specialization and scale of operations meant they could offer manufacturers more than they could achieve on their own. They took on the risks of maintaining, transporting and distributing large stocks of fertilizer.

Since 2000, the supply of fertilizer to the wholesalers has dried up, and the wholesalers now have nothing to sell.

Retailers

The main retail outlets of fertilizers used to be small grocery shops and supermarkets in rural areas and small towns. These ensured that farmers could buy the fertilizers they wanted, when they wanted them. They also provided agronomic and extension support to farmers so they could use the products correctly.

Some retailers bought supplies of fertilizers from the wholesalers in the larger towns, then sold them on to farmers. The traders took on the risk of buying and transporting fertilizer from wholesalers to their shops in remote areas, where demand for the product was not always assured, particularly during drought or flood periods. They also took the risk of securing and storing the fertilizers on site.

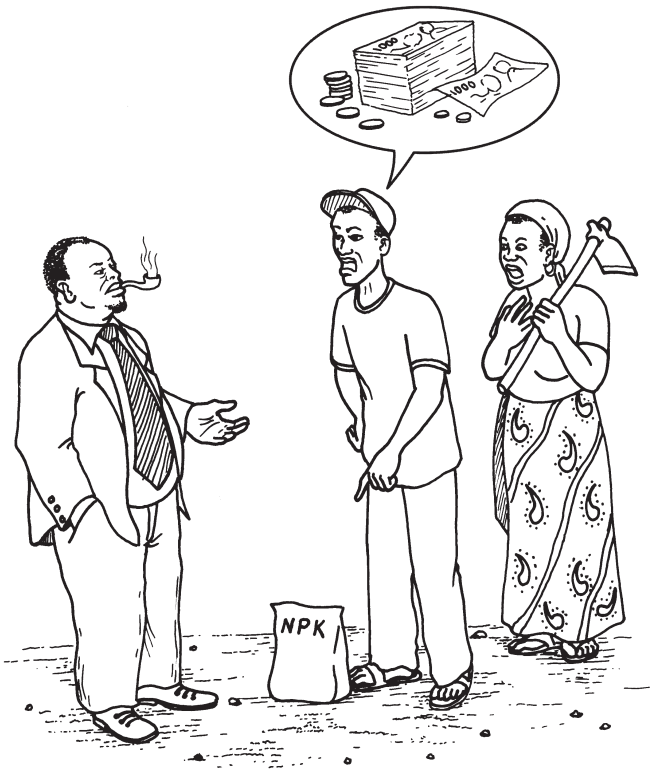
To maximize sales, these retailers sometimes provided the fertilizers on credit to trusted farmers without any guarantee. The farmers would pay back in kind at harvest time, usually in the form of grain equivalent to the credit provided. This exposed the retailers to the effects of inflation that eroded their profits.

Other retailers would act as stockists for the manufacturers: they would receive stocks from the manufacturers' agents and sell them to farmers at a commission. This arrangement meant the traders did not have to pay for the fertilizer, so could devote their scarce capital to other merchandise.

Rise of an illegal market

Two things have disrupted this sophisticated supply chain. The economic meltdown in Zimbabwe that started in the late 1990s and accelerated after 2000 cut the supply of fertilizers by half. Wholesalers and retailers had less fertilizer available, so many went out of business.

The government acquired a controlling stake in all the fertilizer-making companies. That allowed it to direct fertilizer through public distribution channels to support its land reform programmes. The government is now the major buyer of fertilizer made in Zimbabwe, and this has crowded out the wholesalers and traders.



The manufacturers are still in theory able to sell a small proportion of their output to wholesalers and retailers, at prices set by the government. But in fact, powerful, well-connected people procure this fertilizer directly from the manufacturers, and channel it to the illegal market, where it is sold at exorbitant prices to unfortunate communal farmers. Farmers in the land reform areas who are unable to use their official fertilizer allocation also sell their surplus fertilizer on the illegal market.

Bribery and corruption push up prices that the illegal market players must pay. Understandably, they then pass these costs on to their customers. The high cost of fertilizers has drastically reduced the area of crops planted and their yields, contributing to food insecurity nationwide.

The cost of fertilizer

According to government guidelines, farmers should be able to buy a 50 kg bag of fertilizer from a retailer for ZW$ 202,000, just over double the manufacturer's price for a bag. But no farmer can actually do so – the retailers have no fertilizer in stock. Instead, illegal market dealers charge farmers a massive ZW$ 1,800,000 per bag – nine times the official price. Farmers have to pay another ZW$ 70,000 to transport each bag to their farms. A few farmers can dig deep enough into their pockets to pay such prices – if they can find fertilizer at all. Most cannot. They have given up using fertilizer altogether.

FACHIG

In response to this situation, the Farmers' Association of Community Self-Help Investment Groups (FACHIG) has intervened to improve access to fertilizers for its 12,600 members. FACHIG is a grassroots, member-based organization operating in four districts of Mashonaland Central province, in northeast Zimbabwe. Women form 65% of the membership and occupy the majority of decision-making positions in the organization. The goal of FACHIG is to enhance the capacities of its membership in planning, implementing and managing their own projects for increased food security and incomes.

At ward level, members of FACHIG are organized into interest groups according to the commodities they produce. Members of each interest group elect a leader to represent them at the ward-level commodity committee. The leaders of the various commodity committees come together to form a commodity association at the district level.

The ward-level commodity committee identifies problems and constraints affecting its commodity. Problems affecting several wards are put on the district commodity association's agenda, which seeks solutions. *Ad-hoc* teams of representatives from the four districts may be formed to address challenges affecting all districts.

Lobbying for fertilizers

Fertilizer prices and supplies is a problem affecting FACHIG members in all districts. FACHIG has established a team comprising leaders of the commodity associations from the four districts. The team developed a strategy to engage the fertilizer manufacturers in dialogue. Realizing the central role of government, the team decided to engage the political establishment as well.

Initial efforts by the team to engage the fertilizer manufacturers directly proved fruitless: the manufacturers paid no attention. The team then lobbied the provincial governor and local members of parliament. It wrote a petition to these politicians, signed by all team members. The petition drew attention to the political clout of FACHIG members as voters, and to their contribution to the economy. It also spelled out the negative consequences of failing to secure fertilizers.

The politicians reacted swiftly. The fertilizer companies were ordered to supply the required fertilizer to FACHIG members at the official price. They were also asked to guarantee the future availability of fertilizer to FACHIG groups. Lines of communication were opened to ensure that the farmers could articulate their needs and their problems could be resolved quickly and amicably.

Farmers who wish to buy fertilizer pool their money into a FACHIG bank account. FACHIG's fertilizer team then negotiates with the manufacturer for a quantity of fertilizer. The team representatives go to Harare, hire a lorry and pick up the fer-

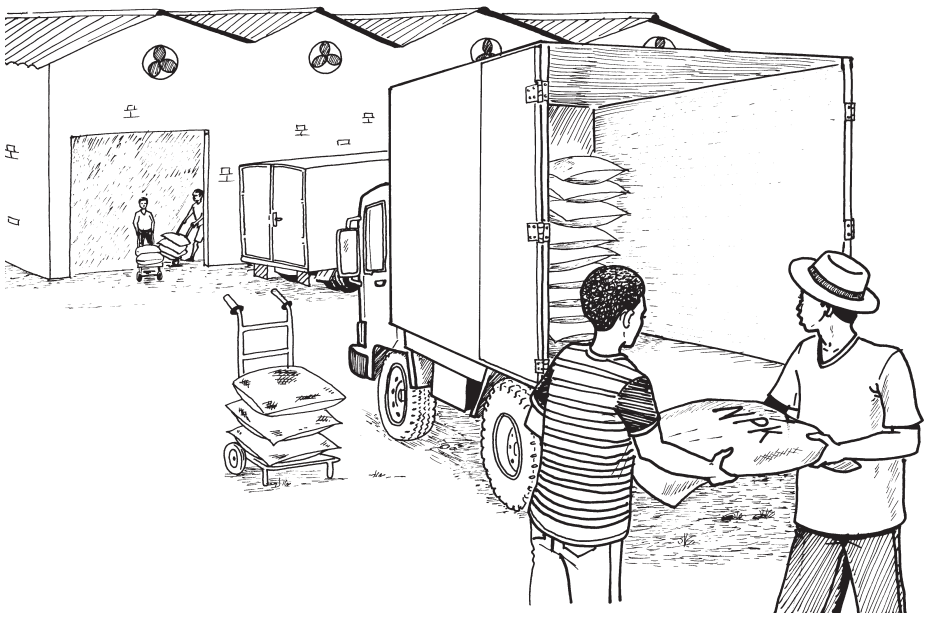
tilizer from the factory. They bring it to distribution points in the districts, where farmers can pick up the number of bags they have ordered using their ox carts.

FACHIG buys fertilizer from the company at the official price, ZW$ 100,000 per bag. It charges farmers ZW$ 196,000 per bag (Table 4.7). The difference covers the costs of transport, loading and unloading, the team's travel, and administration. The team members are not paid for their services.

Helping FACHIG members

FACHIG's success at sourcing fertilizers directly has brought several benefits for its members.

- Bulk buying and distribution mean farmers can buy fertilizer at the official government retail price – much cheaper than on the illegal market.
- The manufacturers give FACHIG priority when allocating scarce supplies of fertilizer.
- The process of engaging the manufacturers through the political establishment has sharpened FACHIG's lobbying and advocacy skills, and has boosted the confidence of the commodity committee leaders.
- This increased confidence in turn has strengthened the commodity committees' bargaining power in negotiations on prices and contracts with buyers of their products.



Challenges

FACHIG's efforts to secure fertilizers for its members are a temporary measure. The traditional fertilizer supply chain, where the wholesaler and retailer play an important role in supplying the farmers, needs to be re-established. But as long as the government continues to interfere in the fertilizer market and the wider economy, the future of these traders in Zimbabwe looks bleak. There is need for a change in government policy to create an enabling environment that would allow formal traders space to do business.

There is also need for an enabling environment that allows farmers to freely advocate for their interests and rights. In the case of Zimbabwe, the space for civil society organizations is restricted. FACHIG's success is unusual, and has been due to its ability to organize its members. Most organizations have been less effective.

The business of farming thrives in a stable macro economic environment where the availability of critical agricultural inputs such as fertilizer is not an issue. The question is: how long can resource-poor farmers and the few traders in Zimbabwe remain resilient in such a situation?

Lessons

- Retailers and wholesalers are a critical link in the fertilizer supply chain, as they ensure fertilizers are available on time and at an affordable price. Disrupting their activities means disrupting the availability of fertilizers to farmers.

Table 4.7 Value shares of actors in the fertilizer value chain, Zimbabwe

ZW$ per 50 kg bag of fertilizer, August 2007

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Illegal market						
Manufacturer		100,000		100,000		5%
Dealer	100,000	1,800,000	1,700,000	1,700,000	94%	91%
Farmer	1,870,000	1,870,000		70,000		4%
Purchase through FACHIG						
Manufacturer		100,000		100,000		51%
FACHIG	196,000	196,000	0	96,000		49%
Farmer	196,000	196,000				

- The vacuum created by the sidelining of traders was filled by unscrupulous illegal market operators. That forced FACHIG to intervene on behalf of its members. FACHIG's success shows that smallholder farmers can cushion themselves from negative policies and take advantage of opportunities if they are organized.
- Government intervention should be minimal and limited to a regulatory and facilitation role. This would provide space for traders to efficiently provide services to smallholder farmers.
- Capacity building in advocacy and lobbying should be strengthened to allow smallholder farmers to identify, prioritize and solve their own problems.

Value shares of actors in the marketing chain

Under illegal market arrangements, unscrupulous dealers charge nine times the official price for fertilizer. They manage to capture over 90% of the end price of the fertilizer for themselves (Table 4.7, Figures 4.13 and 4.14).

Under the arrangement where FACHIG sources fertilizer directly from manufacturers, FACHIG shares cover transport, administration and staff travel costs.

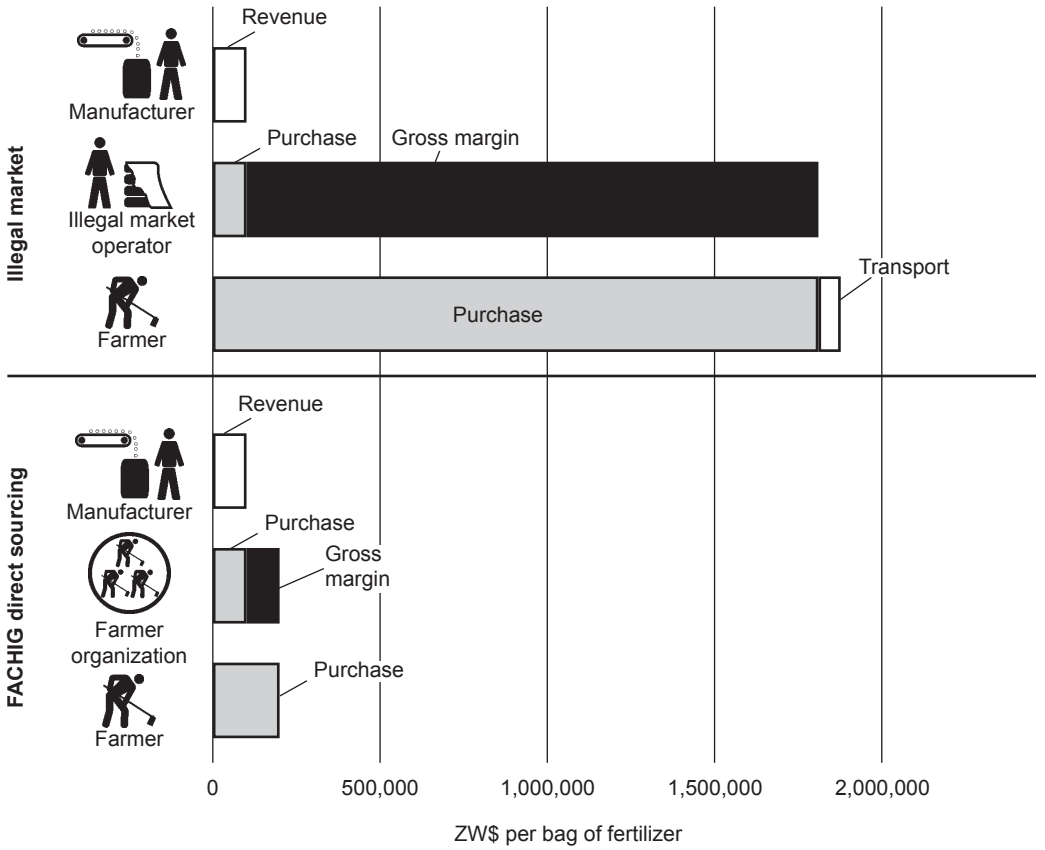


Figure 4.13 Costs and revenues of actors in the fertilizer value chain, Zimbabwe

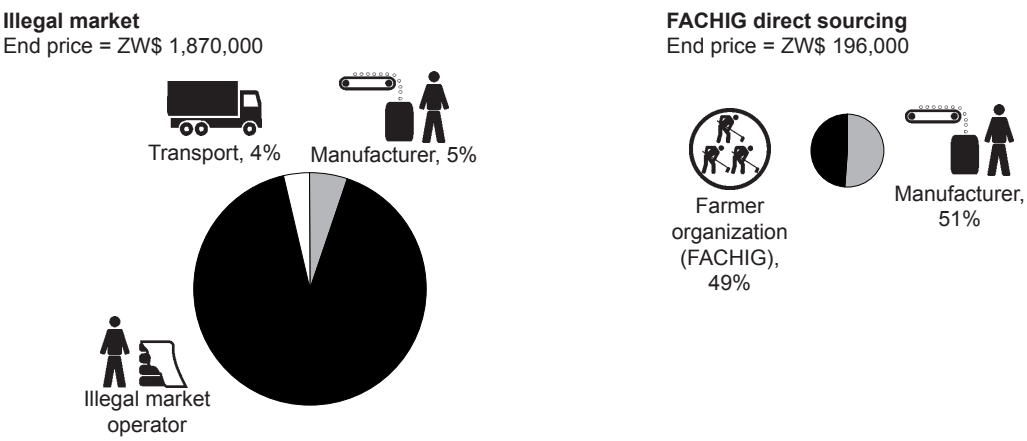


Figure 4.14 Value shares of actors in the fertilizer value chain, Zimbabwe

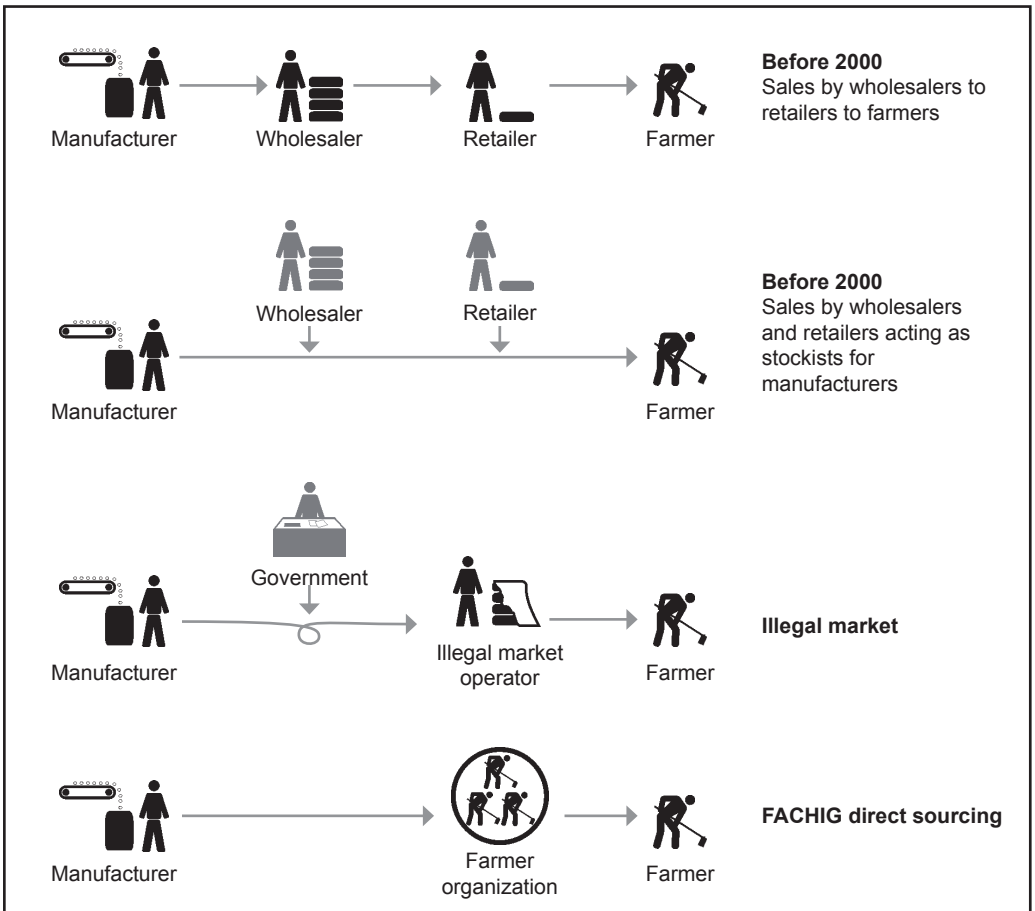


Figure 4.15 Changes in the fertilizer market structure, Zimbabwe

How the market structure has changed

Before 2000, a network of wholesalers and retailers ensured that farmers could buy fertilizer at reasonable prices (Figure 4.15). These intermediaries either bought the fertilizer themselves to sell it on, or acted as stockists for the manufacturers (so avoided the entrepreneurial risk of owning large stocks of unsold fertilizer).

Under the illegal market system, government restrictions mean that back market operators are able to buy most of the small amount of fertilizer still available. They then sell this on to farmers at highly inflated prices.

FACHIG avoids the illegal market by buying directly from the manufacturers and selling to the farmers.

Chain relations and market institutions

Before the economic meltdown in 2000 (Figure 4.16), manufacturers, wholesalers, retailers and farmers had a sophisticated system of marketing and distribution, providing farmers with services such as soil testing, demonstrations and extension advice, and giving wholesalers and retailers the choice between buying fertilizer for resale or acting as sales agents for the manufacturers. ❶

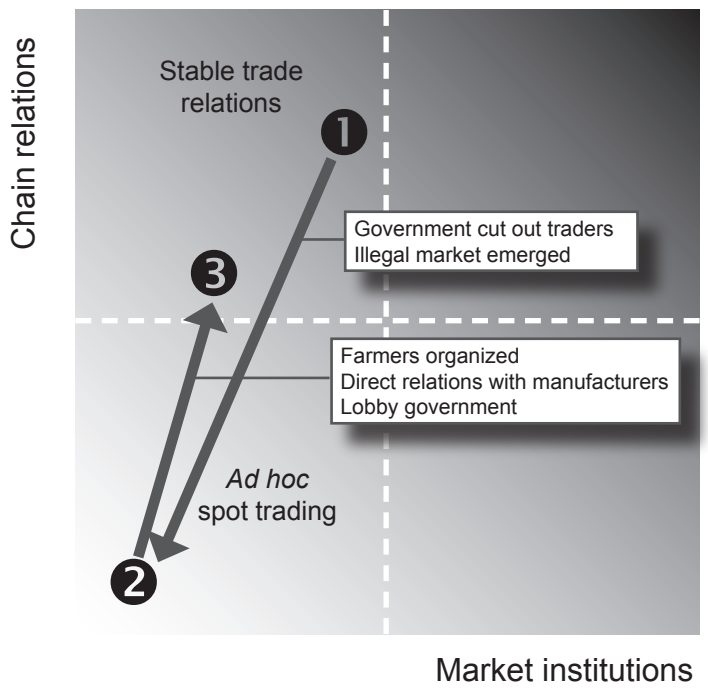


Figure 4.16 Chain relations and market institutions in the fertilizer trade, Zimbabwe

Government controls and economic collapse have dismantled this system. Wholesalers and retailers have gone out of business, and farmers must resort to *ad hoc* trading to buy the little fertilizer that is available at inflated prices on the illegal market. ❷

FACHIG has managed to organize the farmers, foster direct relations with the manufacturers, and lobby the government for access to affordable fertilizer. ❸

More information

Thomas Mupetesi, FACHIG, fachig@africaonline.co.zw

Developing markets for tomatoes in Western Kenya

The farmers of Malakisi Division watched their neighbours across the border in Uganda with some envy. The Ugandans seemed to be making money growing tomatoes. So when the Kenyan Ministry of Agriculture's National Agricultural and Livestock Extension Programme started a project to promote tomato growing in the area in 2005, the farmers of Malakisi were keen to join in. They learned how to grow the vegetables, acquired seed and other inputs, and started growing tomatoes.

A successful project? Yes and no. Tomatoes were well suited to the soils and climate of the area, and the farmers found they were good at growing them. Soon there were piles of tomatoes in Malakisi. But the project had not given the farmers the skills they needed to market their produce. The farmers quickly learned the value of a rotting tomato – nothing.

Identifying problems

Western Region Christian Community Services (WRCCS), the development arm of the Anglican Church in Western Kenya, had been working in the Malakisi area since 1997 on food security and environmental issues and with orphans and other children. Staff were aware of the tomato problem, and in 2006 they undertook a survey to find out details.

They found that the farmers just grew the tomatoes, using normal ox-ploughs, hand-held hoes and manual labour. They did not process the tomatoes or add value to them in any way. They didn't understand the market dynamics. They were ignorant of the other players in the market. They did not understand what happened to the produce after they sold it, and they didn't know the potential for adding value by grading, sorting or processing. They lacked capital to invest in irrigation, inputs, equipment and marketing. And they relied heavily on the seasonal rains – which are unpredictable.

At harvest time, the farmers would sell to travelling traders at prices the trader would dictate. The traders would tell them that the crop was overripe or the wrong size. The tomatoes could fetch as little as KSh 500 (€5.52) per crate, and a crate could weigh anything from 64 kg to 100 kg. The traders would then sell the tomatoes to wholesalers, who in turn would sell them on to retailers.

Some 60% of the farmers in Malakisi grew tomatoes, so there was a huge glut during the harvesting season. The farmers had to look for markets further away.

Getting organized

Through a project supported by ICCO, a Dutch development organization, WRCCS encouraged the farmers to get organized. The farmers formed three community-based organizations to help in tomato marketing. These organizations are based in the villages of Namubila, Chebukuyi and Mayekwe. They include 27 existing self-help groups, groups of widows, young people and farmers. They cover 700 tomato farmers who support around 5,000 family members.

The community organizations aim to improve tomato production and marketing, reduce poverty and empower young people and women.

WRCCS staff trained the organization members in tomato marketing and various technical, management and leadership skills (Box 4.7). They helped the farmers plan how to improve the quality and marketing of their produce. Each group elected a management committee to oversee the plan's implementation. Each group has established an office in a nearby village to act as a meeting and collection point for their produce, and has several committees to handle various aspects of production and marketing.

Community organizations

The three community organizations perform several functions.

Grading and sorting The farmers bring their tomatoes to the collection centre, where the tomatoes are graded and sorted by members who have been trained to do this. The coop pays these workers out of the handling fee it charges farmers (see below). The tomatoes are then weighed (using standard weights for the first time), and the farmer is given a sheet listing the quantity of tomatoes received and their grades. The tomatoes from different farmers are then bulked into crates. The collection centres often sell the smallest, lowest grade tomatoes directly to local consumers.

When a farmer delivers tomatoes to the collection centre, members of the monitoring committee are able to give him or her an estimate of the price the vegetables will fetch. Farmers who are not satisfied can try to sell their produce elsewhere.

Monitoring production and quality The monitoring committee monitors various aspects of tomato production: the use of certified seeds and the types, amounts and sources of inputs. They use the government extension service's guidelines for production. They visit the farms during the season to make sure that farmers comply with these rules. They schedule production to even out the supply of tomatoes throughout the year, using irrigation water drawn from the nearby Lwakhakha River during the dry season. When the farmer brings toma-

Box 4.7 "Before, we had no sense of direction"

"My name is Charles Kasembeli. I'm a farmer from Malakisi. We plant tomatoes. We have a surplus of them.

"We produce more than the market can absorb, so we feed the surplus to cows. We in Western Kenya still don't have a market that can absorb this product. Each district in Western Province grows tomatoes, so we need markets elsewhere.

"I have 3 acres of land, and I plant 1 acre of tomatoes. I buy 100 g of seed. After I plant seeds, I get 12,000 to 15,000 seedlings. My production costs include KSh 31,000 (€343) for labour and KSh 20,000 (€221) for farm inputs. I can expect a yield of 8.5 tons from one crop, or 25.5 tons from three crops in a year. I take the tomatoes on my bicycle to a collection centre. After I sell my produce, I might get a net profit of KSh 42,000 (€464) in one season – if there are no calamities.

"Tomatoes make more money than other crops. My wife and I have been able to buy two dairy cows and have set up a small canteen for her to run.

"Before, we had no sense of direction. But facilitators have helped us with growing and marketing tomatoes. Now things are better. We realized that as individual farmers we were not able to achieve much. So we have formed groups with the help of the facilitators so we can achieve more.

"To begin with, we tried to market through middlemen. But they were not transparent. These middlemen had a lot of excuses. The tomatoes were 'too big' or 'too small'. So we started using collection centres and grading the tomatoes according to size. In addition to that, we were able to get managers at the collection centres – people to grade, handle accounts and do monitoring."

toes into the collection centre, the monitoring committee supervises the grading and sorting.

Marketing The marketing committee identifies potential customers such as schools, institutions and supermarkets. They then approach these prospects, taking with them samples of the product and information on the quantity and quality available. The two sides negotiate a price and agree on terms for delivery and payment. The buyer then fills in an order sheet summarizing these details. When the tomatoes have been delivered, the community organization receives the money from the buyer, deducts 10% to cover administration and handling costs, and then pays the farmers. Transactions with travelling traders tend to be in cash, while institutional buyers prefer to pay by cheque.

If the marketing committee gets an order it cannot fulfil, it will buy tomatoes from non-members.

Negotiating prices The marketing committees negotiate the sale price with travelling traders and other buyers. The price varies from season to season, but the marketing committee sets a floor price of KSh 700 (€7.74) for a 64 kg crate of tomatoes. This figure was based on the cost of production, and allows the farmers and community organization to make a small profit. The price may be above this level outside the peak season. The committee then is responsible for negotiating the price with buyers.

Longer term customers Institutional and commercial customers prefer a season-long agreement. The marketing committee negotiates a price, delivery dates and payment terms. Payments for such arrangements are usually made weekly. WRCCS has introduced the Mayekwe group to the local branch of Uchumi, a major supermarket chain in Kenya (Box 4.8).

Alternative markets The community organizations are new and their members lack the confidence to approach potential buyers on their own. So WRCCS has helped them identify alternative markets for their produce. Before the intervention, almost the only buyers were travelling traders. WRCCS, which enjoys a good reputation in the area, introduces the community organizations to schools, supermarkets, hotels in nearby towns, and other possible buyers. Sales to prisons are also being explored.

Savings and credit The community organizations run a savings-and-loan scheme called a "table bank". The members meet once a week and contribute voluntarily to a revolving fund from which they can borrow against their savings. Borrowers pay 10% interest on their loans per tomato season (3 months). The organizations also help farmers who face an emergency such as a pest attack. They use money from the revolving fund to pay for pesticides, then deduct the amount from the sales at the end of the season. Savers get 5% annual interest on their deposits.

Markets for tomatoes

The tomato traders who used to handle most of the community organizations' members output have not disappeared: they still buy around 55% of the tomatoes. Many tomato growers are not members of the community organizations, and the traders still buy their produce using the old system. But some traders now find it more convenient to buy from the collection points than scouring the countryside for tomatoes to buy (Box 4.9). There is a lot of scope for further cooperation between the cooperative and the traders.

Retailers are also major customers for the community organizations – they buy another 30% of the produce. They place weekly orders for tomatoes, then sell them to customers in the local markets.

The retailers are happy with the collection points and the more organized marketing system. They can place an order and be confident that it will be fulfilled. They are assured of fresh, graded produce. They can also lodge complaints with the marketing organization should the need arise. This is an improvement over the previous system, where they would have to go out to the villages in search of tomatoes, and brokers would sometimes fail to deliver.

Another 10% of the tomatoes are sold directly on local markets, while about 5% go to waste and are fed to cattle.

The tomato market is highly seasonal. During the peak harvest season, non-coop members sell tomatoes at anything between KSh 4.69 and 7.81 per kg. Off the peak, they can earn between KSh 10.94 and 18.75 per kg. Coop members get a better price: they can expect KSh 7.80 per kg in the peak season, and KSh 28.00 in the

Box 4.8 Supplying Uchumi

The Malakisi farmers' relationship with the Uchumi supermarket chain can be termed as "long term in the making". When Uchumi first started buying tomatoes from the farmers in 2006, it placed an initial order for 100 kg per week to test the farmers' consistency in delivery. After 3 weeks of successful deliveries, the supermarket extended the order and asked for an additional 400 kg a week for another branch, making a total order of 500 kg a week to the end of the season. The supermarket has assured the farmers that the terms would be revised in the next harvest season.

The farmers' group and Uchumi have an agreement to cover price fluctuations. Uchumi buys the produce at KSh 25 (€0.28) per kg during the harvest season, and KSh 30 (€0.33) per kg during the off-peak season. The farmers are paid every fortnight after the delivery.

Selling to Uchumi has not been smooth. The high cost of transport for small orders lowers the farmers' profit margin. In the peak season the price offered by Uchumi is better than the price in the open market. But in the off-season the prices offered by traders are higher than those at Uchumi. Although the farmers have secured an assured market, it forms a very small percentage – only about 3% – of their total output.

Beyond Uchumi, the farmers' group is targeting new markets: schools, hotels and restaurants. Initial negotiations are also under way with a regional horticultural exporter.

Box 4.9 The shopkeeper's tale

"I am Joyce Kangule, a trader at Bungoma municipal market. I have been a trader for the last 20 years. I have been buying tomatoes from the farms and selling to the consumers. Previously, there was no organized selling system on the farmers' end, so I had to enlist the services of a broker who would charge a commission for the services rendered. I would accompany the broker from farm to farm negotiating on price, and would eventually buy from the cheapest source. During this time, prices favoured the trader and a crate would cost as little as KSh 500 (€5.52).

"Currently, the farmer is able to bring the tomatoes to the market, cutting out the role of the broker, and I do not have to go to the farms to get tomatoes. Today, from the market, I buy a crate of tomatoes at a minimum of KSh 700 (€7.74) during the harvest season, and up to a maximum of KSh 1,500 (€16.58) during the off-season.

"I re-sell the tomatoes to consumers at KSh 20 (€0.22) for 4 tomatoes, or at times when there is glut in the market I sell at KSh 20 for 10 tomatoes. In any given week, I sell at least three crates of tomatoes.

"It's imperative for me to ensure that the quality of the tomatoes that I buy is good to ensure that I keep abreast with my competitors. Some of the problems that I encounter are transport costs which are high, poor handling while in transit, and price wars from my business competitors."

off season. That means that if farmers can overcome the problems of producing in the off-season, they can earn a handsome profit.

Benefits

The new scheme has numerous benefits for the farmers of Malakisi and their customers.

- **Better trading relationships** Supply and pricing agreements have improved the trading relationships between farmers and customers such as supermarkets and retailers. Pricing is more transparent, quality grades are assured, and long-term agreements can be made. On this basis both buyer and seller can better plan their businesses and consider investments for further growth.
- **Reduced risks** The minimum price allows farmers to at least break even in their tomato-growing enterprise. Traders and other customers also reduce their risks because the farmers offer a secured volume at a guaranteed quality.
- **Market orientation** The farmers are learning the need to identify their markets before they go into production. This benefits their own businesses as they have diversified their markets and fetch better prices. But it also benefits the traders and the customers who get the exact type of tomatoes that they want.
- **Farmers' empowerment** By negotiating collectively through the collection centres, farmers have been able to secure better prices and more assured outlets for their produce. They have taken advantage of economies of scale and

Box 4.10 Tomatoes transform Duncan Papah's life

"I am 35 years old, married, with four children. After I finished high school, my parents did not have enough money to support my post-secondary school education. Initially, most of my time was spent idling around the shopping centre and doing odd jobs on farms to earn a living. The maximum I could earn per day was KSh 100. I would also work on the family farm to grow food. Like many other boys in the village, I decided to get married to conform to the societal requirements.

"In 2005, NALEP initiated a tomato project in Malakisi Division. With the prospect of getting extra income, I signed up for the project where I was trained on methods of tomato production and marketing.

"From my approximately 3 acres of land, I have set aside about 1 acre for tomato production. From this acre, the economic advantages have been enormous. I have been able to put up a permanent two-room structure for my family, opened up a shop for my wife, and bought three cows to produce milk for the family. I started a brick-making business which also supplements my family income."

Table 4.8 gives a summary of the costs and profits from Duncan's tomato enterprise.

Table 4.8 Duncan Papah's costs and profit per acre

0.4 ha, open market, peak season

Variable costs of production		**KSh**
• Seed	100 g per acre	800
• Inputs		14,050
• Labour		29,050
Total production costs		**43,900**
Expected yield	8,000 kg: KSh 700 per 64 kg crate	**87,500**
Gross income		**43,600**

reduced their costs. The farmers are now organized, have developed communication channels that help solve joint problems, and have learned to plan together as a group. The farmers have gained skills in business administration, marketing, and information management. The community organizations have started their own credit and savings schemes. These allow them to save and to overcome emergencies. Farmers and their families have higher incomes and more employment as a result of the initiative (see Box 4.10).

Challenges

Despite the successes, several challenges remain.

- **Matching production levels to market opportunities** Tomato production is higher than the amount the markets can absorb. Tomatoes are highly perishable so need to be sold as soon as possible. Farmers have to identify viable markets well in advance and enter into supply contracts. But negotiations may take a long time, so produce may go to waste.
- **Transport** Transportation costs are high. That makes it unprofitable to transport small amounts of tomatoes to smaller markets.
- **Diversification** The farmers of Malakisi are in an oversupplied market. Overdependence on a single delicate crop in a fragile market is risky. The farmers need to diversify their crops and identify new markets to reduce their production and marketing risks.
- **Membership** Many tomato growers are still not members of the community organizations. They still sell tomatoes to buyers using the old system – so have to accept the price that traders are prepared to pay for small quantities of ungraded tomatoes. The community organizations need to find ways to attract these farmers to join.

The future

Horticultural marketing venture The three community organizations are considering forming a marketing society covering other horticultural produce as well as tomatoes. Many customers want to buy not just tomatoes but also other vegetables. The groups may explore setting up a trading venture to source and market this produce.

Processing WRCCS has recently assessed the financial viability of tomato processing in Malakisi. WRCCS is discussing this possibility with various stakeholders, including several government agencies, ICCO and private businesses. The aim would be to produce and market tomato sauce, paste and a type of tomato marmalade. The farmers are willing to donate land for such a factory, and hope to become shareholders in it.

Trade partnerships To gain access to far-away markets the community organizations could set up partnerships with traders from other towns and regions. They could come at a fixed date to pick up a fixed volume of produce at an assured quality, and take it to sell in their place of origin.

Value shares of actors in the marketing chain

In the previous market structure, the farmers received only about a quarter of the final retail price of the tomatoes in the peak season (Table 4.9, Figures 4.17

Table 4.9 Value shares of actors in the tomato value chain, Kenya

KSh per kg of tomatoes (€1 = KSh 95)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Open market						
Peak season						
Farmer	6.27	7.80	1.53	7.80	20%	26%
Travelling trader	9.87	10.90	1.03	3.10	9%	10%
Wholesaler	10.97	15.00	4.03	4.10	27%	14%
Retailer	15.97	30.00	14.03	15.00	47%	50%
Off season						
Farmer	8.29	28.00	19.71	28.00	70%	56%
Travelling trader	30.07	32.00	1.93	4.00	6%	8%
Wholesaler	32.07	35.00	2.93	3.00	8%	6%
Retailer	35.97	50.00	14.03	15.00	28%	30%
Sales to Uchumi supermarket						
Peak season						
Farmer	7.99	25.00	17.01	25.00	68%	71%
Uchumi	25.00	35.00	10.00	10.00	29%	29%
Off season						
Farmer	8.49	30.00	21.51	30.00	72%	75%
Uchumi	30.00	40.00	10.00	10.00	25%	25%

and 4.18). In the off-season, when tomatoes are scarcer and prices higher, they received just over half.

The off-season is a seller's market: the product is scarce and demand is high, so the seller has an advantage over the buyer and can get a higher value share. The peak season is a buyer's market: there is more than enough supply – some tomatoes rot before a buyer is found. So the buyer has power over the seller, and gets a higher value share. This is a very common cycle in Africa, where price variations can be as high as 100%. While the trader "exploits" the farmer in the peak season, the farmer "exploits" the trader in the off-season.

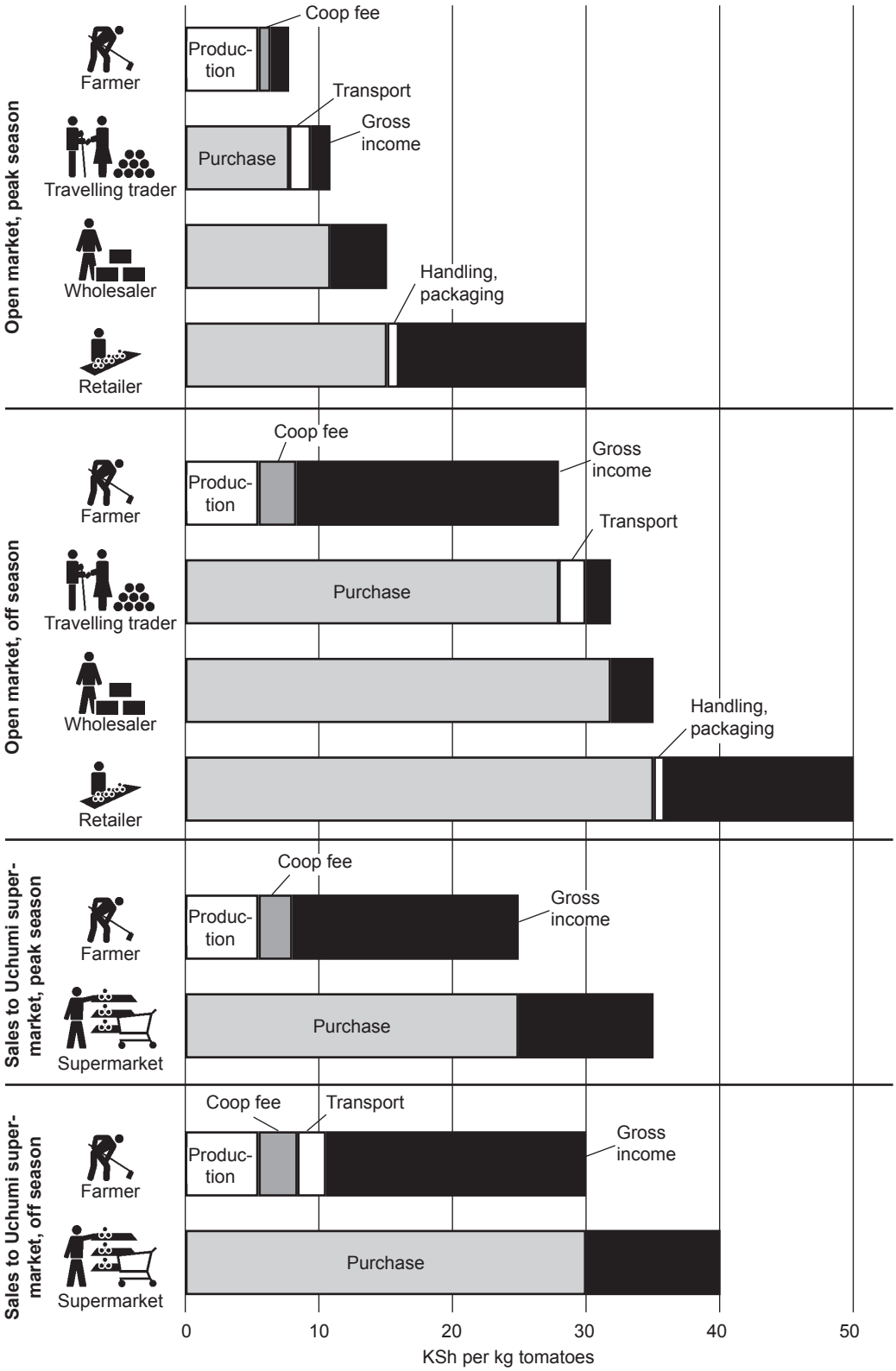


Figure 4.17 Costs and revenues of actors in the tomato value chain, Kenya

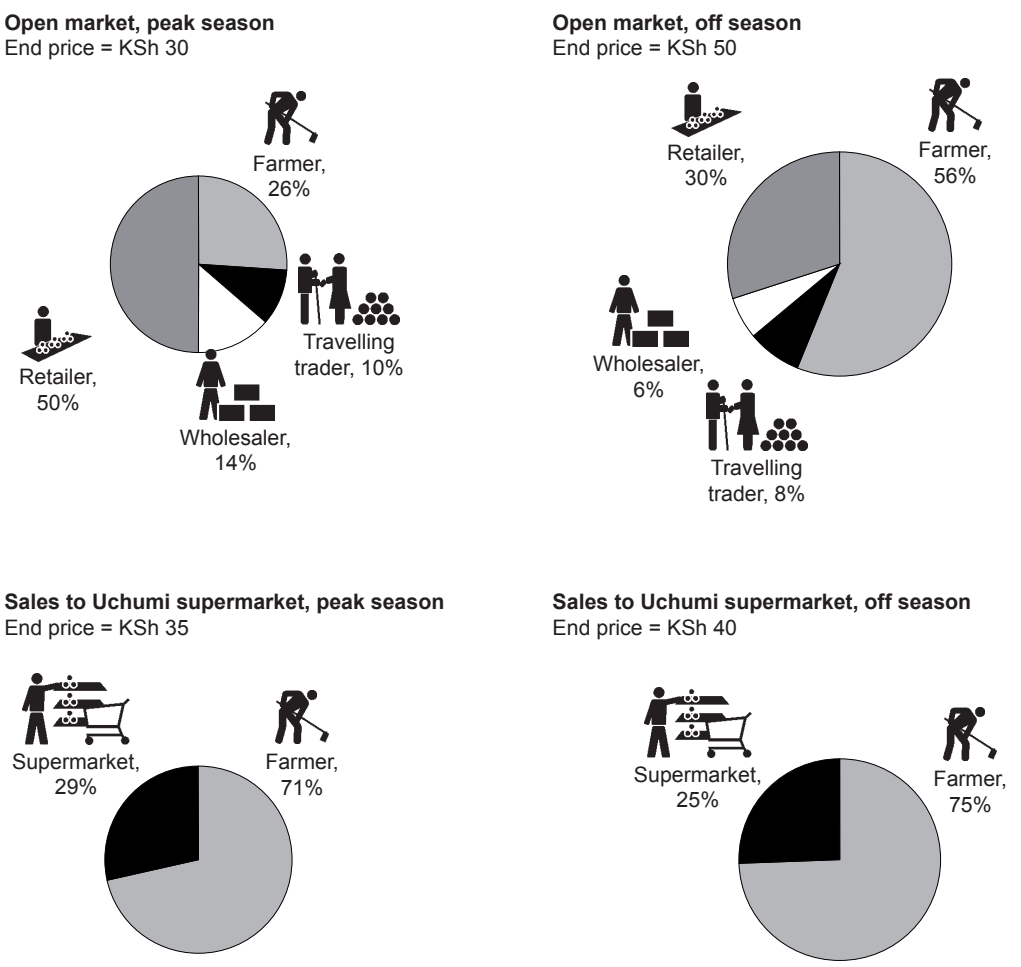


Figure 4.18 Value shares of actors in the tomato value chain, Kenya

Before the coop was founded, the traders and retailers had no choice but to buy an unsorted product. They had to grade and select the tomatoes themselves, so naturally took a larger share of the final product's value.

The farmers (via the coop) now sort, transport and deliver the product to the traders, so their selling price and value share are higher. But these activities cost money, so it is unclear whether their gross margin has improved.

By selling to a supermarket, the farmers cut out the traders and sell a graded product directly to the retailer. That gives them a larger percentage of the profits during the harvest season when the markets are flooded with tomatoes and prices are low. Uchumi offers a more stable price at this time of year.

However, the farmers actually make less profit in the off-season by selling to the supermarket, as traders are willing to pay up to KSh 20 more per kilogram, while Uchumi pays only KSh 5 per kg more.

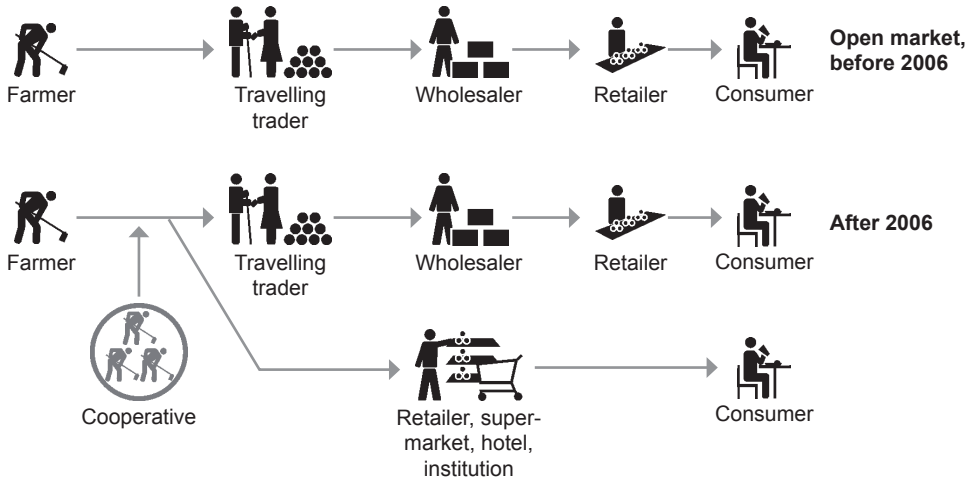


Figure 4.19 Changes in the tomato market structure, Kenya

How the market structure has changed

Previously, the farmers relied solely on brokers and wholesalers to market their produce (Figure 4.19). By organizing into groups and developing direct links to retailers, the farmers have strengthened their market position.

Chain relations and market institutions

In 2006, the tomato farmers used to sell their produce to traders who came to their farms in search of tomatoes to buy (Figure 4.20). Farmers and traders had no regular marketing relationship, and prices were negotiated on the spot – with the farmers forced to take the price offered. Retailers were reliant on travelling traders who sought out farmers who had produce to sell. There were no standard weights or quality grades. All this is typical of a spot market. ❶

Since 2006, as members of community organizations, the farmers have been able to organize themselves and get training. They have diversified their market outlets and developed direct relations with small-scale retailers, supermarkets and institutional customers. They have improved their ability to negotiate and communicate with traders. All these represent improved the relationships in the tomato chain. ❷

The Malaksi farmers have also developed market institutions: they have started grading their produce for different markets, introduced standard weights, and now have better access to market information. These market institutions have benefited both buyer and seller as they facilitate the trade. ❸

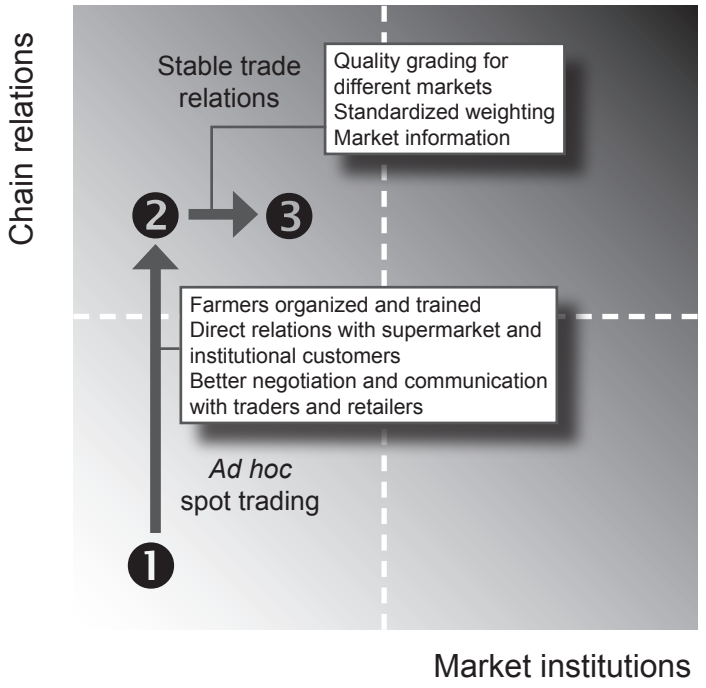


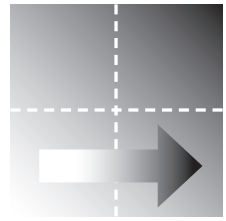
Figure 4.20 Chain relations and market institutions in the tomato trade, Kenya

More information

Anglican Church of Kenya, Western Region Christian Community Services: www.ackenya.org/development.htm, contact Maureen Oduori, ackwrccs@swiftkenya.com

Charles Kasembeli, Namache Farmers Association

5
Building market institutions



THIS CHAPTER TURNS OUR attention to building market institutions – the "rules of the game". This is represented by a horizontal movement in our framework.

The chapter presents five cases:

- **Market information system in Ghana and Burkina Faso** This case illustrates how farmers in Burkina Faso and wholesalers in Ghana have used a computer-based market information system to develop a thriving trade in onions.
- **Warehouse receipt scheme in Tanzania** Getting credit is a perennial problem for farmers. This case shows how warehousing, an oft-neglected function in the value chain, has been used to give coffee farmers the credit they need.
- **Yams in Ghana** How to manage the marketplaces in Africa's cities? This case shows how a traders' association has established ways to overcome disputes with the local authority that is responsible for the market.
- **Wool in Lesotho** It is very difficult to provide extension advice and veterinary care to large numbers of scattered, small-scale producers. This case from Lesotho shows how it can be done – by working with a small number of traders.
- **Commodity exchange in Kenya** It is not enough just to provide market information, this case from Kenya shows. A range of other services are needed if farmers and traders are to be able to use the information effectively.

Market information system unites producers and traders in Ghana and Burkina Faso

CABBAGES AND CARROTS, BEANS and bananas, plantains and papayas, oranges and onions, sweet potatoes and pears… From avocados to yams, the range of fruits and vegetables in the district markets in Accra is overwhelming. The produce is fresh. Prices are low, too. Customers can find most types of produce all year round.

At the other end of the chain are the producers – millions of small-scale farmers, predominantly women working on farms of less than 1 ha – who grow most of the produce. Many of them are in neighbouring countries – Burkina Faso, Mali, Niger and Nigeria – separated by hundreds of kilometres of bumpy roads from the consumers in Accra.

How does this system work? The housewife doing her family shopping, the office worker in search of some fruit for lunch, the chef from the local restaurant looking for today's ingredients – few of them understand how the traders manage to get such a rich variety of produce onto their counters day after day.

Traditional trading practices

In between producers and consumers there is a network of retailers, wholesalers and travelling traders who bring the produce to the market. The traditional practice is for traders to travel abroad in search of commodities to buy. The traders have to find sellers and negotiate deals individually. Each trader has to organize the transport, credit, and so on, alone.

But this approach has problems. The traders do not have reliable information. They do not know how much they should pay, and they do not know how much the product will fetch in the market in Accra. Transactions are *ad hoc*, and producers and traders lack stable, long-term relationships.

Governments collect a great deal of information on market prices every day, but this is mainly used to gauge long-term trends for food security purposes, and it is almost never made public quickly enough for traders' needs. It is almost never made available outside each country. In the jargon, "the market information system is inadequate".

Producers face similar problems. They do not know what a fair price is, and they do not know if the trader is creditworthy. They have to sell their perishable produce quickly, or risk watching it rot in the fields. Speaking different languages, the Accra traders and the farmers are forced to use unreliable interpreters to translate. Cheating, mutual suspicion and distrust are rife.

GAPTO

The Ghana Agricultural Producers and Traders Organization (GAPTO), based in Agbobloshie market in central Accra, is an umbrella organization of 16 commodity groups and associations. Some 12,000 traders (wholesalers, retailers, distributors, etc.) are members of GAPTO's member associations. About 500 individual farmers are also members.

GAPTO is the formalization of longstanding traditional commodity associations. It was established in 1992 as a result of a World Bank-funded research project involving the Ghanaian government, universities, NGOs, and farmers', traders' and transport organizations. It offers various services to its members:

- It provides them with basic trading information.
- It advocates for a favourable trading environment.
- It settles disputes among members.
- It assists members to access loans from financial institutions.

GAPTO's member associations and individual members pay a membership fee – GH¢ 1 (about €0.74) per member per month.

Improving market information

GAPTO worked with IFDC, a US-based agricultural development organization, and partners in other countries in West Africa to design a project to improve the market information system. The result was MISTOWA, which stands for "Market Information Systems and Traders' Organizations of West Africa". This USAID-funded project created an internet-based trading platform, www.tradenet.biz, to provide up-to-date market information throughout the region (see Box 5.1).

As part of the MISTOWA project, GAPTO set up an agribusiness information centre in the middle of the Agbobloshie market in Accra. This centre has eight computers with internet connections. Producers and traders can come to browse the internet, use the Tradebiz.net platform, or sign up for price information or alerts on their commodity on their cell phones.

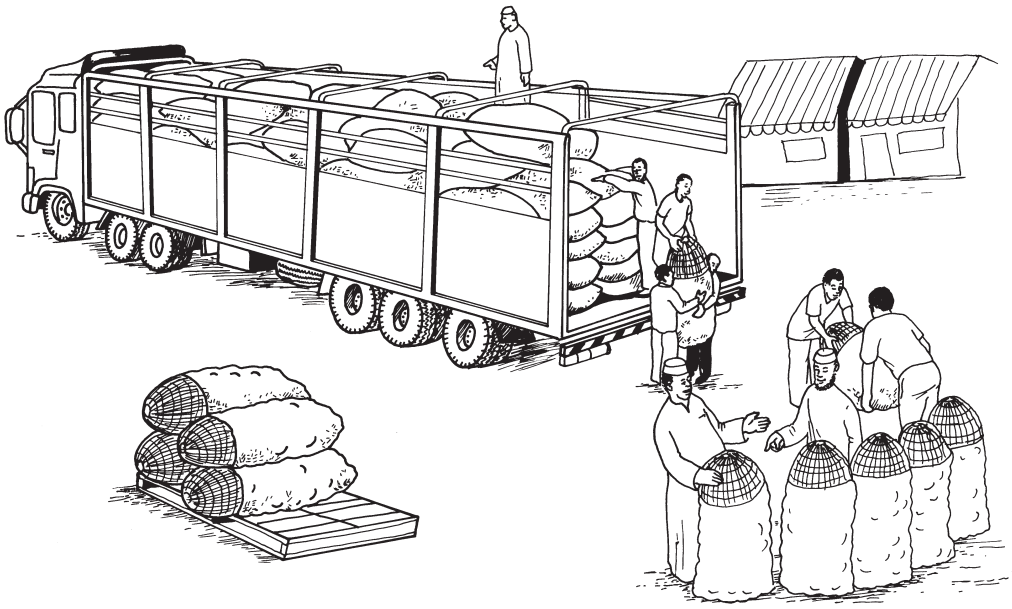
Every day, GAPTO staff scan the prices on Tradenet.biz and post them on a big board outside the centre, where everyone can see them. That allows traders to see the current prices and offers to buy and sell for eight major commodities in six markets in Ghana. They can come into the centre to get further details from GAPTO staff.

Tradenet.biz enables GAPTO and its members to identify profitable market opportunities and anticipate expenses. GAPTO has used the system to link with several of the other 150 or so agribusiness information centres throughout the region. Improved access to market information and better communication has enabled GAPTO to reduce the risk of price fluctuations and produce surpluses, and to find reliable trading partners. Producer groups also have access to the same market information via Tradenet.biz.

8,000 tons of onions

Ghanaians love onions. But onions do not grow well in Ghana because of the climate, so the country imports lots of them from Niger and Burkina Faso. But the trade was poorly organized and suffered from many of the problems described above. In addition, cross-border trade involves special problems (see Box 2.1, page 14).

A farming cooperative group in Burkina Faso called Société Coopérative Agricole et Maraîchère de Débé (SOCAMAD) was looking for a buyer of its onions. The farmers used to sell their produce to Côte d'Ivoire, but political instability there had cut them off from their traditional market. Using Tradenet.biz, SOCAMAD identified GAPTO as a potential buyer. A delegation of four SOCAMAD representatives visited GAPTO and met with the onion traders in Accra, and a team from GAPTO and the onion traders visited farms in Burkina Faso to check the quality and quantity of the produce. Everyone agreed that they should reach a deal.



Box 5.1 Tradenet.biz

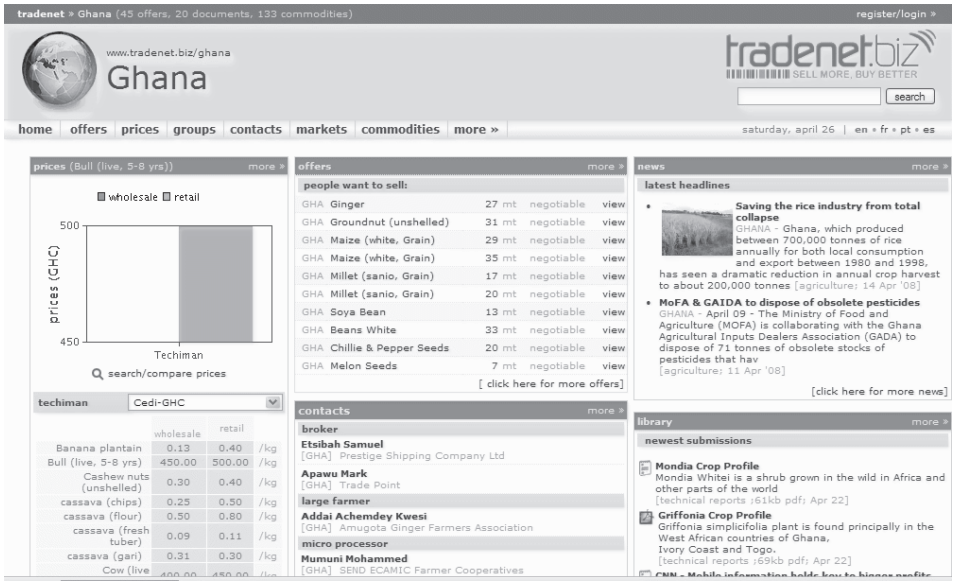
Tradenet.biz is a web platform designed for associations of farmers and commodity traders in developing countries. It provides information on prices of 100 farm commodities in 350 markets around West Africa. It offers news updates and a library of reference information on agricultural commodities in West Africa. It gives contact information for traders, producers and transporters. It allows traders and producers to offer commodities for sale or purchase.

Market enumerators, employed by national governments throughout West Africa, feed data on prices and quantities into the system. Associations like GAPTO also collect information on prices to supplement the official data. MISTOWA has trained them how to use the Tradenet.biz platform.

The information on Tradenet.biz can be accessed through the internet. Users can also get information on prices and buy and sell alerts via SMSs on their mobile phones. Certain organizations such as member associations can use the service to send SMS messages to registered users. The site is heavily used: in July 2007, it recorded nearly 70,000 separate visits by users.

Tradenet.biz was developed for MISTOWA by Busylab, a private company based in Accra. At the end of the MISTOWA project, Busylab will continue running the platform. It plans to continue offering some types of information for free, but will charge licensed members a fee to access premium content.

More information: www.tradenet.biz



Acting on behalf of the Accra onion association, GAPTO entered into a formal agreement with SOCAMAD for the supply of 8,000 tons of onions in the 2007 season. The agreement covered the quality of the produce, the credit terms, mode and terms of payment, roles of each partner, the exchange rate between cedis (the Ghanaian currency) and CFA (used in Burkina Faso), and the means of settling disputes. They agreed on a fixed price of CFA 10,000 per a 110 kg bag of onions during the off season, and CFA 8,000 per bag during the peak season.

SOCAMAD negotiated with the Burkina trade authorities for an export permit to reduce the delays and payments at the Burkina Faso border posts.

Transport

Eight thousand tons is a lot of onions – 161 big articulated truckloads. Every day or so during the season, a lorry brought onions from Burkina Faso to Accra.

The onion traders in Accra were organized into groups, which would take turns to send a representative to Burkina Faso. This trader would take with him empty sacks to fill with onions, check the quality of the produce, and supervise the packing and loading. He hired a lorry in Burkina Faso and rode with the lorry to Accra. Once in the Agbobloshie market, the lorry was unloaded and the onions distributed to the participating traders, who sold them to their customers.

Many lorries ply the route from Ghana to Ouagadougou, the capital of Burkina Faso, bringing goods from coastal ports. They often return empty. So transport firms are glad to find a load to bring the other way. The Accra trader would hire one of these lorries in Burkina Faso, and make a down-payment of 25% of the cost of the transport. The driver received the rest of the money 2 weeks later in Accra, when the traders had sold the produce. Because the drivers are based in Accra, they had no problem with this arrangement.

Financing the deal

How did the financing work? The Accra onion traders agreed among themselves how many onions each would take. They collected money from each trader to cover the transport down-payment, the cost of loading, custom duties, and other immediate expenses. The trader took this money with him when he travelled to Burkina Faso to supervise the loading (Figure 5.1).

SOCAMAD agreed to supply the onions on credit. Three weeks after the onions had arrived in Accra, and after the traders had sold their onions, the traders paid GAPTO. GAPTO deducted a 3% service fee, then transferred the money to SOCAMAD's account in a bank in Burkina Faso. Armed with its purchase agreement with GAPTO, SOCAMAD had persuaded this bank to provide loans to the farmers to produce onions. The bank deducted the outstanding loans plus interest from SOCAMAD's account. SOCAMAD then paid the individual farmers.

Benefits

The new arrangement works because everyone benefits: producers, traders, GAPTO and the bank.

Producers

- The producers, organized into SOCAMAD, are assured of a ready market for their produce.
- The producers deal with a respected organization (GAPTO) instead of an individual trader, so are sure of payment.
- The agreement with GAPTO gives SOCAMAD the collateral with which to get a bank loan.
- The producers are assured of a stable price, even during the peak season.

Traders

- The individual traders do not need to travel, make separate transport arrangements, or bargain on prices in Burkina Faso. GAPTO does this on their behalf.
- The traders know how much they are going to pay for supplies over a period of time.
- The traders have a credit facility through GAPTO. They do not have to pay for their onions until 3 weeks after delivery.
- The traders are spared of harassment and extortion along the road.

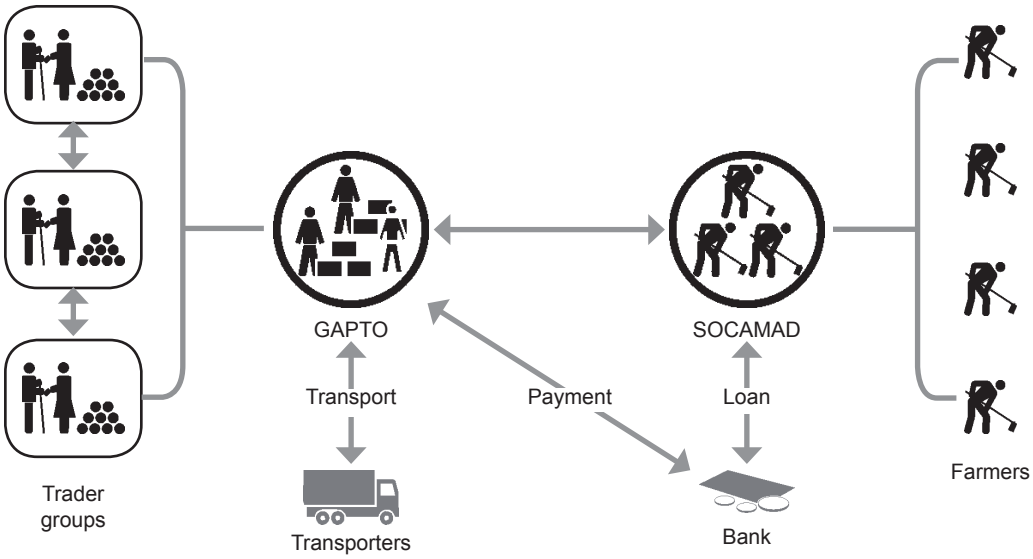


Figure 5.1 Financing the onion trade

- The traders are spared of the risk of armed robbery they used to face when carrying large amounts of cash to buy onions.
- The traders do not have to deal with translators, who may cheat them and the producers.

GAPTO

- GAPTO charges the traders a 3% service fee on each sack of onions. This generates funds to run the organization and the information centre.
- GAPTO has a tangible and value-added service to provide for its members. The deal acts as a bait to attract other traders to join the organization.

GAPTO and SOCAMAD have negotiated a similar deal for the 2007–8 growing season. GAPTO has reached similar arrangements on potatoes (with a growers' cooperative and a development project in Mali) and beans (with a traders' association in Nigeria). It is hoping to develop similar agreements to cover other commodities. GAPTO is focusing on cross-border trading opportunities in order to promote regional trade and to capitalize on the Tradenet.biz market information system.

The bank

- When granting a production loan to SOCAMAD, the bank requires that GAPTO pay through the bank. This assures the bank that the loan will be repaid.
- The bank now has a reliable method of granting loans during future production seasons.

Challenges

Through Tradenet.biz, traders and producers can now get the information they need to make informed decisions. But challenges remain:

- Prompt payment by the onion traders is crucial if GAPTO is to meet the payment terms. If traders do not pay, GAPTO may default. When this occurred once, GAPTO took the wayward traders to court to force them to pay. The existence of a legal contract between GAPTO and the traders enabled GAPTO to enforce the agreement.
- Other commodity groups under GAPTO are pressing the organization to negotiate similar deals on their behalf. GAPTO must ensure that it selects its partners carefully and negotiates deals that are profitable to all concerned.
- GAPTO faces the challenge of disseminating market information more efficiently. Currently producers and traders must visit the information centre in Accra (or they must have their own internet connection) to get detailed information from Tradenet.biz. GAPTO is looking for ways to remove this barrier, bringing the information to the doorstep of each producer and trader.

Table 5.1 Value shares of actors in the onion value chain, Burkina Faso and Ghana

GH¢ per 110 kg sack of onions (€1 = GH¢ 1.35)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer		19.00		19.00		48%
Wholesaler	31.40	37.00	5.60	18.00	15%	45%
Retailer	37.85	40.00	2.15	3.00	5%	8%

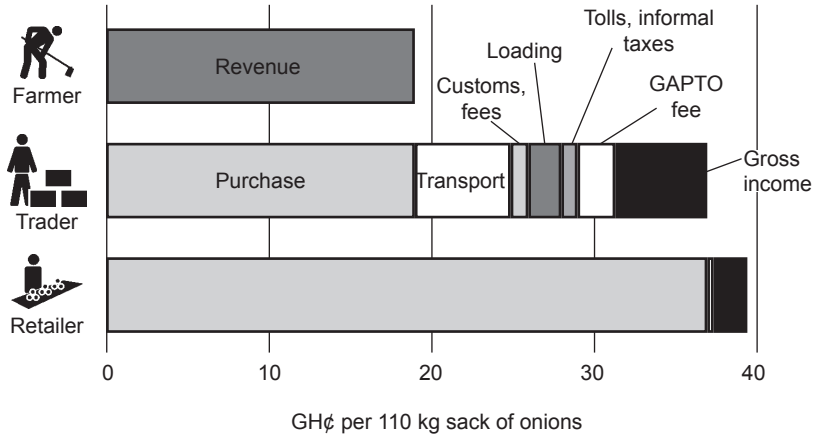


Figure 5.2 Costs and revenues of actors in the onion value chain, Burkina Faso and Ghana

Value shares of actors in the marketing chain

Bringing a load of onions from Burkina Faso to southern Ghana involves substantial costs: some 30% of the retail price of the produce. The major cost, apart from purchasing the produce itself, is transport; this costs GH¢ 6.00/kg, about 20% of the value of the onions when they arrive in Accra. Other costs include loading and unloading, customs, road bills, informal taxes, and the fee GAPTO charges for its services. Overall, the wholesaler earns a gross margin of 15% on a load of onions (Table 5.1, Figures 5.2 and 5.3).

GAPTO, SOCAMAD and the bank are coming to play a key role in the onion trade. Everyone benefits: farmers in Burkina Faso are better off, since they now have a market for their produce. The wholesalers and retailers in Accra have an assured supply of onions to sell. And Ghana's consumers have a more reliable, cheaper supply of onions.

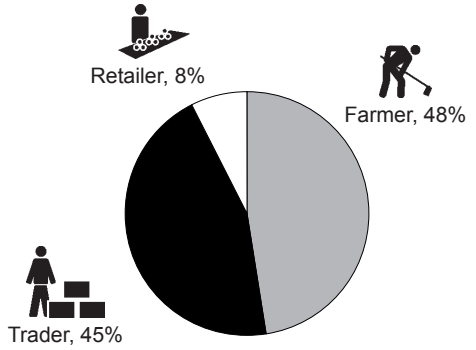


Figure 5.3 Value shares of actors in the onion value chain, Burkina Faso and Ghana

How the market structure has changed

The market used to consist of farmers and traders acting without formal organization among themselves, without formal credit and money transfer procedures, and with little market information (Figure 5.4).

Through the new arrangement, SOCAMAD and GAPTO provide much-needed organization among farmers and traders respectively. Because they are organized, they can access bank services. And Tradenet.biz provides market linkages and price information.

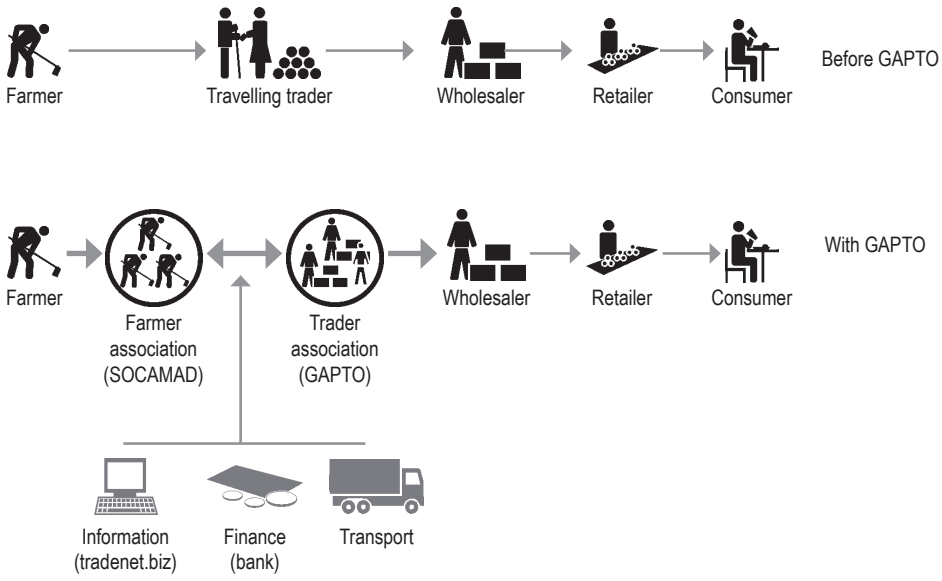


Figure 5.4 Changes in the onion market structure, Burkina Faso and Ghana

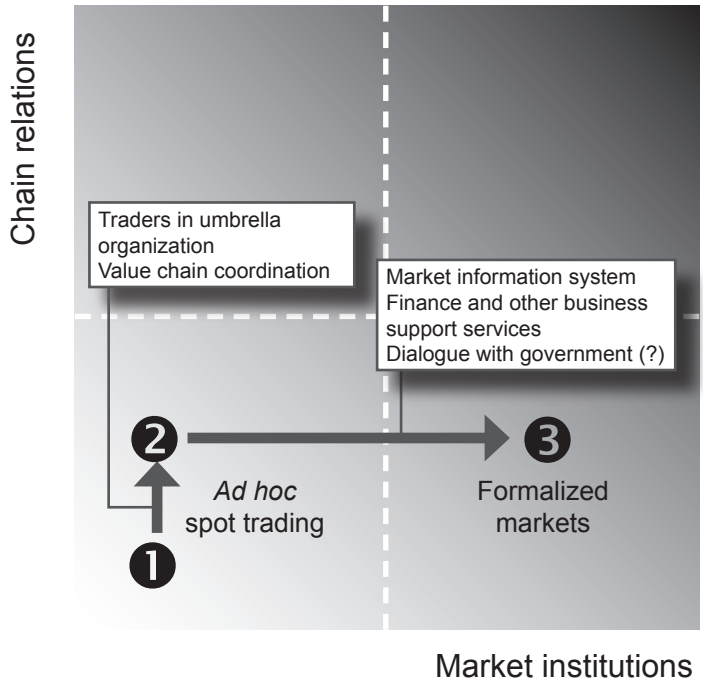


Figure 5.5 Chain relations and market institutions in the onion trade, Burkina Faso and Ghana

Chain relations and market institutions

Previously, chain relations were poor – the traders and farmers did not know each other, and relations were *ad hoc* and had to be created anew each season (Figure 5.5). Mistrust was rife. There were no market institutions such as credit or market information to enable the actors to do anything except *ad hoc* spot trading. ❶

The advent of GAPTO and SOCAMAD has enabled both traders and producers to organize themselves, coordinate their activities, and create linkages between the two groups. ❷

GAPTO and Tradebiz.net provide a market information system that keeps traders and their customers informed about prices and quantities available in the market. GAPTO and SOCAMAD have linked with the bank to obtain finance, contracting, legal support and other business support services. ❸

More information

Haruna Agesheka, GAPTO, gaptosheka@yahoo.com

Musa Salifu Taylor, MISTOWA, musa_taylor@yahoo.com, mtaylor@ifdc.org

Tradenet.biz: www.tradenet.biz

Warehouse receipts for coffee marketing in Tanzania

In Tanzania, like in many other African countries, coffee used to be closely controlled by the government. The coffee market was regulated through a national commodity board and through the cooperative unions – groupings of rural cooperative societies.

The rural coops were not really grassroots organizations where farmers joined forces, but acted merely as agents of the government-controlled unions. They received directives from the union they were a member of, and from government officials. Their main tasks were distributing subsidized inputs and to assemble coffee grown by their members to sell to commodity boards, at prices fixed by the government. They were not allowed to trade with private traders, and private traders were not allowed to buy from farmers, the rural coops or the unions. Multinational companies were required to apply for a license as a coffee exporter and were allowed to buy from only one source – Moshi Coffee Auction – an auction centre in the northern Tanzania.

The marketing system for other export crops was similar. There were commodity boards for cotton, sisal, tobacco, cashew, tea, sugar, and many other crops.

During the late 1980s, this marketing system began to collapse. Most of the crop boards borrowed heavily from commercial banks using government guarantees. But the government, short of revenue, failed to pay, so the banks refused to extend further credit. The commodity boards could not pay the unions, which could not pay the rural coops, which could not pay the farmers. The heavily indebted commodity boards also failed to pay their input suppliers. Crisis ensued.

Free market

In 1993 the coffee board was reformed. The marketing function was left to the private sector, while the board's regulatory functions were streamlined. Private companies – both local firms and multinationals – were allowed to buy coffee from farmers. To everyone's surprise, these firms offered the farmers higher prices than the unions. Staff of the cooperative system were puzzled, farmers were happy, and the government was able to collect taxes.

But the situation did not last long. Prices on the world market started to fall. In 1993 farmers received TSh 1,200 (then US$ 3.00) per kilogram of "parchment coffee" (dried coffee cherries), while in 1998 they got only TSh 450 (then US$ 0.70).

Mistrust resulted as farmers felt exploited by the exporters, which in turn claimed to suffer huge losses from the falling prices.

By that time, multinational traders had come to control 90% of the local market and almost all the international trade. They had crowded out most of the local traders, who lacked business skills and access to finance, faced long and expensive licensing procedures, and had to compete with a cartel of multinationals who offered low prices at the Moshi Auction.

So the farmers were in a quandary. They could abandon coffee production, but they had made a big investment in their bushes and had few alternative crops. They might sell through cooperative unions, but the unions by this time were acting like any other multinational exporter.

Selling through their primary cooperative was also fraught with difficulties. Because of their bad experiences in the past, farmers generally mistrust the coops. The farmers demand at least some payment up front before they are willing to part with their parchment coffee. But the rural coops lacked working capital to pay their members in cash. Local banks were not ready to finance the cooperative unions because they still had outstanding loans and had no collateral.

Warehouse receipt system

In 1999, the Tanzanian government and the Common Fund for Commodities (an arm of the United Nations) started a project to develop a warehouse receipt system to overcome some of these problems. Aimed at small-scale traders, coops and farmers, the system aims to enable these small-scale actors to use their crops as collateral to get credit from a bank. The project started out with two commodities – coffee and cotton – as a pilot for others. The Common Fund wanted to develop the project to strengthen the private traders, but suspicious of the private sector, the government insisted that it also focus on coops.

The system works like this (Figure 5.6):

1 At their annual general meeting, the coop members estimate how much coffee they expect to harvest that year.
2 The coop managers then approach the bank with this harvest projection, and request a loan.
3 The bank issues a group loan to the coop. This first loan is enough to cover the purchase of 4 tonnes of "parchment" coffee (coffee cherries that have had the pulp removed and that have been dried), and it is issued to all interested 32 rural coops under the system.
4 The farmers deliver parchment coffee to the coop store, and the coop pays them 65% of the value. It gives them a promissory note for the remaining amount.
5 The coop then bulks the coffee from different farmers, and transports it to the warehouse.

6 The warehouse operator weighs the coffee, grades it, and issues a receipt to the coop.

7 The coop managers can then go to a bank with this receipt, and use it as collateral for a further loan – perhaps for a larger amount of coffee.

8 The warehouse operator sends weekly reports to the bank showing the amount of coffee in storage and its ownership, so the bank can check that the receipt is genuine.

9 Meanwhile, the warehouse employees process the parchment coffee to remove the husks, grade it again, and prepare the necessary documents so it can be auctioned.

10 The warehouse sends these documents to the Moshi Coffee Auction, which sells the coffee to bidders.

11 The winning bidder pays the Tanzania Coffee Board, which owns the Moshi auction house.

12 The Coffee Board then deducts the cost of processing and storage, and pays the bank.

13 The bank in turn deducts the amount the coop has loaned and interest, and pays the coop the remainder of the proceeds.

14 The coop pays the farmers the remaining 35% it owes them, plus any profit (or minus the loss if the auction fetches less than expected).

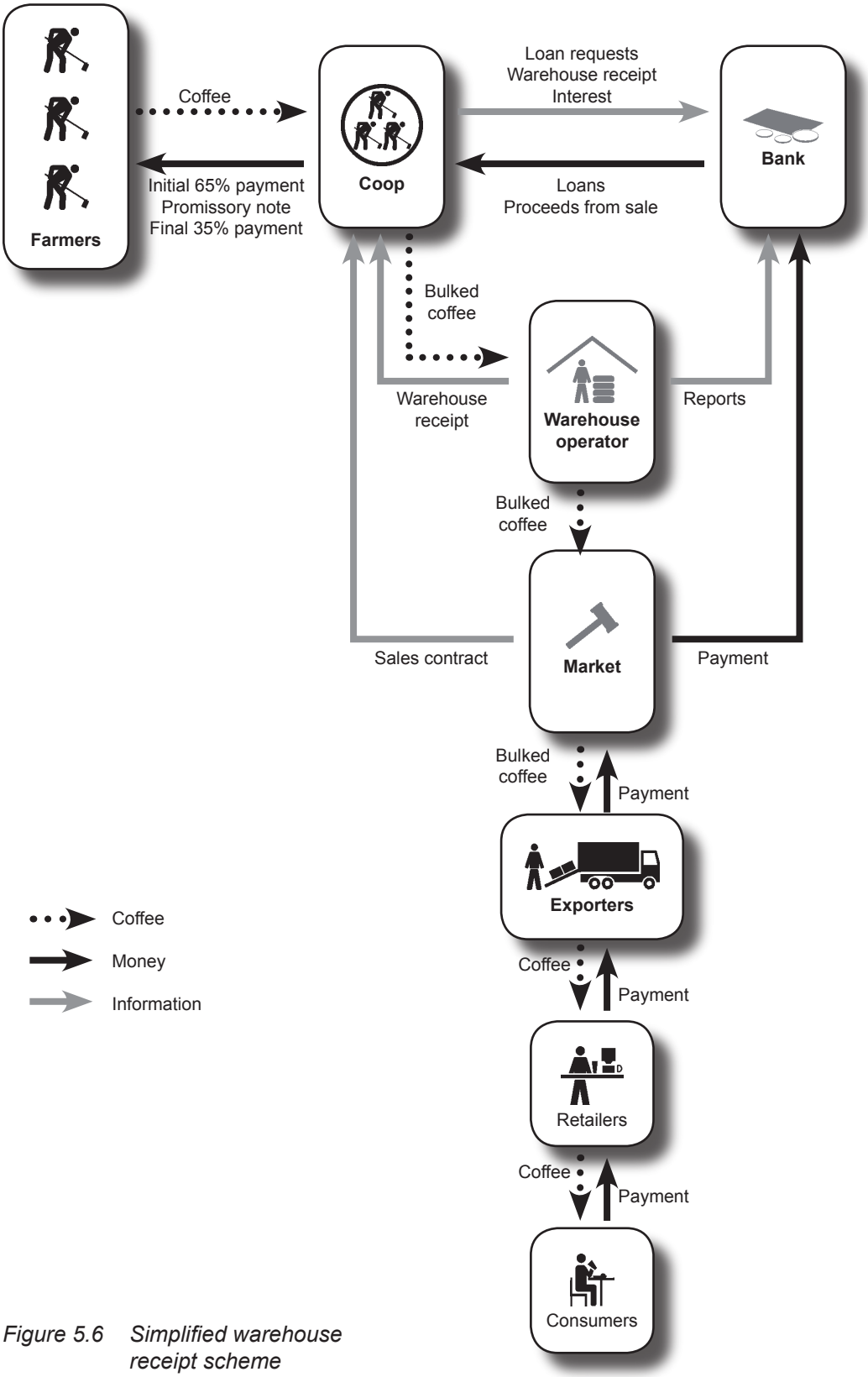


Figure 5.6 Simplified warehouse receipt scheme

This cycle can repeat up to 16 times in a 6-month marketing season, depending on the volume of coffee produced and market conditions. That means that the coop might get a new loan and deliver a load coffee to the warehouse roughly every 2 weeks during this period.

Auctions are conducted in Moshi every week on Thursdays during the season. The auctions are handled electronically and are transparent, so all bidders can see the highest bid and the identity of the bidder.

Six privately owned warehouses are participating in this system, distributed in prime coffee-growing areas throughout the country. The warehouses operate according to certified procedures, derived from the Warehouse Receipt Act. This Act, which became law in June 2005, establishes a government-financed Warehouse Licensing Board to govern the receipts system (Table 5.2).

The Tarakea Rural Cooperative Society

In September 1999 the warehouse receipt system for five regions in northern Tanzania was officially launched in Arusha. A project management unit was formed, comprised of officials from the government and local representatives of the coffee and cotton boards. There was also a National Advisory Committee of 23 people from different key stakeholders. (Similar projects were launched in other parts of the country.)

The project began by sensitizing local traders, coops, farmers' business groups, potential warehouse operators, and financial institutions. The Tarakea Rural Cooperative Society was one of 90 coops that attended these sessions. The Tarakea Rural Coop is a primary coffee marketing society in Rombo District, on the slopes of Mount Kilimanjaro. It had started trading coffee on its own in 1999 after splitting from a larger cooperative union. In the 1980s, the Tarakea area had produced as much as 400 tonnes of coffee a year, but production had fallen to just 150 tonnes in 1998, of which the Tarakea Rural Coop accounted for 56 tonnes.

Table 5.2 Actors in the warehouse receipt system in Kilimanjaro

Actors	Institution
Depositor	Tarakea Cooperative Society Ltd (and other coops)
Warehouse operator	Tanganyika Coffee Curing Co Ltd
Financial institution	Kilimanjaro Cooperative Bank Co Ltd
Markets	Moshi Coffee Auction
Government	Ministry of Industries Trade and Marketing
	Tanzania Coffee Board
	WRS Project

The Tarakea Rural Coop has 1,500 active members, of whom 150 are women. Members cultivate an average of about 1 hectare of coffee.

Like other coops, the Tarakea Rural Coop makes three payments to its members each season. The first is when farmers deliver their coffee to the coop: they receive a payment of 65% of the expected market price of the coffee. After the coffee has been sold, the coop pays another 25% of the price. The final instalment is paid at the end of the season after the administrative costs have been deducted.

The Tarakea Rural Coop charges its members for its services: about TSh 10 per kilogram of coffee. This is enough to cover staff salaries, the cost of stationery, and an allowance for board members. The coop gets a loan of about TSh 2 million (€1,250) from the Kilimanjaro Cooperative Bank to pay its members for their first consignment of coffee.

Teething troubles

In 2000, the warehouse receipt project had started up but was experiencing teething troubles. The bank was not able to arrange finance for the initial loans in time. Despite this, the Tarakea Rural Coop managed to collect about 10 tons of parchment coffee from its members without the first payment. The coop took the coffee to the warehouse, got the warehouse receipt, but the bank still did not have money available for loans. The project was slow in starting up, its staff had not yet been able to persuade the two local banks to participate. The Bank of Tanzania refused to recognize coffee as collateral, and the Kilimanjaro bank officials were not interested in the coffee business because they thought it was government controlled. These difficulties halted the process for the whole season.

The next year, the project invited an international consultant to train government and bank officials about the warehouse receipt system. After further negotiations, the Kilimanjaro Bank agreed to test the system with a few carefully selected primary rural coops. The first loans were made in 2002: 32 coops received loans from the Kilimanjaro Bank using warehouse receipts as collateral. The project had approached other banks, but they declined to participate. It was easier for the Kilimanjaro Bank to accept the idea because it is a cooperative bank with responsibility to the coop movement. Since 2002, the system has worked smoothly.

Prices

Members who sell their produce through the Tarakea Rural Coop get a better price than other producers through alternative marketing channels. During the 2005/6 season, for example, coop members received TSh 2,100 per kg of parchment coffee. Most other coops in the warehouse receipt scheme do not perform that well: they paid TSh 1,800 per kg. The cooperative unions in the Kilimanjaro area, not part of the warehouse receipt scheme, paid just TSh 1,500, while private traders paid TSh 1,250 per kg. These differences are due to quality, marketing

costs, and the time of the sale. The Tarakea Rural Coop has been both efficient in its marketing, and lucky in the timing of its sales.

The coops are able to pay farmers substantially more than private traders because the coops sell further up the chain: they own the processed beans that are offered for auction. The private traders, on other hand, buy parchment coffee and arrange the processing and other steps up to the auction, so any profit to be made accrues to them (rather than to the farmers).

The rural coops have lower overhead than the unions. The coops incur about TSh 250 of costs per kg of parchment coffee: about 60% of this is the cost of transport, processing and bank charges, while the remainder is administrative overhead. The average overhead of the unions is about TSh 700 per kg: unlike the coops, they have to pay staff salaries for the whole year, they have higher transport costs, and they borrow money (so pay interest) over the whole year rather than cycling their loans quickly.

From 2005 to 2007, the Tarakea Rural Coop managed to build a cash reserve of TSh 37 million (€22,600). This now enables it to pay the initial payments to farmers without borrowing from the bank. The Tarakea Rural Coop also contributes TSh 5 per kg of coffee it handles to the village authorities for community development activities such as school-building and water projects. The coop has also started to pay an allowance of TSh 3,000 to members who attend the annual general meeting.

Figure 5.7 reflects the Tarakea Rural Coop's success. Since 2002, it has continuously increased the amount of coffee it has sold through the warehouse receipt system, and has been able to access three times the amount of loans from the bank. More farmers are joining the coop, and members are rehabilitating their

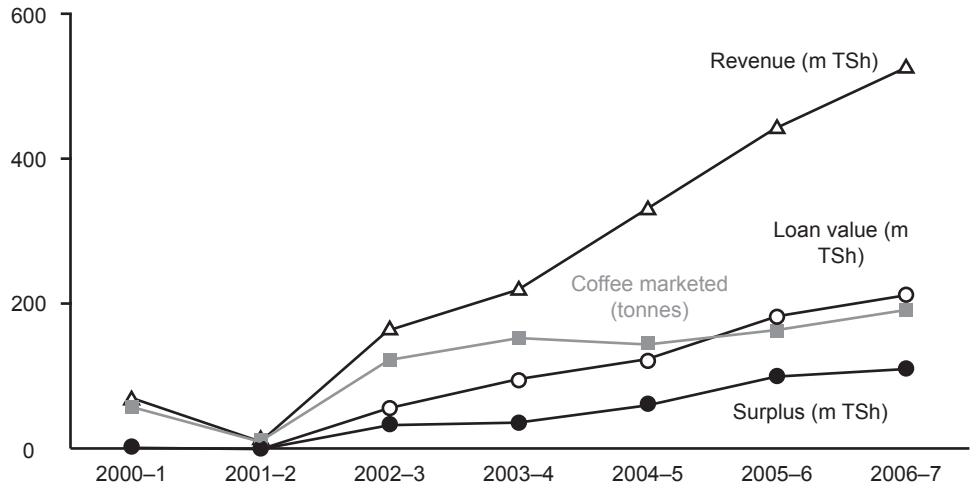


Figure 5.7 Loans and revenues from coffee marketing by the Tarakea Rural Cooperative Society

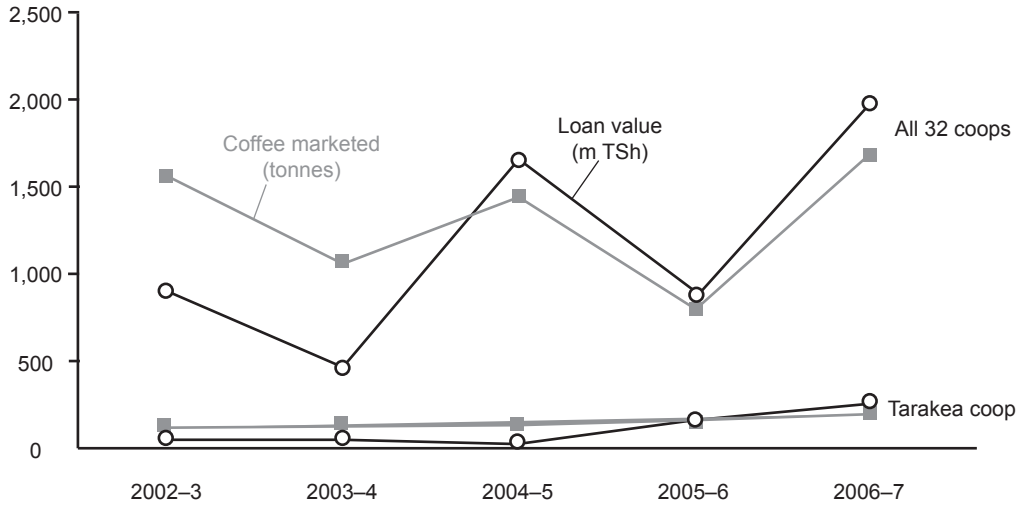


Figure 5.8 Coffee marketed by Tarakea and other coops in the warehouse receipt scheme, Kilimanjaro Region

farms. Production in the area has risen from 150 to more than 300 tonnes (not all farmers in Tarakea are members of the coop).

For all 32 coops in the scheme, the amount of coffee marketed and the level of loans have fluctuated from year to year (Figure 5.8). There are various reasons for this, including weather, weakly organized cooperatives, and interference by unions which wish to retain their member coops.

National impact of the warehouse receipt system

Smooth operations After the initial teething troubles, the system is now performing well. Unlike the previous credit arrangements, there have been no defaulters anywhere in Tanzania. The farmers are guaranteed returns and get credit to support their operations. The coops have regained their members' trust and have a flourishing business. The warehouses have gained business, and the banks have expanded their loan portfolios.

New market opportunities More coffee marketing channels have been introduced, and their transparency has increased. In the 2006/7 season, one coop managed to export 40 tonnes of coffee to Japan. The warehouse receipt system exposed them to the auction, where they learned they could sell coffee on their own, and they started to search for international buyers. In 2007, a joint venture of eight coops in the Kigoma Region signed a contract to sell 300 tonnes to a firm in the USA. The coops use the warehouse receipt system to get loans, but sell direct to the American firm rather than using the auction system.

More participants In addition to coops, local private traders and farmer's business groups are now participating in the system. In 2007, some 45 coops, six

cooperative unions, about 30 business groups and eight private companies did so. The increased competitiveness of these Tanzanian enterprises has enabled them to increase their market share from 10% in 1999 to more than 60% in 2006/7. Six commercial banks now finance commodity trade under the warehouse receipt system.

Higher prices Farmers' prices for coffee have increased more than six-fold since 1999. The warehouse receipt system gives farmers a better price than other players – up to TSh 350–700 per kg more.

Legal framework The Warehouse Receipt Act and its regulations are in place. The Act specifies a procedure for licensing warehouses under the receipt system, and what each actor does in the scheme. The government has liberalized currency controls and now allows the sellers to be paid in US dollars.

Other commodities The performance of the warehouse receipt system for coffee (and cotton) has encouraged the government to replicate the system for other commodities, such as cashew nuts, rice and maize. The Federal Bank of Middle East has agreed to finance about 300 tonnes of rice grown in Kilombero, Morogoro Region, in 2007, while the National Microfinance Bank has financed cashew nuts in Mtwara in 2007/08.

Challenges

Creating functioning warehouses This is the responsibility of the private sector. There are now seven officially recognized warehouse operators in Tanzania, dealing in coffee, cotton, paddy and maize. In 2007 five more were registered in the cashew subsector. Their experience is variable: some have recently joined the scheme, while others are in their sixth year of operations. Others potential operators are not interested in joining the scheme because they do not understand the warehouse receipt system, or have long-term business plans which they are reluctant to change.

Warehouse receipts as trading instruments The warehouse receipt system would work best if the receipt itself could be traded – if farmers could buy and sell their receipts. This is not yet possible in Tanzania as government regulations do not allow it.

Low level of production Commodity trading works well if large quantities are traded. But Tanzania's small-scale farmers each produce only small amounts. The coops manage to pool their members' output into larger batches, but the size of each batch is still relatively small.

Formation of farmers' business groups and coops Creating stable coops and farmers' business groups is a long, costly process. So is building stable, reliable institutional linkages. Both rely heavily on government actions and policies: registration, auditing, inspections, reporting, etc.

Market cartel In some regions there is a market cartel of big traders and cooperatives, and politics is intertwined with production and marketing.

Value shares of actors in the marketing chain

Table 5.3 and Figures 5.9 and 5.10 show costs and revenues of the actors in the various marketing systems.

As can be seen from the figures, the warehouse receipt system is much more efficient than the Union system and the multinational trading chain. The coops process the beans themselves and deal directly with warehousers and exporters, so they avoid many of the expenses incurred by the unions or traders. Consequently, they have only a 15% share of the export price, which is low in comparison to the traders (37%) and the unions (31%).

That's why the farmers make more money in the warehouse receipt system. In the warehouse receipt scheme, farmers earn 77% of the exporters' price. Under the Union system, farmers earned just over 60% of the export price. Farmers selling to private traders or multinationals are even worse off: they earn only 55% of the exporters' price.

Table 5.3 Value shares of actors in the coffee value chain, Tanzania

TSh per kg coffee, 2006/7 (€1 = TSh 1,720)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Union marketing system						
Farmer	750	1,500	750	1,500	50%	61%
Coop union	1,500	2,250	750	750	33%	31%
Exporter	2,250	2,450	200	200	8%	8%
Multinational marketing system						
Farmer	750	1,250	500	1,250	40%	55%
Trader	1,250	2,100	850	850	40%	37%
Exporter	2,100	2,290	190	190	8%	8%
Warehouse receipt system						
Farmer	750	1,800	1,050	1,800	58%	77%
Coop	1,800	2,150	350	350	16%	15%
Exporter	2,150	2,340	190	190	8%	8%

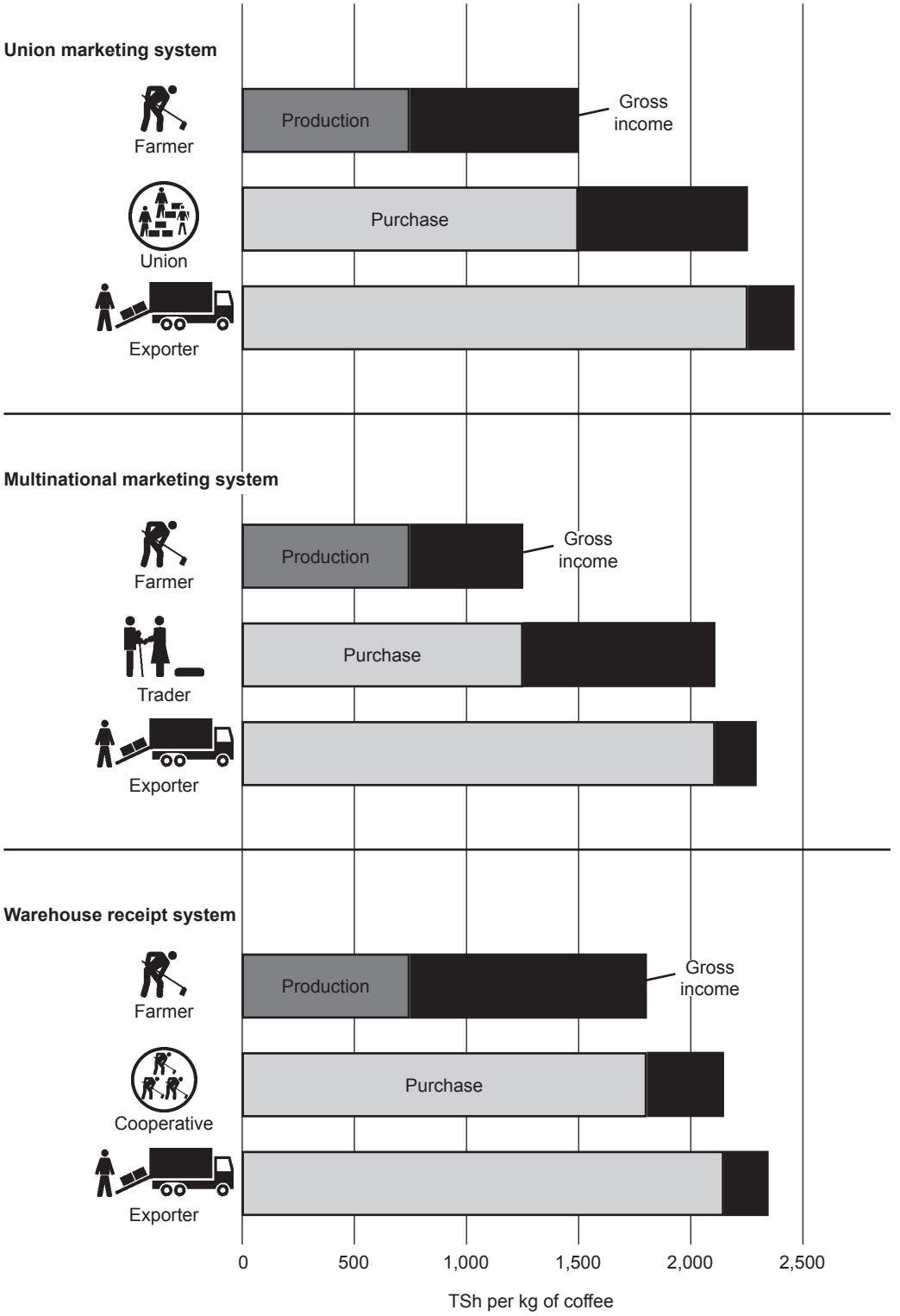


Figure 5.9 Costs and revenues of actors in the coffee value chain, Tanzania

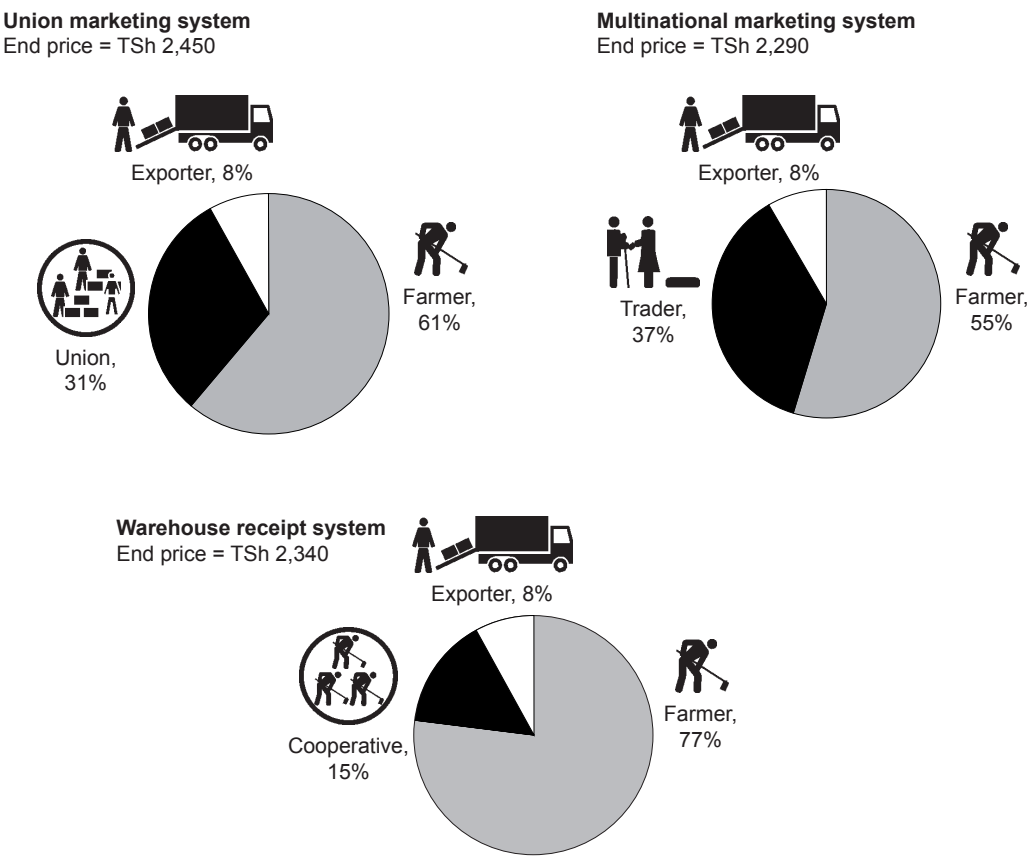


Figure 5.10 Value shares of actors in the coffee value chain, Tanzania

How the market structure has changed

Before trade liberalization, the unions and Coffee Board played a major role in marketing coffee (Figure 5.11). But starved of funds and with prices fixed by the government, they fell into debt and the system collapsed.

The system that replaced it bypassed the coops altogether. Deep-pocketed multinational firms crowded out local private traders and came to dominate the marketing system.

The warehouse receipt system has given a new lease of life to the coops by integrating two important new service providers into the coffee marketing system: the warehouse and the bank. Both provide vital services: the warehouse stores, grades and bulks the coffee and prepares it for auction; it also provides the guarantees that the bank needs to approve loans.

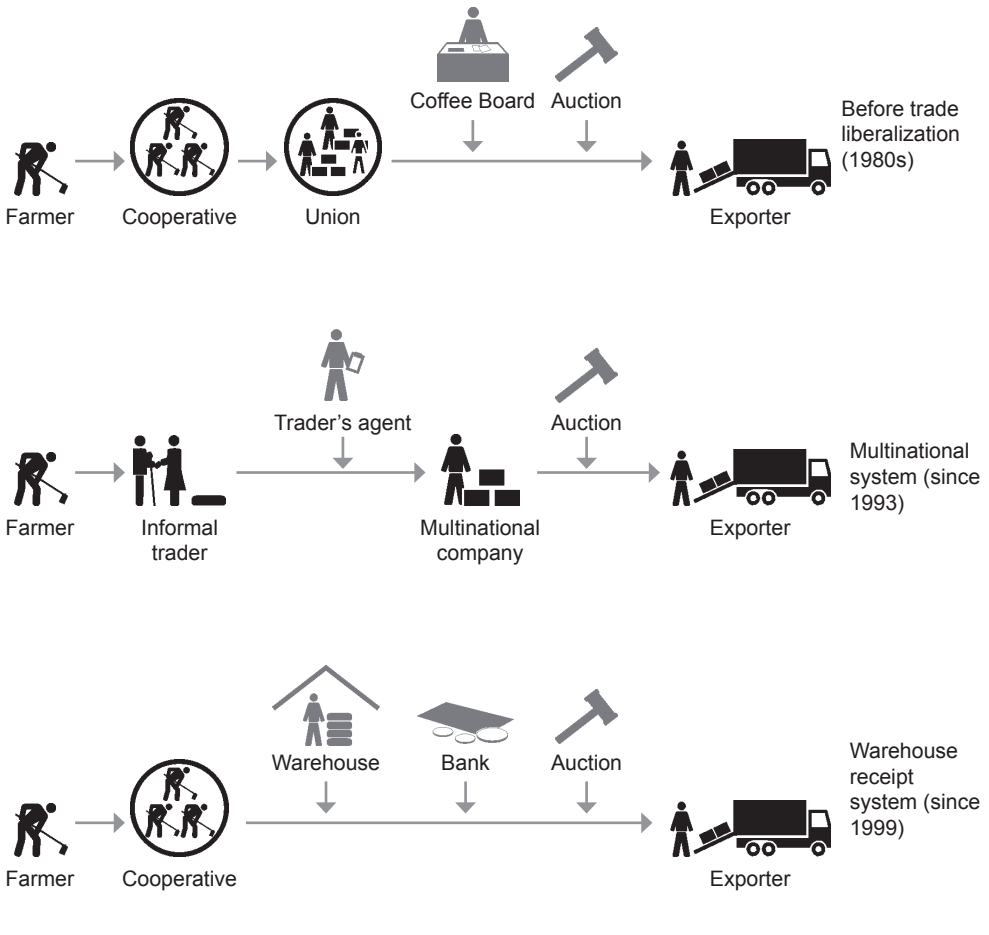


Figure 5.11 Changes in the coffee market structure, Tanzania

Chain relations and market institutions

The heavily regulated union marketing system resulted in stable business relations among the various players ❶ – there was no competition, and farmers had no choice as to where to market their coffee (Figure 5.12)

But this system was too rigid. Its collapse under mounting debts led to the dismantling of the state marketing boards and the emergence of a spot market of informal traders and eventually the market dominance by multinationals. ❷

The warehouse receipts system has introduced various institutional innovations: quality grading, financial services such as loans and guarantees, and improved legislation. ❸

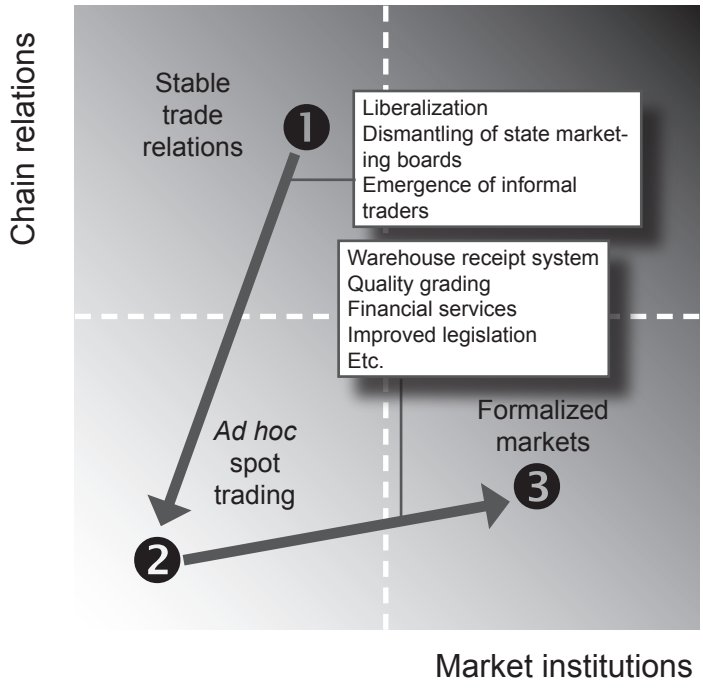


Figure 5.12 Chain relations and market institutions in the coffee trade, Tanzania

More information

Temu Joachim Fidelis, Tanzania Warehouse Receipt Project, fideldor@yahoo.com

Making peace with city government: The yam queen in Kumasi Central Market, Ghana

FLASHBACK TO 1997. ANGRY women traders poured onto the streets of Kumasi wearing red armbands and singing war songs. The city government, the Kumasi Metropolitan Assembly, had doubled their market tolls overnight, without consulting them or their leaders. Led by the "queens" and elders of their commodity groups, they marched from the huge Kumasi Central Market to the city government offices to demand a meeting with the Mayor.

How did the city authorities respond? The security guards stopped them at the gates, and none would even deliver their message to the Mayor. When the women refused to go home, the Mayor called the police, who fired tear gas to drive them away.

Why was there such a strained relationship between the traders and the city government in 1997? After all, the city derived a considerable part of its annual budget from tolls and stall rents in markets throughout the city. The city government also acted as landlord to the market traders, so its undemocratic style of management affected them directly. The Mayor frequently sent directives to their senior leader, the head of the Yam Traders' Association, without any prior consultation or warning. On some occasions, he summoned them all to meetings and then kept them waiting for hours, or failed to appear at all. The women traders considered themselves important stakeholders in the market who should be involved in decision-making. They bitterly resented the lack of respect this treatment showed, as well as the abrupt rise in their daily taxes. Other informal occupational groups with male members, such as drivers and shoemakers, were treated much more politely and their views were taken seriously.

Kumasi Central Market

The Kumasi Central Market is one of the largest open markets in West Africa. It opens every day of the week to host about 20,000 regular traders, 70% of them women. Some 200,000 people come daily from all over Ghana and beyond to buy and sell in the market. The market sells local farm produce and manufactured goods from all over the world. Kumasi residents still faithfully patronize the market every day, rather than shopping in stores elsewhere in town.

The city government owns the land occupied by the market. It hires the market manager and other staff who are responsible for various aspects of running the market. They rent out stalls to traders for GH¢ 3 a month, and collect a toll of GH¢ 0.2 from each trader each day. They keep the market clean and tidy, and repair the roads, pavements, roofs and stalls. They provide utilities such as water, electricity, telephones, storm drains and water hydrants.

Over the years, the city government has energetically collected tolls and rents, but has spent very little of this money on cleaning or repairs, let alone work to prevent accidents and improve facilities.

Market queens

Traders in markets all over Ghana organize themselves into groups according to the commodity they sell. These commodity groups have a major role in the smooth running of their market. At the Kumasi Central Market, traders in each of the commodities have their own group with its "queen" or elder, who has the unwritten authority to maintain law and order in the market and settle disputes among her members. All these groups have shared interests in the amount they pay for daily tolls and stall rents, and in the leaking roofs, crowded aisles and cracked pavements that make their work difficult.

Box 5.2 Selling yams pays well

Adjoa Fosua returned to Kumasi with her three daughters after a failed marriage in Tarkwa. A relative who sold yams in Kumasi Central Market suggested that she join her there, and arranged for her to have a stall nearby. She would buy a hundred yams in the wholesale lane and retail them to consumers over several days. Sometimes the wholesalers would let her pay for the yams after she finished selling them, so she could take several hundred at once.

After some time, she got her chance to make it big. One of the prosperous wholesalers advanced her the capital to become a travelling wholesaler, buying up yams from farmers for a week or two before bringing a lorry load back to the Kumasi wholesaler. The profit on each trip was split with her investor, but slowly she was able to save up her own capital to use as well. Today she is a proud owner of a fine home and she has paid for university education for her daughters.

All the Kumasi Central Market traders recognize the Yam Queen as their senior leader. Yams make up 40% of the goods sold in the market, and are the most prestigious staple food for the Asante, the local ethnic group. Among the market queens, the Yam Queen is first among equals, which gives her the authority to represent the interests of all the market traders (male and female) at formal and informal negotiations, and summon all the commodity queens to meet when any general problem arises and to attend large public gatherings or festivals.

A new Yam Queen is chosen by the senior yam traders from among their number. She is selected based on her strength of character, integrity, transparency and leadership ability. She is assisted by a deputy, a secretary and a team of ten elders, who are all active traders in the market (Box 5.3). Once she takes office, she normally remains there for life.

Yam Sellers Association

All the yam traders in the central market are members of the Yam Sellers Association, and at least 5,000 members pay monthly dues. The association is vibrant, and the yam market comes to a standstill during its meetings. The purpose of the association is to protect the livelihood of its members. Members are expected to abide by the regulations decided by the Yam Queen in consultation with her elders. To ensure that business is carried out smoothly, they:

- Regulate the number of lorries (normally 10) that can offload yams each day. This preserves both farmers' and traders' incomes by avoiding spoilage and low prices caused by an excess supply.
- Arrange for a parking lot where lorries can wait to unload, so travelling traders and drivers can go home to sleep instead of waiting for days in the lorry.
- Keep order to prevent time and goods from being lost.

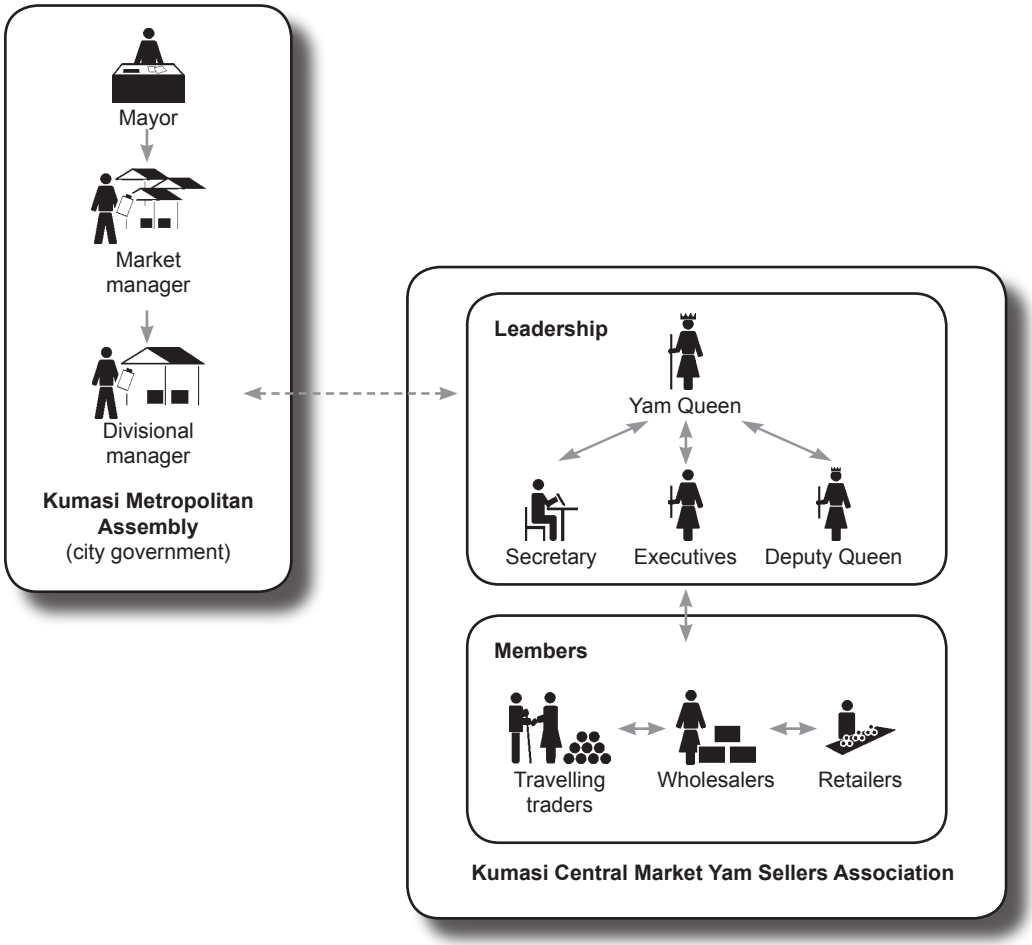


Figure 5.13 The Kumasi city government and the Yam Traders Association

Box 5.3 A leader for the future

Dora had a good job as a secretary, but after her children were born she found it difficult to arrange child care. One of her grandmothers traded yams in the Kumasi market, and suggested that Dora join her there. Dora could leave her young children in the retail stall with her grandmother, while she stayed in the wholesale lane to receive yams from travelling traders and sell them on to retailers.

To shelter her stacked yams from the sun and rain, she began covering each stack with a cheap umbrella. Soon all the other wholesalers began doing the same, leading one elderly trader to say she was teaching them new ideas – was she the yam queen? When the elderly male secretary of the yam group fell ill and retired, Dora was elected to replace him because of her literacy and English skills. Although literate yam traders are still relatively few, they are well accepted and valued by the illiterate members.

- Bring disputes immediately to the Yam Queen for arbitration. This avoids delays and court costs. Anyone who defies her authority is sanctioned according to rules that are well understood but not formally documented.

The Yam Traders' Association brings together three categories of traders: travelling traders, wholesalers and retailers (Figure 5.13 and page 139).

Association members can extend credit with confidence, knowing that the Yam Queen can help them collect if the borrower defaults. This enables traders to extend credit to suppliers or customers, depending on the current market conditions. A wholesaler can advance capital to a traveller to bring yams for her when the supply is scarce. Sometimes travellers will leave money with a contact in the supply area to buy for them. A traveller also can advance money to farmers to hire labour to weed or harvest.

The trust established between traders through the Association helps them to deal with many individual challenges. If a traveller is sick or has a family funeral, she can entrust her capital to a friend who will buy for her in the supply area and bring her the yams. Monthly dues of Gh¢ 0.50 go into a fund for members to draw on for mutual aid and social support. A schedule of payments details how much a member receives in case of bereavement and illness. Members in good standing can also request one-time assistance or loans from the elders, to put them back in business after a theft or other crisis.

Building skills to manage conflict

The Centre for the Development of People (CEDEP) had watched the 1997 standoff between the traders and the city government with concern. Worried about general discontent with the city government, the Kumasi-based NGO wanted to avoid similar confrontations. Established in 1983, CEDEP has developed strong competencies in participatory learning and action, enabling it to support the transformation of communities and civil society groups. Before 1997, it had worked with the market traders on a small scale, so had built trust among the market leaders.

In 1999, CEDEP obtained a grant from the North-South Institute of Canada to improve communication between the traders and the city government. It held meetings with the city government and then with the Yam Queen and her elders. Leaders on both sides pledged their support for the project.

Representatives of both sides participated in training. From the city government, staff attended who were involved in the market, including those responsible for keeping the market clean. The city government also brought in staff from its other markets, a planning officer and a market manager. From the market itself, CEDEP identified literate opinion leaders who wielded power within their associations. State revenue collectors and utility service providers were also invited to participate when relevant. Involving all these actors enabled a transparent process to make the management of the market more efficient and effective.

Aware that media reports shape public opinion towards both traders and the city government, CEDEP also invited staff from the local radio stations and newspapers to participate. The training would make it possible for them to view the relationship between the two sides objectively. This would reduce their readiness to exaggerate conflicts and report each side's accusations without confirming the facts. It also tapped their potential to promote a more positive and sympathetic public image of traders.

To start the move towards mutual understanding, the training covered human rights and gender issues, facilitation, communication and organizational development skills. The participants shared their ideas and experiences and developed action strategies. They learned to avoid confrontations by identifying shared interests and additional actors or resources that could help resolve a conflict.

This training resulted in notable attitude and behaviour changes. For the first time, the city officials began to call the women by their names and not merely "the women". The traders also called the officials by name or their official titles, as is the habit in Ghana. The two sides continued to meet regularly for dialogue, and media coverage of market events and issues improved noticeably.

Skills put to the test

A situation arose soon after the training sessions that tested the traders' new negotiating skills. The Mayor had not attended the training seminar, and the city staff who had participated apparently had not communicated to him what they had learned. Early one morning in 2001, the Mayor came in person to the Yam Queen and her elders at the market's yam lane. He announced another arbitrary change in regulations that prohibited lorries from unloading yams there. He said it was necessary to keep the market's streets and passages clear for pedestrians and for tax collection. He also said the lorry parking was too close to a popular locale for funerals, sports and rallies.

The Mayor instructed the yam lorries to unload instead at Tafo Nhyiaso, about 3 km from the market. The yams would have to be transported from there to the market on hand carts. These handcart pushers would charge about GH¢ 1 to move a hundred yams, several times more than the current cost. This would raise the cost of yams to the consumer, and increase losses caused by mishandling.

The greater distance also meant the first yams would arrive later in the morning at the yam lane – a frustrating delay for buyers from the 13 suburban markets and from outside the city. They all needed to get their supplies early in the day so they could restock before their own customers arrived.

The yam traders remembered how the Mayor had reacted to their protests in 1997, so they did not openly reject the new rules. A small number of elders went to Tafo to check the site, but they were dismayed by the high cost of transport. They simply confirmed that the land could be used, and reported back to the Association.

Analysing the situation carefully using their new skills, the elders concluded that the Mayor, who was a member of the royal family, would listen only to the Asante Queen. Fortunately, she was also the patron of the market queens – and the Yam Queen was also a member of the royal family. The market queens went together to the Asante Queen's office at Manhyia Palace to lodge a petition. She intervened with the Mayor on behalf of the yam sellers, and it was refreshing to see him listening to the traders.

An acceptable solution

A compromise was reached which divided yam sellers into two groups. One group of about 500 traders would unload their yams at Tafo Nhyiaso and sell them there. The rest, about 2000, would still offload theirs in the Central Market to sell there. Most of the Muslim traders chose to stay at Tafo because many of them lived nearby. The lorry parking lot was also moved to a new site near the airport, more convenient than Tafo for access to the Central Market.

Since then, there have been no confrontations between the city government and the yam sellers about unloading yams. The new arrangement frees room in the yam lane for pedestrians, makes it easier to collect taxes, and enables traders to display the various types of yam.

The traders' association has become more cohesive and united through the training they received. Effective dialogue between the Yam Queen and the city officials has eased the tensions between the landlord and the market tenants. The training taught the yam sellers that it is important to avoid confrontation and to plan objectively how to address issues. They use their communication skills to avert confrontation with the city government. With the recent appointment of a woman as the new Mayor, relations are expected to improve further.

The city government continues to meet with the market leaders about four times a year, and attends emergency meetings when there is a need. The Mayor, market manager, divisional managers, planning officer and the Yam Queen all attend these meetings, which last an average of 4 hours and sometimes continue the next day.

Recent topics for discussion have included security against theft and ways to improve trading practices. There is more mutual respect between the traders and the local authorities, and more understanding of each side's needs and opportunities.

Outstanding issues

The travelling traders pay market tolls per yam from their own pockets. Sometimes they are not truthful about how many yams they have brought. They sometimes cannot pay because they have no money left after buying the yams. They say they should be able to sell the yams before paying the tolls, but the city officials think

Box 5.4 The risks of being a trader

Afua Kobi thought that she would be safe trading yams.

She had started out selling cloth, but the frequent police raids on cloth traders to enforce price controls were too much for her nerves. A relative who sold yams in Kumasi Central Market arranged for Afua to share a stall nearby so she could sell yams.

After some time, a wholesaler advanced her some capital so she could travel to buy yams from farmers. She and the wholesaler split the profits, and she slowly started to save some money.

But her hopes suddenly collapsed when ethnic violence erupted in a yam-growing area while she was there. She and other buyers had to flee for their lives, abandoning the yams they had bought. They managed to hire some soldiers to escort them back to the village, but the storage shed had been burnt and the yams inside were worthless. The traders were stranded for several days before they managed to make it back to Kumasi. Although the wholesaler did not blame Afua for the loss of her capital, she refused to advance more until it was repaid.

To make matters worse, Afua discovered that she had contracted guinea worm from drinking contaminated water while trapped in the village. She tried herbal medicines, but finally went through the excruciating week-long process of having the worm extracted from her leg at a special clinic. For months afterwards, she could not even walk to the junction to get a car to the market. She could only sell a few yams to her neighbours from a table in the alley near her home. Still shocked and discouraged by her experiences, she could hardly think of any way to revive her business.

they should pay the tolls when they first enter the market. The city government puts pressure on the Yam Queen and her elders to demand accountability from their members. These issues are still being negotiated in the joint meetings.

The yam supply chain

A yam passes through several hands between the farm and the cooking pot.

Travelling traders Half the total membership of the Yam Association are the 2,500 travelling traders, or *kwansufo*. They elect their own sub-queen to represent them at meetings. They go out to buy yams from producing areas, bargaining individually with the growers at the farm gate, or with neighbours who have brought in yams from further away. They also buy in regional markets such as Techiman, Bimbila, Tamale and Ejura. These traders spend 1–2 weeks buying before bringing their stock back to Kumasi. They secure a continuous flow of yams throughout the year by moving from one supply area to the next as the harvest proceeds from south to north (Box 5.4).

Some traders have enough to fill a lorry by themselves, while others join with three or four colleagues to hire a lorry. Sometimes these travellers will also buy from farmers and traders at intermediate markets, such as Techiman. They may even divert their goods and sell in Accra or elsewhere when prices there are high enough.

Wholesale traders sell in the Kumasi Central Market's yam lane. These traders may buy several thousand yams from a number of steady travelling trader suppliers. When supplies are plentiful, the travellers may give the wholesaler the yams on credit to keep the market moving. The travellers normally collect payment in a day or two, or before they travel again.

The wholesalers sell the yams on by the hundred to retailers and institutional buyers. Schools and local food stands may buy up to 500 at a time, so they are valued customers. Individuals preparing for a festival or funeral can also buy in large quantities here.

The resident wholesaler knows her buyers' reputations for honesty and their stall locations, so she can extend credit to them with little risk if they need it. Retailers with stalls in the Central Market normally can pay within 1 week, and can act as guarantor for other retailers outside. The largest wholesalers handle up to 10,000 yams a day. They deliver large volumes of yams regularly to institutions such as schools and military barracks. They also supply big exporters who send shipments of yams to Britain, the Netherlands or the USA.

Retailers typically buy 100–200 yams to sell over the next few days to ordinary consumers. Those with stalls in the Central Market sell in smaller quantities and at hours when the yam lane is not active. Others have stalls in smaller neighbourhood markets, or buy in the Central Market to sell in smaller markets around Kumasi, in distant towns or rural districts, or by the roadside. They adjust their hours to suit their customer base. Hawkers put their goods on head trays and walk around markets or residential areas. They may buy only 20 yams at a time from a larger retailer. The smallest retailers salvage damaged yams by cutting them into pieces and discarding the spoiled parts.

The peak harvest period for yams is September to December, and by January farmers near Techiman are planting again. The shelf life of a sound yam can be as long as 1–2 months if it is stored properly and protected from the sun, heat and rain. Farmers can store harvested yams for several months on the farm by burying them in pits with straw. They do this to save them until the price rises later on.

There are several varieties of yam of different qualities and suited for different purposes. The most valued variety, called *puna*, is the first to be harvested in late July and commands a premium price. One of the cheapest varieties, called water yam, is sold during the lean season and is good only for *fufu* (a thick porridge made from pounded yams). Yams are also priced according to size and condition. On the farm, the trader and farmer sort the yams into size groups – large, medium and small. Bruises or rotten spots also reduce the price. Some farmers even buy their seed yams in the market.

Yam traders provide employment for many other people. Several groups of men are closely associated with them. Each traveller has a preferred driver that she hires most of the time to transport her yams. She also hires village men to load the lorry at the farm. The wholesalers have their trusted crew, who unload the

lorries and stack the yams on handcarts to deliver them to customers. Using familiar and knowledgeable loaders avoids the risk of breakage from poor packing and careless handling. These carriers know where retailers have their stalls, so they can deliver the correct yams to each buyer. The same is true of head porters, mainly women or teenage girls, who carry about 20 yams at a time in large metal pans to the retail stalls or passenger lorry stations.

Risks

Each actor in the chain bears certain types of risks. The farmers run the risk of low rainfall and poor harvests, and of finding they are forced to sell their yams at prices below the production costs. The travelling traders run the risk of accidents or their lorry breaking down. The wholesaler may be faced with a glut of yams (pushing down prices), low demand, or post-harvest losses. Retailers may also have to throw away spoilt yams, or find they have no customers.

People who provide services to the yam chain also face risks. Lorry drivers and owners may have their vehicles break down or be involved in accidents. The loaders have to handle the yams carefully or face reprimands for breakages.

Value shares of actors in the marketing chain

The prices of yams and the costs each actor incurs depend on the season (which affects the scarcity of yams) and how far the current producing area is from Kumasi. The numbers in Table 5.4 and Figure 5.14 are based on the average cost per yam during the lean season (April–August) in 2007. At that time, an average tuber sold to consumers for GH¢ 2.00. The travelling trader bought it from the farmer for GH¢ 1.00, and sold it on to a wholesaler for 1.50 after paying GH¢ 0.25 for transport, loading and market charges. That left her with a profit of GH¢ 0.25, or 12.5% of the final price.

The wholesaler bought the yam at GH¢ 1.50, and sold it on to a retailer for GH¢ 1.70, incurring costs of GH¢ 0.04 and earning a profit of GH¢ 0.16, or 8% of the consumer price.

The retailer bought the yam for GH¢ 1.70 and sold it to a consumer for GH¢ 2.00, incurring costs of GH¢ 0.04 and earning a profit of GH¢ 0.26, or 13% of the consumer price.

In terms of revenue (Figure 5.15), the farmer earned half of the end price, and half of this income was profit. The travelling trader earned another quarter of the end price, but also had to pay for transport and other costs, so only half her income was profit. The wholesalers and retailers have higher total costs (mainly the cost of buying the yams) and lower mark-ups.

Table 5.4 Value shares of actors in the yam value chain, Ghana

GH¢ per yam, lean season, 2007 (€1 = GH¢ 1.35)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer	0.50	1.00	0.50	1.00	50%	50%
Travelling trader	1.25	1.50	0.25	0.50	17%	25%
Wholesaler	1.54	1.70	0.16	0.20	9%	10%
Retailer	1.74	2.00	0.26	0.30	13%	15%

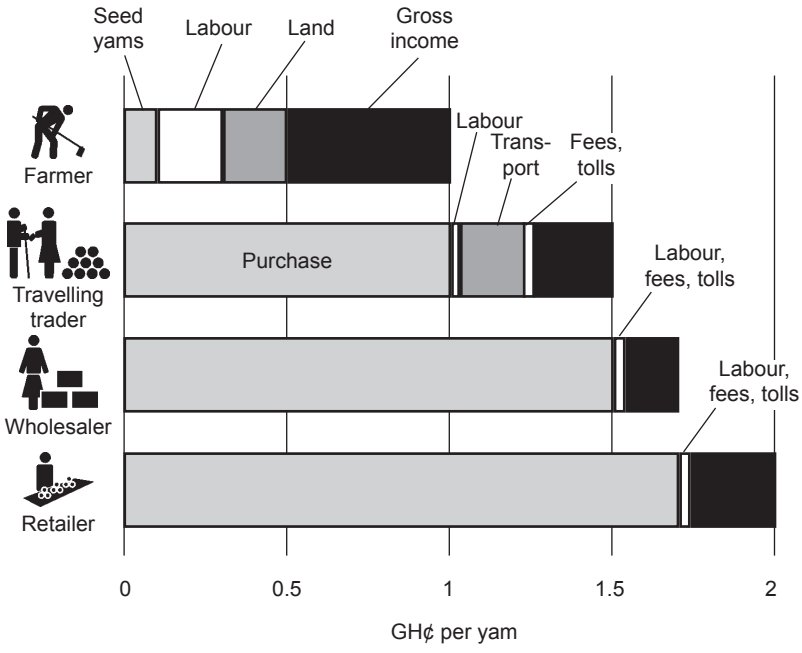


Figure 5.14 Costs and revenues of actors in the yam value chain, Ghana

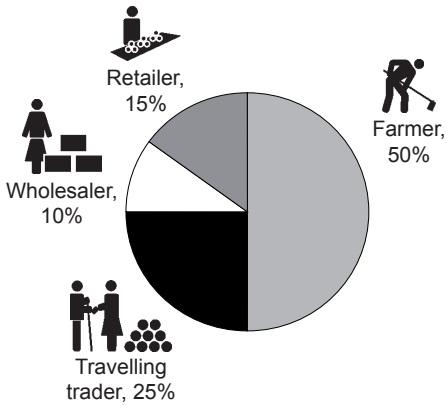


Figure 5.15 Value shares of actors in the yam value chain, Ghana

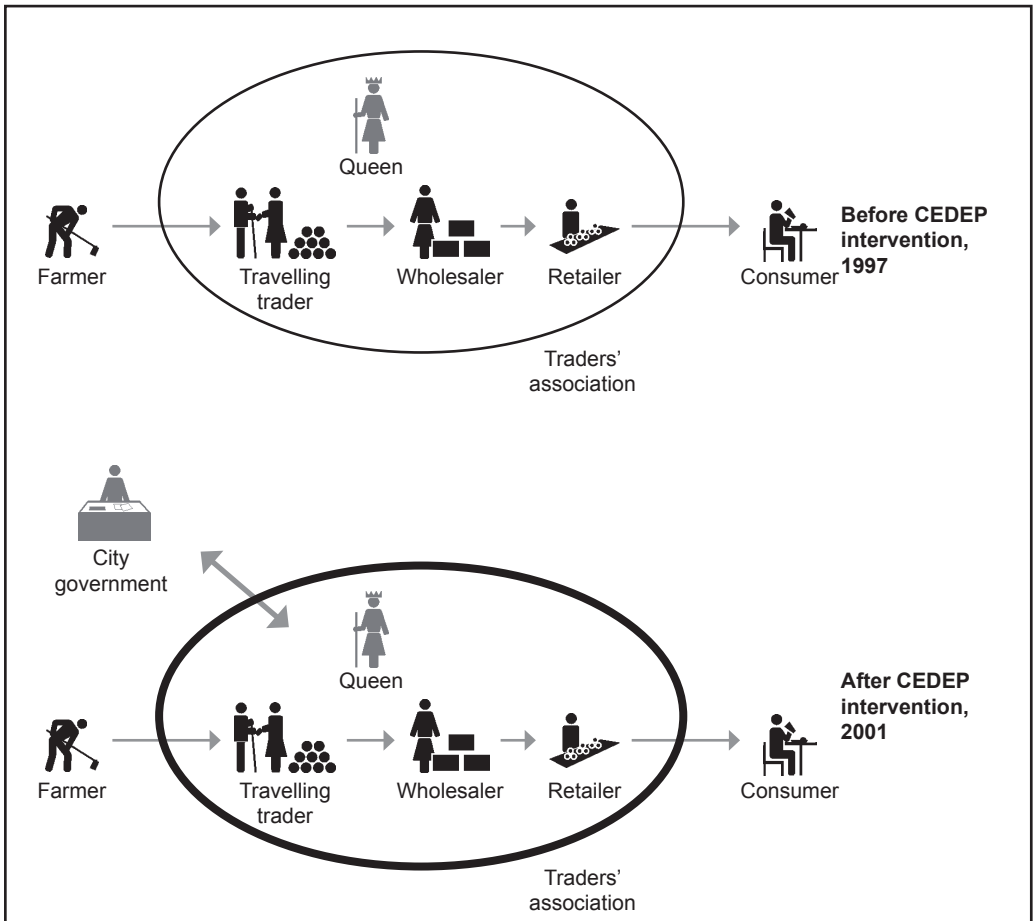


Figure 5.16 Changes in the yam market structure, Ghana

How the market structure has changed

This case deals mainly with relations with the city government, rather than within the yam marketing chain itself (Figure 5.16). The marketing chain has not changed; what has changed is the framework within which it operates. Previously, relations between the traders and the city government were strained. Communication was one-way (from the city to the traders), and conflicts often arose.

Relationships have improved as a result of stronger, two-way communications. The Yam Sellers Association has also been strengthened as a result of the CEDEP intervention.

Chain relations and market institutions

While it is not part of the chain itself, the city government is vital: it determines the rules and regulations within which the market operates, and it provides vital

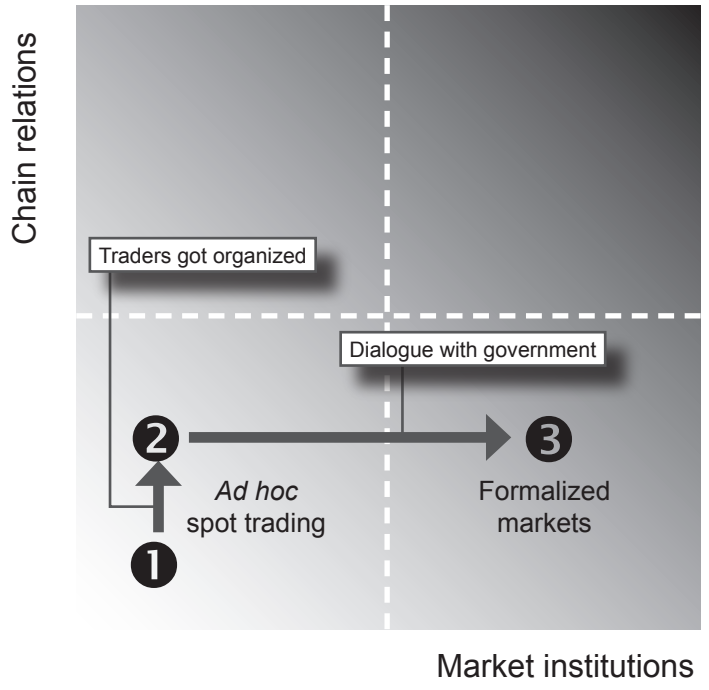


Figure 5.17 Chain relations and market institutions in the yam trade, Ghana

services: a location for the market, buildings, sanitary services, security, etc. In other words, the city government policies form part of the yam chain's business environment.

We can say in 1997, relations between the yam traders and the government were on an *ad hoc* basis (Figure 5.17). Communication was poor, disputes arose frequently, and there was no accepted way of resolving them. ❶

Through CEDEP's intervention, the traders were trained in communication and conflict management. They were able to better articulate the interests of the actors in the yam chain. ❷

The traders and the city government created a set of institutions to engage in dialogue and solve disputes: they now hold regular meetings and have other communication channels (such as calling on the Asante Queen) apart from resorting to protests and force. ❸

More information

Aba Oppong, Centre for the Development of People (CEDEP), info@cedepghana.org

Dora Opoku-Mensah, Secretary to Market Queen Mother/ Yam Sellers Association, info@cedepghana.org

Rudith King, Kwame Nkrumah University of Science and Technology, rudithk@yahoo.com

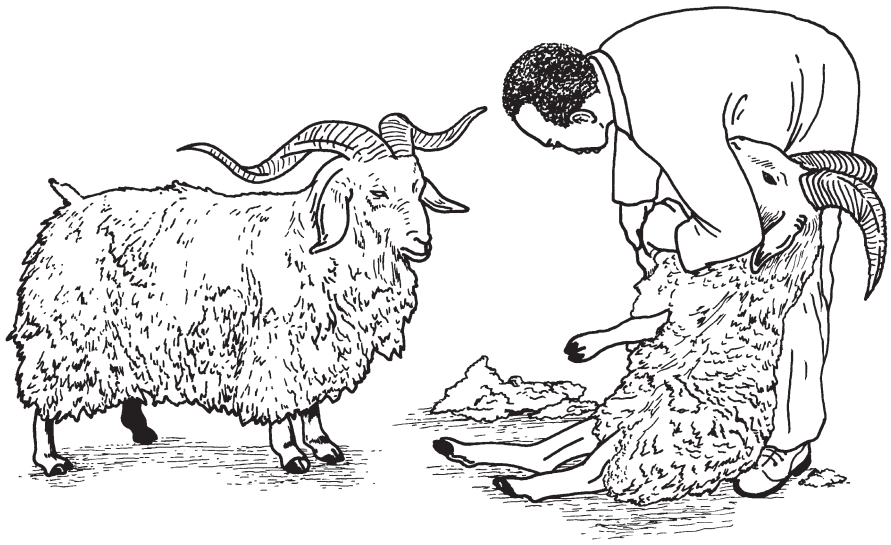
Gracia Clark, Indiana University, gclark@indiana.edu

Reaching wool and mohair producers through traders in Lesotho

MOUNTAINOUS AND REMOTE, HOT in summer and snow-covered in winter: much of Lesotho's land is good only for grazing. Flocks of sheep and goats roam over the highlands, tended by shepherds who herd them into stone-walled kraals at night. In winter, the flocks come down into the valleys to escape the biting wind and to graze on fallow fields.

It's a good place to produce wool and mohair – the fine hair from Angora goats. Wool and mohair are Lesotho's biggest agricultural exports, and for many rural people, the only source of cash income. About 25,000 stockholders in Lesotho own sheep, and the country produces just 0.3% of the world's wool output. But for mohair this small country is a major player: it produces 10% of the world's mohair, making it the second-biggest producer after South Africa, which has a 60% share of the world market. (In the rest of this case, we talk about wool only; the situation for mohair is essentially the same.)

But producing wool and getting it to market in Lesotho can be a challenge. Difficult terrain, poor infrastructure, a lack of communications, the low level of education among stockholders, and the lack of veterinary services and livestock inputs conspire to reduce product quality and quantity and to push costs up.



The lack of veterinary services means animals have few offspring, produce little wool, which is of poor quality, and die early. And stockholders know little about the process of shearing and marketing the wool. As a result of these problems, the numbers of sheep have fallen, from around 1.5 million in 1990 to just over 1 million in 2003.

How best to revive the Lesotho wool and mohair industry? It is difficult to reach directly thousands of poor stockholders scattered across a rugged country with very limited infrastructure. But the marketing system offers an opportunity to do so indirectly: just a few traders market the majority of Lesotho's wool and mohair. By working with these traders, it should be possible to improve the livelihoods of large numbers of stockholders, as well as to boost the fibre production and quality. This case describes how a project has done this.

Three ways to market

Lesotho's stockholders have three possible ways to market their wool.

Government shearing stations Before independence in 1966, all wool was shorn and marketed through private-sector traders. But in 1974, in response to alleged unfair trading tactics by the private sector, the government established its own shearing sheds – there are now 98 of them throughout Lesotho. These stations, staffed by government employees, account for 70% of the country's wool clip. They market only the wool shorn on the spot, and refuse to buy inferior grades. In general, members of the Wool and Mohair Growers Associations (which group the owners of larger flocks) shear and market their wool through the government system.

The government stations' costs are subsidized: they pay the farmers the full international price for their wool, and charge only for shearing and for dipping the animals, and a portion of the commission that the broker charges for arranging the wool to be auctioned. Faced with the continuing cost of this subsidy, the government plans to privatize its sheds, but this is politically difficult: it would endanger jobs, and stockholders would get lower prices for their wool.

Private licensed traders Despite the difficult conditions, licensed private wool and mohair traders remained active. They run 34 shearing sheds in Lesotho, serving mainly smaller producers. Stockholders would bring their animals in for shearing, or shear them at home and bring the wool to the shed. These licensed traders found life difficult, though. Risks were high, the traders offered poor prices and services, and the wool quality they handled was low. By 2003, only three of the country's 21 licensed traders were still working.

The private traders charge the stockholders the full cost of their service, and they try to make a profit too. That means they pay less for wool than the government stations. But they pay faster: instead of waiting to find out how much each bale has fetched, they estimate what the wool price will be, and pay the stockholders based on this guess. That is risky: if the traders sell the wool for less, they have

Table 5.5 Actors in Lesotho's private-sector wool and mohair marketing chain

Actor	Obligations	Costs	Risks
Stockholders	Own livestock Keep them healthy	M 500 (€50) for a sheep/goat M 1 (€0.10) per inoculation M 1 (€0.10) per shearing M 0.50 (€0.05) per fleece classed	Mortality Poor quality Poor service from chiefs or traders
Chiefs	Provide proof of ownership	No charge	No forms
Trader	Manage and maintain shearing shed Provide health services Prepare clip Package wool Transport to Maseru Transport to market port Sell fibre	High cost due to location Pay shed staff M 120 (€12) for transport per wool/mohair bale Auction costs	Vandalism, theft Bad weather Dishonest employees Poor classing, contamination Jealousy Accidents, hijacking Low demand Currency fluctuations
Government	Dipping levy	M 2 (€0.20) per animal	
Broker	Display clip for sale Catalogue clip for internet Present clip to auction Bind and export on behalf of buyer	Costs covered by commissions	Contamination Poor classing Low demand

to absorb the loss (of course, if they get a better price than expected, they make more money). Many stockholders are short of cash, so they appreciate the prompt payment.

Unlicensed travelling traders It is the poorest stockholders who have the lowest quality wool, which the government stations refuse to buy. These stockholders shear their own sheep and sell bags of wool at very low prices to travelling traders – the third market option. Faced with the restrictions and payment delays at the government stations and the difficulties of dealing with the licensed private traders, increasing numbers of stockholders have made use of this option.

Part of a world market

The core functions of the government and private shearing sheds are the same. Stockholders bring in their flocks; the animals are shorn; and the wool is classed according to global standards. The wool is then baled by class, and the bales are transported to wool brokers in South Africa, where they are prepared for auction. Table 5.5 summarizes the roles of the various actors in the private-sector marketing chain.

Wool is an internationally traded commodity with quality standards, trading systems and prices the same anywhere in the world. Once a stockholder's wool of a particular grade enters the trading system it is treated the same, whether it is from Australia, Argentina or Lesotho. Most of the trade is done through electronic auctions. The price of wool of different classes depends on global supply and demand, which depends in turn on many other factors. A bale of wool auctioned today may fetch more or less than an identical bale sold tomorrow. Producers are price takers: they can earn more only if they produce more or better wool. The price of wool is broadcast on the radio in Lesotho, so stockholders can know the going price.

Individual stockholders in Lesotho rarely have enough sheep for a complete bale of wool. So the shearing station must carefully document the amount of wool from each stockholder and its grade, before putting it into bales and selling it. It knows the price only when the wool has been sold, then has to pay the thousands of stockholders who supplied the wool. Banks are few and far between in Lesotho, and few stockholders have accounts. At government shearing stations, it can take up to 6 months from when the sheep are shorn until the stockholders finally get their cheques.

Making markets work for the poor

Aware of the situation described above, ComMark Trust and Teba Development, two South Africa-based development organizations, commissioned a consulting firm, Mngcunube Development Pty Ltd, to improve the operations and practices of the private wool traders, and raise the quality of wool by improving health of the sheep and goats in Thaba Tseka district, in eastern Lesotho.

Mngcunube introduced two major changes:

- **Improved services** The traders agreed to make prices transparent, set reasonable prices, pay punctually, and operate efficiently and effectively at their shearing sheds.
- **Animal health** An animal health programme was instituted both at the shearing sheds and in the surrounding villages across Thaba Tseka district. This service is available to all stockholders, not just those shearing with the private sector traders.

Mngcunube worked with two of the three private sector traders. It aimed for a win–win situation, where stockholders would be fairly treated and traders would get more and better wool passing through their sheds. One trader operates shearing sheds as part of a bigger general retail chain across much of Lesotho. The other is a veterinarian who operates wool sheds as a business.

Mentors were a key to Mngcunube's approach. These were carefully selected commercial stockholders with at least 10 years of experience, who were trained in coaching and facilitation. They aimed to transfer their skills in a facilitative way (rather than by giving instructions). They were paid with project funds.

Improved services

At the shearing sheds the mentors' role was to:

- Establish smooth **operating systems** and train staff how to manage them. The shearing must be done punctually and at a regular pace, so bookings can be made in advance. This gives the stockholders confidence that his or her sheep will be shorn in time to return home the same day, because there is no grazing at the shed sites. Maintaining punctuality and keeping the shed clean were also important to maintain staff pride.
- Ensure proper and accurate **record keeping**. This assured traders they were paying the right amount for purchases. The records are also used when the trader in turn sells the wool, pays for items such as transport and taxes.
- Ensure accurate **classing**. There is a big price differences between classes or grades of wool, so it is important not to under-class. If a shed gets a reputation for wrong classing, the broker will re-class all its bales and charge the trader for doing so.
- Ensure that **prices** are clearly displayed. The staff must explain to each stockholder how the payment for his or her wool is calculated.
- Discuss **price levels** with the trader, who retains the final word on the prices.
- Ensure **prompt payment** – within 2 weeks after shearing. This is a logistical challenge in this remote area.
- Ensure that wool shorn by stockholders **at home** was treated in the same professional way as that shorn at the shed.
- Ensure that **animal health services** and advice on animal health and husbandry was available (see below).

In summary, the traders were supported to upgrade their operations and provide good services to the stockholders.

Animal health

The same mentors also worked with stockholders to improve the health of their animals. Each mentor selected 5–6 "field workers" from the local community and worked with them as a team over a 2.5-year period. The mentors trained these 14 field workers (5 women, 9 men) in paraveterinary skills, animal husbandry, stock selection, feeding and supplements, and environmental issues such as overgrazing. The mentors and field workers started a cycle of village visits to provide these services to local stockholders. On these visits, as at the shearing shed, stockholders could talk about broader needs and issues, arrange to buy better rams, and generally interact with the mentors and with one another. They paid cash for all the animal health inputs they used.

The mentors further developed the field workers' skills in basic business practices. The intention was that the field workers would learn how to manage their own micro-enterprises once the project finished. They were indeed eased into this role 9 months before the end of the project, giving time to identify and overcome any weaknesses.

Mngcunube and the mentor set up a supply chain for feeds, licks and animal health products. It bought an initial bulk stock and supplied them to the traders for resale, and put the trader in touch with the suppliers of these items so they could buy more. The mentors helped the field workers buy items from the traders, and showed them how to sell them to stockholders at a profit during their village visits. It was necessary to create a relationship between traders and field workers because the field workers live in remote areas and lack the communication and credit they would need to buy directly from the suppliers.

Table 5.6 Sheep shearing, Mngcunube project, Lesotho

	Shearing season		
	2004/5	**2005/6**	**2006/7**
Number of sheds operating under the project	4	11	11
Number of shearing stockholders	675	2,325	2,970
Number of sheep and lambs under project	12,000	135,000	299,000
Number of sheep shorn	11,000	44,000	59,000
Average sheep shorn per stockholder	16.1	18.9	19.7
Average kg of wool per sheep	2.4	2.8	2.76
% wool in top classes (AH to C)	37%	43.5%	42.8%

Table 5.7 Government versus licensed trader through the stockholders' eyes

Government shearing sheds	Licensed traders
70% of wool shorn	30% of wool shorn
Higher price paid for wool	Lower price for wool
Accept only good-quality wool	Also accept poorer-quality wool
Paid 6 months later	Paid In 10 days
Poor classing service	Good classing, good service
Bad organization	Good organization
No animal health support	Animal health support, advice on fibre improvement
Sheds and transport subsidized	No subsidies
Client base declining	Client base growing
Higher charges for shearing	Stockholders pay for shearing costs and medicines

Shearing results

It was easy to improve the services at the shearing sheds. The traders were willing to fulfil their obligations and set prices at fair levels.

The number of stockholders and animals brought to the private sector shearing sheds grew rapidly (Table 5.6). In the first year, 2004, the project was not fully operational, but even so, it served 675 stockholders who brought 11,000 sheep to the four sheds to be shorn.

In the project's second year, 11 sheds were operational, and 2,325 stockholders brought 44,000 sheep there to be shorn. This was far below the 135,000 animals served by the project as a whole, so it seems that many stockholders preferred to take their animals to the government sheds (where they would get a better price for the wool) than to the private sheds. It was apparently the better-off stockholders with larger flocks who did so, since they could afford to wait for payment in expectation of the better prices. Plus, the government sheds do not accept poor-quality wool, so stockholders with such wool do not have the option of going there.

In the third year of the project, the 2006–7 shearing season, 27% more stockholders brought some 59,000 sheep in for shearing. This was only one-fifth of all the sheep registered with the project: again, stockholders seemed to be using the project's health services but taking their sheep to the government stations to sell the wool.

The average weight of wool per sheep (about 2.8 kg) has remained unchanged over the last 2 years of the project, which also suggests that the better-off stockholders are holding their better stock back for shearing at government sheds and sending inferior stock to the private sector sheds where they get paid cash. This

impression is compounded by the fact that the indicator of wool quality declined slightly in the last year.

The average wool prices paid by the traders increased from M 5.90 (about €0.59) per kg in 2006 to M 6.81 (€0.68) in 2007 – an improvement of about 14%. The average value of wool per sheep increase by only about 10%, suggesting again that the increase in sheep shorn are derived from the lower end of stockholders' flocks.

An independent study revealed that stockholders placed high value on being sure that their stock could be shorn on the agreed date. This is not the case at the government sheds. They also valued knowing how much they would make and when they would get paid. They said they were treated better at the private sheds, and preferred selling their wool there rather than in bags at the roadside, where they got very low prices.

Table 5.7 summarizes the stockholders' views of the advantages and disadvantages of selling through the government and private shearing sheds.

Animal health results

The project had a dramatic impact on the health of the sheep and goats. Table 5.8 shows that mortality rates of adult sheep and goats declined from around 25% to less than 5%, while mortality rates for young animals fell from over 50% to less than 10%.

Better health also meant more lambs and kids: the lambing rate nearly doubled to 52%, and the kidding rate more than quadrupled, to 73%.

That means more money for stockholders. The lower mortality gives a total gain of M 40,190,000 (€4 million), while the higher reproduction rates add another M 24,110,000 (€2 million). Divided among the 5,000 stockholders working with the project, that means that each stockholder was on average M 12,860 (€1,280) better off – a substantial sum in a poor country.

Sustainability

The mentors trained the 14 field workers in animal husbandry and related subjects over an 18-month period, and the government then trained them further as paravets, which qualified them to work with scheduled animal medicines.

The field workers earn money by charging a small markup (M 0.50, or €0.05) on each dose of medicine they give to animals. If a field worker treats 300 sheep in a day, he or she can make M 150 (€15).

The field worker training went smoothly in all but three cases, where there were problems after the trainees started to operate independently. These included inadequate support (the trader sometimes failed to ensure a reliable supply of medicines), and a field worker who absconded with the project-supplied starter

Table 5.8 Mngcunube project impacts on animal health, Lesotho

	Before project	February 2007
Mortality rate		
• Sheep	22%	4%
• Goats	27%	5%
• Lambs	58%	5%
• Kids	55%	9%
Offspring		
• Lambing rate – sheep	27%	52%
• Kidding rate – goats	16%	73%

pack of equipment and medicines. Formal evaluation is not possible as the project has now ended, but it seems that the other field workers are working well: the stockholders are getting services and inputs from this cadre of well-supplied technicians.

Challenges and lessons

The traders are growing in popularity among smaller stockholders. By providing a good service, and by offering services not available at the government sheds, they are meeting a need. There is no harm if the private sector handles the poorer stock while better stock go to the government sheds: this is merely rational choice by the stockholders.

The increase in the number of shearing sheds covered by the project is noteworthy. At first, each mentor had to focus on one shed only, but as these began to function well they could switch their attention to other sheds. One trader had closed all his sheds for two or more years before the project, and re-opened two to test the waters and benefit from the project's support and training. By the end of the project, this trader had seven sheds in operation, two of which were new and others refurbished and re-commissioned. The other trader started with two sheds, and upped this to four. The traders found the new operating environment conducive to expansion and investment, suggesting that they were in a win–win situation.

The field workers provide sustainability: they can earn a good living by providing a valuable service to their communities. They have strong relationships with the traders (their suppliers) and with the stockholders (their customers).

A mentoring and facilitative approach, coupled with old-fashioned good service, rapidly built up trust and participation. There is a need to consider how to sustain a supply of such people when there is no project to select, train and equip them,

or to find replacements and additions. Efforts are being made in Lesotho on this theme, though it is too soon to say if they will lead anywhere.

The monitoring did not show much change in the quality of wool and mohair. This was expected: worthwhile gains stem more from better genetic stock and related practices, which a brief project cannot influence much.

The increase in the weight of wool and mohair per animal can be ascribed to better health. But the major result was that reduced death rates and improved birth rates made much more wool and mohair available. There were more animals around to be shorn. Growing numbers of livestock are good when, as in this case, they are cost effective and can be sustained. Stockholders can earn more by selling animals for meat than by shearing them for wool, though this is difficult in remote areas with harsh terrain and weather. Lesotho's natural pastures have a limit to the number of animals they can support, so it is important to avoid overgrazing.

The private traders tend to attract poorer producers with smaller flocks, who need cash urgently but who deliver lower quality wool. The larger producers with better wool can afford to wait several months for payment, so prefer to take their animals to the government stations, where they get higher prices.

It is difficult for the government to continue to provide subsidized services at its stations. Doing so is expensive, results in poor services at the government stations (since they have no incentive to improve), and stunts the development of the private sector.

It is difficult for the licensed private traders to compete with the uneconomic government stations – which is why many of the traders have gone out of business. Their only other option is to improve their competitiveness by increasing their efficiency and providing better services. Mngcunube's mentoring programme has helped them do this.

Table 5.9 Value shares of actors in the wool value chain, Lesotho

Maloti per bale of wool (1 bale = about 50 fleeces; €1 = 9.8 maloti)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Government shearing station						
Livestock holder	227	1,867	1,640	1,867	88%	100%
Shearing station	1,867+	1,867	negative	0	negative	0%
Licensed private traders, Mngcunube system						
Livestock holder	227	1,021	794	1,021	78%	55%
Private trader	1,456	1,867	411	846	22%	45%

Value shares of actors in the marketing chain

Stockholders who take their animals to the government shearing stations get paid the full world market price for their wool. Averaging out for different wool qualities and price fluctuations, this is about M 1,867 (€186) per bale (a bale contains 50 fleeces). The government stations can pass on this full amount to the producers because they are subsidized (Table 5.9, Figures 5.18 and 5.19).

The licensed private traders have to cover all their own costs and hedge against the risk of price fluctuations, as well as trying to make a profit. This means they can pay producers a lower amount for their wool.

How the market structure has changed

Before the project, stockholders could take their animals to be shorn at government or private sheds (Figure 5.20). Both provided weak service and delayed payments.

The project strengthened the linkages between the stockholders and traders, and introduced improved services by the private sector traders and by field workers. These services include prompter payment, extension advice, and veterinary services.

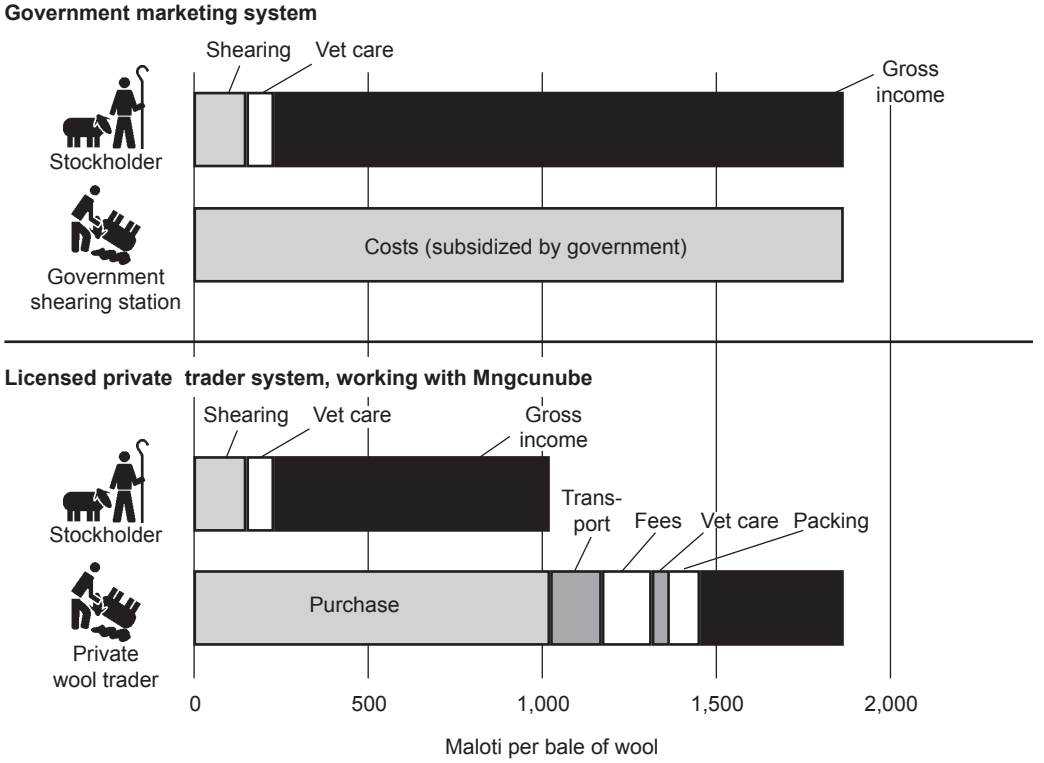


Figure 5.18 Costs and revenues of actors in the wool value chain, Lesotho

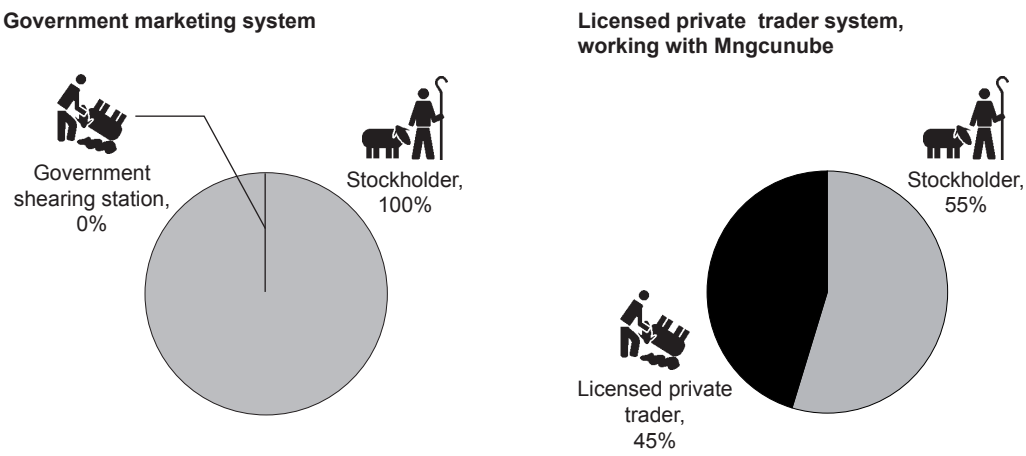


Figure 5.19 Value shares of actors in the wool value chain, Lesotho

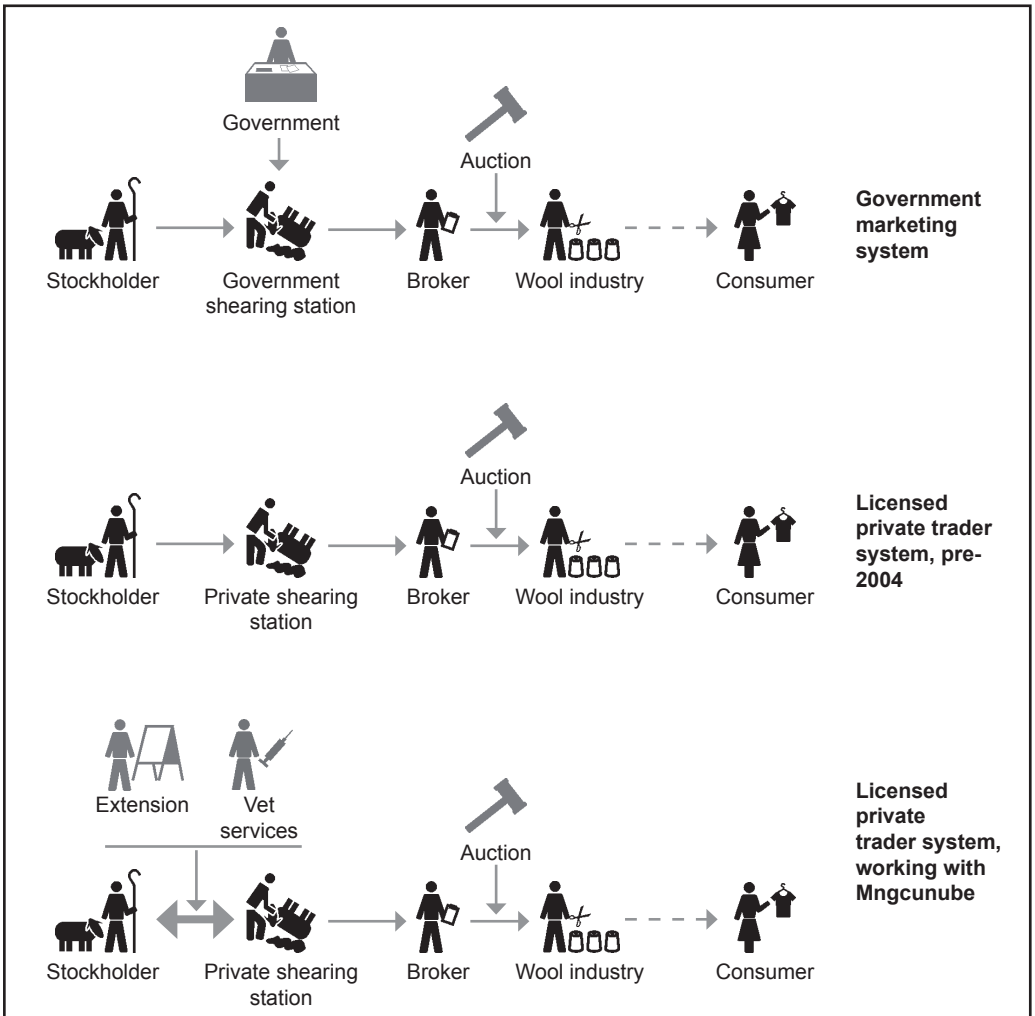


Figure 5.20 Changes in the wool market structure, Lesotho

Figure 5.21 Chain relations and market institutions in the wool trade, Lesotho

Chain relations and market institutions

Before the project, stockholders and traders had only *ad hoc* relationships (Figure 5.21). Prices were not transparent, and the only service the traders provided was shearing. ❶

The project improved the chain relations between traders and farmers in various ways. It introduced a range of service by the traders (livestock health, extension advice, input supplies). It also improved communication between the traders and stockholders (for example, the scheduling of shearing in advance). ❷

The market institutions were also strengthened: quality grading was improved and made more reliable, records were improved, prices were made transparent and payments more prompt. The project's documented success also acts as a powerful lobbying tool: traders can see how to make their operations more efficient and profitable, and the government has a model to follow if its plans to privatize its shearing sheds are put into effect. ❸

More information

Lyle Kew, Mngcunube Development Pty Ltd., lkew@mweb.co.za

Improving market information in Kenya

IMAGINE YOU ARE A smallholder farmer in Kenya. You have grown your crop of maize, and you want to sell it. You do not know what the going price for maize is on the local market. Should you take it there, or should you wait for a trader to come to buy? How much should you sell it for? How about getting together with your neighbours and hiring a lorry to take your maize to Nairobi? But you don't know anyone in Nairobi to sell it to. Or maybe you could mill the maize and sell the flour…

These are some of the questions Kenyan farmers face. They all have one thing in common: information – or rather, a lack of it.

Providing market information and linkages is what KACE, the Kenya Agricultural Commodity Exchange Ltd, does. It uses computers, the internet, mobile phones and radio to deliver this information to poor rural communities and link them to profitable markets.

The KACE market information and linkage system

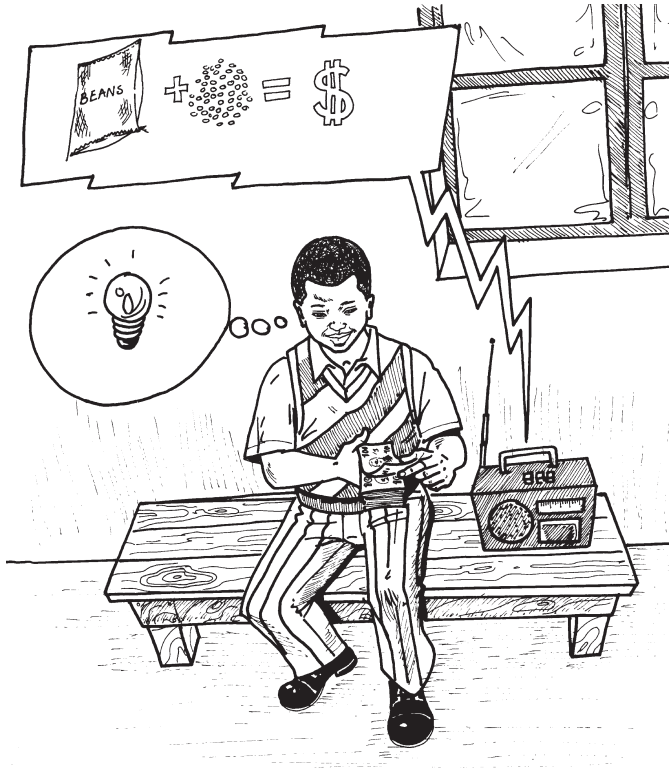
KACE is a private sector firm which aims to provide reliable and timely market information, and to link buyers and sellers of agricultural commodities. It seeks to develop a competitive agricultural marketing system that is transparent and efficient – a "level playing field", where demand and supply determine the price.

KACE works with various partners from both the private and public sector. These include Safaricom, Interactive Media Services, West FM radio, K-Rep Bank, and the ministries of agriculture, information, trade and industry. KACE activities are supported partly by development partners including the Rockefeller Foundation, USAID, the Hans Seidel Foundation, and the Technical Centre for Agricultural and Rural Cooperation in the Netherlands.

KACE began operations in 1997. It initially set up a trading floor at the Jamhuri Showground in Nairobi. The trading floor was to operate on an open outcry system – like an auction where traders and farmers would buy and sell commodities through licensed brokers. The exchange would set the rules and regulations to govern the trade. But this model did not work: most farmers in Kenya are smallholders and could not supply the required quantities and reliable quality of produce. Nairobi is too far away from their farms. And KACE realized that few farmers and traders understood how the exchange worked.

But KACE did not give up. It has developed a system that is more suitable to farmers: closer, more accessible and easier for them to use. This system combines traditional face-to-face interaction with modern information and communication technologies. It has various components:

- **Rural-based market information centres** These are information kiosks in rural markets. They provide farmers and traders with market information, such as current commodity prices in different markets. They also link buyers and sellers by matching commodity offers and bids. Some of the centres operate mini trading floors, where commodities are sold using an open outcry system every market day. The bigger centres at district headquarters have computers with internet connections. They download information from KACE headquarters and send it to outlying centres. There are 12 information centres in Western, Nyanza, Rift Valley and Eastern provinces. An average of 550 farmers and traders visit the centres each month.
- **Mobile phone message service** A phone owner can send an SMS request to a special number, and the service automatically responds with an SMS with prices of the commodities requested. A message giving current prices for a commodity in five markets costs KSh 7. KACE staff in each market gather these data every morning. KACE provides this service in partnership with Safaricom, Kenya's biggest mobile phone provider. The service receives an average of 10,000 SMS requests a month.
- **Interactive voice response service** This is the voice equivalent of the SMS service. Callers can dial a special phone number (0900-552 055) and follow a simple voice-operated menu in English or Kiswahili. The service delivers a voice mail message with prices, trade information and extension messages. KACE provides this service in partnership with Interactive Media Services Ltd. About 50 callers use the service a month. This number is low, perhaps because of the cost: KSh 20 per call.
- **Internet** KACE's website, www.kacekenya.com, has all the price information, plus a library of agricultural information and a virtual trading floor. Users can also subscribe to a system that sends out daily emails with commodity prices in markets in Kenya, Uganda and Tanzania. A subscription costs US$ 125 a year. This service currently has 550 subscribers from Africa, Europe and the USA.
- **Radio** KACE's market price information is broadcast on a national radio station run by Kenya Broadcasting Corporation. This is costly, but time can be shared with sponsors. The service reaches an estimated 5 million listeners a week, many of whom are farmers in rural communities.
- **Clearing house** KACE acts as a clearing house for agricultural commodities by linking buyers and sellers. The two agree on the price and terms, including a negotiated commission for KACE, and then sign a sales agreement. The buyer may pay through KACE with instructions to pay the seller once goods are delivered in the quality and quantity agreed upon. KACE also arbitrates in cases of dispute between the buyer and seller.



Service innovations

KACE has learnt that farmers and small agribusinesses in remote rural areas are willing and able to pay for additional marketing services. Market information is not enough. Farmers demand services such as commodity grading, storage, transportation, short-term trade credit (for example to hire transport), and access to timely, affordable inputs. They need document preparation, mobile phone and e-services such as email. Local entrepreneurs provide just some of these services, in some areas.

KACE's information centres could provide these services, but KACE does not have the capacity to establish and run a large number of them. So KACE is franchising its information centre model to local entrepreneurs as market resource centres. These provide value-added services including transport, storage and weighing, at a fee. The resource centres are legal entities registered under the Companies Act, owned and run by independent entrepreneurs. This model is designed to be financially sustainable after 2 years. KACE oversees the activities, and trains and builds capacity of the franchisees. It also gives financial loan guarantees for start up capital. The franchisees pay KACE 5% royalty fee. KACE currently has four franchises on a pilot basis.

KACE has also established a virtual trading floor on a rural radio programme, West FM, in Western Kenya. Dubbed *Soko Hewani*, the "Supermarket on Air", this matches offers and bids for farm commodities, inputs and services. The market resource centres act as licensed agents who receive the offers and bids, and proc-

ess and verify them. They send the information to the programme manager, who prepares it for broadcast. Interested buyers and sellers then call in, negotiate, and agree on prices and terms. Some US$ 50,000 worth of commodities and services are advertised each month.

Benefits

KACE's work has benefited farmers, traders and other actors in commodity markets.

Farmers

- **Profitability** Farmers who have used KACE say that they have increased their profitability through improved bargaining power, better commodity prices and access to better markets. They can avoid transporting their commodities long distances in search of an uncertain buyer (Box 5.5).
- **Understanding the market** With a new understanding of market demands and trends, farmers are now able to grow produce for the market, at the right quality and quantity, so they can command a premium price. They have switched to new crops that earn more. For example, some farmers in Machakos district have started growing butternuts as a result of getting information from the KACE market resource centre located there.

Box 5.5 Kiinyuni Horticultural Growers Group

The Kiinyuni Horticultural Growers Group was established in 2004 when KACE established a market resource centre in Machakos, in Kenya's Eastern Province. The group has 42 members, nearly three-quarters of whom are women. They grow mainly tomatoes. The group members attended training at the centre on how to access information using computers and mobile phones, and how to use the centre's trading floor.

What they learned has helped them boost their tomato production from 3 tonnes to 5 tonnes a week, and get better returns for their produce. In 2004, they would sell a 38 kg crate of tomatoes for KSh 400 (US$ 6); in 2007, they sold the same crate for KSh 700–1000 (US$ 10–15).

They have also diversified their farming activities. They now grow French beans, butternut and kale as well as tomatoes, maize and beans. They are also involved in poultry and bee keeping. In 2004, the group's turnover was US$ 474 a week; in 2007 it was US$ 1,645.

"Through my group's association with the resource centre, we get good markets for our produce and are able to sell all or most of the produce at good prices", says Victoria Mutuku, the group's leader. "We no longer use brokers who had been exploiting us. For example, in December 2006, we had a bumper harvest of tomatoes, which we sold at KSh 900–1,000 (US$ 13–14) per 38-kg crate, as compared to the previous price of KSh 500–600 (US$ 7–8.5). In addition we did not throw away any produce. Normally when we have a bumper harvest, nearly 50% of the produce is lost or thrown away due to lack of markets."

- **One-stop shops** Through the franchised market resource centres, farmers can access additional services at affordable rates, including storage, transport, credit and inputs such as improved seed and fertilizers.
- **Dialogue** KACE allows farmers to interact with traders and extension workers to share information and resolve disputes.
- **Market visits and workshops** KACE facilitates visits to supermarkets and processors. It also organises trader/farmer workshops to help farmers understand the market needs in terms of quality, quantity, timely deliveries, etc.

Traders and processors

- **Access to information** Traders can now access commodity price information in good time, enabling them to able to plan where to source commodities.
- **Quantity and quality of produce** Traders are able to get greater quantities through aggregation at the KACE market resource centres. The centres also ensure quality and standards are met by the farmers before a delivery is made. This helps reduce transaction costs.
- **Potential buyers** Traders in Western Kenya are now able to advertise their products and services to farmers and other buyers at an affordable rate through the *Soko Hewani* programme.
- **Discussion forum** KACE organizes forums where farmers and traders meet to discuss issues affecting them, and to explore suitable solutions.

Paying for information

KACE is trying to introduce new ways of doing business in Kenya. This means sensitizing and training farmers and traders on how to access and use market information. Once a critical mass of people have seen the benefits, more will learn to seek and access information without further facilitation from KACE.

Everyone agrees that information is valuable, but how to get people to pay for it? Financing is a common problem of market information systems, which often turn out to be short-lived programmes reliant on donor funding. Some of KACE's costs are indeed covered by donor-funded projects, but KACE is seeking new ways to make its work sustainable:

- **Service fees** KACE has begun to franchise its market information centres to local entrepreneurs, who operate on a commercial basis. They charge fees for commodity offers and bids on the centre's trading floors, as well as earn commissions on successful transactions facilitated through the centres. The centres also charge for services such as communication (email, photocopying, typing, etc.), transport and storage.
- **Phone fees** KACE has revenue-sharing agreements with companies providing the SMS and voice mail services. The user pays for the SMS or phone call, and the phone company or voice mail firm in turn pays KACE an agreed

share. When the information services are fully developed and widely used, they should generate enough revenue to be self-sustaining.

- **Advertising** The *Soko Hewani* radio programme has attracted a good audience and is partly supported by advertisements from agribusinesses.
- **Transaction fees** KACE has introduced an offer/bid placement fee (KSh 100, or about US$ 1.50), along with 0.5-5% commission on successful transactions through *Soko Hewani*. Along with advertising fees earned during the programme, this is expected to generate enough money to cover the programme's costs.

Similar market information systems are being introduced elsewhere in Africa, including Malawi (Malawi Agricultural Commodity Exchange), Uganda (Uganda Commodity Exchange), Nigeria (Abuja Securities Commodity Exchange), Ethiopia (Ethiopia Commodity Exchange) and in Ghana (MISTOWA – see page 108). These models use different approaches, but they all face the challenge of financial sustainability. The KACE and MISTOWA cases both suggest that the key to sustainability lies in the combination of market information with additional services such as matchmaking, grading, storage, logistics and financial intermediation.

Challenges

Information and communication technologies are not a panacea to rural marketing. They face various challenges and constraints.

- **Mobile phone ownership** Mobile phones are popular in Kenya – the country has over 9 million subscribers – but many smallholders still cannot afford one.
- **Barriers to using technology** Many people who own phones do not use features such as SMS or (despite KACE's promotional campaigns) know of or want to use the voice mail system. Computers and the internet appear complex and intimidating for many people.
- **Poor understanding of market information** The market information provided by KACE is meant to help the farmers bargain for better prices or inform them of better markets. Market information must have reference to time and market, and these two factors are crucial to interpret it. Some farmers who receive the information still do not know how to use it to their advantage.
- **Lack of standardized grading** Local markets lack a standardized system of grading, which makes it difficult for KACE to report prices per grade. Because of this, KACE reports prices of fair, average-quality produce.
- **Cost** Computers and internet connections are expensive to buy and maintain. Radio can reach a large number of people at no cost to the listener, but the cost of creating and broadcasting the programme is high.
- **Poor electricity and telecommunication infrastructure** Many areas in Kenya are still without electric power or phone coverage. Extending internet access and phone coverage to sparsely populated rural areas is expensive.

- **Policy** The policies of the government, banks and other financial institutions have hampered the growth of e-commerce in Kenya. Policies must address issues such as the security of internet trading and the integration of online payments.
- **Sustainability** Innovations such as the KACE system take time, are sometimes capital intensive, and require patience to make significant impact. KACE is still not financially sustainable, but it has introduced measures to generate revenue to cover its operating costs and eventually to make profit.

Value shares of actors in the marketing chain

Because KACE deals with many different commodities, it is not possible to calculate the costs, revenues and value shares as for other cases in this book.

How the market structure has changed

Information is KACE's critical contribution to improving the market for commodities in Kenya (Figure 5.22). If both producers and farmers have information about prices and potential buyers and sellers, the uncertainty is reduced, and the process is smoother and more efficient, to the benefit of both sides.

KACE's intervention makes it easier for farmers to deal with wholesalers and other buyers. It gives both sides more information, enabling them to make better decisions. But it tends to reduce the role of small-scale travelling traders, who lose their ability to broker deals based on the limited market information available to farmers. Traders do not have to lose out, though: they still perform valuable

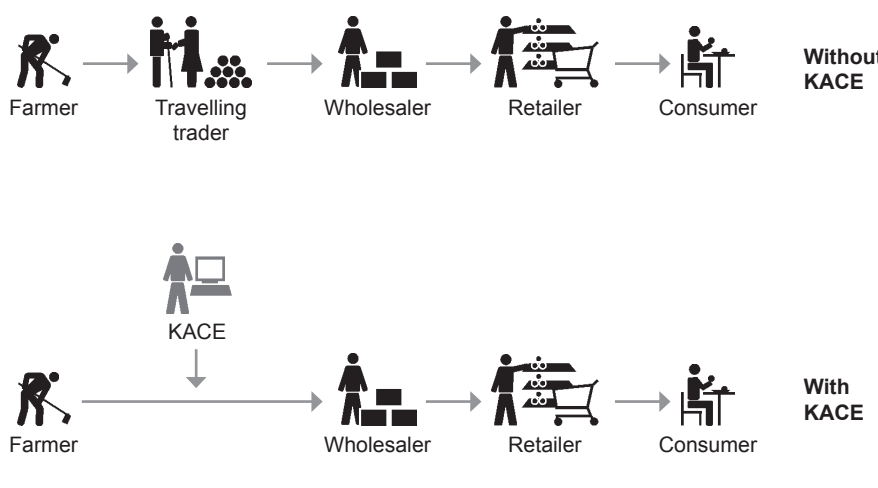


Figure 5.22 Changes in the commodity market structure, Kenya

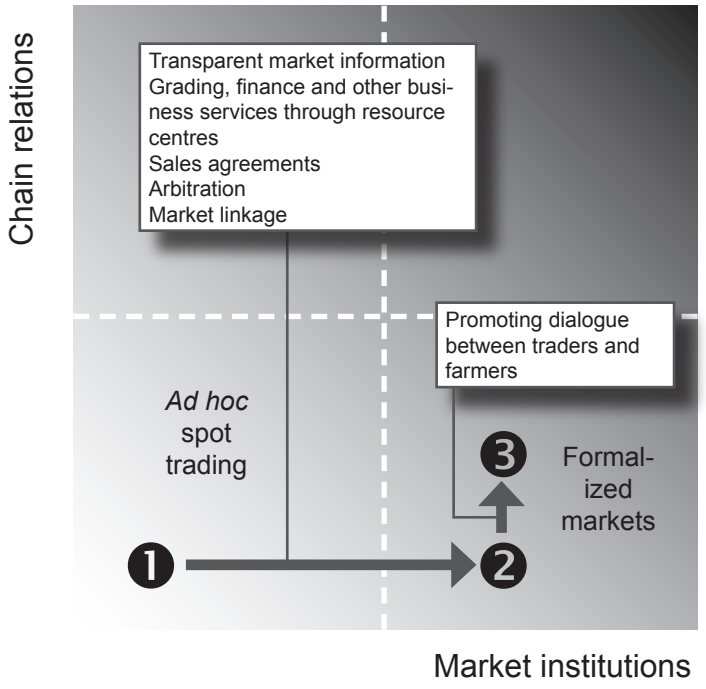


Figure 5.23 Chain relations and market institutions in commodity trading, Kenya

services such as bulking, transport and identifying buyers that farmers may not have the time, skills or equipment to do themselves.

Chain relations and market institutions

Before KACE started its market information and other services, farmers and traders would typically negotiate one deal at a time, with few permanent linkages or institutions to support them (Figure 5.23). This is typical of a spot market. ❶

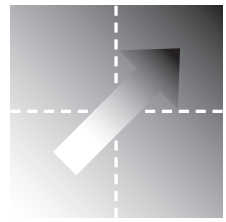
KACE has helped establish formal structures to make the agricultural market more efficient by establishing a system which provides market information, matchmaking, and value-added services such as grading, transport and weighing. These innovations are all in the area of market institutions. ❷

KACE also promotes dialogue between the farmers and traders by organizing discussion forums including market visits. This represents a move in the direction of improved chain relations. ❸

More information

Mary Wambua, Kenya Agricultural Commodity Exchange Ltd., mary@kacekenya.com

6
Fostering chain partnerships



THE PREVIOUS CHAPTERS HAVE focused on either strengthening chain relations or building market institutions. This chapter presents examples where stronger relations (a vertical movement in our framework) have been combined with the development of market institutions (a horizontal movement). Upwards plus sideways equals a diagonal movement in the framework.

The five cases in this chapter illustrate this type of movement:

- **Mangoes in Burkina Faso** This case shows how an export firm managed to revive a moribund export industry by strengthening relationships between the various chain actors and by introducing a series of institutional innovations.
- **Livestock in Kenya** Traders and producers revived an industry struck by ethnic violence by organizing a cooperative, developing new markets, and introducing rules and procedures to make the trade work more smoothly.
- **Soybeans in Ghana** This is the story of how a firm is promoting trade by organizing farmers, providing them with training and technical assistance, and by introducing measures such as quality grading and transparent pricing.
- **Coffee in Tanzania** How to develop a high-quality product for a niche market? This case describes how a firm in Tanzania has found that close relationships with farmers are just as important as quality standards and other institutional improvements.
- **Green beans in Ethiopia** Our final case describes how an export firm and a farmers' cooperative are working to boost Ethiopia's exports of fresh vegetables.

Building an export value chain for mangoes in Burkina Faso

YOU THINK THAT EXPORTING mangoes is just a question of filling a container with fruit and shipping it off to Europe? Then think again. A mango is a very delicate fruit. It must arrive in European supermarkets in perfect condition, with a shelf-life of at least 2 weeks before it lands on a customer's breakfast table. For that to happen, the mangoes must be picked at the right time, just before they are ripe. The fruit must then be sorted to reject those that are clearly not suitable for export – in Burkina Faso, only 20–30% of the fruit on the trees is export quality. In the packing station they are again graded and sorted; the export-quality fruit are washed, treated, put into cold storage and then transported in cooled containers at 10°C. The fruit have to be kept cool until they are sold. If for any reason there is an interruption in the refrigeration, the mangoes ripen and are rejected on arrival.

Traditional mango export chain

Because the fruit are so delicate, the traditional mango export chain in Burkina Faso is organized in a highly complex manner. Exporters of fresh mangoes are aware of the quality requirements. The level of maturity, coloration, absence of stains and diseases are the main considerations when selecting fruit for export. Some exporters own plantations that provide the bulk of their exports. Other exporters rely entirely on small-scale farmers to produce fruit. In such cases, the exporter generally agrees with the farmer on a price per unit weight of export-worthy mangoes. The average farm-gate price is around FCFA 1,600 per 18 kg crate.

The exporter arranges for traders to go to the farmers' orchards to harvest the fruit, and gives them an advance to cover initial expenses. This pre-financing is based on trust.

The traders are familiar with the areas where they operate, and are often well-known among farmers there. They survey the areas and pass on information about expected production levels to the exporter. The trader agrees on a contract and a price for mangoes with each farmer, and may give the farmer a loan to cover production costs or household expenses. This loan is a way to cement relations between the farmer and the trader.

The traders hire workers to pick the fruit: a team of workers can harvest 100 tons of mangoes in a season. The workers are experienced in recognizing exportable fruit and know the quality standards the exporter requires. They select the mangoes on the trees, pick the fruit, and reject any that are unsuitable for export. The trader then agrees with the farmer on how much of the harvest is of good enough quality to buy. The payment may be done on the spot or later.

The trader also hires a lorry to bring the fruit to the exporter's depot. The exporter sorts and grades the mangoes, then pays the trader for the exportable fruit, deducting the cash already advanced. The exporter will pay only for export-grade fruit, so it is in the trader's interest to harvest carefully and supply only the best mangoes. Delays in transport allow the mangoes to ripen too much, and the exporter typically rejects up to 30% of the fruit the traders deliver. Better-quality rejects are exported to neighbouring countries, such as Niger. The farmers sell other rejects at local markets or in municipal markets in nearby towns.

The negotiations between the traders and farmers are often facilitated by a broker. This is usually someone living nearby who knows the producers and the location of their farms. The broker also sometimes gives the farmers a loan to reserve the fruit before harvest; the amount depends on the expected quality and quantity of mangoes. The broker brings the trader to farms which have sufficient amounts of good quality mangoes. The brokers also negotiate on behalf of the farmers and look after their interests. They receive a commission (US$ 50–100 for a truckload) from the traders in return for this service.

The trader may end up with poor-quality produce, yet owe money to the exporter. To avoid this, the trader may ask farmers to sell the mangoes on credit. If the exporter rejects the fruit, the trader may not be able to pay the farmer, or the harvest workers. Cases of non-payment have given traders in general a bad reputation.

Besides the danger of non-payment, the farmers also run the risk of price fluctuations and uncertainty of finding a buyer for their crop. Farmers closer to export centres have better sale prospects than farmers farther away, who can be sure of selling their mangoes only in years of scarcity. As the majority of farmers are illiterate and have little understanding of the whole chain, their bargaining power is limited and they are at risk of being exploited.

There are few business support services, and the government and financial institutions are almost entirely absent.

Table 6.1 Actors in the traditional mango export chain

Chain actors	Activity	Risks
Producer	Weed	Poor crop
	Maintain and protect orchards	Crop not bought
	Apply compost	Non-payment for sold fruit
		Price fluctuations
Broker	Contract with harvester for groups of farmers	Lost deal
Trader	Seek orchards with export-quality fruit	Damage during transport
		Hidden quality defects in case of careless harvesting
	Contract harvest workers	
	Transport	Non-payment in case of sale on credit
		Price risk
		Non-supply of fruit by farmers who have received loans
Exporter	Contract trader for harvesting	Damage during transport
	Check quality	Hidden quality defects (fruit fly, moulds)
	Pack fruit	Unfair quality claims from importer
	Export logistics	Non-payment in case of sale on credit
	Provide loans	Price risk
		Non-supply by pre-financed harvesters
Importer	Contract with supermarkets	Loss of quality during storage in warehouse
	Pool volume of fruit	Non-supply by exporter of pre-financed orders
		Non-supply leading to loss of clients

On the other end of the chain, when the mangoes arrive in Europe, the exporter is paid only for the fruit that arrive in good shape and conform to the importer's quality requirements. Enforcing the contract between importer and exporter is sometimes difficult, because the exporter cannot directly verify the quality of the fruit on arrival. The importer may withhold payment on the pretext that the quality is unsatisfactory.

Chain actors

Table 1 lists the actors in the traditional mango export chain, along with the activities and risks they undertake, and their costs and margins per tonne of fruit.

Brokers and importers have limited risks and costs, and they earn commission in return for their services. The exporter and traders have high costs and low margins, and face many risks. The producers have the best balance between costs, margin and risks.

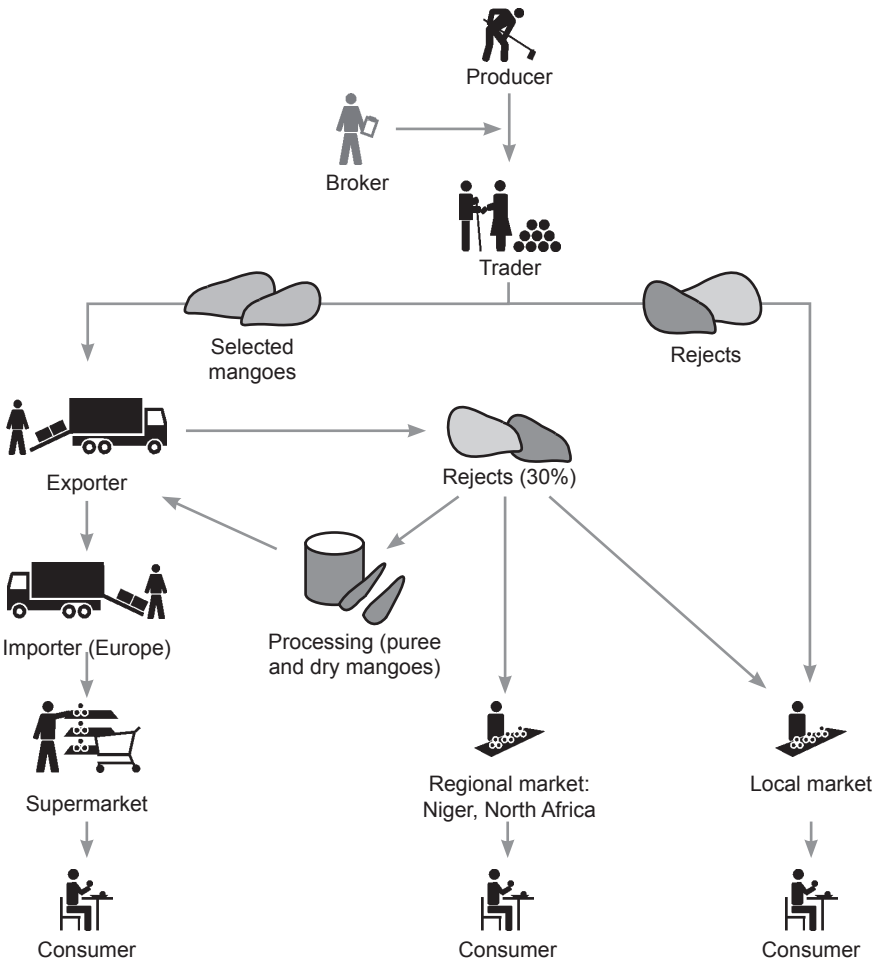


Figure 6.1 Actors in the traditional mango export chain

Attempts to export directly

Mango production is not labour-intensive, as the orchards require only occasional weeding and compost applications. The producers are not actively involved in the harvesting as it is technically demanding. The harvesters need strong financial incentives to pick only the best, export-quality fruit to avoid wastage. But the farmers often feel cheated – they say the traders reject too much fruit.

In 2002 a farmer cooperative with some 150 members started to export "fair trade" mangoes to Europe. In this case, "fair trade" meant better prices for farmers, good quality, and no dealing with traders. The coop collected and packed mangoes for export to the Netherlands. The importer and an NGO provided technical assistance and trade finance. Over a 5-year period, a total of €500,000 in donor support was provided.

In spite of this support, the cooperative lacked the technical skills to manage mango exports. It bypassed the traders and employed its own workers to harvest fruit. But it did not insist on proper standards, and failed to penalize farmers or workers for delivering variable quality fruit. Without effective quality controls, the workers harvested a lot of substandard fruit. The coop bought all mangoes, no matter what quality, at a high price – although it could sell only about half of them as export quality.

The cooperative began exporting mangoes in 2001. But for the next 4 years, business did not pick up. In 2005, the coop suffered a loss of €131,000 on sales of only €181,000.

These losses were caused by various factors:

- **Poor management** The coop management was inexperienced and disorganized, and lacked expertise in the export business. The packhouse was poorly managed. The coop refused to sell to professional exporters because it feared they would exploit the coop members.
- **Poor quality control** The harvesting techniques and management were poor. The coop paid each month for all the mangoes picked that month, and did not check quality every day. Some 52% of the mangoes were rejected, even by the local market.
- **High costs** The coop incurred excessive costs. For example, it used 120 full-time employees to handle 198 tonnes of fruit. (By comparison, in 2006 Fruiteq (see below) used 80 full-time employees to handle 1,268 tonnes.) It hired trucks to pick up fruit, but they often returned half-empty, forcing them to make extra trips.

The Fruiteq export chain

Fruiteq, a trading and export service company, was created in 2005 to address concerns about the worsening performance of mango exports in Burkina Faso. The company followed a different approach from the cooperative: instead of

cutting the traders off, it recognized the specialized role of all actors in the chain – farmers, traders and exporter – to ensure a product of export quality.

The company started by convening harvesters and producers to discuss their roles and responsibilities. It ran training courses to educate the various players on quality criteria for export mangoes and the costs from the farm to customers. Producers and traders often compare the prices they get with the retail prices in Europe, so it is important to show them the price structure, especially because Burkina Faso is a landlocked country that has to maintain a competitive edge over its neighbours. As a result, everyone in the chain understood their roles in ensuring quality.

Fruiteq is an initiative of three partners:

- **West African Fair Fruit Ltd** Established in 2004, this Ghana-based company assists producers and exporters to export fair trade tropical fruits from West Africa. It owns Fruiteq, and is in turn 100% owned by Agrofair (see below).
- **Agrofair** is a fair-trade fruit company and importer in the Netherlands. It supplies high-quality fair trade and organic tropical fruits to supermarkets, smaller stores and caterers across Europe. Half its shares are held by an international cooperative of producers (the farmers who produce the fruit it imports), and the other half by European development agencies and socially responsible investment and trading organizations. Agrofair owns West African Fair Fruit and provides it with capital and technical assistance.
- **ICCO** is a Dutch NGO that provides technical assistance to producers to get organic, fair-trade and EurepGAP certification (see page 220). ICCO also provides capacity building for Fruiteq workers. Its support for the project will end in December 2008.

Fruiteq employs seven permanent workers and 160 casual workers. It organizes harvesting, transport, packing, cooling and logistics. It contracts with five farmer organizations to supply fruit. The farmers receive a fixed price for their fruit, and have control over the payment. The farmer organizations contract out harvesting to harvesting traders, who still act as middlemen but are now part of a systematic chain. They harvest and transport the fruit and get paid according to the quality of their work. The harvest team can boost its earnings by increasing the volume and quality of the fruit it delivers.

Fruiteq works with around 1,200 producers in three countries. In Burkina Faso, 14 harvesting traders employing 780 persons work with Fruiteq (the country has a total of 20 such traders). The harvesters are organized in seven groups working together to fill the trucks to reduce transport costs. In Mali, Fruiteq works with 4 harvesting traders employing 120 persons, and in Côte d'Ivoire the firm works with 10 harvesters employing 300 persons.

For quality control, Fruiteq maintains close communication with all the actors in the chain. This helps to resolve issues as they arise. Fruiteq ensures that there is balance between the farmers and traders in two ways: through the institutional

organization of the chain and by maintaining personal trust relationships between Fruiteq staff, farmers and traders:

- **Institutional organization** Fruiteq recognizes that the chain is composed of three groups of partners: producers, harvesting traders and the exporter (Fruiteq). If any of the three fails, the chain collapses. This is why Fruiteq ensured that the traders were included, unlike under the cooperative, which excluded them. Prices and quality standards are discussed each year in a transparent way. The partners also engage with the government about tax (levels are higher than in neighbouring countries), research support and technical assistance on mango diseases. Fruiteq also negotiates good prices for packing boxes and transport, the main costs in the chain.
- **Personal trust relations** As an exporter, Fruiteq has taken over the function of the brokers in the traditional market chain. The firm knows all the producers in Burkina, Mali and Côte d'Ivoire. It maintains good working relations with its producers – relations that sometimes go beyond their produce. It has trusting relations with farmer leaders (two groups in Burkina, two in Mali, one in Côte d'Ivoire). It knows all the traders and their workers, their problems and their family situations. It cannot resolve all of their problems, but sometimes can provide solutions by explaining, guiding and discussing.

Financial arrangements

Agrofair, the importer, pays Fruiteq up to 70% of the free-on-board price in advance. It also pays directly for transport and insurance. At the end of the season the accounts are settled.

Fruiteq in turn pre-finances the producer groups by transferring money into their bank accounts. The firm pays each week in advance, according to the expected harvest. It then settles the full amount once the harvest is complete.

Fruiteq also pays the traders in advance to cover their transport and labour expenses. At the end of the week, when the mangoes are processed and the quality and quantity are known, the accounts are settled.

Prices are set during meetings between producers, traders and Fruiteq. It is usually difficult to arrive at a consensus, but at the moment the pricing is agreeable to all involved.

Results

The 2006 and 2007 mango seasons were successful. In 2001, Burkina Faso exported just 200 tons of mangoes. In 2007, it exported 3,000 tonnes. Fruiteq has played a major part in this success. In 2007 it exported 1,200 tonnes of mangoes, with sales of around €955,000 (Table 2). This yielded a net profit of €57,000, or 6% of the sales figure.

Table 6.2 Exports of mangoes by Fruiteq in 2006 and 2007

	2006	2007
Quantity exported	650 t	1,200 t
Net sales to Agrofair	€ 514,000	€ 955,000
Production cost	€ 463,000	€ 898,000
Net profit	€ 50,000	€ 57,000
Profit as percentage of sales	9.7%	6.0%

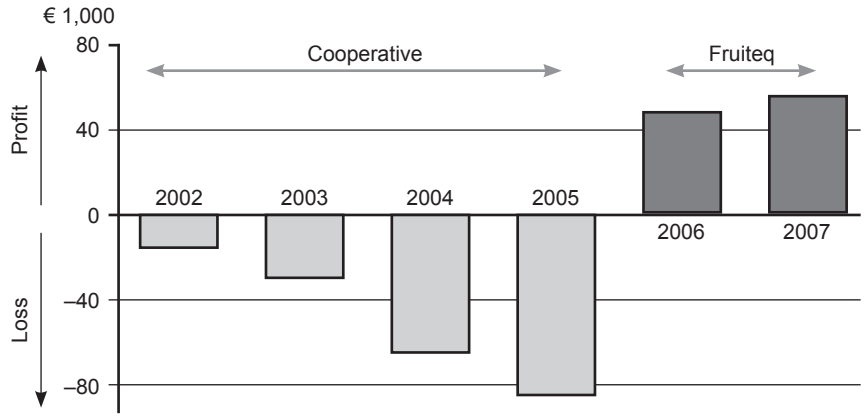


Figure 6.2 Summary of mango exports before and after entry of Fruiteq

The producers and their communities have benefited in various ways from the new arrangements. The producers now receive fixed prices per box of mangoes they produce. Their communities get a "fair trade premium" – a percentage of the sale price that is reinvested to improve services in the community. In 2007, for example, the five communities received a total of €60,000, which was used to pay for a community pharmacy, an information centre, a small market for women, and desks for schools. The increased level of exports has benefited about 20,000 people: the producers, harvest workers and packhouse workers, along with their families.

The traders have also benefited. They are now part of the marketing chain again, and they are promptly paid according to the quantity and quality of produce they supply.

The business is now transparent. All the actors feel their interests are being taken into account and recognize the important role that everyone plays in the chain.

Fruiteq's success is based on various factors:

- Good management practices based on delegation and quality controls.
- Motivation of the pack house workers by awarding bonuses for extra boxes packed with good quality mangoes.

- Quality checks by a company that is independent of producers, Fruiteq and the importer.
- Hands-on operational management through a weekly business performance appraisal using production and financial data.
- Remodelled process management, and management of harvest, grading and packing based on the export quality required.
- Diversified sourcing of mangoes (from Mali and Côte d'Ivoire as well as Burkina Faso) to prevent supply shortfalls.
- Contracting a logistics company to provide transport and cooling facilities.

West African Fair Fruit does not plan on remaining the sole shareholder of Fruiteq. This means the future owner must be able to provide good local management and supervision to ensure growth in volume, sales, quality and profit. Fruiteq will diversify its commercial basis by adding new products: this will greatly enhance its sustainability. Higher sales and profits will make it easier to attract and keep capable management and staff. Diversifying its products will make use of staff and equipment when the mangoes are out of season, increase income, and spread the risks.

Table 6.3 Value shares of actors in the mango value chain, Burkina Faso

€ per tonne of mangoes

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Traditional export chain						
Farmer	92	136	44	136	32%	6%
Trader	248	257	9	121	4%	6%
Exporter	867	888	21	631	2%	29%
Importer	888	995	107	107	11%	5%
Super-market	1,650	2,150	500	1,155	23%	54%
Fruiteq export chain						
Farmer	94	166	72	166	43%	7%
Trader	326	341	15	175	4%	7%
Exporter (Fruiteq)	816	859	43	518	5%	21%
Importer	1,055	1,063	8	204	1%	8%
Super-market	2,163	2,500	337	1,437	13%	57%

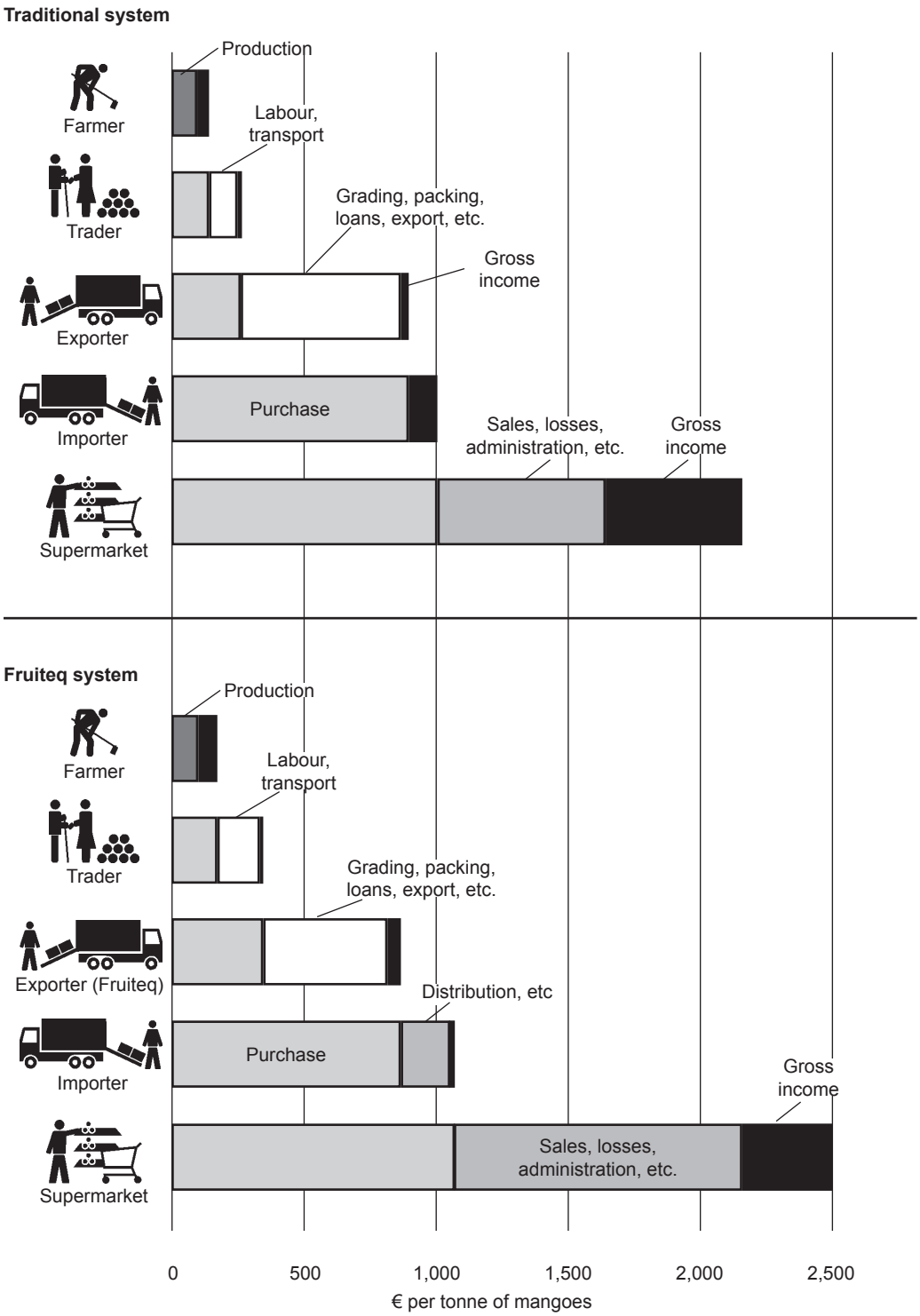


Figure 6.3 Costs and revenues of actors in the mango value chain, Burkina Faso

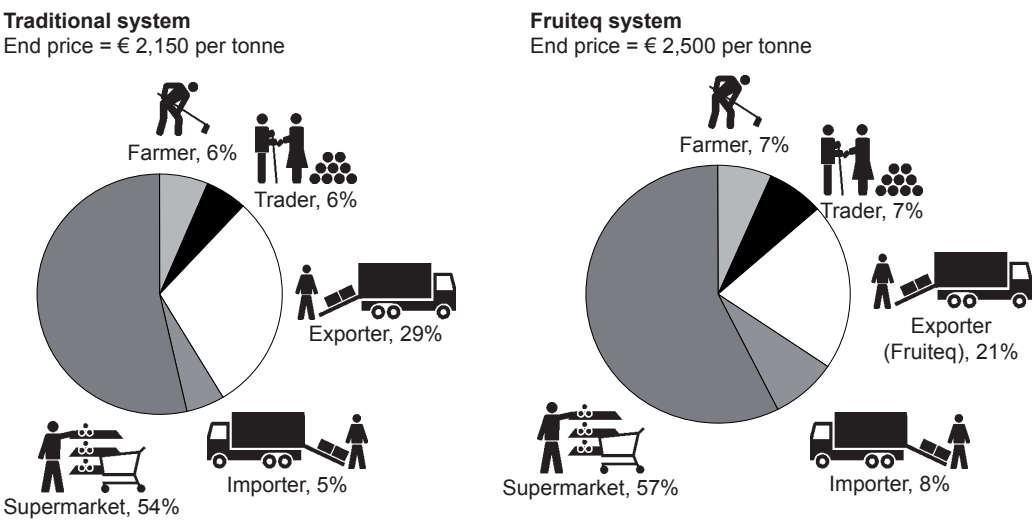


Figure 6.4 Value shares of actors in the mango value chain, Burkina Faso

Value shares of actors in the marketing chain

The profit margins in the traditional and Fruiteq export chains are presented in Table 3. This shows that in both chains the producers have the lowest costs and have the highest gross income and gross margin. The traders and the exporter have higher costs and lower profit levels.

Under the traditional export system, the farmers and traders each earned only 6% of the final retail price of the fruit. The exporter earned 29%, and the supermarket in Europe earned 54%. The farmers had the highest gross margin (32%), followed by the supermarket (23%) and the importer (11%).

Under the Fruiteq Fairtrade scheme, the farmers and traders each earn more: 7% of the final price. The final price itself is higher, because the Fairtrade label enables the supermarkets to charge customers more. That leaves farmers and traders in Burkina Faso better off. Farmers now have a gross margin of 43%.

Fruiteq actually earns a smaller percentage of the final price than the traditional exporters: 21% rather than 29%. But by improving management and quality and by cutting costs, Fruiteq has become more efficient than the traditional exporters, and earns a higher gross margin (5% instead of 2%).

How the market structure has changed

The traditional export chain consisted of a set of specialized players – producers, brokers, harvesting traders, exporters and importers, but with relatively weak ties between them.

The farmer cooperative tried to supplant the actors between the producers and importers, but failed to do so adequately, so lost money.

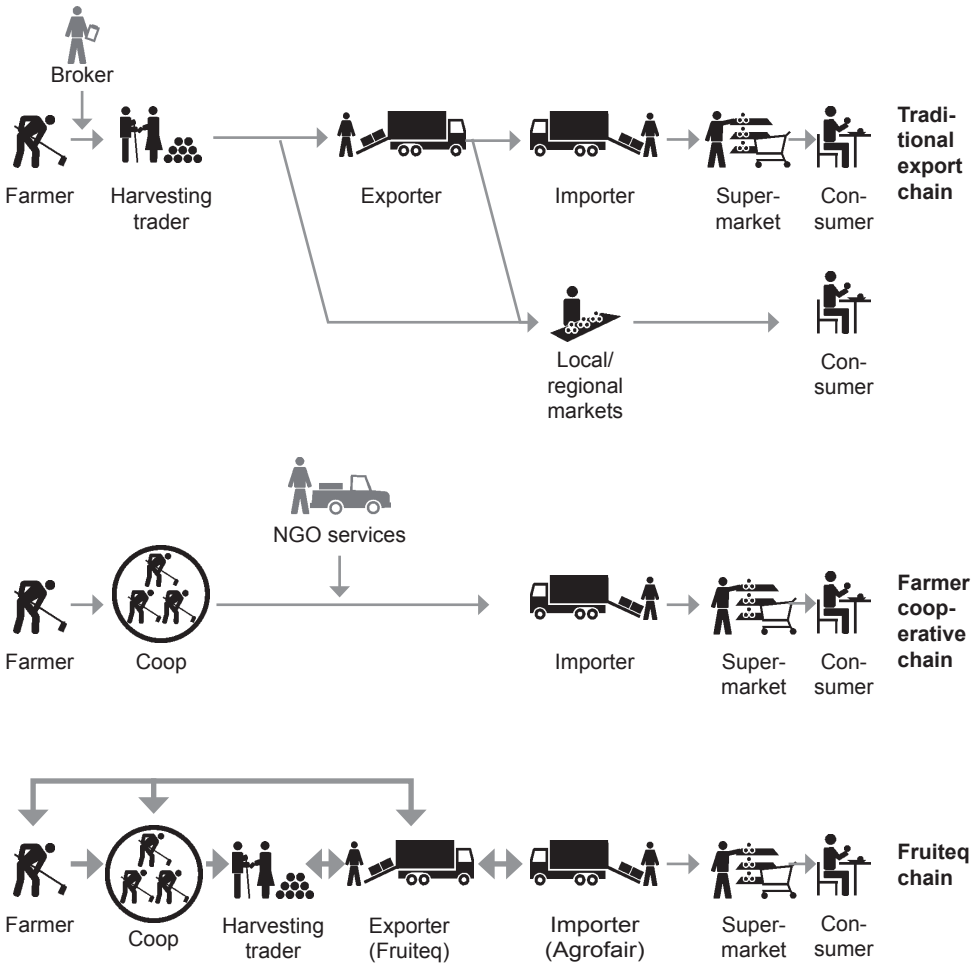


Figure 6.5 Changes in the mango market structure, Burkina Faso

Fruiteq has brought back the traders, but has created close links with all other actors in the chain.

Chain relations and market institutions

The traditional marketing system had various specialized players that acted according to a reasonably well understood set of "rules of the game": recognized roles, provision of credit, etc. ❶

The formation of the farmers into cooperatives and the innovations introduced by Fruiteq strengthened the business relations in various ways: the members of the cooperatives collaborate more closely with each other and with the traders

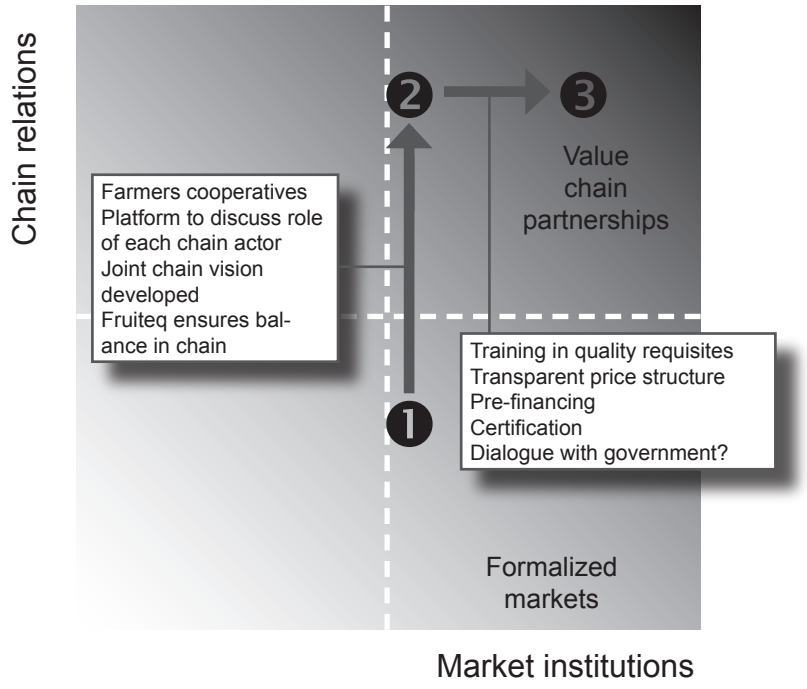


Figure 6.6 Chain relations and market institutions in the mango trade, Burkina Faso

and exporter; planning meetings act as a platform to discuss the roles of the various actors and to develop a joint vision of the chain; and Fruiteq works to ensure balance in the chain. ❷

Business institutions have also been strengthened: farmers and traders have been trained in quality requirements; the price structure is now transparent; each player can access credit needed to cover costs; the fruit are certified; and the partners in the chain are able to engage in dialogue with the government on issues such as tax and research support. ❸

More information

Zongo Adama, Fruiteq, a.zongo@fruiteq.com

Agrofair, www.agrofair.nl

ICCO, Interchurch Organisation for Development Co-operation, www.icco.nl

Beefing up the livestock trade in Kinna, Kenya

The Thursday livestock market at Kinna used to bustle with activity. Local pastoralists and traders from far and wide would bring in their cattle to sell. Buyers from the nearby major secondary markets in Meru, Embu and Mwingi districts crowded to Kinna to buy. Up to 600 cattle would change hands.

Located on the eastern side of the Nyambeni Hills, about 80 km from the town of Isiolo and 350 km from Nairobi, Kinna is the centre of grazing area with about 2,000 livestock producers (Figure 1). An ideal location for a busy market.

But the hustle and bustle at Kinna is no more. In 1994, disagreements over grazing and water use triggered a tribal conflict between the Boran and Somali, two major ethnic groups. Eight livestock traders were killed in the fighting.

The conflict had far-reaching effects on the local economy. The most immediate was the collapse of the Kinna market. Fearing for their safety, many traders switched to the distant Garissa market, which they saw as safer. Other traders occasionally came to Kinna, but were discouraged by the time taken to get the number of livestock they needed. Fearing to venture into the hinterland, they depended mostly on brokers and resident small-scale traders to supply them with livestock.

The remaining traders who used to do business at the Kinna market had to search more widely for cattle. They were forced to move into the rangeland in search of animals. They would buy the animals at the pastoralists' stock enclosures and trek them to the market in Kangeta, about 70 km away. Faced with the burden of trekking a single animal to market, individual pastoralists would easily part with the animal at rock-bottom prices.

Of course, the cattle lost condition during the trek. As there are no defined stock routes between Kinna and Kangeta, the animals were trekked along the roadside, without enough grazing to support them. They arrived at the market exhausted and weak.

There, traders offered lower prices for the poor-quality animals. The Kangeta market could only take about 40–50 head of cattle a day anyway, so the market was often flooded with unsellable animals. The traders tried, and failed, to control the number of animals delivered to the market. They also lacked bargaining power since they operated individually and not collectively. The butchers, who are the major buyers of livestock at Kangeta, took advantage of the situation. Prices collapsed, and sometimes the cattle had to be trekked back to Kinna.

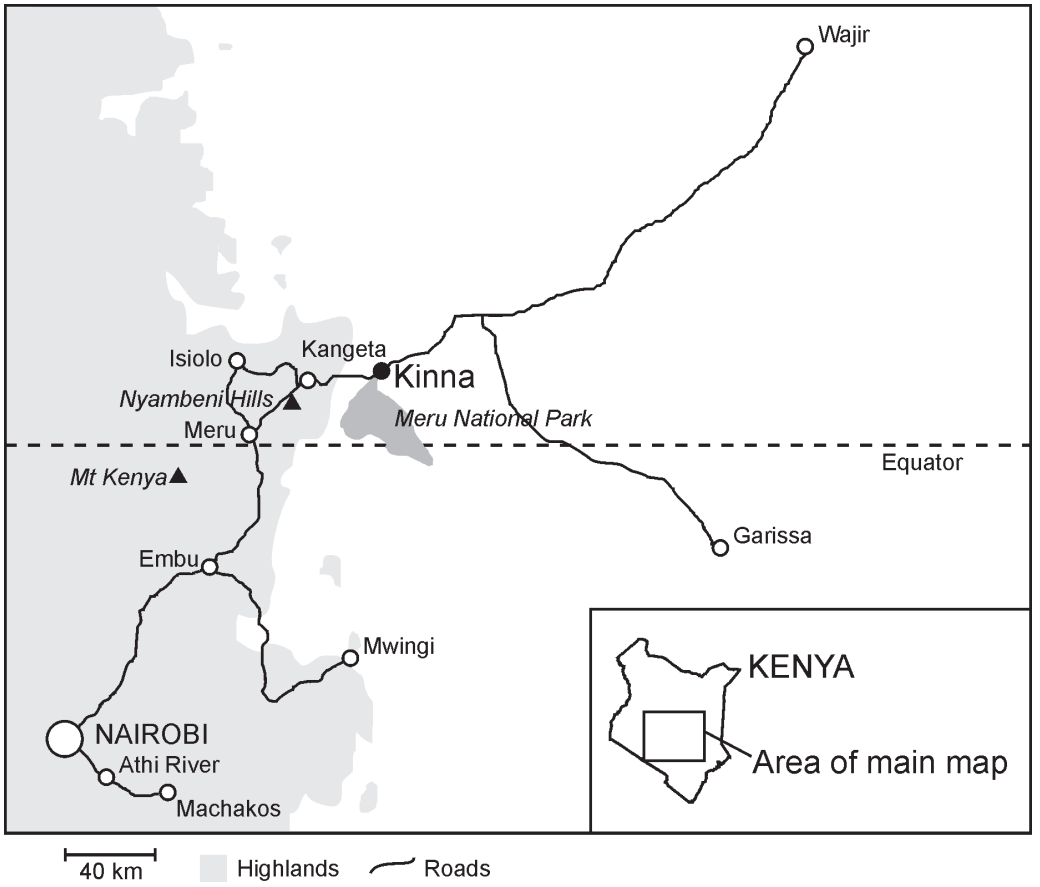


Figure 6.7 Location of Kinna

Disease was another problem. Long treks with weak animals let diseases spread easily. Stray antelopes and buffaloes from the unfenced national park and game reserve carry pests (such as ticks that carry heartwater and redwater) which cattle pick up easily. Veterinary regulations require livestock to be trucked to markets to avoid this, but these procedures are weakly enforced. Traders are prepared to pay a lot of money to the police and veterinary staff to buy their way through.

Left without decent markets, many local livestock producers had nowhere to dispose of surplus animals profitably, so they held on to them. The result: further overgrazing in the Kinna rangelands.

The Kinna Coop

What could be done? Worried about the loss of their market, in 2003 traders and pastoralists at Kinna invited the Kenya Livestock Marketing Council to facilitate a discussion among local stakeholders. As a result, a group of 18 traders and 6 pastoralists registered themselves as the Kinna Livestock and Products Marketing Cooperative Society Limited (Kinna Coop). They sought help from the Office

of the President's Arid Land Resource Management Programme to manage the coop.

At the beginning it was difficult to convince other producers to join the coop – they wanted to observe the coop's performance before joining. But membership grew slowly, from 24 in 2003, to 63 in 2006. The coop can now bring together enough animals and capital to make it worthwhile supplying terminal markets in Nairobi.

The cooperative appoints three of its members as buying and collection agents, and two as herders. Five more members manage the animals in Kinna until they are taken to market. This team of five is responsible for health and other management issues. Cattle, and hides and skins, are the coop's major business, but the group plans to start sheep and goats marketing after they have further improved their system for cattle.

The coop established a collection point at Duse, a small town some 20 km away from Kinna. Pastoralists bring animals they wish to sell to this collection point. There is a year-round water pan there, and a *boma* (thorn enclosure) to hold animals overnight and during trading. In the short space of time since the coop was founded, the collection point has started developing into a market for livestock. It attracts traders who buy and sell livestock. Local people are building houses and makeshift hotels, and the government is building a school and a health centre. This is not just a result of the coop: the area is also an important watering point for livestock, and gemstones are produced in a nearby quarry.

Business takes off

An early initiative of the coop in October 2006 was to commercialize hides and skins in Kinna. The coop secretary identified this opportunity during a visit to a trader in Isiolo. The coop buys hides and skins in and around Kinna, and sells them in Isiolo. Sometimes this business is more profitable than selling cattle. The coop members learned how to use a dry salting method to preserve the hides and skins.

In early 2007, the Kenya Livestock Marketing Council organized a regional workshop in Isiolo to link the traders and livestock marketing groups with financial institutions and market outlets such as the Kenya Meat Commission and Alpha Fine Food from Nairobi. The Kinna Coop members were pleased to be invited.

The beef marketers and financial institutions presented their products and purchasing systems to the workshop participants. One outcome for Kinna Coop was to secure a loan of KSh 500,000 (€5,500) from K-Rep Bank in Isiolo. This loan, plus members' contributions of KSh 200,000 (€2,200), makes up the coop's working capital.

Another outcome was a contract to supply approximately 100 cattle every week to the Kenya Meat Commission, a newly re-launched parastatal meat processor and exporter, in Athi River, in Machakos District. By September 2007 the coop

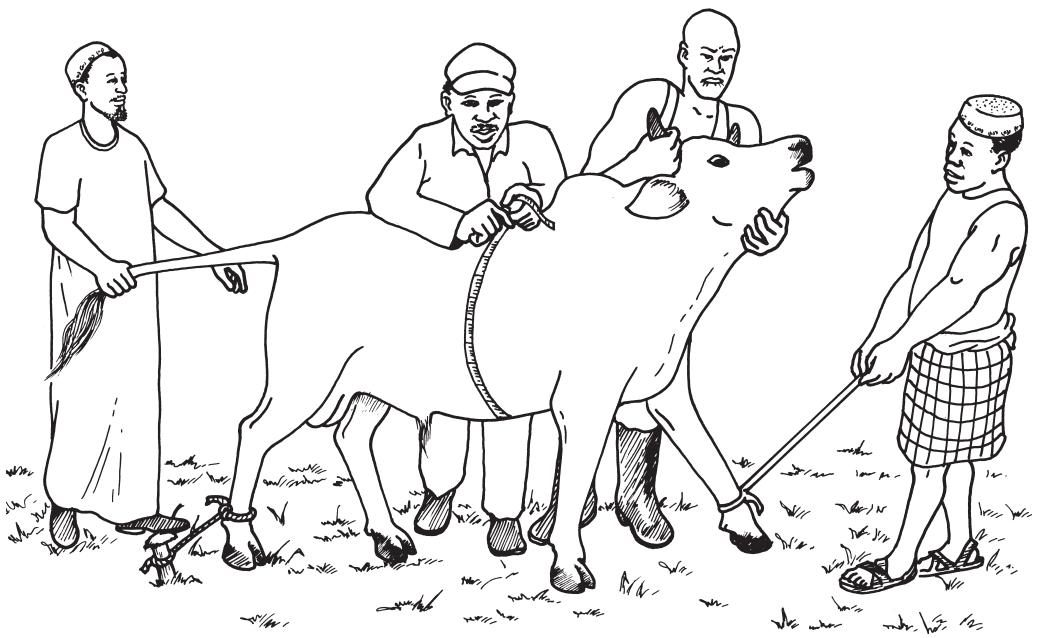
had made three deliveries of a total of 142 cattle. The Meat Commission slaughters the animals within 24 hours and pays by cheque within 3 days.

The coop has so far been unable to supply 100 animals a week because it does not have enough working capital – its funds are enough to buy only 45–50 cattle at a time. And supplies of cattle are still short: there are too few coop members, and they own too few animals themselves. Although the coop buys from non-members, it cannot meet demand.

Improving standards and transparency

An important innovation by the coop is the use of a "weigh band" to measure the circumference of the animal's chest. This gives an estimate of the weight of animals that members want to sell. Traders and pastoralists know roughly how much their animals weigh and so how much they are worth. But the weigh band removes any doubt and increases transparency: it gives the animal's weight accurately to within 10 kg.

The coop offers owners a price for the estimated weight, minus 10 kg to allow for losses in transit to the Meat Commission. Non-members are given first priority for cash payment. If cash is short at the time of transaction, members get a credit note. The coop administers the sales and hires lorries locally to transport the animals to the Meat Commission at Athi River.



Box 6.1 A livestock trader's horizons expand

"My name is Rashid Wako. I am a livestock trader in Kinna. We used to have a market in Kinna but after the conflict between my community and Somalis and the killing of eight traders, the market collapsed. My fellow traders and pastoralists and I went through many problems. We had no market to take our animals to. The small market at Kangeta that we depended on does not take the number of animals that we have.

"Following the government emphasis on cooperatives, I decided to combine my community members, both traders and pastoralist farmers, in the formation of a cooperative society. In late 2003 I came to the Kenya Livestock Marketing Council office to ask for assistance in bringing the traders and a few pastoralists together in formation of the cooperative.

"In late 2004 we registered a coop with 24 members. In the same year I asked for a capacity building workshop from the Arid Land Resource Management Programme. After the registration of the coop I went around to look for markets. Due to the reopening of the Kenya Meat Commission, I managed to get an order from them. I managed to supply 142 head of cattle.

"I personally did not know any market before apart from Kangeta market and the former Kinna market. But from the starting of the coop I have gone round many markets. I got a lot of knowledge and I became well known in most markets and also to the local pastoralists.

"Despite gaining knowledge and the chance of selling my animals, I am also discouraged by the pregnant animals brought by the members of the coop, which after slaughter lose more than half of the live weight, which brings complaints among the members."

A choice of markets

With the coop able to venture into other markets, the price of livestock in Kinna has improved. Pastoralists now have a choice. They can sell their animals at one of the small primary markets that are still operating in the Kinna area. They can sell to small-scale traders who come to their livestock enclosures. Or they can deliver their cattle to the Kinna Coop for sale at the Isiolo market or to the Meat Commission.

It is the coop's ability to purchase cattle in bulk and fill a lorry that makes it economic to sell to the Meat Commission. The coop also serves as an outlet for traders who used to sell only to the Kangeta market. Kenyans eat a lot of meat, and the country imports about 29% of its livestock needs from neighbouring countries, so long-term demand trends look promising.

Other benefits

The Kinna Coop initiative has had other benefits too.

- **Disease** The spread of livestock diseases has been reduced because livestock taken to the Kangeta market are all sold – it is not necessary to trek them back again to their home areas – and the market is no longer flooded with livestock.

Box 6.2 Founding the Kinna Coop

"My name is Dub Dabasso. I'm a livestock keeper in Kinna division of Isiolo District. I'm 47 years old, and I have seven children. Our livelihood depends on livestock. For us to get foods and other goods we must sell our livestock. I had no problem in the past because Kinna market offered a channel for my animals. But we lost the market. Afterwards I had to travel long distances whenever I wanted to sell my livestock. Sometimes I was forced to sell to travelling traders who paid me very low prices.

"In the year 2004 some of our traders and producers like Mr. Rashid Wako introduced us to the idea of starting an institution to help market our animals. A few of us came together and formed the Kinna Coop. Since I joined the cooperative it is easier to sell my animals because we are able to pool animals together and deliver them to better markets offering good prices.

"My animals are weighed using a band, which our local traders don't use. I'm issued with a credit note showing the weight of the animal as well the cash at the rate of KSh 48 per kilogram for cows, and KSh 50 for bulls and steers. After selling the animals, I again receive a document showing live weight and carcass weight and price. The amount over what I received becomes part of the coop income, which we share between the members at the end of the year.

"The cost of livestock production in Kinna is very high due to the prevalence of livestock diseases compared to other parts of Isiolo. This is because Kinna borders two wildlife parks and Meru Forest. Ticks and tsetse fly are the common problems. It is very important for me to get a good market for the few head of cattle I own to be able to feed my family and educate my children."

- **Grazing pressure** Livestock offtake has improved, so reducing the overgrazing of the Kinna rangeland.
- **Credit** Improved outlets and the creation of the marketing organization have increased the confidence of a local bank, which has opened up a credit facility to serve the coop. Banks previously considered livestock a risky venture, so have denied it the sort of financial services that have helped develop other sectors of the economy.
- **Organization** The Kinna Coop is emerging as a strong marketing organization. With time, more members have joined. Other traders are willing to sell to the coop as they make money without incurring high costs and avoid spending time on the road to the Kangeta market.
- **Reduced dishonesty** The Kinna Coop adheres to the veterinary livestock movement regulations. Although the coop still has to pay some "tea money", incidences of bribery and corruption along the roads to the markets have fallen.

Challenges

The long journey over bumpy roads is very strenuous for livestock. The trip to Athi River can take up to 2 days, and the animals may arrive injured. Their carcass weight is reduced and the quality of meat falls.

Pastoralists in need of cash sometimes deliver pregnant animals to the cooperative, and during weighing they record a higher weight. The difference in weight after killing the animal is drastic, and this may cause suspicions of cheating: the Kenya Meat Commission pays based on the weight of the carcass after it has been dressed, so pays the coop less than it expected. Sometimes animals give birth on the way to market, or at the Athi River holding pens; that means the mother and calf will have to be held there for 6 months until the calf is weaned. The Meat Commission deducts the cost of feeding and caring for the animals from its payment to the coop.

The weigh band method of determining weight is better than the traditional method, but is not totally accurate. Differences between estimates in Kinna and the Meat Commission's weight records have caused misunderstandings between the coop and its members (Box 1).

Actors in the chain

Box 2 shows the main actors in the livestock marketing chain and those who provide services to it.

Coop problems

The Kinna Coop faces various problems in trying to develop its business further.

- **Not enough livestock** The coop does not receive enough animals to sell. It takes about a month to collect 100 cattle. Looking after and treating these animals for so long costs a lot.
- **Inadequate working capital** The coop buys animals and takes them to the Kenya Meat Commission to sell. After 3 days it receives payment, and only then can start buying more animals to sell.

Box 6.3 Actors in the livestock marketing chain, Kinna

Pastoralist Breeds and sells livestock

Trader Buys, sells and perhaps breeds livestock

Kinna Coop Buys animals, markets, mobilizes and organizes members, administers sales

Kenya Meat Commission Slaughters and processes animals, sells to retailers

Service providers

Transporter Takes animals to market

Veterinary department Controls animal movement and health

- **Poor communications and delays** Few pastoralists in Kinna have mobile phones, and coverage is poor. It takes time before pastoralists with animals to sell hear that the coop is buying, and then more time for them to get their animals to the coop's collection point at Duse.
- **Transport** Transport is expensive, unreliable and stressful for animals as it depends on hired vehicles and poor roads.
- **Disease and pregnancy** Livestock diseases reduce the animals' weight and value, and pregnant cows fetch far less than expected when slaughtered.
- **Regulations and corruption** Transporting animals at night is prohibited, increasing the time taken on the road. Corruption at roadblocks is an irritation and expense.

Pastoralists' problems

The livestock producers also face various problems in marketing their animals.

- **Distance** They must travel for long distances to markets to sell their animals.
- **Market power** At the markets they face buyers' cartels and unscrupulous buyers who take animals on credit and never repay their debt.
- **Information** The pastoralists lack information on prevailing market prices.
- **Physical risk** They lose animals to disease, attacks by predators, raids by rival groups, drought, etc.
- **Movement restrictions** If a major disease outbreak occurs, the government may restrict livestock movements and curb imports and exports. That severely curtails the pastoralists' income.

Value shares of actors in the marketing chain

Table 6.4 and Figure 6.8 show the costs and revenues of producers, traders and the Kinna Coop for two alternative market chains: sales to traders in Kinna, and sales via the coop to the Kenya Meat Commission.

Under the system where brokers mediated the sale of animals from producers to traders, who then marketed animals to local butchers in Kinna, the producer and butcher each earned 44% of the final retail value of the animal. Much of the producer's share was eaten up by the costs of herding, health care and the broker's fee, leaving him a gross margin of only 18%. The butcher's high value share and high gross margin (39%) are justified by the work involved in slaughtering the animals, cutting them up, and retailing them.

By selling to the Kinna Coop, the producers receive a higher price for the animals and they avoid paying the broker's fee. Therefore their gross margin more than doubled from 18 to 39%. On the other side of the value chain, the Kenya Meat

Table 6.4 Value shares of actors in the livestock value chain, Kenya

KSh per 300 kg, 5-year-old bull of standard class (€1 = KSh 95)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Local trader marketing system (butcher in Kangeta)						
Livestock producer	9,830	12,000	2,170	12,000	18%	44%
Travelling trader	12,470	15,000	2,530	3,000	17%	11%
Butcher (Kangeta)	15,960	27,000	11,040	12,000	41%	44%
Coop marketing system (Kenya Meat Commission)						
Livestock producer	9,080	15,000	5,920	15,000	39%	45%
Coop	16,530	17,700	1,170	2,700	7%	8%
Kenya Meat Commission	17,700	27,000	9,300	9,300	34%	28%
Retailer	27,500	33,000	5,500	6,000	17%	18%

Commission and the retailers also profit from the new business set-up. They together earn 46% of the total value share and fetch an average gross margin of 46%, which is more than the local butchers earned in the previous situation. So both the producers and the customers have benefited from the intervention of the Kinna Coop. The chain actors now make more money because the Kinna Coop operates more efficiently than the brokers and the traders. The coop earns a smaller percentage of the end value of the meat, only 8%, but makes up for this through the increased volume of trade. By purchasing enough animals to make it worthwhile transporting them to the Kenya Meat Commission abattoir, the coop is able to earn a higher price for the animals.

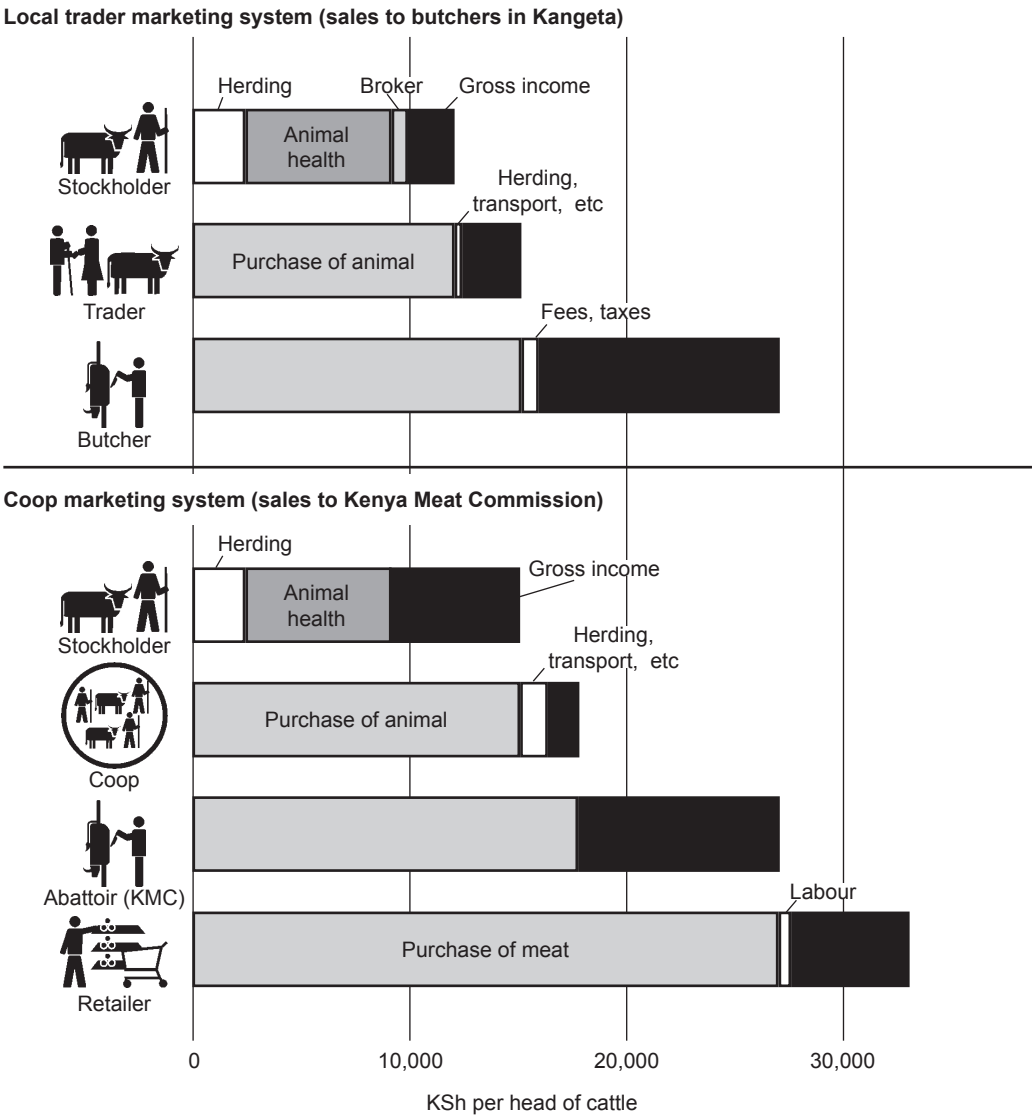


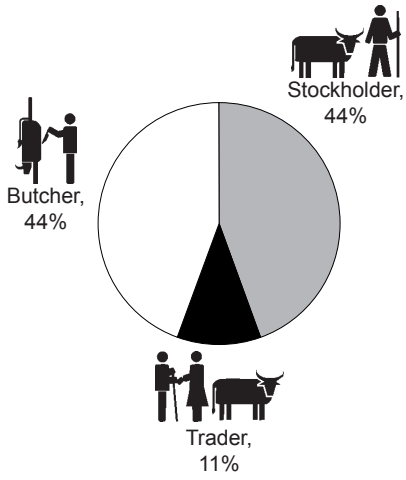
Figure 6.8 Costs and revenues of actors in the livestock value chain, Kenya

How the market structure has changed

Before 1994, the Kinna market provided a venue for pastoralists to meet wholesalers and other buyers. Apart from the market location itself, there were few institutions to provide services to either producers or traders.

The conflict of 1994 replaced this system with one that was even less efficient. Travelling traders met with individual producers and negotiated a price for their animals. They then sold them to local butchers. It was not worth transporting only a few animals to the main markets in Nairobi, so prices were low and few animals were traded.

Local trader marketing system (sales to butchers in Kangeta)
End price = KSh 27,000 per head of cattle



Coop marketing system (sales to Kenya Meat Commission)
End price = KSh 33,000 per head of cattle

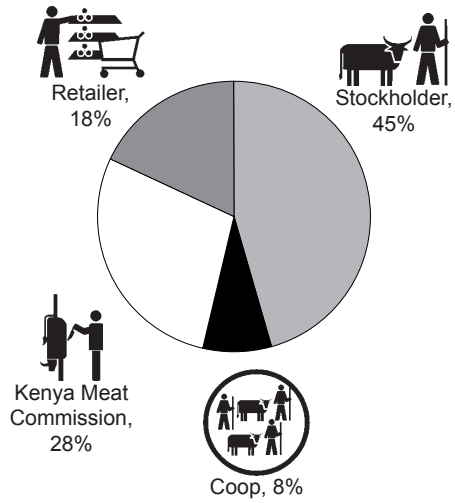


Figure 6.9 Value shares of actors in the livestock value chain, Kenya

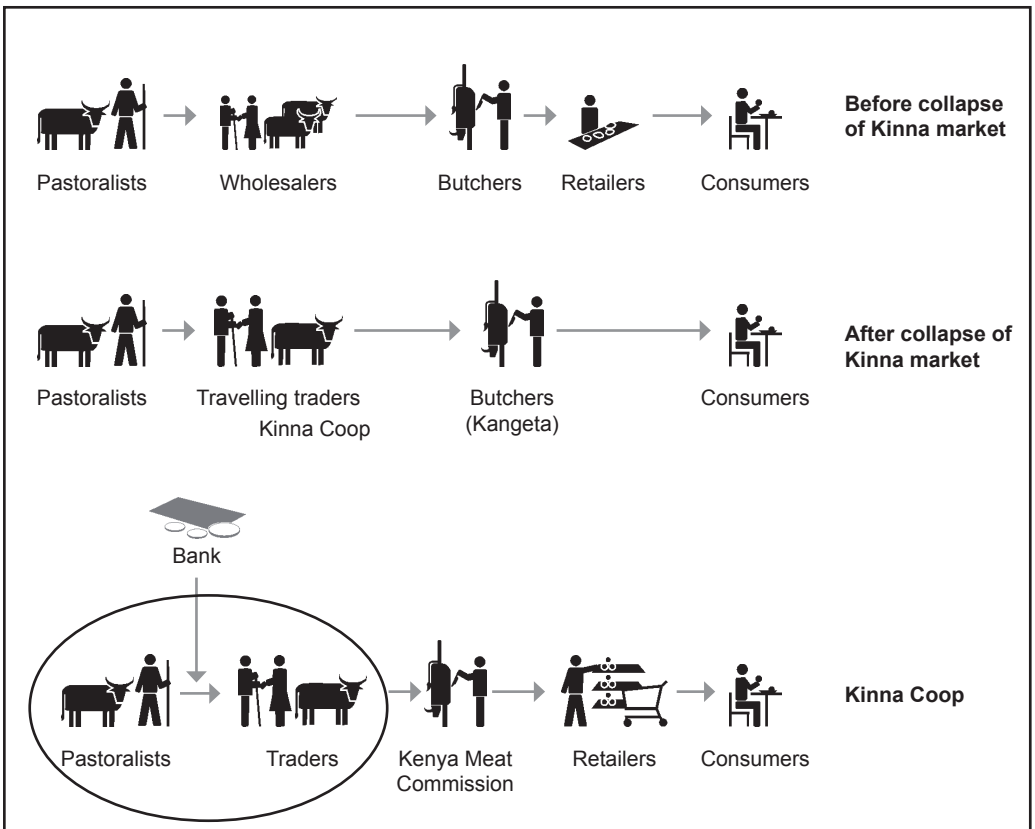


Figure 6.10 Changes in the livestock market structure, Kenya

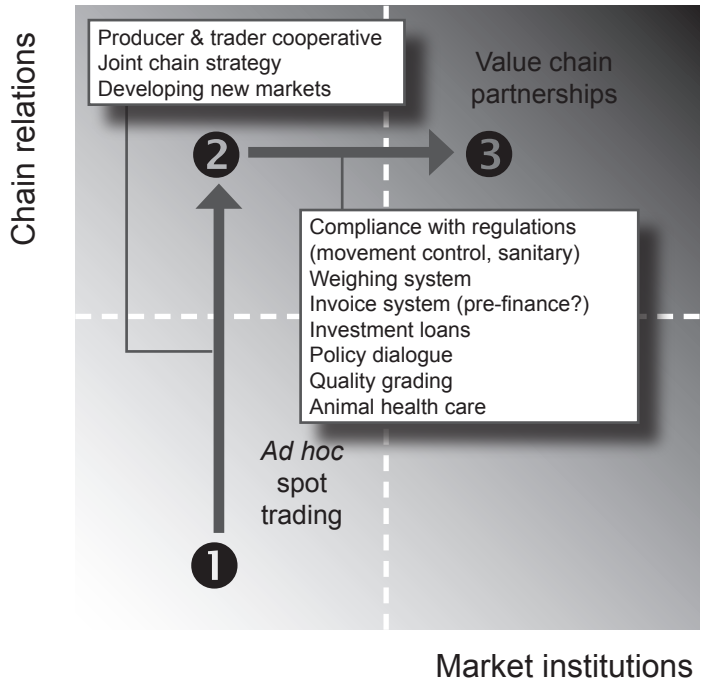


Figure 6.11 Chain relations and market institutions in the livestock trade, Kenya

The Kinna Coop brings together enough traders and producers to make it worthwhile to hire a lorry to take animals to more lucrative markets. That means that both producers and traders get higher profits. The coop also has the credibility to be able to access credit from the bank.

Chain relations and market institutions

After 1994, the producers and traders of Kinna knew one another, but they had no organized way of doing business, especially after the demise of the livestock market. ❶

The Kinna Coop represents a major improvement in chain relations: producers and traders collaborated in setting up a joint organization to address their common problems. They developed a strategy to do so, appointed members to take care of different tasks, and developed new markets – such as negotiating a deal with the Kenya Meat Commission. ❷

The coop also instigated improvements in the market institutions. It complied with government regulations on livestock movements and sanitary conditions, it started using a standardized weigh band to estimate animal weights, complied with the grading system imposed by the Kenya Meat Commission, and provided health care to animals under its control. It introduced an invoice system for its

members, was able to access investment loans from a local bank, and engaged in policy dialogue with government departments. ❸

More information

Sonkolo Abdikadir Mohamed, Kenya Livestock Marketing Council, abdikadir@livestockcouncil.org

Rashid Wako Guyo, Secretary, Kinna Livestock and Products Marketing Co-op Society

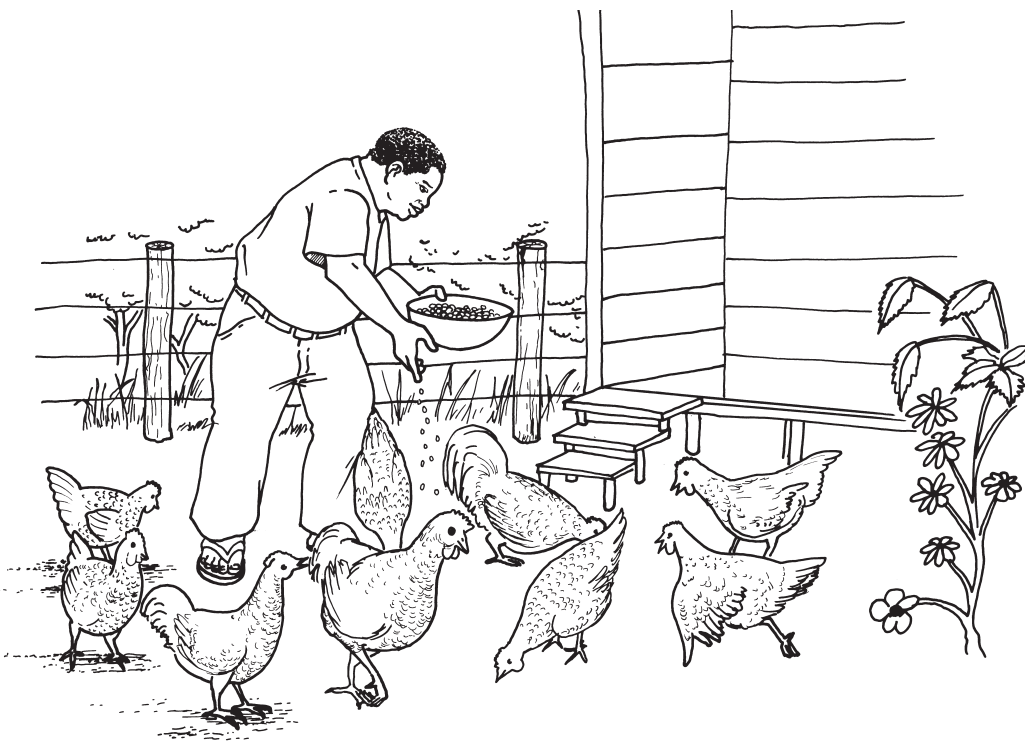
Dub Dabasso Jaldesa, member, Kinna Livestock and Products Marketing Co-op Society

Managing soybean value chains in northern Ghana

SOYBEANS GROW WELL IN northern Ghana. There is a lot of demand for them, too – to produce cooking oil, seedcake for poultry and livestock feed, and *dawadawa*, a type of fermented spice for soups.

So are smallholder farmers in the three northern regions of Ghana eager to grow the crop? Not unless they can solve the marketing problems. They see little point in growing lots of the beans unless they can make money. And until recently, getting a decent price for their soybeans has been tricky.

The story begins in 2000, when Catholic Relief Services (CRS), an international NGO, started a 3-year programme to promote soybeans as a food security crop in the Upper East, Upper West and Northern regions. The farmers were keen to grow this crop: soybeans are well suited to the dry climate in these regions, and they need few inputs such as pesticides and fertilizers. Soybean oil is used for cooking, and the seedcake left over after crushing the beans to make oil is a protein-rich poultry feed. Both have a secure local market. The farmers used to grow



soybeans for home use, but now started planting it in commercial quantities. CRS arranged for credit for the farmers, and organized marketing on their behalf. It sold the produce to processors, which converted it into oil and seedcake.

By 2002, when the CRS programme ended, the farmers had embraced soybeans as a cash crop. But they were left with a problem: CRS no longer handled the marketing, and they could not do it themselves.

Problems with local buying agents

The processors, who need a reliable supply of beans of the right quality and quantity, engaged local buying agents to organize supplies for them. The agents work on commission: they get paid for every 100 kg bag of beans they deliver. They use their own money to buy beans, but get pre-financing from the processors. The agents sometimes subcontract market women in the communities to buy beans on their behalf. These women receive a commission from the agent, and make extra money by manipulating the amounts they buy and sell.

How does this work? Both the buying agent and the market women use bowls to measure the volume of soybeans, then sell the beans to the processors by weight. They pour 40 bowls of beans into a bag, which is supposed to weigh 100 kg. But if the market woman slightly over-fills each bowl when she buys the farmers' beans, the bag can weigh more than 100 kg. The extra weight means more money for the market woman, and less for the farmer. By slightly under-filling the bowls when she sells to the buying agent (who uses a standard scale to weigh bags), the market woman or buying agent has a second chance to make some extra cash. The processor also uses a standard scale and pays for all the excess weight that the agent delivers.

The buying agents and processors negotiate a price per 100 kg of beans. The processors give the buying agents credit so they can purchase beans, so the agents face little risk. The agents then negotiate prices with each of the farmers they buy from. It is in the agents' interest to pay as little as possible to the farmer, and to demand as much as possible from the processors. If the agents can get no credit from the processors, they buy the beans and store them, creating a shortage so the price goes up.

Savanna

In 2004, the Association of Church Development Projects (ACDEP), a network organization of 40 church-based development projects in northern Ghana, studied the soybean marketing situation. It found that organizing the supply chain better could minimize rural poverty. In the same year, ACDEP launched the Farmers Production and Marketing Project (FAMAR) with support from ICCO, a Dutch donor organization. This project aimed to establish a transparent, independent production and marketing chain for soybeans to benefit local people.

In 2005, FAMAR in turn gave birth to the Savanna Farmers Marketing Company. Registered as a private limited liability company, Savanna organizes supply chains from small-scale farmers to buyers within and outside Ghana. It deals with three crops: soybean, sorghum and groundnuts. It aims to provide a secure market for the farmers' produce and to protect their interests by paying fair prices.

Savanna has a nine-member Board of Directors from various sectors of the economy with relevant academic and practical backgrounds in agribusiness. The Board is chaired by a lecturer in agricultural economics at the University of Development Studies in the Northern Region.

The FAMAR project also develops farmer groups that supply Savanna. These groups will ultimately become shareholders in the company. ACDEP is the sole shareholder in Savanna; it holds half of the firm's one million shares in trust for the farmer groups. Savanna's board and ACDEP management will in future agree on the timing and mechanisms for transferring these shares to the farmer groups.

The role of stations

ACDEP uses 11 of its member organizations – the development wings of various churches – as local bases for the supply chains of its three crops. Each of these 11 "stations" organizes and registers farmers in groups of 10–15; each station coordinates between 20 and 70 groups. Farmers form these groups voluntarily among themselves. The stations facilitate the group formation and development, help them understand the supply chain, assist them with financial management, and provide agricultural extension services.

Savanna signs contracts with the farmer groups, and supports each group member to cultivate at least an acre (0.4 ha) of one of its three crops. For soybeans, the firm estimates that farmers will be able to harvest 300 kg from their acre. The members deliver the produce to designated locations – generally the group leader's house – and the leader arranges for it to be weighed.

The group members each pay a small amount (equivalent to the price of 1–2 kg of the produce) into a group account. The group leaders can then use this money to cover the costs of services they provide to the group.

Savanna pays the station a service fee of about GH¢ 1 per 100 kg of produce delivered. The station uses this money to cover the cost of loading and transporting the produce from the communities to the station warehouse.

The soybean market in Ghana

The demand for soybean in Ghana is rising. For example, Ghana Nuts Ltd. in the city of Techiman has the capacity to process 30,000 tonnes of soybeans a year, but has never been able to purchase even half of its supplies from farmers in the country.

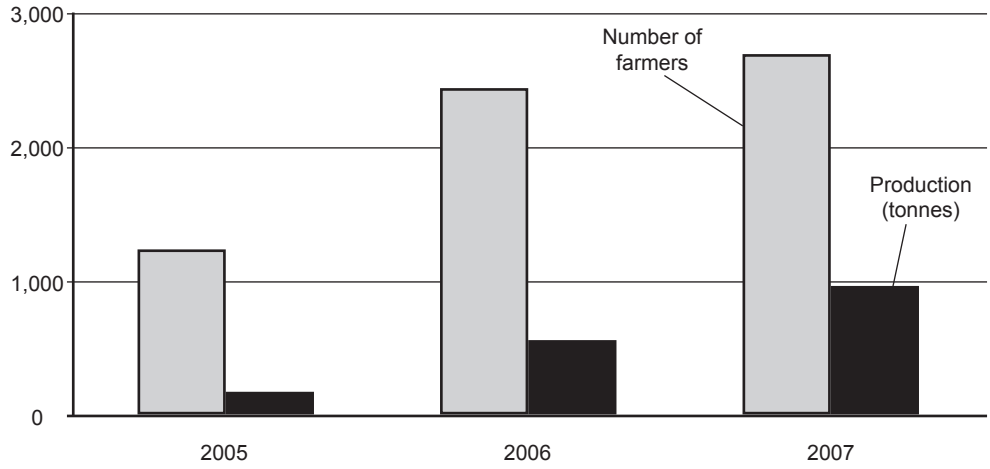


Figure 6.12 Number of farmers and soybean production for Savanna, 2005–7

Savanna is the only company in northern Ghana with an organized supply chain for small-scale farmers in soybean, sorghum and groundnuts. But progress has not always been smooth. In 2005, the first year of operations, the soybean harvest was poor due to low rainfall and farmers' reluctance to follow the extension staff's advice. That meant Savanna could not supply the 330 tonnes contracted to its customer, a processor based in Kumasi. Fortunately for Savanna, an outbreak of avian influenza led to a drop in demand for poultry feed, so the processor suspended production and did not sue for breach of contract.

In the 2006 production season, Savanna bought 544 tonnes of soybeans from 2,427 farmers. It sold 480 tonnes to processors, and the remainder for local consumption, realizing a gross turnover of GH¢ 160,000 (€117,800).

For 2007, the company signed soybean production contracts with 2,700 farmers and bought 965 tonnes of soybeans from them (Figure 1).

Advantages for farmers

Savanna's business model has various advantages for farmers.

- **Support** The company provides farmer groups with certified seeds and land preparation services on credit. For the 2006 production year, it extended such credit to farmers at 10% interest for a period of 6 months. This provides a big incentive to farmers who are unable to access credit through formal financial institutions. Savanna charges less interest than other lenders because it obtains its working capital from Oikocredit, a low-interest Netherlands-based finance institution, which can call on a 100% loan guarantee from ICCO.
- **Stress-free marketing** The farmer groups deliver their produce to the stations, where Savanna can collect it. The firm deducts the credit the group

Box 6.4 Access to organized markets changes Alhassan's life

"My name is Alhassan Amadu. I am a smallholder farmer in a village called Chereponi in the Northern Region. I have six children. In 2005, along with fellow farmers I decided to work with Savanna Farmers Marketing Company. We signed a supply contract with the company to produce and sell our soybeans to the company at a pre-determined price. We all received credit for ploughing and certified seed. I was assured of a ready market, so I cultivated 1 acre of soybeans in 2005. After the end of the farming season, I harvested 715 kg of soybeans, which I sold to Savanna.

"I banked the proceeds from the sale in the local community bank. The following year, I decided to increase my acreage of soybeans to 2 acres, with support from Savanna for 1 acre. I harvested 1,595 kg, which I sold to Savanna.

"With this additional income and my savings, I was able to get a loan from the bank, which enabled me to start a poultry business. I have completed the shed, and in it are now 500 chicks. I believe that this business will complement my family income throughout the year, since northern Ghana has only one cropping season about 6 months long."

has received and the interest it owes, then pays for the produce promptly in cash.

- **Quality and standards** The company bulks the grain, cleans and bags it, and weighs it using certified scales.
- **Transparent prices** Savanna negotiates the best possible fixed prices with customers. At the beginning of the season, it communicates a target price to the farmers. Closer to harvest time, it negotiates a selling price with the processors, then reaches an agreement with the farmers on the final price. This price is transparently arrived at during community meetings with farmer groups, facilitated by the FAMAR project and the stations. This arrangement minimizes the temptation for farmers to divert their produce to local buying agents, who may offer higher prices but cheat on volumes.
- **Bonus** Savanna pays farmer groups that have performed well in terms of quality and quantity a bonus at the end of the season, based on criteria agreed with the organizations, such as quantity, quality, credit performance, and cooperation with station staff.
- **Shares** Savanna will pay part of its future profits as premiums to farmer groups. And in future, the farmer groups will become shareholders in the company.

The success of farmers such as Alhassan Amadu (Box 6.4) has influenced many farmers to sign contracts with Savanna. The firm's work has also attracted NGOs working with similar farmer groups to link their farmers to Savanna for marketing their produce.

Relationships with processors

Savanna's involvement in the market also brings benefits to the soybean processors, who are beginning to appreciate its role. They pay Savanna GH¢ 0.335 per kg of soybeans, compared to GH¢ 0.315 to the local buying agents

- **Secured supplies** Savanna develops partnerships with its customers based on contracts for at least one season.
- **Quality produce** Savanna ensures the delivery of quality produce that is ready to process. It cleans the beans mechanically to remove stones and other debris, grades them and bags them for delivery. The local buying agents, on the other hand, do not clean the beans before delivery to the processor, so the processor has to do this.
- **Guaranteed volume and price** The contract commits Savanna to deliver as scheduled and at the agreed price.
- **Long-term relationship** Savanna plans to sign long-term supply agreements with its major buyers. Two processing companies have approached the company for discussions on this possibility.

Risks

Each of the actors in the soybean market chain bears risks.

Farmer groups

- Erratic rainfall may depress yields.
- Cheap soybean imports may suppress local prices.
- Individual farmers may be insufficiently committed to the group, or may sell their produce to other buyers. However, relatively little of the produce is diverted in this way – only about 2% in 2007.
- Poor harvests may prevent the group from repaying credit on time. If that happens, the farmer groups must pay additional interest until they repay the loan. A group can also be prevented from contracting with Savanna until it has settled its debt. In some instances, like extensive crop failure, the repayment is re-scheduled.

ACDEP stations

- These "stations" are church-based development organizations, so the business orientation of the soybean operations may conflict their mission.

Savanna

- **Weather** Erratic rainfall sometimes leads to unexpectedly low yields.
- **Unstable market** The market for soybeans is affected by industry demands, which is in turn affected by many factors. For example, a new outbreak of avian flu may cut demand for soybean cake dramatically.

- **Government policy** The lack of a policy regulating cheap imports depresses local prices.
- **Produce diversion** Some farmers disregard their contracts with Savanna if local buying agents offer more money (though the agents have been known to cheat on the volume).
- **Defaults in credit repayment** Farmer groups may fail to repay their loans, depriving Savanna of capital. At the end of the 2005 season, the recovery rate was 79%. One station accounted for more than half of the defaults and has been expelled from the programme. In 2007, the recovery rate was 83%.
- **Competition** Buying agents may be able to supply processors with soybeans cheaper than Savanna (though Savanna adds value by selecting and grading the grain it delivers).
- **Inadequate capital** Savanna has received funding from ACDEP as equity and from Oikocredit as loan. It needs a stronger financial base so that it can support more farmer groups.
- **Poor quality inspection** Station staff (not Savanna's own employees) are responsible for inspecting the soybeans that farmers deliver. Savanna guarantees quality produce to processors, so stands to lose if station staff accept low-quality beans.
- **Transport** The cost of transport from the various stations and to processors is high.

Towards sustainability

In the light of the above risks, Savanna has introduced some changes in its operations to ensure growth and sustainability. They include the following:

- **Additional staff** The firm has appointed an operations officer to help control operations at the stations and the central cleaning and packaging unit. This is an attempt to improve quality management and minimize operational losses.
- **Improved credit recovery** Savanna is gradually ceding credit responsibility to the stations or to financial institutions, which will handle this with a higher level of professionalism and ensure higher repayment rates. This will shield Savanna from defaults. This step is not easy, as many farmers do not have a clean credit history.
- **Increased trading volume** Savanna is linking with other supply sources, including NGOs that build the capacity of farmers but lack market links. Savanna is also considering adding shea nuts to its portfolio of products; the shea farmers may also be induced to grow soybeans for sale to Savanna.
- **Better marketing strategies** The firm is improving how it communicates the benefits of its services to farmers and processors.
- **Registration of farmer groups** This will formalize Savanna's relationship with the groups to allow both sides legal recourse in case of disputes.

- **Increased farmer prices** Savanna can raise the prices it pays to farmers by increasing its volume (so achieving economies of scale and cutting costs per kilogram), and by identifying new markets (such as processors that supply food to schools, and the organic and fair trade markets).
- **Increased capital** Savanna hopes to raise more capital from existing and new investors.

Value shares of actors in the marketing chain

Table 6.5 and Figure 6.13 show the costs, revenue and gross margin for the various chain actors for a 50 kg bag of soybeans in the two market chains: Savanna's marketing system and the local buying agent system that it supplants.

Under Savanna's system the farmers get a price per bag which is 11% higher than under the local buying agent system. As a result, they enjoy a higher gross margin of 30% (compared to 23% under the buying agent system), and have a larger value share (71% compared to 67%).

The buying agents bulk the soybeans and deliver them to the processor, but do not grade or clean them. Because Savanna cleans and grades the beans, it can get a better price from the processor (4% higher).

What is in it for Savanna? The company pays the farmers 11% more than the buying agents, runs into additional costs of grading and cleaning, and receives a price from the processors which is only 4% higher. As a consequence, Savanna earns a lower gross margin than the buying agents (16% compared to the agents' 25%), but the company makes up for this by handling a larger amount of beans.

Table 6.5 Value shares of actors in the soybean value chain, Ghana

GH¢ per 50 kg bag of soybeans (€1 = GH¢ 1.35)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Local buying agent marketing chain						
Farmer	9.05	11.70	2.65	11.70	23%	67%
Market trader/ buying agent	13.10	17.50	4.40	5.80	25%	33%
Processor	18.58					
Savanna marketing chain						
Farmer	9.05	13.00	3.95	13.00	30%	71%
Savanna	15.32	18.25	2.93	5.25	16%	29%
Processor	18.25					

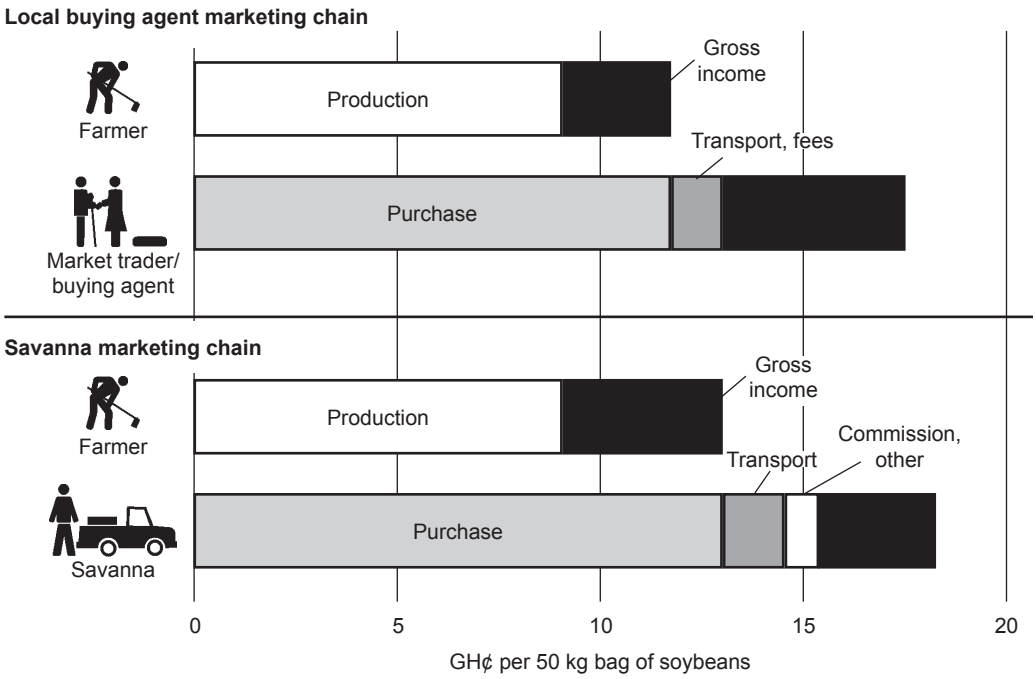


Figure 6.13 Costs and revenues of actors in the soybean value chain, Ghana

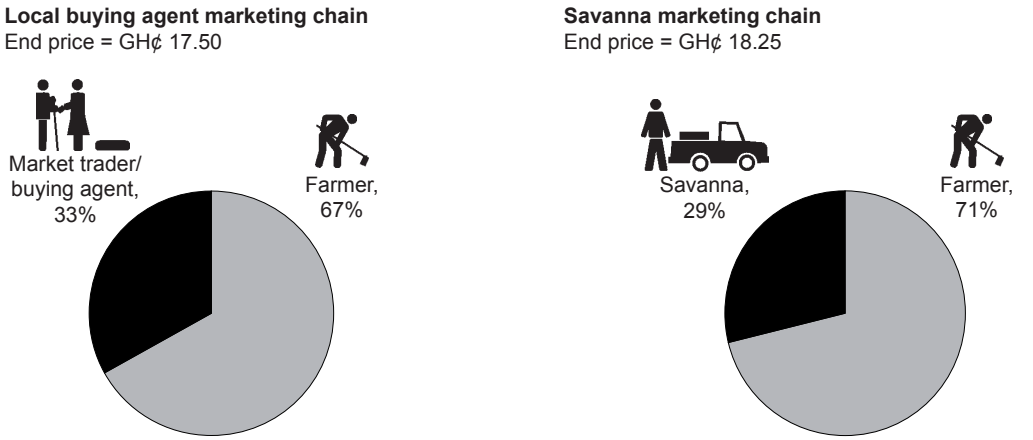


Figure 6.14 Value shares of actors in the soybean value chain, Ghana

In addition, the company fulfils its social mission of raising the incomes of small-scale family farmers. In 2007 the additional income was around GH¢ 9 per farmer. In the future, as the company grows and the farmers produce more beans, the additional farm income will continue to increase.

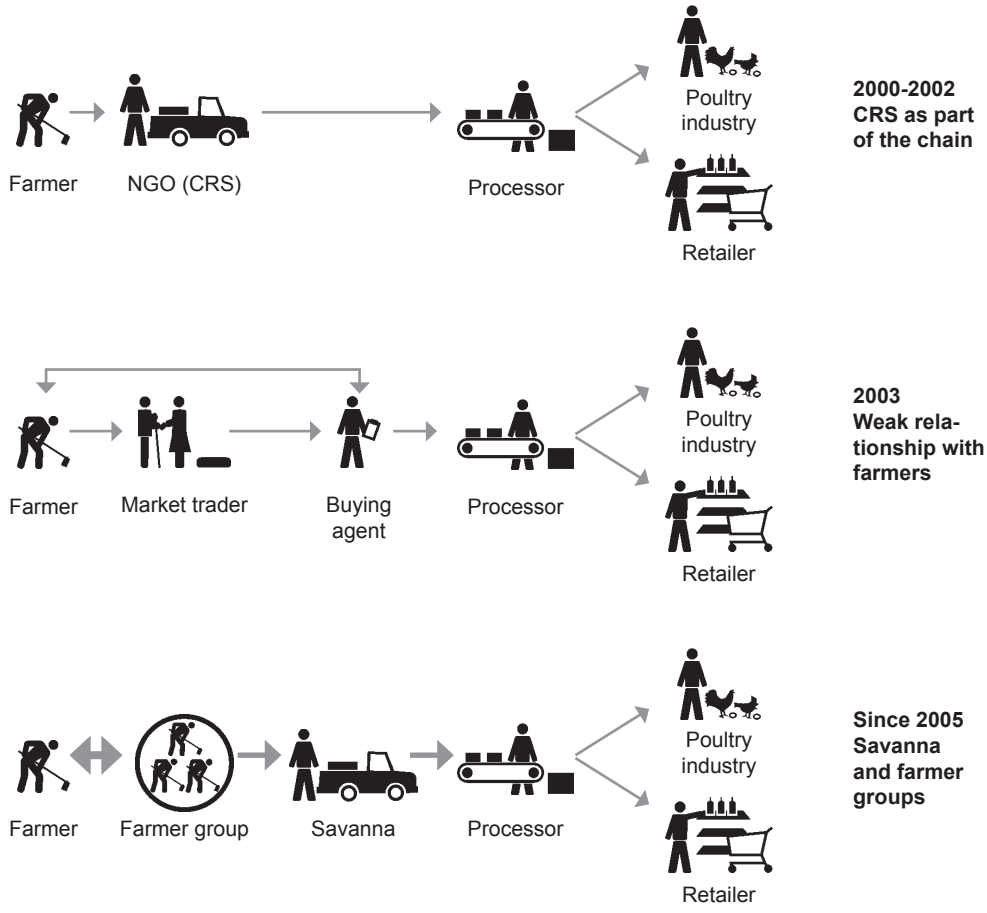


Figure 6.15 Changes in the soybean market structure, Ghana

How the market structure has changed

When CRS started the commercial growing of soybeans in northern Ghana in 2000, it was itself part of the value chain. When it withdrew in 2002 at the end of the project, farmers were forced to rely on buying agents and market women to buy their soybeans. Working through the intermediary market women, the agents had only weak links to the farmers.

The arrival of Savanna in 2005 and the creation of farmer groups greatly strengthened the links between the farmers and their customers. There are now strong ties between the farmers and the groups they belong to, between the groups and Savanna, and between Savanna and the processors.

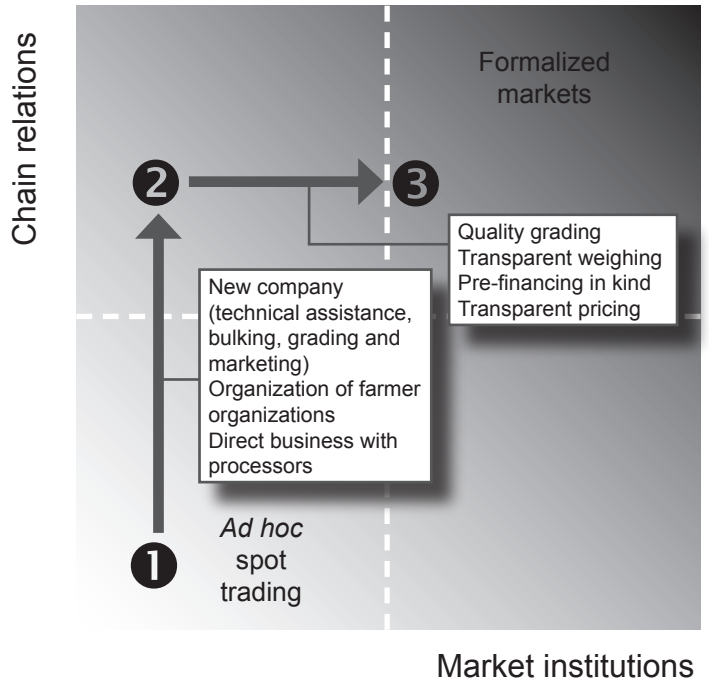


Figure 6.16 Chain relations and market institutions in the soybean trade, Ghana

Chain relations and market institutions

After CRS withdrew from the chain in 2002, soybean trading in northern Ghana reverted to a typical spot market. Farmers, traders and processors had no stable linkages, and there were few business institutions to support the system. ❶

The FAMAR project helped organize farmer groups and the new trading company, Savanna. Savanna in turn introduced innovations such as technical assistance and the bulking and grading of produce. It sought out processors to buy the produce, and negotiated contracts with them and with the farmer groups. All these represent stronger chain relations. ❷

Market institutions also emerged. These include the introduction of quality grading, the weighing of produce (rather than using the easy-to-manipulate measuring bowls), the provision of credit in the form of ploughing services and seed, and transparent pricing arrangements. ❸

More information

Janet Chigabatia-Adama, Savanna Farmers Marketing Company, canjant@yahoo.com, jadama@acdep.org

Parchment or cherries? High-quality coffee in Tanzania

Drive around Mbeya, in the Southern Highlands of Tanzania, and you will pass by farm after farm with a carpet of small round red, brown and black fruit that look like cherries, spread out to dry in the sun. There may be a woman bent over in the middle of the carpet, stirring the layer of fruit with her hands so it dries evenly. Or she may be gathering the warm, shrivelled black fruit into piles, and then scooping them into baskets.

The small round fruits are cherries – coffee cherries. They come from coffee gardens beside the house – filled with rows and rows of Arabica bushes. Each bush is a little taller than the people working hard to harvest a fresh batch of ripe cherries to lay out in the sun.

The Mbeya Region is one of the most important coffee-growing areas in Tanzania. Home to about 120,000 farm families, it produces about one-third of the country's coffee output. Its mild climate and reasonably good soils make it good for growing coffee.

The farmers along the road are processing the traditional way – called "dry processing". This method produces what is called "parchment coffee". Farmers sell it to buyers, who sell it on to plants that mill it to remove the dried pulp and reveal the green beans inside. These green beans are then auctioned to exporters, who ship them to roasting plants in North America or Europe, producing the familiar roasted brown beans that coffee connoisseurs love.

Problems in processing and marketing

Dry processing has some advantages: it is cheap and easy to do. But it has some disadvantages too. The slow drying process may allow fungi to attack the still-delicate beans. Spread out on the ground, the drying cherries pick up dust easily – which spoils the flavour of the finished coffee. They may get mixed with sticks or stones, or grains that the farmer had previously dried on the same piece of ground. Thieves may steal the beans at night. The farmers do not grade the cherries – they dry cherries of different sizes together. That increases the cost of grading later down the line.

There are other problems too. Turning the cherries over in the sun takes a lot of work. The farmer has to store the dried cherries before he or she has enough to sell – and they absorb moisture and off-flavours easily. Travelling traders who come to the farm to buy coffee offer low prices – because the quality is low and the cherries are not graded. They use non-standard-sized tins to measure amounts. Many farmers lack the transport to take their coffee to the market for sale.

Some farmers who need cash urgently before the coffee harvest in August sell their coffee to traders in advance. The farmers get paid early, but the traders are able to dictate the terms and price. Farmers don't like this method of selling: they call it "selling to *kata kichwa*", which literally means "chop off the head".

Most farmers lack the technical skills and information to produce and process good coffee. And very few farmers understand the coffee market. They lack information on prices and alternative buyers, and they have little bargaining power.

Some farmers in Mbeya are members of cooperatives. These take their members' parchment coffee to sell, and then farmers have to wait several months before they receive payment (see page 118).

A few private buyers purchase coffee from farmers. Like the coops, they take the coffee on credit and take it to the mill for processing. The mill sends it to the auction, then pays the traders, who pay the farmers when they have received the money.

Enter Lima

Lima Ltd is a private coffee processing and marketing company that started operations in 2002 in the Southern Highlands. It is part of a group of three companies that also buy cocoa and process sesame and paprika in the region. Lima is owned by foreign investors (who are well informed about the world market for coffee), local investors and other shareholders. The company has made a large investment – over TSh 1.5 billion (more than a million euros) – and takes a long-term view.

Lima aims to create a sustainable business by improving the end-quality of dried coffee beans through better post-harvest processing. It sells part of its output through auctions in Tanzania, and also serves the growing demand for high-quality specialty coffee by selling direct to customers overseas.

It sees smallholders as key partners in its business strategy, and aims to ensure they receive a higher income for their efforts to produce the raw material that Lima buys.

When it started up, the company was assisted by loans and guarantees for working capital from Cordaid, a Dutch development agency. These guarantees enabled Lima to obtain considerable funding from a local bank to finance its coffee purchasing and processing activities. Lima has built its credibility and is now able to borrow on commercial terms. Cordaid monitors Lima's financial sustainability and its effects on the farmers' incomes and livelihoods.

Purchasing

Lima has set up a network of 650 buying posts throughout the coffee-growing zone in Mbeya. Farmers bring their fresh cherries or parchment coffee to the nearest buying post (probably one in their own village). Lima staff at each post weigh and buy the coffee. The company provides them with enough cash to pay for it, and pays them a commission on the amount they buy. The buying posts are managed by supervisors who monitor their activities. One supervisor controls six buying posts.

The buying-post staff pay farmers the full price on the spot for parchment. Each buying post has a special store to keep the parchment until it can be taken for processing, which may be a few days later.

The company also buys the freshly picked cherries. It pays about 25% of the purchase price on the spot, and gives the farmer a receipt showing the amount of cherries he or she has brought in. The farmer gets the remainder on presenting the receipt after Lima has graded and processed the cherries and sold them. Lima has to do this for cherries because it is impossible to tell the quality of the cherries until they have been graded and processed – which takes special equipment. The amount of the second payment depends on the coffee's quality and the price it fetches when it is sold.

Cherries are a bulky, perishable product which has to be processed quickly. The staff organize transport to bring the cherries to the nearest pulpery (see below) the same day. A staff member drives from buying post to buying post to check on product quality and to pick up the coffee that has been bought.

Under its fair-trade policy, every farmer receives the same price, even in remote areas where Lima is the only buyer and where transport costs are higher.

In 2003, some 15,000 farmers sold coffee to Lima. Numbers have increased steadily, to 52,000 in 2004 and 70,000 in 2005. Lima reaches around 18% of the coffee smallholders in Tanzania, and around 58% of those in the Mbeya Region.

In 2007, the company handled nearly 1,400 tonnes of parchment, 1,100 tonnes of coffee from cherries, plus 100 tonnes of high-value organic beans.

Processing

Lima introduced a new way of processing coffee cherries to Mbeya. This method, called "wet processing", is a more controlled technique than dry processing, and it produces better quality coffee, which fetches better prices. In wet processing, the fresh cherries are selected, washed, pulped, fermented and dried using special pulping equipment. Lima has installed this equipment in 23 "pulperies" throughout the area. The pulperies take coffee from the buying posts, process it and deliver it to Lima's factory, where the coffee is further cleaned, graded and packed for transport. The end result is clean "green" coffee, which is later roasted to make the dark brown beans familiar to consumers.

For parchment coffee, the pulperies act as central collection points for the surrounding buying posts. Parchment coffee is delivered to the pulpery, where it is further dried on tables if necessary, then sent on to Lima's factory. One thousand kilograms of parchment produces about 800 kg of clean coffee, of which perhaps 85% is one of the better grades (AA, A, B or PB). The remaining 15% falls into a poorer grade (F, C, TT, AF or HP), which fetch perhaps US$ 1.00 (€ 0.75) less than the better grades.

Lima has put in place a system to assure quality of the coffee all the way from its pulperies, through the milling process, to the market. It checks for the size and maturity of the coffee cherries and moisture levels of parchment. It grades the coffee using special machines and a trained specialist in the factory. It checks that the beans are unbroken and free of foreign particles. Lima has earned ISO 9001 certification, a reflection of its good quality-control systems.

Because Lima produces high-quality coffee, it is able to sell part directly to premium markets rather than going through the Tanzanian auction. It sells most of its speciality coffee to Starbucks, which buys 20–25% of the world's speciality coffee.

Market information

Lima maintains close ties with both its suppliers – the farmers it buys from – and its customers. The buying-post staff are trained to choose the best product and to deal with the farmers in a friendly manner. Many of the staff are themselves coffee farmers. Lima employs up to 1,500 people in rural areas at the peak time, plus another 360 in the pulperies, factory and offices.

The prices Lima pays for both parchment and cherries are set at headquarters. But the staff provide regular feedback to the office about market conditions and the prices Lima's competitors are paying. The staff are in close, almost daily, contact with the farmers, keeping them informed about prices in the auctions and international markets.

On the customer side, Lima's board of directors are specialists who are well-versed in the world market, and the firm monitors world market prices for coffee on a daily basis.

Lima keeps careful records of the amount of coffee it buys and how much it has paid to each farmer. It makes this purchasing data available to the village authorities.

Prices

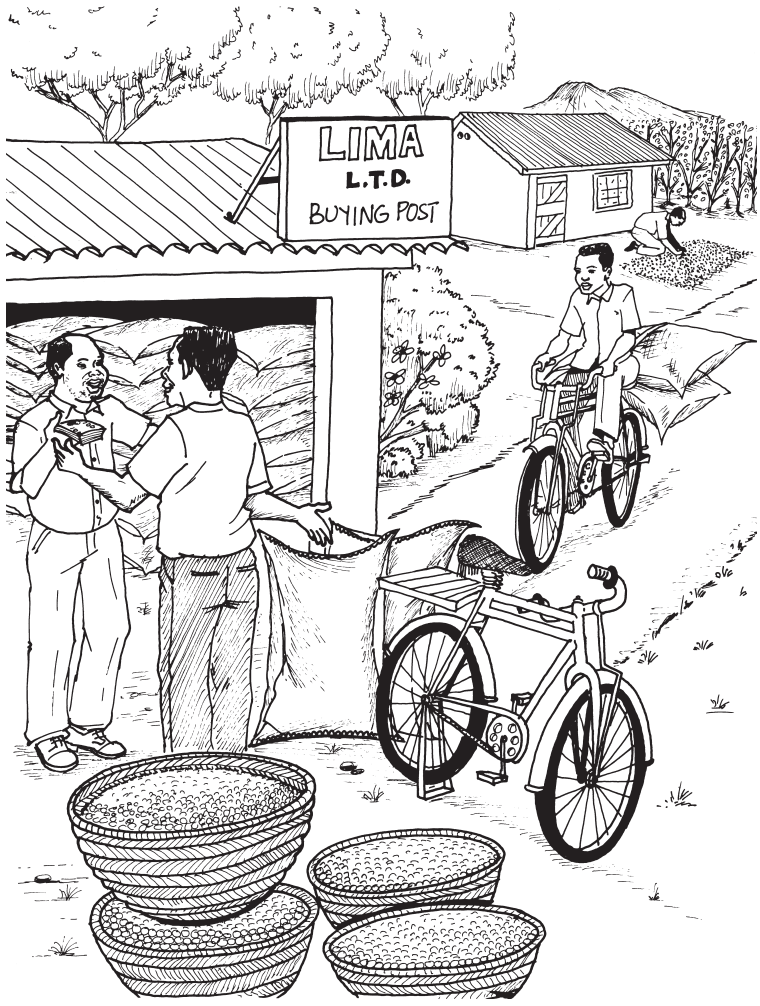
Lima's prices have risen steadily in line with the recovery in world prices after their historic lows in 2002–3. In 2003, Lima sold its specialty grade coffee for an average of US$ 1.10 per kilogram of parchment. By 2007, the same coffee was

fetching $2.45. The firm's lower grade coffee, for comparison, fetched US$ 0.85/kg in 2003 and $1.96 in 2007.

The prices that Lima pays farmers have mirrored this trend: in 2003, parchment cost only TSh 435, while in 2007, it cost Lima around TSh 1,600 per kilogram. The price for parchment varies widely during the season, depending on the quality, exchange rate, location, world market and competition from other buyers; in 2007 it ranged between TSh 1,300 and TSh 2,000.

Coffee cherries are bulky: 5 kg of fresh cherries are equivalent to 1 kg of dried parchment. Lima prefers to buy cherries rather than parchment because they produce higher-quality coffee that can be sold at a premium price. It paid TSh 1,600 for 5 kg of cherries in 2007, about the same as the equivalent amount (1 kg) of parchment.

But Lima has difficulty buying enough cherries: farmers prefer to deliver the dried parchment. The reasons for this are unclear: perhaps they do not like having to wait for the rest of their payment (Lima pays only 25% of the estimated price



on the spot). Or maybe it is because coffee cherries ripen individually at different times and have to be picked by hand. Farmers have just a small amount of cherries to sell at one time, and they have to sell them quickly because they are perishable. So most prefer to dry them and build up a big stock of parchment that they can sell all at once towards the end of the season. The few farmers who do sell fresh cherries want instant cash rather than having to wait until they have a lot of parchment to sell.

The company started handling organically grown coffee in 2005. In 2007, Lima paid farmers TSh 2,250 for 5 kilograms of organic cherries: 40% more than for non-organic. Organic green coffee fetches Lima the best price: US$ 2.93/kg in 2007.

Competition

Lima is by no means the only buyer of parchment coffee in the Mbeya Region – it accounts for only 5–10% of the market there. Other private traders and farmers' groups compete with Lima to buy parchment. Some of Lima's competitors are able to pay a higher price than Lima. For example, farmers' groups get preferential treatment from the government, pay no tax and follow more relaxed Coffee Board rules. Lima has to pay taxes, follow more stringent rules, and repay its start-up loans. That means the farmers' groups have lower costs than Lima, so can pay more.

Lima is the only company in Mbeya buying cherries. It entered the market with a new business concept (involving wet processing) based on quality and value

Table 6.6 Value shares of actors in the coffee value chain, Tanzania

US$ per kg (local prices converted from Tanzanian shillings) (€1 = TSh 1,720 = $1.32)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Parchment coffee marketed through Lima (1 kg)						
Farmer		1.27		1.27		65%
Lima	1.27	1.96	0.69	0.69	35%	35%
Coffee cherries marketed through Lima (5 kg)						
Farmer		1.23		1.23		50%
Lima	1.23	2.45	1.22	1.22	50%	50%
Organic coffee marketed through Lima (5 kg)						
Farmer		1.73		1.73		59%
Lima	1.73	2.93	1.20	1.20	41%	41%

addition. But if it is to make the most of this market niche, it has to develop closer relations with the farmers so they supply it with the fresh cherries it needs.

Lima has not yet managed to establish a competitive edge in parchment coffee as it has in fresh cherries. The firm is devising a number of additional services for farmers – technical training, inputs on credit, improved prices for cherries – to generate a win–win situation that benefits both Lima and its farmer suppliers – and ultimately, its customers. Once it has repaid its start-up loans, it will be able to pay a better price for its raw materials.

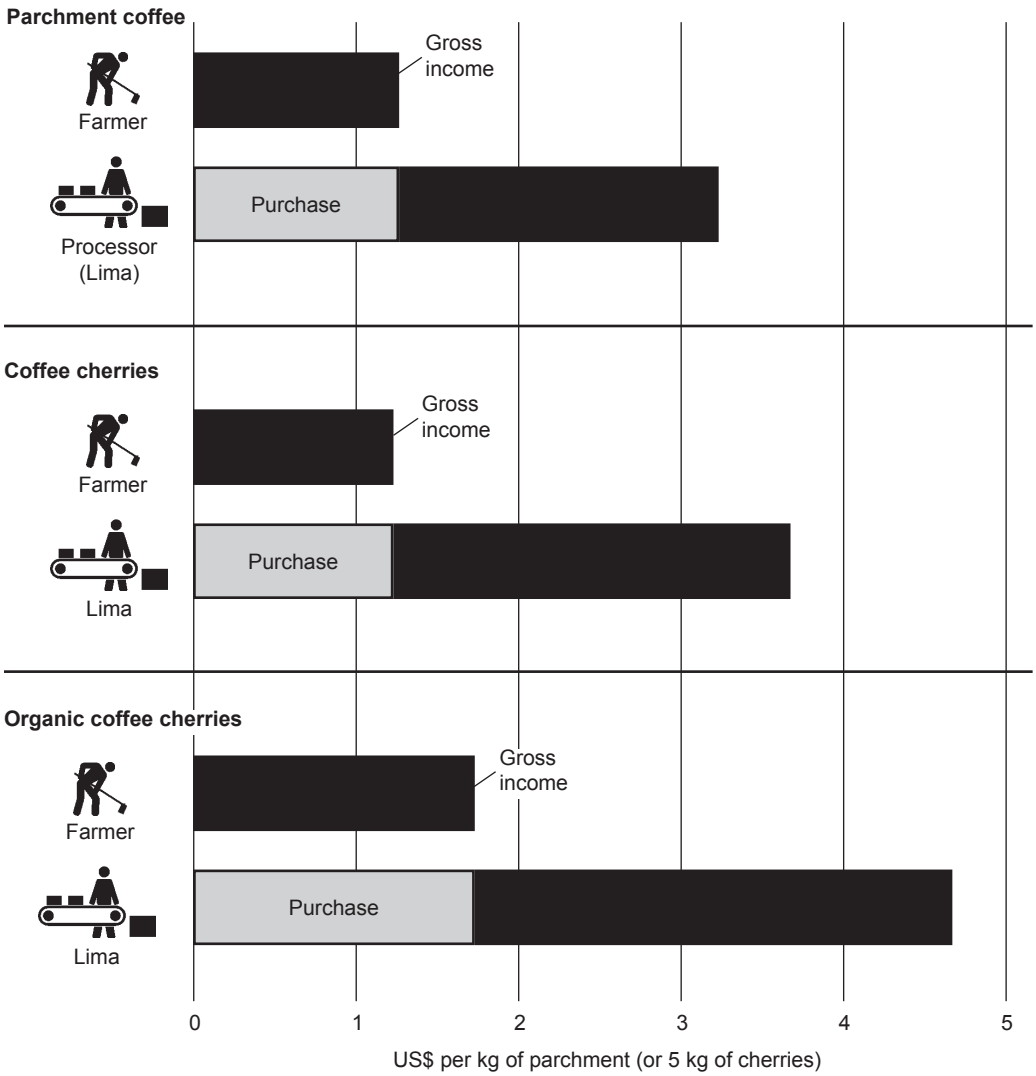


Figure 6.17 Costs and revenues of actors in the coffee value chain, Tanzania

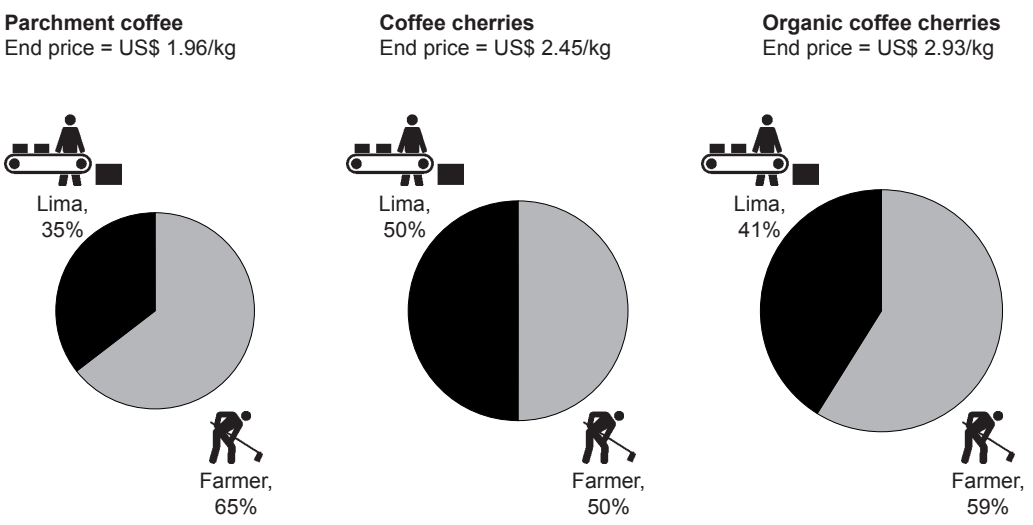


Figure 6.18 Value shares of actors in the coffee value chain, Tanzania

Value shares of actors in the marketing chain

It is difficult to calculate the costs and value shares for the coffee value chain because of the different products and quality grades involved, and because of fluctuations in prices and currencies. Table 6.6 and Figure 6.17 present an effort to do this. All prices have been converted to US dollars (the currency used in the international coffee trade).

While Lima pays more or less the same for parchment and the equivalent amount of cherries, it earns more from the cherries. This is justified by the greater amount of processing involved: instead of accepting large consignments of ready-dried parchment from the farmers, the firm has to transport, handle, grade, sort and process smaller batches of cherries. This requires special equipment and skilled staff, which is reflected in the higher gross income and value share from the cherries. Staff wages and salaries account for a sizable portion of Lima's costs.

Organic coffee fetches the best price, and both the farmers and Lima earn a premium price for the extra effort involved in producing this premium product. Farmers earn 40% more if they are able to deliver organic cherries to Lima, while Lima earns 20% more than for its specialty grade coffee.

In terms of value shares (Figure 6.18), the farmers earn most either from selling parchment or by producing organic cherries. They do not share in the price advantage Lima obtains from selling coffee produced from non-organic cherries. In the absence of data on costs, one conclusion for Lima might be to raise the price it pays for fresh cherries in order to attract more farmers to supply cherries rather than the dried parchment.

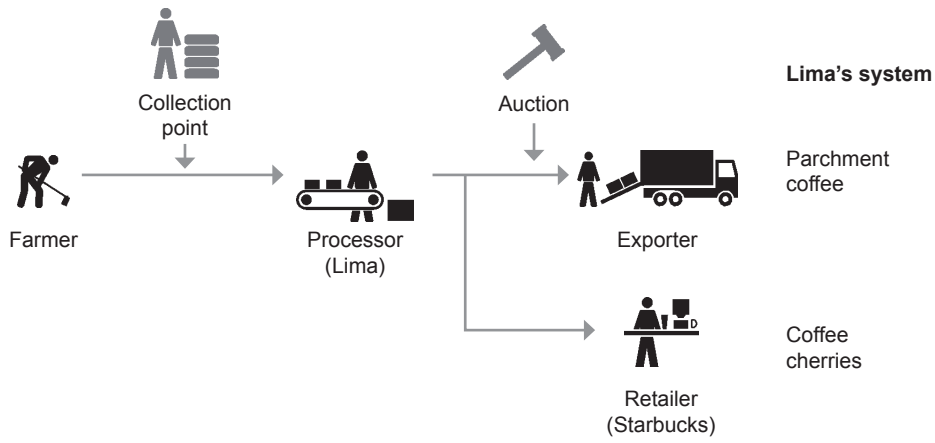


Figure 6.19 Changes in the coffee market structure, Tanzania

How the market structure has changed

Figure 6.19 shows Lima's marketing systems for coffee (see Figure 5.11, page 130, for other marketing structures for coffee in Tanzania).

Lima's approach is to introduce a processing technique new to the area, and to bring this in-house. That enables Lima to ensure a quality product while cutting out other players.

Who loses from Lima's entry into the market? Primarily the travelling traders and coops, who will handle less coffee. Lima does not need to work with traders because it has direct access to the farmers. It is unclear whether Lima is more efficient than the traders in processing coffee. But at the same time, Lima creates a lot of employment locally, so the net impact on local incomes is hard to determine.

Chain relations and market institutions

Before Lima entered the scene, there were no stable relations between the farmers and the travelling traders they sold to (Figure 6.20). Farmers would sell at the farm gate to traders, who gave them what they thought was a poor deal. ❶

Lima has developed closer relationship with its farmer suppliers. It provides good services at the buying posts, the staff interact with farmers on a daily basis, and the company is considering offering training and credit facilities. ❷

Lima has also introduced a series of improvements in market institutions. These include quality standards and grading, standard measures, price information, and improved record keeping. ❸

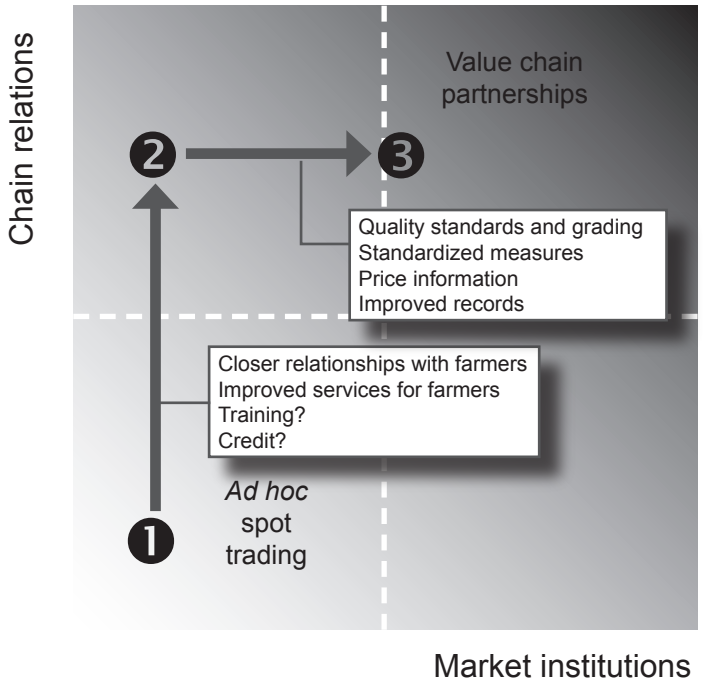


Figure 6.20 Chain relations and market institutions in the coffee trade, Tanzania

Producing and marketing green beans in Ethiopia

TSEGAYE ABEBE HAD A problem. The founder and owner of Ethioflora, an Ethiopian vegetable marketer, wanted to expand the firm's exports of green beans to Europe. But he had no more land to grow beans on. How could he expand production?

His firm, founded in 1992, had rented 70 ha of land on a 15-year lease from farmers in a village next to Lake Ziway, a freshwater lake in Ethiopia's Rift Valley. For part of the year, the farmers used the land themselves, but in the Ethiopian summer, Ethioflora's workers grew green beans there, planting at the end of September and harvesting from the end of November until early April.

The firm produced lots of beans, but not enough to supply the off-season market in Europe. By 1998, the firm had run out of land suitable for growing beans. Tsegaye wanted to rent land next door to the Ethioflora farm, but another investor had snapped it up. He could not rent more land from local farmers because of government restrictions on land tenure and transfer, and because he did not want to push the farmers off their land.

Tsegaye and his brother, Mulugeta, discussed the problem, and came up with a solution: contract with local farmers to produce beans as outgrowers. Mulugeta visited the area and discussed the possibilities with farmers who were members of a local water users' association. The farmers were already familiar with Ethioflora – many had relatives who worked for the firm. They were interested in forming a partnership.

Negotiating a solution

Mulugeta had a series of meetings with the water users' association to discuss the terms and conditions. The two sides agreed that the water users' association would nominate farmers to become outgrowers. They would plant beans following Ethioflora's planting schedule and guidelines. Ethioflora would provide inputs such as seed, fertilizer and pesticides, petty cash, and advice on how to plant, care for the crop, and harvest the beans. Ethioflora provided these inputs up front, then deducted these expenses from the farmers' payment at the end of the season.

Negotiating the price took a long time. The farmers wanted 3 birr per kilogram of graded beans; Ethioflora offered 1.5 birr. Eventually the two sides agreed on 2 birr per kilo.

In 1999–2000, the first year of this arrangement, 38 water users' association members grew beans for Ethioflora. The following year, 50 farmers did so.

In 2001–2, many farmers were interested in joining the scheme. But Ethioflora was afraid that it would not be able to manage a large number of outgrowers – it did not have the capacity to provide extension advice or inputs to so many people. It decided to stop using outgrowers until a solution could be found. It discussed the problem with various stakeholders, including the Ministry of Agriculture and the farmers themselves.

In 2002, the water users' association joined the newly founded Meki Batu Horticultural Cooperative Union, a marketing union of vegetable growers in the Ziway region. That offered a solution for Ethioflora: the Meki Batu union would be able to take over some of the functions Ethioflora had been providing. And other farmers in the union were also interested in becoming outgrowers for the firm.

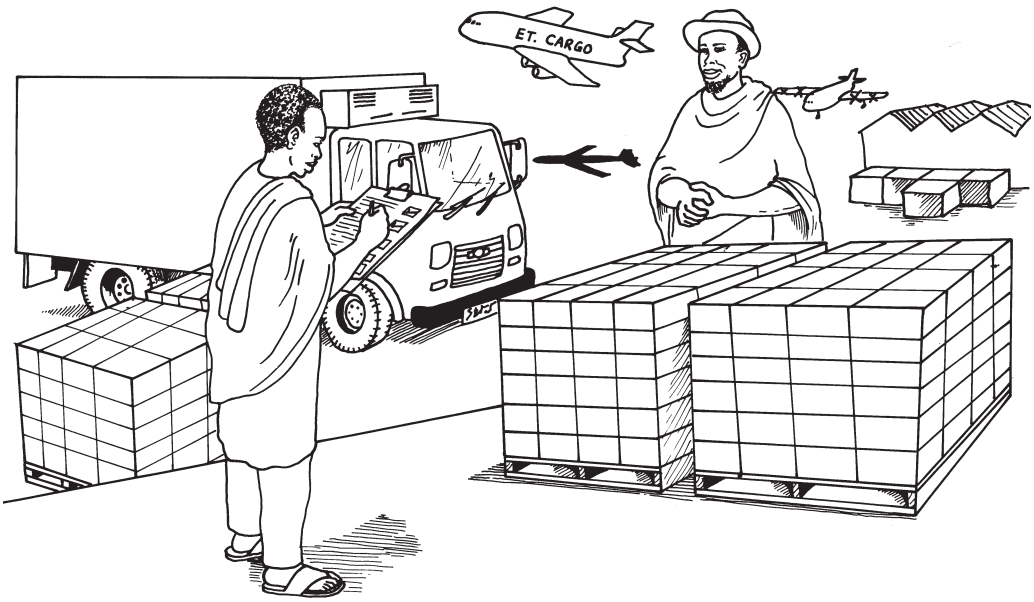
Ethioflora

Ethioflora exports green beans to Van Oers Import, a company in the Netherlands, in the off-season in Europe. It also grows various other vegetables and fruit on its farm in Ziway and sells them to traders who come to the farm to pick up supplies, and to a few big hotels.

Ethioflora owns a packhouse, cold room, a cooling system, an agrochemicals store, and storehouses. The firm has a refrigerated lorry, and hires extra lorries as needed to transport produce to markets in Ethiopia or to Addis Ababa airport, from where the beans are air-freighted to the Netherlands. To reduce the costs of transport, Ethioflora's beans are air-freighted together with produce from the Upper Awash State Farm, a large government-owned enterprise.

Ethioflora contracts with the Meki Batu union to grow a certain number of hectares of beans, according to a certain planting schedule. The firm estimates that the farmers will be able to grow at least 8 tonnes of beans per hectare, of which 5 tonnes will be export-grade. It estimates the timing and amount of deliveries accordingly. Meki Batu provides inputs and training to the farmers, who grow the beans and deliver the beans through their primary cooperatives to Ethioflora. Ethioflora requires participating farmers to comply with the requirements of EurepGAP (a European standard-setting body), and checks that they are doing so.

The farmers deliver their produce in crates containing 20 kg of beans. Ethioflora registers the number of crates from each farmer, then grades and sorts them, packs them into cartons holding 5 kg of beans, and weighs them. Farmer representatives from the primary cooperatives observe this process to make sure it is done fairly. They fill in forms with the number of kilograms of beans that have been graded, and take a copy with them for their own records.



Farmers are not able to grade the green beans themselves, so Ethioflora workers do this for them (the contract specifies "graded beans"), and deducts the cost from the farmers' payment.

The farmers take back the non-export-grade produce and can sell it on the spot to traders who happen to be at the Ethioflora farm to collect produce, or they can take it to sell elsewhere.

The beans are then put in the cold room until they are sent in a refrigerated lorry to the airport. Freshness is important, so the longest time the beans are kept in the cold room is 2 days.

Vegetable farmers

The farmers of Ziway and Meki Batu grow vegetables using furrow irrigation with water pumped from the lake. They grow tomatoes, onions, leafy vegetables, potatoes and beans, and most sell their produce on the local market. Farms are small – averaging 2 ha, of which one-quarter to half a hectare is irrigable land. With irrigation it is possible to grow crops year round. Major production constraints include the farmers' skills, pests and diseases, and the lack of qualified extension advice, especially on soil management.

Vegetables are perishable, and prices vary wildly from season to season. Before Ethioflora arrived, there were no facilities such as cold rooms to preserve the crops, and transport was unreliable. The farmers lacked market outlets, were generally poorly organized and had little access to market information. They realized that they needed to organize themselves and work in partnership with a trading company such as Ethioflora to develop a well-functioning market chain.

Box 6.5 Self Help Development International

Self Help Development International, an Irish development organization working in Africa, organizes smallholder irrigated vegetable producers. It helped form Meki Batu in 2002, providing it with birr 500,000 of working capital, an office and a lorry. Self Help remains a close partner of the union and continues to provide technical assistance to Meki Batu on market access, infrastructure development, dissemination of farming technology, human resource development and finance.

Self Help is now helping Meki Batu and Ethioflora to extend EurepGAP certification to a larger number of farmers.

More information: www.selfhelpinternational.org

Meki Batu union

The Meki Batu Horticultural Cooperative Union started out in 2002 as a union of 12 primary cooperatives in the Meki Batu area, near Ziway. Originally formed with assistance from Self Help Development International (Box 6.5), it now has 54 primary cooperative members, with a total membership of 4,320 farmers growing vegetables on 1,200 ha of irrigable land in the Meki Batu area. The union provides agricultural inputs, loan services, credit, market information and linkages, training and technical support to its member cooperatives. It has a contract with an Italian company to sell dried beans for use as seed and food, and with two other firms to sell potatoes, onions and tomatoes to Djibouti.

The Meki Batu union was looking for alternative markets for its members' crops. So it welcomed Ethioflora's initiative, and the two quickly reached agreement: the union would identify 300 farmers to act as outgrowers, and Ethioflora would provide inputs and buy the output.

In 2003–4, 128 Meki Batu farmers grew nearly 180 tonnes of green beans for Ethioflora. The following year, over 100 more farmers joined the scheme, and they grew more than 267 tonnes of beans (Figure 6.21).

Prices and payment

Ethioflora pays the farmers after the produce has been exported. This may be several weeks or months later. Ethioflora works out how many kilograms of beans the Meki Batu union farmers have delivered, and then pays the union accordingly. The union also keeps records to check against the Ethioflora accounts. It transfers the money to the primary cooperatives by bank transfer, and the primary coops then pay each of the farmers in cash.

The Meki Batu union deducts the cost of inputs it has provided in advance to each farmer. Because of the competitive market for green beans in Europe, the union does not currently charge the farmers for its services because it wishes to encourage farmers to grow green beans for export. The union does charge farmers 2% of the price of other produce it markets through other outlets.

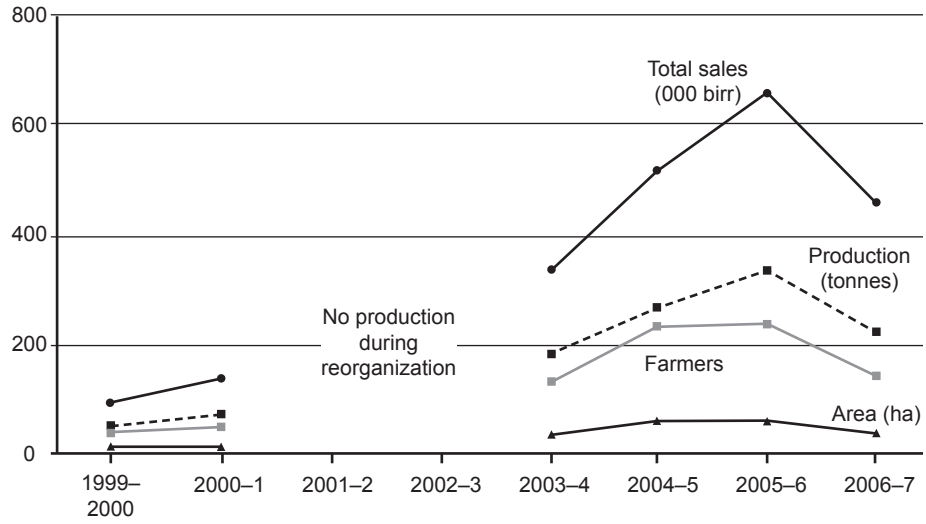


Figure 6.21 Production of green beans by Meki Batu union outgrowers for Ethioflora

Table 6.7 Variable costs of producing green beans, Meki Batu, Ethiopia

	Cost per hectare (birr)	
Land		100
Labour		
• Land preparation	800	
• Planting	200	
• Irrigation	384	
• Fertilizer application	32	
• Agrochemicals application	48	
• Weeding and cultivation	480	
• Harvesting	1,280	
• Transport	150	
• Grading	550	
Subtotal		3,924
Materials		
• Fertilizer	1,500	
• Chemicals	840	
• Seed	450	
• Fuel and oil for irrigation pump	2,300	
Subtotal		5,090
Total		9,114

Table 6.8 Costs and revenues for one hectare of green bean production, Meki Batu, Ethiopia

	Yield (t/ha)	Price (birr/kg)	Revenue (birr/ha)
Export-grade beans	5,000	2.00	10,000
Non-export-grade beans	3,000	0.65	1,950
Total	8,000		11,950
Production costs			– 9,114
Farmers' gross income			2,836

The price of 2 birr per kilogram gives efficient farmers a healthy profit, so many are interested in growing beans and selling to Ethioflora.

The price of green beans is determined in Europe. Ethioflora watches price trends there, and sets the price it is willing to pay farmers in the following year accordingly.

EurepGAP

Expanding production has led to some problems for Ethioflora. In order to export to Europe, Ethioflora has to comply with a set of agricultural practices set by an organization known as EurepGAP (the GAP stands for "good agricultural practices"). EurepGAP, www.eurepgap.org, was set up by big European supermarkets to ensure product quality. It covers issues such as the use of fertilizers and pesticides, residue levels, sanitation, record keeping, and traceability. In order to get EurepGAP certification, a supplier has to comply with a lot of rules, and undergo a series of external and internal inspections.

Ethioflora has had EurepGAP certification since 2004. Ensuring that the few dozen farmers in the water user association complied with the regulations was easy. But it is much harder to managing the hundreds of Meki Batu farmers now working as outgrowers. Afraid of losing its vital accreditation, Ethioflora reduced the number of outgrowers from 234 in 2005–6, to 140 in the 2006–7 growing season. It is planning to increase the number of outgrowers in future once the farmers have received EurepGAP certification through the Common Fund for Commodities and Self Help initiatives described below.

A profitable business?

It costs the farmers just over 9,000 birr to produce 1 hectare of beans (Table 6.7). They can expect to earn nearly 12,000 birr by selling their produce to Ethioflora (for the export-grade beans) and local traders (for the rejects) (Table 6.8). That

gives them nearly 3,000 birr in profits. They can earn even more if the yield is higher than 8 tons per hectare, and by selling the crop residues for animal feed.

Ethioflora is not yet making a profit from green beans exports because the market in Europe is so competitive. Ethioflora has to increase its productivity and reduce its costs per kilogram of beans by investing in improved technology. It has installed drip irrigation on 95 ha of new land in another area in a joint venture with its Dutch trading partner, where it hopes to raise green beans yields from 7 t/ha to 12–13 t/ha. It hopes that this will reduce the cost per kilogram, and allow Ethioflora to make a profit.

Ethioflora can also explore ways to cut its costs. The major cost is air freight, which consumes more than 75% of the total.

Expanding opportunities

The Meki Batu union recognizes the need to increase the productivity of its member farmers. Self Help Development International has started an ICCO-funded project with the union to improve its market access by building a farmers' market in Addis Ababa as an outlet for its produce. Self Help also provides technical training to union members on farming technologies, provides them with improved seeds, and established a savings and credit programme.

The Common Fund for Commodities, a United Nations institution, is also working in the Meki Batu and Ziway areas. Together with the national government and other stakeholders, it is planning to build cold rooms and help farmers comply with EurepGAP standards. This will increase the farmers' capacity to produce for export, and expand the range of market outlets farmers can choose from.

Outcomes

The relationship between the Meki Batu union and Ethioflora has benefited both sides.

- The farmers have gained a reliable market for their produce.
- They have developed skills in producing beans and managing their enterprise for export.
- They have been able to diversify their crops and market outlets.
- The market is profitable for them.

Ethioflora has also benefited.

- It has a reliable supply of good quality produce for its customers.
- It has gained expertise and linkages in managing exports. This will be extremely valuable as Ethioflora develops its markets for other crops in the future.

Challenges

There is a large market for fresh vegetables in Europe, but it is very competitive, so most other Ethiopian producers have withdrawn from it. Ethioflora is able to stay in the bean export business because of the profitability of its main businesses – cut flower exports and the production and distribution of food for the domestic market. Both Ethioflora and the Meki Batu union recognize there is great potential in Ethiopia to serve the European market for beans, and are willing to invest for the long term. They also recognize the importance of the relationship between them – the export firm and the farmers' union need each other.

Ethioflora can rely on government support: profits on exports are tax-free for the first 5 years, and the company can rent land cheaply from the government. As a cooperative, Meki Batu pays no taxes and can get cheap loans. Other donors have also assisted: USAID has supported capacity building, and DFID provided support for Meki Batu's initial EurepGAP certification.

Meki Batu wishes to develop its own export business. But it lacks the technical skills, finance and infrastructure to produce green beans to the required standard alone. It is building its skills and capacity through its relationship with Ethioflora and with other partners such as Self Help and the Common Fund for Commodities.

Ethioflora is not afraid of the potential future competition the Meki Batu union may offer. As Mulugeta Abebe says, "There is a huge potential in our area. Competition is good for us because it will raise the standards of produce that the farmers will grow."

Complying with EurepGAP standards remains a challenge. Both the Meki Batu union and Ethioflora hope that current development projects will help local farmers comply with these rules.

Risks

Each of the actors in the chain faces risks.

Ethioflora is supplying a very competitive market in Europe. Other countries supplying the market, such as Kenya and Senegal, get higher yields and have lower costs per kilogram of beans. Market prices fluctuate widely. The supply of high-quality seed is a problem. Ethioflora is responsible for supplying seed to the farmers, but has no reliable source. The firm finds it difficult to manage a large number of outgrowers and maintain EurepGAP certification at the same time. This is the key reason it has partnered with the Meki Batu union. Some farmers do not adhere to the planting schedule. That means a variable supply and extra costs of freight.

Meki Batu union members face rising costs of inputs such as seed and agrochemicals. The union is considering going into seed production to solve this problem. Production may vary because of pest and disease attacks and adverse weather.

There is a shortage of labour at peak harvesting times. Over-mature beans cannot be exported, so lose the farmers money.

Value shares of actors in the marketing chain

The outgrowers are paid 2 birr per kilogram of export-grade green beans. They have to cover the costs of production, transport to the Ethioflora facility, and grading (Table 6.9, Figure 6.22).

Ethioflora is paid an average of €1.65 (about 20 birr) per kilogram of fresh beans in Amsterdam.

Ethioflora thus receives 90% of the gross income from each kilogram of beans (Figure 6.23). This may seem a lot, but the firm has to cover the costs of air freight (about 75% of the total), import agent fees in the Netherlands, inland transport, operations in Ziway, staff services, packaging and materials, the costs of the head Addis Ababa office, interest on loans, and overhead. This leaves Ethioflora with little or no profit from its green bean export operations.

Table 6.9 Value shares of actors in the green beans value chain, Ethiopia

Birr per kg beans exported (€1 = birr 13)

Chain actor	Variable costs	Revenue	Gross income	Added value	Gross margin	Value share
		Selling price	Revenue – Costs	Revenue – Previous actor's revenue	Gross income x 100 / Revenue	Added value x 100 / Retail price
Farmer	0.71	2.00	1.29	2.00	64%	10%
Ethioflora	20.00	20.00	0.00	18.00	15%	90%

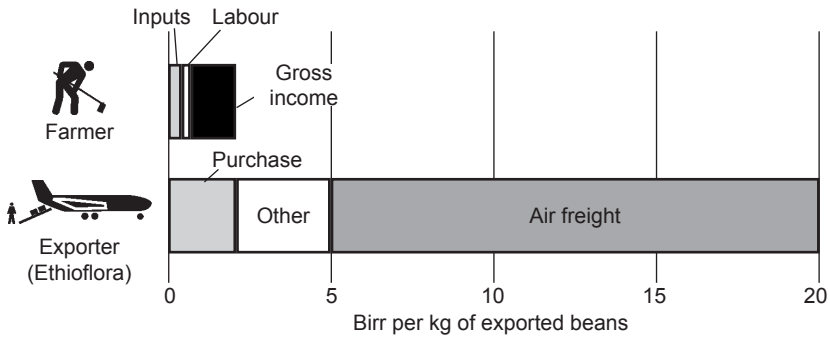


Figure 6.22 Costs and revenues of actors in the green bean value chain, Ethiopia

How the market structure has changed

The Meki Batu union specializes in producing high-quality vegetables for local and export markets (Figure 6.24). It currently lacks the capacity and technical expertise to handle the export business alone, so works with Ethioflora to gain access to the European market. While relations between these partners are excellent, the union has been careful not rely on a single crop or customer: it also produces several other commodities and has contracts with other buyers.

Figure 6.23 Value shares of actors in the green bean value chain, Ethiopia

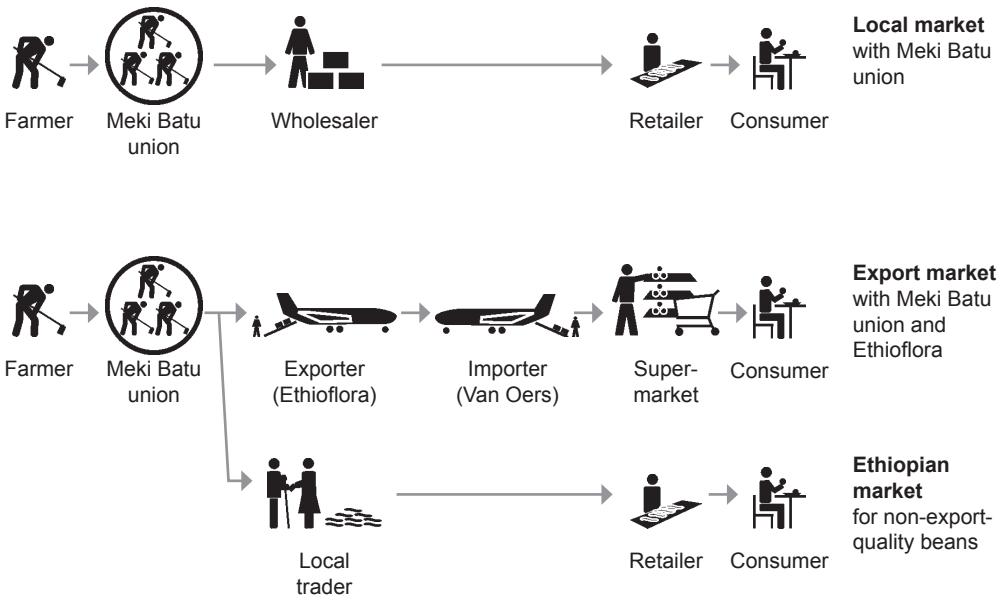


Figure 6.24 Changes in the green bean market structure, Ethiopia

Managing exports is a highly skilled and capital-intensive business. With its major business in the booming cut flower industry, Ethioflora has been able to invest in the trade in green beans, even though this is not yet profitable.

Chain relations and market institutions

Before 1998, Ethioflora produced its own bean crops. Between 1998 and 2000, the firm bought beans from outgrowers from the water users' association. It entered into agreements with these farmers and provided them with inputs and advice, but found it did not have the capacity to continue managing a large number of farmers, so discontinued the arrangement ❶ (Figure 6.25).

By the 2003–4 season, the farmers had organized themselves as part of the Meki Batu coop, and they had agreed on a partnership with Ethioflora ❷.

Ethioflora and the coop developed a variety of market institutions to support their collaboration. These included obtaining the EurepGAP certification, concluding contractual agreements, developing a full package of financial and technical services, and a system of more transparent pricing. Ethioflora's strong links to the government also facilitates policy dialogue. ❸

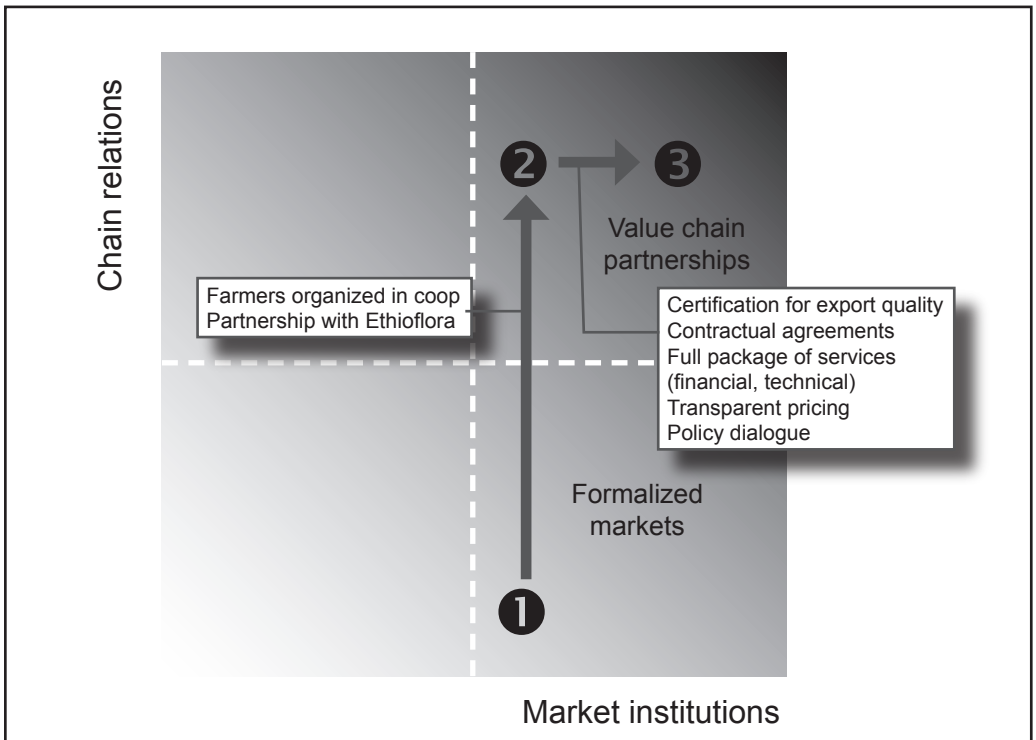


Figure 6.25 Chain relations and market institutions in the green bean trade, Ethiopia

The cooperative and Ethioflora need each other to make the chain work. On their own they have insufficient capacities. Together they make it work.

More information

Belew Damene G/Hiwott, Self Help Development International, belewdg2005@yahoo.co.uk, www.selfhelpinternational.org

Mulugeta Abebe Adugna, Ethioflora, BNF2@ethionet.net

Etefa Getahun, Meki Batu Horticultural Cooperative Union, mb.union@yahoo.com

7
Strategies for trading up

The previous chapters describe a wealth of experience from across Africa in improving trading through better cooperation between farmers and traders. Each case contains an innovation – a new way of doing things – to make trading more efficient, more sustainable and more beneficial for the people involved.

In a number of cases, farmers got organized to build better linkages with the market. Some succeeded in bypassing the "middlemen" and build a direct market for their produce. But other farmer groups found out they are actually worse off without the traders, and that they need the traders for issues such as quality assurance and cash payment. In other cases traders got organized to negotiate lower transport prices, control the flow of produce in the chain and reduce product losses, or advocate for better policies and regulations. In some cases trading companies were set up with a special mission to develop value chains in a win–win partnership with farmers. Finally there were some cases where new market institutions were built to improve trading, such as a warehouse receipts system, the introduction of quality grades, the use of trade information sheets, and the establishment of business-support centres in marketplaces.

In this chapter we will pull all these experiences together to identify their main lessons and insights. On the basis of these real-life experiences, we will define strategies and guidelines for promoting trade and cooperation between farmers and traders in Africa. We hope these will provide moral inspiration and practical support for farmer cooperatives, trader associations and other organizations that wish to improve the businesses of small- and medium-sized entrepreneurs in rural Africa.

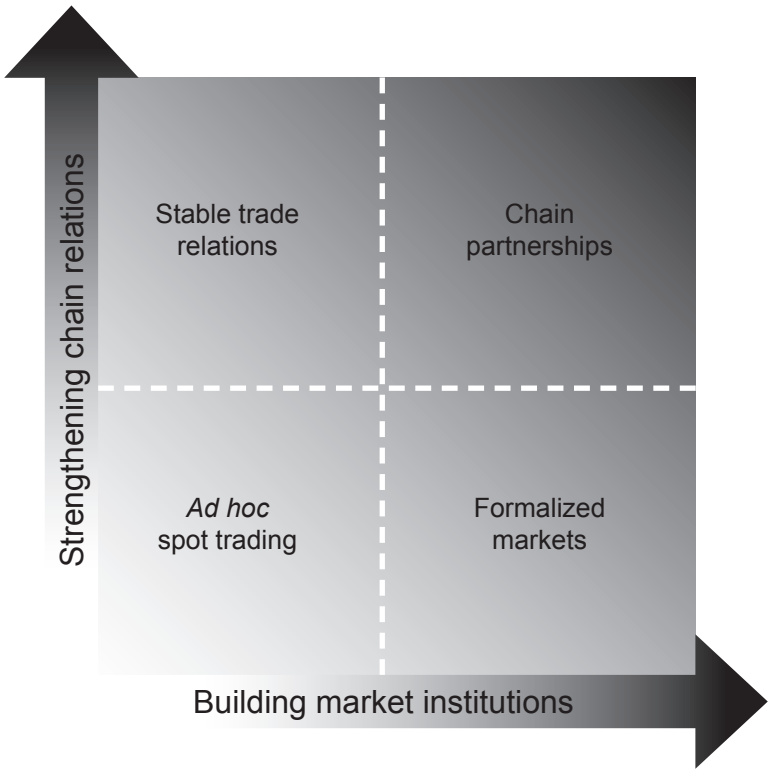


Figure 7.1 Movements in the market interactions matrix

Chain relations and market institutions

Each case was a unique experience, in which the farmers and traders responded to specific challenges, opportunities and circumstances. Nevertheless all experiences can be visualized as a "movement" in the framework of our book (Figure 7.1). In nearly all cases, there was an improvement in the communication and relationships between farmers and traders – this is an upward movement along the dimension of "chain relations". At the same time, most cases showed an improvement in the rules and systems that the farmers and trader use – a rightward movement along the dimension "market institutions".

The fact that nearly all cases show vertical and horizontal movement is already an important lesson – namely that real improvements in trading require both strategies to be implemented at the same time. Projects to improve relationships between farmers and traders (the vertical movement) also need to work on the introduction of stronger market institutions (the horizontal movement). Likewise, projects to improve market institutions need to take account of the business practices and relations in the value chain. This may sound obvious, but there are many examples where one of the two strategies has been neglected, making the project unsustainable.

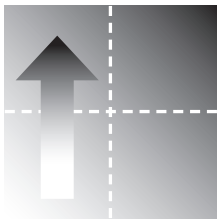
For instance, many initiatives to establish market information systems in Africa fail to become truly relevant for the farmers and traders who are supposed to benefit. It is one thing to have market information; it is a different thing to be able actually to use that information. For example, farmers often need cash immediately, so may have to sell products at a low price, even though they know that prices elsewhere are higher. Similar examples are given in our cases on onions in Ghana (page 108) and the commodity exchange in Kenya (page 159). They show that market information alone is not sufficient. A package of additional business-support services, such as matchmaking, storage and trade finance, is needed to make market information systems truly relevant for the actors in the chain. Only then will they be willing to use the service to do better business, pay for the service, and make the system financially sustainable.

Likewise, many projects that try to improve relations between farmers and traders may have disappointing results because they do not strengthen the wider market institutions. This is shown in our coffee case in Tanzania (page 205). Here an exporter, Lima Ltd, is trying to set up a chain partnership with small farmers for high-quality coffee. To do so the exporter wants the farmers to deliver fresh coffee cherries, rather than dried "parchment coffee" beans, which is the tradition in the area. However, most farmers continue to deliver parchment coffee. This is because the project has not yet succeeded in creating a wider institutional environment which provides farmers with an understanding of quality standards, pricing mechanisms and consumer trends in the speciality coffee market. The farmers are led by the hand of Lima in an isolated value chain, rather than acting as autonomous business people in a flourishing industry. If such a business environment were to exist, then farmers would have more options and could make better informed decisions why to do business with Lima. There would be more commitment in the chain, probably leading to better business results for both farmers and Lima.

In conclusion, to accomplish sustainable improvements in trading – what we call "trading up" – there needs to be simultaneous attention for improved chain relations and stronger market institutions.

We will now look at what this means in concrete terms. First we describe what can be done to strengthen the relationships between farmers and traders, and then we discuss what can be done to improve trade through building market institutions. We conclude by summarizing the policy implications for farmer organizations, trader associations, local authorities, national governments and NGOs and donor agencies.

Strengthening chain relations



THE FOLLOWING FIVE ISSUES are important to improve relationships in the value chain:

1 Farmers and traders organize themselves
2 Farmers and traders develop mutual respect and understanding
3 Farmers and traders specialize in their role in the chain
4 Farmers and traders develop partnerships for mutual growth
5 Farmers and traders seek higher-level coordination of the chain.

Let us look at each of these issues in turn.

1 Organization of the chain actors

The first necessary step in improving trade relations is that the farmers and traders organize themselves so they can address problems of common interest. Individual farmers and traders are usually too small to make a difference. Only when teaming up with peers they can reach sufficient force to make improvements in the value chain. The cases show that when farmers and traders organize themselves, this not only benefits the chain actor itself, but also the value chain as a whole.

For example, the associations of tomato traders in Ghana (page 62) contribute to a better trade environment with benefits for farmers and traders alike. To prevent cheating and default by the so-called "floating traders", the association registers the personal data of member-traders who comply with group regulations, marks their crates, and issues trade information sheets to make the trade flow fully transparent and traceable. Any problem can thus be quickly traced and resolved. The trader association is now also supporting the formation of farmer organizations to further improve the long-distance trade in tomatoes.

The cases further show that, in contrast to what many people may think, farmer organizations usually get positive responses from traders. It is a common belief that traders are likely to sabotage farmer organizations to prevent their empowerment in price negotiations. This may be true in specific circumstances. However, our cases rather show the opposite. In one case from Kenya (page 94), tomato farmers got organized to sort their produce and sell directly to a supermarket chain, avoiding the travelling traders. But they soon found out that the retailers in the local market were willing to buy their produce at a higher price, because

the tomatoes are sorted, crated and delivered on the spot. Hence, the farmers are happy because they add value to their businesses, and the traders are happy because they can buy a better product in an easier way.

Dairy farmers from Kenya had a similar experience (page 72). Previously they sold to small traders who came to collect their milk at the farm gate. Now the farmers organized in a cooperative and started selling directly to a processor. The traders responded by raising their prices to the same level as the coop. Now the farmers have two options for selling their milk. They sell part of their milk to their coop, which pays after a few weeks and deducts a commission on the price. They also sell a part of the milk to the traders, who pay the same price, but immediately in cash. Hence, the farmers get the best of both worlds – the benefits of being a cooperative member while, at the same time, receiving cash from daily business with traders.

The fact that traders respond positively to farmer organization conveys an additional lesson for producers – namely that farmers who feel exploited by the market should not point their fingers to traders or others, but look into the mirror and get their act together. It is a fact of life that everybody tries to seize opportunities as they come along – this is true for people in white-collar jobs, but particularly for traders, whose businesses depend on responding to trade opportunities. So it makes little sense for farmers to blame traders for grasping opportunities – that is the traders' core business! It makes much more sense for farmers to get organized, improve the presentation of their product, and strike better deals with buyers. The cases in our book show that organized farmers will be surprised to find that traders may well respond in a very positive way, offering higher prices and more commitment!

The cases also contain a similarly important lesson for traders. Often traders are organized in an informal way, which deprives outsiders from an opportunity to understand their objectives and activities, and internal regulations. Informal trader associations are hugely important to reduce the business risks of small-scale traders and improve their livelihoods (Box 7.1). But they tend to suffer from a bad public reputation due to their lack of transparency. This was clearly shown in the case of the female yam traders in the Kumasi market in Ghana (page 132). Though they work daily on the marketplace, their voices were not taken into account by the authorities that regulate the marketplace. Once they learned to communicate and operate in a more transparent way, the traders were taken more seriously, and now they consult regularly with the market authorities about issues that affect their working place. Their colleagues in the tomato trade (page 62) have an even stronger negotiating position. Ghanaian tomato traders have a formal umbrella organization at national level with associations in each region. The leaders consult regularly with public authorities and farmers representatives about problems and developments in the market. This open form of consultation and information-sharing contributes very positively to the reputation and businesses of the traders.

Box 7.1 KENSAVIT

Street vendors and informal traders in Nairobi work under difficult circumstances. Their problems include bad locations, no infrastructure, weak associations, and inappropriate regulations. National policies for micro- and small-scale enterprises focus on manufacturing, while traders tend to be neglected in public policies. The associations of traders focus primarily on welfare issues and do not negotiate for their members on trade or development issues. Their low organizational capacity means they operate informally and cannot hold the leaders accountable. Their rules and regulations do not clearly state the rights and obligations of members and office holders.

In 2005 the street vendors and informal traders organized into the Kenya National Association of Street Vendors and Informal Traders (KENSAVIT). KENSAVIT is a national alliance with members organized into urban alliances in seven Kenyan towns. The mission of KENSAVIT is to organize and empower street vendors and informal traders in order to improve their businesses through training, access to credit, and dialogue with local authorities and other relevant organizations.

KENSAVIT concentrates on lobbying and policy influence to give recognition to traders and end harassment and discrimination against them. The urban alliances engage city authorities on issues of their work environment. Growing membership has increased their visibility, confidence and influence on policies. Members participate in city council affairs and development committees. The Nairobi alliance conducted its own census of street vendors and informal traders in the city. The challenges facing KENSAVIT now are to expand to other cities, while consolidating the organization and mobilizing its internal resources to become self-sustaining.

More information: Winnie Mitullah, Institute for Development Studies, University of Nairobi

In sum, when farmers and traders organize themselves, they can improve their relationships with other actors in the chain. This will not only improve their own businesses, but also the businesses of others.

2 Mutual understanding in the chain

A second precondition for beneficial trading is to create mutual respect and understanding among buyers and sellers for each other's business. The term "value chain" refers to the fact that an entire network of chain actors is needed to get the product in good condition from the countryside to the city. If only one party, such as a farmer cooperative, takes care of all activities from production and transport to consumer retailing, then we do not call it a "value chain" any more, but rather a vertically integrated business. For a value chain to work well, the specialized roles and functions of the various chain actors need to be acknowledged. Likewise, their interests and needs should be fulfilled. The only good business deal is where both parties benefit – otherwise it is short-lived "monkey business".

Unfortunately there are uncountable examples where one of the chain actors is not respected, resulting in a collapse of the entire value chain. An extreme case comes from Zimbabwe (page 83) where the government banned private trad-

ing in fertilizers. This resulted in shortages on the market and a ten-fold price increase, making fertilizer practically inaccessible for smallholder farmers. What was achieved through this disrespect of traders? Thousands of wholesalers and retailers were forced out of business, tens of thousands of farmers suffered bad crops, and millions of consumers suffered hunger.

The fertilizer example took place in exceptional circumstances, but unfortunately disrespect of chain actors is far from rare. In the case of mango export from Burkina Faso (page 168), farmer cooperatives cut the harvester-traders and exporters out of the value chain as they felt they were being cheated and exploited. For 4 years they tried to export directly, but were confronted with enormous problems of quality, product rejects and excessive management costs. While the harvester-traders and exporters were left out of business, the importer was faced with a product of unacceptable quality and excessive price, and the farmers were gradually losing their market outlet and source of income. Everybody lost.

A similar experience comes from the livestock chain in Zimbabwe (page 50). Feeling cheated by the travelling traders, a group of pastoralists started to deliver their animals directly to the abattoirs in the cities. They met with low prices, product rejects, physical insecurity, unforeseen costs, and many other problems. In the process the traders were out of business, while the abattoir operators were flooded by individual producers who consumed a lot of their time. It was a lose–lose situation for all parties.

When chain actors lack mutual respect, it may be appropriate to promote a chain dialogue (Box 7.2). Dialogue is a process of creating mutual understanding between concerned parties. Before dialogue there is usually some form of conflict or misunderstanding. Dialogue helps to resolve this by creating understanding, trust, respect and benefits. Through dialogue, new ways of dealing with common problems can be discovered. Concerned parties can be creative and share ideas. It removes barriers of communication, and information can be shared freely.

The cases in the book show examples of successful chain dialogue. In the livestock case from Zimbabwe (page 50), an NGO mediated the dialogue between the pastoralists, travelling traders and abattoirs. The dialogue took place in two sessions with 2 weeks in between. A slaughter sheet was created as a tool to create confidence and mutual trust. Through their representatives all parties negotiated their positions, and a win–win situation was created.

In the mango case from Burkina Faso (page 168), the chain dialogue was facilitated by resource persons from the Dutch importer and a Dutch donor agency. The resource persons first spoke to each group separately – farmers, harvester-traders and exporters – as a way of helping them understand the problems as well as opportunities in the chain. A lot of training in quality management, post-harvest management and price-costing was done. All parties were then brought to the negotiating table. The whole process took about 6 months, and now every member of the chain appreciates the role of the other actors.

Box 7.2 Challenges in chain dialogue

- The parties may be **suspicious** of the mediator, or the mediator may have limited skills and understanding. Then the parties may not open about the core issues.
- The parties may have a **fear** of hidden agendas and losing out in the negotiation. The levels of understanding by different parties may vary.
- Dialogue can be **time-consuming**, and business may be lost in the meantime.
- **Information** is usually released in bits and pieces. Parties are reluctant to give out information on issues like grading practices, cost-pricing, profitability, etc.
- There need to be **funds** for financing the mediator, venues, supporting research, etc.

In the case of tomato trade in Ghana (page 62) the need for chain dialogue was extreme. Farmers had blocked roads, beaten up traders, and impeded the import of tomatoes from Burkina Faso. Authorities organized dialogue to resolve the dispute. Farmers developed an understanding for the traders who insisted on sorting and selecting the tomatoes before embarking on the long trip to Accra. In turn, traders developed an understanding for the farmers who saw their crop rotting away. An agreement was reached, and both parties continue to meet regularly to discuss issues in the sector.

Much conflict between chain actors is based on prejudices, assumptions and incorrect information. In particular, a recurrent source of misunderstanding is about prices and margins in the value chain. The chain dialogue needs to address these issues in an objective way, based on careful research and factual analysis of gross margins, costs and risks. When people compare the price for the producer at the farm gate with the price for the consumer in the city, and see differences of 100% and more, they may easily conclude that farmers are being ripped off. But these figures should be understood in relation to the costs, risks and services that are provided in the value chain. In this book we have systematically analysed the value shares in the chain, identifying the costs and risks for each chain actor. We found not a single case with evidence of abuse of power by traders. It is important that chain dialogue is accompanied by such factual research.

Other important issues to consider in chain dialogue are:

- **Joint vision** To begin, all parties must agree that there is a problem, so that all see a strong urge to come together. There is also need to see the benefit they will gain from the dialogue, a joint vision to what the partnership should achieve.
- **Neutral facilitation** Effective dialogue takes a skilled mediator with detailed knowledge of the issues at stake. He or she should not be seen as an interested party, or biased to any of the affected parties. The mediator should be committed to the cause, and should be able to always be a step ahead of the parties, so he/she can properly guide the process.
- **Clear steps** Dialogue may consume considerable time and energy so the mediator should not rush to achieve short-term results. At the same time,

it should be clear to all parties what are the steps and milestones ahead of them.

- **Equity** The mediator must ensure that the voice of all chain actors is equally represented. A useful methodology is to first have separate meetings with each stakeholder to understand their view and proposals in detail, and then organize joint meetings where the parties can interact.
- **Communication skills** Before the parties come to joint meetings it may be necessary to provide coaching and training in communication skills.

3 Specialization in chain roles

Once there is mutual understanding and respect among the chain actors, conditions are there for each chain actor to specialize in its specific role in the value chain. Farmers can specialize to become top-level suppliers of quality products which are demanded by the market. Traders can specialize as dedicated service providers that develop consumer markets, provide financial services, and add value to farm produce. As the chain actors specialize in their role, the value chain as a whole becomes more competitive, and more beneficial to all of its participants (Box 7.3).

The cases in this book give many examples of the benefits of specialization. After the attempt by pastoralists to cut the traders out of the chain, the livestock traders in Zimbabwe improved their services and started to share more information with farmers and public authorities (page 50). Now that the pastoralists and traders know their place in the value chain, the performance of the livestock chain as a whole has improved. Similarly, milk traders in Kenya also improved their services in response to the formation of the farmer cooperative (page 72). The "fortune-hunters" among the traders quickly went out of business, but those who were committed to the dairy business improved their attendance to the farmers, and are now doing better than before.

The case of tomatoes from Kenya (page 94) shows that the roles and functions in the chain can change over time. Traditionally, the farmers were selling unsorted tomatoes at the farm gate. On behalf of the retailers on the marketplace, brokers would come to the farmers to buy the product, levying a commission to the retailer. But then the farmers organized in a coop to sort, pack, and deliver their tomatoes to the market. The retailers are happy to buy directly from the farmer coop, because they are now provided with a sorted, packed product, without the hassle of buying through an intermediary. Hence the farmers have taken up new functions in the chain, appropriating the role of the brokers. Because they do this in a serious way, as specialists, they create benefits to farmers and traders alike. The farmers have added value to their businesses, and the retailers can buy their supplies directly from the source. A caution that should be given here is that the farmers should properly calculate the costs and benefits of taking up these new chain functions. The question, left unanswered in the case, is whether the higher sales price outweighs the additional costs of sorting, packing, and delivery.

So we see that when farmer or traders specialize in their role in the chain, there are multiple benefits at the various levels in the chain. This implies that to improve the businesses of farmers, investments can be made further down in the chain. This is clearly shown in the case of wool and mohair from Lesotho (page 146). The project invested in two traders to improve their services at the shearing sheds. This included transparent pricing, accurate classing, punctual planning and proper record keeping. As the traders specialized in their role in the chain, the businesses of their suppliers – small-scale stockholders – benefited. The incomes of around 3,000 small-scale pastoralists were substantially improved. So we see that improved services from a midstream chain actor – the traders – can create positive spin-off for the producers.

A similar experience comes from the warehouse receipt system from Tanzania (page 118). The project invested in a chain function which tends to be neglected easily – warehousing. The project established operating procedures for warehouse keepers; those who complied obtained a formal certification. Certified warehouses are entitled to issue receipts for the value of the merchandise which is delivered to the warehouse, such as coffee beans. The farmers, in turn, use these receipts as collateral for obtaining bank loans to finance harvesting activities. Hence, by investing in the chain role of a few warehouses, the project created benefits for thousands of small-scale coffee farmers.

The case of soybean in Ghana (page 194) shows the benefits of a particular form of specialization. Savanna Marketing was established as a trading house in soybean, groundnuts and other farm produce, catering for the demand of processors in the domestic market. However, Savanna is not an ordinary trading house that is focused only on customer satisfaction. Savanna has an explicit mission to assist

Box 7.3 Risks and benefits of specialization

In large parts of Africa, farmers and traders are reluctant to specialize in a specific line of business. They prefer "keeping their eggs in several baskets" as a way to mitigate their risks. This business strategy is perfectly valid, considering the volatility and uncertainty of African markets and the absence of risk management instruments such as insurance and forward sales contracts (see Chapter 2). In addition, there are more barriers to specialization such as the lack of access to investment capital.

Nevertheless, specialization offers many advantages. Specialization is essentially a strategy to differentiate yourself from competitors and secure a stable market outlet. Research shows that farmers and traders who specialize in a specific line of business have more stable business relations and enjoy more stable prices. They miss out on temporary price increases in the markets, but they are protected from the dips. On average this gives them a higher income. Relying on these stable market linkages, the business is in a better position to invest in expansion, new technologies, or other ways to achieve growth and competitive advantage.

In this book the benefits of specialization are demonstrated in the case of tomato production in Kenya (page 94). The farmers negotiated year-round supply to a supermarket chain. In the off-season the price offered by the supermarket is lower than on the open market, but in the peak season their price is higher. On a yearly average, the farmers have a better deal.

farmers in becoming competent suppliers of quality raw materials. Hence, we can call Savanna a "doubly-specialized" trading house – not only specialized in satisfying customer demand, but also in capacity-building of suppliers. This business concept has a great potential to bring benefits to farmers, industry and consumer alike.

All in all, the cases have a strong message for African farmer organizations and their service providers. In many situations they focus their energy on assisting farmer to appropriate new roles in the value chain, often by cutting off traders. But the cases in this book show that the net social benefits can be much greater when farmer specialize in their own business, which is farming, while leaving marketing to the specialists – traders. When chain actors specialize to work together, then 1 + 1 can equal 3.

4 Chain partnering[1]

A next stage in improving chain relations is when farmers and traders are willing to make an alliance for long-term cooperation, based on a joint vision and joint activities. A partnership is where both parties contribute skills and resources, and where, crucially, both sides share the risks. Partnerships are based on the principles of equity, transparency and mutual benefit. They should achieve something that each side alone could not achieve. Partnering can help farmers and traders to develop new products and markets, reduce costs, increase quality, gain access to finance, improve business planning, lower risks, and so on.

1 This section is based largely on Agriculture and Food Council of Alberta (2002) and Tennyson (2003).

Box 7.4 Criteria for selecting a chain partner

- **Interdependence** The potential partner should benefit from working with you, as much as you should benefit from working with them. The partner can achieve its goals, which in turn helps you achieve yours.
- **Compatibility** The potential partner should fit with your way of working. There needs to be similarity in issues like market strategy, scale of operation, and outlook for the future.
- **Synergy** The potential partner should be able to supplement what you already have to offer.
- **Reliability** The potential partner needs to be checked carefully on its capabilities, track record, reputation, professionalism, and economic viability.
- **Commitment** The potential partners should be able and willing to commit to a long-term alliance based on transparency, equity and mutual benefit.

The case of mango exports from Burkina Faso (page 168) shows the benefits of chain partnering. Through a chain dialogue lasting 6 months, the farmers, harvesting-traders and exporters developed a joint vision on how to cooperate and complement each other in the value chain in such a way that export quality and customer satisfaction are guaranteed. This partnership agreement was the basis for a remarkably successful revival of mango exports.

A similar experience was found among green-bean producers in Ethiopia (page 215). Their coop entered in a partnership with a private exporter. The farmers grow beans under contract, and the exporter takes care of quality management and export logistics. The partnership enables a process of mutual growth, in which the farmer cooperative has achieved increased turnover and higher incomes for its members, while the exporter has secured sufficient trade volume to remain competitive in the international markets.

Chain partnering does, of course, not happen overnight. Some believe that partnerships work best when they arise out of conflict situations, like in the mango case from Burkina Faso (page 168) and the livestock case from Kenya (page 181). Others disagree, arguing that partnering needs to be based on a prolonged period of doing business together in a way that is mutually beneficial, like in the green beans case from Ethiopia (page 215) and the soybean case from Ghana (page 194). In either situation, there are three clear stages in the development of chain partnerships: exploring the partnership, building the partnership, and managing the partnership. We explore these below.

1 Exploring the partnership

Selecting the right partner is probably the most important factor in establishing successful alliances. Yet many companies continue to ally with the closest interested partner and pay the price later. Finding the right partner is mostly a matter of knowing what you are looking for. In other words, you should identify your needs, as well as what you have to offer. Based on that, you can develop a

Box 7.5 Elements in engineering chain partnerships

- **Overarching goal** Both sides need to commit wholeheartedly to an overarching goal for their cooperation. Examples of such goals are an increase in market share, the penetration of new markets, or a shift towards value-added products.
- **Performance indicators** The overall goal of the partnership must be converted into milestones and specific measures of success, such as "20% increase in sale volumes in 2 years". Decide how, and how often, the indicators will be reviewed.
- **Roles and responsibilities** The parties need to agree on their resource commitments, the roles of both parties, and lines of responsibility. Someone needs to be accountable on either side.
- **Ground rules** The parties need to agree on a governance structure with clear principles for decision-making, mechanisms to resolve differences, and procedures for internal and external communication.
- **Risks assessment** The partners need to assess the risks and rewards that may arise from being involved in the partnership. Some potential risks include loss of autonomy, conflicts of interests, drain on resources, implementation challenges, and reputation impacts.
- **Flexibility** The partnership agreement should be flexible to allow for innovation, re-negotiation, and adaptation to changes in the context, such as new government policies and economic cycles.
- **Exit strategy** The partners should also think under what conditions they will terminate the cooperation.

list of potential partners that might fulfil your requirements. The next step is to shorten that list by evaluating the potential partners on a set of criteria (Box 7.4). After that, it is time for initial, tentative contact. You will want to keep your options open in the beginning, reserving full commitment until you have reached a careful decision.

2 Building the partnership

Once you select a partner it is essential to reach agreement on what the partnership is to achieve, and how it is to operate. A wide range of issues needs to be discussed and agreed upon (some are mentioned in Box 7.5). Securing agreement requires negotiation – but in partnering this is not negotiation in the sense of a "hard-nosed" business deal. Both parties should have the opportunity to express their commitments, expectations and underlying interests in a purposeful way that builds consensus and synergy. Partners going through this form of negotiation need to exercise considerable patience, tact and flexibility. It must be ensured that both sides fully understand and support the agreement, to prevent trouble down the road.

The case of high-quality coffee from Tanzania (page 205) shows that partnership building is more than just a matter of economic benefits. The exporter Lima has a vision to establish a chain partnership with farmers to export high-quality coffee. The company encourages farmers to bring in their fresh coffee cherries on a

daily basis. Yet many farmers are reluctant to do so. To achieve a genuine chain partnership, the company needs to improve its communication and create a joint vision with the farmers. In addition to economic incentives, the partnership must also be grounded in issues like a common vision, shared decision-making, and a sense of mutual dependence.

3 Managing the partnership

With the partnership agreement in place, it may be tempting to proceed full speed ahead. Yet the wisest step is to "test the waters" with a pilot project. This is a small, "trial-size" activity of limited duration which helps to test the potential of larger-scale cooperation, provide measures of success, and generate lessons for fine-tuning your approach. Baseline measures and careful evaluation are critical. When both partners judge that the pilot has made a positive difference to the business, it is time to move ahead and expand the cooperation. Through this step-by-step approach the business partners will gradually share more information, coordinate decision-making, and integrate their systems. As the links between the chain partners become closer and tighter, the more they will be able to take advantage of cost reductions, quality improvements, time savings, risk mitigation and so on. Nevertheless, even when running full-scale, chain partnerships require ongoing care and nurturing to stay alive and thrive. Managing a chain partnership will prove to be an ongoing challenge as markets, companies and people continuously change (Box 7.6).

Box 7.6 Issues to consider in partnership management

- **Annual work plans** Use the partnership agreement to develop annual work plans with a clear indication of objectives, resource commitments, roles and responsibilities, and performance indicators.
- **Personal relations** Successful partnerships are to a large extent based on interpersonal relationships. Yet partnerships need to be "person-proof" – if someone leaves either party, the partnership should be able to continue regardless.
- **Accepting differences** The partnership is based on a joint vision. Yet both sides need to respect their differences in ways of working, timeframes, competence, and objectives. Differences must be communicated in a straightforward way.
- **Capacity building** Effective partnering requires a set of skills which may need to be trained, such as cultural sensitivity, creativity, flexibility, willingness to compromise, diplomacy, commitment, patience, negotiation, results-orientation, strategic thinking, and interpersonal communication.
- **Result delivery** Measure the impact on the business, and make the success visible to the constituency of both sides.

Box 7.7 Adapting to a moving market

Many farmers think that getting a marketing arrangement with a supermarket is ideal. But it has its own problems. This story, from an organic farmer and businesswoman in Kenya, shows how she has met the challenges.

"My name is Su Kahumbu. I'm an organic farmer, marketer and trader. I have a farm in Tegoni – 8 acres of certified organic land, where I produce a variety of fresh vegetables, poultry and fruits.

"I started the company Green Dreams Ltd in 1999. We produce organic produce to supply local grocery stores. In 2003 we began delivering organic produce to homes in and around Nairobi. To do this we needed more supplies, so we started training farmers near our farm. We chose farmers close by so we could monitor them easily.

"About 6 months later, we found we needed bigger markets. The outgrowers were producing more than we could sell, so we went to Nakumatt (a big supermarket chain in Kenya) and asked them if they could give us dedicated shelf space for our organic produce. Nakumatt said yes, so we began delivering produce through "Fresh and Juicy", a vegetable purveyor which supplies Nakumatt. But we soon found we needed more growers to produce enough to supply the demand.

"With support from BioVision (a Swiss organization promoting sustainable development), we started a programme to train farmer groups on organic farming. We introduced small scale, low-cost technologies to enable farmers to produce organically all year round, such as mini-drip irrigation, vermiculture tanks and composting. The idea was to get them onto the organic market through the 2-year certification process. We took their produce straight away, even before they had completed the certification process – we passed this information on to consumers.

"The produce was selling well, and we ran out. The supermarket started sourcing produce form other suppliers, pushing down the prices they paid us. Eventually we pulled out of the arrangement and started our own shop to sell organic produce. That's where we now sell the growers' produce, and where we bring growers and consumers into close contact.

"The growers get 50–100% premium price on their products. The retail price for non-organic spinach is KSh 15 a bunch. That is what our farmers get. Our retail price for organic spinach is KSh 35, of which the supermarket chain takes 25%. We do not give our rejects back to the farmers, like the supermarkets do. We absorb the losses.

"The farmer groups have a control system that makes sure they grow certified organic produce. The shop can impose sanctions if a group violates these rules. At an industry level, the Kenya Organic Agricultural Network is putting a random testing system at the point of sale. That will prevent farmers from trying to cut corners or deliver non-compliant produce.

"We went back to Nakumatt in July 2007 to renegotiate an organic section in their Westgate store, their biggest outlet. We negotiated on our own terms as The Organic Shop, not through their purveyors. We have been working there for a month now, and supply vegetables, fruit, dairy products, poultry, dried products, spices, herbs, jams and teas. The market has opened up. We are now looking at suppliers for beef, turkeys, lamb, ducks, animal feed (for the production of organic meats), and even pet food. We encourage our producers to add value to their products. For example, we encourage tomato growers to put tomatoes in jars.

"Our customers know that our farmers get good value and that our products are toxin free. We train our staff to talk about the products and industry to the consumers. We don't expect the products to sell themselves."

More information: info@organic.co.ke

5 Chain coordination

A final element in improving chain relations is when there is a dedicated chain coordinator. A chain coordinator streamlines the business processes at chain level. This implies that company activities, like planning, inventory management or financial management, are "lifted out" from the company and taken care of at the level of the value chain. Chain coordinators oversee the development of the value chain. They are the guardians and promoters, inspiring others to make the value chain a success.

A nice example of chain coordination comes from the onion case from Ghana (page 108), where the Ghanaian trader association GAPTO assumed the role of chain coordinator, brokering a cross-border business deal between farmers in Burkina Faso and traders in Ghana. GAPTO took care of many business processes, including establishing the linkage between buyer and seller, the planning of delivery of the merchandise, acquiring loans, making payments though the bank, the design of the sales contract, and sanctioning of defaulters. Without the coordinating role of GAPTO this deal would never have been possible.

Livestock keepers and traders from Kenya (page 181) also succeeded in coordinating the chain in a central manner. In response to the collapse of the local livestock market, the pastoralists and traders established a joint organization representing both parties' interests. Among the many achievements of this organization are: the development of new market outlets further away, the introduction of a "weigh band" to improve the estimation of the weight of the animals, and the acquisition of a credit facility from a local bank. By coordinating the upstream segment of the value chain, this organization has successfully boosted the trade in animals.

Chain coordinators remove bottlenecks and obstacles in the chain, allowing the flow of goods and services to become more streamlined. This will enable improvements such as total quality management, just-in-time delivery, automated invoicing and payments, and collaborative planning and innovation. Value chains may indeed evolve up to the point where transactions are seamless, almost as if they were within the same company.

There are various models for coordinating the value chain:

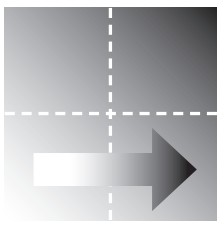
- **Chain leader** This is where one chain actor takes the lead in coordinating the value chain. Usually this role is assumed by downstream actors in the chain, such as trading houses and supermarkets. In this book, we have seen several examples where trading companies assume the role of chain leader: Fruiteq in the mango export chain in Burkina Faso (page 168), Savanna in a soybean contract farming scheme in Ghana (page 194), and Lima in high-quality coffee exports in Tanzania (page 205).
- **Joint organization** Chain actors may join forces and establish a joint unit for chain coordination. This we have seen in the case of livestock in Kenya (page 181), where livestock keepers and traders work together in a single cooperative, and, to a lesser extent, in the onion case from Ghana (page 108), where

GAPTO mediates coordinated business deals among farmer coops, trader associations, banks and local government authorities.

- **Third-party facilitation** An external chain facilitator has the advantage of being perceived by all participants as working for the value chain as a whole, rather than for any single chain actor. The benefits of third-party intervention have been described in cases such as livestock in Zimbabwe (page 50), where an NGO resolved the conflicts between the pastoralists and the traders, and in the wool and mohair project in Lesotho (page 146), where an external agency intervened in the chain to improve the business institutions and the relationships between the producers and the sheering sheds.

Each model of chain coordination has advantages and disadvantages. The most important consideration is, however, that the chain coordinator has the capacity to stand above the chain actors, and guard and promote the common interest.

Building market institutions



HAVING SEEN WHAT CAN be done to improve the relationships in the value chain, we now turn our attention to the second strategy for "trading up" – the building of market institutions to support trading. The following market institutions are important:

1 Market information

2 Standardized grades, weights and measures

3 Contract enforcement

4 Financial services

5 Policy leverage.

1 Transparent market information

Crucial in trading is the ability of buyers and sellers to access information on the availability, price and quality features of merchandise. The spectacular growth of the telecommunication sector in Africa in recent years is therefore a blessing to traders and farmers.

A high percentage of the African population now has access to communication facilities at an affordable cost. The privatization of the telecommunication sector allowed for more players, increased competition, lower prices, and strong innovation. Communication tools are now easier to use and offer multiple functions. For example, in Kenya mobile phone money transfer systems have been introduced enabling easy trading. In 1999 mobile phone coverage in Sub-Saharan African was estimated at 10% of the population, whereas now 65% are covered and this is set to increase to 85% by 2010.

The adoption of telecommunication technologies is higher in the cities than among rural communities. This has left farmers and traders relatively behind. Nevertheless, agricultural trade clearly benefits from the revolution in telecommunications:

- Easier access to market information enables buyers and sellers to make informed choices on where to sell, when, and at how much.
- Trade is now more efficient as it takes less time to source goods and/or secure a market.

- The risks in doing business decrease as buyers and sellers are more secure about supply and demand, and no longer need to travel with large amounts of money as now there is electronic money transfer.
- Using the internet farmers and traders can easily access information on new technologies such as processing, packaging and storage.
- New business opportunities have emerged, such as trading on the internet.
- Telecommunications provide a cost effective tool for advertising commodities and services (though often the cost of use of these tools is too high).

But telecommunication infrastructure alone is not enough. There may be a wealth of market information available on the internet, radio, television and mobile phone. But this does not imply that it reaches small-scale farmers and traders, or that these can effectively use the information to optimize their business operations. Of what use is the information that a litre of milk fetches double prices in a city 50 km away, when a trader does not have means of transport? What is the benefit of knowing that grain prices will triple in a month when a farmer needs immediate cash to pay school fees?

The cases in this book show innovative ways to make market information work for small-scale farmers and traders. The Kenya Agricultural Commodity Exchange (KACE, page 159) was one of the first initiatives in the continent to provide market information to farmers and traders. KACE built a system transmitting market information through a website, radio broadcasts, business information centres, and a messaging service for mobile phones. Though the system works

well technically, its usage is limited, which jeopardizes the financial sustainability. KACE therefore developed a franchising strategy in which independent business people run agribusiness support centres in marketplaces, offering a wide range of services beyond market information. These services include matchmaking, weighing, storage, quality checks, and financial services. This integrated package of business services makes market information work for the farmers and traders in the market.

A similar experience comes from the Ghanaian trader association GAPTO (page 108). GAPTO is part of a market information system for 100 agricultural commodities in 350 markets in West Africa. The information is available on the internet, though a SMS alert service, and at a number of business information centres at the most important markets. Yet GAPTO found that to make the system truly relevant for trading, it needed to become more active in the value chain. So GAPTO assumed the role of chain coordinator, actively brokering business deals between farmers and traders. As described earlier, GAPTO not only establishes links between buyers and seller, but it also engages in business planning, trade finance, invoicing and payments, contract design, and contract enforcement. Again, these additional business services are required to make market information work for the actors in the value chain.

Other cases show that market information is not only important in boosting trade, but also in building lasting chain partnerships. The more market information is shared among farmers and traders, the stronger becomes their business relation. For instance, the livestock traders in Zimbabwe (page 50) started sharing the slaughter sheets issued by the abattoirs as a way to nurture their relations with the pastoralists. The Lesotho wool project (page 146) improved the price setting mechanisms at the shearing sheds so they would attract more suppliers. In Burkina Faso (page 168) the export firm Fruiteq organizes annual meetings to discuss the prices and margins in the value chain. In Ghana (page 194) the trading house Savanna visits the farmers twice a year to discuss the prices openly.

So where buyers and sellers are usually reluctant to share information on prices and margins, our cases actually show that information-sharing can strengthen the business. It solidifies the chain relations by creating mutual understanding on the process of value-addition in the chain. Companies such as Lima in Tanzania (page 205) seem to have become aware of this. In an attempt to bind suppliers to the company, Lima is now improving its information and communication with the farmers. Farmers, who, based on that information, decide to do business with Lima, are likely to be more loyal and committed to a genuine chain partnership.

2 Standardization of grades, weights and measures

Standards are a set of technical specifications that define the quality features, size, weight and/or packaging of a product. Standardization is when features

of the product are made uniform, or consistent, regardless of who is selling to whom. When a batch of maize is classified as "grade A", then all bags of maize in that batch should be equal in quality, regardless from which specific farmer it originates.

Often people think of standardization as a complex bureaucratic procedure, which is done by fancy scientific committees and official bodies, and which goes at the expense of small-scale entrepreneurs. Well-known are difficulties in meeting requirements, the need for large initial investments, the high costs of inspection and maintenance, and the jungle of standardization and certification bodies. Unfortunately these problems are very real. Yet standardization also offers many opportunities for small-scale farmers and traders. To appreciate these opportunities, we need to understand the various types of standardization:

Mandatory standards For example, a regulation that milk should not contain more than a certain level of bacteria. Mandatory standards are meant to protect consumers and businesses from fraud and damages. Mandatory standards are set by official bodies that are independent of interested parties, like the Kenya Bureau of Standards, or the international Codex Alimentarius. In large parts of Africa, formal systems to ensure reliable labelling, quality grading, objective weighing and food safety are often deficient.

Certified standards Certification is an inspection process carried out by an independent body which demonstrates that a company or product complies with the requirements that are defined in the standard. A certified product gets a stamp or seal, so the consumer knows that it complies with the regulations. Well-known are the certifications for organic agriculture and the EurepGAP. Certification improves the credibility of the standard, but it entails higher costs for the applicant.

Voluntary standards They are the result of consensus among all the chain parties involved in the relevant product. Voluntary standards are often developed as a strategy to add value and create a special market niche. Farmers or traders can take the initiative to set voluntary standards, but need to do so in coordination with the other actors in the chain. The guiding question is: what does the client want?

Influencing mandatory and certified standards may be a bridge too far for farmer groups and trader associations in Africa. However, no matter how small they are, farmers and traders do have the power to set voluntary standards for their own businesses. The cases in this book give several examples of farmers and traders taking the initiative to set voluntary standards. This may sound complicated, but actually it only involves four basic steps:

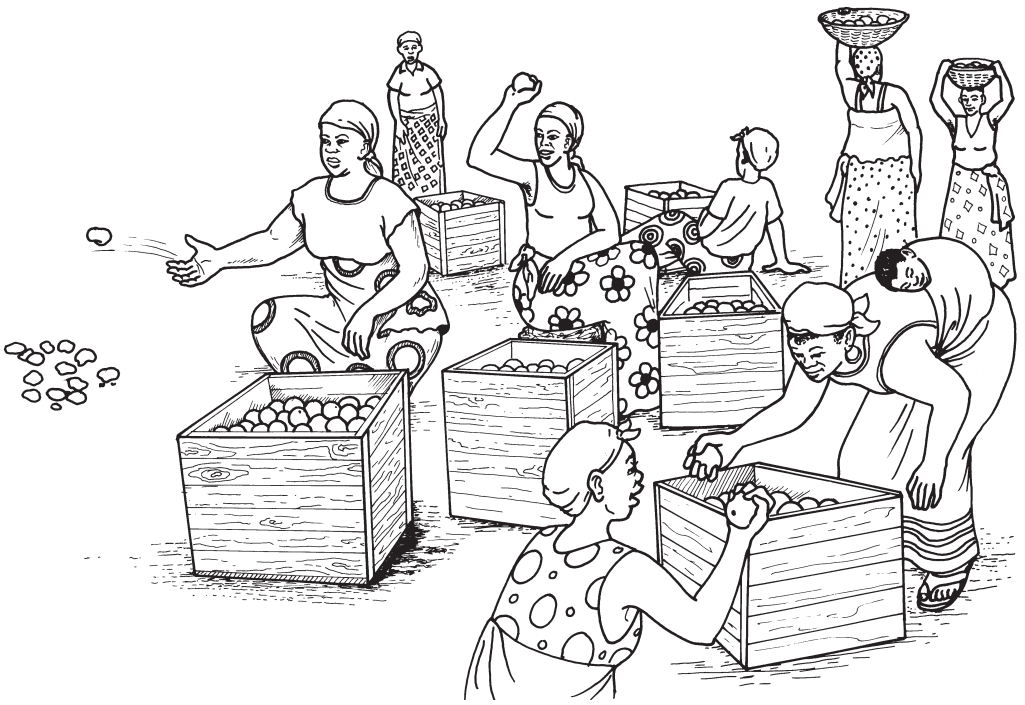
1 Go to the marketplace and ask traders and consumers how they define quality grades and what they find important indicators of quality.
2 Based on the findings, define the product grades (for example: big, medium, small) and the indicators to measure the grade (for example: weight or size).

3 Implement an internal control system to enforce the standards and to inspect and administer compliance.

4 Agree on how to communicate the quality standard to customers.

The cases show that farmers and traders greatly benefit from voluntary standardization. First of all, standards help to make trade **more efficient**. They avoid the need for personal inspection and they reduce handling costs (weighting and bagging) in the chain. Standards help to avoid misunderstandings and conflicts, protect businesses from cheating, and facilitate good relationships among all actors in the chain.

This is clearly shown in the case of tomato trade in Ghana (page 62). The traders got organized to coordinate the buying of tomatoes from farmers, improve the delivery to the market, and reduce the risks of product losses along the way. To do so, the trader association defined a set of rules and regulations that apply to all the members. Traders who pledge to obey the rules are registered and given a unique code. The association introduced a standard crate for 64 kg of tomatoes, which the traders are obliged to use. Traders have their names and logos on the crates they use. The association also introduced a trade information sheet to go with each batch tomatoes delivered to the market. The information sheet contains the name of the farmer, the name of the trader, the name of the transporter, and the details of the merchandise (volume, date, origin, etc.). In this way the association can oversee the flow of products and quickly intervene to resolve any problem, conflict or misunderstanding that may occur on the way from the farm to the marketplace.



Standards also help trade to become **more remunerative**. They improve business returns because quality will be rewarded with higher prices. They give access to new markets where consumers demand specific quality, and they enable trade over larger distances. By setting a target for quality assurance, standards promote improvements in business management, design and manufacture of products, or in the provision of services, thereby increasing competitiveness in national and international markets.

This was shown by several cases. In Burkina Faso (page 168), Fruiteq set clear quality procedures for the production, harvesting and conditioning of mangoes for fresh export. Thanks to these standards, Fruiteq has been able to recapture a high-value market which had been lost in prior years. Quality standards made mangoes from Burkina Faso competitive again on the world market. A similar experience comes from Tanzania, where Lima is promoting high-quality coffee (page 205). By teaching the farmers to select only ripe coffee cherries and by adhering to strict quality standards, Lima produces a speciality coffee with unique properties which nobody else can make. Quality standards have made Lima coffee a unique product on the market, for which consumers are willing to pay premium prices.

Finally, standards help trade to become **more client-oriented**. Standards give farmers and traders a reference point for the levels of quality and safety that consumers may demand of the products and services they use. Standards help to give choices for different segments of consumers. By improving client satisfaction, standards help farmers and traders to add value to their businesses.

An excellent example of client satisfaction is given by the tomato case from Kenya (page 94). The farmers organized to develop better markets. They started to grade the tomatoes, package in crates, and sell the various grades in different market outlets. High-quality tomatoes are destined for the supermarket, while other grades are sold to the retailers in the open market. Quality standards thus helped the tomato farmers to add value to their business, while they also contributed to customer satisfaction in the supermarket and on the open market.

3 Contract enforcement

Default is common practice in trading, in any country in the world. Any trader is likely to be confronted one day with suppliers who do not deliver the volume of goods as agreed upon, do not deliver the right quality, sell to the competitor, do not pay off their debts, try to cheat on quality, and so on. Also, farmers are very likely to have suffered at some point from buyers who do not show up to buy the goods as agreed, offer lower prices than agreed, fail to pay for goods taken on credit, try to cheat on weights and measures, and so on.

Also in Africa, default is a common experience among farmers and traders. In this book we have seen many examples. In Ghana (page 194), the buying agents of the soybean processors over-weigh each bowl of soybeans that they buy from the farmers, thereby filling the bag with more produce than they pay for. When

Savanna Marketing was created to prevent such fraud and give the farmers a fair deal, it was confronted with default the other way around: many farmers who had received seeds and ploughing services from Savanna so they could grow soybeans sold their beans elsewhere and failed to pay off their debt with the company. The Savanna experience shows that both farmers and traders may default, if they have the motive and opportunity.

Default occurs not only between business partners. When farmers or traders are organized, they may be confronted with internal default as well. Many farmer cooperatives find that members do not pay off the credit or inputs provided by the coop because they sell the produce on the open market to traders when prices are high. Trader associations may face reputation damage because some of their members do not comply with the internal rules and trading protocols. This is what happened in the case of the Ghanaian tomato traders (page 62). To minimize the damage from the so-called "floating traders", the association of tomato traders introduced a trade information sheet to accompany each batch of tomatoes brought to the marketplace, and a database to register the track record and trustworthiness of the member traders.

Because default is so common in trading, farmers, traders and their organizations need good strategies to minimize the risk of default, and they need to have effective means to act against defaulters when necessary. These strategies are what we call "contract enforcement". Contract enforcement is a market institution to promote trust between business partners, thereby leading to lower transaction costs and more efficiency in the value chain. The cases in the book give many examples of the strategies that farmers and traders use to enforce the agreements that they have made. Mechanisms to enforce contracts range from formal government institutions to informal ways to settle disputes, and from collective regulations in a sector to private solutions face-to-face between business partners. We revise these strategies one by one below.

Court systems

All countries have legal apparatus to resolve business disputes and default in trading. Unfortunately in large parts of Africa court systems are slow, costly and cumbersome. It may take many years to reach a verdict, and even then it is uncertain whether the demanding party will be compensated for their loss. As most farmers and traders are small-scale entrepreneurs operating in the informal economy, they do not have much property that can be formally seized to pay off the damage. Yet there are cases where use is made of courts to resolve business disputes. For example, the Ghanaian trader association GAPTO claims to have demanded some fraudulent members before court to impound their produce to pay off their debts (page 108). The usefulness of African courts could be improved by setting up small claims courts or specialized commercial courts which operate more swiftly. Lawyers would not be admitted, and the legal officer would have the authority to impound property only against clearly identifiable debt documents like signed invoices and bills of exchange.

Traditional dispute settlement

Many countries in Africa have traditional systems to arbitrate business disputes that operate more swiftly than formal courts. Based on cultural tradition, chiefs and village elders often have the authority to resolve disputes in an informal way, thereby avoiding long legal procedures. For example, in the case of Ghanaian yam traders (page 132), the traditional Asante Queen mediated in a conflict between the market authorities and the yam traders.

Third-party arbitration

When buyers and sellers have a dispute, they can recur to a third party to mediate and find a solution. The third party should "stand above" the two parties, be respected by both, and have no direct interest at stake. The third party can be a government official, a supervisory organ in the commodity sector, or any other neutral organization agreed upon by the parties. In the case of tomato trade in Ghana (page 62), the farmers and traders solved their conflict through a dialogue mediated by the Regional Security Council. As the farmers were not organized, their voice was represented by the National Best Farmer, who enjoys great respect among the Ghanaian farmers. In the case of livestock trade in Zimbabwe (page 50), the dispute between the pastoralists and the livestock traders was resolved by an NGO.

Chain-wide arrangements

Buyers and sellers can prevent and combat default through smart arrangements in the chain. In the case of onion trade from Burkina Faso to Ghana (page 108), the supply contract was signed not only by the parties themselves but also the Burkina Ministry of Trade. In the case of default by Burkina farmers, the Ministry of Trade would organize supply from other producers. Furthermore the contract was also signed by a local bank in Burkina Faso. The bank provided credit to the farmers so they could grow the onions, under the condition that payment from the traders was made through the bank. This assured the bank that its loan would be repaid. In the case of livestock trade in Kenya (page 181), the pastoralists and the traders are organized in a single organization to prevent default in the chain. The Kinna Livestock Marketing Cooperative introduced objective standards to determine the weight of the animals, and mediates in disputes that may occur between buyers and sellers.

Private dispute settlement

Even the best contracts or oral agreements cannot specify all details of the business transaction, nor forecast all situations that may occur. This implies that any contract needs to be based on a relationship of interdependence and trust between buyer and seller. In most cases, when a dispute emerges, buyer and seller are willing to look for solutions to prevent damage to the future relationship or to their own reputation. That is why face-to-face contact between buyer and seller is probably the most common form of contract enforcement. To resolve conflicts

Box 7.8 Things to consider for enforceable contracts

- Good contracts specify balanced rights and obligations. There should be an agreement of minds.
- Start small. Contracts should be based on previous experience. They can grow in volume over time, as the partners know from experience that they can trust one another.
- Revise the contract annually to specify new agreements that may have been omitted in previous years.
- Specify a mechanism to monitor and communicate compliance with the contract, such as weekly reports, registers, mutual inspection visits, etc.
- Having outsiders as witnesses creates assurance and confidence. Such outsiders can be government agencies, banks, or village chiefs.
- Be aware of the legal status of the agreement. The contracting parties should be legal entities and the contract should comply with general law. Involve lawyers or legal specialists to address these issues.
- Make sure there is a mechanism for dispute resolution. Identify a third-party arbitrator and define what jurisdiction applies to potential claims. Also specify mechanisms for compensation or sanctions in the event of default.
- Take minutes in all meetings with the other party, and share these minutes.

face-to-face, it helps, of course, to have clear agreements and mutual understanding. Box 7.8 mentions some critical issues to take into account in making agreements and contracts.

Internal regulations

One of the best ways to ensure trustworthy business partners is to be trustworthy yourself. Farmers and traders who respect their commitments and communicate openly in the event of problems are likely to attract business partners who share the same business ethics. Farmer cooperatives and trader associations can achieve this by defining and enforcing clear internal rules and regulations. Members who do not comply can be stopped from doing business for a while, or even isolated from the organization, so that others do not suffer from reputation damage. Obviously, sanctioning a fellow farmer or trader is a difficult thing to do. For this reason trader associations and farmer cooperatives often rely on "soft", informal processes such as gossip and peer pressure to discipline their members. But this may undermine the internal rules and stimulate "free-riders". It may be better to have internal rules that are spelled out clearly and enforced consistently, but that give a second chance to the defaulter. For example, to enforce compliance with the internal trading regulations, the tomato trader association in Ghana maintains a database with the track record of all members (page 62). Traders whose track record shows too many instances of default are no longer allowed to bring their produce to the marketplace to sell. Similar measures can be taken by farmer organizations. Some coops have a system in which farmers can earn full membership only after three consecutive years of complying with

the organization's rules. Other coops use a system of yellow and red cards. The yellow card is to warn a member who has infringed the rules, but gives a second chance. When the same member repeats the default, then a red card is extended, which implies disqualification from membership.

Group pressure

Farmer and trader organizations often have limited capacity to enforce internal regulations. Many do not have a full legal status due to the complex and burdensome procedures in many countries. In those cases they can resort to group pressure as a strategy to discipline members. This strategy has been followed by Savanna in dealing with its soybean farmers (page 194). The company advances seeds, ploughing services and credit to groups of producers. The group as a whole is made responsible for repaying the debts of the individual group members. The contracts are not legally binding because the groups have not been formally registered**.** But the group puts pressure on delinquent members because in the event of default they are granted less or no credit the next year.

Community pressure

Not in all cases is it possible to resolve disputes in a formal way. Then the buyer or seller can recur to social pressure. Social pressure can be subtle, when it is based on persuasion and education, or on commonly accepted forms of dispute settlement such as the village elders. But social pressure can be strong. For example, in the coastal areas of Ghana, chronic debtors are made to suffer by community members. Villagers will make up songs teasing and insulting the debtor, his or her spouse and children. Even if the debt is paid, it is difficult to erase the memory. A defaulter may have to leave the community. This penalty can be out of proportion to the debt, and the creditor needs to assess whether it is justified. You cannot always get your money back.

To effectively deal with the risk of default, farmers, traders and their organizations should base their strategy on a combination of the contract enforcement mechanisms that have been discussed above. The more mechanisms at their disposal, the more solid is the strategy to prevent default.

4 Financial services

There are probably very few farmers and traders in Africa who are not pressed for money. The trader's business depends crucially on making his or her working capital flow around as quickly as possible in buying and re-selling produce. Every transaction offers an opportunity to make a profit (and, of course, carries a risk of losing money). So the more deals a trader can make in a week or month, the more times he or she can make a profit. The amount of money that a trader can put into his or her business – this is called "liquidity" – is thus a critical determinant of the income that the trader can make. In addition, most traders would like to have investment capital so they can buy a vehicle, build a storehouse, or pay for

equipment to grade produce. So traders' financial needs include enough working capital to do business and long-term loans to invest in capital assets.

Similarly, most farmers also have too little money. During the production season, they often lack working capital to buy seeds and chemical inputs, or to hire workers to plough the land, sow, irrigate, weed and harvest the crop. Especially in the months before the harvest, many farming families even cannot pay for household expenses such as school fees and cloth, and basic necessities such as food and medicines. In addition, few farmers have investment capital to buy equipment such as ploughs, or to improve their farm, for instance through irrigation. So the finance needs of farmers include cash payment for the crop, annual loans to pre-finance the crop, and long-term loans to invest in their businesses.

The cases in this book show that in large parts of Africa, farmers and traders try to resolve their financial needs with the help of their business partners in the chain. Loans flow in either direction along the chain according to the season. During the peak harvest season, farmers can decide to advance their goods to the travelling trader with payment later, in order to enable the trader to buy more. During the lean season, before the crop is ripe, travelling traders can decide to advance cash to a farmer to cover labour and agrochemical costs, which enables the farmer to plant a larger field. The trader then counts on the farmer to sell to the trader when the crop is ready.

Wholesalers often manage credit relations in both directions, depending on market conditions. Most retailers take products on credit, expecting to pay later, when they have sold the goods. Travelling traders often demand to be paid quickly so that they can return to the road. Some wholesalers give part of their money to a trusted travelling trader to buy on their behalf. So wholesalers often act as a "bank" for other actors in the chain. For this reason, wholesalers often need more capital than other traders in the value chain. To avoid bad debts, wholesalers need good information on the reputation and financial status of their suppliers and buyers.

These credit flows between farmers and traders are called **trade credit**, or **chain credit**. The cases in the book provide numerous examples of chain credit. The Zimbabwean livestock trader in Box 4.1 (page 51) gets loans from a friendly minibus operator to buy animals from producers (page 50). In Ghana (page 62), tomato farmers give the traders produce on credit when there are plenty of tomatoes; and when they are scarce the traders may lend to farmers to ensure delivery when the crop is ripe. A more formal form of trade credit comes from the mango case in Burkina Faso (page 168), where the Dutch importer provides trade credit to Fruiteq for 70% of the value of the sales contract.

Chain credit is short-term loans, in cash or kind, between buyers and sellers, which serve to keep the chain running (ensuring "product flow") and maintain long-term relationships with trusted business partners. Chain credit can flow in either direction, depending on the market conditions, among travelling traders, wholesalers, retailers, processors, storage providers, input suppliers, exporters, importers, and farmers. Important characteristics of chain credit are:

- Chain credit is largely **informal.** Though some loans are backed by formal contracts, chain credit is very much based on long-standing relationships between buyer and seller. They depend for their success on personal knowledge of the other party and, ultimately, on trust.
- It is **short-term**. The duration of the credit is no longer than it takes to buy and sell the product. Chain credit is about liquidity, not about investment capital.
- It is relatively **low-cost**. The cases in the book show that those extending credit do so not to make money from interest on the loans. Rather, the purpose of providing trade credit is normally to maintain relationships with trade partners. This is done either to guarantee sufficient supply of produce, or to secure a market outlet.
- It is **tailor-made**. The terms, conditions, and availability of the loan are based on the transaction at stake (the amount, nature and value of the goods that are being sold).
- It **improves chain efficiency**. Both buyer and seller have lower transaction costs and fewer risks. The time and costs of transport and communication required to identify sellers and buyers are less. Chain credit also reduces the serious risk of loss through being unable to sell perishable stock, as well as the risk of forgoing profit through having no produce to sell.

So chain credit is a cheap, easy and convenient form of finance providing many benefits to farmers and traders alike. But chain credit does not solve all the financial needs of farmers and traders. Chain credit is limited to only those situations where farmers and traders have longstanding relations. Moreover, trade credit is only for short periods, not for long-term investments. So in addition to credit from chain partners, there needs to be external finance from formal institutions.

Unfortunately traders and farmers in Africa have very limited access to **formal financial services**. Their financial needs are too small for commercial banks, and too large for micro-finance. Large enterprises have access to loans from commercial banks or equity finance from venture capital funds or the stock market. On the other extreme, very small enterprises can get small loans from the rapidly expanding microfinance industry. But small- and medium-scale businesses fall somewhere in between, without a good source of formal finance. This phenomenon is known as the "finance gap". Reasons for the finance gap include:

- **Underdeveloped financial markets** Microfinance institutions are generally too restricted in capital resources to serve the needs for investment capital among small- and medium scale enterprises. The banking sector generally lacks incentives to do so. In many African countries, banks are owned wholly or in part by the government or large business holdings. Credit may be allocated only to favoured sectors or affiliated companies. Particularly in rural areas the outreach of banks and microfinance institutions is very limited. Services are fewer, less convenient and more costly than in urban areas.
- **Strict requirements for lending** Among financial institutions there is a general reluctance to lend to informal small-scale businesses, such as most

farmers and traders. Reasons for this include the lack of written records and formal accounting, and the lack of capital assets to serve as collateral. Requirements for deposits, collateral or balance sheets often act as insurmountable barriers to small- and medium-scale farmers and traders. In Cameroon, for example, the minimum deposit required for opening a checking account in a commercial bank is over $700, an amount higher than that country's per capita GDP (Yago et al., 2007).

- **Inadequacy of formal finance** Farmers and traders are not always after formal finance. They often face immediate needs for cash that are incompatible with the lengthy bank procedures and with strict repayment systems. High rates of interest and high transaction costs are other reasons for not knocking on the bank's door. In many cases informal loans from business partners are much cheaper and more convenient.
- **Unpredictability of agricultural trading** A strong barrier for farmers and traders is that formal financial institutions find it difficult to assess the creditworthiness of firms that operate in food and agriculture. Products are often perishable, and it is difficult to forecast price movements accurately. Key elements of lending technologies, such as regular repayments and compulsory savings, are not suitable for agriculture, where cash flow is very irregular throughout the year.
- **Bad reputation of the agricultural sector** The financial sector generally has little interest in developing appropriate services for agricultural financing due to past negative experiences. From the 1950s to the late 1980s public intervention in rural credit markets in Africa was extensive, with the support of large international donor agencies. Large-scale bureaucratic programmes were established to provide farmers with subsidized, low-cost loans. This led to poor allocation of credit and dramatically low repayment rates. Farmers and agricultural credit were seriously and lastingly discredited (UNCTAD, 2004).

Many initiatives try to improve the access of farmers and traders to formal finance. Commercial banks are starting to "reach down" to farmers and traders with the use of the lending techniques from the microfinance industry. Donor agencies provide guarantees to support long-term commercial loans to microfinance institutions so they have more capital resources and can develop new financial services for small-scale businesses. Credit rating agencies and financial information systems are established to improve information on the creditworthiness of lenders, thereby reducing the risk of non-repayment. Remittances, micro-equity schemes and micro-insurance are other ways to resolve some of the financial needs of small-scale farmers and traders.

One area of new financial services which is particularly relevant for farmers and traders is what we call **formal chain finance**. Formal chain finance is when a financial institution is linked to the value chain and offers formal financial services that build on the established relationships between the actors in the value chain. The benefits of the chain relationships, like secured markets, make potential borrowers more creditworthy (attractive) to financial institutions. When a buyer

with a reputation as a reliable purchaser is willing to vouch for its producers, even small producers become more attractive clients to financial institutions (USAID, 2005). Lenders use the strengths of the value chain to reduce the riskiness of their loans.

The cases in the book provide several examples of formal chain finance:

- **Warehouse receipt system** The warehouse receipt system from Tanzania (page 118) has boosted the access of coffee farmers and traders to formal bank loans. Warehouse receipts are issued to depositors of coffee beans by bonded and certified warehouses. They enable the farmer or trader to use the deposited inventory as collateral for loans from commercial banks.
- **Formal trade finance** In the case of onion trade from Ghana (page 108), a bank provided crop loans to the farmers in Burkina Faso, based on the sales contract that they had with the traders from Accra organized through GAPTO.
- **Contract farming** In Ghana (page 194), Savanna uses bank loans to finance the provision of seeds, inputs and ploughing services to the farmer groups that have signed a production and sale contract with the company. The bank is willing to extend the loan because it recognizes the value of the close-knit relationship between Savanna and the farmers.

Formal chain finance reduces the costs and risks for lenders and borrowers alike. In financial jargon, chain finance is based on taking not a "credit risk" but a "performance risk". The risk of a farmer or a trader being unwilling to pay off a loan is much higher than that of the farmer being unable to produce a certain volume of produce, or of the trader stopping the trading activities. The product flow in the value chain is used as a carrier to provide financial services. The financial institution benefits because the risks of default are lower and the costs of credit screening, monitoring and enforcement are lower. Farmers and traders benefit because there are fewer obstacles to credit provision, the terms and services are better, and the loans reflect the cash flow pattern of their business activities (UNCTAD, 2004).

Formal chain finance complements (rather than replaces) the existent credit flows between farmers and traders. It taps into a larger potential pool of funds and transfers responsibility for the lending to a specialized entity that sees lending as its core line of business, rather than as a necessary but secondary activity. Because specialized financial institutions are involved, clients may have access to a greater range of services, including savings, leasing, investment loans and insurance (USAID, 2005).

5 Policy leverage

The businesses of farmers and traders are strongly influenced by public policies. Several forms of public policies are important to farmers and traders:

- **Laws, regulations and official standards** The business conditions for farmers and traders are to a large extent determined by the laws, regulations and

standards ruling in their country. Requirements for business licenses, regulations on food safety and marketplaces, import procedures, contract enforcement, and labour laws are some examples of national or municipal policies that shape the businesses of farmers and traders.

- **Market regulation** Most food markets in Africa are "free markets". But that does not mean they are completely free of government regulation. Especially food markets are often regulated, because food is one of the most basic human needs, and therefore politically sensitive. The businesses of most farmers and traders in Africa are affected somehow by market regulations such as trade tariffs, import duties, price regulations, and competition law.
- **Taxation** Nobody likes them, but everybody has to pay them: government taxes. The more taxation, the less profit is left for farmers and traders. Taxation may occur at all steps of the food chain. Some examples are fuel taxes, import taxes, value added tax, and corporate taxes. Taxation can be used to give preferential treatment for small-scale businesses and their organizations, such as tax reductions for cooperatives. The demand for bribes ("informal taxes") for road transport may constitute a particular obstacle for small-scale traders.
- **Public goods** The provision of roads, railways, ports, marketplace facilities, irrigation canals, telecommunications and many other types of public infrastructure impacts directly on the businesses of farmers and traders.
- **Provision of services** Governments often provide special services to farmers and traders. These may include research and extension, market information, subsidies, education and vocational training, business development services, financial services, insurance and transport services.

So public policies affect farmers and traders in many ways. But policy makers do not always have good insights into the direct or indirect effects that their policies are having on farmers and traders. A policy may look nice on paper, but may in the real world have unintended negative consequences on small-scale businesses. It is therefore important that farmers and traders share their views with policy makers to try and influence the public policies that affect them. This is called policy leverage, or advocacy.

Advocacy is a strategy to influence policy makers when they make laws and regulations, distribute resources, and make other decisions that affect peoples' lives. Advocacy is about creation or reform of policies, but also about effective implementation and enforcement of policies (CARE, 2001). Several advocacy strategies can be used to influence the decisions of policy makers, such as discussing problems directly with them, participating in committees, delivering messages through the media, but also more confrontational methods such as strikes and demonstrations.

The cases in the book provide several examples of advocacy. In Ghana (page 132), the yam traders of the Kumasi market felt victim of ambivalent policies from the market authorities, such as sudden sharp increases in the market fees and far-reaching restrictions on the offloading of incoming trucks with merchandise.

With the support of an NGO, the women learned to sustain effective dialogue with the authorities. Communication and relationships improved, and now the market authorities consult the yam traders before making policy decisions affecting them. In Zimbabwe (page 50), the farmer organization FACHIG put pressure on the government to secure affordable access to fertilizers for their members. FACHIG lobbied the provincial governor and local members of parliament, drawing attention to the political clout of their 12,000 members as voters, and to their contribution to the economy.

Policy leverage is not always to solve problems or conflicts, as in the examples above. Farmers and traders can also work with government agencies in a positive way to stimulate trade and business. In Ghana (page 108) GAPTO involved the Ministry of Agriculture and a state bank to back up the production contract with onion farmers from Burkina Faso. GAPTO also worked with Ghanaian government agencies to make the long-distance transport less bureaucratic and cheaper. In Tanzania (page 118) the warehouse receipt system would not have been feasible without close cooperation with the government. To create trust in the scheme, the parliament issued a special law defining rights and obligations to keep farmers, traders and warehouses legally accountable.

Advocacy is not a matter of knocking on the door of a decision maker and let him or her know what your problems and needs are. Advocacy is a deliberate process, involving intentional actions. Advocacy is most effective when farmers, traders and other parties join together to defend a common vision rather than their particular interests. Cooperation with research centres can help to gather facts to support the argument with evidence that can convince the policy makers. So advocacy involves collaboration with other parties, and it requires careful planning and preparation.

Before starting an advocacy initiative, it is important to gather proper information, assess potential risks, and identify potential strategic partners.[2] The better your knowledge about the context of the policy issue, the easier it is to design solutions. It is crucial to understand how the relevant institutions work, to identify the decision makers for the issues you are interested in, and to assess the risks and opposing interest groups that are involved. You also need to find out who can help you influence the decision makers and whether you can ally with them as a strategic partner. Finally, you need to build capacity as an advocate with credibility. When you are recognized as a knowledgeable expert or a respected spokesperson on behalf of others, your arguments will tend to carry more weight and you will find it easier to prevail in policy debates.

Based on these preparations, the next step is to elaborate an advocacy plan. This will help to maintain a clear and consistent focus in your advocacy efforts to render them more effective. An advocacy plan includes the following elements:

- **Specific goals** Farmers and traders usually face so many problems that they have numerous policy issues to bring forward. But it is important to narrow these down and to focus on the best leverage points – those specific policy

2 This section is largely based on CARE (2001).

changes which are feasible and which will have the most lasting impact on the problem. Like any other programme or project, advocacy initiatives require clear and specific goals. Goals for an advocacy initiative should clearly state what will change, who will make that change, by how much, and when. If goals are vague and ambiguous, it is difficult to understand clearly what your advocacy initiative is trying to achieve, and it is hard to maintain focus. This also makes it difficult to evaluate your efforts.

- **Target audiences** Knowing your audience is the centrepiece of any advocacy initiative. You cannot advocate if you have not identified target audiences. Audiences are not organizations, but specific persons such as the local governor or a member of parliament. The more you know about your target audiences, the more likely you will achieve your goals. There are two kinds of target audiences. Primary audiences are individuals with direct authority to make policy changes, such as the Minister of Agriculture. Secondary audiences are people who can influence the decisions of your primary audience. Secondary audiences are important because they can provide a way to reach the primary audience that may not be available to you directly.
- **Allies and opponents** It is important to identify and take into account potential allies and opponents for your advocacy strategy. You can usually increase your impact by collaborating with other parties that are interested in the same policy issue. The joint efforts, skills, and resources of several organizations and individuals are more likely to minimize risk, draw attention to key policy issues, and result in successful policy change. Identifying opponents is just as important as identifying your allies. You can be more effective if you understand your opponents' reasoning and why they might feel threatened by your proposed policy change. An advocacy strategy may include messages and activities targeted at your opponents.
- **Policy messages** A policy message tells your target audiences what he or she is being asked to do, why it is worth doing, and the positive impact of such action. Usually, you will only have a limited amount of time to get your message across, so it is best to be sure about what you want to say beforehand. A message is most effective when it is based on an understanding of what members of the target audience already know, and what additional information they will need in order to change their opinions.
- **Advocacy tactics** Tactics include the communication style that you find most appropriate – ranging from a very visible public approach to lobbying behind the scenes – and the types of activities that you will undertake to convey your messages to your target audiences. Advocacy tactics are often chosen based on their level of risk, their cost, and their chances of success in the existing political environment. Arranging for policy makers to visit your organization can be an extremely effective way to advocate.
- **Budget** Estimating the costs of an advocacy plan can be difficult. More than with other types of programmes, mid-course corrections will occur. For example, your initial strategy may not include a media campaign, but later, once you started your plan, such a campaign may seem vital. There are of

Box 7.9 Dairy policy in Kenya

After decades of state control the Kenyan dairy sector was liberalized in the early 1990s. The idea was to end the monopoly of the Kenya Cooperative Creameries in milk marketing in urban areas, and allow the private sector to step in. However, the inherited legal framework, which had been designed for a state-controlled marketing system, was not adapted to the new reality of a private-sector-driven dairy marketing system.

The law prohibited trade in non-processed or non-pasteurized milk products, because of concerns about health risks of raw milk. But in fact 86% of all milk was sold unprocessed, by informal traders. Only 14% was pasteurized and marketed through dairy processors.

Consumers prefer raw milk because it has more butterfat, tastes better and is 20–50% cheaper than pasteurized milk. Of consumers, 99% boil milk before consumption, killing any germs. So for consumer health, there is no difference between raw and pasteurized milk.

Small-scale milk traders cater effectively to this demand for cheap, raw milk. These traders include travelling traders, milk bars, small processors and small retail shops or kiosks. The travelling traders transport the milk by bicycle, public transport and on foot. The majority sell 50–120 litres a day. The milk is collected up on average from 30–60 km away. But the ban on raw milk severely hinders their business and drives them into the informal sector. When traders are caught selling milk, the authorities chase them away (Box 4.6, page 74).

Research by the International Livestock Research Institute (ILRI) found that the dairy sector supports 365,000 jobs in Kenya, approximately 12% of the national agricultural work force. If sold through mobile milk traders, each 1000 litres of milk directly or indirectly creates 20 jobs. The same milk sold through milk bars creates 14 jobs; through formal processors, 12 jobs.

So small mobile traders not only serve consumers better, offering them cheap raw milk that is tailored to their taste, but they also create more employment. For Kenya with its many poor people, the small mobile milk traders are much better than a large-scale dairy industry.

With this evidence in hand, ILRI lobbied the authorities and approached the media. The law is not yet changed, but the authorities' attitudes have. They now acknowledge the usefulness and legitimacy of small milk traders. The traders are no longer chased from the street, but are gently persuaded to participate in training and obtain the necessary documentation and licenses. Instead of merely arresting offenders, officials now advise them and set a deadline for them to meet the requirements.

The Kenya Dairy Board has evolved from a policing agency to an open regulatory and advisory body. Before 1999, the Board was reluctant to recognize the small-scale traders, so they operated illegally. Although the requirements have not changed, the traders now find it easier to obtain licenses. Before, the traders saw the requirements as a form of harassment. Since the regulators became more cooperative, the traders have started to understand the reasons for the requirements and are more willing to comply with them. The Board has helped the traders form groups of 20–60 members. Depending on the amount of milk they handle, some of these groups are granted a milk-bar licence, and others a mini-dairy permit. Each individual trader must also pay for a milk transport permit.

The milk traders have also put in place some quality-control measures. A few have received training on milk hygiene and willingly share their knowledge with other traders. Those who get milk directly from farmers advise on clean milk production. In addition, they use lactometers to test the milk for adulteration. The more milk a trader handles, or more suppliers in a producer group, the more stringent the control measures tend to be.

More information: International Livestock Research Institute, Process and Partnership for Pro-Poor Policy Change Project, www.pppppc.org

course inexpensive and expensive ways of advocating. Hiring a consulting firm can be an important way to communicate your key advocacy messages, but it is costly. Holding meetings, writing media commentary, or arranging site visits are relatively lower-cost activities.

Once the advocacy plan is finished, it is time for action. Advocacy initiatives can be quite dynamic. It is important to set a time line at the beginning, but also to keep in mind that political events beyond your control may force you to change it. Advocacy initiatives require continuous and careful monitoring, since your strategy will need to adjust along with the political climate. Advocacy activities will often need to be revised and re-directed.

The case of milk trade in Kenya (page 72) provides a good example of successful advocacy, based on elaborate research, careful planning, and close-knit collaboration of farmers, traders and a research centre. Box 7.9 gives more details.

Policy implications

Based on the insights from the case studies, this chapter presents key policy messages for various stakeholder groups – farmer cooperatives, traders' associations, government institutions, donor agencies etc. – on what they can do to improve trading in Africa. We present the policy messages in a concise way, hoping that they will lead to focused and productive policy debates.

Farmer organizations

Farmer groups tend to blame traders for exploiting farmers and taking advantage of their lack of market outlets and market information. But the cases in the book show that farmers who get organized can develop stronger and more beneficial relationships with traders. The cases show that traders respond positively to organized farmer groups, offering higher prices, premiums for quality, and a loyal business relationship over the years. So rather than blaming traders, farmers should get their act together and organize themselves. There will always be opportunistic traders who try to take advantage of their suppliers and customers. But most traders are hard-working persons, who do not want to put their business at risk for short-lived profit. Those "good" traders are the ones that farmers will be likely to do business with when they are organized.

So the key to better trading conditions is that farmers build a well-functioning organization. A well-functioning farmer organization promotes market-oriented farming systems to produce food products that are demanded by the consumer. It invests in good agricultural practices and it monitors market requirements and developments. It provides value for its members by ensuring quality services and good governance. It has competent staff and leaders, democratic decision-making, transparent accounting and auditing systems, and it maintains dialogue and alliances with organizations in the public and private sectors.

Well-functioning farmer groups understand that they are part of a value chain – a network of specialized chain actors that collaborate to bring products from the farm to consumers in good condition and at affordable prices. Successful farmer organizations respect the roles of the other chain actors, and build alliances to achieve mutual benefit. Sometimes it is possible to make the value chain more efficient by cutting out a redundant actor. But farmer organizations should not seek to get the entire value chain in their hands. The easiest way to raise the incomes of the farmer members is by investing in higher yields, better quality,

and specialization. But marketing is best left to the specialists – travelling traders, wholesalers and retailers.

Traders' associations

Traders often feel misunderstood or even mistreated by farmers, public authorities, financial institutes, donor agencies, and the general public. But the cases in the book show that traders who organize themselves in a transparent way develop better linkages with the outside world. The cases show that public authorities and donor agencies respond positively to organized traders, offering support services and consultation in policy-making. So rather than hiding away from public opinion, traders should get their act together, organize themselves, and maintain open communication and linkages with the outside world.

Traders' associations can improve their public image by setting clear standards, rules and regulations for their members, which are based on transparency and fair trade ethics. These standards should be effectively enforced upon the members, and fraudulent traders should be isolated. A well-functioning trader organization is formalized, professional, democratic, and has clear procedures for decision-making and conflict resolution. Training members in accounting and record-keeping is crucial to create trustworthiness. Open communication with the mass media and government authorities will help to improve the business environment.

Traders can improve their businesses by taking a more active role in the value chain. They can build long-term relationships with farmers by sharing information on market developments and by setting prices in a transparent way. They can increase the efficiency in the chain by setting quality standards and using calibrated weights and measures. They can actively look for new markets and add value to products through branding and processing.

Local authorities

Local authorities can promote better trading by ensuring good management and facilities in marketplaces. Hygiene, security, space for loading and off-loading, and health facilities are some of the urgent problems to address. Traders work every day in the marketplace, so they should be consulted about issues that affect them. Local authorities should also consider involving traders in decentralized management of the marketplace, which will help lower public expenses. Market fees and taxes should be rationalized and visibly used to improve the services and facilities in the marketplace. Local authorities can play a role in the introduction of standard grades, weights and measures, and they can mediate and facilitate coordination of the various stakeholders in the market.

National government

National governments have important roles to play in improving trade. A classic role is the provision of public goods: roads, rural infrastructure and telecommunications. Macro-economic policies are equally important, such as trade policies, price policies, competition policy and consumer protection. When government agencies are involved in trading, or when a country receives food aid, it is important to ensure a level playing-field for private traders, without unfair competition from subsidized government entities. The government is vital to build strong market institutions, such as efficient court systems, quality standards and market information. Governments can further promote trading by rationalizing taxes, deregulation, decentralizing the issuing of licenses, creating "one-stop shops" for licenses, clearing barriers for cross-border trade, and fighting corruption affecting traders. Finally the government is important in creating an enabling business environment, especially a strong financial sector that provides services for small traders.

NGOs and donor agencies

Most interventions from NGOs and donor agencies tend to disregard or even disrespect small-scale traders. While there are many projects supporting farmer groups to bypass traders, few support traders to make marketing more efficient and beneficial. NGOs and donor agencies should regard traders as a potential partner rather than the sworn enemy. They are just as worthy of support as farmers are. The cases in the book show that, like farmers, small traders are resource-poor, vulnerable entrepreneurs facing many risks and fulfilling a vital role in the national economy. Moreover, traders can serve as multipliers of development; as efficient conduit for donor interventions. The cases in the book show that support to traders generates many spin-off benefits for other chain actors, including farmers.

Donors should further explore this potential and start to support traders so they can contribute to rural development. One possibility is to strengthen trader associations through capacity building, accountancy oversight, and managerial support. Equally important is to improve the access of traders to financial services. Another area is to support linking and learning, exchange of information, and lobbying and advocacy among traders, farmers, and public authorities. Finally, donors can also invest in communications infrastructure, such as radios and mobile phones, and provide for capital assets for the service providers in the value chain, such as warehouses, cool houses, and transport.

8
Resources

THIS CHAPTER CONTAINS LISTS of organizations and websites devoted to improving marketing of agricultural produce in Africa, references cited in the text and further reading on commodity markets, and contact details of the participants who contributed to this book.

We have replaced long web addresses with a shorter equivalent – the tinyurl addresses in the lists below.

Organizations and websites

AfricanTrade.com

www.AfricanTrade.com

This site provides businesses, governments and international organizations with an electronic platform and content to facilitate trading.

AGOA

www.agoa.gov

The US African Growth and Opportunity Act offers incentives for African countries to open their economies and build free markets.

COMESA

www.comesa.int

The Common Market for Eastern and Southern Africa promotes regional economic integration through trade and investment. Members are Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

Doing Business

www.doingbusiness.org

A World Bank project to provide objective measures of business regulations and their enforcement around the world.

East African Grain Council

www.eagc.org

A non-profit membership-based organization in Kenya that prepares disseminates and promotes the exchange of information on the regional grain industry.

FAO Linking Farmers to Markets

tinyurl.com/4f5o5b

Food and Agriculture Organization of the United Nations (FAO) website that provides case studies of ways in which farmers have linked with markets, through their own efforts and with assistance from others. It also has links to other FAO information on agricultural marketing.

GAPTO

www.gapto.org

The Ghana Agriculture Producer and Traders Organization is a non-government organization that aims to improve the agricultural marketing system in Ghana and West Africa. See page 108.

IFC Small and Medium Enterprises

www.ifc.org/sme/

An overview of the work of the International Finance Corporation (the arm of the World Bank that supports the private sector) to support small and medium-sized enterprises in developing countries.

KACE

www.kacekenya.com

The Kenya Agricultural Commodity Exchange facilitates agricultural trade in Kenya. See page 159.

KIT Value Chains for Development

portals.kit.nl/Value_Chains_for_Development

Portal of the Amsterdam-based Royal Tropical Institute (KIT) on value chain development. Provides access to electronic documents on pro-poor value chains, newsletters, discussion groups, websites, bibliographic databases, and directories of organizations and projects on value chains.

MISTOWA

www.mistowa.org

The Regional Market Information Systems and Traders' Organizations project (MISTOWA) was an USAID-initiated project to increase regional agricultural trade and food security by improving and linking existing regional efforts to generate, disseminate, and make commercial use of market information. The project focused on removing key obstacles to trade in West Africa including lack of access to timely information on prices and market opportunities; inadequate business skills of producers and traders to respond to production and market opportunities; and unfavourable trading environment, including tariff and non-tariff barriers (e.g., harassment at national borders). The project came to an end in September 2007. The International Fertilizer Development Center continues to support activities.

RATES

www.ratescenter.org

The Regional Agriculture Trade Expansion Support programme, funded by USAID East Africa, aims to increase value of agricultural trade within the East and Southern Africa region and between the region and the rest of the world. It focuses on developing commodity-specific regional trade initiatives through innovative private/public sector alliances and partnerships. It works primarily through regional trade flow leaders such as regional trade associations, national-level trade organizations, private companies and individual entrepreneurs. It currently supports activities in specialty coffee, maize and pulses, cotton/textiles and dairy.

RATIN

www.ratin.net

The Regional Agricultural Trade Intelligence Network was developed to help reduce food insecurity in East Africa by strengthening the ability of markets to provide access to affordable food to poor households and improve food availability through providing adequate incentives to producers. Its main task is to supply traders with improved early warning marketing and trade information to lead to more efficient and competitive transactions in food trade between surplus and deficit regions in East Africa.

TIPCEE

tinyurl.com/4olv2e

The Trade and Investment Programme for Competitive Export Economy is a CARE project that targets smallholder farmers in Ghana that already have begun to integrate into commercial marketing chains. It links large- and medium-size agricultural enterprises to foreign buyers and joint-venture partners in overseas markets, and links smallholders to modern supply chains for agro-processing and exporting using traders, trader organizations, large commercial farms and business development services.

Tradeafrica.biz

www.tradeafrica.biz

An online market place that provides maize prices, enquiries to buy, and offers to sell maize, beans, rice and other agricultural commodities in eastern and southern Africa.

Tradenet.biz

www.tradenet.biz

A private company based in Accra, Ghana, whose website allows farmers and traders worldwide to share market information via mobile networks and the internet. See page 111.

Uganda Commodity Exchange

www.uce.co.ug

An exchange that facilitates the trading of graded produce, including beans, coffee, maize, rice and soybeans.

West African Trade Hub

www.watradehub.com

The West Africa Trade Hub is a USAID-funded centre to boost West Africa's trade competitiveness. Its helps West African businesses to sell to the US market, in many cases taking advantage of increased trading opportunities provided through the African Growth and Opportunity Act. The Trade Hub is a central point where West Africans, US government agencies and bilateral and multilateral donors can get information on trade enhancement, investment, and business development activities in West Africa, including training opportunities. It also provides technical assistance to West African countries, including the region's private sector and civil society organizations.

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Participants' profiles

Zongo Adama

Production manager, Fruiteq SARL

PO Box 01, BP 2092, Bobo Dioulasso, Burkina Faso

Tel. +226 76 61 12 76, fax +226 20 98 38 39, email a.zongo@fruiteq.com, internet www.cpaf.nl/eng/fruiteq.asp

Zongo Adama has bachelor's degree in rural sciences (agriculture). Since 2000 he has managed the export of agricultural produce. He has experience in planning and evaluation of small projects for rural organizations. He also provides training in extension and development of small projects for producer organizations.

Mulugeta Abebe Adugna

Farm manager, Ethioflora Plc

PO Box 602, Addis Ababa, Ethiopia

Tel. +251 916 580032, 011 466 0982, fax 011 4660980, email bnf2@ethionet.net

Mulugeta has been manager of the Ethioflora farm for 10 years. He has also served as a livestock marketing expert in 1992–4 and as coordinator of a small-scale fattening programme in a livestock development project under the Ethiopian Ministry of Agriculture (1978–91). He holds a diploma in animal science from Alemaya University of Agriculture, and a BSc in animal science from Pacific Western University.

Haruna Agesheka

Secretary-general, Ghana Agricultural Producers and Traders Organisation (GAPTO)

PO Box 1040, Accra Central, Ghana

Tel. +233 244 3792 68, fax +233 21 672357, email gaptosheka@yahoo.com

Haruna is a marketing consultant and senior researcher with skills in association building, monitoring and evaluation, and data analysis. He is associated with the Institute of Statistical, Social and Economic Research at the University of Legon, and is a member of the Agriculture Growth Services Sub-sector Improvement Programme of the Ministry of Food and Agriculture, and sits on the Regional Executive of the Réseaux des Opérateurs Economiques du Secteur Agroalimentaire de l'Afrique de l'Ouest (Network of Economic Operators in the Food Industry). He was a partner in writing the proposal for USAID-funded IFDC Regional Market Information Systems and Traders' Organizations (MISTOWA) project.

Patricia Blankson Akakpo

Programme officer, Network for Women's Rights in Ghana (NETRIGHT)

c/o Third World Network Africa, PO Box AN 19452, Accra-North, Ghana

Tel. +233 21 511149, 500419, 503669, 24 4527967, fax +233 21 511188, email netright@twnafrica.org, triciaakakpo@yahoo.com

Patricia holds an MA in development studies and in gender studies. Her experience includes project planning and management, advocacy, organization, research, and human resource management. She specializes in gender, work and labour relations. She

also has special interest in social protection and the informal economy.

Isaac Bekalo

Regional director for Africa, International Institute of Rural Reconstruction (IIRR), Regional Center for Africa

PO Box 66873-00800, Nairobi, Kenya

Tel. + 254 20 4442610, 4440991, fax + 254 20 4448814, email admin@iirr-africa.org, internet www.iirr.org

Isaac holds a PhD in organizational development and planning. His experience includes teaching, NGO training, curriculum design and organizational development. He provides consultancy services on strategic planning, participatory monitoring and evaluation, project design and proposal writing. He specializes in participatory development approaches and organizational development.

Edwin Kiplagat Bett

Milk trader

c/o Anglican Church of Kenya, Eldoret Region, PO Box 4488, 30100 Eldoret, Kenya

Tel. +254 723 694100, email elreco@africaonline.co.ke

Edwin has been a dairy milk trader for 5 years in the Chepkorio area. With his one employee, he sells over 100 kg of milk a day. He is a member of the Milk Traders' Association of Chepkorio.

Nyotumba Bonaventure

Art/desktop publishing consultant, International Institute of Rural Reconstruction (IIRR)

PO Box 66873-00800, Nairobi, Kenya

Tel. +254 723-667788, 20 444 2610, 20 444 0991, 20 316912, fax +254 20 444 8814, email bonnie@iirr-africa.org, nyotsz@yahoo.com, internet www.iirr.org, www.developmentart.com/artists.htm

Bonaventure is a freelance designer-cum-artist based in Nairobi. He has a diploma in fine art. He has worked as a designer/painter for Bellerive Foundation, CARE-Kenya, Rainbow magazine, Jacaranda Designs, Don Bosco, Jericho Church and the International Institute of Rural Reconstruction. He specializes in fine and graphic art, product design and desktop publishing.

Janet Chigabatia-Adama

Managing director, Savanna Farmers Marketing Company

PO Box 2668, Tamale, Ghana

Tel. +233 712 3807, 244 876439, 244 316758, fax +233 712 3808, email canjant@yahoo.com jadama@acdep.org

Janet holds an MBA in accounting from the University of Ghana, Legon, Accra. She worked as a finance officer for 10 years, and from 1986 to 2001 as a branch manager for 5 years in a finance company of SSB-SG Ltd, a Ghanaian bank. She has also worked with World Vision International as finance manager for 2 years. She is currently in charge of the day-to-day administration of Savanna.

Gracia Clark

Associate professor, Department of Anthropology, Indiana University

130 Student Building, 701 East Kirkwood Ave, Bloomington, IN 47405, USA

Tel. +1 812 8553866, fax +1 812 8554358, email gclark@indiana.edu

Gracia teaches African studies, development, research methods and economic anthropology, and advises research students. She has worked with market women in Kumasi, Ghana since 1978, starting with her PhD from the University of Cambridge.. During the 1980s she consulted for the International Labour Organization and

the United Nations Development Fund for Women on rural food processing and food security. Her current interests include gender, commercial policy, and participative and collaborative methods. She is editing a collection of life histories of Kumasi Central Market traders.

Theresa Amakye Fiawotos

Regional secretary, Eastern Regional Tomato Traders Association

c/o PO Box 8, Cocoa Research Institute, Tafo, Eastern Region, Ghana

Tel. +233 242 378781

Theresa is a self-employed trader, deputy general secretary of the Ghana National Tomato Traders Association and the Regional Secretary for the Eastern Region Tomato Traders Association.

Belew Damene G/Hiwott

Project coordinator, Self-Help Development Ethiopia

PO Box 4275 Addis Ababa, Ethiopia

Tel. +251 0116 62 2522, email belewdg2005@yahoo.co.uk

Belew has BSc in agriculture and has 17 years of work experience. He has worked for 4 years a as a project coordinator with integrated rural development projects of Self Help Development. This work includes building the capacity of farmer organizations and promoting cooperatives.

Etefa Getahun

Assistant manager, Meki Batu Horticultural Cooperative Union

PO Box 006 Meki Post Office, Ethiopia

Tel. +251 221 1 81114, 911 38 39 35, fax +251 221 1 80408, email mb.union@yahoo.com

Etefa is graduated with a BA in management from Alpha Distance Studies University, and has a diploma in general agriculture from Ambo College of Agriculture. From 1999 to 2001 he assisted farmers growing vegetables for Dembi Agro Industry PLC, and from 1994 to 2002 he was farm agronomist with a *woreda* (district) cooperative office. He has been assistant manager of the Meki-Batu Horticultural Coop Union since 1996.

Rashid Wako Guyo

Secretary, Kinna Livestock and Products Marketing Co-op Society Ltd.

PO Box 376 Maua, Kenya

Tel. +254 726 315 233, email abdikadir@livestockcouncil.org

Rashid is a livestock trader and member and secretary of the Kinna Coop. He was educated up to form four level.

Dub Dabasso Jaldesa

Member, Kinna Livestock and Products Marketing Co-op Society Ltd.

PO Box 376 Maua, Kenya

Tel. +254 726 315 233, email abdikadir@livestockcouncil.org

Dub is a pastoralist farmer and cattle herder, and member of the Kinna Coop.

Alfred Carlyle "Lyle" Kew

Owner and chief executive officer, Mngcunube Development

PO Box 13392, Noordstad, Bloemfontein 9305, South Africa

Tel. +27832620943, fax +27515831494, email lkew@mweb.co.za, www.mngcunube.co.za

Lyle holds an undergraduate degree in agriculture and a masters degree in development studies. He has worked in sub-Saharan Africa and Southeast Asia since 1980, predominantly in agrarian and rural development. His expertise covers the implementation and project management

of livestock, homestead food security and rural water provision programmes. He owns a company that implements development projects anywhere in the developing world and does some consultancy. Lyle is a pioneer of mentorship in agricultural development.

Charles Kasembeli Khisa

Marketing coordinator, Western Farmers Association

PO Box 40, Cheptais via Bungoma, Kenya

Tel. +254 723 95 19 89

Charles is a tomato farmer from Malakisi division, Bungoma district, in Kenya's Western Region. With training from the Anglican Church of Kenya, he in turn educates farmers and helps organize groups to market their produce.

Nicola Kiara

Training assistant, International Institute of Rural Reconstruction, Regional Center for Africa

PO Box 66873-00800, Nairobi, Kenya

Tel. +254 20 444 2610 or 444 6522, fax + 254 20 4448814, email nicola@iirr-africa.org, internet www.iirr.org

Nicola holds a bachelor's degree in psychology. Before joining IIRR, she conducted research for UN-HABITAT, performed market research and wrote articles for a daily newspaper in Kenya. Her experience lies in developing information and training materials, writing and editing, organization and coordination of events, communication and research.

David Kipsang Kiptoo

Dairy farmer

c/o Anglican Church of Kenya, Eldoret Region, PO Box 95 Chepkorio, Eldoret, Kenya

Tel. +254 726 918 542, 722 795 628, email elreco@africaonline.co.ke

David is a retired civil servant with one year experience in livestock management, who later chose dairy farming as a livelihood. He uses the money he earns to educate children.

Maurits de Koning

Adviser in sustainable economic development, Royal Tropical Institute (KIT)

Mauritskade 63, 1090 HA, Amsterdam, Netherlands

Tel. +31 20 568 8397, fax +31 20 568 8444, email m.d.koning@kit.nl

Maurits is a business economist and cultural anthropologist specializing in sustainable economic development. His expertise lies in business development services, financial services (microfinance, savings and credit unions) and chain development.

Julius Kipchumba Lagat

Project officer, Economic Livelihoods Project, Elreco

PO Box 6495, 30100 Eldoret, Kenya

Tel. +254 53 20 62784, email elreco@africaonline.co.ke, cherutich06@yahoo.com

Julius holds a bachelor's degree in agribusiness management from Egerton University. He has many years of experience in implementing economic oriented programmes. Currently he is programme officer of the Anglican Church of Kenya, Eldoret Region, in charge of its economic livelihoods project.

Benjamin Dotto Majanga

Chief internal auditor, Lima Ltd.

PO Box 6173, Mbeya, Tanzania

Tel. +255 25 250 2292, fax +255 25 250 2292, email limambeya@satconet.net

Benjamin holds BSc in food science and technology from Sokoine University of

Agriculture. He has also studied agricultural economics, business law and ethics, development studies and entrepreneurial skills. He is now a chief internal auditor of Lima Limited, a firm of coffee exporters in Mbeya, Tanzania.

Sonkolo Abdikadir Mohamed

Program officer, Kenya Livestock Marketing Council

PO Box 453, Isiolo, Kenya

Tel. +254 723 555145, 20 317182, email abdikadir@livestockcouncil.org

Abdikadir has experience in pastoral community development, emergency programmes, transformation trainings and strategic plan development. He has worked for 16 years in pastoral areas of Kenya. He also has teaching experience and NGO management.

Paul Mundy

Independent consultant in development communication

Müllenberg 5a, 51515 Kürten, Germany

Tel. +49 2268 801691, fax +49 2268 801692, email paul@mamud.com, internet ww.mamud.com

Paul is a British consultant in development communication. He holds a PhD in journalism and mass communications from the University of Wisconsin-Madison. He specializes in easy-to-understand extension materials, developed through intensive writeshops like the one used to produce this book. He also provides consultancy services in various aspects of development communication. He has worked extensively in Southeast Asia, South Asia and Africa.

Thomas Mupetesi

Director, Farmers' Association of Community Self-Help Investment Groups (FACHIG Trust)

P. Bag 904, Bindura, Zimbabwe

Tel. + 263 912 2334471, +263 71 7908, email fachig@africaonline.co.zw

Thomas holds an MSc in agricultural extension. His experience includes planning, designing, implementation, monitoring and evaluation of agriculture extension programmes and projects, as well as organizational development and extension and NGO training. He provides consultancy services in organizational and rural development issues.

Ephraim Murendo

Executive director, Lower Guruve Development Association

PO Box 165, Guruve, Zimbabwe

Tel. +263 58 2456/2501/2354, fax +263 58 2201/2477, email emurendo@telco.co.zw, lgda@mango.zw

Ephraim holds a BSc in adult education. His experience includes participatory planning methodologies and corporate governance training especially for community organizations. He is a founder member of the Lower Guruve Development Association and has been involved in rural development work since 1983. He also sits on two national development boards and serves as vice-chair of one of these.

James Kariuki Ngugi

Livestock marketing officer, Ministry of Livestock and Fisheries Development

PO Box 101 Isiolo, Kenya

Tel. +254 733 404447, 064-52075

James holds a diploma in animal production and works as the district livestock marketing officer of Isiolo District. He has serving in the civil service for the last 24 years.

Janet Nyaoro

Regional training manager, International Institute of Rural Reconstruction, Africa Regional Center

PO Box 66873-00800, Nairobi, Kenya

Tel. +254 722 230168, 20 444 2610, fax +254 20 444 8814, email janet@iirr-africa.org, internet www.iirr.org

Janet has over 7 years' experience in training and human resource development in the private sector and in development cooperation. She holds a bachelor's in education and a postgraduate diploma in human resources.

Maureen Susan Oduori

Business development officer, Anglican Church of Kenya–Western Region Christian Community Services

PO Box 2830-50100, Kakamega, Kenya

Tel. +254 56 30610, fax +254 56 31542, email ackwrccs@swiftkenya.com

Maureen holds a BA in design from the University of Nairobi. She have been involved in transformational development of marginalized communities in Western Kenya for the past year. This entails coordinating the Fair Economic Development Programme, which aims at providing markets for community-made products. Before this she worked for 5 years in marketing in the refreshment and service industries.

Aileen Ogolla

Regional communications manager, International Institute of Rural Reconstruction, Africa Regional Center

PO Box 66873-00800, Nairobi, Kenya

Tel. +254 722 230168, 20 444 2610, fax +254 20 444 8814, email aileen.ogolla@iirr.org, internet www.iirr.org

Aileen holds an MA in communication. She has worked as a public relations officer and is currently employed as a communications specialist at IIRR.

Alfred Ombati

Artist/graphic designer

PO Box 64427-00600, Nairobi, Kenya.

Tel. +254-723-350628, 721-420806, email aholiabsart@yahoo.com

Alfred is a freelance artist who has been involved in various book publication projects with various NGOs, including the International Institute of Rural Reconstruction, Médecins Sans Frontières, and the African Technology Policy Studies Network; publishing companies including Cover Concept, Oxford University Press, Sahel Book Publishing Co., and the Ministry of Education; and advertising agencies such as Lowe Scanad, McCann Erickson, and Quite Bright Films. He also does fine arts (painting), murals and printing.

Dora Opoku-Mensah

Secretary to Yam Sellers' Queen Mother, Yam Sellers' Association

PO Box 178, FNT Kumasi, Ghana

Tel. +233 0247490280

Dora sells about 500 yams a week. She acts as secretary to the yam Queen Mother, who heads the yam traders' association. She has worked with the association for 25 years and has great experience in organizing and managing market issues.

Aba Oppong

Health programme manager, Centre for the Development of People (CEDEP)

PO Box 5601, Kumasi, Ghana

Tel. +233 244538 998, email abaoppong@yahoo.com, clcksi@africaonline.com.gh

Aba holds a BA in French and sociology from the University of Science and Technol-

ogy in Kumasi, and a postgraduate certificate in NGO management from the Ghana Institute of Public Administration. She has experience in teaching and facilitation. She has authored a book of poetry entitled "So Full and Empty". She provides facilitation services in numerous areas, and supports market women and young people to develop strategies for sustainable livelihoods.

Lucian Peppelenbos

Senior adviser, Royal Tropical Institute (KIT)

Mauritskade 63, 1090 HA, Amsterdam, Netherlands

Tel. +31 20 568 8557, fax +31 20 568 8444, email l.peppelenbos@kit.nl, internet www.kit.nl

Lucian holds a PhD in agricultural sciences from Wageningen University, where he specialized in value chain management. Before joining KIT, he worked for 6 years in Chile as a management consultant for export agribusiness firms, farmer cooperatives and international agencies including FAO and Fairtrade. At KIT he works on pro-poor business development in various countries in East and West Africa, the Caribbean and India.

Nigel David Poole

Academic programme director and senior lecturer, School of Oriental and African Studies, University of London

PO Box SOAS Centre for Development, Environment and Policy, Wye, Ashford, Kent TN25 5AH, UK

Tel. +44 207 594 2863, fax +44 1233 812138, email n.poole@soas.ac.uk, internet www.soas.ac.uk

Nigel Poole holds a PhD in agricultural economics. He has worked long-term overseas in southern Africa and among indigenous communities in South America. In the UK he worked at Wye College and Imperial College London from 1992 to 2007 and has just transferred to the School of Oriental and African Studies. His academic interests are in agrifood market systems organization and performance. His research addresses marketing, market coordination and information issues in agribusiness and poverty reduction, sustainable use of natural resource products, food safety and quality, urban and rural development.

Daniel Jemiard Mmasomwayera Sinkula

Livestock trader, Damjesi Investments (Pvt) Ltd.

PO Box House No. 2340, 80th Street, Kuwadzana 4, Harare, Zimbabwe

Tel. +263 58 2354, fax +263 58 2201, email jemiard@yahoo.co.uk

Daniel attended Solusi College, Bulawayo, and graduated with a BBA degree in accounting awarded by Andrews University, Michigan, in 1995. He worked as an internal auditor, accountant and business development officer targeting livestock trading for cold storage commission from 2000 to 2004. He later had short stints with private abattoirs in Harare. Since 2000, he has been buying and selling cattle as a private business. In addition to being a finance and administration consultant, he trades livestock, mainly in Mbire district.

Musa Salifu Taylor

Country coordinator, International Center for Soil Fertility and Agriculture Development

PO Box AN 12793, Accra North, Ghana

Tel. +233 244 680 859, email musa_taylor@yahoo.com, mtaylor@ifdc.org

Musa is a Member of the Chartered Institute of Purchasing & Supply, and has 5 years of experience spanning market information system development, capacity building, group development and restructuring,

project planning and implementation in international organizations. He designs and facilitates association management, business management and advocacy training for groups and institutions. He is currently the country coordinator for a USAID project for "Strengthening Networks of Regional Market Information Systems and Trader's Organisations in West Africa".

Fidelis Joachim Temu

Principal officer, commodity development, Tanzania Coffee Board, Warehouse Receipt System Project

PO Box 9161, Dar es Salaam, or PO Box 723, Moshi, Tanzania

Tel. +255 22 2128691, mobile +255 754 56 8444, fax +255 22 2128692, email fideldor@yahoo.com

A commodity trade development expert, Fidelis graduated from Sokoine University of Agriculture in 1993 with a BSc in agriculture (rural economy). He obtained a postgraduate diploma in scientific computing at the University of Dar es Salaam, and is completing his MSc in agribusiness for development at the University of London. He has 2 years of experience in sugarcane production at Tanganyika Planting Company Ltd., and another 2 years in regulating internal marketing of parchment coffee from small-scale farmer in northern Tanzania. He worked for 7 years as a regulatory officer with the Tanzania Coffee Board in developing and promoting a warehouse receipt system in coffee, cotton, maize and cashew.

Mary Wambua

Information and communication technologies marketing manager, Kenya Agricultural Commodity Exchange Ltd

PO Box 59142 00200, Nairobi, Kenya

Tel. +254 20 444 18 29/30, fax +254 20 444 84 86, email mary@kacekenya.com, internet www.kacekenya.com

Mary holds a bachelor's degree in mass communication and is currently pursuing a master's degree in business administration with a focus on strategic management. She has experience in information management with special interest in management of information and communication technology applications for rural development. Other areas of expertise include project management, marketing, publicity and development communication.

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