

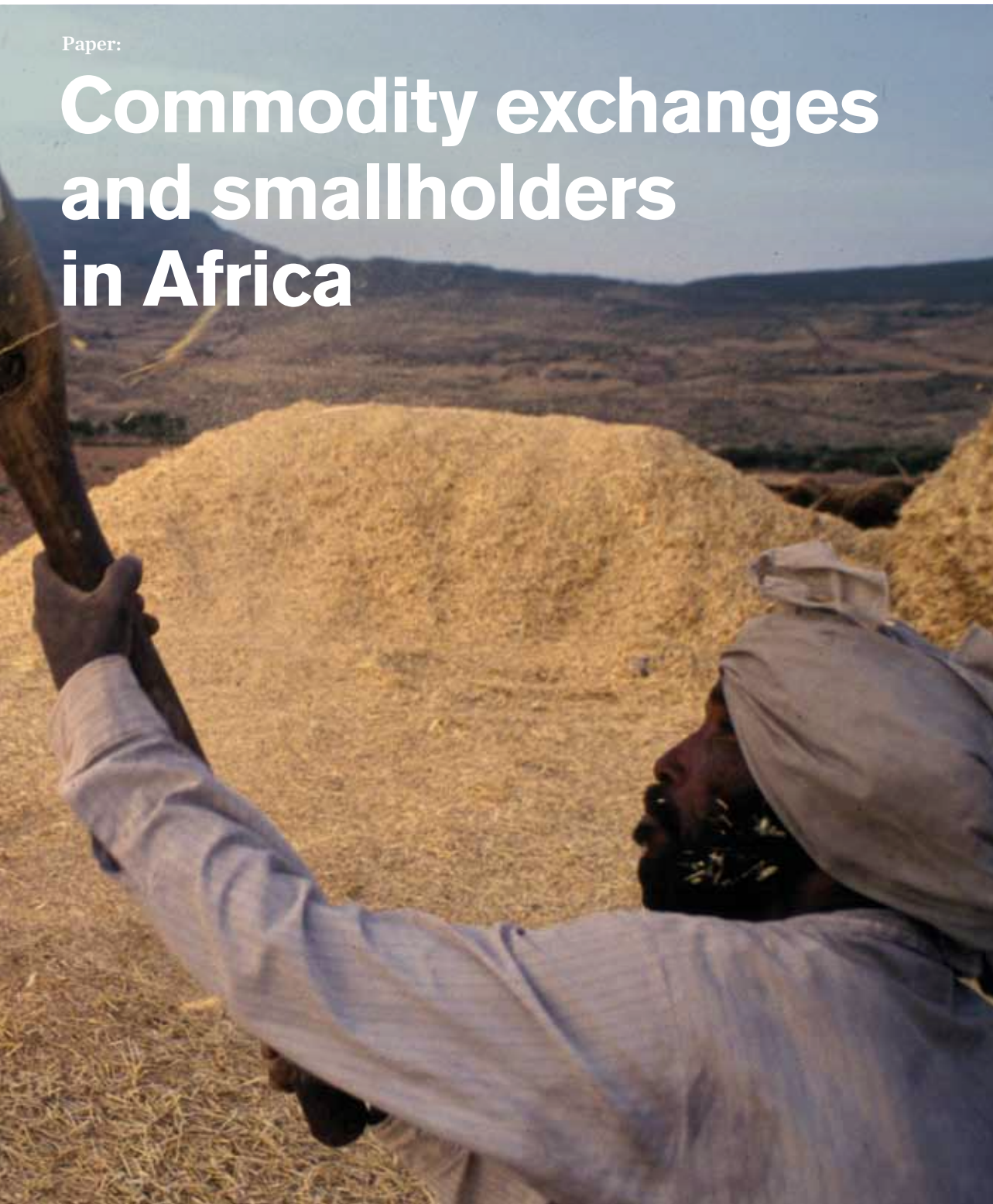
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Paper:

Commodity exchanges and smallholders in Africa



This paper is part of a publication series generated by the New Business Models for Sustainable Trading Relationships project. The partners in the four-year collaboration – the Sustainable Food Laboratory, Rainforest Alliance, the International Institute for Environment and Development, the International Center for Tropical Agriculture, and Catholic Relief Services – are working together to develop, pilot, and learn from new business models of trading relationships between small-scale producers and formal markets. By working in partnership with business and looking across a diversity of crop types and market requirements – fresh horticulture, processed vegetables, pulses, certified coffee and cocoa – the collaboration aims to synthesize learning about how to increase access, benefits, and stability for small-scale producers while generating consistent and reliable supplies for buyers.

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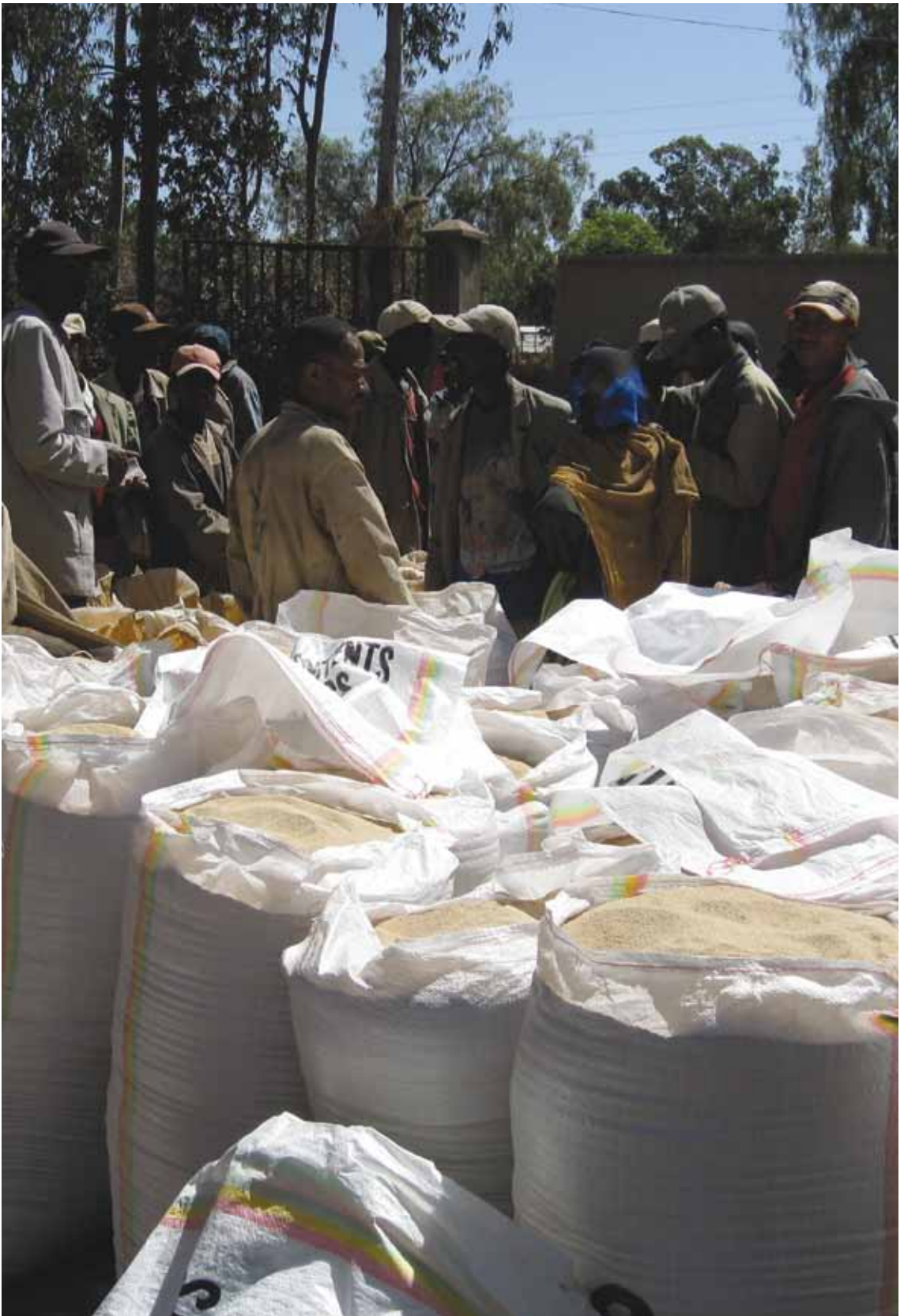
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Commodity exchanges and smallholders in Africa

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1

Introduction

“Can commodity exchanges cause a positive impact on farmer marketing channels?”

The overall objective of this short study is to determine the effectiveness of newly developed commodity exchanges in Africa as a means of improving smallholder farmer linkages to markets, particularly formal markets, and the advantages in terms of new opportunities, more reliable trading relationships and improved incomes, compared with traditional commodity trading routes.

Where possible we compare typical means of market linkage, whether through individual or farmer organizations, to wholesale markets and other trading relationships such as fair trade and contracting.

The purpose of the study is to determine whether commodity exchanges have provided a positive impact on farmer marketing channels, and assisted in upgrading marketing institutions that support the smallholder community. The target commodities for the study are coffee, maize and beans.

All sophisticated market systems in developed countries, such as commodity exchanges, were

established by the users of the market. They were not established and funded by outside organizations. These new African exchanges, therefore, represent something of an experiment. Continued support for these institutions must be fully justified, considering the pressure for funding other possible market improvement programs.

The evidence on which this study is based was gathered between 24 May and 10 June 2010 from interviews in Zambia, Kenya, Uganda, Malawi and Ethiopia with many experts having a national and regional understanding of the new commodity exchange-based market reform system. These included commodity exchange staff members, researchers, traders, government officials, bankers, farmers, and development agency, donor and NGO representatives.

Additional information came from several recent and relevant reports on various aspects of the new systems, as well as the websites of the commodity exchanges and their funding bodies, and some newspaper reports.

2

Executive summary

In order to address the seemingly intractable problems of the agricultural markets in most sub-Saharan African countries, a proposal to adopt a new system was accepted by the five countries covered by this review: Zambia, Kenya, Uganda, Malawi and Ethiopia.

The model on which this system was supposed to be based was initially almost the same for each country and was designed to tackle most of the problems that had been identified as the major impediments to a fair and efficient market system: the lack of transparency, competition, market information, bargaining power of small-scale producers, and credit in the industry, poor quality standards and inadequate volumes of production.

The theoretical model for this transformation envisaged a pyramidal structure of reforms with a commodity exchange at its apex. This exchange would be linked with a warehouse receipt system in which

- large warehouses of perhaps 20,000 ton capacity in each agricultural district would be certified by the exchange as being capable of storing goods securely,
- each parcel of the commodities traded on the exchange would be tested to see if they complied with the exchanges' quality standards,
- warehouse receipts (documents of title) would be issued, to be used by producers or traders as collateral to borrow money from banks, and traded along with physical parcels of commodities on the exchange.

At the base of the pyramid would be thousands of local depots to which typical small-scale farmers could bring their goods and find a) a qualified person to weigh and test their products, and b) small-scale traders who would compete with each other to buy the farmer's output.

In practice, the system in all five countries has drifted far from the original model, and with the exception of Ethiopia, they have failed to achieve anything like the objective that their sponsors had expected of them.

The Ethiopian system has developed very differently from the systems in the other four countries. But the four systems in the countries to the south of Ethiopia have also evolved on different lines. The Kenya Agricultural Commodity Exchange (KACE) and the Malawi Agricultural Commodity Exchange (MACE) were designed by the same people and can no longer be called commodity exchanges. Their main activity is a rudimentary market information service which collects estimates of prices and traded volumes in several wholesale centers and disseminates this information using Short Message Service (SMS), email, newspapers and some radio. The future of MACE is in doubt, as its stream of funding has come to an end. KACE can still theoretically introduce buyers to sellers, but only token quantities are traded. The Kenyan government is contemplating sponsoring a new, partly state-owned, partly private sector commodity exchange which would, presumably, take the place of KACE if the plan goes ahead. Neither KACE nor MACE is linked to a viable warehouse receipt system.

The Uganda Commodity Exchange (UCE) has also come to the end of its current stream of funding, but the government of Uganda is, apparently, trying to obtain funds to continue with the project. The turnover of the exchange is too small to enable it to cover its costs, but it is linked to a market warehouse receipt system which has been adopted by the World Food Program (WFP) as a means to purchase locally produced food products.

MACE is in a very similar position to UCE, but it has recently boosted its turnover after the WFP decided to use the exchange in its Purchase for Progress (P4P) initiative. It uses a sort of hybrid between its traditional tendering process and a commodity exchange option to purchase food commodities.

The Zambia A Commodity Exchange (ZAMACE) has also failed to attract enough business to make it commercially viable and its sponsors now understand that it might have to be subsidized indefinitely. The exchange is owned by a small number of large trading companies who have closed membership to other interested members. ZAMACE has also attracted the business of WFP, who use yet another semi-transparent process for buying under their P4P scheme. The exchange has ambitious plans for its warehouse receipt system and a project to build many local depots around the country, but this is only at the trial stage and could be described as work in progress.

The multimillion dollar cost of all these exchanges has come from a small range of mainly US donors and covers the cost of the studies needed to establish the exchange, the exchange's buildings and equipment, quality-testing laboratories, legal work to authorize the system, diplomatic exercises to sell the idea to governments and other stakeholders, and running costs including staffing.

None of these projects was initiated by governments or any other stakeholder group (with the possible exception of the Agricultural

Commodity Exchange (ACE) which was supported by a large, parastatal co-op which later withdrew its support). As one interviewee put it, they have been 'donor driven.' This is possibly the most important difference between these commodity exchange-based systems and all those similar systems that have grown organically and successfully in more developed countries, established, funded, owned and run by the people who use them.

During the several years that donors and commodity exchange employees have been making huge efforts to establish these systems, the tried and tested means of improving the market system for the millions of typical small-scale producers and traders in the industry have been neglected. None of these countries now has a universal, relevant and well funded agricultural extension service. None has a functional market information service. No assistance is given to significant numbers of farmers to help them organize themselves to undertake collective marketing which would help them to increase economies of scale and escape from their reliance on colluding local traders. There are very few programs in existence to improve fixed place markets with proper storage and packing facilities, using standard weights, measures and packing.

It seems likely, that so much faith was invested in the new top-down, commodity exchange-based system to deliver country-wide reforms, that funding for the nuts and bolts of a basic agricultural market system has been crowded out.

If anything, the 'closed shop' of the large trading companies who control the exchanges but fail to use them enough to make them viable has reinforced the market power of these companies vis-à-vis farmers, donors and governments. Certainly, if they had wanted commodity exchanges or warehouse receipt systems, they could easily have afforded to pay for them themselves. As it stands, these companies have

received useful subsidized services, such as testing laboratory facilities, arbitration services and standard contracts, from development funds. The WFP now plays a decisive part in supporting these structures but has not yet used them in a way that would eliminate the role of large trading companies in its buying programs or help set benchmark prices for the goods it buys.

2.1 Recommendations for the four more southern countries

An independent and unbiased monitoring and evaluation exercise should be urgently undertaken to identify a workable and effective alternative to the role of commodity exchanges in this market reform program.

The small and large warehouses needed for this market reform process will require an independent certifying body to assess and monitor the operators of the warehouses and the warehouse receipt system.

2.2 Ethiopia

The Ethiopian program of commodity exchange-based reform differs radically from the others for one important reason: the government not only supports the idea, it has taken it over. Instead of focusing on grains, the government has decided that the new exchange should first set up a system to market the country's most important export commodity, coffee. And rather than leave the trading fraternity to decide whether it wants to use the new system, the government has outlawed any other means of selling coffee to the export market, with the exception of one particular case.

The huge scale of the project also separates the Ethiopian model from those to the south. Donors may have granted the project as much as US\$50 million to establish and run the project.

The mandatory coffee component of the project has been judged a success by most observers. The major traders and exporters have bought seats on the exchange and have developed a system of dealing with each other to establish prices for various coffee grades and control the degree of price volatility. The existing coffee industry infrastructure of warehouses, testing centers and weighing stations has been marshalled in service to the program.

Bolstered by this success the government has decreed that several food commodities: sesame seed, haricot beans, maize and white pea-beans, should now be allowed to be exported only after they have been traded through the exchange.

There were concerns that the necessary infrastructure and methodology would not be in place by October 2010, when the process for these new commodities became mandatory. Unlike coffee, these products have no existing equivalent development in the market structure and this will create new challenges for a major program of Catholic Relief Services (CRS) for stimulating the production and export of new varieties of navy beans (a type of white pea-bean) which it has done by training hundreds of small-scale farmers, giving them seeds and forming a close relationship with a large Ethiopian-based exporting firm.

2.3 Recommendations for Ethiopia

This study of commodity exchanges was conducted to provide advice to the CRS / Sustainable Food Lab project in how best to adapt project strategy to the light of the new commodity exchange mandate on white pea beans. Given the experience of other exchanges in working with smallholders, it is clear that CRS should join with its partners and meet with commodity exchange and agriculture ministry

officials to examine and question every aspect of the new system.

It is also vitally important that the commodity exchange identify and acknowledge as quickly as possible any failures in the system as soon as they occur. There should be some sort of crisis-management unit set up with the participation of

all the stakeholder groups, and capable of either finding ways to correct problems or postponing the project if the problems prove too great to solve promptly. Some effort should be made immediately to persuade the exchange to allow such a unit to be formed.

For the bulk of the populations of Zambia, Kenya,

3

Background

“Many developing countries are too poor to pay for proper agricultural extension services.”

Uganda, Malawi and Ethiopia, the agricultural industry represents their principle activity, their means of sustenance and their source of income. The land maintains millions of farming families in each of these countries but most of them are extremely poor, too poor, for instance, to pay for proper agricultural extension services or to obtain useful market information. They can afford only basic hand tools to carry out their work and, due to unpredictable weather patterns, their dependency on their crop production is precarious. Food shortages are a common occurrence. These countries, nevertheless, are heavily dependent on agricultural goods for export revenue.

Since the end of the colonial period, it has been widely recognized that, for a number of reasons, the agricultural industry in these countries has been unable to meet its full potential as an employer, fair distributor of income and national revenue earner. These include poor road and rail networks, inadequately sized farms, poor storage facilities, lack of credit, failure to enact land reform measures, failure to update traditional farming skills, inadequate farming research budgets, failure to use standard weights and measures, isolation and atomization of farming communities, and a poor and often inequitable marketing system consisting of long chains of informal traders and trading companies.

To combat this last impediment, most countries in the post World War Two period adopted the marketing board system for the trade of strategically important commodities. And, in an effort to stabilize prices, the international

community accepted that they should support commodity agreements covering a number of major exported agricultural products.

Most state-run marketing boards in Africa handled the entire nation's output of several commodities. They had the dual function of negotiating from a powerful bargaining position with large trading companies, and as a tax-collecting mechanism. Some also developed further functions such as distributors of farm inputs, as extenders of credit to farmers and as compilers of economic statistics for the general use of planners and other government agencies. Moreover, the activity of the marketing boards was often entwined with that of other government agencies that provided agricultural extension services. (In many African countries, farmers were grouped according to geographical location at the county or sub-county level, giving them a semblance of organization to receive payments for their produce or subsidized inputs.) Unfortunately, most marketing boards began to suffer from a raft of problems including corruption, an emphasis on tax collection, and stifling bureaucracy. These problems meant that producers often received only a fraction of the sale price for their goods.

3.1 The age of market liberalization

Much of this system was swept away during the late 1980s and early 1990s as new theories began to dominate economists' thinking. It was generally agreed that agricultural marketing systems should be liberalized to allow the private

sector to unleash the power of the market, gain efficiency in the sector, and stimulate higher production volumes and standards. In accordance with the same economic theories, it was also accepted that small-scale producers especially would have to be educated in the ways that markets work and be provided with the necessary market information to enable them to make sensible production and bargaining decisions. In addition, measures would be taken to ensure that traders competed with each other along the entire length of each value chain. These caveats to the liberalization program were meant to ensure that even the poorest actors in the industry would benefit from market reform.

In practice, the first parts of the reforms were swiftly carried out. Most marketing boards were disbanded and International Commodity Agreements were scrapped. However, very few of the other measures were put in place. State-run market information services (MIS) were established with the assistance of the Food and Agriculture Organization (FAO), among others, but quickly become moribund through bureaucracy, a lack of permanent funding, and failure to give farmers a role in their operation. Subsidized inputs continued to be supplied by some governments. In most cases inputs still had to be purchased from commercial suppliers or obtained from traders on credit, against harvest revenues. New microcredit organizations offer a small and patchy service in most African countries, while mainstream banks have a poor record of lending to the sector. Agricultural extension services offered by the state have ceased to be universal and those that remain lack adequate funding.

Laws and anti-trust measures in most African countries prohibit malpractice in trading activity, but lack of enforcement means that collusion among traders, though not universal, is widespread, especially at the farm gate level. Furthermore, with the exception of those few commodities traded at auction, almost all

transactions are carried out in private. This means there is little transparency in the trading system and therefore little market price information which might be used to inform actors in the wider agricultural industry.

As a result of the failure to establish those auxiliary components of the new liberalized system, small-scale producers have seen little benefit from these reforms. Indeed, the abandonment of International Commodity Agreements caused a huge fall in the prices of those commodities covered by such treaties.

As for market information services the liberalization process allowed private communications companies to compete with state-owned radio broadcasters; but this also meant that public broadcasting services have all but disappeared. Those wanting to provide comprehensive market information to farmers in the many languages they speak now have to pay private FM radio stations for the service. This has discouraged the provision of the Market Information Service (MIS), a significant component of the reform process. Small-scale farmers in most of sub-Saharan Africa now receive little or no useful information about the markets for their products and the gulf between their knowledge of the market and that of traders has widened, as traders gain access to modern but relatively expensive communication equipment. The cost of farm inputs has also increased, and the farmers' desperation to cover the costs of production at harvest time - which often include loans from traders - means that their bargaining power is significantly enfeebled.

3.2 The new commodity exchange-based market reform process

Soon after the liberalization reform process began all these problems became apparent, and over the last few years, governments, development

agencies and donors have been keen to find ways of tackling them. In sub-Saharan Africa, it seems, certain influential advisors have recommended market mechanisms that have been used by the trading fraternity in the developed world for centuries as a way of introducing a further round of fundamental reforms to the agricultural marketing system.

The model used for this reformed system is much the same for each of the five countries covered by this report. The components of the proposed system consist of a pyramid of institutions with, at its apex, a commodity exchange. In this model, the exchange is supposed to be linked to a warehouse receipt system. Prices which are recorded by the exchange as deals are struck would form the basis of a market information service. The commodity exchange, initially of a very basic design, is established in the capital city. Some large warehouses are either constructed, requisitioned from state ownership, or leased from the private sector. These warehouses then go through a certification process overseen by the staff of the exchange. To qualify for certification from the exchange, each warehouse must comply with certain fixed standards of security, be provided with proper quality-testing and weighing equipment, and be managed with a high degree of probity. These what we might call district warehouses are supposed to act as hubs for very large numbers of small producer collection depots, known in Zambia, for instance, as community huts, in Malawi as village aggregation centers, and in Ethiopia as primary markets. It is to these depots that small-scale farmers are supposed to bring their products and come into negotiating contact with buyers.

In theory, this system is designed to tackle some of the most intractable failures of prevailing market practice, such as lack of transparency, competition, market information, bargaining power of small-scale producers, and credit in the industry. Poor quality standards and inadequate volumes of production have further crippled the

ability of the smallholders to engage with markets effectively.

The new system is supposed to correct the above-mentioned failures in the following way:

The largest commercial actors in the industry: traders, producers' representatives, exporters, millers and other processors, large retailers, etc. buy the right to trade on the exchange, by purchasing a seat or paying a membership fee. These members may then control the exchange. Alternatively, the exchange may appoint brokers to represent these large-scale actors and execute transactions for them across the floor of the exchange. Bargains are struck between these buyers and suppliers or their broker representatives for large quantities of those commodities which the exchange is capable of trading. The price at which these bargains are struck are recorded by the exchange staff, who then make the details public, thereby setting a benchmark market price which can serve, in part, as a market information service.

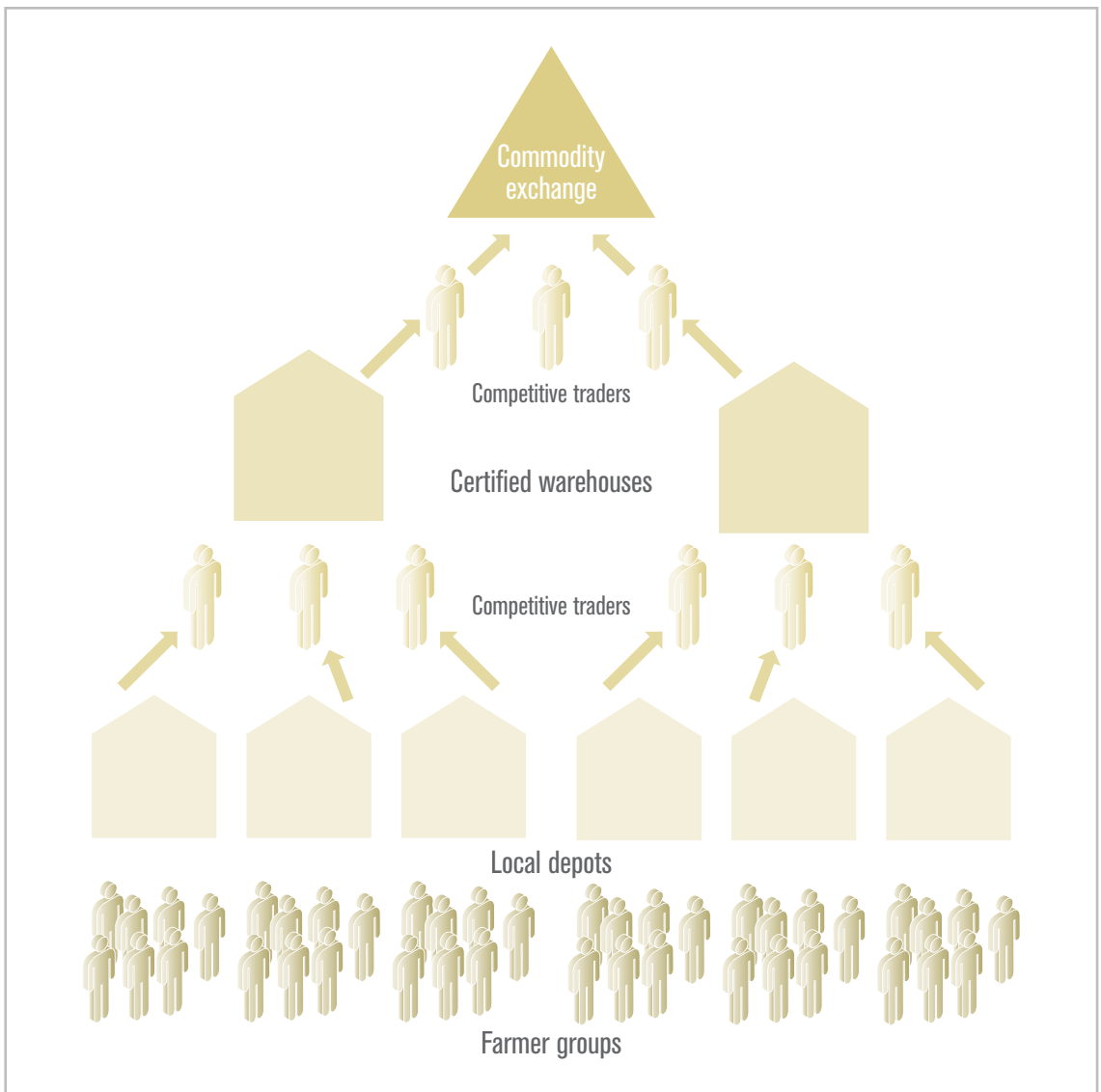
In consultation with its users, the exchange has defined the quality of the goods being traded; any physical delivery of the product by the seller to the buyer which falls below this standard is prohibited. Thus, an agreed quality standard is set in the country for each commodity. All the members of the exchange pay a fee and/or commission to the exchange for using its services, and this fee covers the commodity exchange's costs.

All the produce available for trade on the exchange has to be made available in one of the warehouses certified by the exchange. Each parcel of the commodity complies with the exchange's standards and carries a certificate of quality to confirm that fact. Fees for certifying the warehouses and inspecting, testing and certifying the quality of the goods are also paid by the users of the service to the exchange. The warehouse also charges fees to its customers for storage and handling.

A warehouse receipt system is incorporated in this trading mechanism. Once the managers of the warehouse have tested each parcel of the commodity stored in their warehouse, they can, if requested, issue a warehouse receipt for the volume of that parcel. This receipt is a document of title, similar to a bond, the deed of ownership for

a house, or a banknote, and the owner of the receipt can trade it, use it as collateral to raise loans, or demand of the warehouse at some future date the same quantity and quality of the goods that the receipt covers - provided that they pay any storage and insurance costs.

New trading system



The ability to borrow money against the receipt provides liquidity to (and credit for) the agricultural market, and ensures that users of the market can have some flexibility over the timing of their buying and selling deals.

The minimum 'lot' which can be traded on the exchange is often as much as 50 tons - a quantity that only the largest farmers in Africa could produce at one time. Below this level of very large transaction, therefore, another completely different scale of market mechanism is needed to benefit the millions of typical small-scale producers who represent the vast bulk of actors in the agricultural sectors of these countries. For instance, a benchmark recorded price for a large quantity of a product, held in a secure and accessible warehouse, graded and packed to a high standard, is likely to bear no relationship to the farm-gate price for a few hundred kilos of the same product in an isolated part of the country whose quality has not been objectively tested. This would be especially true if the farmer, along with all other fellow farmers, were desperate to sell at harvest time and had no access to several traders who were all in open competition to buy his or her output.

This is where the 'community shed' or 'primary market' idea comes in. And this idea forms the base of the pyramid of the new trading system.

All these countries have the objective of establishing thousands of these local depots with a capacity of a few tens of tons in every growing area. The services available at the depot will

include a place where competing traders can bargain with individual producers, an independent manager who can weigh and assess the quality of their goods, and some kind of secure mini-warehouse where goods can be stored but remain in the ownership of the producers if they choose not to sell them, in the event that they may feel they have not been offered a good enough price. Ideally, some method of part-payment for the goods could be arranged at this point, using the stored material as collateral, to meet any immediate financial needs of the individual producer.

In this fashion, the isolated farmers cannot be made a victim of some usurious money lender or colluding trader and they will have a local place to bring their goods where a competitive trading system ensures that the farmer will receive a fair market price.

From these local depots agricultural products, accumulated in lorry-load volumes, can be easily transported to the large district warehouses, where, if necessary, they can be sorted, graded, properly packed, tested and certified. It is these supplies that can then be traded on the commodity exchange by the new owners of the goods, thus completing the pyramid of the new trading system, as shown in diagram on page 11.

This, then, is the objective of this reform. The real challenge is to meet this extremely ambitious program. And it is to examine the likely progress towards meeting this challenge that this study was undertaken.

4

The new commodity exchange-based system in practice

The proposal that the agricultural marketing system should be reformed in these African countries by establishing commodity exchanges dates from before the beginning of this century but the implementation of the idea has been taking place only over the last few years. It could be argued, therefore, that not enough time has elapsed to be able to judge whether the reforms have or have not succeeded in solving the problems they were designed to address. There are, however, certain features of this program that can already be usefully assessed, either to enable the program to be modified or to give it a more radical overhaul.

Although the initial objectives for the commodity exchange-based systems covered by this study were almost identical, the more southern examples have evolved in slightly different ways. However, the Ethiopian project has been transformed so radically from the original idea, that in order to comply with the terms of reference for this report, its current objectives, function and effects must be considered separately from those of the other five markets in Kenya, Uganda, Zambia and the two Malawian exchanges.

But before we examine these two very different models separately, certain common features of all the exchange-based systems should be mentioned.

The most significant feature of all these schemes was that none of them was initiated by local stakeholders in the industry.

All the successful commodity exchanges in the

developed world were established by the people who used them and grew organically as the volume of business increased and as technical innovations became possible. The origin of these exchanges can be traced back to pre-history. The creation of the concept of money reduced dependency on barter; auctions allowed competition between buyers; the acceptance of representative samples eliminated the need to carry huge quantities of a product to the market place; the use of brokers and transaction clearing systems did away with the need for hundreds of buyers and sellers to represent themselves in exchange transactions; and the advent of electronic communication technology did away with the need for buyers and sellers to meet each other in the flesh.

For a commodity exchange to be of use it must not only be sponsored by its users, it must also function in a very stable environment created by other institutions. The stocks of goods passing through it must be financed by a reliable banking service and must be insured by companies who are familiar with all aspects of the agricultural industry. The trading activity in the country that hosts the exchange must be conducted by binding contract and, most important of all, there must be access to a robust legal framework to enforce commercial law.

In the case of the six markets under study, however, little of this supporting framework exists. Traders are, by and large, happy with the existing way of doing things partly, perhaps, because they are usually 'price makers' while the producers in

the system are 'price takers'. Banks and insurance companies prefer to deal in the 'modern' sectors of the economy, such as in the trade and maintenance of imported manufactured goods. All but the very largest agricultural deals are made in cash. Even large companies regularly break the terms of the contracts they make. Most farmers have no idea what the new system is or how it might affect them, and for both political and food security reasons, governments are still very keen to retain overall control of the flow of goods both within and between their countries.

The initiative for the exchange developments came mainly from donors and experts with some familiarity with commodity exchange systems, often from countries with very different histories and cultural characteristics.

Another important common feature of the initial concepts of all these programs was that they focused on trade in staple food crops, especially maize.

And this is where, more recently, the Ethiopian model started to diverge from these common features. First, the focus changed in Ethiopia from grains to the country's most important export crop, coffee; second, the government of Ethiopia decided to take the dominant role in driving the design of its new commodity exchange-based trading system. We will, therefore, discuss the Ethiopian market reform model later.

4.1 The five new more southerly trading systems

Compared with Ethiopia, there was a less dramatic evolution in the development of the five other trading systems. Two of them, KACE, established in 1999, and MACE, established in 2004, decided to focus their attention on smallholder suppliers, and to include as an important feature of their activities a market information service. They also proposed to deal with a much wider range of commodities, with

maize still being an important concern. This is not surprising, as the inspiration for the MACE model came from KACE personnel. A similar cross-fertilization of ideas shaped the development of ZAMACE and ACE, with staff members from ZIMACE used to set up ACE; but these exchanges treat the trade in maize as a more central function.

The total cost of establishing the exchanges is difficult to determine. No official details of the total cost of each exchange are published. (The cost of the Ethiopian exchange is a state secret.) Apart from the cost of the buildings in which they are housed and the equipment needed to operate them, a great deal of money has been spent over several years to create the necessary enabling legislation to allow the exchanges to work within a legal framework. Donors have paid, and continue to pay, for many highly qualified legal and technical personnel to establish and run these systems. In order to introduce these novel ideas to the main stakeholders in these countries, visits have been arranged for many of them to see exchanges operating in South Africa, India, the U.S., etc.; and experts from around the world have been flown in to explain the merits of the exchanges to government officials and other interested parties.

It can safely be said that each exchange has cost more than a million dollars, perhaps even a multiple of that sum. Much of the expense has been incurred within the donor organizations themselves and the team of experts who have been hired to create the 'support and rationale' for both establishing and maintaining them.

These commodity exchanges have yet to show a profit, and running costs are heavily subsidized by donors. Based on the present trajectory of performance, it seems likely that funding to subsidize these institutions will be required for an indefinite period if they are to survive. Indeed, the future of two of the exchanges, UCE in Uganda and MACE in Malawi, is in doubt, as their present funding period has come to an end.

Yet more public sector support has come from the WFP for three of the exchanges: ACE in Malawi, UCE in Uganda, and Zambia's ZAMACE. The WFP has decided to channel part of its bulk procurements and a significant part of its 'smallholder' purchases through the exchanges. A recently established WFP program called 'Purchase for Progress', or P4P, is viewed as a fast-track approach to linking smallholders with modern markets. The P4P is designed to buy food commodities from smallholders as part of WFP's overall task of supplying areas where there is food deficiency, while helping poor farmers in the region by buying these supplies from them when they have a surplus to sell. The WFP is a major actor in these markets and their business represents a significant part of the turnover of these exchanges.

WFP activity, by its very nature is, perhaps, somewhat unpredictable. It cannot always be possible to predict where and when food shortages will occur or where best supplies can be obtained. Equally unpredictable is the activity of the governments of these four countries in food markets. These governments clearly have the ultimate responsibility for doing everything they can to ensure food security. For this reason the

governments of Kenya, Malawi and Zambia maintain strategic grain reserves, notably of maize. They have also banned or restricted cross-border trade in maize from time to time.

Many experts, especially those close to private sector traders, believe that these stocks are maintained at levels which are much higher than necessary for unforeseen future shortages. They also complain that the cost of obtaining and storing this level of stocks is an unnecessary burden on the government budget, that purchases (and subsequent sales) and cross-border restrictions are used for political purposes, such as gaining favour with particular sections of the population, and that they are a stifling and destabilising factor in the maize market.

Governments, however, seem to be very reluctant to give up this role. An event in the very recent past has probably stiffened this resolve and reduced their faith in outside advice. In 2000, the Malawian government accepted World Bank and IMF recommendations to substantially reduce its maize stockpile. In the subsequent two seasons, uneven rainfall and poor weather conditions devastated the harvest and many Malawians died of hunger.¹



5

Conclusion for the five more southerly exchanges

5.1 How each system functions

There was an element of faith even at the conception stage of these commodity exchange-center systems. None of the models incorporated mechanisms that typical farmers were likely to immediately appreciate as direct assistance, such as comprehensive agricultural extension services, market information, and the enforcement of competitive bidding from the traders they sell to, for instance.

The theory behind the plan predicted that, if a major reform of the higher tiers of the trading system were offered, major traders would switch to the new system and, under their influence, medium-sized traders would follow suit. The higher quality standards defined by the exchange would then encourage smaller traders to accept the extension of the mechanisms designed to facilitate the warehouse receipt system right back almost to the farm gate - or at least to the tiny primary markets that were to be set up. The prices traded on the exchange for a range of commodities would act as a benchmark price from which everyone in the industry could calculate a price applicable to their likely transactions, either through SMS, email or over the Internet.

The very first condition required of the system - the enthusiastic participation of the very large traders - has not materialized for any of these exchanges.

In practice, almost the only part of the systems so far established has been the buildings housing the

exchange, the office equipment to go with them, the personnel needed to run them and access to some large-scale warehousing capacity and some laboratory facilities.

For this reason, perhaps, each exchange has deviated somewhat since its establishment from the original model. KACE and MACE, the Malawian model based on KACE, are now no longer commodity exchanges in anything other than name. MACE's funding has now dried up and it may find it difficult to survive, even if it can merge with its sister exchange, ACE. KACE still carries out a market information role and can, in theory, introduce some sellers to buyers, but only on a token scale.

(KACE may soon be superseded by a new commodity exchange. The National Cereals and Produce Board, a Kenyan parastatal organization, has commissioned some studies with the objective of designing a new commodity exchange. Little is yet known about what form it might take, but the inspiration behind the idea comes from the operators of KACE and ACE, two rather different models of commodity exchanges.)

ACE, based in Lilongwe, Malawi, has gained important prestige from the recent decision of WFP to channel some of its 'smallholder' purchasing through the exchange in the form of Buyer Value Option (BVO) deals, which are not instantly transparent and where the parcels of goods purchased may not always have originated from the plots of small-scale farmers. Even if they have, the goods may have passed through the hands of several traders and very little benefit, if

any, is likely to have accrued to the producer. The BVO is a tendering system in which the WFP issues the details of the parcel of goods it wishes to buy (weight, commodity type, quality, delivery point, delivery date, etc.) upon which ACE members submit an offer for the WFP to consider. The contract is awarded to the most competitive supplier. To date, the WFP does not pay commission to the commodity exchange for its BVO deals.

UCE has not yet managed to trade more than a small percentage of Uganda's grains crop. WFP, the largest single maize buying organization in the country, now purchases some food items, especially maize, through UCE's associated warehouse receipt system; but UCE's function as an exchange is not a necessary part of this process.

ZAMACE has, perhaps, drifted least from the original model. This may be because ZAMBIA produces very large surpluses of maize in some years and is said to have 900 commercial farms, many owned by foreign interests, who are able to sell large volume lots of uniform quality. The major trading companies in Zambia have endorsed the exchange to some extent by becoming members. The WFP has also been persuaded to channel some of its business through the exchange as well; despite this degree of support, however, the exchange still does not have nearly a large enough turnover to pay its way. PROFIT, the instrument of USAID which has nurtured the course of the progress for the exchange and whose representative sits on the board of the organization, expects to underwrite its costs 'indefinitely.'

The public sector subsidizes the highest tier of trade in other ways too. ZAMACE charges its members for its testing and laboratory services, but the equipment was bequeathed to it by USAID free of charge. Also the adoption of its 'registered trades' system means that members can acquire the authority of using the ZAMACE contract and gain access to its arbitration services, without

actually putting their business through the exchange, thus undermining to some extent the exchange's purpose.

The 15 members of the exchange closed its membership to other companies at its first meeting. Some members act as brokers earning a commission from outside users of the exchange. But as membership is, presumably, no longer open to other companies, the possibility of offering such work to new companies does not now exist. The other members are large trading companies and are likely to have a closer and longer relationship with each other than with outside parties such as the donors, the WFP, the government or the managers of the market. It would be naïve to suggest that those outside parties that keep the exchange afloat have a full understanding of the motivation of the members in their relationship with the exchange. There is, indeed, some doubt as to whether the diversity of the membership accurately reflects the range of actors in the wider agricultural industry. One incentive for the members appears to be the prize of representing the WFP for its brokerage business.

An important element in the evolution of markets has been the necessity to convince those using them that they are run properly and that the rules used to conduct trade are strongly enforced to prevent cheating. This guarantee of probity also needs to be reinforced by other trusted institutions linked to market transactions such as banks, storage companies, insurance companies and, more broadly, a trusted national legal system. Most banks in these southern African countries are not prepared to undertake the risk of investing in agriculture, especially when contractual obligations in the industry are only lightly observed. Most locally based insurance companies have no idea how to calculate risk in the trading of agricultural commodities, the prices of which can change suddenly and unpredictably, and where governments or the WFP might need to buy, sell or even requisition stocks for food security reasons.

5.2 The maize mystery

One of the most obvious features of these exchanges is the central position given to the regional trade in maize. There is no complete explanation for this. Tobacco, for instance, represents Malawi's major export crop and the problems with the internal tobacco trade, at least from the typical farmers' point of view, are as intractable as those in the maize market. Coffee represents a vital market for both Uganda and Kenya. Sugar is another major Ugandan crop. However, from the point of view of traders, these markets are well organized, and so far have not attracted much interest from the commodity exchanges in these countries.

Many interviewees, who are employed by the exchanges or who have strong links with the major traders, identified government 'interference' in the maize market as the single greatest impediment to a healthy, transparent market system in the region. They were particularly scathing about the scale of government buying and selling of strategic stockpiles, which they described as unnecessary, expensive, unpredictable and carried out for 'political' purposes.

These governments play a role in the production and supply of maize in several ways. Sporadic rainfall in the region and poor transport links obviously call for constant vigilance of several agencies including the WFP, the Famine Early Warning Systems Network (FEWSNET) and local governments. The disastrous episode involving the Malawian government's agreement to dispose of most of its stockpile before the 2001/2002 seasons has underlined the need for such programs. For reasons that are less straightforward, however, governments also appear to assist farmers directly by purchasing large quantities of maize sometimes at above-market prices, setting minimum prices, failing to grant export licences, and disposing of surplus stocks unpredictably. The situation can be made more confusing when government

announcements of their intended trading activity are not followed through, sometimes through lack of funds, with the result that, occasionally, farmers are not paid in time for their supplies. In some countries too, the government subsidizes fertilizer and other inputs, which, according to studies by Thomas Jayne,² do not always boost production in a predictable way.

It should be said that governments are not the only agency to make unpredictable interventions in the maize market. WFP also has a record of not being entirely transparent in its acquisition of stocks. Its recent agreement to purchase using some of the facilities provided by the exchanges in Malawi, Uganda and Zambia will not entirely open WFP's activities to instant public scrutiny, since they do not use the exchange in the normal way by buying in an open bidding session, but, instead, use a hybrid of a tendering and bidding system for this activity, where the purchase price is not revealed until several days after the deal has taken place. Certainly, the system is wide open to abuse in that any leak of information from these bodies concerning trading intentions could profit trading companies greatly. For instance, if a large maize-trading company were to gain inside information from a WFP employee that a large purchase was about to be made, he is likely to purchase stocks in advance of the price hike that would inevitably occur as the large purchase was made, thus damaging WFP and rewarding the trader and his informer.

The market is very large (several million tons per annum), and as the staple food for the region (with the exception of Uganda), there is enormous local demand for the grain. In addition, natural phenomena, such as unpredictable rainfall and the possibility of two harvests in some parts of the region, mean that, given open borders and minimum government intervention, traders would be presented with a massive opportunity to expand their businesses and to speculate using their superior knowledge of the market. These traders, including members of the East African

Grains Council, are actively and openly involved in lobbying donor agencies and governments to 'free-up' the maize market.

The advent of the new commodity exchange-based trading system in these countries could be seen as presenting the trading fraternity with both a threat and an opportunity. The establishment of hundreds of thousands of local trading depots, where small farmers could sell their output to competing bidders would, of course, reduce the market power of the trader vis-à-vis the farmer. On the other hand, the donors who have established the commodity exchange might easily be persuaded by the traders that the exchange cannot operate at its full potential unless government as well as WFP abandon their secretive dealings and put all their business through the exchange. This may go some way to explaining why large trading companies are offering selective support to the scheme, but offer no guarantee that they will abandon the prevailing opaque trading system. It may also mean that support from large traders for the small primary depots component of the new marketing concept will be hard to obtain.

5.3 Who benefits from the commodity exchanges?

It is self-evident that it is much easier to assist a few individuals and institutions that are already in a position to help themselves than it is to help tens of millions of typically small-scale actors. In the case we are discussing here, it is certain that large firms of traders and brokers, large commercial farmers and large farmers' associations, are very few in number. They are able to converse fluently in English, can keep proper records and accounting books, and have access to the most up-to-date electronic communication systems. Indeed, it is also clear that if they had felt they needed a commodity exchange or a warehouse receipt system they could easily have afforded to establish one for themselves.

As those who established the previous 'liberalized' market regime of the 1980s and 1990s in this part of Africa quickly found out that providing relevant market improvements for the many millions of typical actors in the industry is very difficult, although not necessarily more expensive. This is especially so when very little research has been carried out to determine the stated needs of these actors. In the sometimes complex arguments over the merits of this new set of market reforms only the voice of the typical farmer seems to be missing. One Zambian farmer, apparently, said, 'there is no market for us'.

Two interim reports of the experience in Uganda (Onumah et al., 2003; Republic of Uganda, 2005) have found that a warehouse receipt system is not feasible at the farm-gate level because volumes are too small, and that the immediate beneficiaries of the system are traders. Indeed, if traders do not benefit, they will not use the system.

In Kenya, there seems to be some concern about extending the scheme too far down the value chain. Small depots were built in the past, apparently, but small-scale traders 'burnt them down'.

One other anomalous feature of the exchanges seems to be a lack of independent monitoring and evaluation. Clearly, all these exchanges have drifted to a greater or lesser degree from their original objectives, but no mechanism appears to be available to allow the wider community of stakeholders to properly judge why this has happened or their current contribution to the improvement of the agricultural marketing regime.

It is also notable that the services of only a tiny number of experts and consultants appear to be drawn upon to propose, design and establish these schemes. Most of these advisors have only a narrow range of experience of market systems and some either work for, or have close links with, existing commodity exchanges. Of all the donor organization representatives interviewed, none had a background that familiarized them with the motivation and practice of commodity traders.

As the idea for commodity exchange-based market reform has taken hold in these countries over the last few years, efforts on behalf of the wider population to directly improve the system by which agricultural products are traded have been few and far between. A map of any of these countries showing where such efforts have been made would show a scattered pattern with small areas of activity in an otherwise featureless background. In one place, a private farmer has trained groups of local farmers to produce chillies; in another, a specialist trade fair has introduced producers to a new market; somewhere else, a pilot scheme has begun to improve quality standards in one particular value chain. But there are no universally applied programs covering all those actors in the industry who might benefit directly.

Tried and tested programs of assistance seem, if anything, to be in regression. Agricultural extension services are starved of resources. Market information services - which need to meet minimum standards of accuracy and timeliness to be of any use at all - fail to meet these standards, and there is no general effort being made to help small-scale, isolated farmers to overcome economies of scale by training them to sort, grade, pack, bulk-up and market their goods collectively.

In addition, it seems that very little effort has been made to introduce standard weights and measures or to enforce the use of binding contracts for larger deals. Some Zambian milling companies, apparently, regularly renege on deals; but, since suppliers rely on them buy their output in the future, few dare to complain.

Most of the accepted methods of improving market systems for agricultural goods - high quality, relevant and timely MIS, collective marketing training, post-harvest advice, the establishment of fixed market places, the introduction of weighing scales and bag-stitching machines, etc. can be carried out using many

local, easily trained personnel. By contrast, the few experts needed to establish and run a commodity exchange must be highly qualified and highly paid individuals, many of whom must be recruited from developed countries.

Apart from there being little or no co-ordination between the many organizations involved in improving market conditions (government departments, NGOs, development agencies, trade associations, transporters, warehouse operators, banks, academics, farmers' groups, private companies, etc.), there seems to be no effort to evaluate these projects. Some projects work well and some fail, but no one seems to be interested in why this happens, let alone able to recommend the replication of good projects and the abandonment of poor ones. One would have assumed that those who have put their faith in some kind of 'trickle-down effect' from reforming the upper echelons of the marketing system would have been especially interested to see if an 'enabling environment' had, indeed, brought forth the expected benefits further down the value chain. It may be significant, however, that no such systematic monitoring appears to be taking place.

There may not be any correlation between the attention given over the last few years to the establishment of commodity exchanges and the comparative neglect of other, more tried and tested methods of improving the prevailing market system. But it seems probable that most time and money has been lavished on the least useful element in the pyramid of reforms. It is possible that the expectations for commodity exchanges to deliver a general improvement in market systems have crowded out other efforts to achieve this aim.

There is no doubt that the current method of trading in agricultural products is seriously deficient in this part of the world. It is inefficient in that it represents a hopeless waste of potential resources. Farmers will not grow anything that they cannot be reasonably certain to sell at a fair price. Low prices deter farmers from meeting better

quality standards. Lack of access to information about better farming techniques also maintains the uncompetitive status of these countries.

But it seems that the vast majority of trades in the wide range of commodities produced in these countries will continue for the foreseeable future to be made deep in the countryside, and the market conditions that result in these deals are the only ones of relevance to small-scale producers and traders. The current top-down approach of the commodity exchange-based trading system will not alter this situation.

Since, apart from their agricultural commodities, most sub-Saharan African countries have no other resources that could provide the base for economic development, it is urgently necessary to eliminate the obstacles which prevent the agricultural sector from functioning properly and from enabling it to improve the quality of agricultural goods and create a high-value processing industry. The evidence from this short study seems to suggest that commodity exchanges are not the answer to this problem.

5.4 Recommendations

Of all the experts interviewed during the course of this short study, only those with a close association with, or vested interest in, the new commodity exchanges are in favour of them.

Although they have cost a great deal of time and money, all the commodity exchanges in these four countries are greatly underutilized and only loosely supported by those actors in the industry who were supposed use them.

The fact that the major stakeholders in the agricultural industries of these countries have not identified the need for the commodity exchange-reform system represents a major flaw in the entire program. Without this key prerequisite, it can now be said that this initiative was ill-conceived and/or premature. It is the reason why none of the

exchanges have lived up to the expectations made for them. They have not improved the marketing system for the vast majority of actors in the industry. At the same time, they have reinforced the position of the most powerful actors in the industry and introduced a 'closed shop' of membership to large volume trade in agricultural commodities. Although these programs were introduced only a comparatively short time ago, it is clear that they are all going in the wrong direction to ever meet their theoretical objectives.

An independent and unbiased monitoring and evaluation exercise should be urgently undertaken to identify a workable and effective alternative to the role of the commodity exchange in this market reform program.

Research should be undertaken to determine whether some much simpler method of introducing large and well organized buyers to sellers. Those who want to avoid the prevailing inadequate market system might be interested in using some kind of internet bulletin board or by attending a regular trade fair. Donors might act as catalysts in the endeavour; but no system will be effective if the stakeholders do not feel the need for it.

None of these countries has extended the warehouse receipt system to the base of the pyramid of reform, where most of the stakeholders in the industry might benefit. Nevertheless, there seems little doubt that this goal is worth pursuing. Exporters and some retailers will pay more for a standard quality of goods which have been properly sorted, graded, weighed and packed and some banks might advance loans of a proportion of the value of such goods using a warehouse receipt for collateral. And the idea of establishing thousands of properly run local depots for smallholders should have been taken up decades ago. However, all this could be done without any need for a costly commodity exchange.

The small and large warehouses needed for this part of the market reform process will need an independent certifying body to assess and monitor the operators of the warehouses and the warehouse receipt system.

Such a body could be created with the assistance of governments, donors and the private sector. The WFP is both independent and fully qualified to undertake this task and, given its dependency on the current inadequate market system, it has a great incentive to assume this role. (WFP already requires all its food purchases to be repacked in its own bags, so it is very involved in the wholesale warehousing part of the value chain). Any warehouse receipt system should be able to accommodate the wide range of commodities that are considered important in the agricultural economy of the country.

I am somewhat reticent about making recommendations beyond those that relate directly to the commodity exchange-based reforms undertaken in these countries. What is clear, however, is that none of these countries can properly utilize their main natural assets unless their agricultural marketing systems are greatly improved. I therefore think it is necessary to make the case for some tried and tested strategies: organizing farmers into marketing groups, increasing access to inputs, finance and extension services, supporting research and technology services, market information services establishment and or refurbishment of fixed place market places, improved transport and land reform etc. All can have the effect of reforming the present woefully inadequate market system in these countries to the direct benefit of most actors in the agricultural industry. These strategies have been largely neglected in the last few decades.

The problems associated with undeveloped agricultural marketing systems are very well known and have been addressed in most of the rest of the world over several centuries. The

reason that they have not yet been tackled in these countries is that most of Africa is underdeveloped, many of its people are poor, and few have any formal education. Most farms are isolated and tiny, and the value of their harvest so small and the distances from farm to market place so great that traders who collect produce from farmers feel obliged to collude with each other so that they can make a profit large enough to cover the high costs and risks of this kind of business. Traders do a vital job of matching supply with demand in these countries, but laws which are supposed to deter collusion and other forms of malpractice are not enforced. Perhaps if they were enforced, it is possible that small-scale traders would go out of business and the farmers would be worse off than they are already.

Sweeping farmers from the land to make way for large-scale agro-industry would enable African agriculture to compete with countries like Brazil and Argentina. But such draconian measures would be politically impossible. No other type of work is available for displaced people and urban drift is already a major problem for all these countries.

One obvious solution to this problem is for farmers to overcome economies of scale by working together to plan production in harmony with their fellow farmers and to sort, grade, pack and market their product collectively.

Donors and other development institutions should identify the most appropriate agencies in these countries to instigate a country-wide program to encourage farmers to work in groups to collectively market their goods.

Evidence gathered by the Food and Agriculture Organization (FAO) suggests that global food shortages are likely to reoccur in the near future caused by population expansion, poorer growing conditions, diseases in other food crops (such as

brown streak virus in cassava) and a growing market for bio-fuels.

Given the recent failure of major US and European financial institutions, the governments of these four African countries would be unwise in future to rely on the purchase of call options for maize on the South African Futures Exchange (SAFEX) market as an alternative to holding short-term physical stocks. After all, a put option³ is only an intangible promissory note and only as good as the commodity trading company or financial house that issued it; as was seen in the latest financial crunch, even the largest companies can fail.

Governments, however, should seek expert help to design a food security policy framework and to find more targeted methods for directly assisting their farming communities. Governments should also resist calls from the larger trading companies to be allowed to speculate in primary food markets.

British farmers have access to at least 2,000 sources of information about the market for their inputs and their crops. They represent less than one per cent of the British population. In these four African countries, over half the population relies on the land for a living; yet they have no access to relevant, impartial and timely market information.

Designs for new, efficient systems for providing market information of the quality needed by farmers to make optimum marketing decisions have been drawn up and put into practice over the last few years. Market information services can be operated at low cost as a public good, or can be developed as public, private-sector partnerships or purely private-sector arrangements.

Governments and development agencies should instigate countrywide programs to provide farmers, traders, transporters, warehouse owners, etc. with relevant and timely market information.

6

The Ethiopian model: Observations and conclusions

The model chosen for the new commodity exchange in Ethiopia is radically different from those in the other four countries described above and different from its design as initially conceived.

Governments play a powerful role in these other countries and in all of them, opposition parties are fairly weak. From 1974 to 1987, Ethiopia was run by a communist military junta which collectivised much of the country's agriculture and imposed a co-operative system among agricultural workers. Today one could describe Ethiopia as a market economy, but it still features high on most lists of the least democratic countries. (The People's Revolutionary Democratic Front Party and its allies have 545 seats in a 547 seat parliament.) Thus, the Ethiopian government has played a leading role in the design of a new marketing system for the agricultural sector, its most important industry.

The new commodity exchange-based marketing system has only been in place since 2008, so it may be too early to make final judgements about its usefulness, especially to actors in the wider Ethiopian agricultural sector. The model for the system, however, can be easily outlined.

The original concept for the system was much like those of the other countries, with an accent on the trading of grains, especially maize. As everyone knows, Ethiopia is prone to devastating droughts; thus, for the Ethiopian government and all the aid agencies, food security is at the center of their concerns. The need for control of food supplies in the country probably meant that the grains market was not the ideal candidate for a free-trading

commodity exchange; but clearly, the authorities must have realized that such a system could bring more order to the market of Ethiopia's biggest export item, coffee.

In some ways the new system bears some resemblance to an old-style Coffee Marketing Board. Indeed, more than one interviewee said that it was a replacement for such a board. The similarity only goes so far, however. Coffee boards were there to represent state interests as much as the interests of the farmer. Their negotiators could offer the nation's coffee to exporters from a position of great market strength and win the best world market price for it. But not all the proceeds were passed to the producers, as the same board set a fixed internal buying price to pay producers what usually turned out to be a significantly lower price than the sale prices obtained by the board. Thus, much of the board's revenue was taken in tax and much got lost in bureaucracy and other 'leakages'.

In the 1990s 'liberalized' system, the marketing board was to disappear and typical small-scale producers were to sell (as they have done for the last twenty years or so) to small-scale traders (known as collectors in Ethiopia). The collectors then sell to large traders (known, confusingly, as 'suppliers' in Ethiopian nomenclature). In practice, many collectors borrow cash from suppliers to purchase coffee at the farm gate and so act as a kind of agent for them. As with all the other countries we have looked at, it is common practice for collectors to advance loans to farmers for repayment at harvest time, and for collectors to

collude with each other to pay the same low price to all the farmers they deal with.

In the new Ethiopian commodity exchange-based system, collectors and larger traders are required to store their coffee in registered warehouses, where it can be identified by type and quality. If it is to be exported, it must then be traded through the new commodity exchange which now has the monopoly for all export sales. (Vertically integrated producers of speciality coffee, who have their own foreign outlets, are exempt from this control.)

As might be expected, the huge and important Ethiopian coffee market has, for many years, been operated relatively efficiently. A greater proportion of producers of coffee are organized into farmers' associations than producers of other goods; specialist warehouses are operating throughout the coffee growing areas and there are armies of experts available to help in all stages of production, testing and tasting.

The price for each type of coffee is determined by a form of 'open outcry' bidding between the main traders, including the trading arms of large producers' co-ops, on the one hand, and the exporters, including agents for the world's large coffee brands, on the other. Exchange rules have certain features built into them to reduce price volatility. Prices are not allowed to change by more than 5 per cent up or down over a ten-day period, after which a new price can be set which is, again, not allowed to move beyond a 5 per cent limit for another ten days. Although there are no explicit rules to prevent collusion among buyers or sellers or transfer pricing abuse, the exchange regularly compares the prices agreed on its trading floor with those traded on other major coffee markets around the world, giving them a good indication of any price manipulation taking place. In addition, the government maintains the right to confiscate what it believes to be 'hoarded' stocks.

Every participant on the floor of the exchange must buy their membership and a seat on the exchange. As in Zambia, at the initial stages of

setting up the coffee component of the exchange, the large companies, who had already purchased their right to trade, denied membership to any other trading organization. Reports from other traders suggest that although initial membership fees amounted to about US\$5,000 a seat (a tradable asset), one recently changed hands for US\$1 million. If this figure is close to being accurate, the profit that can be made from exchange dealing must be very large indeed.

The reason we cannot know much about the finances of the exchange is that much of such information is a state secret. The exchange is housed in a large, new, five-story building and rents more space in a new building next door. It employs many highly qualified staff, some of whom have been trained abroad in the legal and mechanical aspects of commodity exchanges, and others in handling public relations. Various estimates for the cost of establishing the exchange were made by many of those interviewed and varied from US\$20 million to US\$58 million.

As with the other exchanges discussed in this report, the major traders in Ethiopia were not particularly enthusiastic about the first model for the exchange, but were even more alarmed when the government announced that all coffee trade had to pass through the exchange's trading floor. Because the government was determined to overcome the traders' objections, it refused to grant export licences to some traders and threatened to confiscate stocks.

As it turned out, the exchange has apparently functioned fairly smoothly and some teething problems have been ironed out. One example of this occurred when the US-based Speciality Coffee Association complained that they could not obtain the very high quality and unusual niche-market coffees that sell for very high prices, because the exchange had no system for distinguishing special coffee types that were traceable to individual producers and primary

processors. The Association was accommodated by the exchange however, and special mechanisms have been put in place to allow this lucrative trade to continue.

One similarity to the old coffee board has remained: the exchange is responsible for collecting a 15 per cent value-added tax (VAT) on its coffee trade which must be paid before delivery by the coffee buyers. This has led to another problem when, on some shipments, suppliers were unable to meet the total volume purchased by the buyer. Although these buyers did not have to pay for coffee which was not delivered, they had to pay the total value of VAT. The exchange blamed the government's revenue department for this obvious flaw in the system but some interviewees believed that this problem can and will be put right.

The exchange is also offering a market information service linked to its trading activity. At present this consists of almost instantly disseminating on the Internet the prices of the various grades of coffee that are traded on the floor of the exchange. These prices are also broadcast on a regular radio slot carried in several languages by a local a private FM station.

The most important part of the design of this new system, from the point of view of ordinary producers, is that, like the other exchanges discussed, the Ethiopian authorities hope to link the exchange with a huge network of what they call 'primary markets.' The plan is to have 100,000 of these spread throughout the whole country's agricultural areas. Each will be a sort of depot where farmers can bring very small quantities of their products and meet buyers interested in purchasing their output, but where farmers can safely store their product if they are unsatisfied with the offered prices. There is hope, too, that farmers will be able to receive part payment at the primary market to meet their immediate cash needs. Each depot will employ a quality manager who will weigh and assess the goods and a

security officer who will look after them. The probity and competence of each of these officers will be certified by some authoritative body. The design calls for there to be so many of these depots that no farmer will have to travel more than seven kilometres from the farm (with loaded donkeys) to find one. The plan is that this system will do away with the entire tier of small-scale traders (the collectors), and by so doing offer farmers the opportunity of getting higher, competitive prices.

As with the other exchanges, very little of this program is yet in place. Indeed, it is not very clear which organization is responsible for creating and paying for the network. If the entire system were to be put in place from scratch, it would, according to one interviewee, cost at least US\$100 million. It appears that the Ministry of Agriculture and Rural Development has been asked to take a leading role in this program and that officials are confident that it can be 'rolled out.' They believe that these depots probably already exist in their physical form and are owned and/or controlled by the lowest rung of local government in the country.

Now that the commodity exchange's system for dealing in coffee at the large-scale end of the market has been deemed a success, the government has decreed that several other mainly exported commodities have to be exported exclusively through the exchange. The first ones chosen are sesame seed, maize, haricot beans and white pea-beans (a variety of which are sometimes called navy beans); the decree went into effect in October 2010, at the time of the harvest for these products.

The major dealers have already bought their membership and seats in the grains and pulses⁴ section of the exchange and some have started trading in these products even before their trade through the exchange becomes mandatory. The major 80 or so exporters of this category of products are members of a trade body called the Ethiopian Pulses, Oilseeds and Spices

Processors Exporters Association. Members of this body have some grave concerns about the new arrangements. Their first concern is that the exchange operators are not fully aware of how different their market is from that of coffee.

Compared to the highly efficient coffee market - however unsatisfactory it is from the small producers' point of view - these other value chains are still extremely informal. The success of the specialist system depends also on how well organized farmers are. Only 18 per cent of Ethiopia's agriculturalists are members of farmers associations effective enough to contemplate collective marketing, while this proportion is somewhat higher among coffee producers.

Exporters of these new products face another problem of quality and grades. Some of the exporters' foreign customers demand a very particular grade of product and their specifications may not be identical to those accepted by the exchange. If the flow of these products for the export market is in any way interrupted by a hitch in the new system, there could be serious consequences. All these products are available from many other countries in the world and it is only the low price, good quality and reliability of delivery that keeps Ethiopian products competitive.

Hitches could occur at many points in the new value chain. The system needs various inspectors to issue certificates and other documents. Moreover, the system for tracing the origin of products that can be delivered on the exchange is not settled and the exchange's 'lot' size may be too small for the largest shippers. As one interviewee pointed out, the more bureaucratic a system is, the more open it is to corruption.

It should be emphasized, however, that the government and the exchange have clearly stated that they want what is best for all the actors in the industry and what is best for Ethiopia. They have no interest in imposing an unworkable system on the industry and, as with speciality coffee, they are

prepared to listen to stakeholders' concerns and be flexible when it comes to operating the system.

One rather odd aspect of the operation of the exchange so far is, apparently, that there have been no dispute claims lodged between either buyers or sellers; this, despite the fact that the exchange offers an arbitration service. Before the advent of this new system it is said that there were many disputes over late delivery, poor quality, poor packing, etc. Traders are, understandably, hesitant to complain about a system still in its infancy; but it would be interesting to find out if disputes really are a thing of the past, or whether there is some other explanation for the phenomenon.

6.1 The Catholic Relief Services (CRS) navy bean project

Under their New Business Model for Sustainable Trading Relationships, CRS is encouraging small-scale farmers in Ethiopia to grow navy beans. These beans are well-known in the West as baked beans and are a small variety of white pea-beans, one of the commodities that must be traded through the new commodity exchange since October 2010. They are not a traditional food product in Ethiopia and so all of them are exported.

CRS gives seeds of improved varieties to 2,500 small-scale farmers and have given training in bean production, storage, post harvest management and collective marketing to some 700 of them. The plan is to scale up the project to include tens of thousands of farmers over the coming years, farmers who can sell their bean harvest to any merchant they like. There are 30 or so bean exporters operating in the country. CRS also helps to boost the export market for navy beans through a partnership with an Italian-based company (ACOS) who, in turn, have a sales contract with a large British baked-bean canning company. Navy beans are produced in massive

quantities in Canada, Argentina and the U.S. and the Ethiopian producers can only find foreign customers by competing on price, quality and delivery reliability.

Although ACOS exports between 5,000 and 10,000 tons of Ethiopian-produced navy beans a year, it does not buy directly from the farmers who have been given seed by CRS. Instead it buys from a small group of traders whom they trust and with whom they have worked for many years. For this reason, ACOS has no idea which farmers it buys from, but only the district in which they are grown. There are opportunities for ACOS to trade with farmer cooperative unions, but this process has proven to be less reliable than working with traders.

To satisfy their sales contracts with the British buyer, ACOS has to meet a tight specification. This means that, when they purchase the beans, they clean, wash, grade and pack them. They are obliged to ship only beans with a particular size tolerance, and must avoid including broken beans.

In October, ACOS was obliged to abandon their current system of buying through local merchants and will, instead, use the seat they have bought on the commodity exchange to buy beans from other members of the exchange who have bought the produce of Ethiopian farmers. These traders may have bought from other traders who have, in turn, bought from other traders. In fact, the beans may have changed hands several times since they were grown on an Ethiopian farm. In the packing and bulking-up process, the beans from several farms are likely to have been mixed together.

According to the rules of the exchange, the beans must comply with one of four defined quality categories and must be delivered to a warehouse which has been approved and certified by the exchange. The only mechanism preventing beans

of the wrong quality being delivered against the ACOS purchase deal on the exchange is the skill, experience and honesty of the staff at the warehouse and the quality of the equipment they have to test the beans with. And, it may be that the specifications of the beans designated by the exchange differ from the specifications demanded by ACOS's British buyer.

The beans are likely to have been bought originally in small quantities from very remote farms, where there are no means of checking quality properly and where the buyer has no idea of ACOS's specification. ACOS needs to buy 200 tons of beans a day in the harvest season and it may be that, under the new trading system, with its long lines of traders and the new bureaucratic systems, the flow of beans simply cannot supply the volume needed by ACOS.

With all these potential problems in mind, it is not surprising that ACOS is concerned about the new system. If any one of these problems were to occur, ACOS might lose its business to foreign competitors and Ethiopia would lose important foreign revenue.

Of course, the commodity exchange and the agricultural ministry might have completed its very ambitious plan to establish 100,000 'primary' markets by October, equipped with testing equipment and people skilled enough to use it. If that is the case, ACOS's worries may be exaggerated. However, from the evidence of several experts interviewed, the establishment of the huge lower half of the reform pyramid is many years away.

ACOS has noted that the new exchange has been running the coffee export business since early 2008 without too many apparent hitches.

7

Conclusion for navy bean project

It should be said that the current CRS project has been challenged in implementing its vision of sustainable trading relationships in one important way. There is no certainty that the beans ACOS buys and exports have been grown by the farmers in the project. In other words, traceability has not yet been established within the current practice. This may not matter so much given that CRS's important work is in its training scheme, delivery of free seed and the stimulation of the navy bean export market.

It is also important to point out that the existing informal marketing system for this type of commodity is deeply unsatisfactory, especially from the producers' point of view.

CRS was planning to introduce traceability into its model, through producer networks supplying specified ACOS agents; however, the advent of the commodity exchange-based marketing system will make that ambition much harder to achieve.

The most significant problems are, however, those associated with the infrastructure of the commodity exchange. The success of the new Ethiopian commodity exchange-based market system as far as navy beans are concerned depends entirely on how much of the logistic infrastructure is in place by the time all navy beans have to be marketed this way for export. The danger posed by introducing many inspections and certifications into the marketing chain is that the system could be abused by traders who might be tempted to bribe officials to accept inferior produce or to give them priority

in a waiting list to be dealt with. The more the bureaucracy there is, the more likely it is that corruption will occur.

One reason to be optimistic is that it is obvious that the commodity exchange is under detailed scrutiny not only by its potential users but also by the donors, agricultural development agencies and the wider world. The amount of investment in the scheme has been enormous and no one, especially the Ethiopian government, has any incentive to see it fail with the exception, perhaps, of the small-scale traders, known as collectors in Ethiopia, whose role is supposed to disappear in the new scheme. It seems that, in the run-up to the imposition of the mandatory use of the exchange-based system, a number of stakeholders have been consulted including producers' representatives and traders some of whom challenged the original plans.

If all the procedures have been put in place and work as they were designed to do, then substantial benefits could be enjoyed by millions of typical, small-scale Ethiopian farmers. They would not need to travel far with their goods to find a competitive market, the price they receive would almost certainly be a greater slice of the true market price, they would not be forced to sell to cover their immediate expenses, they would be encouraged to market their goods collectively with their fellow farmers and they would have an incentive to produce a standard quality product and use standard measures and packing materials to improve its market attraction.

It seems that the exchange has set itself incredibly ambitious targets and many experts do not believe it can meet them in the time frame it has allotted itself.

At least one element in the complicated chain between supplier and shipper is likely to go wrong

and any break in the chain could prove decisive. End users might be persuaded that an initial hitch in the system could be quickly sorted out but any persistence of trouble might spell the end of this business.



8

Recommendations

The Ethiopian government is clearly determined to push through with the new system, and there is no likelihood of any particular group of stakeholder (with the exception of the donors perhaps) postponing or cancelling the October 2010 deadline.

CRS should join with its partner ACOS and its trade association and meet with commodity exchange and agriculture ministry officials to examine and question every aspect of the new system.

It might be possible to get senior commodity exchange officials to visit the ACOS plant to see for themselves the difficulties the company is likely to incur if the system cannot accommodate their needs.

It is also vitally important that the commodity exchange identify and acknowledge as quickly as possible any failures in the system as soon as they occur. There should be some sort of crisis-

management unit set up with the participation of all the stakeholder groups, and capable of either finding ways to correct problems or postponing the project if the problems prove too great to solve promptly. Some effort should be made immediately to persuade the exchange to allow such a unit to be formed.

It may be that very few of the primary markets are established before October. Perhaps the trade could devise a contingency plan if that turns out to be the case. Maybe they could arrange for specialists to be available on the ground to stand in for government officials to weigh and test traders' or farmers' output.

It should be born in mind that many of the investments of the value chain work by the CRS project, such as the seed provision, farmer training, and farmer-trader relationship building will still be beneficial to the farmers no matter how the trading system is structured or works.

Appendix A

Notes on each country

9.1 Kenya

The commodity exchange-based project

The Kenya Agricultural Commodity Exchange collects prices and traded volumes of a wide range of products from nine wholesale markets and disseminates them using Radio, SMS, interactive voice response service (IVRS), Internet and email. It charges about US\$10 per month for a more detailed service. The operators admit that by only providing prices, systems are of little value.

The operators of KACE now admit that it cannot be described as a commodity exchange. The initial idea was for the exchange to invite buyers and sellers to its trading floor to do business or to link them electronically. Although it also offered to help clients put their deals together, not enough people have taken advantage of this service to make it viable.

So far, US\$500,000 has been spent on developing a warehouse receipt service. This program consists of three warehouses, one having a 10,000-ton capacity and two others of 1,500 to 3,000 tons each, owned by a private operator who will offer public storage. They have been certified by the East African Grains Council.

There seems to be some concern about extending the scheme too far down the value chain. Small depots were built in the past, apparently but small-scale traders 'burnt them down'. One interviewee claimed that 'it was not the exchange's business to do anything for small farmers.'

A study by Ian Goggin has been commissioned by

the National Cereals and Produce Board (NCPB) for a design of a new commodity exchange which will be a partnership between them and the private sector, to include banks and insurance companies. Adrian Mukhebi of KACE was appointed to the NCPB board after the 2009 'food crisis.' The NCPB has the budget to take interested parties to see exchanges in India and South Africa. The cost of the new exchange 'will be covered by members' fees.'

One interviewee said that the priority should be to improve wholesale and local fixed place markets.

The WFP purchases food in the country using a tender system, but the tenders 'always excluded small farmers.'

Non-commodity exchange-based projects

The East African Grains Council, comprised mainly of large trading firms, runs a regional MIS for maize, wheat, beans, rice, millet and sorghum. It also offers standard contracts and an arbitration service. It promotes the idea of a regional commodity exchange.

The Alliance for Commodity Trade in Southern Africa (ACTESA), launched in 2008 by the Common Market for Eastern and Southern Africa (COMESA), is promoting micro and macro policies to help all farmers to become competitive in staple foods.

Feed the Future is a new initiative by the Obama administration to tackle food insecurity. It will use the private sector to deliver these programs while

maintaining emergency food supplies.

The Kenya Maize Development program of the US private company Agricultural Cooperative Development International (ACDI) and Volunteers Overseas Cooperative Assistance (VOCA) is also concerned with food security, focussed especially on increasing yields and promoting appropriate technology. They are funded mainly by the US government. USAID's Market Linkages Initiative works to increase commercial integration of smallholder staple food producers into national and regional markets to promote growth and food security. They have spent US\$5.7 million over 24 months in seven countries. The money has been spent on stores, scales, drying floors, pallets, for farmers and store traders at village level. It was said that the program was too ambitious, slow in getting off the ground, and too short - two years - of which several months have already passed. They increased the production of 150,000 farmers from an average of 17 bags to 25 bags of maize using production training, but are not involved in market development.

The Kenya farmers' union, along with the government, also offer a market information service. Their prices are, apparently, different from those published by KACE.

The Competitiveness and Trade Expansion Program (COMPETE) is funded by USAID and employs Ian Goggin. They 'develop value chains,' support private trade associations and help to harmonize regional trade policies and practices.

The Gates Foundation-funded Alliance for a Green Revolution in Africa (AGRA) also concentrates on food security, working with small-scale producers to increase productivity, competitiveness and efficiency. They supply seeds, help to provide access to markets, transport and storage.

The representatives of many donor organizations, development organizations and NGOs met in

Nairobi in May 2010 to launch a 'forum' to coordinate programs. The effort is funded by the East African Grains Council which is, in turn, funded by USAID.

There is not enough funding for efforts to scale up programs to educate and assist farmers with access to markets, including market information services. No mass programs are in operation at the moment. Those programs which do exist are often too short term.

There are a few micro-financing initiatives in the country but they are focused on micro-processing initiatives.

General

Kenya produces about 3.3 million tons of maize and 300,000 tons wheat. Volumes vary greatly in drought years. Kenya recently imported 1.1m tons - apparently contaminated by GMO maize. The maize market has 'degenerated' over the years and now has quality problems. There is a major aflatoxin problem in maize which spreads easily.

The state-run National Cereals and Produce Board sometimes carries stocks of 3 million or more tons which it stores in its many very good warehouses. It also operates the Strategic Reserve which buys only some 50,000 tons for a real emergency. 'Stocks are funded by the World Bank,' according to one interviewee, who said that they have little money and farmers have to wait a long time to be paid.

It was stated that recently the NCPB bought at high prices from farmers (perhaps preferred ones) and sold at a lower price to millers in order to provide cheap food for the poor. In practice, many of these millers sold at the higher prevailing free market price. Some of the subsidized flour did reach the poor, however. It appears that the resulting scandal has caused the NCPB to rethink its strategy.

How farmers are organized

The agricultural development agencies are struggling with the problem of defining their target for assistance with improved market structures. Some say that they must have access to at least two hectares of land to be capable of producing some surplus. But it seems that no research has been carried out in this area.

There is evidence that traders collude on a small scale.

The farmers union is disunited.

9.2 Uganda

The commodity exchange-based project

The Uganda Commodity Exchange was founded in 1998.

The system was originally funded with a grant from the European Commission of 1.3 million Euros. A further 1.13 million Euros were given for technical assistance. It was originally expected for the exchange to become self-financing within four years. Exchange staff visited other commodity exchanges in South Africa, Kenya and Colombia to see how they worked.

Many of the original objectives of the scheme have not materialized or have been considerably delayed.

Funding for the commodity exchange has now ended and it is not certain whether they will receive further funding. However, supporters say that government cannot let it fail as it is 'too important.' Apparently, the government is trying to borrow funds from the World Bank to finance it.

Commodity exchange staff say that:

- East Africa needs the exchange and that it should work closely with SAFEX;
- WFP should only make purchases through the Warehouse Receipt (WHR) system;

- there would 'be no price discovery without the exchange.'

Traders like the market the way it is and see no benefit from a commodity exchange.

Most experts approve of the warehouse receipt system but are unconvinced about what the commodity exchange is for. One idea was for the exchange to be an 'ebay for maize,' with no need for a trading floor. Such a system would need local community drying equipment and a bagging depot with stitching machines, etc. This could be done without an exchange.

There was an atmosphere of 'massive conflict' in the process of setting up the exchange, as advisors had very different concepts for the project. Some wanted a full-fledged, Western type of exchange, trading in minimum 50 ton lots, with futures, hedging and derivative trading, to be used only by the tiny percentage of the largest farmers. Others put emphasis on the warehouse receipt.

The country's banks were not interested in the project, especially the idea of lending against warehouse receipts.

One important issue is that a warehouse receipt is merely a promise to pay for a certain tonnage of the same quality product, and not a guarantee of sale. Warehouse receipts only work if merchants can be persuaded to buy and sell them. In practice, this can take a week in a buoyant market, but in a country with two growing seasons, a buyer must be found quickly before the next harvest. The system can go wrong once, but if it goes wrong twice, no one will trust it.

The exchange is still trading less than the 1,100 tons per month needed to break even.

The exchange has seven licensed warehouses and disseminates prices using small message service (SMS).

There are no brokers on the exchange, only dealers, but some of them represent farmers'

groups. The exchange could be working with about 315 organized farmers' groups (30 farmers per group), but in practice, it only works with 50 such groups.

The agreement to establish the warehouse receipt system was signed in 2006. The legislation for the warehouse receipt system took ten years to complete. It now incorporates full traceability.

Two interim reports - one from the Common Fund for Commodities and another by the Uganda Commodity Exchange - have found that the WRS is not feasible at the farm gate level because volumes are too small and that the immediate beneficiaries of the system are traders. Indeed, if traders do not benefit, they will not use the system.

Non-exchange projects

The new Opportunity Bank says it wants 'to crack the finance problem for Africa.' It is a private, profit-making, microfinance organization subsidized by donors, the Gates Foundation and Mastercard. They work extensively with extension service providers. Their clients are households with surplus money. They work in several countries and makes loans ranging from US\$200 to US\$800. They have a low default rate of 5 to 10 per cent, which they attribute to peer pressure. Interest rates hover around 28 per cent, but they claim that in agriculture, clients get returns of 300 per cent and that their rates are lower than those of similar banks. Inflation is about 25 per cent.

Neumann, a large German coffee company, uses an out-grower method and trains farmers to market collectively. They are partly financed by EU money. They work with 17 farmers' groups involving up to 15,000 smallholders. The quality and quantity of output has improved since the scheme began and the groups are almost independent now.

The extension service of the National Agriculture Advisory Service (NAADS) is improving but still has no market focus. Some extension work is

carried out by a private company, Farmers Centre (U) Ltd.

Uganda has a market information service provided by FIT Uganda, operating through a website and not accessible to farmers.

General

Big companies are the largest buyers (of maize) from small farmers, but they buy indirectly through agents whom they send all over country to buy from local traders. They pay in cash and carry testing equipment with them.

The regional grain market is 'dominated' by WFP and all processing is carried out near their warehouses. They purchase between 15 and 25 per cent of Uganda's output.

Their P4P initiative is open to abuse, as they 'never reveal prices' and 'know little about markets.' Their purchases are 'controlled by three or four traders,' but some are made from smallholders who are instructed by WFP about how to sell to them.

Government involvement in the market lacks transparency and the Kenyan National Cereals and Produce Board is considered by some traders as the 'biggest problem in the region'.

There is a 'horrible lack of information' throughout the industry. Agriculture needs more fixed place markets and more research to identify people's needs.

There is 'no aspiration for quality in Uganda.' 'Any old grade can be sold to someone,' but some output of smallholders is very good.

Kenya will only buy the best grade. Uganda has only two markets, Kenya and the WFP, but there is much scope to sell more to Kenya and the trade border is still open with Kenya.

WFP has special buying conditions for small farmers.

How farmers are organized

There is general agreement that collusion among traders at the farm gate level is commonplace, even in the coffee market.

Experts said they had never seen studies about what traders or transporters think or want.

9.3 Zambia

The commodity exchange-based project

The Zambian agricultural commodities exchange was established in 2007. Its main traded item has been wheat, followed by maize and soya beans. Most of what the exchange calls its deals are so-called 'registered trades,' rather than trades across the floor. Parties to registered deals get the benefit of the exchange's contract and arbitration service, but do not have to immediately disclose the price or other contract details. This option was considered by some to be undermining the purpose of the exchange.

ZAMACE is owned by its 15 'brokers;' although they call themselves brokers, all except three are actually large trading companies. At their first meeting, the exchange immediately closed membership to other companies.

The exchange earns revenue from trading commissions, membership fees (US\$400 a year), certifying warehouses and sales of laboratory services. The laboratory equipment was donated by USAID.

The exchange has still not been able to trade nearly as much as the 400,000 tons a year needed to break even, as Zambian millers process only 60,000 tons per month. The cost of establishing the exchange and from one-third to one-half of running costs are met by donors, mainly USAID's PROFIT program which has contributed US\$1.1 million and USAID's COMPETE program, which covers some aspects of the warehouse receipt system and contributed

US\$250,000. A concerted effort was made to create the necessary regulatory framework for the new system. PROFIT believes that it may have to fund the exchange 'indefinitely'.

Supporters of the exchange say that it has established quality standards in the country which are harmonized with SAFEX. It offers a dispute resolution and has a warehouse receipt system based on several district warehouses with capacities of a minimum of 5,000 tons. In three regions, it is also piloting the next tier of the new trading system with what it calls 'community sheds,' each with a 30- to 60-ton capacity, paid for by the European Union. Grading is carried out at the district warehouse level.

A minimum trade on the exchange is 30 metric tonnes. There is nothing to prevent exchange brokers from speculating or hoarding food products.

WFP now supports the exchange by putting most of its P4P deals through its organization. WFP pioneered the buying of mixed beans and ground maize through the exchange. It is said that the representative of one large trading broker wants to become the exchange broker for WFP.

Some experts see no reason to have the commodity exchange. One claimed that, 'pumping money in at the top was a giant leap of faith', and that 'it had better work!'

Another said that the exchange should be replaced by an electronic bulletin board, and went on to say that the exchange's performance was 'not improving;' another said it was 'not going anywhere.' Yet another expressed the opinion that the exchange is really just a regulatory body.

It is said that even the government is not convinced that the exchange is useful.

Big trading companies were apparently enthusiastic about the exchange in the initial stages, but now it is clear that they prefer to stay with the existing system. Farmers are said not to be keen either, as they see the exchange as 'the same old traders.'

The exchange announces prices by email to 500 parties and uses SMS, and works closely with ACE, the Malawian exchange.

Non-commodity exchange projects

Some training schemes for out-growers of cotton and fresh food producers are successful.

A company has set up a modern canning plant recently.

The agricultural ministry runs a 'conventional' market information service but does not disseminate by radio. The Zambian farmers union also provides some market information but by SMS.

USAID's COMPETE program aims to increase competitiveness and regional trade.

General

Grain traders claim that government intervention is unpredictable, inhibits free trade, and that the maize market should be 'depoliticized,' and 'have no regional trade restrictions'. They would not oppose the government's Food Reserve Agency (FRA) holding a small emergency stock. They have advised the government to buy call options on SAFEX rather than hold physical stocks. They said they were perplexed that donors were unable to stop government intervention in the market.

The FRA often announce that they will pay smallholders up to 70 per cent more than the market price for maize but that, 'no one ever knows if they will have enough money to buy'.

Louis Dreyfus, the very large international trading company, recently stopped its operations in the country, blaming government market intervention. Cargill, a similar company, has remained active.

There are no big wholesale markets. 'All the business is done at the large milling company's doors.' Most 'ordinary' people buy maize flour from the operators of numerous local hammer mills.

The country usually has a large surplus of maize, some 1.2m tons out of a 2.8m ton production. Most of this comes from smallholder producers.

Millers regularly break contracts with their suppliers (often when the market price falls), but they are too big for the suppliers to take to court or make a fuss about.

How farmers are organized

The agricultural extension service in Zambia is moribund.

There are a few large farms of about 20,000 hectares, but they are 'mostly foreign owned.' There are 900 'commercial farms' in Zambia. Some 80 per cent of commercial farmers are white. Several hundred white Zimbabwean farmers settled in Zambia.

There are one million farmers working the land, some 100,000 of whom have joined farmers' associations.

Many farmers have phones, but there is no reception in remote areas.

No recent research has been done on the experience of small farmers/traders.

Farmers think 'there is no market for them.'

9.4 Malawi

The commodity exchange-based project

Malawi has two commodity exchanges - the Agricultural Commodity Exchange for Africa (ACE), and the Malawi Agricultural Commodity Exchange (MACE), both established in 2004.

MACE is a private company managed by Elizabeth Manda, but funded by the Rockefeller and Gates Foundations. Since that funding has now ended, they are now offering a new model involving a kind of warehouse receipt system to attract more funding.

The exchange was first sponsored by the

Investment in Developing Export Agriculture (IDEA) project and modelled on KACE in Nairobi.

The objective was to link buyers with sellers and offer a market information service. The MIS recorded prices for 'many commodities in many markets,' using SMS and email for dissemination, and transmitting one radio program each week. The FM radio station charged a small amount for the air time. One farmer interviewed claimed that he tried and failed to receive the service. The mobile provider is obliged to pay MACE US\$0.04 cents for each SMS, but has not done so.

The operators of the exchange are hoping to amalgamate with ACE.

The idea for ACE came from Common Fund for Commodities (CFC) research and was established with US\$1 million from USAID. Running costs have been met by smaller grants from other donors.

Initial support came from the National Smallholder Farmer Association - 'they are not really a co-op; they give no service to their members but act like a trader.' One interviewee described the association as 'almost like a parastatal'), representing 100,000 farmers. They wanted a vehicle to market their members' output. They were persuaded that the exchange would be able to deal with everyone's trading needs, but as soon as they saw how it worked, they lost interest.

Under its P4P program the WFP is now buying through ACE, using 'bid-volume-only' (BVO) tenders. The exact price paid is not known for seven days after the deal is completed, as the BVO does not need to be accepted by WFP for a week. So far, all its purchases have been through large merchants. But it is hoped that some BVOs will be granted to a trading arm of a large government-registered farmers' co-operative, the National Association of Small-Scale farmers of Malawi - (NASFAM). BVOs are advertised on the Internet and so have become 'a sort of regional notice-board tendering service.' WFP does not pay any commission for this service.

It was said that ACE is more open to farmers than the Zambian exchange, but is not as satisfactory in performance.

One interviewee described both exchanges as 'donor driven.'

Non-commodity exchange projects

Exagris Africa Ltd, a private business, has an out-grower scheme for 16,000 smallholders who produce chillies. The company provides training, gives them seed and pays for the chillies. Each farmer produces about 50kg, worth about US\$150.

The Agro Industry Fair in Tanzania, held a couple of years ago, was deemed a great success. It lasted three or four days and cost about US\$400 to attend. It was an EU-organized project and introduced buyers and processors to producers.

The tobacco industry is well organized and auctions ensure a market price; but growers are not satisfied with the pricing. It is understood that traders collude at the farm-gate level.

There is little coordination among agricultural development agencies in the country; but the government has recently signed an agreement to try to encourage better coordination among NGOs, donors, agencies and civil society; (this comment apparently refers to farmers' associations.)

USAID is working on programs to increase soya and Irish potato production as sources of protein; however, no market impact study has been done.

The dairy value chain 'is doing very well.'

General

Maize production is about 3.3m tons in a normal year.

USAID works on the rough assumption that only the 15 per cent poorest people should receive direct aid. There should be market solutions for the rest, despite evidence from Michigan State

University showing that up to 70 per cent of farmers are either market neutral or buy maize from the market. USAID are working with a number of partners to help create an enabling environment for smallholders to trade more of their produce.

The government often buys maize at higher than market price.

Maize attracts traders because it is a cash crop that is also eaten locally. The government sets a 'floor price,' and since no one has any idea of the true market price, the 'government dreams one up.'

The Chinese now have a strong influence in Malawi. There is some concern that the government is looking favourably on the 'Chinese model' of development.

Export licences 'can easily be obtained corruptly.'

Transport costs are a real impediment to exports and imports. Road haulage charges are US\$100 a ton and the railways 'don't work.'

The World Bank advised the government that they should not subsidize fertilizer. Thomas Jayne has shown that these subsidies do not necessarily increase production.

The government 'would not allow free market in maize.' They 'do not have a rational view of trade.' It has large forward contracts to buy from big traders. The cost of stocks is born by donors.

Many Malawians starved in 2001/2002 after the World Bank and IMF advised the government to sell most of its maize stocks. This was followed by two seasons of low rainfall. It took too long to get emergency supplies from South Africa.

The Agricultural Development and Marketing Corporation (ADMARC) is a government parastatal charged with the task of buying produce directly from farmers as part of the country's policy of retaining strategic stocks. There seems to be some doubt, however, that the parastatal will continue to operate as it has in the past. It was apparently to be privatized, but has been having 'financial difficulties.'

How farmers are organized

Only one per cent of farmers are organized in working associations. There is little trust between farmers and no initiative to get them working together. The key overall problem is that there are no proper market structures in place and farmers must sell to traders at low prices. Trading in the countryside is much as it is in the rest of the region.

9.5 Ethiopia

Commodity exchange-based project

The initial design for the exchange came from International Food Policy Research Institute (IFPRI) but was very different from the current design and focused on grains.

The mandatory range of products was extended from coffee to maize, white pea-beans (navy beans), haricot beans and sesame in October 2010.

The exchange broadcast a radio program announcing coffee prices; it now plans to have 100 billboards carrying market information around the country. Both dissemination methods are likely to be extended to other products. They use a private FM radio station which broadcasts in several local languages.

Some traders in vertically integrated speciality coffee companies e.g. Fairtrade are not obliged to use the exchange.

Coffee price volatility on the exchange is dampened for a ten day period; thus, it cannot deviate more than 5 per cent up or down from the first deal of a session until after ten days when another session takes place and fixes a new price.

The cost of the exchange is a state secret.

Most funding came from the United Nations Development Program (UNDP), USAID and the World Bank.

Membership of coffee group at the exchange is now 'full.'

The exchange defines several grades of each of the commodities it trades.

The exchange employs many very experienced and well qualified staff.

The exchange is now extending the system to establish primary markets designed to cut out the collector (small trader or agent) from the value chain.

Each primary market will have a quality manager, to test the products, a security guard and storage capacity.

They hope to have 100,000 primary markets, so that no farmer has to travel more than seven kilometres to reach one. Each will be inspected by licensed personnel every two or three months. It is not clear if these facilities exist already as the property of local government or whether they will have to be built at an estimated cost of at least US\$1,000 each. Nor was it clear who was to pay for them. The Ministry of Agriculture described the project as 'work in progress'.

The exchange plans to have internal trade in agricultural products go through the exchange as well.

The exchange has no specific mechanism to stop speculation or collusion, but the government can force traders to sell their stocks if it suspects malpractice.

As they were in the case of speciality coffee, the exchange wants to accommodate the concerns of stakeholders and be flexible, in order to do what is best for the trade and for the country.

The exchange collects on behalf of the government 15 per cent value added tax (VAT) and 2 per cent withholding tax from each deal.

Two interviewees said that they had heard that on the coffee component of the exchange had recently changed hands for US\$1 million, whereas the original cost was on the order of some US\$4,000.

Sceptics of the exchange said that that it had been just one possible option and that the exchange's management capacity was 'weak.'

They also questioned why, apparently, there had been no disputes so far between exchange traders when before the new system came in, there were 'thousands of them.' They said that the coffee market infrastructure was very old and well organized, unlike the markets for the new products. They added that smuggling to Sudan may happen if the new system does not work. Another interviewee thought that the exchange was just a rehashed version of the old Coffee Board.

Non-commodity exchange projects

Catholic Relief Services (CRS) have a program to organize and train farmers including offering advice on forming groups and how to improve storage. They wish they could increase the numbers they help.

Some 65,000 Ethiopians have gained a diploma in agriculture in the last ten years.

General

As with other trading systems in the region, traders often offer farmers inputs such as seeds and may also offer cash advances and weighing scales. This may mean that farmers have to accept lower prices to repay these loans or loans in kind.

Quality standards are not uniform and good and poor quality products are often mixed at the bulking up stage.

If prices for a particular product improve, farmers take more care in cultivation activities, such as weeding.

How farmers are organized

Wildly different estimates were made of the proportion of Ethiopia's farmers who belong to

associations active enough to contemplate collective marketing. Those close to the commodity exchange claimed that the proportion was up to 90 per cent. However, IFPRI has conducted the necessary research to answer this question and report that of Ethiopia's 28 million farmers, 26,000 are organized in co-ops and/or associations, representing 18 per cent.

The navy bean trade

There are 35 existing exporters of navy beans and grains. Canada, Argentina and the US are the main competitors.

CRS gives seed indiscriminately to 2,500 farmers, but these farmers do not always sell to ACOS. ACOS only buys from traders, so the beans cannot be traced to individual farmers, only the district they come from. They can only be sure if their purchases come from farmers who were given seeds by CRS.

Exporters think that the new exchange system represents 'uncharted waters.. They prefer the old informal system. The new system will be fine if all goes well, but the old system meant that they could use their own trusted traders to supply the quality and type of beans they need. They worry that the exchange might not have mastered the logistics needed to handle new products

especially at harvest time. It is essential that the delivery keeps flowing. They also wonder if there will be quality testing systems in all the growing regions.

The exporters wonder whether, if things go wrong, there will be a proper evaluation of why this happened. They also worry that if there is too much bureaucracy and many stamps to be obtained from officials, the system will be open to abuse.

Farmers' associations were given the opportunity to express their concerns to the exchange and they challenged the original plan.

ACOS exports the beans but they clean, pack and grade them first. They handle approximately 5,000 to 15,000 tons a year. They also query the 5-ton lot size proposed by the exchange. They think this might inhibit them from buying the 200 tons a day they need.

The exchange does not define quality by seed type, and therefore accepts mixed seed lots; the lack of support for new varieties, such as Awash Melka (a high yielding variety developed by the government research system) is likely to fail, unless provisions are made to establish variety-specific supply chains.

The exchange says that it might be willing to define a new grade specifically for navy beans.

Appendix B

People interviewed

Malawi

Bruce Schulte	Deputy Chief of Party, Market Linkages Initiative
Jim Goodman	Managing Director, Exagris Africa, Ltd.
Vincent Langdon-Morris	Senior Agricultural Technical Analyst, USAID
Johannes Tobias Flamig	Project Coordinator, P4P, World Food Program
Kristain Schach Moller	Technical and Legal Advisor, ACE
Sydney Khando	Director, MACE

Ethiopia

Yelekale Abebe	Business Development Manage, Ethiopian Commodity Exchange (ECE)
Samual Asher	PhD researcher, attached to ECE, Harvard University
Paul Novosad	PhD researcher, attached to ECE, Harvard University
Assefa Mulugeta	Director Agricultural Marketing Directorate, Ministry of Agriculture
Legesse Dadi	Program Manager, CRS
Gure Kumssa	Project Officer, CRS
Carlos Sanchez	Head of Program, CRS
Shenkut Ayele	Project Officer, CRS
Dirk Hoekstra	IPMS Manager, Ethiopian Farmers' Project, International Livestock Research Inst.
Kassahun Bekele	General Manager, ACOS
Shahidur Rashid	Senior Research Fellow, IFPRI
Muluken Lema	Director, Pulse, Oilseed and Spice Exporters' Association

Zambia

Rob Munro	Senior Market Development Advisor, PROFIT/USAID
Jan Nihoff	Regional Program Coordinator, COMESA, Michigan State University
Brian Tembo	Director, ZAMACE

Uganda

Peter Ngategize	National Coordinator, Competitiveness and Investment Secretariat, Ministry of Finance, and Director, Centenary Bank
Martin Fowler	Principle Consultant, the IDL Group
Philip McMinn Mitchell	Project Director, TA-NPI initiative
Alex Rwengo	Manager, Uganda Commodities Exchange
John Magnay	Senior Agricultural Advisor, Opportunity Bank

Kenya

Sophie Walker	Agricultural Marketing Specialist, ACDI - VOCA
Ian Goggin	Structured Trade Specialist, COMPETE, and Chairman, ACE Malawi
Peter Ewell	Regional Agricultural Advisor, USAID
Adrian Mukhebi	Chairman, KACE, and Board Member, National Cereals and Produce Board

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Acronyms

ACE	Agricultural Commodity Exchange (for Africa)	IVRS	Interactive voice response service
ACOS	Agricultural Commodity Supplies	KACE	Kenya Agricultural Commodity Exchange
ADCI	Agricultural Co-operative Development International	MACE	Malawi Agricultural Commodity Exchange
AGRA	Alliance for Green Revolution in Africa	NAADS	National Agriculture Advisory Service
VOCA	Volunteers Overseas Co-operative Assistance	NASFAM	National Association of Small-Scale Farmers of Malawi
ADMARC	Agricultural Development and Marketing Corporation	NCPB	National Cereals and Produce Board
BVO	Bid-Volume-Only	NGO	Non-governmental organization
CFC	Common Fund for Commodities	NSFA	National Smallholder Farmer Association
COMPETE	Competitiveness and Trade Expansion Program	P4P	Purchase for Progress
CRS	Catholic Relief Services	PROFIT	Production, Finance and Improved Technologies
EAGC	East African Grains Council	SAFEX	South African Futures Exchange
ECE	Ethiopian Commodity Exchange	SMS	Small message service
FAO	Food and Agriculture Organization	UCE	Uganda Commodity Exchange
FEWSNET	Famine Early Warning Service Network	UNDP	United Nations Development Program
IDEA	Investment in Developing Export Agriculture	VAT	Value Added Tax
IFPRI	International Food Policy Research Institute	WFP	World Food Program
IMF	International Monetary Fund	WHR	Warehouse Receipt
		ZAMACE	Zambia Agricultural Commodity Exchange

Endnotes

- 1 Death by starvation in Malawi: The link between macro-economic and structural policies and the agricultural disaster in Malawi. ActionAid Policy Brief, June 2002.
- 2 Jayne and Arign, 2009.
- 3 An option to sell an item at a preset price at some time in the future.
- 4 "Pulse" is an annual leguminous crop yielding from one to twelve seeds of variable size, shape, including beans, peas, lentils chickpeas, having high amounts of fibre and protein, provide important vitamins and minerals.

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