STRUCTURED TRADING SYSTEMS

A new vision for trade

GRADES AND STANDARDS

CONTRACT ENFORCEMENT

WAREHOUSE FINANCING

COMMODITY EXCHANGES
One of the issues to emerge at CTA’s value chains conference, ‘Making the Connection’, held last November, was the importance of devoting greater efforts to promoting national and regional markets in ACP countries. Governments, development partners and even the private sector have been overly focussed on selling to developed country export markets, which are highly competitive and restrictive.

Six of the world’s ten fastest growing economies over the last decade are in Africa and, as wealth has increased, food import bills have been skyrocketing. If farmers are to benefit from opportunities presented by the growing food demand from urban populations, marketing channels between rural areas and cities must be significantly improved.

Currently, grain trading requires that small traders inspect what they buy from farmers, large traders inspect what they buy from small traders and millers or exporters inspect what they buy from large traders. How much better if farmers could have their grain graded just once and this grade was accepted by everyone else in the chain?

Grading allows grain to be traded without further inspection. So a farmer or trader with graded maize can deposit it in a reliable warehouse, obtain a receipt and, when prices rise, sell that receipt to someone further down the chain, who can then pick up the maize from the warehouse. Further, the owner of the receipt can use it as collateral to borrow from a bank. Graded grain also makes possible the operation of commodity exchanges, which are now beginning to develop throughout Africa.

Together, grades and standards, warehousing and warehouse receipts, credit using stocks as collateral, and commodity exchanges constitute what is known as ‘structured trading’. This special issue of Spore discusses this topic in depth.

Michael Hailu
Director – CTA
A NEW VISION FOR TRADE

Enhancing linkages

Structuring agricultural commodity marketing from the farmer to the consumer is a major challenge for ACP countries. Structuring enables farmers (among others) to time their sales right to get the best prices, with more resources and financial tools, which also heightens transparency and reduces risks for all stakeholders along the chain. Some enlightened African countries are heralding the way.
Many smallholders till their fields behind draught oxen as they have always done, but now they may have a mobile phone tucked in their pockets. With the changing face of the African countryside, market mechanisms are being mainstreamed into the agricultural sector throughout the continent. Farmers nonetheless often try, successfully or not, to sell their produce in the conventional way at the farm gate or in neighbouring markets. Yet structured trading of agricultural products is developing rapidly, especially in Eastern and Southern Africa.

Structured trade is an outcome of the market liberalisation surge in the late 1980s, prompted by major structural adjustment programmes launched by Bretton Woods institutions in heavily indebted developing countries. This trend of structuring trade really began emerging in Africa in the mid-1990s, especially in Ethiopia, Kenya, Uganda and Zambia, developing further through the 2000s. It remains, however, more the exception than the rule.

You mentioned ‘structured trade’?

But what is it exactly? Structured trade is organised networking between different interdependent stakeholders within a sector - farmers, transporters, traders, warehouse managers, bankers, processors, agribusiness agents and even commodity exchange operators. To benefit, each stakeholder has to be fully informed and meet and comply with the standards and regulations, or otherwise face sanctions.

This marketing scheme cannot, however, simply be created from scratch and then be expected to prosper. The state clearly has a part to play, by giving market mechanisms free rein without price controls or monopolies (see Scopes of public intervention on p7). Public authorities should provide leadership and set up the necessary infrastructure (roads, support in setting up warehouses, etc.) and the legal framework to ensure effective contract implementation. They should also support training programmes focused, for instance, on certification.

Abundant challenges

Stakeholder networking is the key to the success of structured trade, ensuring that the commodity will get from the producer to the consumer in the most streamlined and cost-effective way for all operators along the chain.
This is not always an easy task. From a practical standpoint, once the produce has been harvested, its quality may deteriorate due to poor handling and storage, leading to financial loss. Farmers may also be forced to sell their crops in adverse conditions, immediately after harvest when there is a market glut, if they have an urgent need for cash or a suitable storage place is lacking. The farmer’s bargaining power at the time of sale will be low if they do not have access to information on prices charged elsewhere, or on the supply and demand situation. Moreover, if the product is not standardised, the farmer cannot compare it with other products marketed elsewhere in the country or region and will thus not have a clear overall picture of the crop value.

For merchants and traders, procuring small supplies of commodities from anywhere in the region can soon become expensive. Like farmers, if they do not have suitable warehouse areas to enable them to store and sell top quality commodities throughout the year, prices may fluctuate markedly between periods, which is detrimental to the farmer, merchant and consumer.

All of these operations can run smoothly, and
Scopes of public intervention

The Chicago Board of Trade was founded in response to a transportation logistics problem, particularly railway transportation – cereal stocks were pouring in at once after harvest, while the Great Plains near Chicago did not have a railway structure of sufficient capacity to deliver these commodities to US markets on the East Coast. Moreover, farmers were unable to obtain good prices for their cereal crops just after harvest due to the glut. Cereal storage warehouses were consequently built to preserve the quality and specific characteristics of these crops until their actual sale and delivery. Farmers were issued a receipt which they could submit to their banker and request credit to tide them over until the sale of their goods. With the emergence of the Chicago stock exchange, these warehouse receipts could then be sold at the most opportune time to gain the highest profit. High stock volumes are required to launch this mechanism anywhere, from the US to African countries, as is building trust throughout the system and amongst stakeholders. The state can intervene if necessary by purchasing warehouse certificates on commodity exchanges, thus building up public reserves of the commodity and strengthening the structured trade mechanisms. According to Franck Galtier of the French research centre, CIRAD, the state can also subsidise inventory credit systems or commodity exchange operating costs over a certain period in order to kick-start the system, give it time to build critical mass and become self-sufficient. The Ethiopian Commodity Exchange, East African Grain Council, TechnoServe in Ghana and the West African Grain Network have all gained the support of international public donors.

With a clear advantage in terms of negotiation, if the stakeholders are not forced into a financial emergency situation, Banks and credit therefore have a crucial role. Last but not least, stakeholders have to be sure that legislation will not unexpectedly change overnight, and that they will be protected if they are operating within their legal rights.

Reaping benefits from structured trade

Quality standards and other standards are essential for structured trade. Knowledge of these standards enables stakeholders to comply with them throughout the crop cycle, from sowing to harvest. In this way, they can deliver uniform identifiable products to a certified warehouse, which will issue a receipt in exchange. This warehouse receipt confirms the quantity and quality of the delivered and stored goods. Warehouse certification is a guarantee that the commodities will be kept under good storage conditions by a professional warehouse manager, who in turn bears the legal obligation to provide access to, and return, the product in due course.

Farmers may use this receipt to apply for a loan (usually short-term) from a bank or other financial institution to cover their urgent financial needs,
without having to sell their crops immediately after harvest. In other words, obtaining a bank loan by using a warehouse receipt as collateral gives farmers the freedom to sell at the most appropriate and hence most profitable time. The cash earned by this sale may then be used to repay the bank loan and cover the warehouse expenses.

But how can farmers figure out when it is the right time to sell? This is where access to market information is essential - farmers must be aware of the standard market prices of their products. Here again, the importance of the existence of standards so that farmers are able to ask for certain prices if they know whether or not their products match the quality and price features of standardised products. Price information should be gathered and collated by impartial third party experts to ensure that farmers will not be misled. This information has to be sufficiently detailed in terms of quality standards, other standards and marketplaces to enable farmers to sell their products at standard market prices.

Commodity exchanges facilitate this process by providing the price of reference products, thus helping farmers decide whether or not to sell their produce. Due to the high number of supply and demand operations that take place on these commodity exchanges, the price at any given time is a true market price.

This is a far cry from the heated discussion between a seller and a single buyer haggling over a bag of maize of mixed quality in a small rural market!

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**Glossary**

**Agricultural commodity exchange**
An open and organised marketplace gathering buyers and sellers who will trade a product according to a set of rules, through a system of bids and offers, leading to its **price discovery**, i.e. the current market price.

**Bid**
I want to buy a certain quantity and quality of a product at a given price.

**Broker**
Someone who conducts business, e.g. on the commodity exchange, on behalf of a buyer or a seller.

**Dispute-resolution techniques**
- **Arbitration**: Parties to a contract refer the dispute to a neutral, independent arbitrator and agree to be legally bound by the decision reached.
- **Litigation**: Parties unable to settle a dispute with other techniques bring their claim to court.

**Forward contract**
A contract where the commodity will be delivered on a specific date in the future.

**Incoterm**
Internationally recognised standard trade terms that set out buyer and seller responsibilities.

**Market information system or Market intelligence system (MIS)**
A private or public system that collects, analyses, packages, stores and disseminates prices and other information (grades, markets, stocks, market reports, charts) so as to give actors (for free or not) in the marketing chain the information they need to buy/sell the right crop, at the right time, for the right price. The information needs to be up-to-date, reliable, comprehensive and neutral.

**Offer**
I want to sell a certain quantity and quality of a product at a given price.

**Spot contract**
Ownership of the commodity changes hands immediately or within a few days.

**Structured trading system**
An orderly, organised, trading process in which all players - farmers, traders, processors, millers, banks - enter arrangements, understanding the rules and abiding by them. It involves warehouses, warehouse receipts, and commodity exchanges.

**Trader**
Someone who buys and sells on his or her own behalf.

**Warehouse receipt**
A document (paper or electronic) proving someone - depositor, i.e. farmer, processor, trader - has deposited a certain weight and quality of a commodity in a specific warehouse. This enables the depositor to have access to a bank loan when the bank accepts the receipt as collateral.
Transforming the Ghanaian grain market

Work by the newly formed Ghana Grains Council is helping to transform the country’s grain market. Farmers are given the ability to obtain more affordable loans against the collateral of their grain, and food processors are better able to compete internationally, thanks to a cleaner, higher quality raw material.

Working with farmers in Ghana’s Northern, Upper West and Upper East regions, Premium Foods Ltd processes maize for Ghanaian breweries and for export. When it began trading in 1994, the company only bought grain that had been inspected by its officers after harvest. Yet a foolproof quality system could not be achieved, with harvested grains often contaminated with stones and metal particles.

Over recent years, the Government of Ghana has formulated several policies geared towards creating a supportive environment for the local grain industry. But clear ownership among targeted beneficiaries had been lacking. However, with the establishment of the Ghana Grains Council (GGC) the situation has improved significantly. Incorporated in 2010, following a study by USAID which recommended establishing a private sector entity to improve competitiveness in the sector, the Council is mandated to represent the interests of private sector operators in Ghana’s grain industry.

“GGC came in at the right time,” says Prince Andoh, officer-in-charge of purchasing at Premium Foods. “What they are doing helps us as end-users because if we mill stones, it damages our machinery and this works against our competitiveness in the export market,” he explains.

The Council is keen on developing and enforcing standards to bring about competitiveness in the sector – achieving this mainly through the establishment of a warehouse receipt system. “Whether you are involved in production, trading or warehousing, we believe that working in an association like the GGC gives you a bigger platform to enhance what you’re doing,” says Dr Kadri Alfah, GGC chief executive officer.

A marked improvement

The GGC’s target groups cut across the grain value chain, and include producers, processors, warehouse operators, financial institutions and other service providers. According
to processors, the introduction of minimum standards and grain grades (colour, level of disease, insect damage), and the establishment of the warehouse receipt system are the Council's most significant interventions. “Once there is grading, it makes our work easier,” says Andoh. “In the end we get the quality of produce that we expect and the challenge of sorting grains containing foreign matter is all in the past.”

Initial challenges for the GGC included explaining the mandate of the Council and ensuring that interventions on warehouse certification and pre- and post-harvest training actually reached the target groups, especially the farmers. But Alfah notes that “good progress” has been made in building a broad membership base, and through partnerships with USAID and the Alliance for a Green Revolution in Africa, a network of farmers has now been trained on best practices in grain handling and storage.

Farmer sensitisation sessions have also helped improve the industry: farmers are now conscious of producing premium quality grain and adhering to standards to obtain a premium price for their produce. “If you have good quality, you have a good market,” notes Alhaji Zakaria Alhassan, director of Gundaa Produce Company, a grain trading company in Tamale. With 25 years of experience in the business of producing and marketing grains, he understands that lack of storage facilities increases postharvest losses and constrains the income levels of small-scale food producers. “The farmers don’t know where to store the maize; some of them are storing in their houses, and when they’re ready to sell, often the maize has rotted,” he says.

A win-win situation

Today, over 3,000 smallholder farmers under the GGC in the Northern Region have more control over the weighing and pricing of their produce with the establishment of a 500 t GGC-certified warehouse for grain storage, funded by USAID. “Two months after establishment, the warehouse is currently full of maize,” says Zakaria. With the establishment of the warehouse, farmers' grain is cleaned, packaged and stored under the warehouse receipt system. While the GGC, under a project that was supported by the Common Fund for Commodities, currently works with only four commercial banks – the Agricultural Development Bank, Ecobank, CCH Finance and Stanbic Bank – the system is expected to help build confidence amongst financial institutions to invest in agricultural enterprises. Zakaria believes that more financial institutions need to come on board to sustain funding for the scheme.

In pursuit of its mandate to increase quality, productivity and profitability in the grain value chain, the GGC has engaged the Ghana Standards Authority and other bodies in reviewing existing standards for major grains, including maize, rice, soya beans and sorghum. Alfah describes the GGC’s collaboration with the public sector as a win-win situation, especially as a means to upscale the warehouse receipt system. However, he notes that the Council wants to remain an autonomous private entity. “To function as an entity, GGC has its own sustainability plans and revenue generation plan, so that it can stand on its own, with or without donor support,” he says.

Kofi Adu Domfeh
Building markets on the correct principles

While structured trade has many positive impacts, prerequisites for such systems are many, and few have yet been established in Africa. Those looking to structure their agricultural trade should start by careful identification and implementation of the necessary mechanisms.

Where in Africa is there a successful structured trade system for agricultural products?

In Africa, the most effective structured trade system, alongside the Ethiopia Commodity Exchange (ECX), is the Johannesburg Stock Exchange’s agricultural marketing division (SAFEX). The two are very different market systems. SAFEX is a futures market and thus mostly a financial market in which only 2% of commodities traded are actually delivered. ECX is a spot market: 100% of trade results in actual delivery to the buyer. These structured systems of trade have a direct impact on millions of farmers as well as buyers, such as exporters or processors.

What lessons can be drawn from your successful Ethiopian experience?

In Ethiopia, prior to ECX, some farmers were continuously cheated on all fronts, including quality, weight and payment. Some committed suicide because they were unable to repay loans when buyers defaulted on the payment. For their part, buyers frequently defaulted on export contracts or left processing capacity idle because they were unable to have reliable delivery of the right quality and quantity at the right time.

These kinds of risks introduce terrible inefficiencies for the economy and allow some middlemen to extract rents from both sides of the market. Today, the farmer’s share of the final export price for coffee has risen from 38% to 65% and the margins in the middle have been squeezed through greater transparency and more reliable transactions.

Within structured trade, you seem to have a preference for commodity exchanges rather than, for example, auctions. Why?

Auctions and commodity exchanges are both price discovery mechanisms, revealing the ‘true’ price that reflects the underlying fundamentals of supply and demand. However, the choice of which mechanism is more appropriate and more efficient in a given context depends on the market structure. When there are many sellers and few buyers, an auction where the few buyers bid on the supply is likely to be more efficient for price discovery: this is the case with the five or so buyers buying tobacco in Malawi from many producers. In an auction, price bidding is typically one-sided.

If there are large numbers of buyers and sellers, such as the grain market, then a commodity exchange which allows both sides to bid and offer is more appropriate and provides a true price through matching of buyers and sellers, either on a physical trading floor or on a virtual electronic system. So it is the market structure that drives the choice.

For the long-term welfare of small farmers, given the up and down price cycles of commodities, aren’t state-guaranteed farm gate prices (e.g. cocoa in Côte d’Ivoire or Ghana) more secure than commodity exchanges?

State intervention in market pricing through provision of minimum support prices, prevalent in many countries, including in Europe, is indeed more stable from the perspective of individual farmers. But from an aggregate perspective, price intervention leads to distortions and misallocation of resources, not to mention room for corruption and budget losses for governments.

So rather than embark on something known to be distortionary and difficult to stop once you start, as we see from the WTO debates on European subsidies, why not build markets on the correct principles from the beginning? The correct principles in my view are to make pricing as transparent and widely inclusive as possible, allow inefficient margins to be cut out, and develop market-based risk management such as hedging.
Grades and standards are coming to more countries and more crops in Africa. These can make cheaper, safer food more available, and boost trade within countries, across regions, and with the rest of the world. But how are grades and standards decided? Who decides them? And who benefits?
Published standards are an essential part of structured trade. They establish measurable requirements for safety and quality, allowing products to be traded and consumed with confidence. Beyond these minimum standards, grades give more information to traders and buyers. For instance, Grade 1 maize meets the strictest measures of quality, but many users, e.g. feed producers, don’t need perfect grain. They will buy Grade 2 or 3, which may have more broken or immature grains.

If farmers can grow their maize to a high standard and harvest and store it well, they could get a higher price by having a professional grader certify the grain on delivery to a warehouse. If farmers do not want to deposit in a warehouse, a trader may have it graded after buying it from them. Grain that is tested, graded and certified nearly always increases in value. It can be stored in a warehouse with other farmers’ grain of equal grade. It can be traded on commodity exchanges, which greatly increases the competitiveness and transparency of the sales process. Ultimately, it could gain access to export markets.

In the expanding globalisation of trade, grades and standards set the rules of the game. Their implications for the participation and competitiveness of developing countries are becoming increasingly clear. However, no standard works for all countries, and international standards written for developed, temperate countries are generally inappropriate for Africa.

An Eastern African standard

Standards for grain in Africa are set by national governments, but regional organisations often wish to harmonise these so that grain can circulate throughout the region without further inspections. Currently, the East African Community (EAC) is in the final stages of adopting a new, harmonised set of standards for 42 staple foods. After years of negotiating, the EAC Staple Foods Standards were agreed upon in November 2012 and, subject to final approval, will be adopted in each EAC country.

The EAC standards have proven contentious. Some tight limits, such as a 13% moisture content for maize, can be difficult for many smallholders to meet but are essential if the risk of aflatoxin contamination is to be avoided. Other quality measures are not directly related to food safety. Because of objections from private companies, the first draft was rejected by Kenya. The final version has overcome the impasse through the use of grades. For instance, a new Grade 3 for maize was added, which allows for more broken grains (6% instead of 4%), discoloured grains (1.5% instead of 1%), and other slight defects.

By agreement, the EAC standards are implemented in individual countries as domestic

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MAIZE GRAIN GRADES IN THE EAST AFRICAN STANDARDS

Moisture content
Foreign matter
Inorganic matter
Filth
Broken kernels
Rotten and diseased grains
Pest-damaged grains
Immature/shrivelled grains
Discoloured grains

Total defective grains

Aflatoxins
Source: EAGC manual, Structured grain trading systems in Africa, Draft 2013

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What's in a standard?

A standard is a published document that establishes a common language, and contains a technical specification or other precise criteria and is designed to be used consistently, as a rule, a guideline, or a definition.

A typical standard contains these sections:
- Scope
- Normative references
- Terms and definitions
- Presentation
- Essential composition and quality factors
- Contaminants
- Hygiene
- Packaging
- Labelling
- Methods of sampling and analysis (testing)
- Criteria for conformity
standards. This means, in theory, that grain that fails to meet even the Grade 3 standard should not be traded at local markets. However, while much smallholder production probably does not meet this standard, it is unlikely that the standards will be enforced in most domestic markets. If a farmer sells maize in a local market to consumers or traders, that grain can be visually inspected by the buyers; it does not need to be graded. Grading is most important when the buyer is at a distance from the seller and is buying something they cannot see.

In Uganda, however, the standards have already caused trouble for traders selling to the World Food Programme (WFP), a major maize buyer. In April 2013, WFP cancelled €4.6 million in maize contracts because Ugandan traders were supplying grain with too many discoloured grains to meet the EAC standards. While WFP might have insisted on this level of quality regardless, it is easy to see how the mandatory standards could force buyers to pass over grain they would otherwise buy. If this is based on an attribute that is not a safety risk, such as colour, it could constitute an unnecessary trade barrier.

Who wants standards?
Standards and grades offer potential benefits all the way down the supply chain, from price premiums for farmers to better health and safety for consumers. But who is really pushing for these in Africa?

“The push for standards and grades is across all value chain players,” says Isaac Tallam of USAID’s Competitiveness and Trade Expansion Program (COMPETE) in Eastern and Central Africa. “Among processors, 

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Quality inspectors from the Ethiopia Commodity Exchange inspect sesame seed samples.
however, the need is much higher,” he says, reflecting their reliance on grain supplies of consistent quality, “and this is where I believe adoption will trickle down. EAC is also pushing for standards and grades, in order to increase regional trade in staple foods.”

John Keyser, a trade strategist writing for the World Bank, sees another dynamic in the push for regional harmonisation. “I believe most of the push is coming from governments, regional bodies and donors - much, much more than the private sector and certainly more than small farmers. The standards bureau themselves typically depend on the income from testing and certification for a large part of their revenue, and so have an obvious interest in setting new standards and certification requirements.”

Ultimately, though, standards and grades are the necessary foundation of structured trade. Agreed-upon classifications allow the smooth operation of commodity markets. The 2005 Arusha Declaration on African Commodities, in proclaiming that African countries should “commit to the establishment of commodity exchanges,” left little doubt that standards and grades are going to be needed continent-wide.

One specific reason for implementing and harmonising standards is to address aflatoxin and fumonisins contamination. These fungal toxins are a key danger in maize and groundnut, causing health hazards, as well as impacting on livestock productivity. They can also prevent exports to trading partners with strict standards, such as the EU. Fungal moulds grow well on improperly dried grain, which is the main reason for standards on moisture content.

Making the grade

It is clear, however, that new standards can present challenges to farmers and traders. Compliance does not just mean meeting the standards with better farming and storage practices, but also knowing what the standards are. Keyser believes that information is often in short supply, especially for small traders. “Some may have heard there are harmonised standards, but then don’t know how to get a copy of the standards or what the standards actually mean. Basic awareness of standards is probably the most fundamental thing needed for standards to work.”

Tallam says that USAID is supporting better communication in the EAC. “Traders in the region are generally aware of the new, upcoming standards, as they have been involved with the harmonisation process right from the start,” he says. USAID, the Eastern Africa Grain Council and the National Bureaus of Standards have all budgeted for programmes to raise awareness and distribute materials at the major border points as soon as the regional standards are instituted.

A higher grade of coffee

Mzuzu Coffee Planters Cooperative aims to produce Malawi’s finest coffee while empowering smallholder producers. CEO Harrison Kalua explains that meeting international grades is essential to this objective and that farmers are given substantial training on how to meet the grades. “So far, they are doing exceptionally well as far as coffee growing, care and handling are concerned,” enthuses Kalua. “Our growers often get better prices by adhering to international quality requirements. As such, they are rewarded for the good job that they are doing.”

Coffee farmer Stembridge Mweso from Rumphi district has seen these rewards, but finds them modest in a tough global coffee market. “Honestly, the prices that we are getting as farmers are still low – last year, first class coffee was being bought for as low as €0.25 per kg,” states Mweso. “This is on the low side considering the efforts and investment that we put in. For instance, we have to apply fertilisers, which sell at almost €30 per bag.” He adds, “These are small benefits but, because we grow on a large scale, it allows us to earn a little more.”

Charles Mkoka
Is it important for a producer to meet quality standards and national, regional and international standards when they find a buyer for their 10 bags of maize and clinch the deal at a price that suits him? Generally no. But the producer is not sure he would be able to renew the deal under the same terms. This uncertainty about the conditions of a future transaction will undermine a producer’s confidence, thus keeping them from working at ease, investing without undue risk, and ultimately improving their income.

The same producer, by applying and monitoring quality standards, could – knowing that their product meets market requirements – confidently negotiate sales and remain competitive. Further down the chain, when traders are dealing with a potential buyer, price reductions are less warranted when the product complies with the current standards.

Rules put into practice

The EAGC is a private organisation based in Nairobi, founded in 2006, that brings together the main public and private grain stakeholders in the region*. It convinced the East African Community (EAC) to issue standards, which is an effective way to enhance grain trade throughout the region and improve food supplies on local, national and region-wide scales.

Since 2009, the USAID COMPETE programme has been working with the East African Standards Committee (EASC), EAGC, the private sector and national standards offices of five countries to develop harmonised quality standards.

A total of 22 commodities grouped in seven major categories are involved: rice and rice products, beans and associated legumes, millet, sorghum, cassava, wheat and other grains.

National standards were initially assessed to identify common features. Then in 2011 a regional standards project was presented and accepted by EASC. But just as the standards were about to be approved by the EAC Council of Ministers, the Kenya Bureau of Standards (KEBS) requested a delay. KEBS wanted the acceptable moisture contents of 22 commodities, especially maize, wheat, beans and millet, boosted from the agreed 13% to 14%. A 13.5% level was set following negotiations and the regional standards were validated.

This harmonisation process is moving in the right direction, says Bruno Matovu, general manager of the Kinoni Produce Farm in Kampala and EAGC member.

But above all, the business community and stakeholders must be safeguarded, while developing procedures to enforce these standards: “Say I’m in Uganda and someone I don’t know from Kenya wants to buy my grain. There is no registry available that could help me identify this person and know if I am dealing with someone serious and, more importantly, solvent,” he explains. “There are still practical irregularities so, despite the common regulations, grain marketing between countries continues to be complicated.”

Standards in a regional setting

The Eastern Africa Grain Council (EAGC) is working hand in hand with the East African Community Secretariat and USAID to define regional grain standards. These instruments, once honed, will help producers find market outlets.

* Burundi, Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Rwanda, Southern Sudan, Tanzania, Uganda and Zambia.
Training is the key

Much of South Africa's maize is delivered directly to silos or to millers, predominantly by the country's 9,000 commercial farmers. The same grades and standards apply to all local and international markets. They are set globally. But to meet such grades and standards, long-term training is needed at the local level.

How are grain grades and standards set?

South Africa is a member of the WTO and is therefore required to comply with all international standards pertaining to food safety. The Department of Agriculture, Forestry and Fisheries and the Department of Health are the official regulatory bodies ensuring compliance with the necessary grading, regulations and other food safety matters in South Africa.

How are producers made aware of changes in standards?

The Agricultural Products Standards Act is a piece of legislation set by the Department of Agriculture, Forestry and Fisheries. The Registrar who administers this Act ensures regular communication with affected industry bodies. A Food Safety Forum for grains has also been established by the Registrar's office, through which changes in standards or regulations are communicated to industry.

How do you check compliance?

Under the scrutiny of the Registrar, independent laboratories check the quality of all grain produced in this country. The grain industry in South Africa is very well established and conforms and complies with all international standards. We have only received good reviews on the quality of our grain from importing countries.

Do you see Southern African producers having difficulties in complying with these grades and standards? Are volumes rejected because they do not comply?

I can only speak for South Africa, but in terms of our producers, there has never been a case where a grain commodity was rejected on the international or local market because of compliance issues. But I am sure that in the whole of South Africa, there are some producers who cannot market their grains because they do not comply with standards.

We are a commodity-based organisation and our mandate is to provide our farmers with market information, do quality checks on inputs such as fertilisers and agrochemicals and coordinate research and development, as well as technology transfer. Part of this is providing our farmers with the necessary training on food safety related matters. In this respect, Grain SA producers are well informed and educated on all matters related to food hygiene and safety. We have a dedicated farmer development programme in Grain SA and all new grain producers are provided with the necessary training and support.

How long does the training last?

Our ‘developing farmers’, as they are referred to, are trained on a ‘needs’ basis. We have a specialist working group for each grain commodity, where topics such as quality, production and market related issues are discussed and dealt with. Farmers are then offered training in relation to any new developments. We therefore offer continuous training for all our members – commercial and developing farmers. The training period is tailored to the needs of each individual developing farmer, and is continuously offered, based on any new developments in the industry.

Do you do this training in other Southern African countries?

The commodity organisation Grain SA is South African based and currently the training is only for South African grain farmers and members of our organisation. However, we have started a process where we are assisting Zambia with developing a grain laboratory, to help them establish a better means of checking the quality of their grain.

Who has paid for the training over so many years?

In South Africa, different commodity trusts were developed, like the Winter Cereal Trust and the Maize Trust. For some of the developing farmers, the training is paid for by these different commodity trusts.

Dr Marinda Visser

joined Grain South Africa after being chief director at the South African Department of Agriculture, Forestry and Fisheries. She is well known for having opened up the Chinese market to South African maize; one of her many objectives in Grain SA is to help producers comply with international standards for exports.

How are grain grades and standards set?

South Africa is a member of the WTO and is therefore required to comply with all international standards pertaining to food safety. The Department of Agriculture, Forestry and Fisheries and the Department of Health are the official regulatory bodies ensuring compliance with the necessary grading, regulations and other food safety matters in South Africa.

How are producers made aware of changes in standards?

The Agricultural Products Standards Act is a piece of legislation set by the Department of Agriculture, Forestry and Fisheries. The Registrar who administers this Act ensures regular communication with affected industry bodies. A Food Safety Forum for grains has also been established by the Registrar’s office, through which changes in standards or regulations are communicated to industry.

How do you check compliance?

Under the scrutiny of the Registrar, independent laboratories check the quality of all grain produced in this country. The grain industry in South Africa is very well established and conforms and complies with all international standards. We have only received good reviews on the quality of our grain from importing countries.

Do you see Southern African producers having difficulties in complying with these grades and standards? Are volumes rejected because they do not comply?

I can only speak for South Africa, but in terms of our producers, there has never been a case where a grain commodity was rejected on the international or local market because of compliance issues. But I am sure that in the whole of South Africa, there are some producers who cannot market their grains because they do not comply with standards.

We are a commodity-based organisation and our mandate is to provide our farmers with market information, do quality checks on inputs such as fertilisers and agrochemicals and coordinate research and development, as well as technology transfer. Part of this is providing our farmers with the necessary training on food safety related matters. In this respect, Grain SA producers are well informed and educated on all matters related to food hygiene and safety. We have a dedicated farmer development programme in Grain SA and all new grain producers are provided with the necessary training and support.

How long does the training last?

Our ‘developing farmers’, as they are referred to, are trained on a ‘needs’ basis. We have a specialist working group for each grain commodity, where topics such as quality, production and market related issues are discussed and dealt with. Farmers are then offered training in relation to any new developments. We therefore offer continuous training for all our members – commercial and developing farmers. The training period is tailored to the needs of each individual developing farmer, and is continuously offered, based on any new developments in the industry.

Do you do this training in other Southern African countries?

The commodity organisation Grain SA is South African based and currently the training is only for South African grain farmers and members of our organisation. However, we have started a process where we are assisting Zambia with developing a grain laboratory, to help them establish a better means of checking the quality of their grain.

Who has paid for the training over so many years?

In South Africa, different commodity trusts were developed, like the Winter Cereal Trust and the Maize Trust. For some of the developing farmers, the training is paid for by these different commodity trusts.
Irrespective of the efficiency of the agricultural commodity marketing structure, the different stakeholders along the chain must be sure that everyone has complied with their contractual obligations. Beyond the problem of defining the contract terms and clauses, the question also arises as to the applicability of such contracts in often fragile legal and institutional settings.
Agricultural commodities must be properly marketed to ensure effective contract implementation, which in turn requires the application of known, recognised, fair, efficient and enforceable sanctions. Such ‘effective implementation’ may be lacking at many stages along the chain, e.g. fraud concerning the commodity quantity and quality, and payment or delivery delay or default.

These problems are generally minimised in traditional marketing systems because trading often involves people from the same families, from generation to generation. All parties have a vested interest in preserving this solid relationship so as not to risk damaging their reputation and status.

In simple transactions with prompt payment and delivery, as is the case for most sales carried out by smallholders in Africa, there are very few issues of contract non-compliance, non-delivery and non-payment since the transactions are instantaneous. Product quality and especially quantity issues may, however, arise. In many countries, sellers measure their goods in containers (filled to different extents), thus as a volume rather than a weight, which gives them more leeway in their sales.

**Structured trade not a cure-all**

Issues of contractual non-compliance become more obvious when there is a shift from traditional marketing mechanisms to more structured trade. They may also arise when an operator within a traditional trade framework decides to purchase commodities in new geographical areas from previously unknown sellers, or even from companies or organisations with which he or she has no direct personal link. For instance, a trader may send trucks to pick up goods and discover that they are missing or not of the agreed quality. This risk can be avoided by using a warehouse receipt system (see Warehouse receipts - a creditable solution on p21-24). Warehouse receipts certify the quality (grade) and quantity of the product, providing a guarantee to the seller and securing the transaction.

Conflicts may still occur even under receipt systems. Enforcement issues can arise through certifier arbitration. When a problem arises, we usually seek an amicable arrangement with the supplier,” says Mary-Ellen McGroarty, deputy director of the WFP Procurement Division.

In its contracts with large-scale traders and other major and structured operators, WFP applies the performance obligation clause that is stipulated in all of its contracts. “If I buy 10,000 t of maize from you, I’ll ask you for a deposit corresponding to 5% of the transaction value as a bank guarantee. If you default and we don’t manage to come up with an amicable arrangement, then I pocket the 5%,” McGroarty further explains.

In its contractual relationships with small producers, as in the framework of its Purchase for Progress pilot project, the aim is to strengthen small producers’ structured market integration capacity. “To reduce non-enforcement risks, we don’t buy everything we need from small producers. We only buy part and this is where we are flexible in terms of performance, delivery time, etc. We don’t subject small producers to strict procedures, but we hope that their performance will improve with time.”
incompetence or corruption, especially if the receipt is not realistic in terms of the commodity quantity and/or quality.

Non-repayment of bank loans that are given using a warehouse receipt as collateral is another problem. The bank should be able to deal with this by selling the goods to which the receipt applies. An active and liquid commodity exchange could readily facilitate such operations, but in Africa such exchanges are still few and far between. Some recent efforts have been made to rectify this situation, but a number of these new commodity exchanges are fragile due to the low number of operations handled.

In recent years, the World Food Programme (WFP) has had a major role in ensuring the efficient functioning, and even existence and sustainability of some commodity exchanges. In 2011, 27% of all WFP purchases in Malawi were conducted via the Agricultural Commodity Exchange for Africa (ACE) in Lilongwe. In this context, everything meshes to ensure smooth operations: WFP helps the commodity exchanges function properly which, in turn, ensures that the warehouse receipt system remains reliable, thus providing legal security for receipt holders.

That said, in the case of non-repayment of loans for which a warehouse receipt was used as collateral, banks are often reluctant to engage in lengthy, expensive lawsuits whose outcome may not entitle them to a claim on the goods concerned, says Gideon Onumah of the Natural Resource Institute. This explains banks’ overall lack of enthusiasm with respect to warehouse receipts, especially when there is no central receipt registry. The key issue is that these market instruments are often created without a suitable legal framework. Tanzania, Uganda and recently Zambia have tried to remedy this by legislating on warehouses and on the competence of regulatory bodies, but this has come a little too late.

**Arbitration prevails**

When a commodity exchange has been set up, litigations are dealt with in four different ways. One approach is use of negotiation, which, when successful, enhances the reputation of the parties involved. Cases may also be settled by mediation, whereby a neutral, third party mediator helps find a solution.

Arbitration is the most popular option, with commodity exchanges generally having their own arbitration chamber in order to avoid arbitrator selection and decision implementation problems. Otherwise the commodity exchange assumes the right to appoint arbitrators, as is the case on the Johannesburg Stock Exchange (JSE), which also reserves the right to appoint a collateral manager when, for example, a licensed warehouse defaults.

The legal system may also be used, but this option is seldom adopted because few courts are sufficiently competent to deal with such litigations.
As a former trader, what would you say are the advantages/benefits of contract enforcement in grain trading?

Contract enforcement is an integral component of an effective food market mechanism for all agricultural produce, which includes grain trading. It helps promote trade, fostering trust between the parties involved. They are made to feel that their interests are taken care of and protected. At another level, enforcement usually leads to the transformation of agriculture from subsistence farming to farming as a business. It therefore ought to be promoted, especially in regions such as Africa, where it is not very strong.

Are there particular challenges for smallholder farmers in being able to engage in the contract process?

The problem is mainly a lack of understanding of each party’s role and obligations. For smallholder farmers, understanding the marketing side of the value chain, and indeed the contract process, has always been a major impediment. These farmers usually talk to their neighbours or rely on local traders to stay abreast of market dynamics. As a result, they lack the basic information important in the contract process.

What roles can different stakeholders play to ensure that contracts are enforced?

We need to invest in the development of commodity regulatory agencies, building their capacity so that they can ensure contract enforcement. Equally important is the need to help smallholder farmers and traders understand their roles and obligations under a contractual agreement. Everybody should understand that they have interests and rights that are protected by laws, regulations and procedures.

What are governments in Africa doing to support improved systems for smallholder marketing?

There is now a deliberate push by governments and development partners to promote the creation of dependable marketplaces where producers and consumers can meet and exchange goods and services. In Africa for example, we are witnessing an interest in coming up with commodity exchanges, wherein lies the issue of contracts.

There are risks that particularly smallholder farmers renege on contracts because someone offers them a better price and they need the cash. How can this risk be reduced?

One can offer farmers an un-priced contract that is pegged to the prevailing market price. For example, a contract can say that the price of the commodity will be US$1 more than that of the prevailing market price at the time of delivery.

What is the key to the strengthening of contract trading in Africa?

Trust is the key word in contract trading. If you don’t trust the produce or the person you are trading with, then you will be hesitant to enter into a contract. For buyers to trust smallholder farmers, the produce coming from smallholder farmers must meet the buyers’ standards and specifications. The smallholder farmer then needs to trust that the buyer will compensate for the farmer’s investment in quality improvement by paying a premium for the produce and agreeing to maintain the contract terms irrespective of the prevailing market conditions.

Stephen Njukia is Senior Market Access Program Officer for the Alliance for a Green Revolution in Africa (AGRA). Prior to joining AGRA, he worked as a commodity marketing specialist and chaired the steering committee that designed the Eastern Africa Grain Council.

A Tanzanian farmer holds packaged maize seed to sell in a project that is supported by AGRA which trains farmers to understand and execute contracts thereby attracting buyers who use contracts. Through our implementing project partners we promote structured trading mechanisms, including the use of contracts. We also link smallholder farmers to large-scale buyers and SMEs.
Warehouse receipts, a creditable solution

Expanding fast in Eastern and Southern Africa, warehouse receipt systems are empowering farmers and traders, giving them access to credit to improve and expand their operations and enabling them to earn more from their harvested crops.
The warehouse storage cost is higher than what I am used to, but my maize is secure and the quality and quantity is guaranteed,” says Lawrence Chikhasu, owner of Bucow Investment. As a small commodity trading company, Bucow Investment is among those taking advantage of Malawi’s first public warehouse receipt system (WRS), established in 2011. Chikhasu continues, “I am a business man and I need financing to keep buying maize from farmers. The warehouse receipt system makes it possible for me to buy larger volumes and keep the maize till prices are good. I believe the price of maize will allow me to earn a good premium after paying storage and interest costs.”

Across Eastern and Southern Africa—Ethiopia, Kenya, Madagascar, Malawi, South Africa, Tanzania and Uganda—WRS are being rapidly established and expanded for commodities such as rice, coffee, cashew, maize and sesame. A lack of storage facilities has limited the practice in West Africa, with maize in Ghana the main exception. With uncertain external factors such as drought and floods making investment risky, African banks have been historically reluctant to finance agriculture-related activities. However, the WRS offers banks a financing and collateral solution that is making trade easier and more secure. For farmers, the WRS reduces post-harvest losses by providing safe and certified storage facilities, and overcomes the perennial problem of obtaining credit.

**Legal guarantee**

So what exactly is a warehouse receipt? The receipt is a document guaranteeing the existence and availability of a given quantity and quality of a stored commodity, such as maize. The receipt stipulates the quality, quantity, type of commodity, date deposited, and the date up to which storage costs have been paid. By giving the depositor (farmer or trader) a warehouse receipt, the warehouse operator guarantees the safety, quality and quantity of the grain and is legally bound to provide it to the depositor at a future date. By taking the warehouse receipt to a bank or other financial institution, the farmer or trader can use it as collateral for a short-term loan, usually up to 60-70% of the value of the crop. This money can then be used by farmers to pay expenses or buy inputs for the next season, or by traders to buy more grain from farmers.

By using information on market prices (see Making the most of MIS on p24), the depositor can wait until market conditions are right, before selling the stored commodity, either on the open spot market or through a commodity exchange. The buyer pays the bank, which releases the warehouse receipt to the buyer, keeps the cost of the loan and the interest, pays the warehouse operator and returns what is left to the farmer. Even after these deductions, the depositor generally receives a better return than if he or she had sold the grain immediately after harvest.

Malawi’s first public WRS was established by the Agricultural Commodity Exchange for Africa and the National Smallholder Farmers Association of Malawi in 2005 to provide better market access for farmers. Different elements of the system have been funded by a consortium of donors to refurbish rural warehouses, train farmers and develop software to establish a fully operational WRS, benefiting smallholder farmers and traders. The WRS in Malawi is not only good for farmers but has also stimulated a more vibrant agricultural market. Three banks are currently supporting the system—Opportunity International Bank of Malawi, Standard Bank and the National Bank of Malawi. Each has faith in the warehouse receipt as a secure, tradable document.

In Tanzania, commercial banks were initially
unwilling to provide finance direct to smallholder farmers after they had deposited their produce. Through the International Fund for Agricultural Development-supported Agricultural Marketing Systems Development Programme (AMSDP), Savings and Credit Co-operative Societies (SACCOS) were used to mediate and provide guarantees to banks on behalf of farmers and to also coordinate the loan repayments. Involvement of the SACCOS in Tanzania has helped foster WRS sustainability.

**Scaling up and out**

With the success of AMSDP across 11 districts up to 2009, the Tanzanian government has been replicating the WRS countrywide, supported by legislation to provide a legal framework for the operation of warehouses. The Warehouse Receipt Act of 2005 allows private sector operators to own and manage warehouses, provided they are accredited by the Tanzania Warehouse Licensing Board. In recent years, a number of different WRS schemes have emerged, including some that have introduced revolving funds to reduce dependence on banks. In Tanzania, defaults on warehouse receipt finance are below 1%.

In Ghana, there have been a number of private and public sector-supported efforts to develop a viable grain WRS. With the support of USAID and other donors, the Ghana Grain Council (GGC) has now been established and the first WRS launched in the Northern Region (see Transforming the Ghanain grain market on p8). The GGC states that a well-regulated WRS will help the country combat persistent problems in agricultural marketing and credit including variable seasonal prices, cheating on weights and quality, and limited access to credit.

In Uganda, the WRS has been supported by the World Food Programme (WFP). Since 2012, an estimated 7,000 t of quality grain has been sold to WFP and other buyers at licensed facilities in Jinja, Kasese and Masindi. More recently, an agreement has been signed with the Coronet Group to manage the WFP warehouse in Gulu and to operate the WRS. WFP works closely with the Uganda Commodity Exchange (UCE), the private sector body mandated as regulator of the WRS by the Government. UCE's main role is to encourage people to deposit grain and take advantage of the system.
**Costs and benefits**

Warehouse receipt finance is financially advantageous to the farmer when the costs - warehousing, plus the cost of credit - are less than the value increase of the crop in storage. However, pilot projects undertaken in Mali show that this is not always the case. In millet, for example, the price increase was too small to justify the warehousing expense, and with other crops, farmers needed to store a minimum quantity to make it worthwhile.

In any country, smallholder farmers may find that interest rates demanded by banks and other financial institutions are unaffordable, as are high storage fees and administrative costs charged by warehouse operators. However, if farmers collaborate on marketing, the stockpiling of grain in the warehouse can increase their collective bargaining position and allow them to reap scale advantages, boosting the crop price and their profits.

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**Making the most of MIS**

The Regional Agricultural Trade Intelligence Network (RATIN) is a regionally-integrated market information tool providing data on cereals market trends through both SMS and an online web portal. It was designed to deal with the inefficiencies arising from the fragmented Market Information Systems (MIS) across the Eastern African region. Market information on cross-border issues, such as prices and volumes of trade from national MIS providers, is shared and RATIN is linked to commodity exchanges in the region, which ensures that access to real-time price information and daily market reports is made easier. It is also linked to the Regional Food Balance Sheet portal, which provides information about stocks of cereals and pulses at national and regional level. Since it is also linked to FAO and WFP, it means that information on cross-border trade and market data as well as global news is made available to farmers and traders as well as policymakers. For example, Tanzania has recently lifted a ban on its grain exports, a measure imposed to protect its food security. “Using information on RATIN, we were able to prove that Tanzania’s grain stocks were in no danger,” says Janet Ngombalu, the East African Grain Council regional MIS manager.

*Geoffrey Kamadi*
Do warehouse receipt mechanisms work in Tanzania and Zambia? Theoretically yes, but in practice this trend is not developing to the desired extent, mainly due to recurring and substantial state interventions in the grain sector. These interventions hinder smooth functioning of the market, consequently nullifying all benefits of a warehouse receipt system which requires free movement of goods and price setting by the market. This system allows depositors (producers or traders) to store their products pending seasonal credit. The system cannot work if governments apply interventionist policies (purchases from producers at above market prices, subsidised millers’ sales, export bans, etc.).

Zambia recorded two good maize harvests of 2.8 million t (Mt) and 3 Mt in 2010 and 2011. To avoid a price collapse (2011 was an election year), the parastatal Food Reserve Agency (FRA) purchased 1.5 Mt of the 2010 harvest from farmers at around US$260/t (€200/t). FRA then found itself in a delicate position due to the lack of appropriate available storage structures and, since this grain had been purchased from farmers at such a high price, the agency could not break even by exporting it to regional or world markets.

With the arrival of the 2011 bumper crop, FRA was forced to alleviate the storage issue by selling the stockpiled 2010 maize to mills at a rate of US$140/t (€100/t), which was a major loss considering the purchase price, in addition to the transportation and storage costs (at least US$100/t or €75/t), according to Auckland Kuteya and TS Jayne of the Indaba Agricultural Policy Research Institute. Zambia also sold maize at a loss US$100/t or €75/t) on the regional market.

This intervention did not even benefit consumers (the retail price for maize meal remained steady, even after the September 2011 state intervention, because traders along the chain did not play along), so it was a major impediment to the use and development of market instruments such as warehouse receipts. Warehouse receipts are beneficial when producers anticipate a future price increase, whereas state intervention is geared towards stabilising or even reducing prices. In 2010, while lauding the merits of warehouse receipts, Brian Tembo, executive director of the Zambia Agricultural Commodities Exchange (ZAMACE), pointed out that they are seldom used, especially because, “the market is reeling under the effects of the FRA floor price syndrome.”

“ZAMACE, founded in 2007, has tried to work with the different stakeholders to develop a warehouse receipt system, but for political reasons it was instructed to pull out of the market. The Government assumed a pre-eminent market position and has been purchasing maize at US$100 (€75) above the market price, so naturally everyone sells to the Government. Private sector involvement in the grain trade in Zambia has become very difficult since 2006, with the Government viewing the stock market as a kind of private club for traders, a market place it feels should be restructured before the Government can consider participating,” says Gideon Onumah of the National Resources Institute.

Elsewhere, is the grass greener?

In Tanzania, the state also intervened in 2009–2010 to ban the export of maize and rice to regional markets, especially in Kenya and Rwanda. This was just as a pilot project was being launched to extend the use of warehouse receipts to the grain sector, in the wake of the success of this system for other export crops like coffee and cashew nuts. However, following the state’s export ban, grain prices dropped due to the domestic market glut, forcing grain producers – who had been using warehouse receipt systems in the hope of benefiting from future grain price hikes – into a very difficult position.

Otherwise warehouse receipt systems were in full swing in the coffee and cashew nut sectors. “In the coffee sector, the equivalent dollar funding available ranges from US$12 to US$20 million (€9 to €15 million) per season, and over US$100 million (€75 million) for cashew nuts,” says Onumah. He also notes that these structured trade instruments are generally easier to implement for export commodities other than food crops like maize and rice. These latter products are more politically sensitive and subject to state intervention since they have a direct impact on food security, thus clouding the issue with respect to applying structured market instruments.
Entering a banking life

Warehouse financing not only allows smallholders access to credit but it also provides them with a credit history and integrates them into the formal banking world.

Some banks do not appear keen to be intermediaries in warehouse financing. Why is that?

In some countries, banks hesitate to commit to warehouse financing due to a lack of knowledge and skills, and tend to shy away from smallholders because of risk. IFC encourages banks to implement warehouse financing and advisory services through our Global Warehouse Finance Program; if banks engage with warehouse financing, we provide a guarantee on underlying warehouse loans of up to 50%. We also have a training programme for banks and in some countries we facilitate workshops for smallholders to help them understand the benefits of warehouse financing.

Smallholders may not have conventional collateral assets (land, a house, etc.), required for a traditional bank loan. But they produce commodities. If they build their credit history via access to warehouse financing, it will open up new opportunities for them, enabling them to start a formal banking life. In Africa, banks are not keen on being involved with warehouse financing, especially if they do not have the risk management framework for commodity lending. Namely, banks need to have procedures to evaluate the value of commodities they are lending against and monitor price fluctuations, to assess the risk in case of default and to take action when the value of the collateral falls. For example, this may be done through top-ups or margin calls, to ensure that the value of the loan does not exceed the value of the stock. But they need to introduce this system; by so doing, they transfer the risk from the individual to the commodity.

Is there an alternative to warehouse receipts?

Some African countries that do not have warehouse receipts use collateral management agreements, which is a tripartite document between a borrower, a bank and a collateral manager. Banks may hesitate to provide this type of service to smallholders because it is costly: they have to pay legal fees, collateral management fees, etc. Hence, banks are reluctant to be involved with smallholders and prefer talking to traders and corporates.

One idea for smallholders is to form cooperative unions or farmers’ associations to gain access to banks. Banks would be able to engage with such groups by using warehouse receipts or collateral management agreements. Hence, smallholders would have access to warehouse financing.

And is there an alternative to banks?

I have seen collateral management agreements filed not by banks but by buyers and sellers of the commodities and by collateral managers. If smallholders can sell their commodities directly to traders, they might be able to get the benefit of warehouse financing from buyers. This could be restricted, however, because buyers need large volumes and smallholders sell bag by bag.

The other alternative is non-banking finance like microfinance. In Eastern Africa, warehouse financing is emerging, as microfinance institutions lend to smallholders against the volume of the commodity. That is, it comes into the warehouse and the microfinance institution lends to the farmer against this commodity.

What is the most successful case of warehouse financing in Africa?

Tanzania would be one of the successful countries in Africa. In Tanzania, the law, which was established in 2005, together with its related regulations (2006), provides a regulatory framework for negotiable warehouse receipts. To date, the Tanzania Warehouse Licensing Board has approved 28 warehouses as licensed ones and the estimated warehouse financing market size is over US$120 million (€90 million). According to the International Fund for Agricultural Development, it is said that the farm gate prices for farmers increased up to 300% for maize and paddy since its introduction of warehouse receipts.

What is done differently in Latin America, for example, that Africa could learn from?

Warehouse financing is more advanced in Latin America. Paraguay, for instance, has warehouse receipts, including laws and regulations which enable smallholders to have access to financial instruments and bank financing. Latin American countries also use crop receipts. By issuing and selling an ‘I owe you’ note guaranteed by their crops or livestock, farmers can obtain the money to finance production. This is like an extended version of warehouse financing but it also includes the pre-harvest period.
While facing many challenges, Africa’s first, fledgling national and regional agricultural commodity exchanges are beginning to provide a transparent, efficient and accessible marketplace, helping to connect smallholders and traders with big buyers and transforming the fortunes of some key crops.
Traded for centuries on the backs of camels, donkeys and mules, Ethiopian coffee was the first to reach foreign markets over 500 years ago. In more recent times, Ethiopian coffee has struggled on the global market, with complaints of inconsistent quality, but since the launch of the Ethiopian Commodity Exchange (ECX) in 2008, the coffee grading system has much improved. Use of the exchange was made obligatory for most of the country’s exporters, and in its first year, ECX handled transactions worth some €186 million, amounting to over 160,000 t of coffee beans.

Agricultural commodity exchanges are the pinnacle of structured grain trading systems. Bringing together many buyers and sellers for a given product, trading is done in an open and organised way through a system of bids (to buy) and offers (to sell). The ECX, founded by Dr Eleni Gabre-Madhin, who recently stepped down as CEO, is a national, multi-commodity exchange that provides secure marketplace services. The founding principles of ECX were to guarantee quality, quantity and prompt delivery, with Gabre-Madhin determined to link farmers and traders to the global economy. “When farmers can sell their crops on the open market and get a fair price, they will have much more incentive to be productive,” she states.

By 2011, ECX had 450 members, 7,800 clients, and links to 2.4 million smallholder farmers. In 2010-11, more than 500,000 t of coffee, sesame, haricot beans and maize were traded at a value of €0.9 billion in over 100,000 transactions. Deals are conducted through a system of electronic warehouse receipts, with the exchange handling money and commodity transfer. Once a deal is done, the Exchange passes the warehouse receipt from seller to buyer, and instructs the relevant banks to debit the buyer’s account and credit the seller, a process that takes just 2 hours. Real-time crop price information is published on a network of digital display boards in 31 regional centres, as well as on the ECX website. However, whilst ECX has been heralded by many as a success, the coffee trade under the current ECX system, in particular, is seen as not being particularly fair to smallholder farmers who are subjected to a potential market monopoly by a few exporters. Neither are farmers represented in the ECX Board of Directors, which comprises only major coffee exporters and Government officials.

**Increasing interest**

ECX may also not provide the best model for other countries and the replicability of the ECX approach is dependent on continued donor goodwill. Furthermore, where commercial capital is available and willing to fund or participate in exchange development, the endorsement of an ECX approach could risk crowding out other, more commercially oriented and financially sustainable solutions. Nevertheless, interest in national and regional commodity exchanges is gaining momentum, with ongoing plans to develop commodity exchanges in Ghana, Kenya, Sudan, Tanzania and Zimbabwe. The Tanzania Commodity Exchange (TCX), for example, is to be up and running by June 2014, trading initially in four commodities currently served by its national warehouse receipt system (see Warehouse receipts - a creditable solution on p21-24), namely cashew nut, coffee, cotton and rice. Implementing the TCX, including the legal and regulatory framework, operating technology and financial support systems, is now a Government priority. Meanwhile in Nigeria, the Government hopes to revive the moribund Abuja Commodity Exchange, and in Uganda and Zambia, private sector groups are trying to revive their countries’ exchanges.
However, despite substantial donor support for African commodity exchanges in recent years, sustainability has proved more elusive than was the case for Asian and Latin American exchanges established in the 1990s (see Trading up and empowering farmers on p32). In many countries, the enabling environment is too weak, or volumes of production too small, for a national commodity exchange to operate effectively. Commodity exchanges are only one component of a structured trading system and their success is dependent on the broader functioning of agricultural spot markets. In addition, unpredictable market interventions by government and lack of a supportive legal and regulatory framework can undermine the success of exchanges.

As a regional initiative, the Agricultural Commodity Exchange for Africa (ACE) has active registered users in Kenya, Malawi, South Africa and Tanzania. First proposed by the National Smallholder Farmers’ Association of Malawi, the Exchange offers an internet-based trading platform, an online auction being one of several services provided by ACE to link smallholders and traders with national and regional markets. Market information and auction notifications are provided via SMS through ESOKO, a mobile phone-based system.

“It’s exciting to be part of the online trading platform, to compete for buyers like WFP, especially when we used to think the market was only for bigger players,” says Andrew © ECX/T Berhe

Top right: Coffee samples are prepared to determine quality at one of eight ECX coffee laboratories.

Bottom: Assistant warehouse manager Louise Chikankheni shows a maize sample before it enters the ACE certified warehouse in Malawi.
Kachete, a small trader who has sold maize to one of Malawi’s major grain buyers through ACE. Small-scale trader Bester Mora was one of the first to use the Exchange in 2008. “I registered with ACE as a trader and put 5 t of maize on the market. Within 3 weeks they found me a buyer from the Southern Region of the country. Now I have supplied WFP and used the profits from my maize to reinvest in my shop in Madisi,” he says. “As an ACE registered trader I get market information through the phone. Before, I just used to sell it, even if the price was low, because I had to. Now it’s easier because I know what the market price is. I am very happy I have found this system.”

Early optimism when ACE was first established was quickly overshadowed by problems inherent in the agricultural industry. Attempts to link farmers to markets were frequently disrupted by performance defaults, while small trading volumes discouraged attempts to provide market information. However in 2010, WFP decided to procure commodities through ACE, as part of efforts to purchase from smaller farmers and operators, giving ACE much needed traction in the market. As a result trade volumes started to rise. ACE is now trading regularly in the major commodities and is working towards an integrated agricultural marketing system, with warehouse receipts issued from multiple storage sites throughout the country.

**Futures trading**

South Africa is the only African country to have a significant commodity futures exchange (another small one exists in Mauritius). Its main contracts are in grains and oilseeds, with significant deliveries (accounting for 20-40% of the national production), taking place through its electronic warehouse receipt system. While SAFEX is currently almost entirely used for South African produce, it has been making efforts to promote regional trade. The Zambian Government, for example, recently approved trade on SAFEX by Zambian companies, and a cash-settled contract for Zambian maize has been negotiated through the Exchange.

Regional futures trading across East Africa is the ultimate aim of the East African Exchange (EAX) currently being developed.

**Learning from the Chicago Board of Trade (CBOT)**

In the mid-1800s, Chicago went from a fur trading village to a commodity trading centre, as land was cleared for agriculture and the US East Coast and Europe needed grains. Steam-powered elevators as well as buildings to receive and stock farmers’ grain were built for use before the grain was sold and shipped. Tradable warehouse receipts against stocks were soon issued and before long CBOT emerged as a futures grain trading floor so that East Coast buyers would know the price of the grain before actually receiving it. The State of Illinois, in the late 1860s, legislated to regulate elevators, grades, ensure contract compliance and publish statistics.
in Kigali, Rwanda, although it will initially focus on establishing an auction facility and spot trading. Through private-sector-led investment and with support from the Government of Rwanda, EAX aims to increase regional market efficiency, transparency and liquidity, as well as give the region’s population of 130 million, especially smallholder farmers, better access to markets. Another private sector initiative is Bourse Africa, which plans to offer a pan-African exchange for commodities and currencies through national platforms that are linked through an Internet cloud solution.

However, success for African commodity exchanges will depend on adapting to local conditions, coping with the fragmented nature of local markets and achieving the right price points. “A commodity exchange allows people to do things that they could not do before, or to do what they could do, but more efficiently,” says Ian Goggin, a structure trade specialist at USAID and former CEO of ACE. However, he warns, “The greater the inefficiencies, the greater the benefits an exchange will bring; but also, the greater will be the barriers that an exchange will face.”

Structured demand: win-win for buyers and sellers

Structured demand refers to an organised marketing system that gives farmers access to large and predictable buyers for their products. It’s an approach that works well with crops such as food grains, which have a high degree of uniformity.

In Colombia, all public entities – including the army, schools and prisons – have to buy a certain value of bulk commodities through the country’s commodity exchange. This eliminates procurement-related corruption, reduces costs for buyers and leads to better prices for producers. With steady demand for their products, farmers can invest in improved production; larger orders are met by bulking of produce, whether by farmers’ cooperatives, processors or traders.

In Africa, no government yet mandates such an approach. However, the WFP procures grain through some commodity exchanges, under its Purchase for Progress initiative. Other large buyers in Africa could similarly modify their procurement practices to create large and predictable demand equal to millions of tonnes. Such demand would help to transform the support system for national and regional trade in food commodities.
Trading up and empowering farmers

Rural service centres established by the Multi Commodity Exchange of India aim to transform farmers into marketers by empowering them through price information of agricultural commodities.

“It is a blessing in disguise for us. When we were caught in a wildly fluctuating cotton market, the Multi Commodity Exchange of India Ltd (MCX) came to our rescue and eased the situation. Previously, we were doing only spot trading; now we have the option of forward trading too,” says Arun Sekhsaria, a seasoned cotton trader of Mumbai, India.

When MCX, India’s number one commodity exchange, was established in 2003 it offered futures trading in bullion, metals and energy. In June 2006, in a joint initiative with India Post and as part of its corporate social opportunity programme, MCX launched its first Gramin Suvidha Kendra (GSK) rural service centre for agricultural commodities.

Informing farmers

Working through small village post offices, the GSKs provide farmers with real-time agricultural commodity prices. They help growers make informed decisions on which crops to plant and when to sell their produce for best returns. Their key functions are: helping rural farmers to access fast-changing market and pricing information; strengthening their ability to obtain better prices from traders; giving farmers access to the latest agricultural pricing information, as well as expert advice and information on crops such as wheat, barley, cotton, potato, gram (chickpea), cardamom and coriander; and enabling them to purchase inputs such as seeds and fertilisers. Today, with 37 centres spread over six states across India, GSKs cater to more than 29,500 farmers.

Cotton production has gone up steeply in the last decade, from roughly 15 million bales (of 170 kg each) in 2003 to over 35 million bales in 2012, worth as much as Rs. 1.4 trillion (€19.7 billion). “When this high-value market was volatile, all the stakeholders – farmers, traders and the industry – suffered. With lots of uncertainties, many faced severe losses. In 2010, the cotton price was like a yoyo. For a time, it rose by 100% and plummeted 50%. You can imagine our plight then,” explains Sekhsaria. “But the entry of MCX in October 2011 changed all this.”

“Now, it is a level playing field and all the deals are fair and transparent. Today, MCX has become a benchmark for cotton prices in India. It has opened up fresh opportunities in cotton trading. It is a win-win situation for all,” he sums up.

Reaping the rewards of trade

“What I am today, I owe to MCX,” says Yaduvir Singh of Midhakur village in Uttar Pradesh, the largest State in India. Growing potatoes on his 28 ha farm, he has been actively trading in the market since 2006. “Earlier, I was a simple farmer and was left to the vagaries of an unorganised market. We would sell our produce soon after the harvest in March, and quite often we were caught in the whirlpool of demand and supply. We would always end up selling at rock bottom prices when the market was flooded. There were times when we could not even recover the cost of production. Now, it is a different scenario. With the intervention of MCX, we can sell our crop any time of the year, not only in March, the harvest season. We can do forward trading and know our prices ahead of our sowing.”

“I had no knowledge of computers,” Singh continues. “After 2006, with the intervention of GSK, I learnt the use of computers and how to operate an e-mail account. Now, I am well-versed with all agriculture-related information, including crop and weather forecasting. The farmers in our village now come to me to know about weather forecasts and the prices of agricultural commodities.”

For the farmers, MCX is a boon. It has opened the gates to improved prices, better farm planning and prosperity. “However,” says Singh, “only one or two percent of farmers in the region are aware of its services. The majority are still in the dark.” In response, GSK has embarked on a massive awareness generation programme, to popularise the new concepts in trading to other farmers as well. “I wish a day would come when all the farmers become winners like us, reaping the full benefits offered by MCX,” sighs Singh.

Govindan Venkataramani
ACE has run into difficulties over these past few years. What were the obstacles and how did you deal with them?

Storage was the main obstacle. It was the National Smallholder Farmers’ Association of Malawi that started ACE, but they did not have any storage and failed to access any government storage. As for the private sector, they said they did not have any excess capacity, filling up their own storage with grain bought at harvest to sell back to the government or for export later in the season.

That was the core problem over the first 5 years. Without access to storage, we could not launch the warehouse receipt system, and without the warehouse receipt system, we could not guarantee performance. A warehouse receipt system is the key, as it guarantees the performance of the farmer or small operator through certified storage.

But in 2011, Farmers World, a big private operator in Malawi, received a grant from the Dutch Government to build silos. It was the first time a private operator had looked at a silo solution in Malawi. There was a condition to the grant: Farmers World had to introduce third party storage. And they did, asking ACE to send depositors to the silos. Soon enough, other operators came onboard. This is how we got the private sector involved in the warehouse receipt system. It has been growing since 2011 and is by far the most important activity of ACE today.

What are the volumes handled by ACE?

Our best year was 2011 with 35,000 t, mainly of maize but also soya and peas and some processed goods. There was an export ban last year so our volumes dropped to 21,000 t, but this year is looking much better.

Looking back, was ACE the right instrument to start at the time?

If I look back on ACE’s history, I would probably not have started ACE in 2005 because of the lack of storage and of real interest from the private sector. But you could also argue that the first 5 years we did a lot of sensitisation, explaining what the system is about, which was an important factor leading eventually to the private sector becoming involved and the storage being found.

Are there alternatives to commodity exchanges?

You can make the case that a vibrant market with many buyers does not need a commodity exchange because there is so much competition for the produce that farmers will get the right price early in the season. But in Africa traditionally, there are a handful of big traders who buy everything at low prices after harvest and sit on it for a while. It is changing though.

When prices are volatile, low after harvest and high in the hunger season, farmers really need an alternative solution to selling it straight after harvest. And that is exactly what a commodity exchange does.

Why are there so few commodity exchanges in Africa and none in Francophone Africa?

One reason could be that any investors going into agriculture for money, instead of pushing for a commodity exchange that costs them a lot of investment, will just go in and buy the commodities they want.

So the motivation has to come from another source: government, farmer or trader organisation, or social investment.

What is the driving force behind a commodity exchange?

It can be government with the right motivation: not a government that wants to control an agricultural market, but a government that wants to try to put a new entity into the market whereby farmers can get information, a contract and services. It can also be a farmers’ organisation or a traders’ organisation, but they are traditionally very weak in Africa and do not have the capacity to run an exchange. So when you have a donor that comes in and says, “Let’s create a commodity exchange,” there needs to be a capable organisation to start it.

Kristian Schach Møller is CEO of ACE. His main focus is to organise farming groups, promote bulking of output, empower and educate cooperatives and NGOs, establish structured trading systems, design a market information system and promote the establishment of warehouse receipts.
The need for local price discovery

Interest in African commodity exchanges is gaining momentum but sustainability has been a challenge. So what requirements are needed for a commodity exchange in Africa to succeed?

In your opinion, why are there so few commodity exchanges in Africa and what can be done to develop them?

I have only visited Egypt where I thought there would be the possibility of developing an exchange for cotton, so it is difficult to make assessments about what Africa needs to do specifically – given its large and diverse land mass, multiple growing regions and abundant natural resources. However, Africa needs its own markets, just as China and India have developed their own futures markets, which are some of the most successful in the world. For example, there is a world cocoa market that relies on production in Côte d'Ivoire and Ghana, but its pricing is based on the delivery ports in Northern Europe – close to the mega food companies that process cocoa. This ‘dislocation’ impedes the price transmission to farmers.

When you have a local price discovery mechanism, the producer always benefits from both transmission and transparency. For example, after the South African government eliminated price support, the South African Futures Exchange designated over 100 domestic delivery points in maize and wheat within the growing regions, to give the producer a market advantage. Futures trading cuts out so many layers of mark-ups in the supply chain. Also, because they effectively forecast prices along the seasonal curves, futures allow for better planning.

What are the preconditions to develop such markets?

There are a number of preconditions for any futures markets and these haven’t changed much over time even though the world has experienced a period of unprecedented change over the last 20 years. You need contract law as you cannot have functioning commodity markets without clear transfer of ownership. It is the very basis of commodity and commodity futures exchanges. Second, the financial system must be stable: futures markets cannot exist alongside runaway inflation or a weak banking system. The existence of a large underlying cash market with readily accessible prices is the third precondition. And on these markets, you must be able to offer products that are homogeneous – this is why tea does not have a futures market but coffee does.

A futures market is needed when you have price volatility. When governments were controlling prices after World War Two (Common Agricultural Policy in Europe, or 5-year plans in the USSR), there was no need for such markets. A futures market, to function well, needs willing speculators and today, these are rarely in short supply! Another much needed precondition is the existence of markets free of excessive interference: export bans destroy market confidence. In Ukraine, for example, I suggested the Government change its focus from controlling supply (intervention) to ramping up production and promoting itself as a reliable exporter.

According to you, what exchange can serve as a model in Africa, aside from South Africa?

For Africa, the Ethiopia Commodity Exchange serves as a wonderful model. It is a spot commodity exchange that grades and stores the commodities via warehouse receipts. It is a good model because the exchange was designed to address the problems (and therefore high costs) of transacting in commodities, i.e. counterparty risk and quality. The exchange’s clearing house addresses the former – making sure that the commodities are in store so they can be bought and sold without the risk of a party defaulting – which is a large risk in commodities trade. The warehouses also guarantee the grade of the goods, so buyers know what they are getting and sellers get the proper rewards for premium goods.}

Ann Berg, former director of the Chicago Board of Trade, is a leading expert in commodity futures markets and food security issues. She has also served on the Executive Committee of the National Grain Trade Council in Washington DC.
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