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Foreword

Policies governing trade in grains in the Eastern and Southern Africa (ESA) region greatly influence the volume and value of grains traded in the region. The region has pursued a range of policies over the years, all recognizing that agriculture in the main stay of the economies and the fact that grains form majority of the staple foods and that food security almost always synonymous to grain security.

Some countries in ESA enjoy surplus production of grains and are net exporters to the region while others are net importers. Therefore, the food security equation contains grain trade as a key factor contributing to food security. However, grain trade in the ESA region, is and continues to be sub optimal, mainly because of the existence of numerous tariff and non-tariff barriers to trade, which push traders to avoid the formal channels preferring to carry out informal cross border trade. Therefore the opportunity and potential for increased trade in grains is enormous, especially if the systems can be simplified, risk mitigated and traders facilitated to trade.

Over the years, some countries in ESA have instituted bans on exports and imports of grains during certain periods of perceived shortages, while others have pursues a free market economy allowing free trade in grains. The impact of the export and import bans has largely been negative and analysis has showed that the export bans have generally not achieved the intended objectives and have been counterproductive. Export banks essentially interfere with the market supply and demand forces thus distorting the markets which lead to a drastic fall in prices, even to below production costs, causing farmers heavy losses and discouraging further production of grains in subsequent seasons – further reducing supplies and making a bad situation worse. Such policies create substantial risks to the sector in addition to other risks in production, such as climate – drought or floods, and diseases that cause massive crop failures.

Private sector stakeholders have always expressed their concerns about trade policies pursued in the region and have advocated for predictable, rules based policies that promote a free market economy as a way of attracting private sector investments in the grain sector. Risk management, especially risks brought by policy and state intervention, as well as production risks, has also therefore been identified as a key concern that continues to affect grain trade and therefore should be addressed comprehensively at the policy level.

The Eastern Africa Grain Council (EAGC) has been in the forefront of advocating for an enabling policy environment and promoting structured trade in grains in the ESA region. The Agricultural Trade Policy Advocacy Forum for Eastern and Southern Africa (ATPAF-ESA) was established for the purposes of providing a platform where policy makers and industry stakeholders could dialogue and together, formulate better trade policies that provide for an enabling environment for the grain sector to thrive.

The ATPAF-ESA has since its formation commissioned a study to scope the trade policies in the ESA region and published two bulletins. This is the third ATPAF-ESA bulletin whose main feature is the recent stakeholder’s dialogue, hosted by EAGC in partnership with the FAO and the Africa Union and with support from the DFID funded Food Trade ESA project and the Swedish International Development Agency (Sida), which took place on16th to 18th December 2014 in Addis Ababa, Ethiopia. The dialogue centered on exploring “appropriate and effective risk management mechanism” and aimed at “identifying specific trade, food and nutrition security, risk management interventions that would boost availability, affordability and access to food”.

The policy dialogue, attended by over forty (40) key stakeholders from the ESA region, received contributions from delegates representing the private and public sector stakeholders. Further, experiences from other regions such as Europe and the Americas on risk management were shared. Lessons were drawn from the initiatives and measures that have been taken and key recommendation were put forward which essentially highlighting the risk management mechanisms required to be mainstreamed and addressed in the trade policy objectives and instruments in the region.

Special thanks and appreciations go to the Africa Union, represented at the dialogue by H. E. Rhoda Peace Tumusiime, Commissioner Department of Rural Economy & Agriculture (DREA), who found time to participate and officially open the meeting, despite her very busy schedule. We remain grateful and look forward to further collaboration in the future.

We recognize and appreciate the FAO, represented at the dialogue by Susan Minae, Suffyan Koroma, Filippo Brasesco and Melissa Nadagya, and provided countless support, guidance and contribution to the meeting, as a co-host with the EAGC and we thank them most sincerely.
We extend our appreciations to the DFID funded Food Trade ESA project represented at the meeting by Dr. Sam Kareithi and Ben Malongo, who also supported the meeting and shared valuable contributions regarding the Food Trade ESA Project and in particular their partnership with EAGC in developing the G-Soko virtual trading platform that is due to be launched in June 2015.

We also thank Dr. Jonathan Nzuma from the University of Nairobi who carried out a review and presented the finding of the study that guided discussions in the meeting. Finally, I acknowledge my colleagues from the EAGC who provided the necessary logistics and facilitated the meeting which when evaluated participants confirmed that it met their objectives and expectations.

A communiqué of the dialogue, which was circulated to the delegates and other stakeholder’s, is carried elsewhere in this bulletin. Specific policy briefing documents will be developed targeted at various audiences and follow up engagements will be undertaken with a view to having the recommendations and proposals from the dialogue implemented.

EAGC will continue to convene and coordinate stakeholders to keep the policy dialogue alive and continue seeking and advancing practical solutions in the pursuit of our vision to be “the leading voice of the Grain Sector in Africa” and our mission “to advocate for an enabling environment and promote structured trade for optimal stakeholders benefits”.

Enjoy the reading of this bulletin and feel free to share any feedback.

Gerald Masila
Executive Director
Eastern Africa Grain Council.
Acknowledgments

This Bulletin is the synthesis of the findings of a study commissioned by the Eastern Africa Grain Council (EAGC) that assessed the Existing Agricultural Risk Management Mechanisms in Eastern and Southern Africa (ESA) with support from the United Nations Food and Agriculture Organization (FAO). The study involved a review of the risk management mechanisms developed and applied in the region and an assessment of the rate of success or otherwise.

The study's findings were enriched by presentations, comments and suggestions by stakeholders of the Agricultural Trade Policy Advisory Forum for Eastern and Southern Africa (ATPAF-ESA) during a workshop on agricultural risk management held in Addis Ababa; December 16 – 18, 2014 along with recent topical trade policy issues emerging in the food staple sector policies in the ESA region.

The helpful comments by the workshop participants representing the ESA region went a long way in shaping this bulletin.

Finally, we salute the numerous persons who provided information for this study.

To all of you we say thank you.
Core Member Organisations of ATPAF-ESA

- **International Fertilizer Development Center (IFDC)**
- **Ministries of Agriculture and Trade Universities and Agricultural Research Institutions Farmers / National Organisations**
- **UN-Food & Agricultural Organization (FAO)**
- **Nile Basin Initiative**
- **World Food Programme (WFP)**
- **TEGEMEO INSTITUTE**
- **Common Market for Eastern and Southern Africa (COMESA)**
- **East African Farmers’ Federation (EAFF)**
- **East African Community (EAC)**
- **Southern African Development Community (SADC)**
- **Kilimo Trust**
- **Grain Traders and Processors Association (GTPA)**
- **Regional Strategic Analysis and Knowledge Support Systems (ReSAKSS)**
- **Kenya Agricultural and Livestock Research Organisation (KALRO)**
- **ASARECA | Entebbe - Uganda**
- **The Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA)**
- **World Food Programme (WFP)**
Communiqué on the Regional Workshop on Risk Management Mechanisms towards Structured Grain Trade and Food Security in Eastern And Southern Africa

18th December 2014
Intercontinental Hotel, Addis Ababa, Ethiopia

On 16-18th December 2014, approximately 40 key stakeholders from the Africa Union, Private Sector, Governments, Bilateral agencies, farmer representatives, financial and insurance institutions and development partners in Eastern and Southern Africa region met in Addis Ababa, Ethiopia to have a dialogue on appropriate and effective risk management mechanisms and identify specific trade, food and nutrition security risk management interventions that will boost availability, affordability and access to food.

The participants included representatives from Africa Union Commission (AUC), Common Markets of Eastern and Southern Africa (COMESA), Ministry of Agriculture and Food Security (Tanzania), Ministry of Agriculture, Livestock and Fisheries (Kenya), Ministry of Trade (Uganda), Agricultural Transformation Agency (ATA)-Ethiopia, Food Trade East Africa, Representatives of the Private Sector through the Eastern Africa Grain Council (EAGC), from Uganda, Tanzania, Kenya, Rwanda, Ethiopia, Malawi, Zambia, and Burundi, Representatives from the Food and Agriculture Organization of the United Nations (FAO), The Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Alliance for commodity in Eastern and Southern Africa (ACTESA).

1. Preamble

In the Eastern Africa region, the trade intensity for grains amongst the partner countries is higher than for any other commodity. Generally, the commodity flow is from the region or country with the higher production to the neighboring countries. However, it is observed that commodity trade flows in both direction across the neighboring countries with larger volumes being from the country with higher production.

Also, depending on the degree of agro-industrial development and the extent to which a country in anchored onto the global value chain, often semi and/...
e) Bring to scale and accelerate the risk management interventions.

2. Workshop Deliberations

The high level meeting received reports from various stakeholders who are promoting or providing products and services and various mechanisms for risk management and mitigation. This was through five sessions including:

• **Session 1**: Overview and Review of Existing Risk Management Mechanism in Eastern and Southern Africa region.
• **Session 2**: Lessons Learnt and Experience Sharing on Existing Risk Management.
• **Session 3**: Commodity Risk Management and Commodity Exchange Experience on Agricultural risk Management
• **Session 4**: Risk Management through the Value Chain - Farmers, Traders, Exporters Processors
• **Session 5**: Financial Risk Management
• **Session 6**: National and Regional Policy Risk Management

Below are the key observations noted during the technical sessions:

a) Production of Grain and Cereal in ESA is carried out by smallholder farmers (80%) who are predominantly Women. Smallholders produce low quantities, which are dispersed and generally not efficient due to high production costs, not mechanized, low usage of certified inputs seeds & fertilizers and hence face significant **PRODUCTION RISKS** including weather exposure including drought and floods, pest & diseases etc;

b) Producers are exposed to **MARKET RISKS**. Most of them produce without knowing who to sell to and at what price and they only hope for a buyer who will offer good prices. Usually producers are located far from the markets and often sell at farm gate to small traders. The producers are not usually **WELL INFORMED** and the traders have better knowledge of market prices/trends. The information **ASSYMETRY** between producers and traders at time puts the producer at a disadvantage in price negotiation and discovery and therefore faces a **PRICE RISK**.

c) Traders who provide liquidity and place utility in addition to aggregating produce from the dispersed smallholder producers and re-sell to the larger traders or processors/millers are often viewed as exploiters/middle men and not favorably regarded despite their importance to the trading process. These traders are predominantly informal traders and they rely on their own savings to provide these services and generally may **NOT** **ACCESS** financial facilities;

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The producers are not usually **WELL INFORMED** and the traders have better knowledge of market prices/trends. The information **ASSYMETRY** between producers and traders at time puts the producer at a disadvantage in price negotiation and discovery and therefore faces a **PRICE RISK**.
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d) Governments often undertake institutional intervention measures to facilitate/regulate the supply/value chain process from production through to marketing and trade by imposing trade restrictions such as Export/Import bans usually not transparent, ad-hoc, not predictable and therefore creates a **POLICY RISK** to the entire value chain;

e) Processors require consistent and regular supply of commodity that meets standards and volumes to meet market. They also require competitively priced raw materials/commodity input to run their processing plants at optimal levels. They therefore face **SUPPLY RISKS** for raw materials and are also exposed to **PRICE RISKS** and **POLICY RISKS**;

f) Consumer requirements which include food safety particularly the control of Aflatoxin;

g) Various measures and mechanisms have been developed and put in place to manage and mitigate Risks for as to increase food trade and food and nutrition security. These include Commodity / Crop Diversification, Warehouse Receipt Systems, Commodity Exchanges and Insurance products; all have had various degrees of success in the ESA region and;

h) Enhance the participation of Youth and Women in as a risk mitigation measure in the value chain.
3. The Workshop Recommendations

The workshop made the following recommendations for action:

a) **INFORMATION** is critical in Risk Management. The Regional Agricultural Trade Intelligence Network (RATIN) and other MISs services have the potential to inform stakeholders including government on appropriate actions to take towards applying risk management. Investment in **DATA** and **INFORMATION** collection and analysis at all levels is critical.

b) **REGIONAL APPROACH** to Risk Management in Agriculture Production & Trade for improved Food Security. It’s important to refer to the Regional Food Balance Sheet (RFBS), in making policy decisions that impact on the regional trade in food. However, the RFBS needs to be expanded and supported to collect timely, reliable and accurate information of crop production estimates and stock levels in the supply chain with private and public sector;

c) Planning **TIME PERSPECTIVE** for Risk Management initiatives should take Short Term, Medium Term and Long Term Regional perspectives and focus should be more on medium to long term targets. Disaster management should not be confused with Risk Management;

d) Production **RISK** management to include **DIVERSIFICATION** in crop and enterprises in addition to irrigation, smoothen volatility, public funded insurance, climate smart agriculture such as conservation/minimum tillage;

e) **EFFICIENCY & COMPETITIVENESS** improvement in Agricultural Production. This requires special support for development and investments in large scale commercial production systems for grains and cereals and consolidation/aggregation of smallholder to get together and operate a larger farms for improved efficiency and competitiveness through mechanization, irrigation and improved economies of scale.

f) Improved and continuous **DIALOGUE** between public and private sector in a PPP model to ensure effective **FEEDBACK** mechanisms as well as develop and implement practical solutions and risk management mechanism; ATPAF ESA will provide the coordination of national and regional organizations involved in policy issues.

g) Strengthen coordination in Government ministries to work towards common goals and not work in “silos” pursuing different or conflicting objectives that may lead to increased risk.

h) Promote Industry peer **SELF REGULATION**, discipline among practitioners through Code of Practice, while licensed traders play by the rule and obviate government regulation and policy support; EAGC to develop a risk management strategy for the membership.

i) Improve **RISK ASSESSMENT** capacities and conduct risk profiling. This will involve development of a Risk profiling **FRAMEWORK** and conducting **RISK ASSESSMENTS** that will aid in developing Risk Management Index.

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Dr. Otim Bernard, Chairman of EAGC, addressing the delegates at the workshop on Risk Management Mechanisms Towards Structured Grain Trade and Food Security in Eastern and Southern Africa held in Addis Ababa, Ethiopia in December 2014.

Dr. Melissa Nagadya of FAO and Commissioner Tumusiime share a light moment at the risk management workshop held in December last year in Addis Ababa, Ethiopia.
j) Fragmented and isolated interventions have failed to generate broader impact. There is clear need for a more Structured COMPREHENSIVE and COORDINATED APPROACH to Risk Management that takes into account the whole range of risks faced in the agricultural sector.

k) Government RISK MANAGEMENT support should be similar to the Canadian approach, that is, to provide INCOME SUPPORT instead of PRICE RISK REDUCTION.

l) Address the DISCONNECT between Research, Academia, Government and Industry and Markets in developing solutions with a view to co-innovate solutions and repurpose by-products.

m) Strengthen partnerships on food safety including the in control of Aflatoxins with the African Union Commission’s Partnership for Aflatoxin Control in Africa (AUC-PACA).

This communiqué will be submitted to various policy organs including the Africa Union Commission (AUC), National Governments, and RECs.

We are proposing that these recommendations be mainstreamed in governments and institutional action plans.

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About EAGC

EAGC is a regional membership organization whose members include grain producers/farmers, grain traders, grain handlers, processors/millers, input suppliers among other stakeholders in the grain value chain. Since inception in 2006, EAGC has evolved into a recognized institution offering a diverse range of services including harmonization of regional trade policies and practice, facilitation of regional market development, provision of timely and reliable market information and capacity building of its members and other grain actors.

The Council has remained true to its mandate which is to develop, promote and influence structured grain trading, to increase market access and improve incomes of the value chain players. The mandate of EAGC covers 10 countries: Kenya, Uganda, Tanzania, Rwanda, Burundi, DR Congo, South Sudan, Ethiopia, Malawi and Zambia.

EAGC’s Vision is to be the leading voice in the grain industry while its Mission is to advocate for an enabling environment and promote Structured Grain Trade for optimum stakeholder benefits.
Grains in Eastern and Southern Africa make up the primary diet of most of the population and are the most widely produced crops. Despite this, the sector faces perennial risks and regulatory scrutiny that hinder the economic progression of the industry, which lead to increased grain deficits, economic losses, perpetual poverty and chronic food insecurity. Most countries are not able to meet the domestic demand for grains due to risks related to marketing, trading, weather, political, production, storage and infrastructure and financial risks, to name but a few.

Although considerable attention has been devoted to physical risks associated with the grain industry, such attention has been clouded with generalities due to their often narrow scope. In cases where grain sector actors have devised risk mitigation measures, they are often disjointed from other related risks. It is therefore paramount that the regional grain sector develops a more structured approach to managing risks and seize the growth and economic opportunities in the sector.

In addition, grain sector players grapple with various challenges including the unpredictability associated with the widespread, but often indiscriminate use of trade and domestic policy interventions by governments. This unpredictability contributes significantly to sub-optimal levels of private sector investment in input and output marketing activities.

Considerable progress has been made over the past few years to mitigate these associated risks in domestic and cross-border grain trade and food security. Some of these risk management processes involve disaster, recovery or coping mechanism strategies. However, there remain some key discussion points that could assist in reviewing and understanding the various mechanisms further.

Some of this includes the review of the role of Government and state agencies in risk management, private sector participation, and opportunities for regional grain reserves hosted under the New Partnership for African Development (NEPAD), viability of weather based insurance to smallholder farmers, and definitions and costing of good weather against bad weather for insurance.

Given, the foregoing, considerable measures have been put in place to mitigate risks in the sector. It is within this background that EAGC in collaboration with the United Nations’ Food and Agriculture Organisation (FAO) and the DFID FoodTrade Eastern and Southern Africa Project conducted a workshop on Risk Management Mechanisms towards Structured Grain Trade and Food Security in Eastern and Southern Africa in Addis Ababa, Ethiopia on 16th to 18th December 2014.

The workshop, conducted under the auspices of Africa Trade Policy Advisory Forum for Eastern and Southern Africa (ATPAF-ESA), hosted a policy dialogue with focus on scoping the mechanisms that have been put in place for risk management, disseminating and sharing knowledge on the improvements and gains made in risk management in the sector, review of the current innovations on risk management, and supporting adaptation to risk management towards structured grain trade in the region.

The main goal of the workshop was to assist governments and the private sector in the Eastern Africa Region to identify and formulate appropriate and specific trade and food security risk management interventions that will boost food production, availability and access to food for the most vulnerable.

To this end, the workshop brought together key stakeholders including representatives from Africa Union Commission (AUC), Common Markets of Eastern and Southern Africa (COMESA), Ministry of Agriculture and Food Security (Tanzania), Ministry of Agriculture, Livestock and Fisheries (Kenya), Ministry of Trade (Uganda), Agricultural Transformation Agency (ATA)-Ethiopia, Food Trade Eastern and Southern Africa, Representatives of the Private Sector through the Eastern Africa Grain Council (EAGC), from
Uganda, Tanzania, Kenya, Rwanda, Ethiopia, Malawi, Zambia, and Burundi, Representatives from the FAO, the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and the Alliance for commodity in Eastern and Southern Africa (ACTESA). The workshop focused on a situation analysis of risk management mechanisms for structured grain trade, risk assessment, risk management options, review of issues per stakeholder, and developing recommendations for advocacy at national and regional level.

The need for risk management policies in grain trade

The Chief Guest at the Workshop was Her Excellency Ms Rhoda Peace Tumusiime, Commissioner for Rural Economy and Agriculture at the Africa Union Commission (AUC). In her opening remarks, Her Excellency Tumusiime noted that there is need to focus on policy issues affecting the environment in addition to structured grain trading and regional food security. She pointed out that despite strong economic growth in Africa, a large section of the population is still undernourished especially after the food crisis in 2007/08, hence the need for developing and implementing policies to protect vulnerable populations from food insecurity.

Her Excellency urged the participants to mainstream risk management in policy processes at national, regional and continental level and also implement lessons learnt from the responses put in place in stabilizing food prices. In addition she urged EAGC, as a value chain based organisation, to work with other partners in the continent to address the challenge of Aflatoxin citing that there was no quality grain trade unless the challenge of Aflatoxin were addressed.

Lessons from FAO

Dr Melissa Nagadya from FAO noted that risk management had dual purposes of ensuring food security and securing private and public investment in research and that each country in the ESA region has in place a different structure for managing risks in the grain sector. As an example, the private sector in Uganda plays a big role in risk management. Some risks facing the grain sector include weather and natural hazards, Market and price risks, infrastructure and institutional risks such as inability to respond in case of emergencies due to lack of capacity or absence of disaster preparedness

Dr Nagadya recommended that risk management strategies should be founded on comprehensive assessment of and that no single risk management tool can address the full range of risks or fully hedge against any particular type of risk. She further recommended the creation of a steering committee for each and every tool and urged governments should be ready and committed to the best practices, and that a road map be developed on how each of the tools can be implemented.

The workshop recommended a number of measures to mainstream risk management in the grain sector. The recommendations revolved around greater adoption of structured trading systems (such as warehouse receipt systems and commodity exchanges), making greater efforts to boost food production and productivity and boosting trade flows between countries. The workshop called for governments to harmonise policies affecting the grain sector and extend more support to smallholder farmers especially with regard to creating awareness and facilitating adoption of commodity grades and standards. The private sector was also called upon to be part of the solution by collaborating with governments and development partners in addressing challenges facing the regional grain sector.

The Risk Management Workshop was officially closed by Dr Susan Minae, Officer in Charge at FAO Subregional office for Eastern African and Interim Representative to the United Nations Economic Commission for Africa.

This highly successful workshop was instrumental in feeding into a more structured approach to risk management in the regional grain sector, the commissioner added. The workshop recommendations presented in the preceding Communiqué are the building blocks for robust risk management in the sector and complement broader national and regional development and poverty reduction efforts, including supporting ongoing efforts to mainstream risk management into the AU CAADP Compact. The discussions presented in this Bulletin are directly informed by the workshop and shed more light on agricultural risk management mechanisms and best practices pertinent to their effective deployment.
2. Agricultural Risk and its Sources

Introduction

A key constraint to cereal sector value chain development in the ESA region is the unpredictability associated with the widespread, but often indiscriminate use of trade policy interventions by governments. According to the EAGC, policies on trade in agricultural food commodities are rated as the highest risk factor by investors in the agribusiness sector in the ESA region.

Moreover, agricultural producers have to deal with the risks associated with negative outcomes mainly deriving from extreme weather shocks, such as drought, floods or cold waves. In addition, biological factors, such as insect pests, and crop and livestock diseases, are recurrent events affecting agricultural production. In the ESA region, these risk factors are complicated by the heavy reliance on rain fed agriculture in an environment characterized by extreme weather conditions that expose farmers to the adverse effects of changing climate.

The key sources of agriculture risk include production, marketing, financial, legal/institutional, and human resource risks. While production risks are often related to weather (excessive/insufficient rainfall, hail, extreme temperatures) diseases, price risk can be viewed as the chance of selling at a price below that needed to maintain your operation’s economic viability. It is the risk of falling output and/or rising input prices after a production decision has been taken.

The most common market risks include price variability for crops and livestock, inputs, exchange rate and interest rate volatility, counterparty risks, and livestock theft. Moreover, financial risks such as cost of capital and exchange rate volatility, frequent policy changes (institutional risks) and human risks (injury, death) exacerbate the production and marketing risks.

Risk in agriculture is not only of concern to the individual farmer. It is also of importance to society as a whole, as the risk-averse behaviour of farmers can lead to an allocation of farm resources which is not efficient, resulting in a sub-optimal overall allocation of resources and consequently lower overall welfare. For example, risk averse farmers might not adopt a new productivity-enhancing technology because of potential risks associated with it, which results in a lower increase in output than possible. In order to enhance investment and achieve a sustained increase in production, coherent and integrated long-term strategies and policies are required to reduce risk aversion and build resilience among rural producers.

A broad range of mechanisms for responding to agricultural risks exist. These can be classified into formal and informal mechanisms. Informal risk management strategies are prevalent at the household and community level where they are used to mitigate or share risk. The informal risk management strategies adopted by farmers can be categorized into three groups: prevention strategies such as applying pesticides, mitigation strategies such as crop diversification and coping strategies such as borrowing from friends. Formal risk management generally applies at the market or public level where they are used to share or transfer risk. The formal risk management mechanisms can either be publicly provided or markets based and compliment informal risk management strategies. Within the class of formal risk management mechanisms ex-ante and ex-post risk management mechanisms can be identified.
3. Agricultural Risk Management Mechanisms in ESA Grain Sectors

Introduction

In the ESA region where grain staples make up the primary diet, a number of market based agricultural risk management mechanisms have been established to support the informal risk management mechanisms employed by farmers. A vast majority of these initiatives have been established by the donor community with support from national governments. The most widely used instruments include; warehouse receipt systems (WRS), agricultural commodity exchanges, contract farming, agricultural information systems (AIS), grain stock management, weather index insurance, farm safety nets along with price, marketing and trade policies.

3.1 Warehouse Receipt Systems (WRS)

A WRS is a process where farmers deposit their product with certified warehouses in exchange for warehouse receipts. WRS facilitate private storage and provides receipts in exchange of stored commodities and could either be electronic or paper based. The warehouse receipts can either be transferable (sold) or not (used as proof of collateral for loans). WRS allow farmers to access formal credit markets by offering a collateralization service which is generally based on a tripartite agreement involving a financial institution, the borrower (the depositor) and the collateral manager (the warehouse operator). On the other hand, when the receipts are transferable, they foster impersonal trade avoiding the high transaction costs which derive from moving commodities before the transaction takes place (this is particularly true for those experiences based on electronic receipts).

Some of the countries within ESA that have had experiences with WRS in the recent past include Ethiopia, Kenya, Malawi, Uganda, South Africa, Uganda, Tanzania and Zambia. In Ethiopia, the functionality of a WRS introduced in 2003 by the Ministry of Trade and Industry was undermined by the absence of institutions supporting the system. In 2010, the Ethiopian Commodity Exchange (ECX) launched a WRS to allow producers and traders of agricultural commodities to access bank loans. This provides a guarantee as the warehouses are insured at maximum coverage to protect against loss and damage of deposits and it is certified by the accepted industry grades and standards reported on the receipts. However, the Ethiopian WRS focuses more on export crops such coffee and sesame but has been less successful for maize.

Kenya

In Kenya, there are separate WRS pilots using paper warehouse receipts by the EAGC and the National Cereals and Produce Board (NCPB), with participation by several banks and traders. The NCPB with a network of 110 warehouses with a storage capacity of 1.8 million metric tonnes (MT) established its WRS in 2010 with little success. The key constraint to the development of WRS in Kenya is the lack of trust among farmers an indicator of the absence of an enabling environment for the operation of a WRS.

In recent years, EAGC has emerged as the forerunner and champion of the WRS in Kenya. The Council has certified more than 10 warehouses for use in its WRS. Majority of the warehouses are located in the key grain-producing localities of Kitale, Eldoret, Nakuru, Laikipia and Makueni. The certified warehouses are mainly operated by farmer-based organisations or private companies, and have a combined storage capacity of over 50,000 metric tonnes. Over 32,000 metric tonnes of grains have been traded through EAGC’s WRS by the end of the 2014/15 crop season.
EAGC has been successful in attracting support from financial institutions in its WRS. Four financial institutions participate in WRS financing, whereby loans are issued using warehouse receipts as collateral. WRS financing is described in more detail on page 21.

The Council has also been at the forefront of creating awareness of the WRS and building the capacities of farmers to adopt the system. More than 13,000 farmers in 200 farmer-based organisations have been trained by the Council to date on matters relating to post-harvest handling, grades and standards, market information systems, trade contracts and others.

Not satisfied with its current achievements, the Council is currently developing the G-Soko system that will automate the WRS from the current paper-based system to an electronic system and create a trading platform to link grain traders in a more efficient and transparent process. The G-Soko system will also make WRS-based lending more efficient and increase its reach while also make it easier for farmers with an electronic warehouse receipt to settle payments and secure agricultural inputs on credit.

EAGC has also been active in the ongoing process of establishing a legal and regulatory framework for the WRS in Kenya. The Council has played a key role in the development of the draft Warehouse Receipt Systems Bill, which has been submitted for deliberation in both houses of Parliament. It is expected that the legislation will reduce regulatory risks in the WRS and thus encourage more banks to participate in the system for the ultimate benefit of farmers.

Malawi

In Malawi, there is a plan to hive off some storage facilities from the Agricultural Development and Marketing Corporation (ADMARC) to a warehousing company, the Malawian Warehouse Trading Company (MAWATCO), but with no agreement to date. A proposal to establish a pilot regulated WRS has not been implemented, though two large trading companies are seeking to provide warehouse receipting services on their own, with donor or public support.

There are various other initiatives to enhance rural storage and local bulking of surpluses, involving hermetic storage technologies, storage by producer organisations (linked to microfinance or banks), and grain bulking by certified trade intermediaries. However these initiatives are either at the design or pilot stage, some aspects still need thinking through, and will need a lengthy time frame (5 years +) for thorough implementation and evaluation.
Tanzania

In Tanzania, a paper-based WRS has been in place for several years under the management of the Tanzania Warehouse Licensing Board (TWLB). By 2010, 28 warehouses had been licensed, and eight crops approved for warehouse receipt finance; some US$ 90 million had been disbursed, and over 300,000 farmers trained. Since 2005, the Agricultural Marketing Systems Development Programme (AMSDP) has piloted a micro-finance linked WRS for grains, making use of Tanzania’s large stock of underutilized rural warehouses. The WRS has proved largely successful for paddy rice, but unsuccessful for maize, due to farmers’ difficulty in foreseeing price movements in a market subject to considerable Government intervention, notably export bans.

Uganda

The Government of Uganda designated the Ugandan Commodity Exchange (UCE) as the WRS regulator under the WRS Act of 2006 and Regulations of 2007. The WRS Regulations of 2007 provided for two types of licensed warehouse (public and private), with the latter category allowing UCE to regulate collateral management. However, UCE decided not to go down the route of mandatory licensing, leaving it up to collateral managers to decide whether or not they got licensed under the Act. An electronic WRS has been in place under supervision of the UCE since 2006. Its main focus is on the coffee sector, but it also includes seven warehousing facilities for maize, linking to several financiers.

Zambia

In Zambia, a regulated WRS for grains was introduced in 2001 under the Zambia Agricultural Commodities Agency Limited (ZACA). The first substantial deposits (6,000 MT of maize) occurred in the 2003/04 season, but ZACA’s most successful year was 2004/05 when four certified warehouse operators with a total capacity 105,000 MT were certified and deposits of 65,038 MT of maize and 70 MT of groundnuts were made. There were no deposits in 2005 (a deficit year) and 19,879 MT are reported to have been deposited in 2006. In 2007, ZACA was wound up following management challenges and some of its staff and assets were transferred to the new Zambian Agricultural Commodity Exchange (ZAMACE), a private sector institution supported by USAID. Since 2007, ZAMACE has traded 35,800 MT of commodities.
3.2 Agricultural Commodity Exchanges

A commodity exchange is a market where commodity-linked contracts are traded on the basis of rules and procedures determined by the exchange. Well-functioning commodity exchanges require several conditions: large trading volumes per transaction, a huge amount of liquidity in the market, grades and standards of quality, storage facilities, a reliable banking service, and a strong legal framework to enforce commercial laws and contracts.

The most typical contracts traded include spot prices, forwards, futures and options. While national Agricultural Commodity Exchanges have been established in Ethiopia, Kenya, Malawi, Rwanda, Uganda, Zambia and Zimbabwe, several initiatives for regional Agricultural Commodity Exchanges exist. Two exchanges have reached reasonable volumes, the South African Futures Exchange (SAFEX) and the ECX trading respectively over 210 million MT (mostly grains) and almost 600,000 MT (mostly coffee) in 2012. However, a very mixed picture of Agricultural Commodity Exchanges in ESA can be painted.

**Ethiopia**

After its establishment in 2006, the ECX started trading grains (maize, wheat) with little success. It then switched to coffee, helped by a decision from the government to replace the traditional coffee auctions by ECX. Starting with one coffee warehouse in 2008, ECX expanded its warehousing presence, to 57 in early 2013. In September 2011, it similarly received monopoly trading rights for two other export commodities (sesame and pea beans). The government is also considering adding wheat and maize as commodities that obligatory have to be traded through ECX in 2013. By the end of February 2013, the exchange had traded US$ 8 billion worth of commodities. It had indirectly reached over 2.4 million small farmers. New commodities, such as hides and leather, are also under consideration. ECX has become Africa’s largest exchange after South Africa’s SAFEX.

**Kenya**

The first attempt to create an Agricultural Commodity Exchanges in Kenya dates to 1997, when a private entrepreneur created the Kenya Agricultural Commodities Exchange (KACE). KACE could not afford to develop a trading platform, and thus, decided to focus on the provision of market information, which was of more interest to development partners.

In the late 1990s, two other unsuccessful exchange initiatives; the Nairobi Coffee Exchange and Africa’s first internet-based exchange were launched. In 2009, the Nairobi Stock Exchange (NSE) in collaboration with NCPB, KACE and EAGC announced plans to launch an Agricultural Commodity Exchanges to trade in maize, wheat, rice and beans without success. In 2012, the government issued a tender for an Agricultural Commodity Exchanges. Despite attracting a large number of viable offers, the government stalled the process deciding to study the matter further. A Consultancy was commissioned by the Ministry of East Africa Affairs Commerce & Tourism to review the viability of a commodity exchange in Kenya; the Consultancy report is awaited by stakeholders.

**Malawi**

Malawi has experimented with three exchange initiatives; the Agricultural Commodity Exchange for Africa (ACE), the Malawi Agricultural Commodity Exchange (MACE), and the AHL Commodity Exchange (AHCX). The first two were established in 2004 while the most recent AHCX was established in 2012.

While ACE is a public initiative, MACE and AHCX are private companies. MACE is a private company funded...
by the Rockefeller and Gates Foundations, while AHCL is owned by Auction Holdings Limited, Malawi’s leading Tobacco Company. While ACE remains loss-making, and survives only because of continued donor support, MACE never had much traction, and faded away once donor support stopped. AHCX only started trading in May 2013. It is expected that grains (maize, rice) and other commodities (soybeans, pigeon peas, groundnuts and cotton) will be traded on the platform.

Rwanda

In Rwanda, the East African Exchange (EAX) was launched by Rwanda’s President in January 2013. EAX aims to start offering auction facilities and spot trading for both agricultural and non-agricultural commodities, and develop futures trading over time. It will use NASDAQ OMX’s X-stream Trading and Clearing platforms, which is compatible with global industry standards.

Its first trade was done at the end of March 2013, which involved the auction of 2,800 tons of beans on behalf of the Ministry of Agriculture and Animal Husbandry. At the end of 2014, EAX had certified 15 warehouses with a combined capacity of 38,000 MT. It is planned that the exchange becomes fully operational by June 2013, with Rwanda, Kenya, Tanzania and Uganda as target countries.

Uganda

The Uganda Commodity Exchange (UCE) was founded in 1998. Between March 2002 and June 2004, progress remained slow with only 11 contracts being traded. UCE only got some traction when, in 2006, it received funding from the European Union and became the WRS regulator under the new WRS Act of 2006. UCE focused on developing the WRS on maize and beans.

In 2008, it procured an electronic WRS and started building a network of warehouses linked to the exchange. As of 2012, seven warehouses were licensed with plans to build 10 more model warehouses, some of them with WFP support.

The warehouses were to be linked to grain millers, and banks were to be brought in to finance warehouse receipts. As of 2012, three banks had started doing this. The number of warehouses was to reach 22 in the period 2015-2020, and during this period the exchange would also move beyond maize, beans, paddy, rice and coffee.

Zambia

There have been four separate private sector efforts to create a Zambian commodity exchange. The Zambia Agricultural Commodity Exchange (ZACA), was established in 1994. The exchange conducted spot and forward trade in wheat, maize and other agricultural products.

It quickly traded 1.5 per cent of the domestically produced and traded maize in the country, and became the price setter for the Lusaka market. Another two ACE’s were set up in the Central and Eastern Provinces. All three faded away in an environment of
unpredictable government interventions in the grain market. The latest initiative, also called the Zambia Agricultural Commodity Exchange (but abbreviated ZAMACE), was established in May 2007. ZAMACE has signed an agreement with Malawi’s ACE, and it was hoped that in 2013, it would have introduced trade in warehouse receipts. ZAMACE has also signed an agreement with SAFEX, under which SAFEX will start trading Zambian maize, wheat and soya beans in US Dollars. This will provide arbitrage opportunities for traders on ZAMACE, which may well drive volume growth.

**Zimbabwe**

The Zimbabwe Agricultural Commodity Exchange (ZIMACE) was launched in 1994. ZIMACE became quite active, particularly in maize trade; wheat and soya beans were also traded actively. The exchange reached a volume of US$550 million in 2001, the last year that it operated. ZIMACE was suspended in 2001, when the government gave the state-owned Grain Marketing Board (GMB) a monopoly on the trading of maize and wheat.

In 2010, the government announced it was to reintroduce a commodity exchange, the Commodity Exchange of Zimbabwe (COMEZ) as a public-private partnership, with banks, farmers union’s private investors taking part of the equity. Disagreements between the Ministry of Industry and Commerce and the Ministry of Agriculture have stalled the project. Reportedly, The process was reportedly revived in late 2012, but farmers would like the government to step back from the process.

### 3.3 Agricultural Information Systems (AIS)

Information systems are knowledge infrastructures which facilitate the dissemination of information for risk awareness, market decisions, and policy decision-making. Information systems in agriculture can be classified as two main categories: Market Information Systems (MIS), and Weather Forecast and Early Warning Systems (EWS). Table 1 overleaf summarises AISs in the ESA Region.

MIS are services used in gathering, analysing and disseminating information about agricultural prices, quantities and other relevant information of widely traded products from rural assembly, retail and wholesale markets. Market information systems have developed over the past fifteen years. They now engage public and private operators, include information on aspects other than pricing, and foster the emergence of inter-country MIS networks.

Public MISs are usually sponsored by the governments through the responsible ministries e.g. the Ministry of Agriculture. Examples of public MIS include the Agricultural Market Information Center in Zambia (AMIC), the Agricultural Market Information System in Mozambique (SIMA), and the Livestock Market Information System (LMIS) in Tanzania, Ethiopia and Kenya. In 1998, with backing from USAID, the FOODNET project set up a national MIS in Uganda for the country’s cash crops. The FOODNET project also supported the creation of MIS in Tanzania, Kenya and Rwanda.

Private-operated MIS offer the promise of financial sustainability through the sale of information to users, permitting advertising and providing fee-based additional services. Examples of these are E-Soko (based in Ghana and active in 6 countries), Infotrade in Uganda, and Manobi. The recent development has witnessed the evolution of ACE services which are MIS that combine market price information with a commodity exchange information service.

Due to increasingly regional nature of agricultural markets, there are emerging regional MIS. The Regional Agricultural Input Market Information and Transparency System (AMITSA) operating in Kenya, Uganda, Tanzania, Rwanda, Burundi, Malawi, Zambia and Mozambique has the objectives of improving access to timely data as one of its objectives.
<table>
<thead>
<tr>
<th>S/N</th>
<th>Market Information System</th>
<th>Year of launch</th>
<th>Parent Organisation(s)</th>
<th>Geographical coverage</th>
<th>Products and services</th>
<th>Medium of information dissemination</th>
<th>Status</th>
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</table>
| 1   | Regional Agricultural Trade Intelligence Network (RATIN) | 2006 | Eastern Africa Grain Council (EAGC) | Kenya, Uganda, Tanzania, Burundi & Rwanda | • Daily, monthly and annual prices of maize, rice, sorghum, beans, wheat and millet  
• Informal cross border trade data  
• Real-time Volume Tracking (RTVT)  
• Weekly consumer prices of staple foods  
• Daily grain sector news bulletins | Web; SMS; Email | Active |
| 2   | Esoko | 2009 | Esoko | Ghana, Kenya, Burkina Faso, Malawi, Mauritius & Zimbabwe | • Information dissemination on market prices, weather forecasts, agriculture tips, crop calendars, bids & offers, and promotions | SMS | Active |
| 3   | African Post Harvest Losses Information System (APHLIS) | 2009 | Natural Resources Institute (NRI); Federal Office for Agriculture and Food – Germany; Forum for Agricultural Research in Africa (FARA) | 39 countries in Sub-Saharan Africa | • Online and offline computation tools for post-harvest losses for cereals | Web (downloadable tool) | Active |
| 4   | Regional Agricultural Input Market Information & Transparency System (AMITSA) | 2010 | International Fertiliser Development Centre (IFDC); EAC; COMESA | Kenya, Mozambique, Malawi, Burundi, Rwanda, Tanzania, Swaziland, Uganda, Zambia | • Covers agricultural inputs only (fertilisers, seeds and pesticides)  
• Currently provides monthly and quarterly price data only  
• Links to external databases | Web (downloadable reports) | Active |
| 5   | Food & Agriculture Market Information System (FAMIS) | 2007 | COMESA | All COMESA countries | • Production and trade flow data for horticulture, grains, dairy, livestock, fisheries and fertiliser commodities  
• Links to price data from regional commodity exchanges | Web | Inactive |

Last update 2012
<table>
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<tr>
<th>S/N</th>
<th>Market Information System</th>
<th>Year of launch</th>
<th>Parent Organisation(s)</th>
<th>Geographical coverage</th>
<th>Products and services</th>
<th>Medium of information dissemination</th>
<th>Status</th>
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<tr>
<td>6</td>
<td>Crop and Livestock Market Information System (CLIMIS)</td>
<td>c2007</td>
<td>FAO’s Sudan Institutional Capacity Programme: Food Security Information for Action (SIFSIA) programme; Republic of South Sudan</td>
<td>South Sudan</td>
<td>• Price data for basic crops and staples; livestock; and widely traded and consumed goods.</td>
<td>N/A</td>
<td>Inactive</td>
</tr>
<tr>
<td>7</td>
<td>Agricultural Market Information Centre (AMIC)</td>
<td>1992</td>
<td>Government of Zambia</td>
<td>Zambia</td>
<td>• Weekly retail and wholesale prices crops, livestock, fisheries and horticultural products</td>
<td>Radio; email</td>
<td>Active but limited Data collection challenges; limited coverage (only 9 of 72 districts covered in 2011); unreliability of data</td>
</tr>
<tr>
<td>8</td>
<td>Infotrade</td>
<td>2008</td>
<td>FIT Uganda Ltd; DANIDA-funded Agricultural Sector Program Support</td>
<td>Uganda</td>
<td>• 46 agricultural commodities including grains, horticultural products, livestock, dairy and poultry • Prices for inputs provided by AMITSA through external link • Provides weekly and monthly price data</td>
<td>Web, email, Radio, Notice Boards</td>
<td>Active</td>
</tr>
</tbody>
</table>
The Regional Agriculture Trade Intelligence Network (RATIN) was established in 2006 and provides market intelligence online and through SMS for the agriculture markets in Kenya, Uganda, Tanzania, Rwanda, and Burundi.

Moreover, the Livestock Marketing Information System (LMIS) of the IGAD was created in 2003 and provides MIS for animal sectors in Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, and Uganda.

Most agricultural information systems are predominantly managed through support from international organizations, which suggests a lack of capacities at government level to produce information. This situation also puts at risk the sustainability of most MIS. Severe resource constraints to data collection are unsurprising and common to public programs throughout the country.

While MIS are mainly thought to serve farmers and traders’ needs, Early Warning Systems (EWS) are more targeted at governments, institutions, and international organizations. Indeed, an EWS collects analyses and disseminates timely and effective information about hazards, allowing actions to avoid or reduce risks and prepare an effective response. Preconditions for well-functioning EWS are: data accuracy, clear risk assessment and definition of system’ objectives, context-based indicators, timeliness warnings, and easy-to-use information. The successes or failures EWS are dependent on a number of factors that are beyond the technical scope of the system itself.

Early warning systems operating in Africa are mainly donor-founded and internationally managed. There are several types of information systems, each with a particular focus, (e.g. Earthquakes, Health or Income monitoring), but the two major global EWS that deal with agricultural risks are the USAID FEWSNET (Famine Early Warning Systems Network), and the FAO-GIEWS (Global Information and Early Warning System). These combine information on prices, crop production, weather hazards, and vegetation conditions in order to draw the most accurate figures and foster a holistic analysis that supports decision-making processes. A number of local systems providing early warning and market information are in place; however, they have lower analytical and methodological capacities which hinder their functionality.

3.4 Agricultural Insurance

Agricultural insurance has attracted a lot of attention in recent years. Insurance is an instrument that pools risks from a large population in order to cover pay-outs encountered by a small portion of that population. In the past 10 years, financial and technological innovations have made insurance more affordable. One innovation is index-based insurance, which allows individual farmers to protect themselves against agricultural production risk by paying out when an independently observable trigger (for example, rainfall at a local weather station) shows that an insurable event has occurred. When the index falls below a certain level, farmers automatically get a payment without requiring estimation of their potential yield losses.

Most country experiences in Africa are still at pilot level and are supported by international organizations and global insurance companies. For example, Ethiopia, Kenya, Malawi, and Tanzania are piloting different types of weather-based index insurance, particularly against the risk of drought. In Kenya, a consortium comprising Financial Sector Deepening (FSD) Kenya, the Rockefeller Foundation, and the World Bank is piloting a project with the primary objective of developing and testing the market viability of index-based insurance products to reduce the impact of weather risk on smallholder farmers and pastoralists. The programmes provide cover for the value of the inputs provided on credit to farmers. This will enable farmers to increase their productivity safely, knowing that their loans will be repaid in the event of a drought.
3.5 Agricultural Credit

The development of well-functioning financial systems is a precondition to effective market-based approaches to risk management such as WRS, agricultural commodity exchanges or insurance products. Financial systems in African countries are on average the least developed in the world, even compared to other developing countries. In all ESA countries, the share of commercial banks’ loans to agriculture has been very low compared to manufacturing, trade and other services sectors, hampering expansion and technology adoption. While micro-finance institutions have taken financial services to millions of previously un-bankable clients, they have so far largely failed to reach poorer producers whose livelihoods are characterized by highly seasonal investments, risks and returns.

A few financial institutions in the ESA region offer credit to agriculture. The Cooperative Bank of Kenya, a publicly listed company with an asset base of nearly US$1 billion provides agricultural financial services to around 7 million clients, either directly or indirectly through cooperatives. The Agricultural Finance Corporation (AFC) has also been in the forefront in offering agricultural credit to farmers in Kenya.

Moreover, DrumNet-Kenya has been facilitating risk-mitigating tripartite linkages. It links commercial banks, smallholder farmer groups, produce processing companies, and retail providers of farm inputs through a cashless credit system using mobile phones, SMS and email. DrumNet works with Equity Bank, a major microfinance bank in Kenya, and BIDCO, a cooking oil refinery.

In Uganda, the Centenary Bank is a major micro finance provider with over 700,000 depositors and 90,000 borrowers. In 2008, it had US$172 million in deposits and US$144 million in loans. Of the loan portfolio, 74 percent was microfinance and around 14 percent was agriculture-related. In Malawi, the Opportunity International Bank of Malawi (OIBM) has been offering microfinance banking to agriculture. OIBM has around 203,000 clients, of which 38,800 are borrowers, and a loan portfolio of around US$30 million. In early 2009, it had around US$7 million in its agricultural portfolio of approximately 6,500 loans.

The Ethiopian microfinance industry has grown rapidly in recent years. As of September 2008, the industry served around 2.2 million clients, and had a savings balance of around US$160 million and a loan balance of US$460 million. About 66 percent of the loan portfolio in Ethiopia is estimated to be in agriculture. However, MFIs in Ethiopia do not have appropriate products that can provide sustainable financing for agriculture. Capacity of the staff of the institutions to adequately assess the credit risk involved in agriculture is also weak. Nevertheless, MFIs have managed to lend to rural clients using several credit risk management mechanisms that include group lending; avoiding high risk/vulnerable clients; rescheduling loans; portfolio diversification; insurance; credit guarantee schemes supported by the government; property collateral for larger loans; and promoting savings.

WRS Financing in Kenya

WRS financing is the provision of formal credit services by banks and financial institutions using warehouse receipts as collateral. In the absence of WRS financing, banks require forms of collateral such as title deeds that most farmers do not have. WRS financing thus allows collateralisation of grain commodities and is thus an affordable means for farmers to access credit facilities.

Through EAGC’s WRS, over Kshs 300 million has been loaned out to farmers through four participating lending institutions: Chase Bank, Equity Bank, UNAITAS Sacco and K-Rep Bank. Actually, it has emerged that, contrary to common expectations, farmers are amongst the most disciplined and trustworthy borrowers; there is currently a zero percent default rate in WRS financing, a feat unattained in any other sector.
3.6 Technology development and adoption

The adoption of farm technology is critical in overcoming production risks. Indeed, the increase in climate variability in Africa is detrimental to agricultural productivity. The constraints to African agriculture cannot be overcome without innovative approaches; hence higher investments in agricultural research, and strong political commitment to strengthen policies and institutions. Modern technology tools, such as remote sensing and Global Information System (GIS), are improving traditional practices, such as rainwater harvesting, thus increasing water productivity. Conservation agricultural technologies can also increase yields while intensification and diversification of production systems generate new income and livelihood strategies.

3.7 Farm Safety Nets

In Africa, safety net schemes in support of poor producers are limited and not properly institutionalized. The most widely adopted programmes to assist agricultural production are input distribution schemes, which mainly focus on targeted fertilizer distributions, but such interventions are mostly designed and implemented as ad-hoc policies without proper planning, resulting in temporary and scattered interventions. Almost all ESA countries have some form of food safety nets. The most recent approach has embraced input subsidy programmes that are now applied in Kenya Malawi, Rwanda, Tanzania, Zambia and Zimbabwe for instance. The efficiency of these schemes is mainly hampered by two common constraints: namely, the failure in properly target intervention (which requires studies) and the likely delay of input distributions. Proper targeting of input distributions is key to limiting the costs associated with the scheme, and to avoid the crowding out of commercial sales.

3.8 Contract Farming

Contract farming is agricultural production governed by an agreement made between a buyer and a producer regarding the production and marketing conditions of one or more agricultural products. Generally, a farmer agrees to provide certain quantities of an agricultural product in accordance with quality standards established by the buyer and at a time and place determined by the buyer. In return, the buyer agrees to purchase the product at the predetermined price and, in some cases, to support production by providing credit, inputs, land preparation and technical advice, for example.

Contract farming can be applied to all types of agricultural product. Examples abound of successful contract farming arrangements for cash crops such as sugarcane in Kenya, Malawi, Tanzania, Zambia and Zimbabwe, tea in Kenya Malawi, Tanzania and Zambia and cotton in Zambia and Zimbabwe.

Other crops for which contract farming has been practiced include tobacco in Kenya and Zimbabwe, fruits and vegetables in Kenya and livestock. It has also worked well in the forestry, aquaculture and fibre production sectors as well as for flowers and tobacco.

3.9 Grain Stock Management

Many governments in the region have pursued food price stabilization policies throughout their histories, even during their periods of ostensible market liberalization. Since the early 2000s, grain marketing boards have once again become the dominant players in the market in Ethiopia, Kenya, Malawi, Zambia, and Zimbabwe.

Kenya’s NCPB and ADMARC in Malawi are the most prominent grain marketing boards in the ESA region. Evidence from international experiences suggests that buffer stocks have been more effective in moderating price decreases than price increases.
Conclusions

In summary, there are several risk management mechanisms available to the grain sector, ranging from warehouse receipt systems and commodity exchanges to strategic grain reserves and farm safety nets. The mechanisms in general seek to mitigate against market volatility in terms of production, distribution and prices. The experiences highlighted above show that each risk management mechanism covers some but not all risks, hence the need to have several risk management mechanisms in place to effectively cover all prevalent agricultural risks.

The sustainability of some of the initiatives such as agricultural information systems is also questionable; most of these systems have been established with donor funds or state budgets and unlike warehouse receipt systems, many do not have sustainability incorporated into their respective business models. Given the stiff competition for meagre government resources in Sub-Saharan Africa and uncertainty of donor funds, many agricultural information systems have struggled to grow and some have failed altogether.

Going forward, governments should fast-track the establishment of regulatory frameworks that can support agricultural risk management mechanisms and encourage greater private sector participation. For instance, the enactment of WRS legislation in Kenya and other countries without such legislation will give banks more comfort in supporting the system and will subsequently lead to more lending to the agricultural sector.

Furthermore, grain sector stakeholders need to make more concerted efforts to increase awareness of the availability of risk management mechanisms and increasing the capacity of intended beneficiaries to effectively adopt such mechanisms. The vast majority of farmers in Eastern and Southern Africa are not aware of the existence and are incapable of warehouse receipt systems, agricultural insurance and information systems.

Agricultural information systems are difficult to sustain because of the high cost of collecting, analyzing and disseminating data, while the intended beneficiaries are not willing or able to sufficiently pay for such services. To address such sustainability issues, service providers can consider offering such services together with other fee-based services, such as warehouse receipts, which have exhibited greater traction with intended beneficiaries in some form of product package. In this way, fees generated by fee-based services subsidize the cost of information systems and thus contribute to their sustainability.

Introduction

The grain sector players in ESA are grappling with various challenges including the unpredictability associated with the widespread, but often indiscriminate use of trade and domestic policy interventions by governments. This section presents some three case studies where government policy has destabilized agricultural production risk. The three case studies include an imposition of excise duty on Kenya’s sorghum value chain, the EAGC regional food balance sheets and a review of cereal price volatility.

4.1 Impact of the Imposition of Excise Duty on Sorghum in Kenya

The period between 2008 and 2010 registered a substantial increase in sorghum production in Kenya in response to EABL’s policy of using sorghum in the brewing of non-malted beer. Average annual sorghum production during this period grew by about 48 percent from just over 50,000 MT in 2008 to over 166,000 MT in 2012 (Figure 10).

The growth in production during this period can be attributed to the government’s efforts to revitalize the crop as a high value traditional crop tolerant to dry conditions. One of the trade policies used to revitalize the crops was to grant 100 percent excise duty remission on non-malted beer made from sorghum.

Eliminating excise duty encouraged consumers to switch to Senator Keg, boost sales of legal beer, and allow government to collect some of the tax lost from the sale of illicit brews. This allowed Senator Keg to be sold at $0.20 per 300 ml, the same price as most illicit brews. The tax break on Senator Keg lasted until September 2013, when the government imposed an excise duty of 50 percent, on the grounds that it had been difficult administratively to differentiate between various beer products and Senator Keg, thereby posing a threat to revenue collection. The new tax policy was expected to generate an additional KES 6.2 billion in tax revenue.

What followed was an absurdity of some sorts. Imposing excise duty on Senator Keg did not only increase the amount of tax paid by the brewers, but has also led to a decline in sales and profits to the brewer. Some retail outlets also closed down due to declining profits which subsequently led to job losses. Other actors in the value chain that were immediately affected included the distributors of the beer and producers. The total revenue losses from this tax amount to US$3.4 million. The biggest losers from this tax regime were farmers who lost US$ 2.2 million while government revenue declined by about 62 percent.

The implementation of the new tax measure added Kshs 35 per litre on the production cost of Senator Keg. As a result the price of 300 ml glass increased from Kshs 30 to between Kshs 45-50. The price increase reduced sales of beer made from sorghum by 75 percent in October 2013. Falling sales forced EABL to reduce production at its plant to only five days a week. Job losses were also experienced in the plant. Consequently the demand for sorghum fell and may result into undesirable consequences in the sorghum sector should EABL cut supply contract with the sorghum growers.

The costs from the imposition of the 50 percent excise duty on beer made from sorghum far outweigh the benefits from such a policy. This creates a case for a rethink of this policy with a view to a downward review to save the sorghum value chain in Kenya from collapse. The war against drug abuse and illicit brew will be, or is being lost considering the trail of deaths being reported across the country due to illicit brews. Job opportunities created in the supply chain not only...
of the beer made from sorghum, but also of sorghum bulking will translate to further welfare losses if the supply contract is cut. This case study represents a perfect example of the risks that trade policies pose to agriculture.

4.2 Impact of EAGC’s Regional Food Balance Sheets on Agricultural Trade Policy

Over the last 5 years, the EAGC in collaboration with the East Africa Community (EAC), the East Africa Trade Hub (EATH) supported by United States Agency for International Development (USAID), the Swedish International Development Agency (Sida), the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA), and EAC members states Ministries of Agriculture has been developing a Regional Food Balance Sheet (RFBS) for grain staples in the EAC region.

The RFBS provides a snapshot of the food supply and utilization status for 6 key staples (maize, wheat, rice, sorghum, millet and beans) in the five EAC countries; Burundi, Kenya, Rwanda, Tanzania and Uganda. It shows the food commodities production, consumption, imports, available stocks and exports over a particular period of time.

The RFBS therefore plays a critical role in breaking the policy cycle of ad-hoc policy decisions, ineffective trade policies and in turn providing better information on food availability, trade opportunities and thus supporting regional integration and market linkage. RFBS is an extension of the national food balance sheets.

4.3 Analysis of EAGC Grain Price Volatility in 2013/2014

The EAC is a potentially food self-sufficient region that is beset with pockets of deficits and surplus owing to geographical and cultural reasons along with infrastructural and policy constraints. In spite of the existence of a common market protocol allowing free movement of goods across member states, ad-hoc government interventions such as export or import bans, bar movement of food from areas of surplus to areas of deficit. These counterproductive policies have depressed intra-EAC trade and increased food price volatility in a region where cereal trade alone accounts for more than 30 percent of the intra-regional food trade.

The EAGC has in the past five years been monitoring the food price trends for 3 key grain staples (maize, rice, sorghum) in the region.
Over the 2013 – 2014 period, the prices of maize declined by about 20 percent in all EAC member states except in Kenya where prices rose by a percentage point. In declining order of importance, the highest price declines were observed in Tanzania, Burundi, Rwanda and Uganda. However, maize prices were more volatile in Tanzania as compared to the other EAC member states. Maize prices in Tanzania fell from a peak of USD 449/MT in April to just over USD194/MT in October 2014 owing to a bumper harvest in 2014 and lack of a readily available domestic market. The National Food Reserve Agency (NFRA) only purchased 300,000 MT of maize compared to production of 6 million MT. While Tanzania experienced a surplus production, a deficit maize situation existed in Kenya offering a ready market for the surplus production.

Unlike maize, whose prices have been fluctuating over the past 3 years, rice prices in EAC region have exhibited a downward trend since 2012. This can be largely attributed to increased rice production in EAC member states. In a bid to protect rice producers in the region, EAC governments agreed in June 2014 to increase the common external tariff (CET) applied to extra-EAC rice from 25 to 35 percent. Despite the tariff increase, the price of rice in EAC markets have been on a downward trend in all countries except Kenya since 2012 largely due to increased domestic production. According to CTA, rice production in the East Africa was projected to be 17 percent higher in 2014 compared to the period between 2009 and 2011. Over the 2012 – 2014 period rice prices in Tanzania and Uganda fell by 25 and 5 percent respectively while they rose by 33 percent in Kenya. The fact that rice prices in Kenya were 86 percent higher compared to neighboring Tanzania and 43 percent higher than in Uganda possibly indicates to existence of barriers to trade between rice-abundant areas and relatively rice-deficient areas.

With the exception of Uganda and Rwanda, EAC sorghum prices fell over the 2012-2014 period owing largely to either weather conditions or government policy. In Kenya, sorghum prices were 6 percent lower in 2014 than in 2013, possibly caused by shrinking demand as a result of EABL’s cutting back of sorghum purchases as a result of an excise duty on keg beer introduced by the Kenyan government in October 2013. The increase in Uganda and Rwanda sorghum prices in 2014 can be attributed to growing domestic demand from breweries.

These price trends illustrate the impact of government policy on markets. Government interventions such as export/import bans bar movement of food from areas of surplus to areas of deficit. This is mainly due to lack of real time information on the food availability both at regional and national level. One policy tool that has the ability to break this vicious cycle is the EAGC’s RFBS that highlights trade opportunities, facilitates greater regional market linkages and accelerates regional value chain integration. Governments and other stakeholders in the EAC grains sector are therefore encouraged to use the RFBS in making policy decisions.

"Despite the tariff increase, the price of rice in EAC markets have been on a downward trend in all countries except Kenya since 2012 largely due to increased domestic production."
ATPAF-ESA in EAGC’s Strategic Plan 2013 -2017

Outputs
• ATPAF - ESA coordinating unit operationalised
• Support for public private dialogue mechanisms facilitated.
• Legal and regulatory frameworks to support region structured trade established.

Activities
• Facilitating post budget policy synopsis platforms.
• Hosting the 6th Africa Grain Trade Summit, 1st to 3rd October 2015 in Kigali, Rwanda.
• Organising the bi-annual technical platform conference.
• Facilitating the pre-Budget policy Platforms.
• Identifying the researchable agricultural trade policy issues, throughout the plan
• Commissioning policy analyses or studies, throughout the plan
• Establish policy think tank group.
• Address emerging policy issues, throughout the plan
• Support establishment of legal and regulatory frameworks for STS, throughout the plan.
• Creating awareness on new legal and regulatory frameworks for STS, throughout the plan.
• Develop the strategy for ATPF-ESA policy Advisory.

Call for Articles and Contributions
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