



EAGC FINAL REPORT 2012

Facilitation and Participation in the Analysis, Proposed Uptake and Sustainability of Cross Border Trade in Grains & Pulses along Selected Corridors.



Gerald Masila Eastern Africa Grain Council

(EAGC)

Acknowledgements

This report on the facilitation and participation of the Eastern Africa Grain Council (EAGC) in the Analysis and Possible Uptake and Sustainability of Cross Border Trade in Grains & Pulses along Selected Corridors is the result of dedicated efforts by a number of institutions and individuals. It is the direct outcome of the work of practitioners, experts, stakeholders in the monitoring of Cross border Trade in Gains and Pulses along selected corridors within the Nile Basin Member Countries.

This final report is the fruit of a network of several organizations including the Nile Basin Initiative (NBI)/NELSAP/RATP, the MA Consulting Group and Resource Management and Policy Analysis Institute (REMPAI), and the Eastern Africa Grain Council (EAGC).

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Gerald Masila, Executive Director Eastern Africa Grain Council

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INTEGRATION/PARTICIPATION IN THE CBT-CORRIDOR OF GRAINS AND PULSES

1.0 Background

The Nile Basin Initiative (NBI) through the Nile Equatorial Lake Subsidiary Action Plan Coordination Unit (NELSAP –CU)/Regional Agricultural Trade and Productivity Project consulted EAGC to work together under the project; The Nile Basin Initiative's Analysis and Sustainability of Cross Border Trade in Grains & Pulses along Selected Corridors in the Nile Basin region.

The study design mandated EAGC, based on its ongoing work and experience in cross border trade monitoring, to offer support with data collection, analysis and also contribute to report preparation. This approach would strengthen the capacity of the private sector in the basin and leave memory with regional institutions after the exit of the international consultant. It would also allow the NBI to rely on strengthened commodity groups to promote regional trade in ways compatible with efficient allocation of regional water supplies.

1.1 Objectives of the Project

The general objective of the project was to create an enabling environment for the undertaking of collaborative efforts by the NBI and the EAGC geared towards improving cross border trade of grains and pulses along selected corridors.

This would in turn contribute effectively and sustainably to trans-boundary trade; identification of trade-related investment opportunities; and also expose through analysis the gender and youth functionalities/dimensions in the trade of grains & pulses across the borders for the benefit of Nile Basin member countries.

1.2 Commodity Group: The Eastern Africa Grain Council

1.2.1 About EAGC:

EAGC is a membership-based organization comprising of and representing major grain value chain players and stakeholders who include but not limited to Producers, Input Suppliers, Grain Traders and Processors. The EAGC membership straddles the greater Eastern and Southern Africa region with Country offices in Uganda and Tanzania reporting to the Nairobi head office that serves as the Secretariat. The target countries for EAGC's services include Kenya, Uganda, Tanzania, Rwanda, Burundi, Ethiopia, Zambia, Malawi, Southern Sudan and DRC.

The Council, although predominately private sector owned - fits well with the African Union's (AU's) Comprehensive Africa Agriculture Development Programmed (CAADP) framework which recognizes agriculture as central to the alleviation of poverty and hunger and the attainment of the Millennium Development Goals (MDGs). As part of its program work to the membership, EAGC runs a robust market information system (MIS) that involves data collection and gathering across the Eastern Africa region. Market Information System is one of the key pillars of the EAGC and has developed an elaborate system of cross border monitors that captures cross border trade and flow in key cross border points. The monitors are currently stationed in more than fifteen border points and they disseminate their data regularly to the EAGC head office in Nairobi.

EAGC's collaboration with the NELSAP/RATP2 project entailed the following:

- i. Creation of linkages between it and the NBI;
- ii. Facilitation of data collection & analysis of the study results;
- iii. Participation in validation of data and study reports;
- iv. Collaboration in documentation and uptake of appropriate results and investment practices identified by the study, for effective & sustainable grains and pulses' cross border trade along corridors;



v. Participation in dissemination and reporting of results to the stakeholders and decision makers of the Nile Basin countries.

1.2.2 The Grain and Pulses sub-sector.

Grains and pulses, especially maize, remain the major staple food in the Eastern Africa and COMESA regions and the most traded commodity in both regions. Its availability is equated to food security. This has led to many government interventions as long as it is perceived that there might be a maize shortage. As a result, the regional grains and pulses trade is characterized by a fragmented, un-coordinated system that impedes the free flow of maize from surplus to deficit areas both in-country and across borders.

The region has witnessed a dramatic change of attitude towards regional grain and pulses trading with the acceptance of the "maize without borders" under EAGC. This initiative has caught the attention of public sector decision makers who, as they became better informed, are less resistant to the need to remove non-tariff barriers that impede the commercial movement of food commodities from areas of surplus to areas in need. Based on the premise that the region as a whole is capable of producing sufficient food to feed itself in an average year, the goal of the "maize without borders" initiative was a more food secure region. This concept is taking further hold as decision makers now realise that cross border trading of maize and pulses and other food commodities is thriving throughout the porous borders in the various nile basin corridors.

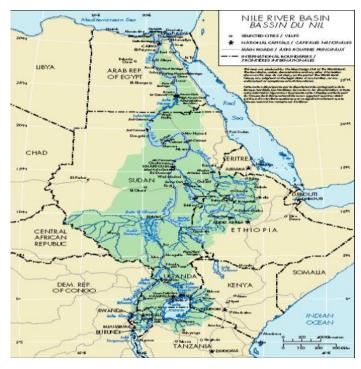
The growth of cross border trading has been fuelled by trade liberalisation within the countries where former marketing boards no longer monopolise the grain industry. And the newly formed producer organisations, large and small traders, as well as major food processors are fuelling the new and vibrant regional value chain. However, this evident growth of cross border trade has not yet translated into the growth of a more structured trading system that would encourage price stabilisation, credit access by producers and traders, forward contracts, and an efficient commodity market place.

The inclusion of small scale farmers in the grain and pulses value chains can increase their production, innovation, income and employment opportunities. However, such inclusion does not automatically result in growth. The illiquidity in the rural economy forces most small and medium scale farmers to sell the majority of their produce during the immediate post-harvest period. Rural traders are also under-capitalised and have very limited capacity to absorb the surplus output on the market during this period, leading to a glut which depresses farm-gate prices. Subsequent price hikes erode the purchasing power of poor households, and expose them to food insecurity during the lean seasons.

EAGC has therefore embarked on a campaign to promote the start-up and growth of more structured trading systems by identifying and promoting programs that are engaged in all levels of trade development from farmer group organisations to warehouse receipts, collateral management and commodity exchange initiatives.

2. The Nile Basin Initiative (NBI)

The Nile Basin Initiative through a partnership of the riparian states seeks to develop the river in a cooperative manner, share substantial socio-economic benefits, and promote regional peace and security through its shared vision of "sustainable socio-economic development through the equitable utilization of, and benefit from, the common Nile Basin water resources". NBI's Strategic Action Program is made up of the Shared Vision Program (SVP) and Subsidiary Action (SAPs). The SAPS are Programs mandated initiate concrete investments and actions the on



ground in the Eastern Nile (ENSAP) and in the Nile Equatorial Lakes subbasins (NELSAP).

The integration of the East African Grain Council in the analysis and sustainability of cross border trade in grains and pulses along selected corridors is an effort being made by the NELSAP. The NELSAP seeks to promote regional agricultural trade as a means to improve the efficiency of water use for productive agriculture. A key element in the effective movement of grains and pulses across borders is the participation of the East African Grain Council that undertakes trade related activities along grains and pulses corridors that traverse borders of member countries. It is because of this reason that the integration of the East African Grain Council in the analysis and sustainability of cross border trade in grains and pulses along selected corridors is a task to be undertaken in the second phase of the NELSAP/Regional Agricultural Trade and Productivity (RATP2) project.

The Project espoused the following Objectives:

- i. To collaboratively create the linkage between NBI and the EAGC for collaborative roles and responsibilities in undertaking a regional study on cross border trade for grains and pulses along selected corridors.
- ii. To collaboratively undertake the study and disseminate results of the analysis of cross border trade of grains and pulses along selected corridors; and in the process enhance capacity in methodology and tools for the identification & reduction of impediments to grains and pulses cross border trade; investment potential and gender analysis along corridors. In addition, enhance capacity in organizational action taking and advocacy.
- iii. To collaboratively document issues/practices that could be used in the improvement of grains and pulses cross border trade; trans-boundary investment potential; and cross border trade gender-related functionalities, of the Nile Basin member countries along the corridors and subsequently uptake the results of the CBT-grains & pulses analysis, by EAGC/NBI collaborative effort for sustainability.

2.1 REVIEW OF THE SCOPE OF WORK FOR EAGC

The scope of work as per the contract with the projects were to:

Scope of Work.	
Task1	Collaboration in linkage creation between NBI and EAGC in the "Analysis of cross border trade in grains and pulses along selected corridors".
Activity 1.1	Collaborate with the RATP2 PMU in the NBI/EAGC integration linkage creation, with a MoU on the effective facilitation of the activities & the sustainability of results as outputs of the study on "Analysis of cross border trade in grains and pulses along selected corridors".
Task 2	Participation in the facilitation of data collection and analysis activities of the study "Analysis of cross border trade in agricultural products along selected corridors".
Activity 2.1	Participate in the facilitation of data collection of the cross border trade impediments; anchoring investment potentials; and gender functionalities as grains and pulses move along selected corridors.
Activity 2.2	Collaborate in the data analysis of the cross border trade impediments; anchoring investment potentials; and gender

	functionalities in the movement of grains and pulses along selected corridors.
Task 3	Validations of data and study reports.
Activity 3.1	Participate in the validation of collected data, (secondary & primary, qualitative & quantitative, time series and cross sectional; or panel data) to enhance the quality of results.
Activity 3.2	Participate in the validation of the study reports-The Inception Report, the Draft Report; the Final Report, the Policy Briefs and Investment Guidelines, to enhance their acceptance by the stakeholders.
Task 4	In collaboration with the consultant, document for uptake of appropriate results on cross border trade practices; investment potentials and gender functionalities identified by the study, for effective & sustainable grains and pulses' cross border trade along corridors.
Activity 4.1	In collaboration with the consultant, undertake selective documentation of resulting appropriate cross border trade and investment practices and gender functionalities, to be disseminated to stakeholders and decision makers, for effective cross border trade in grains and pulses along selected corridors.
Activity 4.2	Undertake the uptake of results that could form building blocks of potential and sustainable grains and pulses cross border traderelated programs; investment potentials and gender functionalities, to benefit NBI member countries.
Task 5	Facilitate the dissemination of results to the stakeholders and decision makers of the NB countries.
Activity 5.1	Participate in the workshop facilitation for the dissemination of study results to the stakeholders, both national and regional.
Activity 5.2	Provide the driving force in the movement of appropriate results of cross border trade-related programs; investment potentials and gender functionalities, to the decision makers of the Nile Basin countries.
Steps/	This is to run through the following 5 steps in four (4) manmonths scattered over a sixteen (16) calendar months period.

Procedure	
	Step 1: Collaboration in the linkage creation.
	Step 2: Participation in the facilitation of data collection & analysis of the study.
	Step 3: Participation in validations of data and study reports.
	Step 4: Collaboration in documentation and uptake of appropriate results in cross border trade; investment practices and gender functionalities identified by the study.
	Step 5: Facilitation of the dissemination of results to the stakeholders and decision makers of the Nile Basin countries.

3. EAGC TASK COMPLETION REPORT.

3.1 TASK 1

Collaboration in linkage creation between NBI and EAGC in the "Analysis of cross border trade in grains and pulses along selected corridors".

3.1.1 Linkage creation between NBI and EAGC

The focus of this task was to ensure and facilitate Collaboration with the RATP2 PMU in the NBI/EAGC integration linkage creation. This was done through signing of a service contract with the RATP Project to carry out specifically outlined task for a 4 month calendar period spread out through the contract period. The documents were signed and were used as reference to meet the contractual agreements as well as strengthen the link between NBI and EAGC.

In this project, EAGC had already been identified in the RATP Phase one and then further built in into the Project Appraisal Document. The document underscored that:

"This work will be done jointly with the Regional Commodity Groups such as the ..., Eastern Africa Grain Council, to collect data and contribute to report preparation. This engagement will strengthen the capacity of the private sector in the basin and leave memory in regional institutions after the exit of the international consultant. It will also allow the NBI to rely on strengthened

commodity groups to promote regional trade in ways compatible with efficient allocation of regional water supplies"

During the project implementation period EAGC created an enabling environment that built an understanding between the council and the Nile Basin Initiative. The scope of the linkage facilitated for the capacity enhancement in the methodology and tools of agricultural commodities cross border trade impediment, investment and gender analysis along the corridors. EAGC also benefited from the study data and reports for their institutional decision making and most of all it has an enabling environment as it implements its plans in the Nile Basin member countries.

EAGC worked with the partners and contributed to the collaborative validation of study data and reports; facilitated data collection and analysis; collaboratively documented and supported the uptake of the appropriate results for sustainability; and facilitated the dissemination of results to stakeholders and the decision makers; and most of all moves into the future with CBT and investment study results that benefit Nile Basin member countries.

EAGC and NBI, further added an addendum to the as part of the contract MOU to support for extension of the contract period. This was extended to allow EAGC as the consultant to facilitate the organization of dissemination workshops and to submit the final report.

3.2 TASK 2

3.2.1 Participation in the facilitation of data collection and analysis activities of the study "Analysis of cross border trade in agricultural products along selected corridors".

As part of this activity, EAGC was required to participate in the facilitation of data collection and analysis activities of the study "Analysis of cross border trade in agricultural products along selected corridors".

The Data collection process consisted of both primary and secondary data from the respective stakeholders within the corridor. However EAGC was involved mainly in the collection of the primary data which involved travelling to the various corridors and collecting specific data as guided by the open ended questionnaire provided. Some of the questions included

- Where the most value is added to the grains and pulses
- The most important actors within the grains and pulses value chain

- The institutional framework
- Main bottlenecks
- Market potential for growth and upgrading
- The size of the sector/chain
- Where possible synergies exist

The specific data collected included:

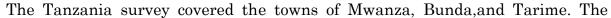
- Commodity traded and gender of the trader
- Size of exporter/importer e.g., small vs large
- Questions on the interaction between sellers/buyers on both sides of the border
- Nature of contractual arrangements [if any] in place
- Constraints to trade e.g., effects of customs, police roadblocks, sanitary requirements and the strategies the exporters/importers use to circumvent/deal with them
- Whether gender has any influence on how the constraints are dealt with

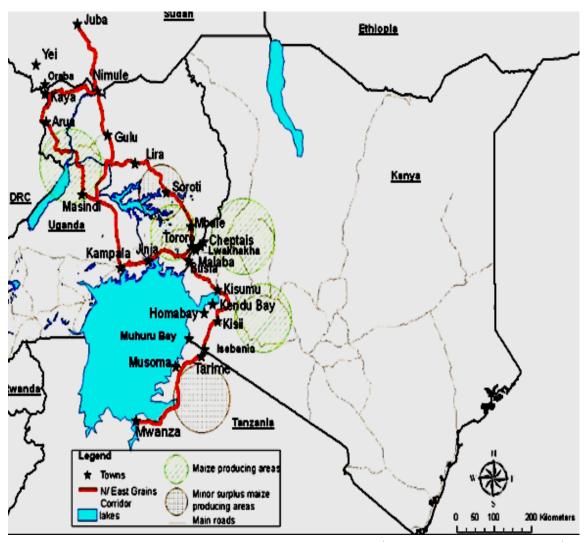
EAGC participated in data collection using various methods including focus group discussion, formal actor interviews and informal interviews.

3.2.2 Data collection in the Selected Corridors.

Participation by EAGC in the data collection along the corridors effectively began on 18th October 2011, in Ninja. The North Eastern corridor encompassed Uganda, South Sudan, Kenya and Tanzania.

In Uganda, the team visited Jinja, Kampala, Masindi, Kiryandongo, Arua, Lira, Gulu, Soroti, Mbale, Iganga and Busia. In Sudan visits were made to Yie and Juba town while in Kenya, centres visited included Busia Kisumu, Eldoret, Kisii and Homabay among others.





study also included key border points of Nimule (Uganda/S.Sudan border), Bibia (Uganda/S. Sudan) Busia (Uganda/Kenya), Vurra (Uganda/DRC) and Isebania/Sirari (Kenya/Tanzania).

Areas Covered

Uganda,	Jinja, Kampala, Masindi, Kiryandongo, Arua, Lira, Gulu, Soroti, Mbale, Iganga and Busia
South Sudan	Yie and Juba town, Nimule, Bibia
Kenya	Busia, Kisumu, Eldoret, Kisii and Homabay
Tanzania	Mwanza, Bunda, and Tarime. The study also

	included key border points of
Border Posts	Nimule (Uganda/S.Sudan border), Bibia (Uganda/S. Sudan) Busia (Uganda/Kenya), Vurra (Uganda/DRC) Isebania/Sirari (Kenya/Tanzania)

4. UGANDA

4.1 Kiryiandongo District (Production Zone)

The district has a total of 3609 square kilometers of land under cultivation. Maize is the dominant crop grown among others crops such as cassava, beans, sweet potatoes, ground nuts, sunflower, tobacco, cotton and bananas. Cash crops include; maize, cassava, tobacco, sunflower, cotton and beans. The area receives bimodal rainfall where the first season starts from March and ends in July while the second season starts from August and ends November. Beans production is between April to June and from August to October. The district recorded 51,667,200kg of maize and 8,268,600 kg of beans in the previous growing season. The region is self-reliance in terms of food security and most surplus food is sold to other districts such as Kampala, Arua and even exported to South Sudan and Kenya.

4.1.1 Production constraints

Include:-

- Low adoption to fertilizer usage due to; high costs and inaccessibility
- Poor agronomic practices such as the lack of timely cultivation, planting, spraying, weeding & harvesting.
- Rudimentary tools used in production resulting in delayed ploughing, planting, weeding and harvesting.
- Lack of capital for purchasing farm inputs and other challenges related to use of uncertified seeds
- Lack of markets for produce
- Heavy unpredictable rainfall during harvesting season resulting in heavy post harvest losses
- Poor storage facilities
- Poor infrastructure especially roads that tend to derail market access
- Price fluctuations that depress markets and act as disincentives to farmers

Mitigating measures include government intervention through National Agricultural Advisory Service (NAADS) Program. The program offers advisory services and technological support including advice on how to increase production.

4.2 Arua District

The district experiences two growing seasons i.e. March- July and August-December. Agricultural production unlike in other districts is non competitive since the area is just recovering from civil war. Production of rice has been recently introduced and a number of farmers are adopting it.

The area under maize production is still very small, (less than 1 acre per holding) and is predominantly subsistence. Maize traded in Arua markets comes from Masindi, and Kiryindongo. Beans are also grown in small quantities for domestic consumption.

4.2.1 Production constraints

- Unreliable rainfall especially in the first growing season
- Inadequate and expensive certified seeds and other farm inputs
- High costs of fertilizers; as a result, less than 5% have adopted fertilizer use on maize production. Most of the fertilizer is used on tobacco.

 Lack of farm implements such as tractors for cultivation farmers from commercial production.

4.2.2 Approach:

The government is encouraging seeds companies to extend the agro-vets into rural areas. Plan by government is under way to provide tractors to the farmers. Finally farmers through NAADS being trained on how increase food production.

4.3 Lira District

The major cereals and pulses grown include maize, beans and rice by farmers owning an average of 5 acres. Beans are a major staple food. Maize and rice are grown majorly for cash purposes.



Figure 1: Maize Store in Kiryandongo

4.3.1 Constraints to production

Natural constraints – prolonged draught, heavy rains (floods)

- Low adoption to improved seed variety due unavailability, inaccessibility and un affordability
- Low application of chemical fertilizer
- Limited access to credit
- Lack of enough labor
- Poor storage facilities at household level
- Disorganized marketing structures

A lot of farming in this area is still depended on rudimentary tools such as the use of hoes, pangas and jembes rather than mechanized agriculture. The poverty incidence is still very high.



Figure 2: One of the families visited in lira District



Figure3: A family like this cannot afford to hire a

4.3.2 Government Intervention

- i) Through Uganda National Agro-dealers association (UNADA) program which promotes production and usage of certified seeds and helps to build distributors' capacity through training
- ii) Through NAADS which offers advisory services to farmers in addition to financial support
- iii) Regulation of quality seeds trough investigation and certification

4.3.3 Processing

Maize produced is sold to traders without processing. Traders process to add value and sell at higher prices.

4.4 Mbale District

Mbale district can be divided into three production regions as; the highland areas, lowland areas and the mid-altitude areas. Highland areas produce coffee, bananas, beans and maize, climbing beans, horticultural crops such as onions, carrots and tomatoes

The mid altitude crops include coffee, bananas, millets, maize, beans, groundnuts, some horticultural crops, cassava, and sweet potatoes. The lowlands produce root crops, millets, maize, beans, ground nuts, paddy rice, and upland rice. All regions have bimodal rainfall patterns.

The longer rain season is experienced from March to June while short rains run from August to October. The area is renowned for the supply of beans and maize both for local consumption as well as for export to Kenya, Rwanda and South Sudan.

4.4.1 Production constraints

- Rudimentary tools used in production
- Declining in land sizes due to population pressure.
- Continuous cultivation of the same land that has resulted into loss of soil fertility
- Climatic changes such as drought and floods
- Natural disaster such as landslides that recently happen in bududa
- Pest and diseases
- High cost of farm inputs such as fertilizers and farm machinery.
- Lack of access to credit services
- Low use of certified seeds

4.4.2 Government intervention

Through NAADS, farmers are organized into groups to benefit from advisory services from the government. The advisory utilizes special expertise to train farmers in various production aspects. In addition, the program networks and links up with institutions to improve technology development. NAADS assist in building farmers capacity in reducing costs.

4.5 Iganga District

Maize, rice, finger millet, beans, soya beans and groundnuts are the major crops grown in the region. The area's population depends mainly on sweet potatoes, maize, bananas and cassava as food crops. In addition, other minor food crops are rice, beans and groundnuts. Traditional cash crops include coffee and cotton.

Production for maize, rice and beans has been on the increase due to increasing demand in the regional markets i.e. South Sudan, Kenya and DR Congo.

4.5.1 Production Constraints

- Fluctuation in weather patterns
- Pests and diseases especially on beans and rice (rice blast)
- Weeds especially striga on maize and beans
- Price fluctuations during bumper harvest
- Inaccessibility and un affordability of production inputs due to financial constraints

Lack of mechanized farming.

4.5.2 Government Intervention

- Promoting micro finance institute
- Provision of start off farm inputs to poor farmers under NAADs program

4.6 Kisenyi Market Kampala

Kisenyi market is the biggest collection centre for grain in Kampala, with about 400 stationed traders and over 2000 mobile traders including suppliers, brokers, middle men and women all deriving there source of livelihood from this market. The market is characterized by a poor road network which becomes impassable after heavy downpours due to poor drainage facilities.



Roads are Impassable in Kisenyi market especially during the rainy



Figure 4: Farmer Harvesting Iganga district using a



Figure 5: Rice farmers have to guard rice against birds & thieves. The temporally shade is where famers stay until rice is harvested

Maize Mills are of poor quality and lack protective gears for the safety of the operator. There is a high rate of accidents during the operation.



Maize Milling machines in Kisenyi market central Kampala

4.5.1 Constraints

The biggest challenge facing traders and transporters is the state of road transport in the Nile basin. This increases the cost of the goods transported, increases losses during transportation, increased transportation cost due to breakdown of trucks, delays in expected time of delivery spoilage and spillage of the mechanize.

4.6 Gulu District

The district is on the northern side of Uganda and has four divisions and 12 subcounties. The main cereal crops include rice, maize, finger millets and sorghum. The pulses grown include beans and pigeon peas. Oil crops include ground nuts, simsim, soybeans and sunflower. Root crops include cassava, sweet potatoes and yams. Orchards include oranges, bananas, pineapples and avocado. Vegetable crops include tomatoes, cabbages, eggplants, and onions. The major cash crops are mainly rice, beans, maize, cotton and coffee (recently introduced).

4.6.1 Land

The district has 3000 square kilometers of land. Land holding per household averages ten acres. Out of this approximately four acres are under crop cultivation. The area receives a bimodal rainfall pattern where short rains are from July to November while long rains are received from March to June. Area under maize cultivation is 1-2 acres per household, 1 acre for beans and an acre under rice.

4.6.2 Production Constraints

• Insufficient capital

- Low investment in production technology such as use of modern methods in opening up lands
- Unpredictable weather condition
- Low adoption in the usage of certified seeds and fertilizer application.
- Poor roads that often become impassable during rainy season.



Travelers stranded along Oraba - Gulu road.



A long queue of trucks along Oraba-Gulu road.

5. SOUTH SUDAN

5.1 Market/Consumption Area

South Sudan is just recovering from over twenty years of civil war and as such provides a huge market for agricultural commodities. Little has been achieved in terms of developing the agricultural sector. Although 10 percent of the population is engaged in agricultural production a lot of it is still at subsistence level. S Sudan largely depends on imported goods thus regarded as a net consumption market.

A number of provinces in the country have a tropical climate and do receive considerable amount of rainfall that can support both perennial and annual crops.



Some of the vegetation Seen along Yei Juba Road

6. KENYA

6.1 Kisumu District

Main food crops produced in the district include maize, cassava, sweet potatoes, green grams, beans, sorghum, rice, tomatoes, water melons, butter nut and pawpaw. Cash crops include cotton, rice and sugarcane (small quantities). The region receives a bimodal rainfall pattern; the short rains come between August and October while the long rains come between January and May. Since the area does not produce sufficient food supply, most commodities are imported from neighboring countries (Uganda and Tanzania) and neighboring regions within the country.



Some areas in Kisumu flood during heavy rains. This water can be collected in valley dam and can be used for irrigation during the dry season

6.2 Rice / Beans production and trade

Production of rice takes place in the Ahero irrigation scheme. *According to the agribusiness department Kisumu*, the rice produced does not meet the local demand prompting supplementary supplies from the Mwea region in Kenya and also from Tanzania through the Sirare-Isebania border.

At Ahero, rice is normally harvested through November-December and June-July.

Very little beans are produced in Kisumu with most of it coming from Uganda (through Busia border), Kisii, Transmara, Chwele and Kitale regions in Kenya. A large consignment is imported from Uganda.

6.3 Maize production and trade

Maize production in Kisumu is at best meager and does not meet the region's demand. Most maize is imported from the neighboring regions including from Tanzania and Uganda. Some of the Kenyan sources for maize in Kisumu include Kitale, Eldoret, Transmara, and Nandi.

Low food production within Kisumu district and the neighboring environment is attributed to subsistence farming that depends on low level of mechanization, little or no use of farm inputs such as fertilizer and certified seeds.

6.4 Reasons for low Agricultural productivity

- Low use of inorganic fertilizer such as DAP and CAN, and other compound fertilizers
- Low use of certified seeds
- Striga weed in the region also affect the maize productivity.
- Cultures and traditional beliefs largely affect the common production practices. Tradition like father must plant before in a family followed by the elder son leads to late planting reducing maize production.
- Use of traditional methods of tilling land becomes a key barrier to production
- Some areas have black cotton while others have alluvial soil types with poor water holding capacity (porous).



Stunted maize due to poor soil fertility

6.5 Government intervention

The government has initiated a program to subsidize farm inputs and in addition campaigns are focused on promoting use of certified seeds and inorganic fertilizers. Through NAAIAP (National Accelerated Agricultural Inputs Access Programs) promotion of certified seeds and synthetic fertilizer usage has been enhanced. The program target venerable farmers by providing seeds and fertilizers for an acre of land. From this, farmers are expected to produce and save for the following seasons.

7. TANZANIA

7.1 Beans production in Mwanza Region

Beans are produced in the West and South West of Mwanza Region mostly in Kagera, Kigoma and Rukwa regions of Mpanda District. When there is a shortage of beans, traders usually do import from Uganda through Bukoba using

lake Victoria. At other times, purchases are made from Kagera and Kigoma and then transported by road or by use of train.

The main market for beans is "Soko Kuu la Mwanza" in Mwanza City. It is a major consumption point as well as a major market for other districts South and South East of Mwanza Region. The region has approximately 2,942,148 people. The population of the Mwanza city is approximately half a million. Retail traders from Mara Region, Kwimba District, Musungwi District, Magu District and Ukerewe Region all purchase beans from "Soko Kuu la Mwanza". In this regard, the market acts as a distribution centre of beans for the other regions.

7.2 Maize Production and Trade in Mwanza Region

The main producing areas of maize in Tanzania are Dodoma, Geita, Segerema and Mpanda Districts. However, during the time of the study in 2011, there had been a shortage of maize in Tanzania due to rain failure in the previous season. Hence the government slammed a ban on all cereal exports. The government of Tanzania turned to national maize reserves in Iringa, Mpanda and Shinyanga to feed the food deficit areas with permits being given to traders to purchase and transport maize from the reserves to the consumption areas throughout the country. This resulted in some of the traders using informal trade routes to get maize to Tarime-Sirari townships and then selling it across the border into Kenya.

7.3 Rice production and Trade in Mwanza Region

Rice is produced in the following districts in the Mwanza region; Missungwi, Kwimba, Magu and Ilemela. Other key areas in Tanzania producing rice are Mpanda District and Shinyanga region. Tanzania produces both rainfed and paddy rice. Most of the rice is consumed locally in the country. A portion of what is produced is exported to Kenya and Uganda. Currently, most rice exports to Uganda and Kenya are informally traded.

Figures Below show Rice growing fields visited during the survey.







Rice two month after transplanting.

7.4 Processing and Milling Market in Mwanza Region

Most of the medium and small scale maize and rice millers in the Mwanza region are concentrated at Mabatini area in Mwanza city. This is because most of the harvested rice and maize is transported from other districts and regions for processing, milling, and packaging in Mabatini processing and milling firms. Most of the processors are small scale. However, two of these i.e. Maguha Millers and Nobel Millers are medium scale processors. All the rice processing firms are privately owned by individuals.

The processors purchase harvested rice from farmers directly from the farm and transport it to the milling plants. Processing charges during the time of the study was approximately Tshs3600 per 90 kilograms bags (Tsh 40 per kg.). The conversion rate of rice processing is approximately 150 kgs of harvested rice to 100-110 kgs of processed rice.

The processing of maize and rice produces maize and rice bran as by-products that are exported to Uganda and Kenya as livestock feeds. By-product is also sold locally for poultry feeds. Part of bran is used for curing bricks. A bag of bran sold locally cost Tsh.7000.

Maize processors in the area are small-scale and mostly target household consumption. The owner increases profits by selling by-products to various customers at an average price of Tsh340 per kilogram. Most of the millers' machines are currently underutilized. For example a machine with a processing capacity of 40 bags per day, only processed 10 bags.

The cooperative movement which supported producers in the past has slowly lost its grip. Only the Cotton Co-Operative Movement is alive after its being revived by the Ministry of Agriculture and Food Security. Usually, cereals produce are managed through a grain reserve Council instituted in the country.

7.5 Production in Magu

Magu is found Mwanza, the main crops grown in this area include; maize, sorghum, cassava, green grams, cowpeas, beans, ground nuts and rice. Agricultural production for cereals and pulses is done by individual farmers. Erratic weather patterns and unreliable rainfall, pest and diseases and inferior seed varieties have undermined crop production.

Each household provides its own farm labour. However, some farmers and youths have formed labour groups. Members who are not part of the group hire labour from such communal labour groups. The average wage rate is between Tsh. 2500.00 to 3400.00 per person per day.

Most of the agricultural production is rainfed. There is very little irrigation farming along river Magu which drains into Lake Victoria especially. Horticultural crops are produced along the river as well as the areas bordering the lake.

7.5 1 Post harvest practices

Some of the traditional post harvest practices for preservation of commodities include storage using ash (pumba) and smoke. Chemicals are least preferred because they are considered less effective. Gunny bags and traditional baskets smeared with cow dung are also used. Post harvest management is further combined with biological means such as the use of cats which prey on rats.

7.5.2 Extension services

Farmers receive extension services from agricultural officers in the Ministry of Agriculture and Livestock Development. The approach of delivering services has changed from individual farm visits to farmers' field schools. Farmers are also encouraged to promote organic farming.

7.5.3 Modes of transportation

The main mode of transport is the use of bicycles and Lorries when transporting to the collection centers.

7.5.4 Marketing of rice, maize and beans

The government has set up a policy where selling of maize is particularly to the government. However, farmers still sell maize to willing buyers. Rice and beans are sold to traders or brokers in Magu town.

The following are some of the highlights of the focus group discussions:

The focus group discussion with farmers made the following suggestions:

- Construction of water dams/ reservoir for water storage which can be used for irrigation purposes during the dry season
- Provision of quality planting seeds and other farm inputs
- Enhance extension services and promote irrigation practices. They indicated the need to form many farmer groups in the rural areas to enhance farming education through extension
- Lowering of input prices to make them affordable to farmers.
- Funds meant to help rural communities pass through several institutions of government and in many cases they help do not even reach them. Others remarked that the funds disappear altogether. They suggested that such funds should be given to farmers directly without passing through governmental intermediaries.

8. Bunda District –

Mara Region Cereals and Pulses Production

The major crops produced in the district include rice, maize, cotton, sorghum, finger millets, beans, cowpeas, bulrush millet and cassava. Cassava is the main food crop. Rice, cotton and maize are generally regarded as the main cash crops. The yields of most of crops have decreased due to decline in soil fertility resulting

from continuous cultivation in addition to overgrazing in the highland zones. The government has intervened to promote soil fertility using several measures:

8.1 Farm subsidies

The government provides subsidized farm inputs such as seeds, fertilizers and pesticides for selected areas of maize growing usually in high potential areas. The subsidy program started in 2009. However, there is no positive response realized ever since due to prolonged drought.

8.2 Irrigation Programs

There are six (6) irrigation schemes which are expected to boost paddy rice production in Bunda District in Mara region. Mariwanda Kisangwa Serengeti, Namuhula, Kasunguti, Bwanza, Nyatuari Irrigation Scheme.

Challenges facing irrigation schemes

The irrigation schemes are facing several challenges including:

- i) High energy costs: Electric power costs are high in Tanzania. Farmers are facing high expenditure bills which they cannot afford for those schemes using hydroelectric power to drive irrigation systems. A few of the irrigation schemes are using alternative power systems such as solar power or gravity flow of water using canals. Such schemes experience low irrigation costs. Kasunguti and Bwanza irrigation schemes are using windmill power.
- ii) Poor dam construction: Most of the dams constructed for irrigation are earth dams. They are constructed on sandy soils which allow water percolation increasing water loss
- iii) Land Tenure Systems: Land in this region is communally owned. The ownership challenge makes it difficult to implement the scheme fully because of conflicts.

8.3 Cereals and pulses marketing

Most production is for home consumption with surplus being sold to the local markets. Traders purchase these produce from local market and transport them to various regions. For example rice is transported to Mwanza while maize head to Tarime. Marketing is a major problem in the district especially during the bumper harvest. In 2009 when there was a bumper harvest price for rice went as low as Tsh 400 /kg. Currently the price of rice is Tsh. 1500/kg. Value chain for food crops

8.4 Bunda (Bitaraguru Area)

The main food crops grown in the region include; Maize, sweet potatoes, finger millet, onions, cabbage, beans, green grams, cassava and tomatoes. The cash crops are cotton, maize, rice and beans.

8. 4.1 Key constraints to production

- Drought.
- High costs of farm inputs.

- Most farmers use their local seeds because certified seeds are not easy to access.
- Labour.
- Market
- Post harvest losses
- Production hazards such as Liver flukes, especially for rice farmers who spend a lot of time in water logged swamps which are often infested.

8.4.2 Labour

Planting is majorly done by male youth of 18 years and above. Weeding is usually done by both male and female youth of 18 years and above. Spraying is largely done by male youth of 18 years and above. On the other hand harvesting is dominated by male and female youths who are 10 years and above.

8.4.3. Decision making

The household head is the key decision maker. With regard to the youth, they make their own decisions regarding production and marketing of cash crops such as maize, rice and tomatoes. Most households practice individual and collective farming. Though collective farming that is practiced by few in groups have the average land size being 1 acre.

8.4.4 Extension services

Farmers receive extension services from extension officers who visit them throughout the year. Everyone in the household is free to interact with the extension officer.

8.4.5 Irrigation

Most of the major crops are rain fed. Irrigation is practiced on tomatoes and cabbages. The major source of water in Bitaraguru area of Bunda is boreholes.

8.4.6 Storage

Farmers in this region mainly use traditional baskets and gunny bags to store maize. Traditional storage techniques also involve the use of ash, cow dung, smoke and rice bran (Pumba). Modern storage techniques include the use of Pesticides.

8.4.7 Post harvest losses

Out of 10 bags 3 are lost to pest and rodent infestation, poor application of pesticides during storage and theft. Measures to curb these losses include the appropriate application of pesticides and secured storage facilities.

8.4.7 Transportation Losses

During transportation to the market, losses normally average 20% due poor packing and handling.

8.4.8 Social capital

In this area there is lack of associations for farmers, retailers and transporters. There is need for the formation of such associations to empower these groups to aggregate and articulate the problems facing them.

8.5 Government interventions to enhance production in Bunda

- Initiating irrigation schemes in order to increase year round production of maize and rice.
- Enhance access to farm inputs.
- Search for reliable markets.
- Allowing farmers to take decisions on where to sell their produce to better markets in Kenya and this serve to improve farm incomes.
- Enhance access to agricultural credit and loans.

8.6 Tarime focus group

According to the group, the main crops include; maize, cassava, finger millets, and beans, Key constraints faced in the production of cereals include;

- Inadequate capital to purchase farm inputs
- Poor markets systems instituted by the government and the exploitation by the middlemen.
- Transportation challenges. Transporting produce from farms to the markets is hectic due to high costs and poor infrastructure.
- Erratic weather conditions which include hailstorms during the rainy seasons.



Maize destroyed by hailstorm Tarime

8.7 Labour

Hired labor is at a price of Tsh3000 to 4000. Households organize communal labor groups. The following groups are mostly committed to the various production stages;

- ➤ Planting- women
- ➤ Weeding-women
- > Spraying male youth
- ➤ Harvesting- both male and female at 50:50
- > Storage-women
- ➤ Marketing- adult men

Generally in the production of grains, different groups play different roles. Farmers generally practice farming independently rather than as a group or through communal farming.

8.8 Regulatory measures

Some of regulatory measures that exist in the district include government restrictions of the sale of produce while it is still in the farm. In other instances, government restricts selling of produce until the country grain reserves levels are attained and this mostly denies producers market access.

8.9 Group suggestions and recommendations

- The government should implement soil conservation measures so as to ensure sustainable production of food.
- Increase supply of inputs by the government.
- Land ownership is still under the communal ownership and government should initiate title deeds provisions to increase or boost individual farming. This will in addition ensure provision of loans from financial institutions which consequently add capital to cereal production in the region.
- Government should invest in good road infrastructure to enhance access to market

9. BORDER POINTS

9.1 KENYA-UGANDA

9.1.1 Busia Border Point Trade overview

Currently, 100% of the traded maize and beans at the border moves from Uganda to Kenya. No duty is paid when importing cereals from Uganda to Kenya. Traders are required to have Phyto-sanitary certificates, certificate of origin and completing C17b forms depending on the volume of goods. Traders pay sh600 per consignment for importation certificate, Phyto-sanitary

certification for sh300 for trucks and sh120-150 for canters and KEBS inspection.

The role of Kenya Revenue Authority (KRA) is to verify certification. However a facilitation fee of Ksh200 is demanded by the officers. Cereal importation to Kenya is largely controlled by brokers on both border sites. In this regard, they charge sh1500 for clearance.

Informal trade exists across the border with traders trying to evade payment of Municipal Council either side of the borders. Essentially, payments are Ksh10 to the Kenyan authorities and sh2000 to the Ugandan municipal council per bag imported and exported respectively. Under Informal trade, transportation costs Ksh60 per bag from the Ugandan to the Kenya border side.

No rice is informally traded across the border. Most of the rice exported to Uganda is deemed to be imported from Tanzania via Isebania-Sirare border through Kenya.

9.1.2 Informal Trade

This trade occurs along Malachi and Sophia routes. An informal market is well established at the no-man's land along the Malachi 'panya' route. Cereals traded in the market are maize, beans, green grams, millet, sorghum, ground nuts and finger millet.

9.1.3 Transportation

The main mode of transportation is Motorbikes and bicycle for trade of less than 10km and trucks for long distances such as to Nairobi and Mombasa. Most of the transporters are based in Uganda where there are both individuals and companies. Transporters face challenges such dishonesty by customers where some transport more goods than earlier agreed while others disguise illegal business among the commodities they claim to transport. The transportation business is promising. However losses in business are like "buttons to the shirt" transportation losses are very prominent. (*See the picture below*).



Two men are trying to lift the bag of maize which is partially immersed in mud after the accident

9.2 Oraba Uganda- S. Sudan Border

The border point is an exit station particularly for export goods from Uganda and goods under transit (consignment to South Sudan). Over 90% of the Southern Sudan consumption on food commodities comes from Uganda. The role of border authorities is to facilitate exit and charge custom duty. Basically food commodities exported from Uganda to south Sudan include maize flour, maize grains, salt, wheat flour, fresh bananas, fruits, rice, sugar and beans (in small quantities).

Goods on transit include rice from Tanzanian, Pakistan and Vietnam. All maize commodities come from Uganda; Kampala-60%, Kisenyi, Jinja, Koboko, Arua (west Nile regions) accounting for 40%.

9.3 Vurra Border

Most food commodities are traded informally across the border point through informal routes commonly referred to as 'panya' routes. The trade is a two way exchange between Congo and Uganda especially for cassava, maize and beans. Informal trade has been enhanced because the authorities see it as for consumption and food security only. There are three main 'panya' routes short cuts/ informal routes with the custom border point being the busies

9.4 Solo Set Point (Mali Ngumu Route)

The common means of transporting cargo informally is using donkeys driven by women. The process of using women and donkeys reduces the cost of passage of maize across the border. Usually it costs Kshs20 to ferry a 100 kilo bag of maize using a donkey ridden by women. It costs about Kshs400 per day to hire a donkey per day. The donkey can do about four to five trips per day. If the trader were to use a pickup it would cost Kshs 200 per bag yet you can hire a donkey for Kshs 400 making five trips per day thus reducing costs. Usually the traders collaborate with the security agencies and pay a lump sum facilitation fee. There are policemen on both the Kenya and Tanzania with the destination being the 'donkey airport'. Brokers in Tanzania arrange contracts in advance with Kenyan traders to pass cargo at the informal border points using hired labor to avoid custom duties and escape from being caught by security agencies. There is also breaking of bulk behind the Tanzania customs area using hired women, children and donkeys through the Solo Set area in proportions of one bag per donkey. Traders intimated that there is need for setting up of bigger maize storage facilities and encourage willing companies to invest in storage infrastructure.



Donkeys are used for transportation of produce across the 'Panya' routes

9.5 Kipimo/Nyametaburo

The main means of passage of goods are lorries and donkeys. The donkeys come relatively early from 7am to 12pm whereas the lorries ferry the maize throughout the day from 7am. The transportation cost of ferrying the maize to Kipimo is shouldered by the sellers. Nyametaburo is a sub-station of Kipimo and cargo is diverted when Kipimo is overflowing. The government officials only go to collect revenue but this not recorded.

Data Analysis.

EAGC in this process collaborated in the data analysis of the cross border trade impediments; anchoring investment potentials; and gender functionalities in the movement of grains and pulses along selected corridors.

The process involved a validation and data cleaning process with the team leaders and partners on the study.

The exercise was done through random review of questionnaires with the aim to ensure that they data collection was well done and that all the data required was available before the analysis begun.

The EAGC team was then involved in data entry process.

9. TASK 3

9.1 Validation of Data and Study Reports.

EAGC participated in the data validation of the data and the study reports.

The key activities under this task were to:

- 1. Participate in the validation of collected data, (secondary & primary, qualitative & quantitative, time series and cross sectional; or panel data) to enhance the quality of results.
- 2. Participate in the validation of the study reports-The Inception Report, the Draft Report; the Final Report, the Policy Briefs and Investment Guidelines, to enhance their acceptance by the stakeholders.

10. TASK 4

10. 1 Document for uptake of appropriate results on cross border trade practices;

EAGC in consultation with REMPAI was tasked to undertake selective documentation of resulting appropriate cross border trade and investment practices and gender functionalities, to be disseminated to stakeholders and decision makers, for effective cross border trade in grains and pulses along selected corridors.

Based on this, EAGC and REMPAI developed policy briefs on

- Production and Trade of Maize, Rice, and Beans along the Tanzania
 Kenya Uganda South Sudan and Tanzania Burundi Eastern Corridors.
- 2. The Methodology for estimating structure and nature of the Marketing costs of Different Actors long a value chain in Trade Corridors.



Policy Briefs developed for dissemination on the study.

The policy briefs that EAGC collaborated with the consultant to develop as part of the documentation of the results on the study concluded that the corridors have abundant land and water resources making production of grains and pulses a priority area in strategies aiming at poverty reduction. The briefs further urge the governments to direct more resources towards achieving higher crop productivity by increasing use of fertilizer and high yielding seed varieties and by expanding irrigated crop area.

Other policy actions would include:

• Overcoming post-harvest storage related problems

- Promotion of competitiveness and access to agricultural markets by smallholders
- Promoting market access by using innovative ICT-based approaches
- Providing financial resources
- Adding value and seeking new markets (within the region and abroad)
- Taking advantage of the agro-climatic diversity and abundant natural resources in the region.

On the methodology EAGC on consultation with the partners agreed that it would be utilized by the Nile Basin Initiative (NBI) Secretariat, EAGC, country governments, private sector, regional commodity groups (RECs) to update their databases or in conducting fresh studies to estimate trade volumes and costs.

The methodology provided entailed two main steps:

- 1) Mapping commodity corridors to describe major value chains and main players, as well as to assess traded volumes and directions of flow
- 2) Collecting quantitative data (costs, volumes traded, prices, etc) from individual value chain actors.

As a result of this EAGC facilitated the uptake of results that could form building blocks of potential and sustainable grains and pulses cross border traderelated programs; investment potentials and gender functionalities, to benefit NBI member countries. This was done through presentation of the policy briefs to the EAGC members, who form the private sector in the region, the regional governments and to other stakeholders. One such meeting was during the Launch of the Agricultural Trade Policy Advisory Forum for Eastern and Southern Africa (ATPAF-ESA).

Stakeholders in this meeting concluded that follow up process will be undertaken to work with the regional and national governments to support in policy making process to support the proposed investments.

11. Task 5

11.1 Facilitate the dissemination of results to the stakeholders and decision makers of the NB countries.

Under this activity EAGC was tasked to participate in the workshop facilitation for the dissemination of study results to the stakeholders, both national and regional and to provide the driving force in the movement of appropriate results of cross border trade-related programs; investment potentials and gender functionalities, to the decision makers of the Nile Basin countries.

Towards this end, EAGC held the first workshop dissemination and awareness cration on the results during the EAGC hosted 4th Africa Grain Trade Summit, held in Kampala in 2011. The Summit brought together key stakeholders in the African region and key policy maker.

The Guest in this meeting was the President of the Uganda, H.E Yoweri Museveni, who was accompanied by the Minister for Agriculture and the Minister of Trade. Through this forum, dissemination on the project was done by the Project Coordinator Dr. Hellen Natu, who presented at the summit.

This resulted to the policy makers embracing the study efforts, and promised to support the implementation of the investments at the end of the study.

EAGC and NBI then held the joint dissemination workshop which was held in Entebbe, Uganda from 22nd and 23rd October 2012. To achieve this, EAGC held a joint meeting with the NBI team in Nairobi and planned the workshop to disseminate the study. EAGC was instrumental in developing the list of participants from the private sector, decision makers and other stakeholder from the Nile Basin Member states.

The purpose of the conference was to Launch and Disseminate Study findings on Cross Border Trade for Grains, Pulses, Commodity Chain Analysis and Water Footprint Analysis of Nile Basin Member States.

The conference was graced by Minister of Agriculture, Animal Industry and Fisheries, Hon. Tess Bucyanayandi and Hon. David Wakinona, State Minister for Trade.

The Main output of the studies was to document and propose investment plans for the improvement of Cross border trade in Grain and Pulses among the Nile Basin Member States. The Nile Basin Member States include Tanzania, Kenya, Uganda, Rwanda, Burundi, Egypt, DRC, South Sudan and Sudan.

The conference brought together Key representatives from EAGC Members, the private sector, various government institutions in the region, NGOs among other representatives from the Nile Basin member states

The first study was undertaken in collaboration with the EAGC on the cross border trade corridors for grain and pulses commodity chain analysis covering Tanzania, Burundi, D.R. Congo, Uganda and South Sudan. The aim was the identification of evidence-based investment potentials that reduce impediments to trade in grains along the corridors, enhance food security and positive gender & youth functionalities for communities' livelihood.

The second study was water footprint analysis with the aim of identifying the comparative advantage in production & trade while improving water efficiency and productivity.

At the end of the meeting it was agreed that EAGC will be the custodian of all the proposed investment options and members are encouraged to work together to ensure uptake and sustainability of the proposed investments.



Hon. Tess Bucyanayandi, Minister of Agriculture, Animal Industry and Fisheries in Uganda, during the launch of the studies launched at the EAGC/NBI conference in Uganda.



Stakeholders at the Investments plans Dissemination conference in Uganda

12. EAGC Collaboration with Nile Basin on the Investment Options

The main outputs from the Study on Cross Border Trade for Grains, Pulses, Commodity Chain Analysis and Water Footprint Analysis of Nile Basin Member States, were the investment options from the study.

The study identified two different categories of potential investments to address the constraints to cross-border trade in grains and pulses. The first category comprises investments that the Nile Basin Initiative (NBI) Secretariat could prioritize for immediate enhancement of inter-regional trade, namely:

i) Improving Lake Victoria water transport and landing sites

- ii) Supporting the private sector to construct storage facilities for grains and pulses located strategically along the borders
- iii) Developing a regional agricultural trade training centre (administered by the East African Grain Council EAGC)
- iv) Supporting development of wet agro-processing infrastructure for grains.

The second category of investments requires EAGC to support since they are already in pilot stage. EAGC will continue to work further with Nile Basin where pilot projects are already underway, on how they can be scaled up to benefit more stakeholders in the region.

These investments include

- I. Development of Grains e-market
- II. Maize Standards 2013 whose implementation will be facilitated by EAGC.

12.1 EAGC Integration in the Nile Basin Activities.

To ensure uptake and sustainability of the investment options from the study, Nile Basin Member states representatives, agreed that EAGC was the best suited organisation to collaborate with NBI to implement the proposed investments. This was agreed during the study Validation meeting held in Bujumbura, Burundi on 28^{th} - 31^{st} May 2012. This was further proposed by the member states during the dissemination workshop that was held in Entebbe Uganda on 22^{nd} and 23^{rd} October 2012.

As outlined above, the proposed investments options include

- Nile Basin Grains Electronic Market (NBI e-Market)
- Establishment of Nile Basin Agricultural Trade Training Centre
- Nile Basin Maize Standards
- Creation of Nile Basin Agricultural Commodity Exchange (NBACE)
- Investment in capital infrastructure Storage Facilities
- Cereals and Pulse trading Centers
- Facilitate formation of trade associations

As discussed, EAGC has already begun implementing most of the proposed activities even though at a pilot stage. As proposed by the consultant NBI will work with EAGC to propose ways in which the investments can be scaled up to

benefit all the partner states. The following is a brief discussion on how EAGC has progressed on the proposed investments and how we can engage further with NBI.

12.1.1 Nile Basin Grains Electronic Market (NBI e-Market)

The e-Market is proposed to be an ICT based. The core business of the e- Market is to link buyers and balance sheets and strategic reserves.

EAGC has already developed an E- market platform that is ICT based through the Regional Agricultural Trade Intelligence Network (RATIN) (www.ratin.net).

This system provides timely and accurate information on daily market prices, weekly market analysis reports, monthly cross border trade flows, warehouse volumes, strategic grain reserves monitoring, food balance sheets, trade news and information, policy issues, rules and regulations and related trade information.

EAGC also host the Regional Agricultural Trade Platform egtafrica — www.egtafrica.com, this is an E-based Agricultural Trade Platform, that links buyers to sellers by providing seller bids and offers and buyers post required stocks, thus linking directly to markets.

The system covers most of the Nile basin members' states including Uganda, Kenya, Tanzania, Rwanda, Burundi, and South Sudan.

EAGC would therefore work with the Nile Basin states to expand the current systems to address the needs and additional input from the investments. The proposed collaboration with NBI will be to scale up RATIN and egtAfrica Grain trade platform, to link to the trade centres, cover more markets in the region, expand cross border monitoring to ensure all borders are monitored.

The EGT Africa, will further be developed and linked to the buyers and sellers in the region to ensure that trade is facilitate in the region electronically. Most of the member states have already asked EAGC to expand this process or support in development of a regional commodity exchange which would facilitate this process.

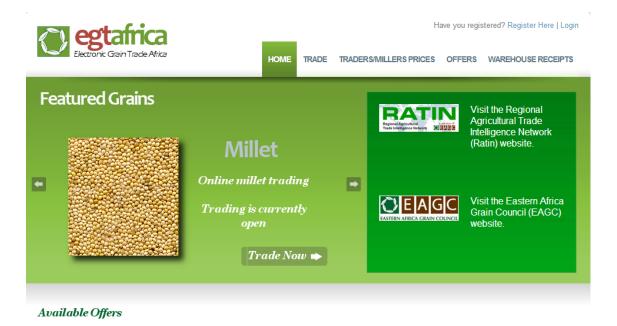


Sample of RATIN web page

EAGC has carried out a study and trained the EAGC Executive Director, through a one month internship training with the South Africa Futures exchange (SAFEX), to study on the proponents of a regional commodity exchange.

EAGC will further engage with NBI and collaborate on the way forward to ensure this proposal is up-taken in the region.

EAGC has also requested NBI that each of this investments plan will need to be further profiled and planned in a detailed manner in order to make them much more bankable for large scale investments.



Display of the EAGC Trade Platform www.egtaafrica.com.

12.1.2 Establishment of Nile Basin Agricultural Trade Training Centre

The study proposed that the centre as a knowledge centre is necessary to enhance capacity in not only water use in trade and markets but also resource

mobilization, warehousing/ receipt, auction markets, commodity value chains, and languages of the riparian states (English, French, Arabic, Swahili). Others will include market search/analysis/ information flow, export potential for livelihood, contracting, capacities of institutions and regional economic communities.

EAGC already had established the Eastern Africa Grain Institute (EAGI) www.eagi.com. The institute is a centre of excellence for building the capacity of stakeholders on trade and market issues, warehouse and warehousing receipts, grades and standards, aflatoxin management, market information systems, structured trade, policy formulation and related curriculum.

EAGC will collaborate with Nile Basin to further the development of this centre on knowledge to support grain and pulses trade within the member states.

EAGC would also support in assessments, survey and publications on issues on the grain and cereals sector among the member states.



This documents, curriculum, training will be further developed into French, English and Arabic.

12.1.3 Nile Basin Maize Standards

The main aspects of the quality standards will be to define acceptable levels of:
1) Moisture content (percent); 2) Foreign matter, broken grains and filth; 3)
Inorganic matter and discoloration; 4) Proportion of pest damaged, rotten and diseased grains; 5) Immature sellers by providing accurate and timely market information.

Towards this EAGC has been spearheading the development of the EAC Staple foods standards. This has been a consultative process with the EAC member states. Currently 22 standards of food staples within the EAC regional have been harmonised and accepted by the member states.

The harmonised standards at the EAC include; Maize Grains, Dry Beans, Wheat Grain, Milled Rice, Pearl Millet, Green Grams, Chick Peas, Pigeon Peas, Cow Peas, Dry whole Peas, Lentils, Sorghum, Finger Millet, Dry Split Peas, dry soy Beans, Faba Beans, rough Rice, brown rice, Wheat Flour, corn flour, maize flour and Dolicho beans.

To develop the Nile Basin Maize standards, EAGC will collaborate with NBI towards sensitisation, training, consultative process, policy briefing, research, documenting, harmonisation of the standards, approval by member states, and eventually in dissemination and implementation of the Nile Basin Maize standards.

Specifically, as part of the investment, EAGC would work with NBI and the Member countries, to carry out assessments and analysis of various standards, create awareness to proposed standards, support in development of premium packages for compliance, package standards into user friendly packages and formats, ensure compliance with members.

12.1.4 Creation of Nile Basin Agricultural Commodity Exchange (NBACE)

The study proposed the creation of the Nile Basin Commodity Exchange (NBACE). This will increase in setting up the Nile Basin aggregation points that would operate as trading platforms for national, regional, continental and international large trader companies for Cereals and pulses.

EAGC has been working with most of the Nile Basin member states in a bid to develop a structured trade regime for grain and cereals. One of the aspects under this structured trade process is the establishment of the regional Commodity Exchange.

Commendable progress has been done on this is some members states, but there is need to develop the process further with other states.

Some of the building blocks for a functional commodity Exchange have been done through EAGC including legislations, warehousing receipt system; market information systems, trade platforms, aggregation centres and linkage with banks to support the exchanges have been done. However this still needs to be scaled up to a much bigger level in order to benefit the Nile Basin states.

EAGC would therefore work with the Nile Basin, to develop the business models, document the investment potentials, and establish the required building blocks for a functional exchange and recruitment of private sector institutions under EAGC who would be the off takers of such an investment and eventually operate the NBACE.

12.1.5 Investment in capital infrastructure – Storage Facilities

The study proposed that support to investment of capital storage facilities. This is expected to establish the chains of storage and market coordination infrastructure for effective functioning of trade platform and commodity exchange. There would need to be a storage system of commodities right from the farm, to the trading centre.

EAGC has already begun working with its members within the private sector on the various storage options and support to post harvest management.

On a wider scale the council work will collaborate with the Nile Basin members states to ensure the infrastructure required for a functional grain and cereals market are developed.

Various storage options have been provided, and EAGC would further develop the investment models that would be required to support the process

12.1 6 Cereals and Pulse trading Centers

The study proposed the creation of the cereals and pulses trading centres. These centres will have to be supplied with the necessary infrastructure and utilities critical in preserving the quality of the produce

EAGC's role is to ensure structured trade of Grain and cereals within the member states. One of the models the council has successful done is support to trading centres through aggregated marketing to ensure business linkage to farmers, traders and processors.

EAGC will therefore collaborate with the Nile Basin Member states to improve and establish trade centres to support the development investments within the sector.

If the centres have the necessary supporting infrastructure and utilities would ameliorate a number of constraints such as low production and productivity, uncertainty and undefined markets as well as unemployment and food insecurity

12.1.7 Facilitate formation of trade associations

Efforts are being made to develop small and medium enterprises, trade and services in terms of trader organizations and provision of credit markets through MFIs. However, the systems are still at nascent stage and much more needs to be done by both the public and private sector.

EAGC works to support trade associations at all levels and therefore work collaborate with the Nile Basin member countries to develop the process further.

12.2 Other areas of collaboration recommended from Dissemination workshop

Participants at the dissemination meeting also suggested that EAGC should collaborate with the Nile Basin States to support in

- i. Policy and Lobby reforms
- ii. Policy Briefs dissemination
- iii. Communication and dissemination Workshops, Briefs, meetings with policy makers EAC, COMESA, National Governments.
- iv. Follow up on the Study gaps noted from the study.

EAGC will therefore also collaborate with the Nile Basin Member states to support these pertinent issues as part of the sustainability of the investments.

13. Conclusion and Recommendations

The agricultural markets in the region, especially for staple food grains (maize, wheat and rice) remain firmly under the watch of government and often become politically sensitive. The main reasons for this are the large number of smallholders still deriving their livelihood from food production; poor food distribution networks; reliance on rainfed production; asymmetries in information and capital scarcity among smallholder producers that tilt markets in favour of brokers, transporters and millers; and the seasonal opportunities the food industry offers for corruption in import/export business and emergencies.

In order to increase market access by smallholders in the EAGC will work with the Nile Basin and recommend the following

 Government strategies should focus on reduction of information asymmetries, particularly, the use of information and communication technology
□ supporting formation of strong farmer based institutions and their linkages with more established value chain players
☐ Forming partnership that promote innovative rural financing approaches and access to productive technologies
☐ Investing in development of enabling environment (physical infrastructure, incentives and services)
□ Building capacity regulatory and over-sight institutions that are managed under public private partnerships.

EAGC will works closely with the Nile Basin Member states to ensure uptake and sustainability of the proposed investments. However consulted efforts will be required from all the stakeholders including the private sector, the national and regional governments, researchers, academicians, development partners to support the entire investments.

Annex 1: Speech by Executive Director

SPEECH BY Gerald MASILA, EAGC EXECUTIVE DIRECTOR, ON THE OCCASION OF THE LAUNCH AND DISSEMINATION OF THE STUDIES ON CROSS BORDER TRADE FOR GRAINS AND PULSES AND COMMODITY CHAIN ANALYSIS AND WATER FOOT PRINT ANALYSIS OF THE NILE BASIN MEMBER STATES ON 22ND-23RD OCTOBER 2012, LAKE VICTORIA SERENA RESORT, UGANDA

- Minister of State for Trade & Cooperatives, Republic of Uganda. Hon. David Wakikona
- Assist. Minister from the Office of the President for Ministry of East Africa of the Republic of Burundi Hon Charlotte NAMAHORO
- CEO ACTESA/COMESA Dr. Chungu Mwila,
- Nile Basin Initiative Executive Director –Eng. Tefere Beyene,
- Representatives from Nile Basin Member States, Ke, Ug, TZ, Rw, Br, DRC, Et, South Sudan, Sudan
- Distinguished Guests,
- Ladies and Gentlemen,

I am delighted to stand before you today, a day which no doubt marks another great milestone not just for the Eastern Africa Grain Council and its regional partner the Nile Basin Initiative (NBI) but indeed the whole fraternity of businesses, individuals and organizations involved in and who have a stake in investment, regional trade and food security in the riparian states of the Nile Basin.

For today is the climax and the culmination of great efforts to bring to the fore and to unveil some of the best kept and yet open secrets-the investment potential of the region.

Let me begin by thanking each one of you for setting aside this time from your busy schedule to be with us during the launch of the reports of the studies launched about two years ago by EAGC and NBI. We celebrate not just a great outcome but also recognition of the fact there is commitment by all players to seek to tap into and exploit the resources of the region for the mutual good of all the people of the region.

As I have pointed out, this is an exciting time for us at the Council; for it is the culmination of hard work we committed ourselves to in order to help us achieve the mandate given to us by our membership and stakeholders-enhancing the

structured trading systems in the grain value chains to achieve improved regional trade in grains in staples and food security.

This is not an end in itself for it is a well known fact that the region is still to a very great extent agricultural based and hence improving agricultural markets has a direct relationship to improved economic welfare of the masses.

Ladies and Gentlemen, About two years ago, the relationship between our two institutions was consummated through a MoU and contract that was based on our mutual interest in regional agricultural commodity trade and how the use of the resources of the region can be maximized for the benefit of all.

While we all knew there exists great potential among the member countries of the riparian states in agricultural production and trade and indeed along the various trade corridors, it was important that this becomes much more than just a hypothetical assumption.

Business people like to deal with facts and figures, and that is why we commissioned the study to assess the potential and tell the story of facts and figures that have economic potential. I want to take this opportunity to thank the NBI for choosing to work with EAGC to unearth the great treasure of opportunities that lay in our region. I also wish to extend warm congratulations to the Consultants for a job well done.

In the course of this work, tremendous lessons have been learnt, capacities have been build both at individual and institution levels and I want to thank our staff at EAGC for their time, commitment and focus in supporting this work to its fruition.

As a people of the region, we have for far too long been spectators in the development debate. Related issues of trade, food security among others have largely been driven by forces that may not necessarily have the interest of this region at heart. I believe the time for Africa to stand up to embrace opportunities and to tackle its challenges. These calls for bold action and implementation of a well thought out strategy.

The potential at both the national and regional levels is tremendous if only we can exploit it. That is why the presence here of private sector and government technocrats is remarkable, for it shows we are living in different times, times that call for strategic partnerships between the public and private sectors—whereby while the government provides the enabling environment, private sector takes the opportunity to invest and create business.

Ladies and gentlemen, Our being here today is a bold statement. It is a testimony of our resolve to contribute together with our partners towards addressing capacity gaps in the regional trade and food security. There is need therefore, to help deal with tariff and non tariff barriers to trade in order to make it easier for our people to trade among themselves. We are not seeking to reinvent the wheel; rather we seek to leverage the regional synergies of all the players towards shared goals and objectives. I will explain why coming together and joining our hands is important;

About five years ago, stakeholders in the grain sector felt there was need to organize themselves through a regional institution that would among others;

- Represent and speak on behalf of the stakeholders at both the national and regional level,
- Offer thought leadership and innovation in matters grain and help strengthen the various grain value chains:

That is how the Grain Council came to be. Now with presence in over nine countries, we see ourselves as "the VOICE of the Grain sector in Africa".

The work to fulfil our regional mandate is still ongoing. We are encouraged that significant achievements have been realized over the past few years of our existence, for which I want to thank our membership, Secretariat and development partners, without whose support we would not have come this far.

It is worth mentioning that the Council has over its relatively short lifespan achieved the following among others:

- Helped Strengthen regional agricultural Markets through promotion and development of Structured Trading Systems including Standard & Grade development, warehousing receipting systems,
- Enhanced evidence based advocacy towards an enabling policy environment,
- Effective coordination and management of the partnerships to deliver key food security programs for the region
- Enhanced market access by producers and trades in the region through the provision of timely and reliable agricultural commodity market intelligence that helps market players make informed decisions, by the provision of Market Information Systems through our Regional Agricultural Trade Intelligence Network (RATIN)

As we launch the reports of the regional studies today, it is our pledge to our members and the stakeholders at large that we will continue to collaborate with national governments in the region, the Regional Economic Communities and other development partners to deliver programs that impact the livelihoods of our people.

Ladies and gentlemen, We believe that the region is bigger than individual countries working in isolation. We believe that our potential together as a region, is so great that some nations within the region can actually become the bread baskets that feed the entire region.

However, this cannot be achieved through wishful thinking. We must be willing to take the tough decisions that support production, investment and cross border movement in the spirit of greater integration. This requires boldness of thought and action. I invite you to step to the plate and be counted. Take the results of these studies and help actualize them... then this region will never be the same.

I thank you all. Asante Sana.

Gerald Makau MASILA, Executive Director, Eastern Africa Grain Council.(EAGC) 22nd October 2012.

Annex 2: EAGC collaboration with the Nile Basin Countries on proposed investments.

Proposed Investment	What EAGC is Already doing	Collaboration with Nile Basin Member States	Benefits from Investments	Assumption	Member States to work with		
FIRST CATEGORY							
Support the private sector to construct storage facilities for grains and pulses located strategically along the borders	 EAGC has already begun working with its members within the private sector on the various storage options and support to post harvest management. On a wider scale the council works with Nile Basin member states to ensure the infrastructure required to a functional grain and cereals market are developed. Various storage options have been provided, and EAGC would further develop the investment models that would be required to support the process. 	EAGC will collaborate with the NBI Members states on construction on this as part of the granaries of the Nile.	Combat food insecurity due to cross border trade, create employment Reduce supply variability in the deficit countries,	 Land Availabilit y by Member states. Security in member countries Climate variability 	• ALL		
Develop a regional agricultural trade training centre	 EAGC already had established the Eastern Africa Grain Institute (EAGI) www.eagi.com. The institute is a centre of 	EAGC will work with NBI to establish the knowledge centre under EAGI to enhance capacity in not only water use in trade and markets but also resource mobilization,	• Increase skills and Knowledge on cross border trade and related thematic areas	 Availabilit y of resources Security in all 	• All		
centre (administered by	• The institute is a centre of excellence for building the	also resource mobilization, warehousing/ receipt, auction	areas • peer learning and	in all member			

the Eastern African Grain Council - EAGC)	capacity of stakeholders on trade and market issues, warehouse and warehousing receipts, grades and standards, aflatoxin management, market information systems, structured trade, policy formulation and related curriculum. • EAGC would also support in assessments, survey and publications on issues on the grain and cereals sector among the member states. • This documents, curriculum, training will be further developed into French, English and Arabic.	markets, commodity value chains, and languages of the riparian states (English, French, Arabic, Swahili). • Others will include market search/analysis/ information flow, export potential for livelihood, contracting, capacities of institutions and regional economic communities	learning-by-doing methods	states	
Nile Basin Grains Electronic Market (NBG e- Market)		EAGC would therefore work with the Nile Basin states to expand the current systems to address the needs and additional input from the investments	The core business of the e-Market is to link buyers and sellers by providing accurate and timely market information Increase cross border flow	Memb er state securi ty	• Al l

Maize Standards		sheets, trade news and information, policy issues, rules and regulations and related trade information. EAGC also host the Regional Agricultural Trade Platform egtafrica – www.egtafrica.com, this is an E-based Agricultural Trade Platform, that links buyers to sellers by providing seller bids and offers and buyers post required stocks, thus linking directly to markets. EAGC has been working with the most of the Nile	•	As part of the investment, EAGC would work with the Member	Define le	evels of: Moisture	•	Harm	ALL
	•	basin member's countries to develop the grades and standards for the various grains and cereals. Most of the standards have been developed and approved by Member states.		countries, to carry out assessments and analysis of various standards, create awareness to proposed standards, support in development of premium packages for compliance, package standards into user friendly packages and formats, ensure compliance with members,	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	content, Foreign matter, broken grains and filth; Inorganic matter and discoloration; Proportion of pest damaged, rotten and diseased grains, Immature balance sheets and strategic reserves and shriveled grains, Aflatoxin in accordance with the relevant ISO		ion by Memb er states	

			standard	
Creation of Nile Basin Agricultural Commodity Exchange (NBACE):	 EAGC has been working with most of the Nile Basin countries in a bid to develop a structured trade regime for grain and cereals. One of the aspects under this structured trade process is the establishment of the regional Commodity Exchange. Commendable progress has been done on this is some members states, but there is need to develop the process further with other states. Some of the building blocks for a functional commodity Exchange have been done including legislations, warehousing receipt system; aggregation and linkage with banks to support the exchanges have been done. 	EAGC would therefore work with the Nile Basin, to develop the business models, document the investment potentials, and establish the required building blocks for a functional exchange and recruitment of private sector institutions under EAGC who would be the off takers of such an investment	Nile Basin aggregation points that would operate as trading platforms for national, regional, continental and international large trader companies for Cereals and pulses. Job Creation Market Linkage Cross border trade Food Security assured	All

Annex 3: THE FIELD TRIP IN PICTURES



Figure Field team trying to cross portholes this





Means of transport commonly used by traders Elegu market





Carrying heavy bags used to be for men but this time women are getting involved due to unmet financial needs. Photo taken from Elegu market