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# Stabilization-Driven Value Chain Analysis of Rice, Groundnuts and Maize in Northern Uganda

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# Stabilization-Driven Value Chain Analysis of Rice, Groundnuts and Maize in Northern Uganda

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Gulu, Uganda

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## LIST OF ABBREVIATIONS

ADF	African Development Foundation
APEP	Agricultural Productivity Enhancement Program
CBO	Community-Based Organization
CPA	Comprehensive Peace Agreement
FGD	Focus Group Discussion
IDP	Internally Displaced Person
IRC	International Rescue Committee
JICA	Japanese International Cooperation Agency
KII	Key Informational Interview
LC	Local Council
LRA	Lord's Resistance Army
MAAIF	Ministry of Agricultural, Animal Industry and Fishing
MT	Metric tons
NAADS	National Agriculture Advisory Service
NERICA	New Rice for Africa
NGO	Non-Governmental Organization
NRM	National Resistance Movement
QPM	Quality Protein Maize
SAACO	Savings and Credit Cooperative Society
SDVCA	Stability-Driven Value Chain Analysis
USh	Uganda Shillings
SPLA	Sudan People's Liberation Army
SPRING	Stability, Peace and Reconciliation In Northern Uganda
UDET	Uganda Development Trust
UPDF	Anti-Stock Theft Unit
UNADA	Uganda National Agro-input Association
URA	Uganda Revenue Authority
USh	Uganda Shilling
USAID	United States Agency for International Development
VSLA	Village Savings and Loan Association
WARDA	West African Rice Development Authority
WFP	World Food Program
WRS	Warehouse Receipts System

## I. EXECUTIVE SUMMARY

The Stabilization-Driven Value Chain Analysis (SDVCA) was undertaken to better inform SPRING's integrated stabilization activities in targeted sub-counties throughout Northern Uganda. The primary objective of SPRING is to mitigate the causes and consequences of conflict in Northern Uganda and SPRING's activities will contribute to the USAID Strategic Objective 9: *More Peaceful Environment and Improved Governance*. In addition, SPRING is expected to add to the body of knowledge informing the region's post-conflict economic recovery.

Although cyclical civil conflict has characterized northern Uganda for the past 20 years, the region has made rapid progress toward lasting peace since 2006. The retreat of the Lord's Resistance Army (LRA) to bases in Democratic Republic of Congo and Central African Republic and the Juba-based peace talks have resulted in a return to normalcy in Northern Uganda. Until recently, large internally displaced persons (IDP) camps were representative of the majority of population settlements in northern Uganda. However, these camps are slowly giving way to smaller, more fragmented settlement patterns made up of 'satellite' camps formed by households returning to their parish of origin, as well as smaller traditional homesteads on ancestral lands. For the first time in a generation, new settlement patterns have presented returning households the opportunity to engage in significant commercial farming activities—and reap the economic benefits thereof.

### Stabilization Threats

The causes of conflict in northern Uganda are multi-faceted and complex. Although fighting and civilian attacks have stopped, there is no comprehensive peace agreement, and many issues remain unresolved. These are potential spoilers to peace and therefore to economic security. IDPs are risk-averse and many remain reluctant to invest significant resources in returning to their ancestral lands. This is evidenced by the high populations of IDPs retaining homes in camps rather than committing to a full-time return to their ancestral lands. The percentage and definition of a households return to its ancestral land vary, in the Lango region this is almost complete, however in the Acholi region it falls well short of the Government of Uganda prediction of full returns by Christmas 2007.

Other push-pull factors at work include poor access to services such as schools, healthcare and water at households' areas of origin. A community held perception that the government has failed to fulfill pledges of return packages has meant that other households have not returned to the ancestral land on a full time basis.

Returning families have been engaged in land disputes as a result of the extended period that they have spent in camps and the lack of official land surveys. This has negatively impacted the ability of some families to cultivate their land for the production of food crops for sale and household consumption. These land disputes fall into several distinct categories: those which are largely dominated by individuals from the same family and revolve around denial of access, and those which involve external players and are categorized by disputes over ownership. Lack of understanding of the Ugandan Land Act by protagonists is also fuelling many of the land disputes.

The reintegration of ex-combatants is a difficult issue and one that requires care. Communities have not yet fully accepted their return, although some are more welcoming than others. In the

Acholi region, for example, former combatants find it easier to reintegrate than in the Lango region. While reintegration of ex-combatants is essential for the security of the area, inappropriate interventions by some organizations that focus assistance on former combatants can lead to jealousy in the community and reinforce negative opinions towards these individuals.

Robbery by thieves locally known as ‘Bokech,’ has been reported to be rising. These are generally identified as individuals who commit robbery in areas outside but neighboring to their immediate parish or sub-county to reduce the risk of identification. There are reports that some of these robbers are armed with guns. Speculation regarding the source of these weapons varies but has a common theme in that they are related to the conflict in northern Uganda. As yet these crimes do not appear to have negatively impacted upon peoples return; however they do pose a risk as increasing incidence of this type of crime can be easily confused with the return of the LRA, which would lead to widespread panic.

External security threats exist particularly in Kitgum, Lira and Pader Districts, which have seen inter-ethnic violence between populations from these districts and the neighboring Karamajong warriors, who are frequently cited in cases of rape and cattle rustling.

## **Crop Production**

This assessment focused on three important value chains in northern Ugandan farmers: maize, rice and groundnuts. Rice is an important commercial crop; groundnuts are grown for both commercial sale and household food security and consumption; and maize, while primarily produced only for household consumption, has significant unrealized commercial and income generation potential. The rare exceptions to this are in the Lira and to a lesser extent Amuru districts, where farmers are exploiting the market value of maize production.

All three crops are typified by low yields. Field research from a recent Makerere University study revealed the following harvests for each of the three crops for farmers in the Acholi region (Kitgum, Gulu, Amuru and Pader): 500 kg of groundnuts, 480 kg of rice and 360 kg of maize per acre. Whilst farmers in the Lango region (Lira and Oyam) fared no better harvesting 280kg of groundnuts, 480 kg of rice and 320 kg of maize per acre (this data was generated based upon the responses of a total of 1,244 households representing every sub-county from the aforementioned districts, which were part of larger data set of 3,401 respondent households).<sup>1</sup>

Typically, farmers have five or fewer acres of crops and rarely more than two acres of any single crop; this is largely a result of low levels of agricultural mechanization rather than a land access issue. Agricultural operations, such as opening new land, plowing, planting and weeding are done manually with rudimentary tools.

Production for all three crops is dominated by a low input regime: farmers use seeds stored from previous harvests and do not apply fertilizers. The consequences of this are predictable—low yields and declining soil fertility. Low yields have an immediate impact, as this dictates how much farmers have to sell and restricts household income and potential financial surpluses, which could be used for productive investments. A second effect is that dominance of the low input regime suppresses prices as low input farmers can accept a lower price for their produce, making it harder for farmers using a high input regime to recover their investment despite having more to

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<sup>1</sup> “Assessment of the Status of the Prevailing Conditions in ACDI/VOCA Multi Year Assistance Program Target Areas in Northern and Eastern Uganda” Makerere University School of Public Health August 2008



sell. Farmers do not account for input costs when establishing prices; therefore it becomes difficult for farmers who use improved seed and fertilizers to recoup their investment.

Farmers cite poor access (both physical and economic) to improved seeds as a reason for their infrequent use. Research revealed that 2.5 percent and 1.8 percent of households were using fertilizers in the Acholi and Lango region respectively, while only 14.6 percent and 12 percent were using improved seed varieties in Acholi and Lango regions, respectively<sup>1</sup>. Northern Uganda currently has a very poorly developed network of agro-input dealers. In addition, the Ugandan seed industry itself has yet to achieve a significant economy of scale, which would enable it to pass on cost savings to farmers. Consequently, seed prices remain high. However, different donor and relief organizations: DANIDA, CARITAS and International Committee of the Red Cross have provided improved seed to farmers through several mechanisms, and farmers' overall reluctance to adopt a culture of using improved seed needs further research.

The overall skill level of farmers is poor, with many having been excluded from serious agricultural enterprise for a generation missing many of the advances in agricultural technology, which are taken for granted elsewhere in Uganda. This lack of knowledge is a major contributing factor behind the poor adoption rates of improved seeds and related agro-inputs. Lack of knowledge is also a contributing factor to low yields. Also lack of technical knowledge is excluding some farmers from viable cash crops. Many farmers interviewed expressed an interest in growing rice (the prevailing local soils and climate appeared to favor rice production), but were reluctant to engage in rice production because they knew nothing about it. Lack of access to agricultural training also means that certain groups within the community such as the youth are excluded from agriculture as they are unsure of how to proceed.

Crop-specific problems exist with regard to seed characteristics failing to correspond to end-consumer demands. This is particularly important for rice and groundnuts, which are price-disaggregated according to common market classifications—e.g., farmers who are selling Red Beauty groundnuts consistently receive US\$ 100-200 more than farmers selling serenut groundnuts. Traders claim the price variance is because the consumers prefer the slightly more vividly colored Red Beauty groundnut. However consumers are buying processed groundnut in the form of flour or butter, which is made from either type of groundnut. No differentiation in the sales price is made.

## **Marketing and Market Actors**

Farmers' market channels are dominated by small- and medium-scale buyers. These buyers serve an important function by providing farmers in isolated communities with access to markets. However, there is a lack of trust between buyers and farmers. Farmers accuse buyers of cheating on price and having scales that under-represent the weight being sold by the farmer. Buyers accuse farmers of marketing low-quality produce while demanding a premium price, and selling produce contaminated with debris such as stones and dirt to inflate the weight being sold. Undoubtedly there is truth in both parties' accusations. cursory examination of buyers' margins would suggest that they are perhaps overly demonized by farmers given the risk exposure they carry. This would suggest that greater sensitization of farmers on the role of buyers and the role of market forces on price establishment is needed.

The end market for each of the three crops vary; maize bought in the north of Uganda is processed and resold to communities as maize flour by urban based medium scale traders and processors. Maize demand is outstripping supply and millers are importing maize from other

neighboring districts such as Masindi to supplement the supplies that they buy locally. Small portions of what are processed are also sold on to Sudanese traders or exported to Sudan by Ugandan traders. The Sudan market could potentially provide good returns for Ugandan traders, however, it has been reported by Ugandan traders that they face widespread harassment unless they have the patronage of the Sudan's People Liberation Army (SPLA). Rice in contrast is processed (hulling and polishing) and sold by farmers to medium sized urban based traders who bulk the rice and then sell on to larger traders in Kampala. Groundnuts have both a local and national market; farmers harvest the groundnuts and then frequently sell on to urban based traders (both small and medium). The northern based traders will carry out the initial value addition by shelling the groundnuts. Once bulked the shelled groundnuts are then either resold locally (small volumes) or transported to Owino Market in Kampala, which is the main trading point for groundnuts nationally. In Kampala further value addition processes are carried out, with the groundnuts either being ground into flour raw or roasted and ground to make groundnut paste (peanut butter).

Many buyers have low levels of capital; small-scale buyers frequently have less than US\$ 1 million, while medium-scale buyers have access to no more than US\$ 30 million. As the majority does not have access to credit, buyers have to constantly turn over their inventory to remain liquid. As such, buyers cannot purchase large volumes in single transactions or forward contract commodities. This works to the disadvantage of producer organizations, and, coupled with the reluctance of larger regional traders to be physically involved with procurement at the field level, such organizations are often cut out of the marketing chain. Therefore the producer organizations are reliant at times on being able to market directly to end consumers such as World Food Program (WFP) and Kampala based processors or on other ad hoc transactions. This market uncertainty makes producer organizations an unattractive avenue to farmers wishing to market their produce.

The value addition possibilities for the three target value chains are limited. Maize can be milled to make flour, rice can be hulled and polished, and groundnuts can be shelled and grinded into powder, paste or roasted. However, the low volumes produced by individual farmers mean that even producer associations would need to have thousands of members to make commercial processing activities economically viable. The rudimentary nature of locally available processing machinery means that farmers are not achieving the maximum value addition for their crops, either by poor post-harvest processing techniques or failure to separate marketable by-products such as bran. A good example of this can be seen in rice processing, local low technology rice hullers and polishers, will break approximately 10 percent more grains than improved processing equipment, resulting in less marketable produce<sup>2</sup>. The current rice processing equipment is unable to de-stone, sort or grade the paddy rice, which means that the farmer is unable to receive a premium for first grade produce. Finally the low technology equipment does not have the ability to separate rice husks from rice bran, consequently the rice bran can only be sold for poultry feed rather than a wider market of cattle and pig feeds stuffs; which again limits the value of the by-product.

## **Recommended Interventions**

Although required throughout the three subsectors, to maximize SPRING's impact on stabilization, the following interventions are recommended:

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<sup>2</sup> Interview with Ambassador Idro Phillip, Chairmen of the Ugandan Rice Millers Association

#### Improve yields:

- Improve the availability of affordable quality inputs for farmers, particularly improved seeds. This needs to be linked to a system of seed promotion based upon a strategy to counter farmers' current reluctance to adopt improved seeds. However other inputs should not be over looked such as agro-chemicals including fertilizers, that offer a substantial boost in yields.
- Provide access to agricultural extension services, information and training, would provide farmers with modern farming techniques absent to them from two decades in the camps.
- Facilitate expansion of tractor business service providers for land opening, which would allow farmers to expand the hectares of cultivated land currently limited by the availability of labor. Availability of tractor services within the target districts and sub-counties is uniformly limited and therefore the best option is the use of oxen.

#### Increase Access to Value Addition Technology:

- **Groundnuts:** access to hand shellers for groundnuts would enable farmers to sell shelled groundnuts and receive a higher price. For the time being it is better if the other value addition activities are carried out by large urban traders.
- **Rice:** emphasis needs to be placed on investment in quality processing equipment by millers. Low-tech or what is sometimes referred to as "appropriate technology" is not serving farmers well as the processing is not producing a high quality product, for which the market would be prepared to pay a premium. However, for this to represent an attractive investment, the processor would need to be assured of significant volumes to process.
- **Maize:** focus on appropriate post harvest handling technology, such as tarpaulins for drying and hand shellers to improve grain quality, and market access to institutional buyers, such as the WFP.

#### Improve Access to Credit:

- Examining the various options to improving access to credit is essential. Things like a simple warehouse receipts system would enable farmers to access credit, and assist them to resolve short-term cash problems frequently experienced at the time of harvest. In the longer term, a savings culture through the encouragement of village savings and loans associations could also be explored.

#### Improve the Enabling Environment:

- **Land:** Land ownership continues to disrupt the return process, both through general security and agricultural production. Support to resolve existing land disputes as well as sensitization on the Ugandan Land Act, would help to mitigate land disputes.
- **Youth:** Particular attention needs to be paid to the youth who represent a potential major spoiler if they are not engaged in income generating activities. Many youth are reluctant to leave the camps yet have few opportunities to engage in income generating activities. Realistically the best opportunity for the majority of them lies in agriculture due to poor academic achievement and limited numbers of artisans required for the local economy. Inter-Ethnic Disputes have currently subsided; they continue however to simmer in the background. Support should be placed on initiatives that stimulate inter community dialogue. This type of dialogue should not just be restricted to the Langi & Acholi, but should be expanded to the Karamajong also. Although the Karamoja do not directly border many of the focus sub-counties, the Karamajong themselves are highly mobile and pose a threat to areas of Kitgum, Pader and Lira.
- **Ex-Combatants:** Effective re-integration of former combatants needs to be done. There is a perception the re-integration is easier in the Acholi region rather than the Lango, however it

has been observed that the Acholi are merely better at hiding the resentments and background issues. Efforts at re-integration and support of former combatants must ensure that it does not alienate the wider community against the former combatants.

## **Conclusions**

Given the low value addition potential of maize and groundnuts for farmers and the mixed results that attempts at value addition to rice bring, greatest emphasis needs to be placed on increasing the volumes of crops being grown by farmers. Currently the productivity level of farmers is too low to reach a critical mass that would enable them to achieve a comparative advantage, such as reduced processing costs due to economies of scale. In the case of rice, production volumes still need to be increased; however, farmers need to be given the opportunity to avail better processing facilities if they are to achieve the full potential that value addition has to offer to them.

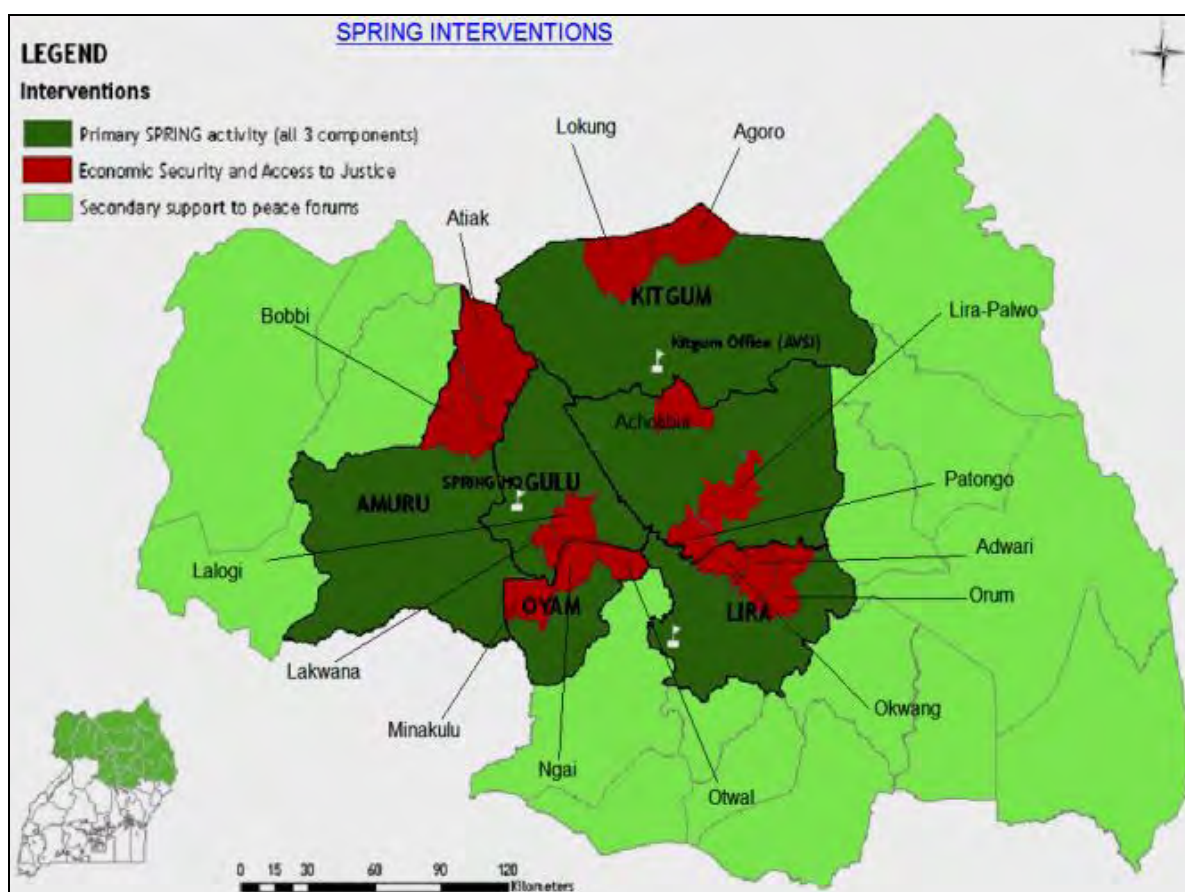
This is all set against a background where an enabling environment exists but is threatened by a variety of potential spoilers. These take the form of inter and intra-ethnic tensions, uncertainty regarding land ownership and lack of a comprehensive peace agreement. Other potential spoilers are former combatants and a disenfranchised youth who have limited potential to generate sustainable livelihoods for themselves outside of agriculture. Either agriculture has to be made more attractive to these potential spoilers or better off-farm economic opportunities need to be developed. This, however, must be done through a lens that does not alienate the wider community.

## II. INTRODUCTION AND METHODOLOGY

### A. INTRODUCTION

To date, the integration of conflict analysis and sensitivity into the economic growth programs of international development agencies remains the exception rather than the rule. Interventions that are not conflict-sensitive can unwittingly exacerbate conflict, to the detriment of peacebuilding and growth alike, whether at the macro level of the national economy; through privatization programs; or through instruments that directly target local business actors at different scales such as Private Sector Development and micro-finance activities.<sup>3</sup> At the same time, economic development has the ability to provide tangible *peace dividends* that discourage future violent conflict within and across conflict divides.

FIGURE 1: MAP HIGHLIGHTING TARGET AREAS OF INTERVENTION FOR THE SPRING PROJECT



USAID/Uganda's Peace and Security Team is focused on mitigating the causes and consequences of violent conflict in Uganda. Under USAID's Strategic Objective 9: *More Peaceful Environment and Improved Governance*, the SPRING project is a vital component of the larger USAID strategy to enhance regional stability, assist with alleviation of one of the world's worst humanitarian crises and promote self-reliance and economic development in northern Uganda.

<sup>3</sup> 'Local Business Local Peace the Peace Building Potential of the Domestic Private Sector', International Alert, 2006



To promote stability SPRING uses an integrated programming approach combining access to justice and peace and reconciliation activities to contribute to conflict sensitive economic security interventions. The Stabilization-Driven Value Chain Assessment (SDVCA) will be the primary tool for the SPRING project in identifying value chain and stabilization constraints in order to develop informed conflict sensitive interventions that reduce incentives for conflict and promote incentives for peace around the projects’ three targeted sub-sectors: *groundnuts, maize and rice*.

### SDVCA Work Plan Summary

Through an open tender process, the local office of the US-based non-governmental organization, ACDI/VOCA, was contracted by the SPRING project to carry out a stabilization-driven value chain analysis. The assignment took place between August 25 and October 20, 2008 and built on the sector analysis previously conducted by SPRING staff, which determined the three target sectors of maize, rice and groundnuts. The assessment was carried out in all 15 of SPRING’s targeted sub-counties spread across six districts—Gulu (Lalogi and Lakwana), Amuru (Amurur and Atiak), Kitgum (Lakwana and Agoro), Pader (Acholi Bur, Lira Palwo and Puranga), Lira (Okwang, Adwari and Orum) and Oyam (Ngai, Minikulu and Otwal). The specific sub-counties were selected through a previous geographic assessment and represent either international (southern Sudan) or inter-ethnic border zones (Lango-Acholi).

The specific objectives of the SDVCA assessment were to:

- Provide a general overview of the subsectors
- Provide a situational assessment, mapping and quantitative profit-loss analysis of each market channel in the respective value chains within each subsector
- Assess the subsectors’ stabilization and conflict mitigation potential
- Identify primary value chain constraints and corresponding program interventions

## B. METHODOLOGY

The general approach combined a value chain assessment with a conflict and stabilization assessment to identify both the technical constraints and opportunities for upgrading the value chain; as well as the associated conflict risks and peace building opportunities. This involved consulting value chain actors and other conflict relevant stakeholders outside the sub-sectors such as national and local politicians at, traditional leaders, elders, and organizations involved in post conflict recovery and peace building. Table 1 below shows the number and category of interviewees by location.

**TABLE 1: INTERVIEWEES BY CATEGORY AND LOCATION**

Location	Amuru	Gulu	Kitgum	Lira	Oyam	Pader	Kampala	Sub-Totals
<b>Input Suppliers</b>								
Agro-input Stockist	0	1	0	0	0	1	0	2
Equipment Suppliers	0	0	1	0	0	0	3	4
<b>Farmers</b>								
Farmer Ass.	0	0	1	0	0	0	0	1
Farmer FGD	1 (17)*	2 (34)*	2 (33)*	3 (43)*	2 (24)*	1 (17)*	0	11 (168)*
Farmer KII	0	5	5	0	0	0	0	10
<b>Processors/Traders</b>								
Institutional Buyers	0	0	0	0	0	0	1	1

Location	Amuru	Gulu	Kitgum	Lira	Oyam	Pader	Kampala	Sub-Totals
Large Traders/ Processors	0	0	0	0	0	0	6	6
Small Processors FGD	0	0	0	1	0	0	0	1
Small/Medium Processors	1	3	1	5	2	1	2	15
Small/Medium Traders	2	1	2	1	0	5	2	13
<b>Financial Institutions</b>								
SACCO/Micro Finance	2	0	2	3	1	1	2	11
<b>Government Officials</b>								
Gov. of Uganda Representatives	0	0	0	0	0	0	3	3
Members of Parliament	0	0	1	0	0	0	4	5
LCV/LCV Counselors	0	1	2	0	2	0	0	8
LCIII/LCIII Counselors	2	5	1	2	2	1	0	13
Production Department	0	0	1	1	1	1	0	4
District Agricultural Officers	0	1	1	1	0	0	0	3
NAADS Coordinators	0	1	1	0	2	1	0	5
<b>Conflict Stakeholders</b>								
Cultural Leader KII	1	0	0	0	0	0	0	
Cultural Leaders FGD	0	1 (18)*	0	2 (16)*	1 (5)*	0	0	5 (39)*
Peace Stakeholders FGD	0	0	0	0	0	2 (42)*	0	2 (42)*
Peace Stakeholders KII	1	4	1	3	0	0	0	9
Police	1	0	1	0	4	2	0	8
S/C Chief	1	0	2	3	3	3	0	12
Sudan KII	0	0	1	0	0	0	6	7
<b>Development Assistance Programs</b>								
NGOs/Donors	0	1	0	2	0	0	6	8
<b>Totals</b>	<b>12 (17)*</b>	<b>26 (51)*</b>	<b>26 (33)*</b>	<b>27 (59)*</b>	<b>20 (29)*</b>	<b>19 (59)*</b>	<b>35</b>	<b>166 (249)*</b>

(\*)=Number involved in FGD; FGD=Focus Group Discussion; KII = Key Informational Interviewee

The data collection methods included key informant interviews, focus group discussions and a review of existing documents on the conflict (see Annex 3: Bibliography). Few outside resources were used during the assessment as the consultancy team took pains to ensure that conclusions contained within this document were as original as possible and independent of previous research.

The consultants were divided into three teams comprised of conflict mitigation and value chain consultants as well as a mix of ACIDI/VOCA consultants and SPRING staff. The field research and writing was broken up into three main stages:

- During the first stage interviews were conducted with key stakeholders and sector players based in Kampala (scheduled for September 1 to September 5, 2008).
- During the second phase field research was carried out in northern Uganda and focused on key informant interviews and focus group discussions (from September 8 to September 20). Alongside the focus group discussions with farmers several breakout sessions were held with other individual farmers to help ascertain costs and production figures.
- The third and final phase was the analysis and write-up of the results and recommendations and the final submission of the report on October 20, 2008.

### III. STABILITY OVERVIEW

At its inception, SPRING conducted a macro-level baseline conflict assessment that elaborates the conflict history, underlying structural causes and consequences, and stakeholders of the LRA conflict to inform its programming. In addition, the report identified the following underlying structural causes to conflict in the region: 1) lack of a unifying Ugandan identity, and 2) political disenfranchisement of the Acholi ethnic group. Because of the protracted nature of this conflict, these original structural causes were superseded by other factors, such as LRA attacks and abductions on its own people in Acholiland and LRA support from Khartoum.

CAUSES AND CONSEQUENCES OF CONFLICT IN NORTHERN UGANDA	
<b>CAUSES</b>	Political disenfranchisement of Acholi ethnic group
	Lack of a Ugandan national identity
	Conflict dynamic
<b>CONSEQUENCES</b>	<b>POLITICAL ADMINISTRATIVE</b> /
	Weak administration and poor delivery of services
	Poor rule of law
	<b>HUMANITARIAN</b>
	High rates of mortality and morbidity
	Food insecurity
	Displacement
	<b>ECONOMIC</b>
	Poverty
Loss of livestock impacting on livelihood	
Reduced levels of productivity (for example: limited access to land, poor education and destruction to infrastructure) and access to markets	

Following the Juba Peace process roughly two years ago, the situation created over two decades of conflict began to undergo a major shift. The relative peace that emerged following the signing of the cessation of hostilities agreement in July 2006 led to movement of Internally Displaced Persons (IDPs) from camps to transit sites and original homes. By February 2008, 99.7 percent of the IDPs in Lango sub region and 37 percent in Acholi sub region had left the camps<sup>4</sup>. However the peace process lost momentum when the LRA leadership failed to sign the final peace agreement in April 2008. Nevertheless, the renewed sense of possibility for peace and economic recovery continue to exist. It is important to note that even if the Final Peace Agreement is signed, it does not guarantee peace unless the structural causes, consequences and drivers of conflict are addressed. Moreover, the population flux following the relative peace has led to emergency of other micro-level conflicts.

<sup>4</sup> UN OCHA (2008) Uganda Humanitarian Situation Report, 29 February 2008



## **A. VALUE CHAIN AND CONFLICT INTERACTIONS**

Any development project set in a conflict-prone region will inevitably have an impact on the peace and conflict environment—whether positive or negative, direct or indirect, intentional or unintentional.<sup>5</sup> Value chain and conflict interactions can be grouped into four broad categories:

- The impact of wider conflict on the value chain
- Value chain impact on the wider conflict
- Conflict within the value chain
- Conflict with supporting markets

These categories are not neatly separable; there is some degree of overlap. However it is useful to consider them separately as each has distinct implications on the enabling environment.

## **B. THE IMPACT OF WIDER CONFLICT ON THE VALUE CHAIN**

The causes, consequences and dynamics of the LRA war left behind a legacy of social problems that have created a fragile social fabric. Despite this there are opportunities for harnessing value chain interventions to build a peace economy. The conflicts and likely impacts on value chain actors are elaborated below.

### **1. Fear of a return to war**

Because the peace agreement has yet to be signed, there is lingering fear that war will return. This is hindering the return process of IDP's as well as commercial agricultural production in the Acholi region, as only 37 percent of the population has returned to their homes. This can also hinder access to land and production.

### **2. Tensions related to land tenure**

In all the sub-counties under study, land disputes were mentioned as a major conflict issue with serious negative consequences to agricultural production. Land conflicts are more intense in Amuru District where it is rumored that land issues are being politicized. Tension over land is not new—it existed even before displacement; but tensions have been intensified during IDP return process. Boundary-related disputes are the most common, followed by sharing of inherited land among family members. Large-scale commercial interests, speculators and other land grabbers such as family members taking land from their vulnerable relatives are also causing tension (especially in Amuru District). The key issue is the transition away from a customary land tenure system, dependent on the administration of traditional leaders, towards a more formal tenure system.

Lack of clarity regarding this transition—due to a paucity of information and knowledge of the Land Act (the main substantive land law)—is the main factor contributing to increased land tension. Additionally, the statutory and traditional dispute-resolution mechanisms lack adequate capacity to respond to and contain disputes. Traditional institutions are important in dispute resolution given the centrality of customary land tenure. Though not legally sanctioned, they are usually the court of first instance for land disputes, and the local council system is strongly

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<sup>5</sup> Kenneth Bush (1998). *A Measure of Peace: Peace and Conflict Impact Assessment of Development Projects in Zones of Conflict*.

dependent on them. The local councils are the elected leaders from village to district level, and at LC2 and LC3 they have a legal mandate to handle land disputes.

Land conflicts are also symptoms of a bigger issue of Acholi society undergoing a massive social transformation. As the social structures of the camps are broken down and new structures at the community level are being established. This transformation includes the redefinition of the role of the family, traditional leaders and the state.

### **3. Unemployed youth**

When walking through any trading center in the region, it is impossible not to notice the high number of idle youth. One of the visible outcomes of the war has been a youth population that missed out on education, lacks skills and is unemployed. The agricultural sector offers the most opportunities for employment, but this is not attractive to the majority who were born or grew up in camps and have no farming experience. Some of these youth have not returned to their villages and continue to be an issue of major concern, as they represent a fertile ground for recruitment into future rebellion.

### **4. Crime**

In all the sub-counties visited high crime rates were reported. People are being attacked along roads and in homes and robbed of goods, money, cattle and food stuffs by armed thugs. The presence of guns among civilians is seen as a destabilizing factor. Often, communities blame ex-combatants if suspects in a crime are not identified.

Theft is increasing in all sub-counties visited and often involves child offenders. The police usually arrest these children but later release them since they cannot be prosecuted in adult courts and there are no institutions for juvenile offenders. Rape and assault cases are common, sometimes involving children, due to drunkenness and the predisposition of traumatized people to anger. All these factors are linked to the high level of youth unemployment and the fact that ex-combatants are accustomed to achieving aims through violence.

The police are trying to deal with the high crime rates but face staff shortages. In addition, dealing with traumatized communities is a challenge, as they tend easily toward mob justice and may even attack police officers<sup>6</sup>. Although rising crime rate is typical of post-conflict environments, it needs to be addressed as part of the overall trend of moving away from violence and towards justice. High crime has are having negative implications for agricultural production, as people are reluctant to produce large quantities without secure storage and accessible financial institutions.

### **5. Reintegration of ex-combatants**

In the Acholi region, the official position is that former LRA fighters are forgiven and are welcome back to their communities since many committed atrocities against their will. However, in reality, the extent of forgiveness and reintegration varies among communities. The Lango region appeared to have a greater challenge with reintegration than those in the Acholi region. On the whole, there is some reluctance to accept ex-combatants because of the atrocities committed.

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<sup>6</sup> The problem of mob justice was cited by the police in Ngai sub county, Oyam district

Negative attitudes are fuelled by resentment when NGOs and donor supported projects exclusively target ex-combatants.

The implication for the agriculture sector is that there are risks associated with failure to reintegrate and meaningfully engage ex-combatants in agricultural economic activities—risks such as being attracted to future rebellion, harming other community members, and being involved in criminal activities.

## **6. Domestic violence**

Quarrels, assaults and fights between spouses were common in all sub-counties studied. They usually arise from disagreements about the decision making, allocation of family resources and sharing of responsibilities often fuelled by drunkenness. Sometimes men refuse to participate in farming activities but want to share in the proceeds from the crop and use it for drink, while women bear the burden of family food security. There are cases where men cultivate their own gardens and want to sell all the produce without contributing to family food security needs.

Domestic tensions disrupt agricultural activities as some women separate from their husbands and go to live elsewhere and activities cease, or much time and resources are spent in dispute resolution. This results in food insecurity and poverty at the household level.

## **7. Vulnerable groups created by the war**

The war has led to the emergence of vulnerable social groups such as female-headed households, child-headed households, child mothers, widows and orphans. The majority of these have not returned home because they lack the financial and human capacity needed to rebuild their shelter and livelihoods in their place of origin. This is largely because the social safety networks that would have supported them in the past are either weakened or broken. The vulnerable therefore opt to stay in camps where the World Food Program still distributes food. In cases where they have returned, they become a burden to clan members. In addition, they are normally victims of land grabbing by their relatives and are slowly becoming a class of landless poor. Because of the lack of access to land and other resources, they are marginalized from engaging in economic activities.

## **8. Relationships, attitudes, behaviors and values**

Years of staying in camps with little to do and dependence on handouts has inhibited the desire to work hard for self-reliance. Lifestyles have changed and some people are not willing to return to villages and revert to agriculture as a source of their livelihood.

There is an emerging class of commercial farmers comprised of mainly high-ranking military and government officials and politicians. Some of these farmers are perceived to have benefited from the war, are alleged to be involved in land grabbing or to be manipulating the institutional arrangement of the changing land tenure system to their personal advantage. This problem is predominant in the Amuru District. Some commercial farmers are resented by neighboring communities and other political leaders. Although these farms could be a source of wage employment for surrounding communities, some people are not willing to work for them and the commercial farms instead resort to using UPDF soldiers.

Such commercial farmers are key drivers to the economy, and if their relationships with the neighboring communities improve and collaboration is encouraged, they could positively contribute to the revitalization of agriculture in the North.

“These so-called commercial farmers are only able to live here because of Museveni. If there is change in government they have to leave! I hear that some of them have started establishing their families in London.” - *a politician*

## 9. Karamajong pastoralists

The sub-counties close to Karamoja such as Orum and Lira Palwo continue to be threatened by the seasonal influx of the Karamajong pastoralists in search of pasture. Conflicts with the communities arise over animals destroying crops and water points,, stealing food from gardens, raping and abducting women and children and raiding cattle.

Livestock theft became rampant, and in response the government established the Anti-Stock Theft Unit (UPDF), which is helping to recover stolen animals—although peaceful means to resolve the conflicts would have been preferable to resorting to the army for protection. There have been attempts at dialogue between Karamajong and Acholi, Lango and Teso elders supported by some NGOs, but these could not accomplish much because of the LRA war and resulting displacement. These tensions are likely to interfere with agricultural activities and consequently supply chain activities in Sub Counties close to Karamoja.

## 10. Political divide

Northern Ugandan society is divided along political lines, with the majority being on the side of the opposition. There is mistrust between the two sides with counter accusations. . For example, NRM supporters believe that although land conflicts do occur during the return process, their escalation to violence has been instigated by opposition politicians who see the return of IDPs as a threat to their political future., The NRM supporters claim that, the opposition politicians have used the war and the resulting humanitarian crisis to campaign against the government, saying it had no interest in protecting the people. The Juba peace process, spearheaded by government, and the subsequent return of IDPs to their homes helped restore people’s confidence in the government, threatening the political future of opposition politicians. On the other side, opposition politicians tend to perceive government programs benefiting only NRM supporters while excluding the opposition.. Such perceptions create tensions within communities. If the SPRING project identifies with either political side it can have negative consequences, especially as the country approaches the 2011 elections. Therefore, although politicians are critical in the success of any project and must be consulted, they are also potential spoilers if their political and personal interests are threatened.

## 11. Tribal tensions

The LRA conflict led to resentment between Acholi and neighboring tribes such as Lango, Teso and Southern Sudanese tribes, as they perceived atrocities committed by LRA as Acholi attacks. Trade with Southern Sudan is sometimes affected as Ugandan-Acholi traders are sometimes attacked by communities in Southern Sudan for supposedly belonging to the LRA. The relationship between the Acholi and Langi has improved and there is increased interaction through trading in agricultural commodities, which further contributes to peace. The historical political tensions between the Acholi and Langi have somewhat subsided since the NRM

government came to power, but there is fear that land conflicts may re-emerge. For example, in Puranga sub-county, the Langi were chased off their land when Obote was ousted in the 1980s, and may now return to claim their land.

“War was used as a cover to settle land wrangles, people [are] still not happy to see the Langi.” –a KII interviewee in Lalogi sub-county Gulu district

## 12. Trade with Sudan

Southern Sudan is an important end market for the three value chains, and northern Uganda has a geographical advantage for serving it. However the northern region has not yet reaped significant benefits from this market because of low levels of production and a lack of organized marketing. Southern Sudan’s post-conflict environment also poses conflict risks for traders, such as attacks due to lawlessness and an unclear taxation regime. The biggest risk comes from the unclear political future that is dependent on implementation of the Comprehensive Peace Accord. Some of the threats include indictment of Bashir by the International Criminal Court, the outcome of the 2009 presidential election, and the possibility of Bashir losing the 2011 referendum. The Khartoum Government considers trade between Uganda and Southern Sudan a political threat in the sense that allowing Ugandans to freely enter Sudan allows them to vote. As a result, there have been attempts by the Khartoum Government to restrict trade and movement between Uganda and Southern Sudan through both tax and non-tax barriers. Another alleged strategy by the Khartoum government is penetration by Arab traders in the Southern Sudan market to crowd out Ugandan traders. All these point to the instability of Southern Sudan as an end market for the target value chains.

The positive side of this context with regard to market upgrading is that all the stakeholders within Uganda and Sudan, irrespective of the conflict divides, are supportive of economic recovery interventions that can address the grinding poverty created by the two-decade-long war.

## C. VALUE CHAIN IMPACT ON THE WIDER CONFLICT

Upgrading the value chain is likely to bring about some negative impacts and conflict risks that did not exist before, such as the following:

- **Intensification of land conflicts:** Economic and agricultural revitalization will demonstrate the true economic value of land. This may fuel greed and the desire to acquire more land, which may further feed the already existing land tensions.
- **Increasing food insecurity:** Upgrading of the value chain may lead farmers who are just re-starting production to focus on production for sale rather than consumption, especially with attractive prices in Southern Sudan, which may lead to food insecurity. This may further fuel pre-existing social problems, such as domestic violence.
- **Opportunities for corruption:** Economic revitalization and development assistance may open new avenues for corruption or feed existing ones. Corruption is a common phenomenon in northern Ugandan post-conflict recovery interventions, such as infrastructure rebuilding—where individuals with access to local government and NGO patronage systems are able to obtain contracts thereby creating resentment in the mainstream private sector.<sup>7</sup> Since

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<sup>7</sup> International Alert: *Building a Peace Economy in northern Uganda*. Investing in Peace Issue No.1, September 2008.

implementation of the SPRING project will be through grants to implementing partners, there is high risk of support not reaching the vulnerable or conflict affected persons

- **Bringing people together:** Despite the possible negative impacts outlined above, there is the potential for positive impact that can be harnessed to contribute to stabilization and transformation toward a peace economy. Value chain partnership will promote a culture of working together for economic gain. This can promote interactions across conflict divides, which can help dampen the tension, overcome negative stereotypes and increase reintegration. For example, the Commercial Farmers Association in Gulu includes individuals from across political conflict divides, and farming gives them a new group identity. Such initiatives can be harnessed for peace building.

## D. CONFLICT WITHIN THE VALUE CHAIN

Relationships and interactions among actors in the value chain (both vertical and horizontal) are a potential source of conflict. Potential conflict risk areas include the following:

- **Working in groups:** as a result of years of displacement and dependency on aid, a culture of working together for economic purposes (as opposed to simply working communally) does not exist. This may lead to challenges. Conflicts may arise within farmer groups due to power struggles, sharing of benefits and commitment to group activities, which can lead to group disintegration and disruption of production.
- **Lack of transparency in the chain:** farmers generally feel that they are being exploited by the traders/processors. This may be due to a lack of price transparency on the part of the traders/processors, and high price expectations by farmers due to high prices in Sudan (without considering the costs of doing business in Sudan). As a result, farmers renege on their commitments to sell to a specific trader even after receiving support such as a cash advance to cover production costs. This creates tension between farmers and processors/traders. This problem is most common among rice farmers and processors in Gulu and Amuru.
- **Management and ownership of common facilities:** if value chain upgrading involves building common infrastructure like bulking centers, conflicts may arise regarding ownership and control, especially with the owner of the land where such a facility is located.
- **Access to Southern Sudanese market:** although Southern Sudan's market is attractive and open, accessing it is not easy unless one has connections with the UPDF and SPLA armies. It is even rumored that some of attacks on Ugandan civilian traders in Southern Sudan are a strategy to fight off competition by military personnel involved in trading. Even the large Kampala-based traders doing business in Southern Sudan have links with the UPDF and SPLM, and mostly supply government institutional buyers like the SPLA and prisons. Small traders without links to army protection suffer from physical attacks, loss of goods, extortion or over taxation.

## E. CONFLICT BETWEEN VALUE CHAIN AND SUPPORTING MARKETS

### 1. Input Suppliers

There is mistrust between farmers and UNADA input distributors over prices, quality and timeliness of seed delivery. Some farmers in Lango pointed out that although farmers could



present vouchers<sup>8</sup> to obtain inputs from UNADA distributors, those who could afford to, preferred to buy on the open market because of lower prices and better-quality seed. However, UNADA maintains that they are the only suppliers of certified seed. Such mistrust can lead to tensions between input suppliers and farmers.

## 2. Financial service providers

The limited supply of financial service providers relevant to farmers is a major constraint not just in the North but in the whole country. There are only four well-performing SACCOs in the whole of the Northern Region.<sup>9</sup> Other MFIs like FINCA, PRIDE and UML are just beginning to open branches in the north, but still concentrate lending in towns and do not offer agricultural financing (except for UML). Apart from Lokung Sub County which has a branch of the Kitgum SACCO, and sub counties in Pader District that can access Agaro SACCO, the remainder of SACCOs was formed last year following the government campaign of 'Prosperity for All.'<sup>10</sup> Informal financial models such as Voluntary Savings and Loan Associations (VSLAs) are still the most commonly supported groups among relief and humanitarian oriented NGOs.

Some microfinance institutions (Kitgum SACCO, Agaro SACCO, Alut Kot SACCO and UML) have responded to the demand for rural credit by introducing agricultural loans in their product portfolios. While this is a positive move, it may be a source of conflict (especially for SACCOs due to their limited staff capacity) if product development and testing are not done properly to mitigate the varied risks related to agricultural lending. An already high default rate among microfinance institutions in post-conflict northern Uganda has been identified as a conflict factor that usually arises out of inappropriateness of products, and results in de-humanizing loan recovery methods such as forcefully taking their assets such as livestock.<sup>11</sup>

One innovation in the northern Uganda financial sector to address the challenges of both access to financial services and access to markets is the warehouse receipt system, soon to be established by Agaro SACCO in Pader District. While it is a relevant and useful intervention, it has inherent conflict risks as the SACCO is playing almost all the roles in the system (financier, warehouse management and marketing).

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<sup>8</sup> Voucher-for-Work Programs, such as through the DANIDA funded Restoration of Agricultural Livelihoods in Northern Uganda (RALNUC) project, has been one of the recovery methodologies used to employ people on community projects such as opening of community roads and paying for in form of vouchers, which they would in turn present to selected input suppliers to get seeds and farming implements.

<sup>9</sup> Kitgum SACCO in Kitgum town council with a branch in Lokung sub county, Agaro SACCO in Kalongo with a branch in Pader town council, Alu Kot district in Oyam district, and Orib Ching SACCO in Lira district.

<sup>10</sup> 'Prosperity for All' is the Government of Uganda's initiative to deliver microfinance activities in rural areas and will work in conjunction with NAADS and the Vice Presidents rice initiative.

<sup>11</sup> International Alert: *Building a Peace Economy in northern Uganda*: Investing in Peace Issue No.1, September 2008.

## IV. SUBSECTOR OVERVIEWS OF MAIZE, RICE AND GROUNDNUTS

After a long period of not being cultivated, the land in most parts of Northern Uganda is bushy and very fertile. The area also has steady rainfall, generally typified by two distinct rainy seasons. Since the IDP return rate is much higher in Lango (99 percent) compared to the Acholi (40 percent) most farmers in the Lango sub-region have more post-return agricultural experience and bigger gardens of more than five acres in total compared to farmers in the Acholi sub-region, with less than five acres under cultivation.

Land clearing and farming is mostly with the use of hand hoes and is done communally on a rotational basis. However, in Lango sub-region quite a number of farmers have acquired oxen and ox ploughs, which they hire out to other farmers.

It is worth noting that WFP, the largest buyer of maize and beans in Uganda, purchases maize from and works with farmer groups in central, western and eastern Uganda that can bulk up to 50 tons. It is not yet involved in rice and groundnuts because of the low production volumes in Uganda. WFP's mandate does not also allow it to purchase produce from food insecure areas, however, because many people have returned to their homes in northern Uganda, it intends to open up to the area after November 2008, targeting active farmer groups with respect to warehousing and post-harvest handling as well as other staple crops through the Purchase for Progress program.

Research conducted by Makerere University School of Public Health and Agribusiness Management Associates revealed that all three value chains suffer from low productivity as indicated in Table 2 below. Productivity which is this low cannot meet household food needs or create a surplus which can be marketed. The same research revealed that 87 percent of households failed to meet their food requirements in the last twelve months.

**TABLE 2. YIELD OF SELECTED CROPS REPORTED BY REGION IN KILOGRAMS PER ACRE**

Crop	Acholi Med (IQR)	Lango Med (IQR)	Teso A Med (IQR)	Teso B Med (IQR)	All Med (IQR)
Groundnuts	500 (240-980)	280 (140-560)	420 (200-840)	280 (140-560)	420 (160-840)
Rice	480 (240-1200)	480 (140-840)	450 (140-960)	600 (400-1120)	560 (240-1040)
Maize	360 (180-563)	320 (160-600)	280 (140-560)	400 (210-640)	360 (180-600)

Med=Median IQR=Interquartile range

### A. MAIZE

In 2007 world maize production and consumption amounted, respectively, to a record 751 million and 761 million MT accounting for slightly less than half of the world's total production and consumption of cereals<sup>12</sup>. Despite the record levels of maize production demand outweighs supply resulting in a deficit in inventory stocks. The maize trade is projected to increase significantly, with a growth rate of 12 percent over the next ten years. Demand for maize in

<sup>12</sup> Grain Market Report, International Grains Council, 24 May 2007



world markets continue to rise in response to the projected strong increase in livestock production and emergence of biofuel production.

**TABLE 3 WORLD MAIZE TRADE STATISTICS**

World Maize Production and Trade					
	2003/2004	2004/2005	2005/2006	2007/2008 est	2007/2008
<b>Production</b>	625	713	695	696	751
<b>Trade</b>	80	76	79	85	84
<b>Consumption</b>	644	686	700	726	761
<b>Stocks (change)</b>	-19	+27	-6	-30	-10

Maize is one of the ten agricultural crops that have been prioritized by the Government of Uganda within the Rural Development and National Zoning Strategy and has recently become a major non-traditional export crop<sup>13</sup>. Uganda's maize market is regional, comprising markets such as relief supplies, cross-border and the Southern Africa region. Uganda benefits substantially from the unfavorable climate and low soil nutrition in neighboring regional countries, and also by its two annual maize harvests. Because of these two harvests, Uganda can theoretically take advantage of supplying Southern African countries and Kenya during the months of May-September when regional maize stocks are low. Uganda's potential export capacity is estimated at between 100,000-150,000 MT per year. However, export performance has only been about half this amount, reflecting a low level of penetration. Poor quality and unreliability of supply has been cited as a key constraint to Uganda's penetration into the regional export markets. Maize exports slightly fell 1% by value (from US\$ 24.1 million to US\$ 23.8) and 12% by volume (From 115,259 MT to 101,233 MT) from 2006 to 2007. This situation is mainly attributed to a late start in the season in Uganda. In 2007, domestic consumption remained at about 400,000 MT out of a national availability average of approximately 638,000 MT (Ratin, 2008). In 2007, a vibrant cross-border trade maintained momentum, with regional markets responding to planting-harvesting patterns indicative of anticipated stock availability. Uganda's export volumes are stated to increase in 2008, should farm operations and rains come on time. Also, the increasing likelihood of a reduced harvest by Kenya, and a national reduced maize supply in Tanzania, positions Uganda as a likely source of Maize in 2008.<sup>14</sup>

About 50 districts in Uganda grow maize. The major maize growing are in the western and southern districts of Iganga, Kasese and Masindi and have two peak harvest seasons, with the first occurring between January-March, while the second crop is between July-August. the lowest incidents of maize, largely between April-July and the month of September.

Maize production is generally characterized by low yields, which result in high unit costs and thus low returns. Regardless of the farm sizes, Uganda's maize yield levels are low and are generally between 1.0 and 1.8 MT/ha (four hundred to seven hundred kilograms per acre). The low yields in maize result in high unit costs of production of between US\$ 120-180/kg (US\$ 6-9 cents) per kg with gross margins being less than US\$ 50,000 (US\$ 25.6) per ha. As a result, farmers have to rely on "favorable" prices in order to make profits. Of the estimated 500,000 –

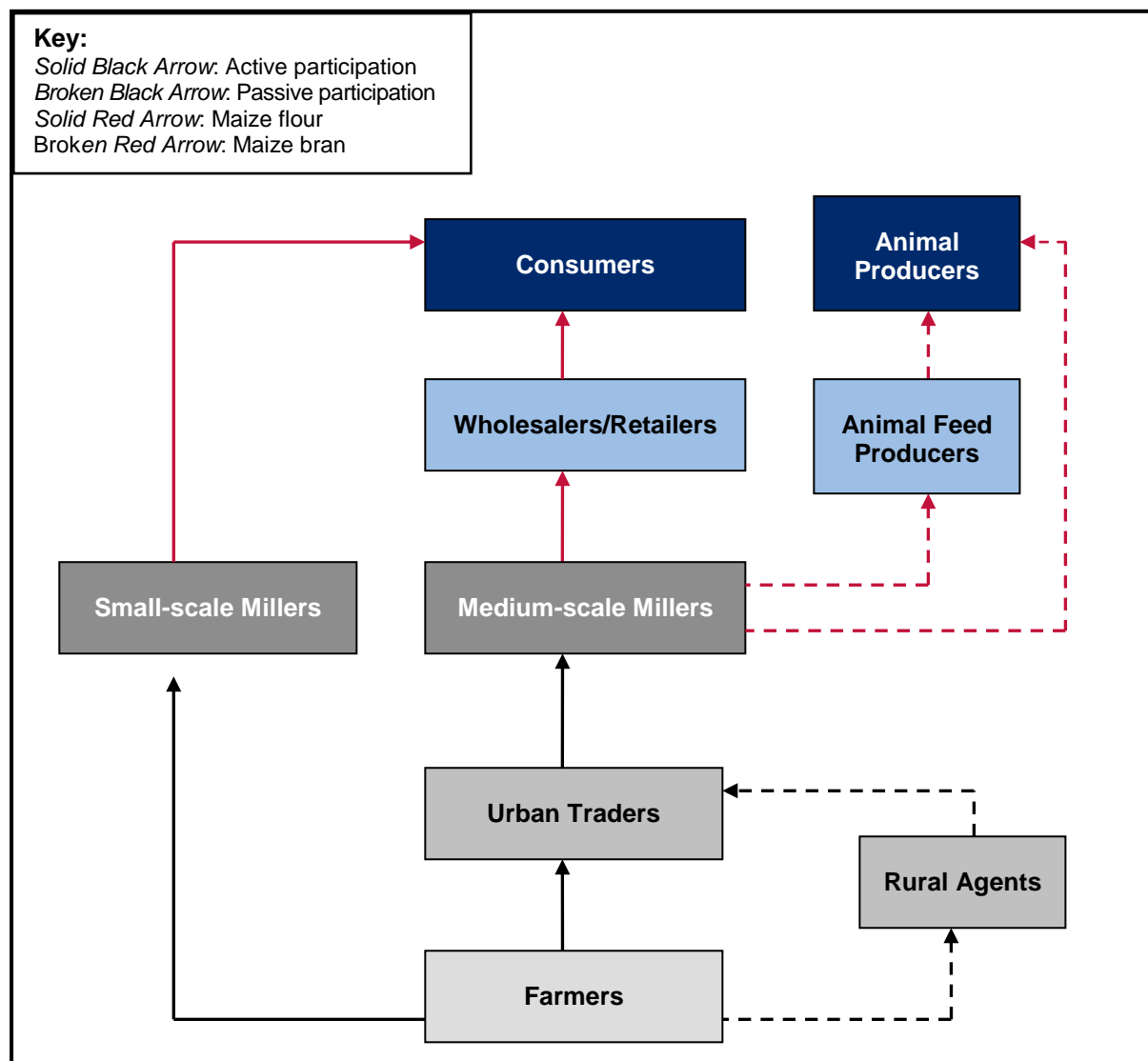
<sup>13</sup> USAID East Africa Value Chain Assessment, January 2008, pg 65

<sup>14</sup> [http://www.ugandaexportsonline.com/exp\\_performance\\_2007.pdf](http://www.ugandaexportsonline.com/exp_performance_2007.pdf)

750,000 MT of maize produced per annum, 15% is lost through post harvest losses and 20% retained at the household for consumption and seed.<sup>15</sup>

The maize supply chain comprises numerous key players or actors: producers, traders, commodity brokers, grain millers, animal feed blenders, local brewers and consumers. These key players vary by nature and contribution to the maize trade as described below.

**FIGURE 2: THE MAIZE SUPPLY CHAIN IN NORTHERN UGANDA**



## 1. MAIZE PRODUCERS

Maize was not originally a staple crop in the Acholi and Lango sub-region, but was introduced by relief agencies in the last 20 years due to insurgency. It was grown mainly near the IDP camps as a subsistence crop. Most is produced by small-scale farmers with 0.5 to 1.0 acre under maize production in Acholi; acreage is on average double in Lango. Nearly all of the small-scale farmers grow a mixed variety of Longe 4 and Longe 5 in the second rainy season, but do not use

<sup>15</sup> Maize Market Assessment and Baseline Report – April 2003, The RATES Center  
[http://www.ratescenter.org/pdf/maize/maize\\_uganda\\_apr03.pdf](http://www.ratescenter.org/pdf/maize/maize_uganda_apr03.pdf), (According to assessments carried out by IDEA Project.)

other improved inputs and lack post-harvest handling equipment. Longe 4 is an open pollinated variety of maize developed to be fast-maturing and drought-resistant. Longe 5 is also an open pollinated variety of what is described as quality protein maize (frequently referred to by the abbreviation QPM). QPM was developed to be more nutritious and it was initially anticipated that it would receive a higher price as it would be highly sought after for human and animal feed. However, there is little evidence of a price premium being offered to farmers. Maize is grown in most of the target sub-counties with low volumes of marketable surplus. Most Acholi and Langi consider it ‘lighter’ (less nutritious or filling) than millet, their traditional staple food and therefore place less emphasis and consequently invest less resources on maize cultivation. However, it is popular among the younger generation (less than 30 years of age) who has become accustomed to it through WFP rations distributed to IDPs.

**TABLE 3: ECONOMICS OF MAIZE CROP PRODUCTION PER ACRE**

Description	Minimum, USH	Maximum, USH
Planting Seeds (USH 2000 per Kg)	20,000	20,000
Land Clearing (hand hoe vs ox plough)	30,000	60,000
Planting	20,000	20,000
Weeding (once vs. thrice)	30,000	90,000
Harvesting, etc	40,000	50,000
<b>Total Average Cost per Acre</b>	<b>140,000</b>	<b>240,000</b>
<b>Total Revenue (500Kgs Vs 1000 Kgs)</b>	<b>150,000 – 175,000</b>	<b>300,000 – 350,000</b>
<b>Gross Margin</b>	<b>10,000 – 35,000</b>	<b>60,000 – 110,000</b>

Note: These details are summarized from field interviews with 168 farmers in 15 sub counties visited

Maize yield per acre varies from 500 kg when the input costs are the minimum to 1,000 kg. It is highest in Agoro sub county where ox-ploughs are used, irrigation is practiced and therefore more weeding done before harvest. A farmer currently gets USH 300 to 350 per kg of maize sold.

## 2. RURAL AGENTS

Rural agents handle all traded maize in the sub-counties. The main function of the agents is to buy and/or assemble maize from numerous scattered small-scale farmers in inaccessible areas. These rural agents use bicycles and alert the urban traders and processors when sufficient quantities are available for collection. It is the urban traders and processors who arrange transport to collect the maize from farmers whom they pay on a cash basis. Since they live in rural areas, the rural agents form a reliable linkage between farmers and urban traders and processors/millers. The rural agents make a profit of between USH 5 and USH 10 per kg of maize assembled.

## 3. URBAN TRADERS

Urban traders live in major trading centers and district towns. Their main activities include networking with rural agents, serving as a market outlet for farmers, and assembling and bulking maize grain before selling it to milling institutions within Acholi and Lango sub-region. In the Lango region there is a greater concentration of processors than in the Acholi region. Urban traders also provide sacks to farmers as well as information about price and volumes within their areas of operation. To cover the costs of rural agents and transport, urban traders sell their maize at USH 380 to USH 400 per kg, mostly to processors. Consequently, as shown in Table 4 below, the traders’ profit margin is between USH 60 and a loss of USH 20 per kg sold.

**TABLE 4: TRADE ECONOMICS FOR URBAN TRADERS**

Description	Minimum, USh	Maximum, USh
Purchase of 1 kg of maize grain	300	350
Transport and cost of sack	35-40	35-40
Rural agent commission	5-10	5-10
<b>Total cost per kg</b>	<b>340 - 350</b>	<b>390 - 400</b>
Selling Price per kg	380 – 400	380 - 400
<b>Profit per kg</b>	<b>30 - 60</b>	<b>(20) - 10</b>

Note: These margins were collaborated by five traders in Lakwana, Lokung, Acholibur, Agoro and Ngai sub-counties.

#### 4. PROCESSORS/ MILLERS

The maize flour value chain entails the conversion of maize grain into flour and other byproducts such as bran and germ. The principal players in this value chain are small-, medium- and large-scale millers.

The majority of millers can be classified as small-scale and are scattered in various rural trading centers as well as in the remaining IDP camps, predominantly carrying out customized maize milling. Small-scale millers operate hammer mills of less than 10 tons per day mainly on a contract basis—that is, they mill customers’ maize at a fee. Except for the motors and engines, the mills are locally fabricated in Uganda and are often poorly maintained, which means that they rarely achieve maximum capacity. Their design can only produce “whole grain” nutritious maize flour, referred to by most people as “No. 2”. Daily production levels vary depending on the consistency of power supply, type of machines and maize grains brought. Processing costs range from USH 50 to USH 100 per kg depending on location. The price for maize flour “No.2” ranges from USH 600 to USH 800 per kg. It is higher in the regions close to Sudan and in trading centers and towns. As shown in Table 5 below, small-scale maize millers make a profit of between USH 100 and USH 370 per kg of maize processed.

**TABLE 5: TRADE ECONOMICS FOR A SMALL-SCALE MAIZE MILLER**

Description	Minimum, USh	Maximum, USh
Cost of 1 kg maize grain	380	400
Milling per kg	50 – 100	50 - 100
<b>Total cost per kg</b>	<b>430 – 480</b>	<b>450 - 500</b>
Selling price per kg of No.2	600 – 800	600 - 800
<b>Profit per kg</b>	<b>120 – 370</b>	<b>100 - 350</b>

Note: The information is from interviews of 17 millers: 1 in Acholibur, 3 in Okwang, 1 Ngai, 5 in Opit (Lakwana), 6 in Adwari and 1 in Atiak.

Medium-scale millers are mainly based in town centers such as Gulu, Lira, Kitgum, and Kalongo (Pader District) and offer both contract and trade-based milling services to institutions and urban traders. Medium scale mills first hull the maize to remove bran and then produce “innutritious” No.1 flour. Maize bran is sold to poultry and livestock farmers. No. 1 flour is mainly sought after by Urban households whilst No. 2 dominates the rural market, this is however a function of processing availability rather than consumer preference. Rural households are consuming No. 2 flour milled locally from their own harvest. Medium scale millers do not produce No. 2 flour because the businesses are orientated towards the urban markets and the product specification of that market. Medium-scale millers operate mills with capacities of up to 50 tons per day. Although they are involved in grain storage, the volumes handled are limited by storage space and working capital. It should be noted that these medium-scale mills purchase most of their

maize grains outside the Acholi and Lango sub-region for sale within the region and to Southern Sudan. They mill for others at US\$ 70 to US\$ 100 per kg. For every 100 kg of maize grains, 70 to 73 kg of No.1 flour is produced. The millers sell No. 1 flour at US\$ 800 to US\$ 1100 to wholesalers and retailers. Maize bran is normally sold at US\$ 100 per kg to poultry and animal farmers and feed meals manufacturers. As shown on the next page in Table 6, medium-scale maize millers make a profit of between US\$ 87 and US\$ 383 per kg of maize processed.

**TABLE 6: TRADE ECONOMICS FOR A MEDIUM-SCALE MAIZE MILLER**

Description	Minimum, US\$	Maximum, US\$
Cost of 1 kg of maize grain	380	400
Milling costs for 1 kg	70 – 100	70 - 100
Total costs for 1kg maize grain	450 – 480	470 - 500
Equivalent Selling Price of No.1 flour produced (70% - 73%)	560 – 803	560 - 803
Price of maize bran	27- 30	27 - 30
<b>Total price for No.1 and Bran from 1 Kg of maize grain</b>	<b>587 – 833</b>	<b>587 - 833</b>
<b>Profit Margin per kg of maize grain</b>	<b>107 – 383</b>	<b>87 - 363</b>

Note: The data was averaged from 7 millers: 1 in Kitgum TC, 5 in Lira TC and 1 in Gulu

Large-scale processors are only found in Kampala but do not process any maize from the Acholi and Lango sub-region because these areas do not have significant surplus to sell out of the region except to neighboring Sudan, which takes not only maize flour but also simsim, sorghum and wheat flour. The large-scale processors buy their maize grain from urban traders and large-scale traders from Eastern, Central and Western Uganda and sell over 75 percent of their maize products to WFP. The processors carry out such activities as cleaning, de-stoning, drying, fumigating and milling into flour.

## 5. LARGE-SCALE TRADERS/EXPORTERS

WFP is the largest exporter of maize grains and flour from Uganda. In 2007, it purchased about 250,000 tons of maize grain and flour of the one million tons of maize produced in-country. It exported 127,000 tons to the neighboring countries of Rwanda, Burundi, the Democratic Republic of Congo, Kenya and Sudan. WFP uses two procurement mechanisms:

1. The agriculture and marketing support program purchases grains mainly from farmer groups who can supply at least 50 MT and by other community based organizations and NGOs. WFP's Vulnerability and Assessment Unit ensures that farmer groups are paid a fair price. Producer groups are also assisted with market information on commodity prices throughout the country. This program is working well in eastern, central and western Uganda where farmers have good surpluses every year.
2. WFP also purchases from traders who can bulk and/or supply at least 500 metric tons of grains and flour. Traders register as pre-qualified suppliers through tenders.

## B. RICE

Rice prices have risen by as much as 40% over the last few years<sup>16</sup> and are predicted to continue to rise for the foreseeable future<sup>17</sup>. Prices for white rice rose to \$873 per metric ton in June of

<sup>16</sup> "New Rice Varieties Boost Africa's Rice Production but..." May 23<sup>rd</sup>, 2008, Pan African News Agency

<sup>17</sup> 2007 Africa Rice Trends, WARDA

2007, up from a yearly average price of \$244.37 per metric ton in 2006. World rice consumption is growing at 4% per year, outstripping production growth. Global demand is growing, but production is likely to rise only slightly.

“Ugandan rice is fantastic and there is no need to import rice if farming is done properly—that it is, by default, organic by EU and U.S. standards and can fetch a premium of up to 35 percent on the international market.” - Mr Lokesh Saran, Marketing Manager, Olam (U) Ltd

Projections by the U.S. Department of Agriculture estimate that global demand will grow by 1 percent per year while global supply is expected to increase by 7 percent over the next 10 years. The demand for rice in sub-Saharan Africa is double the rate of population growth and consumption is growing faster than that of any other major staple food.

In Uganda, over 30 per cent of rice is imported (about 60,000 MT<sup>18</sup>), which amounts to \$50 million annually. This combined with the 120,000 MT of milled rice being produced locally means that the domestic rice market in Uganda is approaching 180,000 MT<sup>19</sup>. Demand for rice in Uganda has increased dramatically since 2001 and while domestic production has increased over the last five years, a significant trade imbalance still exists.

**TABLE 7. RICE PRODUCTION AND UTILIZATION STATISTICS<sup>20</sup>**

Cereal supply and utilization data	thousand tonnes
Previous year production (incl. paddy rice)	170
Previous five years average production (incl. paddy rice)	139
Previous year imports	60
Previous five years average imports	66
<b>2008 Domestic Availability</b>	<b>120</b>
2007 Production (incl. paddy rice)	180
2007 Production (incl. milled rice)	120
<b>2008 Utilization</b>	<b>180</b>
Food use	179
Non-food use	-
Exports or re-exports	1
Possible stock build up	-
<b>2008 Import Requirement</b>	<b>60</b>
Anticipated commercial imports	59
of which: received or contracted	-
Food aid needs	1
<b>Estimated Per Capita Consumption (kg/year)</b>	<b>6</b>

Rice production was recently launched in most parts of Uganda but many farmers are not familiar with its cultivation or the required agronomic practices. The New Rice for Africa (NERICA) variety, developed by the West African Rice Development Authority (WARDA) as a blend of African and Indian varieties, was formally released in 2002. The introduction of NERICA in Uganda is one of the government’s strategies to achieve a reduction in poverty and food insecurity. USAID, through the Agricultural Productivity Enhancement Program (APEP), and the Japanese Government through SESAKAWA and the Japanese International Cooperation Agency (JICA) have done a lot of work in coordinating the growing of rice in Uganda. In

<sup>18</sup> USAID/APEP Agribusiness Technical Reference Guides - 2008

<sup>19</sup> “Africa: New Scheme to Raise Rice Output On the Cards”, All Africa.com, June 9<sup>th</sup> 2008”

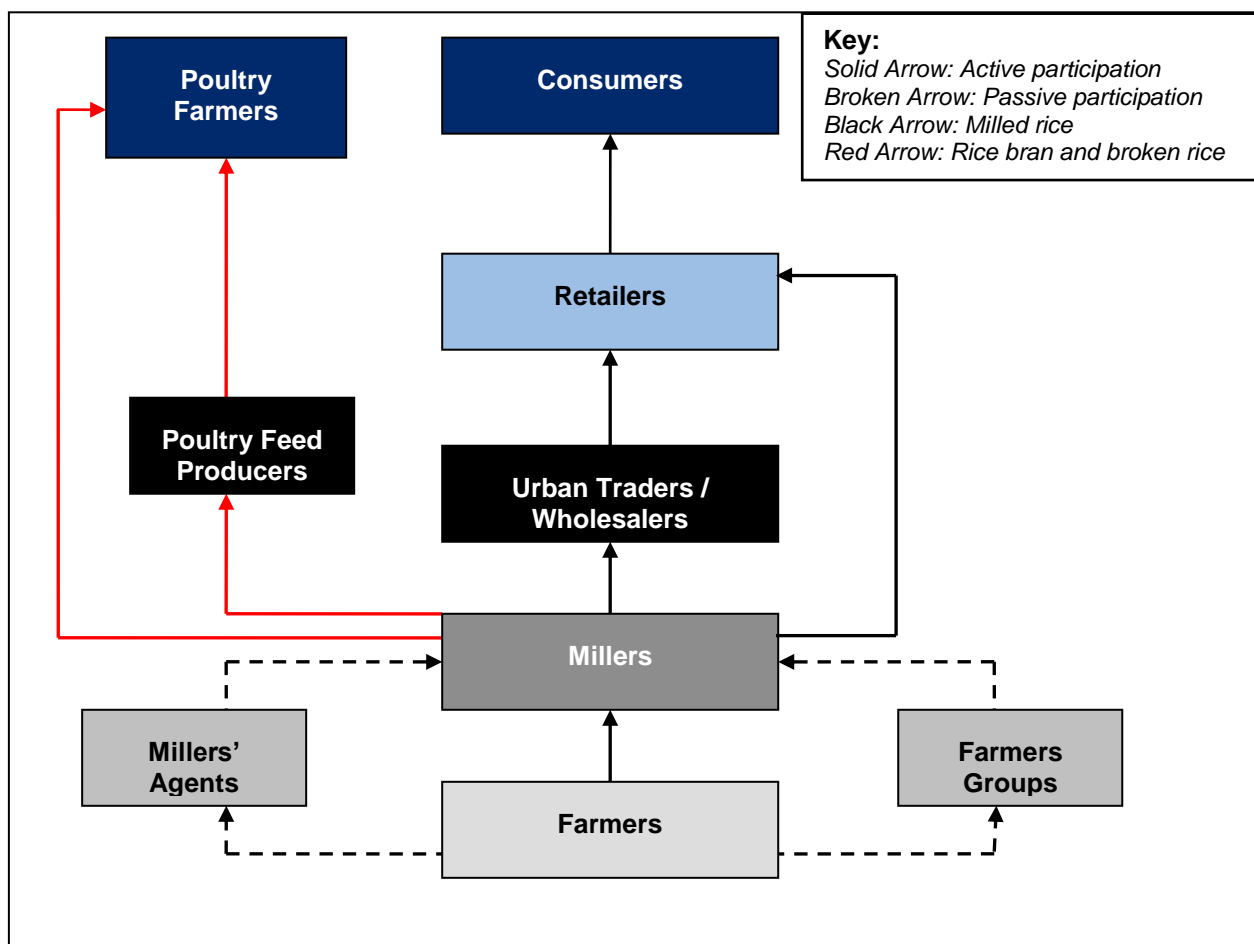
<sup>20</sup> FAO, Francesco Delre

addition, the involvement of the Vice President of Uganda in the promotion of the growing of upland rice has led to an increase in the number of upland rice farmers from 4,000 in 2004 to 45,000 countrywide in 2008, with over 50,000 acres of rice currently being cultivated.

The land in Acholi and Lango is very suitable for rice growing because of its gentle slope. Rice is largely grown as a cash crop in most sub-counties in Acholi and Lango regions with the exception of sub-counties in Pader District. Rice was originally introduced in the Acholi sub-region in the 1950s, and Sindane (Gulu) rice was very popular in the 1980s and was grown purely as a cash crop. Upland rice (Sindane and NERICA) have been promoted recently by MAAIF (Ministry of Agriculture, Animal Industry and Fisheries) and JICA. NERICA and Sindane absorb the flavor of sauces, while “Super” being an ‘aromatic’ variety has its own flavor. NERICA variety takes up to three months to mature while Super takes up to four and Sindane up to five. Super is grown in swampy areas while Sindane and NERICA are grown on upper areas, but can also grow in swampy areas. Upland rice is rain-fed and depends on weather patterns. Therefore, NERICA rice can be grown twice a year in the region. Key players in the rice supply chain include small-scale farmers, millers and urban traders.

“The Vice President’s vision is to develop a rice industry from grains, food, wine, beers from rice, etc.” - Deputy Principal Private Secretary Mr. Vincent Musubire

**FIGURE 3: THE RICE SUPPLY CHAIN IN NORTHERN UGANDA**





## 1. SMALL-SCALE FARMERS

Most farmers plant between one and two acres of rice in the Acholi sub-region and sell their unhulled rice to rural traders or agents who collect it from their farms—the average acreage in Lango is double. Rural farmers, and some farmer groups, with large holdings transport the rice to millers and mill it prior to sale. Sale at the farm gate is attributed to family urgent needs and relatively high costs of transport to the milling centers. Table 7 gives the average costs to plant an acre of rice.

Farmers are able to produce 800 kg of Super and Sindane rice compared to 3 MT of NERICA unmilled rice from one acre in a year—with the highest yield in Agoro sub-county, Kitgum District. Dr. James Otto, the Kitgum District NAADS Coordinator reported that Agoro sub-county produced 250 MT in 2007 that was sold to Upland Rice Millers in Jinja. The farm gate price per kg of unmilled rice is US\$ 700 for NERICA to US\$ 900 for Super and Sindane, depending on the time of the sale and the rice variety.

**TABLE 7: ECONOMICS FOR PLANTING ONE ACRE OF RICE**

Description	NERICA, US\$	Super, US\$
Planting seeds (US\$ 2,500 per kg)	100,000	100,000
Land clearing	30,000	60,000
Planting	30,000	30,000
Weeding	30,000	90,000
Harvesting, etc	60,000	90,000
Total average cost per acre	250,000	370,000
Yield Per Season	1000 – 1500 Kgs	800 – 1000 Kgs
<b>Total Revenue per Season</b>	<b>700,000 – 1,050,000</b>	<b>720,000 – 900,000</b>
<b>Gross Margin per Season</b>	<b>450,000 – 800,000</b>	<b>350,000 – 530,000</b>
<b>Gross Margin per Year</b>	<b>900,000 – 1,600,000</b>	<b>350,000 – 530,000</b>

Note: NERICA production is twice a year and up to 3MT in a year. NERICA is planted on upland areas while Super is in swampy areas.

## 2. RURAL AGENTS

Rural agents handle most traded rice in the sub-counties. Their functions are similar to those of the maize agents except that they also normally supply, free of charge, the millers' gurney bags to the farmers and advise the rice millers when there is sufficient rice for the millers to send transport for it. The rural agents make US\$ 5 to US\$ 10 per kg of rice assembled. This price variance is attributable to the availability of and demand for rice in the market

## 3. MILLERS

Rice mills are located mostly in the town councils of Gulu, Lira, Kitgum, Kalongo and Pajule (Pader District) in addition to some in a few trading centers like Rackoko in Pader District and Ngai in Oyam District. With the exception of one mill in Gulu that can de-stone and grade (into polished, unpolished and broken), the majority of mills produce a single grade type of rice which is polished whole grains mixed with broken ones and stones.

Mills act as marketing centers where farmers and rural traders, millers and urban traders conclude deals. Hulled rice is assembled and sold by large-scale farmers, farmer groups and millers to the urban traders and wholesalers. In order to attract business, millers normally supply gunny bags and provide transport to farmers to bring rice to their facilities. Some millers also assist the farmers to open up and clear their land; this is most frequently seen in Amuru District. A few of the large-scale farmers absorb transport costs to milling centers.



Most mills charge USh 70 to USh 100 to mill 1 kg of rice, with the lowest charge being found in Kitgum Town Council – Lalak Industrial Millers has installed the only rice mill (and maize mill) in town and wants to attract farmers in Kitgum District to its facility since most of them have been taking their maize and rice to Lira and Gulu Town Councils for milling. For each 100 kg of un-milled rice, 65 to 67 kg of milled rice, 10 to 13 kg of husks and 20 to 23 kg of rice bran and broken rice can be produced. Rice bran and broken rice are sold by the farmers, millers and traders at USh 50 to USh 200 per kg to chicken farmers. The whole polished grain is sold by the farmers to the millers at prices ranging from, USh 1,400 to USh 1,500 per kg for NERICA and, USh 1,600 to USh 1,800 per kg for Super and Sindane (the most expensive). As shown in Table 8 on the next page, farmers make profits ranging from USh 50 to USh 282 for each kg of rice milled. The millers then sell to the urban traders and wholesalers at prices ranging from USh 1,500 - USh 1700 per kg for NERICA and USh 1,700 to USh 2,000 per kg for Super and Sindane.

**TABLE 8: ECONOMICS FOR MILLING 100 KGS OF RICE BY A FARMER**

Description	NERICA, USh	Super/ Sindane, USh
100 kg of rice	70,000	90,000
Milling	7,000 – 10,000	7,000 - 10,000
Total cost of 100 kg milled	77,000 – 80,000	97,000 - 100,000
Milled Rice Output	65-67 Kgs	65-67 Kgs
Sale Price of 1Kg milled rice	1400 – 1500	1600 - 1800
Revenue from milled rice	95,000 – 100,500	104,000 – 120,600
Amount of Bran & broken rice	20 - 23 Kgs	20 – 23 Kgs
Sale price of 1 Kg Bran & broken rice	50 – 200	50 - 200
Revenue bran and broken rice	1,000 – 4,600	1,000 - 4,600
<b>Total farmers' Revenue</b>	<b>96,000 – 105,100</b>	<b>105,000 – 125,200</b>
Total (additional) farmers' mark up	16,000 – 28,100	5,000 – 28,200
<b>Profit per kg</b>	<b>160 – 281</b>	<b>50 - 282</b>

Note: This is derived from the information given by 6 millers – 2 in Gulu TC, 1 in Kitgum TC, 1 in Ngai TC and 2 in Lira TC.

**TABLE 9. TRADE ECONOMICS FOR A RICE MILLER**

Description	NERICA, USh	Super, USh
Cost of milled rice from farmers per kg	1,400 – 1,500	1,600 - 1,800
Bag, transport and commission	50 – 70	50 – 70
<b>Total cost to miller</b>	<b>1,450 – 1,570</b>	<b>1,650 - 1,870</b>
Selling price to wholesalers	1,500 – 1,700	1,700 - 2,000
<b>Mark up per kg</b>	<b>(70) – 250</b>	<b>(170) - 350</b>

Note: This is derived from the information given by 6 millers – 2 in Gulu TC, 1 in Kitgum TC, 1 in Ngai TC and 2 in Lira TC.

#### 4. URBAN TRADERS

Urban traders are primarily wholesalers and importers who either purchase hulled rice from the millers and farmers or import it from other countries. Urban traders are mainly based in Kampala with a few living in Gulu and Lira towns. Traders usually clean, consolidate and bulk the rice. Much of the rice is sold to traders from southern Sudan, and the rest is taken to Kampala.

## C. GROUNDNUT

Less than 6% of the world groundnut crop is traded internationally<sup>21</sup>, with export sales averaging close to US\$ 1 billion dollars per year<sup>22</sup>. Most of the world's groundnuts are produced and consumed in developing countries. About 48% of the world output is for food uses and 52% is crushed, producing groundnut oil and cake. Consumption patterns vary widely from country to country.

Groundnut production in African countries fluctuated greatly, though it never exceeded 8% of the world output over the last decade. Yields per hectare are low, because of a combination of factors: unreliable rains; mostly non-irrigated cultures; small-scale, traditional farming with little mechanization, outbursts of pests and diseases and use of low-yielding seed varieties; and increased cultivation on marginal land. Political instability and the frequently unsupportive oilseed policies have also played their role.

Groundnut is an important food crop in northern Uganda. Even before the civil strife, groundnut was among the major food crops that were grown by nearly every household in the region. However, the war disrupted normal production of groundnuts as farmers lost access to their land. With peace and stability returning to the region, many resettled households, especially those in the Lango region, have revived groundnut production. Most of the groundnut now produced by households is being consumed at home through direct roasting and as paste (peanut butter) locally known as *olel* in Acholi or *odi* in Lango sub-region. Any surplus production is marketed nationally and regionally (Sudan and Kenya). According to FAO (2006), Uganda last exported groundnuts (in shell) in 1999 earning the country \$ 228,000. In 2002, 45 Mt of shelled groundnuts were sold bringing in \$75,000 (table 9). Recently, however, the country has been a net importer of groundnuts for example in 2004, \$10,000 were spent on 74MT of shelled groundnuts.

The largest market for groundnuts is in Owino market (50 traders) in Kampala which receives about 20,000 tones of groundnuts every month while other major groundnut markets in Kampala are Nakawa and Kalerwe which receive a total of approximately 10,000 MT per month<sup>24</sup>.

Groundnut Production (in shells) <sup>23</sup>			
Year	Tons	Area Harvested (HA)	Yield per HA (KG)
2000	139,000	199,000	698
2001	146,000	208,000	702
2002	148,000	211,000	702
2003	130,000	216,000	601
2004	155,000	221,000	701
2005	159,000	225,000	706
2006	154,000	230,000	669

Figure 4 below shows the key players involved in the groundnut value chain in northern Uganda.

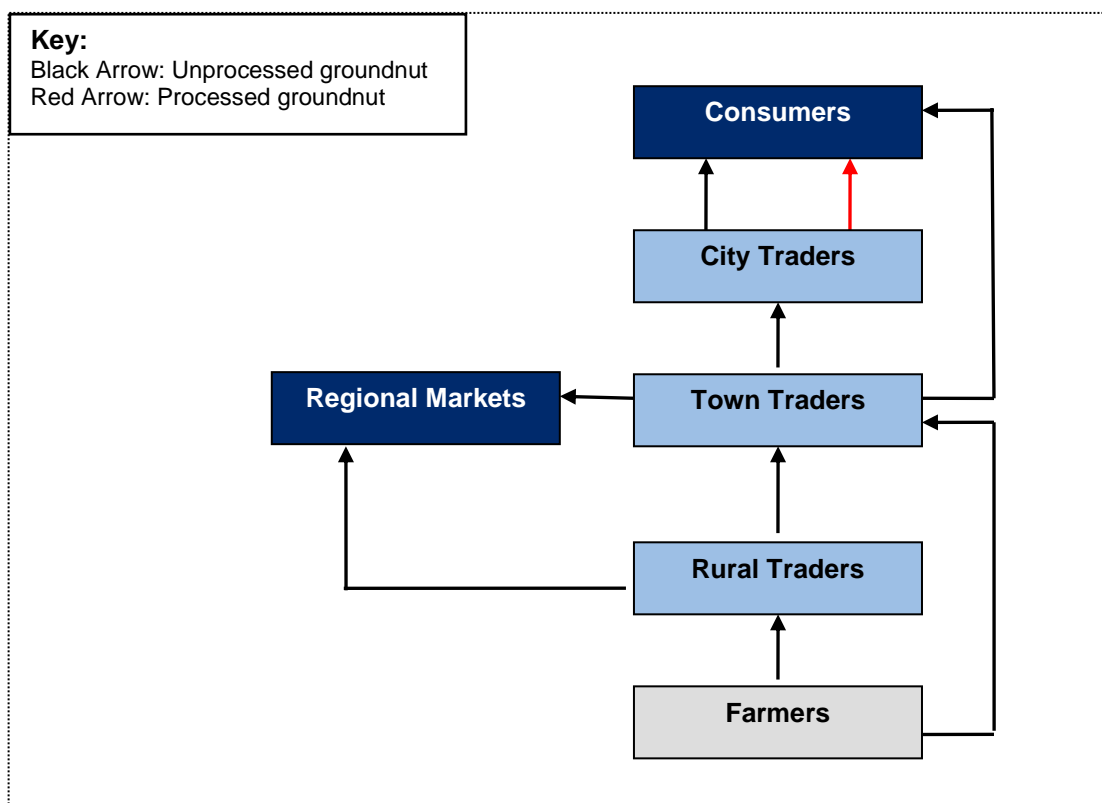
<sup>21</sup> Imani Development Consultant Research

<sup>22</sup> Capacity development of CRS and Partner Agencies on Agro Enterprise Development (Gulu) – Market Chain Analysis of Groundnuts, September 2007

<sup>23</sup> FAO STAT - <http://faostat.fao.org>

<sup>24</sup> Capacity development of CRS and Partner Agencies on Agro Enterprise Development (Gulu) – Market Chain Analysis of Groundnuts, September 2007

**FIGURE 4: GROUNDNUT SUPPLY CHAIN IN NORTHERN UGANDA**



### 1. FARMERS

Groundnuts are grown mainly by small-scale farmers who plant an average of one to two acres each. Though grown for subsistence needs, farmers are able to produce surplus groundnuts in good seasons. This is sold to rural traders as either unshelled or shelled groundnuts.

Major varieties grown include Red Beauty, Serenut and other traditional Valencia type varieties. Red Beauty, as the name suggests, is a Red Valencia type groundnut, which has a bright attractive color sought by consumers and consequently buyers. The major drawback of this variety is that it is disease-prone (susceptible, in particular, to Rosette virus) and farmers can lose a very high percentage of potential harvest volumes. Serenut was developed in Uganda and has four sub-varieties commonly categorized as Serenut 1, 2, 3 and 4. Each has its own unique breeding traits, though all are recognized for being disease-resistant. Unfortunately Serenut is not as desired by consumers due to perception of taste and color, and it therefore fetches a lower price in the market.

At the farm level, the profitability of groundnut production depends on the volume of output, price of output, and total cost of production (Table 13). Under conditions of low-cost production (e.g., using seeds saved from previous harvests and no chemical inputs) as found in some sub-counties, farmers obtain positive gross margins even if the output falls to 10 bags per acre and the price is as low as US\$ 40,000 per bag (1 bag = 50 Kgs = US\$ 800 per Kg) of unshelled groundnuts. Simple value addition in the form of shelling the gnuts reported by one farmers in Lalogi sub-Sounty showed the price offered more than doubled to US\$ 1600-1800 per Kg (accuracy is yet to be established). However, if the costs of production become high, then the

farmer might experience negative returns amounting to USh 70,000/acre especially under conditions of low output (e.g., first planting season of 2008) and low output prices. Due to unfavorable weather conditions, namely drought and the disease-susceptibility of the favored Red Beauty variety, farmers this season have reported yields as low as four bags per acre.

**TABLE 13: ECONOMICS OF GROUNDNUT CROP PRODUCTION (1 ACRE)**

Farm operation	Nature of Production		
	Low cost	Average cost	High cost
Land clearing	30,000	30,000	30,000
Ploughing (twice)	100,000	110,000	120,000
Seed	80,000	90,000	100,000
Weeding (twice)	100,000	110,000	120,000
Harvesting	80,000	90,000	100,000
<b>Total prod. Costs (USh)</b>	<b>390,000</b>	<b>430,000</b>	<b>470,000</b>
Output* (bags)	10 - 20	10 - 20	10 - 20
Price (USh/bag)	40,000 – 50,000	40,000 – 50,000	40,000 – 50,000
<b>Total revenue (USh)</b>	<b>400,000 – 1,000,000</b>	<b>400,000 – 1,000,000</b>	<b>400,000 – 1,000,000</b>
Gross Margin (USh)	10,000 – 610,000	(30,000) – 570,000	(70,000) – 530,000

Note: Groundnut yields range between 10 – 20 bags of unshelled groundnuts; and price of a bag ranges from USh 40,000 to USh 50,000. \*Based upon figures for an average year rather than the first season of 2008.

## 2. RURAL TRADERS

Rural traders are found in sub-county trading centers or camps such as Agoro, Pabbo, Puranga, Orum and Minakulu. In a typical year they buy groundnuts amongst other crops directly from farmers and sell to town traders in Lira and Gulu. However, as production volumes were so poor in the ‘A’ season 2008 in the Acholi region, some traders interviewed reported that they were importing groundnuts to sell to farmers for food and seed from neighboring districts such as Dokolo, which had recorded higher groundnut production volumes. In areas bordering Sudan, such as Agoro Sub-county, some rural traders are involved in informal cross-border trade of produce including groundnuts.

After buying from farmers, rural traders usually shell groundnuts before selling to town traders. They spend USh 500/bag for shelling using a manual appropriate technology style hand-operated device. It is important to note that one bag of unshelled groundnuts produces about 35 kg of shelled groundnuts. In some cases, rural traders buy shelled groundnuts from farmers at a price of USh 1,600 per kg for Serenut and USh 1,700/kg for Red Beauty. Then, they sell shelled groundnuts to town traders at a price of USh 1,800/kg for Serenut and USh 1,900/kg for Red Beauty (Table 14). Hence, they make a margin of Sh 200/kg irrespective of the type of groundnut, which is spuriously differentiated into white and red types.

**TABLE 14: MARKETING MARGINS FOR RURAL TRADERS IN NORTHERN UGANDA**

Type	Buying Price (USh/kg)	Selling Price (USh/kg)	Margin (USh/kg)
Serenut (white)	1,600	1,800	200
Red Beauty	1,700	1,900	200

Note: Some local groundnut varieties have white seed coats

### 3. TOWN TRADERS

Town traders are those produce traders operating in Lira and Gulu. They deal in general produce including groundnut and are involved both in wholesale and retail business. Their major suppliers of groundnut are rural traders. Sometimes town traders buy directly from farmers and hence provide transport services to the latter. From Lira and Gulu, groundnuts are sold to traders hailing from Mbale, Busia and Malaba. But for Kampala and Sudan markets, town traders deliver groundnuts themselves.

Marketing margins obtained by town traders are also invariant of the type of groundnut handled. They buy the white type, at US\$ 1,800/kg and the red at US\$ 1,900/kg and sell it at a wholesale price of US\$ 2,000/kg and US\$ 2,100/kg respectively. Hence, they make a margin of US\$ 200/kg (Table 15).

**TABLE 15: MARKETING MARGINS FOR TOWN TRADERS IN NORTHERN UGANDA**

Type	Buying Price (US\$/kg)	Selling Price (US\$/kg)	Margin (US\$/kg)
Serenut (white)	1,800	2,000	200
Red Beauty	1,900	2,100	200

### 4. CITY TRADERS

City traders are those produce traders operating in Kampala. Their groundnut suppliers come from various places: Lira, Gulu, Soroti, Masaka and Hoima. From Lira and Gulu, they obtain the Red Beauty type of groundnut. Buying or wholesale prices for groundnuts in this market also depend on its type. Red Beauty is bought at US\$ 1,900 to 2,000/kg while the price range of Serenut is US\$ 1,600 to 1,700/kg. The selling or retail prices are also as follows: Red Beauty: US\$ 2,300/kg and Serenut: US\$ 2,200/kg. Thus, city traders obtain variable margins: Red Beauty: US\$ 300 to 400/kg and Serenut: US\$ 500 to 600/kg (Table 11).

When groundnuts are processed into value-added products (i.e., groundnut flour, called Ebinyeebwa, and groundnut butter), these are sold as follows: flour for US\$ 2,200/kg and butter for US\$ 2,400/kg. Resultant margins are then as follows: US\$ 500 – 600/kg for flour and US\$ 400 – 500/kg for butter. It should be noted that although Serenut (creamy white types—Serenut 1 and 3) is suitable for making Ebinyeebwa and Red Beauty is good for butter production because of their distinct colors, traders sometime mix the two when making butter, leading to higher margins. Moreover, Serenut 1 and 4 have red coats which can blend well with Red Beauty in the preparation of butter.

**TABLE 16: MARKETING MARGINS FOR GROUNDNUT AND ITS VALUE-ADDED PRODUCTS IN KAMPALA**

	Buying Price (US\$/kg)	Selling Price (US\$/kg)	Margin (US\$/kg)
Red Beauty	1,900 – 2,000	2,300	300 – 400
Serenut	1,600 – 1,700	2,200	500 – 600
Ebinyeebwa	1,600 – 1,700	2,200	500 – 600
Butter	1,900 – 2,000	2,400	400 – 500

## V. VALUE CHAIN CONSTRAINTS

This section looks at a comprehensive list of value chain constraints that were identified by, and which are broken down in two categories – production and marketing.

### A. PRODUCTION CONSTRAINTS

The majority of the factors listed below contribute directly to the issue of low productivity at the farm level. Low productivity affects the whole production system and directly and indirectly affects the value chain. Farmers interviewed in the course of the field research frequently commented, *“Buyers don’t come here as we have nothing to sell.”* Research conducted by the Institute of Public Health Makerere during March 2008 revealed that households in the Acholi region had better slightly higher crop production volumes per acre than the Lango region, however production levels in both regions neither satisfied household needs or could be described as a marketable surplus.

Low yields combined with marketing at or near the time of harvest also means that farmers achieve significantly lower incomes than they could if they had more to sell later. Sale of food stocks for cash needs is also ‘Robbing Peter to pay Paul,’ as food will have to be bought for household consumption at a later date. All of this reduces available cash for productive investments such as the purchase of improved seed or fertilizers, which allied to a lack of access to credit, continues the cycle.

#### 1. Farming and farm inputs

Most farm inputs, such as seeds, pesticides, herbicides, pangas, hoes and ox ploughs are accessed through a few Uganda National Agro-input Dealers Association (UNADA)-supported distributors and stockists spread out in the region through the “Voucher for Work” and of recent “Cash for Work” program funded by ASPS and implemented by AT Uganda in conjunction with UNADA. However, there are challenges to the farm input sector ranked in order as follows:

1. Delays in procurement and delivery of planting seeds to the distributor and stockists, resulting in farmers missing the planting season.
2. The implementers of “Voucher for Work” sometimes delay in issuing vouchers to farmers and this leads to the stockists holding inputs they cannot sell for cash
3. Items such as ox and ox ploughs can only be accessed by a group of farmers due to the high initial purchase price
4. The view of the farmers is that the inputs are overpriced
5. Some farmers claim that they are overworked and are underpaid in the work for vouchers or cash schemes
6. Uneven packages and weights—some bags of the same seeds weigh more than others

As with agricultural production, serious agricultural extension services are beginning again for the first time in a generation. Consequently, farmers have been in an agricultural extension ‘blackout,’ reliant on dissemination of information from extension staff of NGOs, who have provided an invaluable bridge between researchers and farmers. Much of this information has remained largely theoretical for farmers as up until recently farmers have not been able to practice on a large-scale the techniques being promoted. Antiquated farming and sometimes obsolete practices will continue to dominate until there has been time for farmers to adopt new



technologies being promoted through first-hand experience. Until the process of demonstration and adoption achieves critical mass, yields will remain comparatively low. Lack of agricultural knowledge is also acting as a barrier to the youth and is preventing them from engaging in a viable income generating activity. Lack of technical knowledge is also dissuading some farmers from engaging in activities such as rice production, because of fear of the unknown.

Demand for all planting seeds has increased elsewhere in Uganda whilst supply in the immediate term has dwindled because of droughts and flooding. Maize represents about 25 percent of all improved seeds sold on the market. Only about 12-14 percent of farmers use improved seeds frequently supplied to them by NGOs and relief agencies and a paltry 1.8 -2.5 percent use fertilizers (Makerere School and Agribusiness Management Associates).

**Investing in Seed Technology:** There is very low investment in seed technology by local companies. Seed companies need cash in advance (at 65 percent of the cost) or loan guarantees to produce good seed varieties as the process takes more than two planting seasons—this is the reason why many seed companies purchase seeds on the open market and repackage them to fulfill big orders. This supply problem is compounded by the fact that WFP and FAO purchase a lot of seeds and distribute them free-of-charge to small-scale farmers. Because of urgent needs, the recipients sell these seeds at less than the market value to medium- and large-scale farmers. Therefore, most farmers used mixed varieties of planting seeds, some of which is seed saved from the previous season’s harvest. At the same time, planting and weeding of the crops is by use of hand hoes with very little irrigation except in Agoro sub-county, Kitgum District. The net result is little acreage planted and low yield productivity per acre.

**Producing for the Market:** Close examination of market preferences versus the production trends of farmers reveals that there is a wide disconnect between the two. Farmers currently just produce what they want or what they perceive as being easiest, which frequently contrasts with what the market demands. Currently farmers and low technology rice millers are blending a variety of rice types and marketing under the generic title of ‘Super,’ however it has been demonstrated that if certain rice varieties such as Kiaso, favored by the catering industry, were sold separately they would achieve a comparative price advantage. Seed research and development needs to be more responsive to market demands of the domestic consumers who form the end market and not just that of the farmers. Similar problems have also been identified in the groundnut value chain.

**Land Tilling:** Much of the land in the region is still very bushy and farmers have very limited funds to purchase farming implements. The majority of farmers use hand hoes and pangas (machetes), which they have acquired through the various “Voucher for Work” programs of WFP, DANIDA, FAO and NGOs. Moreover, the proceeds from their harvests are used to settle pressing needs such as home requirements, children’s school fees, etc. Fewer farmers own oxen and ox ploughs in Acholi compared to their counterparts in Lango who have at least gone through four planting seasons since returning from camps—hence a difference in acreage planted between the two sub-regions. For instance, Mr. Christopher Okema Amic (Kitgum Trade and Industry District Officer) says that “Kitgum District had over four million heads of cattle in 1986, but there are barely any at the moment.” Tractor and motorized equipment hire is only used by a few of the large-scale farmers and especially in Amuru District. Land clearing is a major constraint that must be overcome, especially in Acholi region, if there is to be increased crop production.

## **2. Land ownership**

Farm size is limited by the land tenure system in the region. Because land is communally owned in both Acholi and Lango, it is impossible for individual farmers to expand their farms without the consent of other community members. Consequently, land fragmentation is common in the region. However, there are a limited number of farmers who have managed to access large chunks of land for their own use. For example, in Amuru District, there are now a few farmers who own more than 1,000 acres of land each. This is compared to 10 acres accessed by the average family. Research carried out by Makerere University revealed that households were utilizing between 4-6 acres of the land available to them the lowest being Gulu and Lira jointly at 4 acres and the highest being Kitgum at 6 acres. The variance might be due to the comparative low levels of household return in Gulu, whilst land availability may not be as good in Lira. However although these commercial farmers have access to considerably more land, they frequently have the same poor access to credit facilities as their smaller neighbors due to the generally unsophisticated nature of lending packages currently supplied by Ugandan banking institutions. Although accessing larger land holdings is desirable for the commercialization of agriculture in the region, it is seen by the local population as ‘land grabbing’ and has made land ownership and access a very sensitive issue in Amuru District.

## **3. Financing**

Most farmers, small millers and rural agents can not access financing from existing financial institutions for their operations. For those who could access banks, they lack collateral since they cannot use land as collateral because of the communal land ownership system. In addition, SACCOs (Savings and Credit Cooperative Societies) which are common financial providers to farmers in other parts of the country are just beginning to emerge following relative peace in the last two years. Some microfinance institutions and SACCOs including Agaro and UML have introduced agricultural loans but they can only work with bankable clients. In the context of the recent return and re-starting of agriculture, bankable farmers with capacity in record keeping and marketing are not many.

## **B. MARKETING CONSTRAINTS**

The marketing constraints are negatively impacting farmers’ incomes, whilst also having impacts for processors who incur higher processing costs. This expenditure represents money, which could be potentially passed on to farmers in the form of higher prices paid.

### **1. Post-harvest handling and storage**

Except for the commercial farmers, the bulk of the harvesting (threshing, etc.) is done by hand and with hand equipment and tools. Drying is mostly on the bare ground with limited numbers of farmers using mats and tarpaulins—there is no use of solar or any other type of dryers. This leads to dirty and discolored grains, which affect the price offered to farmers. Storage options for farmers are limited to traditional-style granaries, which pose a risk of theft, fire, and farmers are consequently forced to store produce in gunny bags in their houses. Produce stored in this manner can deteriorate rapidly, negatively impacting the price offered by buyers. In the case of groundnuts, quality is a serious issue due to attack by a fungus known as *Aspergillus*. This fungus causes aflatoxins that render groundnut unsuitable for human consumption. These factors encourage farmers to sell off their harvests quickly. Shellers for maize and groundnuts are mostly found and used in town centers, while farmers use their hands. Crop transport from the



field poses a significant risk of crop loss to farmers, current rudimentary transport technology such as baskets, basins and bicycles can be responsible for the loss of up to 5 percent of the harvested crop between field and homestead.

## **2. Produce bulking and market information systems**

The low volume of crops being produced by individual farmers means that they have very little bargaining power. If farmers were able to bulk commodities and sell collectively they would have increased bargaining power as a result of the additional volumes they would be selling. However, there is very little suitable storage available that could act as storage locations.

Formally there were cooperative stores in various sub-counties but these were destroyed during the insurgency. Cotton dealers have their own stores but only for cotton. The crop volumes produced in Acholi sub-region for the targeted crops are still small but in Lango as well as in the sub-counties of Agoro and Lokung (of Kitgum District) storage/bulking centers are increasingly needed as the farmers' surpluses are increasing. Former 'Lint Marketing Board,' stores from the period of Cotton Cooperatives and nationalized cotton marketing, present at the parish level in many of the target sub-counties could potentially offer a site that could be used as a bulking point. However these stores have now passed into private ownership, therefore issues such as rent and functionality would have to be negotiated on a case by case basis. These could in some cases however offer a rapid solution.

Market information is unreliable given the fact that the daily prices quoted by both MTN and The New Vision are inaccurate and Kampala-focused. In addition, outputs from the sub-region to date are too small to interest large-scale buyers and processors such as WFP, Sunrise Commodities and Olam (U) Ltd.

## **3. Value addition**

There is basic value addition to the produce in the sub-region that is carried out currently:

1. Groundnuts are shelled and ground to Ebinyeebwa and butter;
2. Maize is milled into "No.1" and "No.2" with bran as the by-product;
3. Rice is milled into polished rice with rice bran and broken rice as by-product.

There is very little value addition at the farm level because farmers have not accumulated enough funds to purchase even hand shellers and grinders. However, lack of sensitization of farmers regarding the availability of these products is also an apparent constraint when taking into consideration the fact that hand-operated maize shellers can be bought for under US\$ 10,000. Also farmers are missing out on potentially substantial value addition to groundnuts by not shelling them, despite fee based shelling using hand operated shellers being available in some places.

The technology used in almost all rice mills is old and cannot grade the output products, e.g., unpolished rice, whole grains, broken rice, polished rice, etc. In addition, the frequent unavailability of electricity and the tax levied on the horsepower rating of the motor as opposed to output by the Uganda Revenue Authority (URA) also contribute to the higher cost of finished products.

#### **4. Transport**

The state of roads in most sub-counties is bad, as small culverts were put under the majority of bridges. During the rainy season, this causes flooding and makes a number of roads impassable. Transporters charge considerable amounts to transport produce from farmers to millers/processors. Prices quoted by both traders and farmers averaged around USh 35 per kg for a 60 kilometer journey from rural locations to urban areas such as Gulu, Kitum and Lira. Cost efficiencies realized in this area would translate into improved margins for both farmers and traders.

## VI. RECOMMENDATIONS

This section provides a series of specific recommendations for where SPRING should prioritize interventions. These recommendations are based upon an analysis of the end user markets and the constraints which have been identified in Section V and the stability overview in Section III. The recommendations have been split into two sections, primary and secondary (the secondary are dealing with broader issues of the enabling environment). These interventions will not only advance the process of stabilization, peace and reconciliation, but could have significant impacts at all levels of the selected value chains, whilst facilitating improved household economic security. Whereas the constraints section was more general, we have attempted to tailor the recommendations to specific targets where we believe that SPRING's mandate could allow them to operate, or where they could link with other institutional programs to address issues outside of the project's direct mandate.

### A. AREAS FOR COLLABORATION

#### 1. Increase productivity

Low productivity has been identified as a key constraint for all of the three value chains and its impacts have been discussed in 5.A.1. It is the view of the consultants that the low productivity needs to be tackled in a holistic manner that should include:

- Improved access to and promotion of agro-inputs and up to date agronomic practices. Currently there is a thin network of agro-input stockists supported by UNADA. The individual agro-input dealers need to be assisted to grow their businesses and expand to other areas to provide better coverage than is currently available. This needs to be carried out in conjunction with the dissemination of training in improved agronomic practices (thereby stimulating demand). Although there are many agencies already involved in the dissemination of this information the traditionally low or poor adoption rates by farmers means that this is a process that needs to be repeated countless times to get substantive impacts. Therefore it would be to the advantage of SPRING to partner with an organization who is already engaged in this type of activity and to perhaps facilitate additional trainings or demonstration with selected pre-existing groups of farmers within their target sub-counties.
- SPRING efforts to enhance production would benefit from some form of public private partnership between themselves and at least one seed company. This linkage could be used to promote the use and adoption of improved seed by farmers. The promotion could be through a number of media including demonstration plots and radio broadcasts (there is a well established FM radio network comprising of different stations across northern Uganda). Victoria seeds would seem a natural candidate for this given the presence of their processing facility in Gulu and other substantial linkages to the north, however other potential candidates should not be ruled out. This could be targeted to the specific sub-counties, which form the SPRING project's focus, however the value chains would benefit from greater production in the region as a whole.
- Improved access to land opening facilities (even animal traction), could potentially overcome a number of problems. The amount of land which farmers cultivate is dictated by the amount of family labor available for land opening. Access to animal traction services, which currently costs US\$ 45,000 per acre would allow farmers to plant a greater acreage and produce more crops. It should be remembered however in the long-term that it would be better to emphasize on increasing yield per acre and not acreage itself. Both WVI and CRS

have carried out significant animal traction projects within both Gulu and Amuru districts and could provide information on animal traction groups active in these districts. Another organization active in this field is 'Tillers International,' a US based NGO, who make regular visits to Gulu, Amuru and Kitgum districts.

## **2. Link farmer groups to large processors and market information systems**

In addition, the project should discuss with selected individual enterprises how it can support them to work with farmer groups in northern Uganda. For example, both Olam (U) Ltd. and Sunrise Commodities have modern rice milling facilities and expressed the desire to partner with a program that can lead them to process 12,000 to 40,000 tons of rice annually but working through the entire value chain from the mills (replacing their old technologies) to the farmers to ensure that they plant, harvest and dry the rice properly. Sunrise, with its strong position in the transport industry, offered to collect and carry bulked produce at discounted rates to its processing facility in Kampala. This would help address some of the transport problems being faced particularly by rice growers. Much of rice going into the Kampala market is already coming from northern Uganda, however this is dominated by poorly processed and un-graded rice. If effective mechanisms for price establishment were set up then farmers could be encouraged to sell directly to the larger Kampala processors who could offer them a higher price for unprocessed rice, whilst reducing the farmers potential losses through poor processing and handling losses. Current average production volumes means that for this type of activity to be successful, then large numbers of farmers will have to be organized into groups and sensitized on collective marketing to create an economy of scale.

SPRING should also work with FIT Uganda, which has been contracted to manage the market information through INFOTRADE in two categories: (i) free information (supported by DANIDA) for the public; and (ii) traded commodity (such as who is the possible best buyer) on subscription. INFOTRADE was launched in July 2008 and is being implemented in 21 districts including Lira. Already NAADS, WFP and others have shown interest in funding the public good information of FIT Uganda. SPRING could also give a grant to subsidize and expand this activity to more of SPRING's target districts.

## **3. Warehousing and warehouse receipt system**

SPRING needs to work hand-in-hand and support efforts of some of the established organizations such as ACDI/VOCA, Sunrise Commodities, WFP and the International Rescue Committee (IRC) to establish a robust but simple way to operate WRS. WRS provides farmers with the combined benefits of access to credit and safe storage facilities. This support could come in the form of co-sharing of training for warehouse staff or warehouse certification. This would reduce the need for farmers to sell at the time of harvest, allowing them to cash in on normal post harvest season price increases. This could also act as a point to link producer organizations to regional and national buyers, allowing them to participate in the tendering for medium sized contracts such as the supply of maize flour to schools. Significant sensitization of farmers on related issues, such as quality, will be required.

IRC intends to construct two warehouses in Kitgum Matidi and Palabek kaal in Kitgum District. Sunrise Commodities plans to set up another warehouse in Gulu for simsim and beans (and possibly for maize) as well as have its warehouse in Kawempe certified under WRS. Agaru SACCO is also soon opening its own WRS store in Pader to support its various loan activities (land opening, weeding, harvesting, etc). WFP also plans to set up 300-500 tons storage facilities

in various locations in Uganda to assist in their Purchase for Progress program, which they eventually hope to be able to extend to northern Uganda.

Promotion of savings mobilization within farmer groups is also an important related activity. This could start from the already existing informal savings mechanisms like VSLAs, and linking these to SACCOs and other well established financial institutions. A savings-first approach will be the most viable option as opposed to credit –driven development in this post-conflict environment.

#### **4. Leasing and financing of value addition equipment**

A number of NGOs, such as DANIDA, Mercy Corps and others, offer grants to banks and microfinance institutions that are used for guaranteeing on-lending to farmer groups, enterprises and CBOs. Such funds are also used to acquire farming inputs, land clearing, appropriate technology for post-harvest operations and value addition. These funds are currently being channeled through Centenary Bank, DFCU Ltd., Bank of Africa, Stanbic Bank and Uganda Microfinance Ltd. Their models need to be emulated as they ensure that the beneficiaries are networked backwards up to the smallholder farmers. This mechanism should be examined closely particularly for the procurement of more sophisticated rice processing equipment to be based within the northern region. This would give farmers the opportunity to achieve better value addition into their product, rather than the essentially value reduction processing that occurs currently. Distribution and facilitation of loans for groundnut shellers to organized farmer groups would offer the opportunity to farmers to quickly and easily add value to their harvest.

Another option would be for SPRING to purchase equipment on behalf of a producer organization and use a finance institution to recover the cost, which could go into a pool fund for other further equipment purchase by other producer organizations. This would offer the opportunity for the funds available through SPRING to trickle down and reach a wider group of processors or producer organizations than through a direct grant system. At the same time as the microfinance institution would be collecting fees/interest SPRING would be widening its capital base enabling it to reach more borrowers.

Uganda Development Trust (UDET) also operates grants from the United States African Development Foundation (ADF) and the Rockefeller Foundation. It offers agribusiness loans and capacity building grants to CBOs, cooperatives and farmer groups to promote grassroots development for periods ranging from one to five years. It is already financing the Oribscing Microfinance in Lira and would like to collaborate with SPRING in supporting farmer groups, SACCOs and CBOs that are linked with farmers.

Post Bank could also be used by SPRING as it is going to be the main financial institution through which NAADS will channel its loans to farmers

## **B. VALUE CHAIN STABILIZATION STRATEGIES AND THE ENABLING ENVIRONMENT**

This section presents how the identified conflict risks and harmful impacts can be mitigated and how positive impacts can be strengthened through design and implementation to enhance the enabling environment.

## **1. Land issues**

Addressing the challenges of a lack of information and understanding by the public about land rights under the current law and government intention towards land in northern Uganda could go a long way in allaying the fears related to the security of land tenure. In addition, strengthening the capacity of the grassroots land administration institutions (clan leaders and LCs) to deal with land disputes would create trust over land ownership. SPRING can contribute towards this by supporting public awareness campaigns and capacity building efforts of existing players like Legal Aid Clinic (Refugee Law Project) and FAPAD (Facilitation for Peace and Development) based in Lira.

## **2. Generate youth interest in agricultural economic activities**

Increased youth interest in agriculture would go a long way to address challenges of youth unemployment. One way to do this is to identify positive role models of youth who have transformed their economic life through agriculture and showcase them publicly. There exists some youth groups such as Young Farmers in Agoro sub-county involved in rice growing and Young Cassava Growers and Bee Keepers Co in Acholibur involved in both agricultural production and produce trading. Such groups can be supported by SPRING and showcased as role models.

## **3. Aim for inclusiveness in identifying project beneficiaries**

Including ex-combatants, vulnerable groups, women and men, and youth in farmer group and value chain activities will contribute towards stabilization. It will enhance re-integration as ex-combatants feel accepted and valued as useful members of the community, and reduce crime as unemployed youth become meaningfully engaged and get some income. It will contribute towards reduction in gender-based violence as men work together with women and see the tangible economic returns. Involving different social groups in economic activities with visible benefits can help overcome negative mindsets towards dependency and promote a desire for self-reliance.

To identify strategies for including ex-combatants, SPRING could consult or partner with organizations with experience in dealing with ex-combatants such as the Concerned Parents Association, GUSCO, and Information for Youth Empowerment. To attain the overall objective of inclusiveness in farmer groups, SPRING can give guidelines to their grantees for inclusive group development and can ensure close follow up. Training on group dynamics will also be of critical importance so that problems within a group can be resolved amicably and the group can function in a meaningful manner.

Former combatants should be offered vocational skills training (outside of agriculture). Many have missed years of formal schooling and therefore have only limited avenues of opportunity open to them. This should be carried out in an environment where former combatants are integrated in classes with other community members. Friends of Orphans in Pader run a vocational school aimed specifically at assisting school drop outs and have classes tailored to those with low educational attainment.



#### **4. Strengthen groups**

In addition to technical support to groups in agricultural production and marketing, provide support in group development. This can include training in group dynamics, record keeping, leadership skills and gender issues. Conflict management skills training should also be mainstreamed to ensure capacity to handle misunderstandings that may disrupt group activities.

#### **5. Share benefits**

If the SPRING project supports the establishment of common property such as bulking centers, addressing ownership issues at the outset will help avoid tensions later. SPRING should ensure proper documentation especially when an individual or institution donates the land. In the case of group farming where an individual has agreed to offer land, sharing of benefits between the land owner and the group has to be mutually agreed, articulated and documented. Group bylaws should also provide for guidance on benefits sharing.

#### **6. Reduce conflict between farmers and traders**

Train farmer groups in marketing and negotiation skills to empower them to handle business transactions. In addition, ensure that market information systems are in place and easily accessible and usable by farmers.

#### **7. Involve commercial farmers in upgrading the value chain**

Commercial farmers are supportive to peace and wish to see their relationships with their neighbors improved. Supporting activities for their self-reflection on perceived links with the conflict can enable them to devise ways to rebuild bridges of peace and promote trust within the community.

SPRING should engage with commercial farmers to identify interventions that can promote collaboration between them and other small-scale farmers. Support any opportunities for dialogue between the two parties (commercial farmers are frequently viewed by the community as having achieved that status through dubious means). That way both parties will be involved in upgrading the chain, such as working together in bulking, storage, input purchase, land opening (tractor hire) etc.

#### **8. Integrate gender issues in project design and implementation**

The prevalence of domestic violence points to underlying gender issues that need to be addressed in upgrading the value chain. Most organizations running livelihood programs that SPRING could work with in supporting farmer groups (such as ARC, COOPI, CRS, IRC, NRC) have a gender based violence component. The Refugee Law Project could be supported to provide capacity building support to other organizations.

#### **9. Address Karamajong tensions**

One of the underlying causes of the Karamajong seasonal influx into Acholi and Lango is drought and the need for pasture for cattle. Addressing food security issues related to water and pasture availability for livestock on the Karamajong side may go a long way to reduce the tension. There are NGOs working on food security and peace building on the Karamoja side such



as IRC and Oxfam which SPRING can collaborate with in designing and implementing peace-building interventions.

## **10. Rebuild Acholi/Lango relationship through the value chains**

The war has led to a damaging of relationships between the Acholi and Langi. Promoting interactions between the two tribes may help overcome the negative stereotypes that have emerged and dampen tensions. This can be done through trade promotion, exchange visits amongst farmers and events such as “best farmer” awards to promote positive competition.

## **11. Trade with Sudan**

Holding dialogues could be one way to reduce tensions between Ugandan traders and Sudanese and promote trade. The Chamber of Commerce in Kitgum together with district leadership held a cross-border meeting on how to deal with conflicts during the time of the study with support from IRC. SPRING could support such initiatives working with the Chamber of Commerce or any traders’ organization or the organizations supporting them like IRC.

To minimize the dangers of over-dependency on the Sudan market given its unstable political future, ensure that farmers are connected to other domestic markets as well.

## **12. Tackle corruption**

Ensure transparency in procurement and the identification of implementing partners to ensure equal opportunities for local businesses and organizations. Learn from past experience, such as Northern Ugandan Social Action Fund, to avoid dangers of corruption.

## **13. Engage with politicians**

Consult politicians to gain their support but avoid involving them directly in the project. Politicians are key stakeholders in any recovery and development intervention and their support is necessary to ensure acceptance of the project by communities and their commitment to it. However, they are potential spoilers if they are not consulted or if their political interests are threatened by the project.

## **14. Strengthen local peace building capacity**

The peace-building structure formed by NUPI comprising of regional, district, sub-county and Parish Peace Fora could be one way of enhancing local capacity in peace-building. However, its formation was never finalized, and in most cases they are largely weak or not functioning at all. However, in areas where it is functional, such as Pader District, it seems to be playing a positive role. SPRING could assess the viability of such structures and support them where they exist.

## ANNEX I: SPRING SUB COUNTY BASIC DATA SHEETS

Sub County	Population	Major Crops	NAAD's Farmer Groups	Sub County Chief Or Lciii	Mob No.
<b>Pabbo</b>	75,379	Rice, Gnuts, Beans & Simsim	Exist	Mr C Ojera, Acting	0772 698406
<b>Agoro</b>	18,059	Maize, Rice, Gnuts, Sorghum, Wheat, Irish Potatoes, Beans & Vegetables	136	Mr J Tokwii, Assistant	0773 176756
<b>Puranga</b>	17,000	Rice, Maize, Gnuts, Peas, Beans, Cassava, Sorghum, Simsim & Millet	Exist	Mr Goigoi, Lc3 Chairman	0775 172831
<b>Atiak</b>	40,000	Maize, Gnuts, Simsim, Sorghum, Cassava, Beans, Millet, Sweet Potatoes	200	Mr Basil Okot, Lcii Vice Chirman	0712 425282
<b>Acholibur</b>	3,859 Farmers	Groundnuts, Maize, Cassava & Simsim	190	Ms Catherine Asekenye, Pader District Naads Coordinator	0772 381036
<b>Okwang</b>	15,000	Gnuts, Millet, Rice, Simsim, Cassava, Sorghum, Beans & Peas	82	Mr J B Opio	0772 973554
<b>Ngai</b>	40,677	Rice, Gnuts, Maize, Beans, Simsim & Cassava	108	Mr C B Olwit, Naads Coordinator	0773 203264
<b>Otwal</b>	34,106	Maize, Gnuts, Sunflower, Cassava, Beans, Soybeans, Tobacco, Cotton	105	Mr Denis Ogoo	0782 289136
<b>Minakulu</b>	44,683	Rice, Gnuts, Soya Beans, Sunflower, Beans, Simsim, Cassava, Cotton, Pigeon Peas, Tobacco, Millet, Sweet Potatoes	78	Mr Wi bert Otim Omara, Naads Coordinator	0774 352215
<b>Adwari</b>	19,019	Rice, Gnuts, Cassava, Sweet Potatoes, Beans, Cow Peas, Simsim, Sorghum & Sunflower	111	Mr Silvesto Ocen, Assistant	0782 333587
<b>Lakwana</b>		Maize, Rice, Gnuts, Beans, Citrus	25	Mr Kenneth Bongomin, Assistant Lciii	0774 611705
<b>Lokung</b>	18,646	Gnuts, Maize, Simsim, Millet, Sorghum, Cassava, Beans	198	Mr Ee Oling, Lciii Chairman	0777 072114
<b>Lira Palwo</b>		Maize, Rice, Gnuts, Simsim, Sunflower, Vegetables	Exist	Lciii Chairman	0782 159206
<b>Lalogi</b>		Groundnuts, Maize, Simsim, Beans & Cassava	Over 200	Mr Richard Alima, Lcii Chairman	0772 902024
<b>Orum</b>	22,000	Rice, Groundnuts, Simsim	65	Acting Lciii Chairman	

## ANNEX II: SELECTED INDIVIDUALS INTERVIEWED

### INPUT (MACHINERY) SUPPLIERS

China Huangpai Food Machines (U) Ltd  
Lugogo Show Grounds, Jinja Road  
P. O. Box 24532, Kampala  
Tel: +256 312 261682/ 265318  
Fax: +256 414 223740  
Mob: +256 772 621223 (Attn: Mr. Nelson Ojwiya)  
Email: huangpai@utlonline.co.ug

Mr. Ba jit Singh  
Managing Director  
JBT Engineering Works Ltd  
Plot 370 Makerere Kivulu  
P. O. Box 11090, Kampala  
Tel: +256 414 531339  
Mob: +256 772 488137  
Email: Jbt199800@yahoo.co.in

Mr. Joseph Kavuma, Manager  
Tonnet Agro Engineering Co Ltd  
Plot 699 Kyebando (Behind Uganda Marine Products)  
Gayaza Road  
P. O. Box 35048, Kampala  
Tel: +256 414 373324  
Mob: +256 772 413754  
Email: mj kavuma@yahoo.co.uk

Maharaja Agro Machinery  
Kitgum Branch  
Mob: +256 714 460545

### INPUT (AGRO) SUPPLIERS AND RELATED ORGANIZATIONAL REPRESENTATIVES

Mr. Wilfred Thembo Mwesigwa  
Executive Secretary  
Uganda National Agro-input Dealers Association (UNADA)  
MTK Building, Plot 41/43 Nasser Road  
P. O. Box 7634, Kampala  
Tel: +256 312 293475  
Fax: +256 414 340267  
Mob: +256 712 200511, +256 782 748330  
Email: unada@spacenet.co.ug, thembowilfred@yahoo.co.uk

Dr Ruth N Ssebuliba  
Executive Secretary  
Uganda Seed Trade Association (USTA)  
3<sup>rd</sup> Floor Marcos Building  
Plot 43 Nkrumah Road  
P. O. Box 29726, Kampala  
Tel: +256 414 234803  
Mob: +256 712 815968  
Email: ugandaseedtrade@yahoo.com  
URL: www.unada.org

Mr. Jeff Ononom  
UNADA Distributor  
Kitgum Farm Supplies Ltd  
Pader  
Mob: +256 773 170303

### FARMERS AND FARMERS ASSOCIATION REPRESENTATIVES

Mr. Jimmy Alana  
"Prominent" Farmer  
Atiak Sub County  
Mob: +256 715 075562

Mr. David Okware  
District Coordinator  
Kitgum Farmers Association (KFA)  
Farmers House  
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