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# USAID OFFICE OF FOOD FOR PEACE UGANDA BELLMON ESTIMATION

**JULY 2011**

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## **Preface**

During the months of April and May 2011, the Bellmon Estimation Studies for Title II (BEST) team undertook a study of the current state of agricultural markets in Uganda to inform USAID food aid programming decisions.

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## Acronyms and Notes

Acronym	Meaning
ACDI/VOCA	Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance
ACTED	Agency for Technical Cooperation and Development
APEP	Agricultural Productivity Enhancement Project
ASPS II	Agricultural Sector Programme Support
ATU	Appropriate Technology Uganda
AU	African Union
BEST	Bellmon Estimation Studies for Title II
CAADP	Comprehensive Africa Agriculture Development Programme
CBPP	Contagious Bovine PleuroPneumonia
CDP	Central Distribution Point
CDSO	Crude Degummed Soy Oil
CET	Common External Tariff
CFSVA	Comprehensive Food Security & Vulnerability Analysis
CLUSA	Cooperative League of the USA
COMESA	Common Market for Eastern and Southern Africa
CPI	Consumer Price Index
CSB	Corn Soy Blend
CSI	Coping Strategy Index
DANIDA	Danish International Development Agency
DFCU	Development Finance Company of Uganda
DHS	Demographic Health Survey
DR Congo	Democratic Republic of the Congo
EAC	East African Community
ECHO	Educational Concerns for Hunger Organization
EDP	Extended Delivery Point
EFSA	Emergency Food Security Assessment
EMOP	Emergency Operation
EU	European Union
FANTA	Food And Nutrition Technical Assistance
FAO	Food and Agriculture Organization of the United Nations
FCG	Food Consumption Group
FCS	Food Consumption Score
FDP	Final Delivery Point
FEG	Food Economy Group
FEWS NET	Famine Early Warning Systems Network
FFP	Food For Peace
FFA	Food For Assets

<b>Acronym</b>	<b>Meaning</b>
FFW	Food For Work
FOB	Freight On Board
FY	Fiscal Year
GAO	Government Accountability Office
GAM	Global Acute Malnutrition
GBHL	Grain Bulk Handlers Limited
GDP	Gross Domestic Product
GINI	Gini Index
GMO	Genetically Modified Organism
GNI	Gross National Income
GoU	Government of Uganda
HAZ	Height-for-Age z score
HEA	Household Economy Analysis
HIPC	Heavily Indebted Poor Country
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
HRWW	Hard Red Winter Wheat
IDP	Internally Displaced Person
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IPC	Integrated Phase Classification
IPP	Import Parity Price
ITC	International Trade Commission
JICA	Japan International Cooperation Agency
KIDDP	Karamoja Integrated Disarmament and Development Program
KOPGT	Kalangala Oil Pam Growers Trust
KPAP	Karamoja Productive Assets Program
KRA	Kenya Revenue Authority
LDC	Least Developed Country
LHZ	Livelihood Zone
LIFDC	Low Income Food Deficit Country
LRA	Lord's Resistance Army
LRP	Local and Regional Procurement
MCH/MCHN	Mother Child Health/Maternal Child Health and Nutrition
MoU	Memorandum of Understanding
MT	Metric Ton
MUAC	Mid Upper Arm Circumference
MYAP	Multi-Year Assistance Program
NAADS	National Agricultural Advisory Services
NCBA	National Cooperative Business Association

<b>Acronym</b>	<b>Meaning</b>
NEMA	National Environment Management Authority
NFDM	Non-Fat Dry Milk
NGO	Non-Governmental Organization
NUSAF-2	Northern Uganda Social Action Fund
OECD-DAC	Organisation for Economic Cooperation and Development- Development Assistance Committee
OPUL	Oil Palm Uganda Ltd
P4P	Purchase for Progress
PEAP	Poverty Eradication Action Plan
PLWHA	People Living With HIV/AIDS
PM2A	Preventing Malnutrition in Children Under 2 Approach
PMA	Plan for Modernization of Agriculture
POM	Palm Oil Mill
PPP	Purchasing Power Parity
PRDP	Peace and Recovery Development Plan
PRSP	Poverty Reduction Strategy Paper
PVO	Private Voluntary Organization
RALNUC	Restoration of Agricultural Livelihoods in Northern Uganda Component
RM	Regional Monetization
RVR	Rift Valley Railways
SAACOS	Savings and Credit Cooperatives
SAM	Severe Acute Malnutrition
S-C-P	Structure-Conduct-Performance
SD	Standard Deviation
TASO	The Aids Support Organization
TLU	Tropical Livestock Unit
TPD	Tons Per Day
TPH	Tons Per Hour
UBoS	Uganda Bureau of Statistics
UCE	Uganda Commodity Exchange
UDHS	Uganda Demographic and Health Survey
UGX	Ugandan Shilling
UMR	Usual Marketing Requirement
UNBS	Uganda National Bureau of Standards
UNHS	Uganda National Household Survey
UNICEF	United Nations Children's Fund
UPHL	Uganda Property Holdings Limited
UQIS	Uganda Quarantine Inspection Services
URA	Uganda Revenue Authority
US	United States

<b>Acronym</b>	<b>Meaning</b>
US\$	US Dollar
USAID	United States Agency for International Development
USDA	US Department of Agriculture
USG	US Government
VAC	Vulnerability Assessment Committee
VAM	Vulnerability Analysis and Mapping
VAT	Value-Added Tax
VODP	Vegetable Oil Development Project
WAAP	Without Anyone's Approval
WAEF	With Approval from Extended Family
WALO	With Approval from Landlord/Owner
WASC	With Approval from Spouse and Children
WFP	World Food Programme
WHA	World Health Assembly
WHO	World Health Organization
WHZ	Weight-for-Height z score
WRS	Warehouse Receipt System
WTO	World Trade Organization
WV	World Vision

## Chapter 1. Executive Summary

This report presents findings to support a Bellmon Determination in advance of a Fiscal Year (FY)12 USAID Title II-funded non-emergency program in Uganda. Since monetization is likely to fund at least a portion of these activities, the Bellmon Estimation Studies for Title II (BEST) team conducted a market analysis of key commodities to assess the feasibility and appropriateness of monetization of Title II commodities. This study is based on a desk study and field work conducted during the period April to June 2011.

### 1.1. Country Background

Uganda is a land-locked country of 34 million people in East Africa. It currently ranks 143 out of 169 countries on the United Nations Development Programme (UNDP) Human Development Index, and suffers from chronic food insecurity. Food insecurity was worst in northern and north-eastern Uganda; however, food insecurity has improved in northern Uganda since the return of an estimated 1.8 million Internally Displaced Persons (IDPs) over the past three years, and resulting improved agricultural production (UNDP).

Karamoja region, in northeastern Uganda, has continued food insecurity; however, the situation has also improved over the past two years. Karamoja suffers from chronic drought, conflict and high levels of poverty. It includes diverse and neighboring livelihood zones that encompass agriculturalists, agro-pastoralists, and pastoralists. The majority (51 percent) of Karamoja households experienced severe or borderline food insecurity according to the Food Consumption Group (FCG-Low) index (Makerere University, 2010). Corroborating these findings (but using a slightly different methodology and having been completed earlier), the World Food Program (WFP) Comprehensive Food Security & Vulnerability Analysis (CFSVA) of 2009 states that Karamoja's population is the most food-insecure as compared to other regions (20 percent of its population classified as food insecure). Within the Karamoja region, food insecurity was highest in the southern districts of Moroto (30 percent) and Nakapiripirit (23 percent). Overall, 595,000 residents of Karamoja's estimated one million residents are deemed to be in the categories of "food insecure" or "moderately food insecure."

Strong positive national economic growth for Uganda over the past two years (5.8 percent in 2010 and 7.2 percent in 2009) has not been fully reflected in the livestock-based economy of Karamoja. Furthermore, election spending by the state and global trends (rising oil and food prices) have contributed to inflation of 14.1 percent in early 2011, leading to increased fuel costs, and increased staples costs (The Guardian Weekly, 5/13-19, 2011). These trends, along with below-normal rainfall, would be expected to negatively impact food security overall in 2011 (FEWS NET, 2011).

### 1.2. Food Aid

Uganda has received food aid from USAID and other donors over the past two decades, directly linked to the Lord's Resistance Army (LRA) insurgency which began in 1987. The Karamoja region in northeastern Uganda has also received food aid over the past four decades, primarily through WFP, due to chronic drought, conflict, and high levels of poverty. Significant quantities of food aid have been transported through Uganda, to southern Sudan, the eastern DR Congo, and Rwanda. Kampala serves as a hub for much of this assistance, and some surplus from

Uganda (primarily maize and beans) has also been purchased for regional humanitarian assistance. USAID plans to move its Title II Non-Emergency Food Aid Programs from northern Uganda to the northeastern Karamoja region, and bordering zones.

**MYAP partners.** Current Multi-year Assistance Program (MYAP) partners for USAID are ACDI/VOCA and Mercy Corps. Both operate in northern Uganda, which was hardest hit by the LRA. USAID developmental food aid to northern Uganda has steadied as IDPs returned home and restarted their rural agricultural livelihoods in the past three years. As overall civil security has improved and IDPs have returned to their rural homes, USAID emergency assistance has therefore declined over the past five years to northern Uganda.

ACDI/VOCA's program began in 2006, and its annual funding is approximately US\$15 million. The program covers the northern districts of Gulu, and continues southeast to Soroti and surrounding districts. ACDI/VOCA works with 20 partner NGOs to promote agricultural rehabilitation, assist People Living with HIV/AIDs (PLWHAs), implement microfinance loans and encourage village savings, and improve nutrition and hygiene. Mercy Corps' program began in 2008, and its annual funding is about US\$10 million. Mercy Corps' program also promotes agricultural/livelihoods rehabilitation (e.g., road construction and perma-gardening), Maternal Child Health and Nutrition (MCHN), and Water and Sanitation and Hygiene (WASH) activities. The two Awardees' programs combined reach an estimated 256,000 beneficiaries, including activities directly and indirectly linked to food assistance. Distributed food aid totals for both partners are quite small; each program includes annual distribution of roughly 4,000 MT of cornmeal, corn-soya blend (CSB), split peas, and vegetable oil.

**WFP.** USAID provides roughly 30 percent of WFP/Uganda's annual funding. WFP's food aid to the Karamoja region has decreased in 2010 and 2011, largely due to improved conditions in the area and increased targeting. WFP ended its Emergency Operation (EMOP) program for Karamoja in 2010. It then transitioned beneficiaries into the more developmental Karamoja Productive Assets Program (KPAP), for those only deemed "moderately food insecure."

**USDA.** USDA McGovern-Dole Food For Education programming is also supported in Uganda. WFP and ACDI/VOCA are the two current program partners, and receive funding of US\$19 million and US\$12 million, respectively. The programs target students for food assistance, and support activities for the targeted schools and local communities. In April 2011, USDA also announced two new Food For Progress awards to Mercy Corps (US\$11.2 million) and to the Cooperative League of the USA/National Cooperative Business Association (CLUSA/NCBA) (US\$12.0 million).

**Feed the Future.** Feed the Future activities in Uganda are also expected to complement the above food assistance programs, to reach the program's goal of improving overall food security levels in-country. Feed the Future programming in-country is expected to target the value chains for beans, maize, and coffee, among many other planned activities.

### 1.3. Adequacy of Storage and Transportation

Uganda is capable of transporting and storing current and planned food aid volumes. As discussed in Chapter 2, current and planned food aid volumes are not nearly as high as they were five years ago; nonetheless, most of the roads and warehouses that handled over 200,000

MT<sup>1</sup> in 2005 are still available today, with current annual donor warehouse volumes of approximately 68,600 MT.<sup>2</sup> Donors have solidified storage and transport routes over their long history of food aid distribution in the country and to neighboring countries, which stretches over 40 years.

The large majority of food aid destined for Uganda arrives at Port Mombasa, Kenya. Uganda accounted for 80 percent of the port's transit goods in 2009 (Dredging Today, 2010). In 2008, WFP reported total shipping costs for bulk grain, from the US to Mombasa port, were about US\$153/MT, plus port charges (including repacking) of about US\$30 (IFPRI, 2008).

Donors, the private sector, and the GoU own and operate a number of warehouses and storage facilities across the country. WFP currently has the most storage capacity in country, as compared to other donors. WFP warehouses in Tororo and Kampala each store 18,000 MT. As of May 2011, both facilities are currently well under capacity. ACDI/VOCA and Mercy Corps operate a total of five warehouses. As detailed in Chapter 6, private companies own and operate cleaning and storage facilities, some of which are a part of the warehouse receipt system and the Ugandan Commodity Exchange.

Road transport along the Northern Corridor is largely preferred by both donors and private companies; although road transport is relatively more expensive, donors and private market actors both reported that the higher cost was worth the time saved compared to rail transport. Transport by rail from Mombasa to Kampala costs an estimated US\$95 per MT, and transport by road from Mombasa to Kampala is about US\$107 per MT (personal interviews, 2011).

The most common and efficient route for food aid destined for Karamoja is through Tororo. From Tororo, food aid travels north through Moroto and into the Karamoja region. In rare cases, food aid may pass through Kampala instead of Tororo. In such circumstances, shipments travel through Soroti and then into Karamoja.

## 1.4. Monetization Analysis

### 1.4.1. Introduction

For the purposes of this study, a commodity was selected for review and possible recommendation following six “tests”:

1. Eligibility for export from the US<sup>3</sup>
2. Eligibility for import to Uganda
3. Significance of domestic demand<sup>4</sup>
4. Domestic supply shortfalls are filled through commercial imports and food aid
5. Presence of adequate competition for the commodities
6. Expectations that fair market prices can be achieved.<sup>5</sup>

<sup>1</sup> WFP Interfais reports 2005 total food aid tonnages of 223,835 MT.

<sup>2</sup> This is a total of MercyCorps storage (600 MT), ACDI/VOCA storage (14,000 MT), and WFP storage (54,000 MT). However, this figure could increase with WFP's planned increased capacity of 23,000 MT.

<sup>3</sup> This “test” implies that it is also on the FFP list of approved commodities for monetization

<sup>4</sup> This threshold is set at in the following way: Average import levels for the past five years must be greater than US\$5 million *and* a regular portion of these volumes must be commercial imports. A threshold is set to ensure efficiencies in the funding of Awardee programs.

Based on the above tests, three commodities were evaluated as potential candidates for monetization in Uganda for FY12: wheat grain, edible oil, and rice.

The analysis is broken into three core sections: a brief overview of historical monetization in-country, initial commodity selection, and commodity-specific market analyses and recommendations. For the complete methodology for determining the potential impact of monetized food aid, please see Annex VI.

### 1.4.2. Monetization History

Small-lot refined soybean oil monetization was the mainstay of the Title II monetization program in Uganda for 18 years, until 2007 when it was discontinued due to a zero-rated Usual Marketing Requirements (UMR) by USDA, and the removal of a waiver on VAT by the GoU.

Only hard red winter wheat (HRWW) has been monetized during the current non-emergency programs under this review. HRWW was first monetized in 1998 and averaged approximately 23,428 MT per year during the most period FY07 to FY10. Title II Awardees expect to monetize 21,120 MT of HRWW for FY11. USDA anticipates monetizing 18,000 MT of HRWW during FY11.

Since the beginning of USAID-supported non-emergency programs in 1988, ACDI/VOCA has been the sole monetization agent for all implementing NGOs receiving resources from USAID and USDA.

### 1.4.3. Recommendations

Based on a market analysis for each of these commodities, the following recommendations are made:

**Wheat grain. The study team recommends a maximum annual tonnage of HRWW monetization of 27,000 MT for FY11**, which represents 15 percent of the current year's estimated annual demand for hard wheat. This recommendation is based on an estimated demand of 450,000 MT for wheat grain for 2011, and an estimated 180,000 MT demand for hard wheat for 2011. **Assuming five percent annual growth in demand, the maximum tonnage recommended for FY12 is 28,350 MT of HRWW.** ACDI/VOCA has acted as the monetization agent for all Title II sales during the period under review. Sales prices achieved have been within an acceptable range of an estimated Import Parity Price (IPP); sales prices have achieved an average of 92 percent of estimated IPP since 2007, which includes a period of volatility on the world markets.

The recommended volumes are similar to those of the recent past, and would represent no substantial disincentive to domestic producers or processors of wheat grain. The study team finds that, on the contrary, Title II wheat monetizations have played a pivotal role in developing a competitive domestic milling industry, by providing high-quality wheat under favorable sales contract conditions that are generally not available through regular commercial sales (including payment in Ugandan Shillings).

<sup>5</sup> Implicit in the above six bullets is that the destination market must be able to absorb the volume of monetized commodity in question without "substantial" disruption. Recent precedent follows a ten percent rule--- that is; "substantial" disruption to the market is assumed not to occur below a threshold of either 10 percent of commercial imports or 5 percent of the domestic production of any particular commodity if there is substantial domestic production. We will follow this convention throughout this analysis.

The team recommends one minor adjustment in the tendering and negotiation process. Rather than using soft wheat prices, Cost, Insurance, Freight (CIF) Mombasa, as a benchmark against which to derive a (unstated) floor price in the tendering and negotiation process, the monetization managers should attempt to discover prices for more comparable quality hard wheat CIF Mombasa, to which costs of commercial clearing and transport to the ultimate delivery point (i.e., the mills) should then be added. These may include, but are not limited to, hard wheat varieties of comparable protein content (13-13.5 percent) originating from Canada, US, or Argentina.

**Edible oil. The study team does NOT recommend refined vegetable oil for monetization** as the study team believes it has potential to disrupt the marketing of processing industries and, to a lesser extent, a possible disincentive to oil seed production. GoU policy on import substitution, and possible Genetically Modified Organism (GMO) policy, makes monetization of US refined vegetable oil extremely sensitive, an additional reason for our team to recommend against monetization of refined vegetable oil.

**The study team DOES recommend consideration of small volumes of Crude Degummed Soy Oil (CDSO) for monetization.** Although the GoU and private industry have invested heavily in oil seed and oil palm production, domestic sources account for only 10 to 15 percent of annual demand at present. Both oil processors have excess installed capacity in anticipation of continual growth in demand and will continue to be forced to import crude oil (most likely crude palm oil) for processing in country for the next five years, at a minimum. While the share of domestic production is expected to increase, the ability to meet demand with domestic seed/palm inputs will be a gradual process, driven primarily by the maturation of BIDCO's oil palms in the coming years. Expansion of sunflower oil seed production is expected to be relatively slower, mostly due to lack of seed availability and credit constraints at the smallholder farmer level. However, the feasibility and desirability of monetizing CDSO should be reassessed on a regular basis (at least yearly) as Uganda continues to increase its domestic production of oil palm<sup>6</sup> and sunflower oil seeds.

CDSO could be monetized in Uganda, and then refined by a private refiner (e.g. Mukwano or BIDCO) to add value and utilize refining capacity in-country. There is excess current installed refining capacity (BIDCO estimates it has 300 MT per day excess capacity, for example). Both processors have expressed interest in purchasing monetized CDSO should USAID make monetized CDSO available in Uganda.

The GoU Ministry of Finance has informed the USAID Mission that they are not supportive of the monetization of CDSO; such GoU support is a critical consideration for the success of upcoming Title II food security funding. Based on only technical considerations, however, the team finds that volumes in the range of 7,000-14,000 MT for the first year would represent no substantial disincentive to domestic oil seed or oil palm producers, nor to processors of crude oil, because commercial imports continue to meet 85 to 90 percent of demand for edible oil. This recommended tonnage is based on the following assumptions: 85 percent demand met through commercial imports, 65 percent conversion rate of crude to refined oil, and monetized CDSO representing between 2.5 percent to five percent of commercial import volumes.

Given lack of prior experience monetizing CDSO, uncertainty about sales price performance, and largely duopolistic nature of oil processing industry, BEST recommends a conservative

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<sup>6</sup> "Oil palm" in this report refers to the oil seed of the palm plant.

monetization tonnage in the first year, with increasing tonnages in the second to fifth years, should the sale prices meet expectations.

**Rice. The study team does NOT recommend rice for monetization** for FY11 or FY12 for two primary reasons: 1) there is relatively low demand for commercial imports of rice, which would limit the funding available through monetization of a small percentage of the average commercial imports; and 2) there is substantial interest among the GoU in investments in domestic rice production.

### 1.5. Distribution Analysis

In order to provide guidance for *distributed* food aid interventions, to ensure any potential negative impact on production incentive and markets is minimized, this summary analysis provides: 1) an overview of available evidence of national and localized food deficits, and private market capacity to meet those localized food deficits; 2) key considerations for all distributed food aid interventions in Uganda; and 3) guidelines for each of the most likely modalities for distributed food aid during the upcoming Title II non-emergency programs cycle (FY12-FY16) in Uganda.

The overall strategic objective for USAID/Uganda's Title II Non-Emergency Programming (FY12-FY16) is to strengthen livelihoods and improve nutrition. Programming is expected to target greater Karamoja, and food-for-work (FFW), food-for-assets (FFA), and Maternal Child Health and Nutrition (MCHN) activities should be considered.

The BEST team visited Uganda in April/May 2011. The team made the following observations: 1) no sighting of leakage of Title II commodities on markets visited in northern and northeastern Uganda, and few (if any) reports of leakage in the past one to two years; 2) current MYAP programming being undertaken appears to minimize any negative impacts on production incentives and markets, especially as agricultural rehabilitation is still in its infancy in northern Uganda; and 3) current commodity selection of cornmeal, corn-soy blend (CSB), split peas, and vegetable oil seems appropriate for local populations and complements typical local diets.

**Karamoja and surrounding areas.** Karamoja's unimodal rainy season contrasts with the rest of Uganda's bimodal seasons, creating unique challenges for its residents' livelihoods and for development of economic links with neighboring, bimodal areas outside of Karamoja proper. Karamoja's chronic food insecurity, which has slightly improved in recent years but still remains, is due to many factors, including: subsistence-based livelihoods, the isolation of inhabitants, the disruption of traditional livelihood systems, civil insecurity, poor rainfall, crop and livestock disease, and reduced coping capacity.

Karamoja holds three distinct populations: agriculturalists, agro-pastoralists, and pastoralists; which are further divided into six distinct livelihood zones within the region. Many extended families in Karamoja also live under a 'manyatta' structure. Typically, these structures facilitate individual or family ration sharing among a broader group of people.

The private market's capacity to meet food deficits within Karamoja is generally good in terms of availability, but access is the key issue for poorer Karamoja residents. Terms of trade between livestock and grains is also a key determinant for various sub-populations' livelihoods and ability to access marketed foods within Karamoja, with seasonality, quality of transport, levels of conflict or insecurity, storage, and market integration acting as additional key determinants.

PVOs will need to take the area's culture and diverse, complex set of livelihoods into account in designing successful programmatic interventions. Furthermore, conflict, corruption and lessons learned should all be taken into account by potential Awardees in designing appropriate food security interventions for the greater Karamoja region.

## 1.6. Local/Regional Procurement (LRP)

### 1.6.1. Introduction

LRP allows for the local and/or regional procurement of foodstuffs for distribution in recipient countries. The rationale for LRP is that it allows for foodstuffs to arrive more quickly to targeted areas, and locally-procured foods are generally less expensive than imported food aid from donor countries, which allows for greater beneficiary coverage. Many cash/voucher programs have also been implemented in Uganda, with most targeting IDPs in northern Uganda in the process of returning home, and/or targeting beneficiaries in the greater Karamoja region.

WFP is the largest LRP actor in Uganda, and has implemented a significant LRP program in Uganda, primarily due to the availability of staple surpluses to meet needs in-country and in neighboring countries. WFP purchased 210,000 MT of foodstuffs in 2007, primarily maize and beans. This has decreased to approximately 136,000 MT in both 2009 and 2010, due in part to decreasing IDP population numbers in northern Uganda as well as rising commodity prices.

A number of NGOs (World Vision, Danish International Development Agency (DANIDA), Agency for Technical Cooperation and Development (ACTED), Mercy Corps, Oxfam, United Nations Food and Agriculture Organization (FAO), Catholic Relief Services (CRS), and Appropriate Technology Uganda (ATU)) have undertaken various cash/voucher programs (usually for food, seeds, and/or tools). These programs usually target returning IDPs, and promote agricultural rehabilitation.

### 1.6.2. WFP and Uganda Commodity Exchange (UCE)

WFP's nascent Purchase for Progress (P4P) program aims to improve incomes of smallholder farmers through increased marketing of agricultural products. P4P uses traditional tendering as its dominant strategy, and current tonnages purchased are quite small (6,800 MT in 2009 and 4,000 MT in 2010) as compared to the program's targets and to regular LRP-purchased foodstuffs. This is in part due to the program's strict grade requirements, which small-holder farmers are especially challenged to meet, and procurement regulations, as well as general challenges related to the program's startup (for details, see Chapter 6). The program's success also depends in part on the private sector, which has considerable market power.

The UCE was launched in 2008 under the Warehouse Receipts System (WRS) Act of 2006. The goal of the UCE and the WRS is to improve rural livelihoods, by supporting private sector-operated, public warehouses which store commodities according to standardized requirements. UCE's target is to establish nine regional warehouses with a total storage capacity of 34,000 MT, and this is expected to expand. Tonnages purchased through the UCE are still low, amounting to roughly 11,000 MT sold to WFP and other organizations between 2008 and 2010. There is potential for the expansion of the WRS; however, a major challenge for the program is the fact that its prices for maize are slightly higher than those available on the informal market (by about 4.7 percent).

Overall, some of the objectives of P4P and WFP's regular LRP programs may conflict. P4P aims to benefit smallholder farmers, who typically do not benefit from economies of scale, unless they market their produce through large groups. On the other hand, WFP's regular and much larger LRP program's main goal is to purchase large volumes of food efficiently and at the lowest price. WFP will need to resolve the goals of these conflicting programs to best meet the food security needs of its beneficiaries in Uganda, and elsewhere.

## Chapter 2. Food Aid Overview

### 2.1. Introduction

This Chapter provides a summary of previous, current, and planned US food aid that is directly distributed through USAID Multi-Year Assistance Program (MYAP) partners and the World Food Program (WFP), as well as USDA Food for Progress and McGovern-Dole food aid programming. Details are provided on the two Title II MYAP partners' activities, monetizations by the MYAP partners and other organizations,<sup>7</sup> and planned activities for the major food security stakeholders within Uganda in the coming years.

Uganda has been a large recipient of USAID Office of Food for Peace Title II resources (emergency and non-emergency) over the past two decades. This was due to the country's widespread food insecurity and decreased agricultural production in northern Uganda, directly tied to the Lord's Resistance Army (LRA) insurgency which began in 1987. At the height of the insurgency, there were roughly 1.8 million IDPs in northern Uganda in 2005 (Internal Displacement Monitoring Center). These IDPs were primarily based near towns for their own protection, which resulted in the neglect of agriculture in more rural areas and significant declines in production.

Both the GoU and the LRA agreed to end hostilities in 2006; the last noted activity by the LRA within northern Uganda occurred in 2008 (UN, 2011). Internally Displaced Persons (IDP) numbers have steadily declined, with the same report noting that over 92 percent of IDPs in Acholi and Teso Regions having returned home or gone to new locations for settlement by early 2011. Community resettlement rates varied depending on whether communities were closer or further away from known LRA presence areas, how many families used or did not use transit centers on the way back to their homesteads, levels and types of aid available for IDPs, and whether or not attacks occurred after resettlement began. The IDP resettlement process is fragile and has yet to be fully consolidated (UN, 2011), with field interviews confirming this in northern Uganda.

As the threat from the LRA has waned, Uganda has shifted from emergency aid to transitional and development aid. This transition is due to factors including: 1) the successful expulsion of the LRA to the DR Congo, South Sudan, and/or Central African Republic; 2) the subsequent return of Ugandan IDPs to transit centers/home areas; and 3) the re-opening of farmland in northern Uganda. USAID's current MYAP partners, ACDI/VOCA and Mercy Corps, are ideally situated in northern Uganda to provide some of this developmental aid. These and other organizations have helped build the resiliency of local communities, by assisting them in the transition from camps and dependency to improved food security, through improved access, availability, and utilization.

The overall food security situation has improved considerably in Uganda over the last five years, as evidenced by the decrease in USAID and WFP food aid tonnages (50 percent and 71 percent, respectively since 2006, see following tables), and Ugandan national cereal production increasing 19 percent from 2004 to 2008 (see Agricultural Overview Annex). However, acute

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<sup>7</sup> USDA specifically, for Food for Progress activities

needs remain, particularly 1) in the Karamoja region and 2) in northern Uganda where IDPs have only recently returned, and developmental gains need to be consolidated. In Karamoja, cyclical drought conditions and long-term under-development continue to threaten food security for large portions of the population. However, good rains in 2010 provided a respite from two consecutive years of drought. Overall, the food security situation remains particularly fluid in Karamoja, and will require close monitoring over the near term as drought conditions have been a chronic threat in Karamoja for decades.

The study team visited Gulu, Kitgum, Kaabong, Kotido, Kapchorwa, and Mbale districts in northern and eastern Uganda, in May 2011. The team conducted field assessments regarding overall food security.

## 2.2. Ongoing Initiatives

The table below summarizes US Title II food aid to Uganda from 2006 to 2011.

**Table 1. Annual US Title II Food Aid Supplied to Uganda (MT), 2006-2011\***

Year	2006	2007	2008	2009	2010	2011*	Totals
Emergency (WFP)	68,380	64,210	47,850	19,520	15,530	7,260	222,750
Developmental (PVOs)	23,850	21,960	33,170	30,020	30,180	24,150	163,330
Total	92,230	86,170	81,020	49,540	45,710	31,410	386,080

Source: USAID

\*Estimates. For 2011, figures are planned tonnages to be completed by the end of the fiscal year, 9/30/2011.

Table 1 shows USAID's transition from emergency to developmental resources over the past five years. This dovetails with improved overall physical security for local populations, and the relocation of IDPs to their rural homesteads. WFP carried out USAID emergency assistance, and PVOs in northern Uganda carry out USAID developmental assistance. Note that USAID/FFP developmental assistance in Uganda is the third-largest program in Africa, in terms of non-emergency resources, following Ethiopia and Sudan. Although this tonnage is high, it is still important to note that food aid volumes to the country are declining overall, in response to improving levels of agricultural production and greater self-sufficiency for northern Ugandans.

**Table 2. Annual WFP Food Aid Distributed in Uganda (MT), 2006-2011**

Year	2006	2007	2008	2009	2010	2011**	Totals
Karamoja distributions	5,848	25,082	45,111	83,916	35,057	1,817	196,831
Other distributions*	204,148	180,021	121,737	55,962	26,010	4,425	592,303
WFP Total Distributions	209,996	205,103	166,848	139,878	61,067	6,242	789,134
Karamoja as % of total WFP distributions	3%	12%	27%	60%	57%	29%	25%

Source: WFP Uganda

Note: There are some discrepancies with above WFP and USAID Title II tables, in part due to WFP calendar year vs. USG fiscal year accounting: \*\*Other distributions\* covers primarily northern Gulu/Kitgum/Pader/Lira districts but also include other minor areas within the country. \*\*2011 figures cover up to March 2011, as reported by WFP/Uganda

Overall, USAID provided roughly 30 percent of WFP/Uganda's resources over the past five years. As noted, WFP/Uganda's food aid distributions have decreased over this same time period, as shown in Table 2. This is primarily due to IDPs who have returned to rural areas (mostly covered by "other distributions" in above table), and resumed their agricultural activities.

Generally, this includes populations that returned to their homes in greater Gulu, Kitgum, Pader, and Lira.

WFP decreased assistance to Karamoja in 2010 and 2011. Though Karamoja was largely spared from LRA attacks and threats, the region historically suffers from periodic droughts, poor infrastructure, internal conflict,<sup>8</sup> and overall food insecurity. However, conditions have improved since 2009, and WFP has reduced and better targeted its food aid within Karamoja. As part of this shift in strategy, WFP reduced emergency beneficiaries (275,000 individuals in 2010 under the Emergency Operations (EMOP)), and transitioned households into Karamoja Productive Assets Program (KPAP), a program which targets only "moderately food insecure" populations. The EMOP ended after 2010 for Karamoja. Currently, the KPAP is reaching over 450,000 beneficiaries.<sup>9</sup> Table 2 highlights WFP's transition from emergency to more developmental aid in Karamoja; this shift is expected to continue in 2011, barring any unforeseen shocks later this year.

As part of WFP/Uganda's program activities, WFP purchased 41,000 MT of food locally within Uganda for direct distribution in-country in 2010. Please see Chapter 6 covering Local and Regional Procurement for further details.

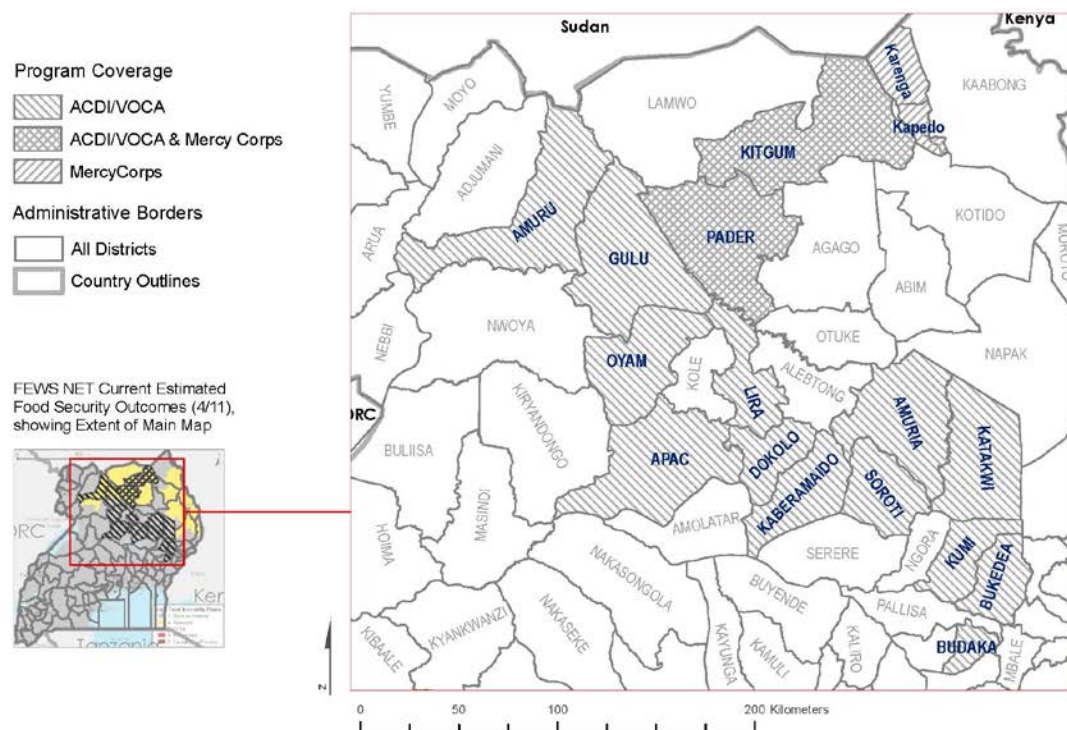
### **2.2.1. Awardees/NGOs Currently Operating**

Under the current MYAP, ACDI/VOCA began its activities in 2006, and Mercy Corps began its activities in 2008. Both programs target recently-returned populations in northern Uganda. ACDI/VOCA's annual project budget (approximately US\$15 million/year) is a bit larger than Mercy Corps' (approximately US\$10 million/year). Figure 1 illustrates Title II program coverage by Awardee.

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<sup>8</sup> Largely due to cattle theft and other resource conflict between ethnic groups within Karamoja and with rival ethnic groups from NW Kenya; see "A Food Security Analysis of Karamoja," 9/2010, FAO/ECHO (Simon Levine)

<sup>9</sup> WFP/Uganda: actual beneficiaries for KPAP in 2011 is 456,684 individuals, with 410,364 receiving food and 46,320 receiving cash; this also translates to 68,394 heads of house receiving food and 7,720 heads of house receiving cash; WFP uses 6 to represent members of a household in Karamoja;

**Figure 1. Title II Program Coverage by Awardee, FY11**

Map by Bellmon Estimated Studies for Title II (USAID/BEST). Not all non-program district names displayed due to space constraints. Sources - District Boundaries (Admin 2), Names and Current Estimated Food Security Outcomes: FEWS NET. Admin 0 (Country) boundaries - GAUL dataset. Parish Boundaries (Admin 4) - GIST Data Repository.

Stakeholders interviewed during the field trip commented that emergency aid to northern Uganda ended somewhat abruptly for particular local communities over the past two to four years. However, MYAP funding has helped bridge this gap in donor support. Specifically, it has helped bolster many rural communities in northern Uganda by stabilizing livelihoods and supporting general agricultural rehabilitation.

**ACDI/VOCA.** ACDI/VOCA and its partners currently target areas in Gulu (northern Uganda), and extend southeast in an arc to greater Soroti and Katakwi. Their MYAP activities (including the work of 20 partner NGOs) focus on: farmer training; improved inputs; post-harvest handling; group savings mobilization and management; Farming as a Business; collective marketing; improved nutrition/hygiene; and the rehabilitation of feeder roads. In addition, ACDI/VOCA and its partners provide corn soy blend (CSB)/vegetable oil food rations to 53,000 particularly vulnerable people and their families (42,000 of which are PLWHAs, and 11,000 of whom are highly-food insecure children). The BEST team visited returnee farmer groups in rural areas 30 to 40 km outside of Gulu, who reported feeling physically secure and eager to resume agricultural activities as small-holder farmers.

**Mercy Corps.** Mercy Corps' activities are concentrated in the northern districts of Kitgum, Pader, and part of Kaabong. Program sectors include agriculture/livelihoods (focusing on road rehabilitation and perma-gardening), Maternal Child Health and Nutrition (MCHN), and water/sanitation/hygiene activities, with the above sectoral activities integrated.

## 2.2.2. Monetized Food Aid

Title II partners and other PVOs have monetized commodities for more than two decades in Uganda. Currently ACDI/VOCA is the lead on monetization for the MYAP consortium, and monetizes wheat for Mercy Corps and itself. Vegetable oil was monetized in the past, but its tax status was changed by the GoU in 2007, making it less desirable for monetization. Monetization funds support general food security programming activities by the Title II PVO Awardees. Table 3 summarizes USAID and USDA monetized food aid from FY07 to FY11.

**Table 3. Monetized Commodities (MT), FY07-FY11**

Year	FY07	FY08	FY09	FY10	FY11**	Totals
Wheat (Title II)	20,310	30,140	21,550	21,710	21,120	114,830
Wheat (USDA)	0	0	15,000	0	18,000	33,000
<i>Sub-total Wheat</i>	<i>20,310</i>	<i>30,140</i>	<i>36,550</i>	<i>21,710</i>	<i>39,120</i>	<i>147,830</i>
Vegetable Oil (Title II)	762	0	0	0	0	762
Vegetable Oil (USDA)	0	0	0	0	6,830	6,830
<i>Sub-total Vegetable Oil</i>	<i>0</i>	<i>0</i>	<i>15,000</i>	<i>0</i>	<i>6,830</i>	<i>21,830</i>
<b>Grand Total</b>	<b>21,072</b>	<b>30,140</b>	<b>51,550</b>	<b>21,710</b>	<b>45,950</b>	<b>170,422</b>

Source: USAID, USDA, MYAP partners, 2009 Bellmon

Note: \*USDA/FFProgress wheat grants in 2006 and 2009 were awarded to FINCA; \*\*FY11 USDA monetizations to Mercy Corps (wheat) and CLUSA/NCBA (oil) have not yet been undertaken, and the 6,830 MT of vegetable oil may be substituted for approximately 20,000 MT of wheat; USAID Title II monetization total includes 4,190 MT wheat grain that is anticipated to arrive in mid-June 2011.

See further details on monetization in Chapter 4.

## 2.2.3. Distributed Food Aid

**Table 4. Uganda USAID FY 2010 Non-Emergency MT for MYAP Partners**

Year	CSB	Maize Meal	Pulse (peas)	Veg. Oil	Total (MT)	Beneficiaries*
ACDI/VOCA	3793	--	--	241	4,034	139,000
Mercy Corps	140	3780	290	210	4,420	117,000

Source:ACDI/VOCA and Mercy Corps; \*beneficiary numbers include those receiving distributed food aid and those directly benefiting from other MYAP programming, e.g. agriculture/livelihoods

Distributed food aid is a relatively small component for both of the current Uganda MYAP programs. As mentioned above, ACDI/VOCA targets PLWHAs with a family ration of CSB/vegetable oil<sup>10</sup> for one year, and uses the Ugandan NGO The Aids Support Organization (TASO) to identify and register individuals who are HIV positive. Mercy Corps provides food aid to vulnerable beneficiaries under its various programmatic interventions.<sup>11</sup>

USDA's McGovern-Dole Food For Education programming is typically used for school feeding programs and ancillary activities. WFP/Uganda uses aid to establish school gardens, promote

<sup>10</sup> ACDI/VOCA PLWHA Rations are 7.5 kg/person/month of CSB, and 0.518 litre/person/month of vegetable oil, up to a maximum of six people/household

<sup>11</sup> Mercy Corps food aid rations are as follows: Food for Work (for road construction/rehab) and WASH activities: 37.5 kg/person/month of cornmeal; 2 liters/person/month of vegetable oil; MCHN program-supplementary feeding program ration for moderately malnourished child: 5 kgs. CSB, 6.25 kgs. peas, 25 kgs. cornmeal and 2 liters vegetable oil/month; for pregnant and lactating mothers: 6.25 kgs. peas, 25 kgs. cornmeal and 2 liters vegetable oil/month

fuel-saving stoves, promote nutrition and health education, improve HIV/AIDS awareness, provide Vitamin A supplementation, and support training for schools in food handling and management. The table below summarizes USDA distributed food aid from 2005 to 2010.

**Table 5. USDA McGovern-Dole Food for Education Programming, Uganda (MT) 2005-2010**

Year	2005/6	2007	2008	2009	2010	Totals
Tonnage	8,090			16,230	4480*	
Program Value	\$6,800,000			\$19,000,000	\$12,700,000	\$38,500,000
Implementing Partner	WFP			WFP	ACDI/VOCA	

Source: USDA, GAO, ACDI/VOCA

Note: \*tonnage for ACDI/VOCA is expected to be 2650 MT in 2011, and 1270 MT in 2012.

### 2.3. Planned Initiatives

USAID/FFP currently supports MYAPs in 2011 for ACDI/VOCA (US\$15 million per year) and Mercy Corps (US\$10 million per year). ACDI/VOCA's MYAP is scheduled to end at the end of FY11. Mercy Corps' current MYAP is scheduled to run until FY13 at a similar level. The new Title II Non-Emergency program (formerly referred to as MYAP) for Uganda is expected to be funded in the range of US\$18 million to US\$25 million per year from FY12 to FY16, may include awards for up to two PVOs, and will likely target the greater northeast Karamoja region.

USAID/Uganda's Feed the Future program activities are also expected to significantly improve overall food security and agricultural production for Uganda. Currently, the USG expects to commit US\$150 million for these activities, to complement US\$200 million in support from other donors in support of the GoU agricultural strategy, as detailed in their compact under Comprehensive Africa Agriculture Development Program (CAADP).

Under USAID/Uganda's Feed the Future program agenda, activities that will be funded include: 1) agricultural research; 2) policy and enabling environment; 3) partnership investment development fund; 4) capacity building; 5) value chain production and market linkages (with a focus on maize, beans, and coffee); 6) agro-input supplies; 7) producer organization (farm-level aggregation development); 8) market information systems; 9) community connector (targeting communities with the highest levels of malnutrition, and empowering women and children/youth); and 10) nutrition programs.

## Chapter 3. Adequacy of Ports, Storage, and Inland Transport

Uganda is capable of transporting and storing current and planned food aid volumes. As discussed in Chapter 2, current and planned food aid volumes are not nearly as high as they were five years ago; nonetheless, most of the roads and warehouses that handled over 200,000 MT<sup>12</sup> in 2005 are still available today, with current annual donor warehouse volumes of approximately 68,600 MT.<sup>13</sup> Donors have solidified storage and transport routes over their long history of food aid distribution in the country, which stretches past 40 years. Additionally, over the past two decades, food aid for the DR Congo, Rwanda, and southern Sudan has been transported through and stored in Uganda. In sum, Uganda currently houses experienced donors who effectively utilize infrastructure to ship, store, and transport food aid.

### 3.1. Ports

#### 3.1.1. Port Mombasa

The large majority of food aid destined for Uganda arrives at Port Mombasa, Kenya. The port is Kenya's largest and busiest port, and also serves Rwanda, Burundi, the DR Congo, Southern Sudan, Ethiopia, Somalia, and Tanzania (WFP, 2010). Uganda accounted for 80 percent of the port's transit goods in 2009 (Dredging Today, 2010).

In 2009, the port handled slightly over 19 million MT, almost utilizing the port's total capacity of 22 million MT (Dredging Today, 2010). However, this capacity is estimated to double with the construction of a new terminal, supported by Japan International Cooperation Agency (JICA). The first phase of construction should be completed by 2013 (Dredging Today, 2010).

Mombasa port has 16 deep-water berths, and five container berths (WFP, 2010). Only one berth is reserved for bulk transfer, which limits bulk loading capacity to 300,000 MT per month. One study notes that this capacity is further reduced to 200,000 MT per month due to the fact that only one bagging line is available, operated by Grain Bulk Handlers Limited (GBHL) (Kirimi, 2011). The port is equipped with forklift trucks, cranes, reach-stackers, and other tools. In 2008, the average wait time for a container dwell time was 8.6 days (WFP, 2010).

GBHL is the sole grain bulk handling agent currently used for monetized wheat, and is the largest grain handler at the port (Kirimi, 2011). GBHL owns and operates a dry bulk discharge and handling terminal for grain imports with a capacity of 67,500 MT (BEST/Fintrac, 2009). Their facilities include transit and storage silos, warehouses, and, as stated above, the port's only bagging line. GBHL provides transport to rail and road links near the port, with a discharge rate of 4,500 MT per day (BEST/Fintrac, 2009).

<sup>12</sup> WFP interfaits reports 2005 total food aid tonnages of 223,835 MT.

<sup>13</sup> This is a total of MercyCorps storage (600 MT), ACDI/VOCA storage (14,000 MT), and WFP storage (54,000 MT). However, this figure could increase with WFP's planned increased capacity of 23,000 MT.

WFP imports are generally brought in tax-free,<sup>14</sup> and NGOs may be eligible for tax exemption, depending on the type and purpose of their cargo (WFP, 2010). In 2008, WFP reported total shipping costs for bulk grain, from the US to Mombasa port, were about US\$153/MT, plus port charges (including repacking) of about US\$30 (IFPRI, 2008).

### 3.1.2. Dar es Salaam Port

Dar es Salaam Port can be considered as an alternative port to Mombasa, if Mombasa is too congested. The current likelihood of using Dar es Salaam is low; only one to five percent of all Uganda's seaborne imports are brought in through the port (Lyatuu, 2008), and the route from Dar es Salaam to Kampala is about twice as long as it is from Mombasa (Kagenda, 2011). Furthermore, the tax freight charges on the Central Corridor deter importers from using Dar es Salaam (Ihucha, 2011). However, the likelihood of Dar es Salaam as an option for Title II commodities may increase in the near future, given Kenya's upcoming political events. If Mombasa port is deemed unfit for future Title II shipments, Awardees should further examine Dar es Salaam port.

The port's total capacity is 9.5 million MT, 85 percent of which was fulfilled in 2009. The port has 11 deep-water berths (three for containers, eight for general cargo). Grain silos and bagging facilities are available. For Ugandan imports, total average wait time from port arrival to Kampala (using road transport along the Central Corridor) is about 29 days.<sup>15</sup> WFP currently utilizes road transport, and offloads trucks onto wagons at Dodoma.

## 3.2. Storage

Donors, the private sector, and the GoU own and operate a number of warehouses and storage facilities across the country. Due to the decreasing amounts of food aid coming into the country, utilization of storage spaces is well below installed capacity as of May 2011.

### 3.2.1. WFP

WFP currently has the most storage capacity in country, as compared to other donors. WFP warehouses in Tororo and Kampala each store 18,000 MT. As of May 2011, both facilities are currently well under capacity. WFP uses these two warehouses as its Central Distribution Points (CDPs), which serve as the first and primary storage for all Uganda-destined food aid coming from Port Mombasa. After food aid is stored in these facilities for an average of five months, it is transported to an Extended Delivery Point (EDP). The organization's 18 EDPs store a total of 24,850 MT (WFP). Finally, food is transported to Final Delivery Points (FDPs) for distribution.

**Tororo.** WFP's three Tororo warehouses have a total capacity of 18,000 MT (three warehouses of 6,000 MT). However, WFP is planning to increase capacity by another 23,000 MT. As of May 2011, the three Tororo warehouses stored a total of 2,000 MT. One of the three

<sup>14</sup> According to the WFP 2010 Logistics Capacity Assessment, WFP imports "are generally duty and tax exempt except for purchase of non-food items where tax exemption is sought on a case by case." For other NGOs, "tax and duty exemption is now granted to only diplomatic missions and on a case by case depending on the status of the project for which the exemption is being sought. If the mission or actual project/programme is in support of a specific public service i.e. health, water, education, environment etc, the line Ministry would facilitate the tax and duty exemption application."

<sup>15</sup> Comprised of: ship waiting time (13 days), cargo dwell time (12 days), and road transport from port (4 days). Source: Uganda Coffee Trade Presentation- 9th Breakfast Fellowship Meeting, May 2011. Kampala.  
<http://www.ugandacoffeetrade.com/documents/CENTRAL%20CORRIDOR%20PRESENTATION%20MAY%202011.pdf>

warehouses at Tororo is earmarked as a public grain warehouse for the warehouse receipt system, though as of May 2011 WFP is still seeking a private company to take over the facility.

About 95 percent of WFP's food aid destined for Karamoja is stored in Tororo. From Tororo, food is transported to the two EDPs in Moroto and Kotido, and then to FDPs. The team visited the warehouses in Tororo and found them to be secure, well-managed, with reported food aid losses less than one percent. However, the warehouse management reported some minor leakage in the roofs. WFP has contacted the facility owner, Uganda Property Holdings Limited (UPHL), to address the problem with little success.<sup>16</sup> Rather than waiting for the landlord to take action, the warehouse management decided to address the leakage problem themselves. As of 2009, WFP paid US\$8,000/month in rent to UPHL for the Tororo warehouse (UPHL, 2009).

**Kampala.** WFP rents three warehouses in Kampala with a total capacity of 18,000 MT (three warehouses of 6,000 MT). As of May 2011, the warehouses only held 6,000 MT. Of this, 2,000 MT was destined for the DR Congo. The Kampala warehouses also face leakage problems to a larger degree than the Tororo warehouses. Despite the fact that some food is protected by tarps instead of a solid roof, reported losses remain below one percent. WFP has been in contact with UPHL for over a year to repair the roof of the Kampala warehouse; as of May 2011 the problem remained unaddressed.

**Table 6. WFP In-Country Storage (MT)**

Location	Capacity
Abim (EDP)	700
Arua (EDP)	700
Gulu (EDP)	2,100
Kaabong (EDP)	2,100
Kampala (CDP)	18,000
Kapeka (EDP)	700
Kiryandongo (EDP)	350
Kitgum (EDP)	1,750
Kotido (EDP)	2,500
Kyakaii (EDP)	350
Kyangwali (EDP)	350
Lira (EDP)	36
Masindi (EDP)	700
Moroto (EDP)	3,150
Nakivale (EDP)	1,050
Nebbi (EDP)	350
Oruchinga (EDP)	350
Pader (EDP)	1,050
Pakelle (EDP)	350
Rubondo (EDP)	350
Sembabule (EDP)	350
Tokoka (EDP)	1,600
Tororo (CDP)	18,000
<b>Total Capacity</b>	<b>56,936</b>

Source: WFP

<sup>16</sup> UPHL is a government parastatal which took hold of the warehouse in 2003.

### **3.2.2. ACDI/VOCA**

ACDI/VOCA has four warehouses in Uganda, located in Kampala, Lira, Soroti, and Gulu. Their largest warehouse in Kampala stores about 8,000 MT, and their total capacity country-wide is 14,000 MT. The main warehouse in Kampala stores commodities for Mercy Corps and the Clinton Foundation, along with ACDI/VOCA's own commodities destined for its distribution program areas in the north. ACDI/VOCA's food aid destined for Karamoja usually passes through Kampala to Soroti. ACDI/VOCA owns their small warehouse in Bobi, in Gulu District, and rents the remaining properties from private companies. The organization also borrows storage space from WFP. The team visited the ACDI/VOCA warehouse in Kampala and found it to be well-managed, secure, in very good condition, with acceptable minimal losses (less than 0.5 percent). The team visited the ACDI/VOCA warehouse in Bobi and did not note any issues. All of ACDI/VOCA's monetized commodities are transported straight to their buyers' facilities without any need for storage along the way.

### **3.2.3. Mercy Corps**

Mercy Corps largely depends on WFP and ACDI/VOCA for storage, and also uses local churches for a small amount of their storage in Karamoja. Mercy Corps has one storage unit of 600 MT in Kitgum to primarily support their MYAP activities, which was gifted to them by the district authorities. The management noted that the warehouse entrance is too small for large trucks to maneuver (roughly larger than 12 MT). Apart from this issue, the warehouse appeared to provide adequate storage with no problems.

### **3.2.4. Private Storage**

As detailed in Chapter 6, private companies own and operate cleaning and storage facilities, some of which are a part of the warehouse receipt system and Ugandan Commodity Exchange. WFP, through its P4P program, supports many of these operations - especially those along the "grain corridor." One private storage/cleaning facility, Agroways in Jinja, is part of the public grain warehouse receipt system. Agroways supports 150 farmers groups, and has a current warehouse capacity of 800 MT (plus an additional 450 MT in rented warehouses). Agroways has another 3,000 MT warehouse under construction. The team visited the Agroways facility and found it well-managed, secure, in very good condition, with no problems of note.

In Gulu and Kitgum, WFP utilizes warehouses operated by the private company, Coronet. WFP is currently the most active advocate and client of the recently-opened Kitgum warehouse, but is emphasizing to the community that the warehouse is privately-owned and operated, and open to anyone. WFP is also in the process of privatizing one of its Tororo warehouses for conversion into a public grain warehouse for the P4P-supported warehouse receipt system.

Large private grain traders who sell to WFP's LRP program, such as Aponye, Premier, Export Trading, and Sunrise, have their own private warehouses in the Kampala area.

## **3.3. Inland Transport**

### **3.3.1. Rail vs. Road**

Road transport along the Northern Corridor is largely preferred by both donors and private companies; although road transport is relatively more expensive, donors and private market actors both reported that the higher cost was worth the time saved compared to rail transport.

Transport by rail from Mombasa to Kampala costs an estimated US\$95 per MT, and transport by road from Mombasa to Kampala is about US\$107 per MT (personal interviews, 2011). Fuel prices have increased both rail and road transport costs, and some interviewees noted that rail prices have especially increased to the point where they are only slightly less expensive than road transport.

Wait time at Mombasa port accounts for approximately 61 percent of all road transport time along the Northern Corridor, whereas it accounts for 85 percent of all railway transport time. Rail cargo can be held at the port for up to 40 days (JICA, 2009). Road transport of a 40-ft container from Mombasa to Kampala takes about 19 days, whereas rail transport from Mombasa to Kampala takes about 51 days (JICA, 2009). From Dar es Salaam, a 40 ft container transported by road to Kampala takes about 48 days (JICA, 2009).

Main roads within Uganda's larger cities are paved, but the majority of the country's secondary roads are made of muram. The latest FEWS NET Livelihood Zone report noted six zones with poor road conditions, which are located in the far southwest corner of the country, the northeast Karamoja region, and the Mt. Elgon area, where rains and difficult terrain limit transport.

Security issues in the north and northeast parts of the country continue to impact transport, and trucks carrying food aid have been attacked in the past. Though insecurity has greatly decreased in recent years, drivers should be cautious and consider measures such as a security escort, especially if traveling at odd hours.

WFP has a fleet of 55 trucks and trailers, which serve its P4P and LRP programs as well as distribution activities (WFP). The majority of WFP's transport services, however, are operated by private companies which incur the costs of any loss. Mercy Corps uses some of their own trucks, but also hires private transport companies. ACDI/VOCA's monetized wheat is handled by private transporter Ripe Co., for transport from Mombasa directly to the Ugandan buyers' mills. Unlike WFP, ACDI/VOCA must bear the cost of any loss of product during transit.

Road transport costs from Tororo to the Karamoja area range from about US\$33 per MT (Tororo to Nakapiripirit) to about US\$44 per MT (Tororo to Kaabong). Road transport costs from Kampala to the Karamoja area range from about US\$35 per MT (Kampala to Nakapiripirit) to about US\$40 per MT (Kampala to Kaabong) (WFP/Uganda, 2011).

Railways operate from Mombasa through the Kenyan cities of Nairobi, Nakuru, and Eldoret, to Uganda's Tororo, Jinja, and Kampala. The rail route from Mombasa to Kampala is about 1,333 km. As stated earlier, these lines are rarely used by donors or the private sector to ship food. However, the GoU has noted in their 2011/2012 budget that they intend to improve rail transport; if these improvements are made, then Awardees may reconsider rail transport as a reasonable option.

**Table 7. Estimated Rail and Road Costs/Transport Time**

Origin	Destination	Cost- US\$/MT Road	Cost- US\$/MT Rail
Mombasa	Tororo	75.00	71.50
Mombasa	Kampala	87.00	87.00
Kampala	Gulu	21.00	
Kampala	Kitgum	31.00	
Kampala	Pader	31.00	
Kampala	Lira	21.00	

Origin	Destination	Cost- US\$/MT Road	Cost- US\$/MT Rail
Kampala	Kotido	40.00	
Kampala	Abim	37.50	
Kampala	Moroto	37.50	
Kampala	Nakivale	27.00	

Source: WFP

### 3.3.2. Kenya/Uganda Border

A number of customs procedures take place at the Busia and Malaba border crossing points. Trucks should receive clearance from the Kenya Revenue Authority (KRA) and complete two KRA Bill of Entry C63 forms, along with a waybill (WFP, 2010). Trucks are then inspected and cleared by the Uganda Revenue Authority (URA), the Uganda Quarantine and Inspection Service (UQIS), and the Uganda National Bureau of Standards (UNBS).

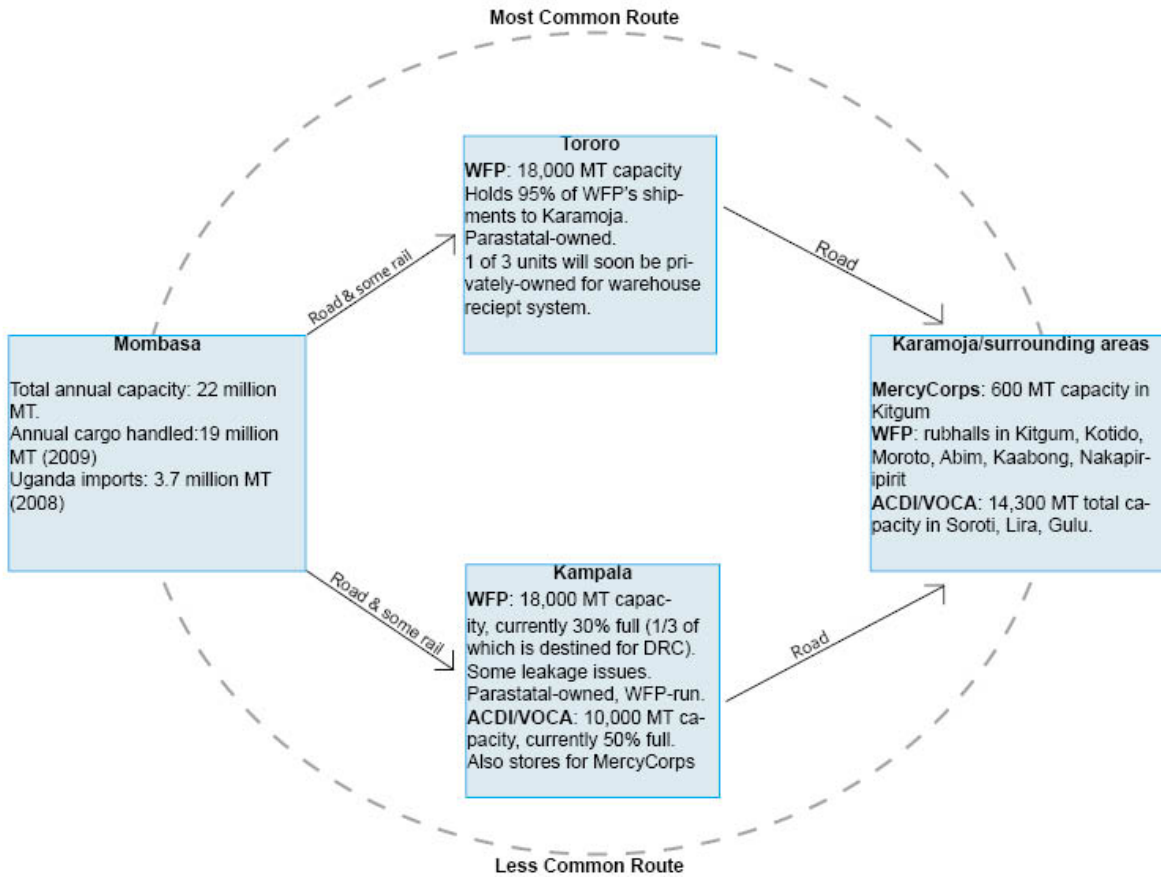
For rail shipments, Rift Valley Railways (RVR) handles clearance procedures at Tororo, about 16 km away from Malaba. The GoU, in collaboration with the World Bank, has made plans to harmonize rail clearance procedures with road clearance procedures at Malaba, but this has yet to happen (WFP, 2010).

Interviewees noted levees in Kenya of about US\$0.12/MT, and a US\$1 to US\$1.50/MT fee at the Malaba crossing. From the Busia and Malaba crossings, transporters must pay the URA a road toll for each truck. These tolls are approximately US\$35 per truck, for shipments destined to Kampala and US\$4 per truck, for shipments destined for Tororo (WFP, 2010). Furthermore, parking fees range from US\$2 to US\$4 per day (Ugandan side) and US\$3.50 (Kenyan side) (Uganda Radio Network, 2011).

### 3.4. Mombasa to Karamoja

The most common and efficient route for food aid destined for Karamoja is through Tororo. From Tororo, food aid travels north through Moroto and into the Karamoja region. In rare cases, food aid may pass through Kampala instead of Tororo. In such circumstances, shipments travel through Soroti and then into Karamoja. See the figure below.

**Figure 2. Transport to Karamoja**



## Chapter 4. Monetization Analysis

### 4.1. Introduction

This chapter is meant to inform USAID in its determination of the appropriateness of monetization in Uganda during FY11 and FY12. It covers four critical areas of inquiry:

1. How appropriate is monetization for Uganda during the remainder of FY11 and under any new Title II non-emergency program in FY12?
2. If monetization is appropriate during this period, which commodities are the most appropriate to monetize?
3. What is the approximate maximum tonnage feasible for monetization for each commodity?
4. Are there special consideration (e.g. sales platform or timing of sales) that should be taken into account when considering/undertaking monetization in Uganda?

The content of this analysis is broken into three core sections: a brief overview of historical monetization in-country, initial commodity selection, and commodity-specific market analyses and recommendations. For the complete methodology for determining the potential impact of monetized food aid, please see Annex VI.

### 4.2. Monetization History

Small-lot refined soybean oil monetization was the mainstay of the Title II monetization program in Uganda for 18 years, from 1988 when the first consignment was provided through a government-to-government program until 2007 when it was discontinued due to a zero-rated Usual Marketing Requirement (UMR) by USDA, and the removal of a waiver on Value-Added Tax (VAT).

Only hard red winter wheat (HRWW) has been monetized during the current non-emergency programs under this review. HRWW was first monetized in 1998 and averaged approximately 23,428 MT per year during the period FY07 to FY10. Title II Awardees expect to monetize 21,120 MT of HRWW for FY11.

Since the beginning of USAID-supported non-emergency programs in 1988, ACDI/VOCA has been the sole monetization agent for all implementing NGOs receiving resources from USAID and USDA. The table below provides an overview of the tonnages monetized by USAID and USDA implementing partners during FY07-FY10, and planned for FY11.

**Table 8. Monetized Commodities (MT), FY07-FY11**

Year	FY07	FY08	FY09	FY10	FY11**	Totals
Wheat (Title II)	20,310	30,140	21,550	21,710	21,120	114,830
Wheat (USDA)	0	0	15,000	0	18,000	33,000
<i>Sub-total Wheat</i>	<i>20,310</i>	<i>30,140</i>	<i>36,550</i>	<i>21,710</i>	<i>39,120</i>	<i>147,830</i>
Vegetable Oil (Title II)	762	0	0	0	0	762
Vegetable Oil (USDA)	0	0	0	0	6,830	6,830

<i>Sub-total Vegetable Oil</i>	762	0	15,000	0	6,830	22592
<b>Grand Total</b>	<b>21,072</b>	<b>30,140</b>	<b>51,550</b>	<b>21,710</b>	<b>45,950</b>	<b>170,422</b>

Source: USAID, USDA, MYAP partners, 2009 Bellmon

Note: \*USDA/FFP progress wheat grants in 2006 and 2009 were awarded to FINCA; \*\*FY11 USDA monetizations to Mercy Corps (wheat) and CLUSA/NCBA (oil) have not yet been undertaken, and the 6,830 MT of vegetable oil may be substituted for approximately 20,000 MT of wheat; USAID Title II monetization total includes 4,190 MT wheat grain that is anticipated to arrive in mid-June 2011.

### 4.3. Initial Commodity Selection

The BEST study team performed a desk review to identify an initial set of commodities for study in this report. The selection is based on available trade statistics, previous Bellmon studies, review of other relevant country reports, and interviews with key informants during an April/May 2011 field visit. For the purpose of this study, a commodity selection for review and possible recommendation followed six “tests”:

1. Eligibility for export from the US;<sup>17</sup>
2. Eligibility for import to Uganda;
3. Significance of domestic demand;<sup>18</sup>
4. Domestic supply shortfalls are filled through commercial imports;
5. Presence of adequate competition for the commodities; and
6. Expectations that fair market prices can be achieved.<sup>19</sup>

**Test 1: Eligibility for export from the US.** All the commodities discussed in this report are in the FFP commodity list for FY11 and FY12.

**Test 2: Eligibility for import.** Monetization of Title II commodities is properly viewed within the context of the GoU’s policy of import substitution industrialization. This is particularly true in the case of vegetable oil (refined or crude), but also impacts some GoU perspectives on wheat grain monetization.

At present, the GoU does not currently have a law regulating GMO products. According to officials at the Uganda National Council for Science and Technology (UNCST), the GoU recently drafted and submitted to cabinet for approval principles for the regulation of products, the “Biotechnology and Biosafety Bill.” After the approval process, the bill will be sent to the Attorney General’s office for drafting. The law is expected to provide for an acceptable percentage of genetic modification in the product, but the percentage has not yet been agreed upon. Should a restriction on GMO commodities be effected,<sup>20</sup> this may affect the consideration of soybean products for monetization.

<sup>17</sup> This “test” implies that it is also on the FFP list of approved commodities for monetization.

<sup>18</sup> This threshold is set in the following way: Average import levels for the past five years must be greater than US\$5 million and a regular portion of these volumes must be commercial imports. A threshold is set to ensure efficiencies in the funding of Awardee programs.

<sup>19</sup> Implicit in the above six bullets is that the destination market must be able to absorb the volume of monetized commodity in question without “substantial” disruption. Recent precedent follows a ten percent rule--- that is; “substantial” disruption to the market is assumed not to occur below a threshold of either 10 percent of commercial imports, or 5 percent of the domestic production of any particular commodity if there is substantial domestic production. We will follow this convention throughout this analysis.

<sup>20</sup> The Plant Protection And Health Bill, 2010, Part IV—Import And Export Control states section (3) states, “Unless exempted under sub-Section (6), no plants including the living cultures of genetically modified organism, any fungus, bacterium, or any other microorganism, plant products, beneficial organisms or any other material or substance specified under this Act may be imported into Uganda without a prescribed permit.” It does appear to allow exceptions to be made (“Unless exempted under sub-Section (6)”), but prior approval will need to be made if GMO commodities are to be considered.

With these caveats in mind, all of the commodities included for consideration are currently imported in Uganda commercially, making them eligible for further consideration for monetization.

**Test 3 and 4: Significance of domestic demand and deficit in Uganda.** To warrant importation and sale of monetized food aid, both local dietary preferences and available market information must strongly suggest that a commodity is consumed in significant amounts (i.e., there is significant demand), and that national production is insufficient to meet the demand (i.e., there is insufficient national supply to meet demand). National demand is estimated based on the latest five-year overall supply trends, equivalent to the sum of domestic production and net trade. One common rule of thumb, which we adapt for the present analysis, is that monetized food aid should not exceed ten percent of average yearly commercial import volumes. Based on the value of the average imports of the last five years, the following table lists the only three food commodities with five-year average import values of greater than US\$5 million and which also appear on the FFP list of products eligible for monetization during FY12. This market analysis considers wheat grain, vegetable oil, and rice as potential candidates for monetization for the remainder of FY11 and FY12.

**Table 9. Average Annual Commercial Import Volume and Value for Select Commodities During Previous 5-year Period, 2005-2009**

Commodity	Average Volume of Imports (MT)	Average Value of Commercial Imports (US\$000)
Edible oil	155,929	\$115,890,210
Wheat	301,901	\$103,519,391
Rice	60,465	\$19,694,811

Source: UN Comtrade, WFP Interfais

Note: UN Comtrade reports Uganda imports inclusive of food aid. To obtain average volume and value of commercial imports excluding food aid, both the volume and value of food aid was subtracted from Comtrade figures by imputing a value to the food aid, using commercial values for all imports as reported by Comtrade for the period.

The table below summarizes each of the first four tests.

**Table 10. Initial Selection of Commodities Based on Test 1-4**

Commodity	Eligibility of export from the US	Eligibility for import to Uganda	Significance of domestic demand	Deficit in Uganda
Vegetable oil	Yes	Yes	Yes	Yes
Wheat	Yes	Yes	Yes	Yes
Rice	Yes	Yes	Yes	Yes

The remainder of the analysis will assess the ability of local markets to absorb wheat, edible oil, and rice, as these are the only commodities that passed the first four tests. The existence of GoU policies, regulations, and practices that may complicate the importation and monetization of commodities also informs further analysis. If it is determined that local markets are able to absorb these commodities and GoU policies are favorable for monetization, the analysis will continue to recommend volumes for monetization. Local markets' absorption abilities, as well as recommended volumes, will stem from critical analysis of market competition (which must be adequate, according to test 5) and prices (which must be fair, according to test 6).

#### 4.4. Market Analysis - Wheat Grain

##### 4.4.1. Demand and Supply Overview

**Demand.** Demand for wheat flour has grown tremendously in the last decades, particularly with increasing urbanization. As GoU development successes have resulted in rising per capita incomes and Uganda has become increasingly urbanized, consumers have increasingly incorporated wheat products into their diet, particularly chapatis and pan-style breads. Relative to traditional cereals, such as millet and sorghum, or roots and tubers, wheat-based products are particularly well-suited to urban living due to the shorter time required for their preparation and the relatively greater availability of wheat in processed, convenient forms.

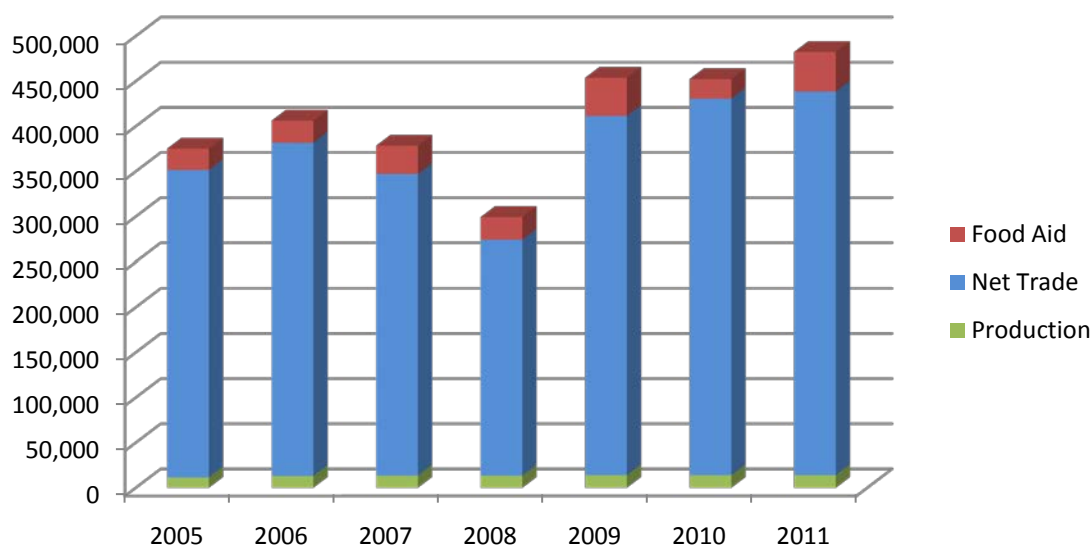
According to official trade statistics, Uganda's annual wheat grain consumption is approximately 400,000 MT per year (based on 2009 figures, the last year available, with an assumed five percent annual growth rate). According to interviews with seven of the country's ten private wheat mills, Uganda's annual wheat grain consumption ranges from 360,000 to 600,000 MT, with most mills reporting approximately 450,000 MT per year, with growth estimates ranging from five percent to 10 percent for the next five years.

Demand is anticipated to grow at an average of five percent per year, barring any major economic shocks that negatively impact consumer purchasing power. A minority of the mills estimate growth on the order of 50 percent over the next five years. Certainly some of this growth reflects growth in the larger regional market. Of note for USG programming, while there may be some minimal re-export of wheat grain to Rwanda, DR Congo, southern Sudan, and Kenya, the bulk of Uganda's wheat exports would be in the form of wheat flour (milled in Uganda).

In an effort to capitalize on the growing consumption of wheat flour products, the Global Alliance for Improved Nutrition (GAIN) provided a grant to Uganda's ten wheat flour mills to begin fortification of wheat flour to address micronutrient deficiencies in urban populations.<sup>21</sup>

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<sup>21</sup> According to the 2010 GAIN report, wheat flour was chosen "as a viable vehicle for mass fortification for providing micronutrients that are inadequate in the diets of the urban population." The objectives of the flour fortification project were to (1) reduce the prevalence of iron deficiency anemia by 10 percent in 3 years, (2) reduce the prevalence of vitamin A deficiency by 10 percent in 3 years, (3) reduce the prevalence of neural tube defects" <http://www.sph.emory.edu/wheatflour/Africa/UgandaMS.pdf>

**Figure 3. Ugandan Wheat Supply Overview (MT), 2005-2011**

There are ten millers in Uganda with a combined milling capacity of 569,100 MT, most of which have been established since 2004/2005 with a few dating back to 1999/2000. One of the largest mills, Bajaber, added an additional 180 MT per day milling capacity to its Kampala mill. According to the millers, their total annual grain throughput is nearly 449,000 MT per year, suggesting they are currently operating at just under 80 percent of installed capacity.

**Table 11. Milling Capacities and Annual Throughput, 2011**

Mill	Installed Milling Capacity (MT/year)	Average Annual Throughput (MT/year)	Installed Storage Capacity (MT)
Asam Products(Samco)	6,000	2,400	500
Bakhresa	182,500	182,500	8,000
Kengrow	36,000	25,000	8,000
Nile Agro	42,000	33,600	6,500
Ntake	66,000	52,800	12,000
Pan Afric	60,000	48,000	5,000
Ngano (UGMC)	18,000	14,400	8,000
UNGA	28,800	23,040	4,000
Bajaber (part of Pembe Group)	111,800	52,800	20,000
Mount Elgon	18,000	14,400	5,000
<b>TOTAL</b>	<b>569,100</b>	<b>448,940</b>	<b>77,000</b>

Source: Interviews with millers, 2009 BEST, Awardee documentation

Notes: Installed storage capacity includes both warehouses and silos, and is likely underestimated as some millers reported only warehouse capacity while others reported both installed capacity in warehouses and silos combined. Both Bakhresa and Bajaber report newly-expanded milling capacity since the 2009 BEST report.

Wheat grain is milled into three main types of flour, though there are some specialty flours (e.g., cake, donut, hot loaf, brown flour, etc): 1) home baking flour (usually soft wheat only, mostly for home-prepared chapatis), typically sold by millers in bulk to wholesalers; 2) baker's flour (blend

of hard and soft wheat), typically sold in bulk to bakers; and 3) biscuit flour (blend of hard and soft wheat), sold in bulk exclusively to biscuit manufacturers.

The estimated annual demand for the hard wheat grain required for both baker's flour, biscuit flour, and some of the specialty flours Uganda's millers produce is 160,000-180,000 MT. As stated above, bakers and biscuit manufacturers use a blend of hard and soft wheat to create their product, and each product has a unique hard/soft blending ratio. Estimated demand for hard wheat grain is based on an average ratio for hard and soft wheat, of 40 percent hard with 60 percent soft wheat. However, this ratio changes depending on the availability (and hence prices) of hard and soft wheat of differing varieties. Ratios of between 20 and 70 percent of hard wheat were reported by Ugandan millers, with the largest buyer (Ntake) reporting a willingness to use up to 55 percent hard wheat.

**Domestic production of wheat grain.** Per official GoU statistics, Uganda produces 19,000 MT per year of soft wheat (approximately four percent of its total wheat grain requirement using the 450,000 MT consumption figure, and zero percent of its total hard wheat grain requirement). Domestic production of wheat grain is limited to two regions within the country which have suitable growing conditions: Kapchorwa (on the Uganda-Kenya border) and Kabale (on the Uganda-Rwanda border).

Interviews with seven of the ten wheat mills suggest that GoU estimates are perhaps double actual production levels, and actual production levels are likely in the range of approximately 8,000 MT per year (two percent of Uganda's total wheat grain requirement using the 450,000 MT consumption figure, zero percent of its total hard wheat grain requirement.)

This 8,000 MT per year estimate is based on:

- Last official GoU statistic indicates 19,000 MT total domestic wheat production per year.
- Mt. Elgon mill indicates it buys 90 percent of Kapchorwa surplus wheat, which reaches a max tonnage of 2,000-3,000 MT in any given year.
- Ntake indicates they make concerted effort to buy domestic wheat from Kapchorwa, but the maximum tonnage brought to their mill in Kampala in any one year is 50 MT. USDA/Nairobi estimates that 50 percent of surplus from Kapchorwa reaches markets across the border in Kenya.

**Commercial imports.** An estimated 98 to 99 percent of domestic demand for wheat grain (hard and soft) is met through commercial imports. One hundred percent of domestic demand for hard wheat grain is met through commercial imports; hard wheat cannot be produced within Uganda because of the country's tropical climate. Imported hard wheat grain has a higher protein content (typically 13 to 13.5 percent) than soft wheat, and is essential for gristing quality baking flour.

The previous BEST study found that Australia was the largest wheat source for Ugandan millers during the early 2000s; in recent years, Australia was replaced by Black Sea exporters Russia and Ukraine, as well as Argentina and Canada, to a lesser extent. According to the International Association of Operative Millers, East African millers had been increasing their use of wheat from Black Sea origins up until 2009, but the quality of this wheat was less reliable than traditional sources "which means relying more on laboratory analysis and the use of flour improvers" (McKee, 2009). According to ITC data, in 2010, Ukraine and Russia supplied half of Uganda's cereal imports (in US dollar terms), each supplying one-quarter of wheat imports. The US and Brazil each supplied about one-tenth of wheat imports in 2010. Beginning in the

summer of 2010, however, the dramatic increase of Black Sea wheat was just as dramatically halted and reversed with the imposition of an export ban by Ukraine and Russia, which forced Ugandan millers to instead source from Canada, US, and Australia.

At present, the bulk of commercial imports of hard wheat are sourced from Canada, with some from the US, and a small amount of semi-hard wheat from Germany. It is unlikely that Ugandan millers will have access to Ukrainian wheat in the near future; while Ukraine recently lifted the export ban on wheat<sup>22</sup>, beginning July 1, 2011 and running through January 1, 2012, the government of Ukraine will begin imposing export duties on wheat (among other grains) of nine percent of the customs cost.<sup>23</sup> The swing demand for US and Canadian wheat has brought with it the advantage of clear grading standards. Whereas eastern European wheat grain suppliers generally blend hard and soft varieties, which are then marketed as "milling wheat," US HRWW is graded according to a protein content in moisture content equivalent, which makes it easier for mills to buy the right mixture of hard and soft wheats to meet their specifications.

**Food aid.** Title II Awardees have been monetizing an annual average of 23,420 MT of HRWW during the most recent five-year period, FY07-FY11. This average is increased by the inclusion of the larger than usual tonnage in FY08 of 30,140 MT; excluding that year, the average has been 21,173 MT. This amount represents approximately five to six percent of total supply, and about five to slightly less than seven percent of commercial imports, depending on the year. Title II FY11 executed and planned sales total 21,120 MT, which will represent about 4.5 percent of the total wheat grain supply and about five percent of the commercial import volume of wheat grain.

USDA Food For Progress Awardees also occasionally monetize HRWW. There has been one USDA monetization in the period FY07-FY10, when FINCA monetized 15,000 MT HRWW in FY09. There is a single planned monetization of 18,000 MT HRWW in FY11.

The addition of USDA monetizations brings the annual average of monetized HRWW to 29,566 MT per year, an amount which represents six to eight percent of total supply, and about seven to nine percent of commercial imports (depending on the year). Not surprisingly, the contribution of monetized wheat was greater in the exceptional year 2008 (about 11 to 12 percent, respectively), given that the global food price crisis drastically dampened commercial imports. Neither Title II wheat grain nor wheat flour is used as a distributed food aid commodities.

The following table summarizes the components of wheat grain supply for the most recent five-year period.

**Table 12. Uganda Wheat Supply (MT), 2005-2011**

	Wheat grain (MT)	2005	2006	2007	2008	2009	2010	2011
1	Imports	340,058	371,038	334,969	262,279	397,592	417,472	438,345
2	Of which, Food Aid	23,670	24,631	31,410	25,015	42,415	21,710	39,120*
3	Exports	20	2,382	1,393	1,450	226	838	532

<sup>22</sup> Announced by Russian President Putin in late May and Ukrainian President Yanukovich in early June 2011. See, for example, <http://www.agrimarket.info/showart.php?id=108866>

<sup>23</sup> On June 17, 2011, the state newspaper Uryadoviy Courier reported that President Yanukovich signed the law #3387-VI on June 10, 2011, which imposes 9-14% customs duties for grain exports till 2012.

	Wheat grain (MT)	2005	2006	2007	2008	2009	2010	2011
4	Net Trade	340,038	368,656	333,576	260,829	397,366	416,633	437,813
5	Production	11,500	13,000	13,500	13,500	19,000	19,000	19,000
6	<b>Supply</b>	<b>351,538</b>	<b>381,656</b>	<b>347,076</b>	<b>274,329</b>	<b>416,366</b>	<b>435,633</b>	<b>456,813</b>

*Sources/Notes:*

1 FAOSTAT, Comtrade, ITC; 2010 is estimated based on 5% growth from previous year. 2011 based on BEST field interviews with 8 out of 10 millers.

2 WFP Interfais, IGC, AMEX, USDA; 2005-2006 is average of WFP Interfais and IGC; 2007, 2009 & 2010 from IGC; 2008 is average of IGC, AMEX and USDA; 2011 is sum of USAID and USDA planned FY11 monetizations; There are discrepancies between the monetized wheat food aid totals in Table 8 and the totals indicated here, likely due to differences in the calendar year versus fiscal year reporting standards.

3 FAOSTAT, Comtrade, ITC; 2010 and 2011 are averages of previous two years' data.

4 Imports minus exports

5 FAOSTAT, BEST field interviews; 2010 and 2011 are averages of previous two years' data.

6 Sum of lines 4, 5

**GoU policy.** Current GoU policy is to treat wheat grain as a raw material which, therefore, is not subject to duties or taxes. This is in harmony with current East African Community (EAC) Common External Tariff (CET) policy. Wheat flour, however, is taxed at 60 percent outside of the EAC. Please see Annex I for more information on EAC CET policies. The status quo contributes to the continued feasibility of in-country wheat monetization. EAC members are currently undertaking annual review of CET policy and revising commodities considered 'sensitive' by member countries. Based on discussions with GoU and millers during the field visit, the study team does not anticipate wheat grain will be taxed in the near future; however, PVOs should monitor updates in CET policies.

At present, there are no GoU direct activities to increase domestic wheat production. The GoU has, however, expressed an interest in promoting its domestic soft wheat production, even though officials acknowledge that the most efficient production may never meet more than two to three percent of domestic soft wheat grain demand. A value chain analysis would have to be conducted to determine if Uganda has a comparative advantage with domestic wheat production in the two areas of Kapchorwa and Kabale. Importantly, even if an analysis determines that Uganda could competitively grow its own soft wheat, the domestic milling industry would still be required to source hard wheat for gristing to make baking flour.

#### 4.4.2. Starch Substitution

Rather than substituting for other staple carbohydrate sources, demand for wheat appears to be driven by increasing urbanization, increasing purchasing power, and a growing population. In many other LIFDCs, wheat consumption may be replacing more traditional foods to a greater extent. However, the typical Ugandan diet is remarkably diverse for sub-Saharan Africa, and even more so among LIFDCs globally, and remains so despite increasing wheat consumption. Approximately 80 percent of the diet comes from four to five different staples (UBoS, Uganda National Household Survey, Agricultural Module, 2006). With some regional variation in preferences (which are heavily influenced by local availability, though not in a one-to-one manner), domestically-produced crops that provide carbohydrates for the average Ugandan include bananas, cassava, Irish and sweet potatoes, millet, sorghum, maize, and rice.

Among the key staples that would be likeliest substitutes for wheat -- roots and tubers, millet, sorghum, and rice, there appears to be continued growth in production on the whole. Previous studies provide evidence of significant growth in production of the main starch crops (BEST/Fintrac, 2009) (Economic Policy Research Centre and USAID, 2006), including

continued increased production of six of the main food commodities (sweet potato, Irish potato, maize, millet, sorghum, and rice). Bananas<sup>24</sup> and cassava have experienced some decline in production, due to biological threats (black leaf disease and cassava mosaic virus, respectively) rather than economic threats. Thus, just as the 2009 BEST study found, this study team finds that the production and marketing of the likeliest substitutes for wheat-based flour have grown simultaneously with demand for wheat flour.

#### 4.4.3. Competitive Environment

Uganda's ten millers serve a relatively small country of 34 million (Population Reference Bureau), and many have slightly different product specialties and/or markets. Thus, there is evidence of adequate competition for monetized commodities. The team met with eight of the ten millers/bakeries: Ntake, Bajaber, Mt. Elgon, Unga, Nile Agro, Kengrow, Bakhresa, and Pan Afric.<sup>25</sup> As illustrated in Table 11 above, all millers have excess installed capacity in anticipation of growing market demand in the coming years. A review of the prices offered during the tendering process, and interviews with key informants knowledgeable about Uganda's wheat market, reveals no evidence of collusion among the millers.

All participating mills indicate they would purchase more Title II wheat than is generally available through the once-per-year tenders. The country's largest mill, Bakhresa, does not participate in Title II monetization. As part of Said Salim Bakhresa & Company Ltd., East Africa's largest milling company with operations in six countries, Bakhresa reportedly has access to its own 50,000 MT vessel, which reduces the unit cost of sourcing wheat from and distributing wheat via its own supply chains. Ngano (formerly Uganda Grain Milling Company (UGMC)) concentrates on animal feed.

#### 4.4.4. Monetization Process

ACDI/VOCA uses a closed bid tender system, followed by negotiations with each mill to arrive at a final sales price. Detailed tender information is provided to all ten millers, and to increase public awareness and transparency, the tender announcement is published in two leading daily newspapers. Bidders are provided a one-week submission deadline. Eligibility is based on each bidder's ability to secure a bank guarantee or letter of credit, storage capacity, and payment and credit history.<sup>26</sup>

The general consensus among millers is that Title II HRWW monetization has the following advantages: 1) reliability of delivery; 2) quality of wheat grain; 3) reliable contract enforcement; and 4) cost advantage over regular commercial sales because ACDI/VOCA delivers directly to

<sup>24</sup>"Bananas" in this report includes plantains and matooke.

<sup>25</sup> Due to time constraints, the team was unable to interview the smallest miller, Samco. The study team did not interview Ngano, as they reportedly concentrate on animal feed. The team interviewed officials at Pan Afric, but obtained little information of use for the present study.

<sup>26</sup> As detailed in the 2009 Bellmon, and confirmed with ACDI/VOCA through document review, certain aspects of the monetization process which contribute to better monetization returns include: 1)Tenders are opened and awards are announced the day after the submission deadline, facilitating planning and supply scheduling for the buyers; 2) Tender process is timed so that commodity delivery is within a few days of tender awards; 3) Shipments are "shared" to lower shipping costs and allow smaller buyers to participate; 4) Prices include delivery to miller warehouses with all transport logistics managed by ACDI/VOCA; 5) Payments terms are designed to provide buyers with a number of options including: Ten percent on contract signing, Payment balance allowed in up to six installments if supported by bank guarantee, with the second payment of 15 percent due on arrival at miller's warehouse; Trade credit of 30 to60 days after delivery; 6) If rail transport is used, which is slower and less predictable, two additional payments are allowed -- on date of first and last wagon delivery; 7) Final payment of five percent is due once consignment has been reconciled (weight differences taken into account); 8) ACDI/VOCA assumes responsibility for fumigation and provides warranty on stated quality.

the mill., with ACDI/VOCA's private transporter assuming the risk of loss during transport (mills pay only for the wheat they actually receive, as opposed to the volume they order). This fourth advantage appears to be the most attractive aspect of the current monetization program from the millers' perspective; mills report average losses during ocean and overland transport can average four to five percent. Losses during overland transport from Port Mombasa to the final delivery point are assumed by the private transporters contracted by the lead monetization agent. ACDI/VOCA reports average losses during transport of less than one percent.

#### 4.4.5. Performance of Past Monetizations

A study of the impact of Title II vegetable oil and wheat monetization sales during the period 1989-2006 (Murphy, 2007) examines the specific impacts of Title II wheat monetization on the development of the domestic milling industry, and reports,

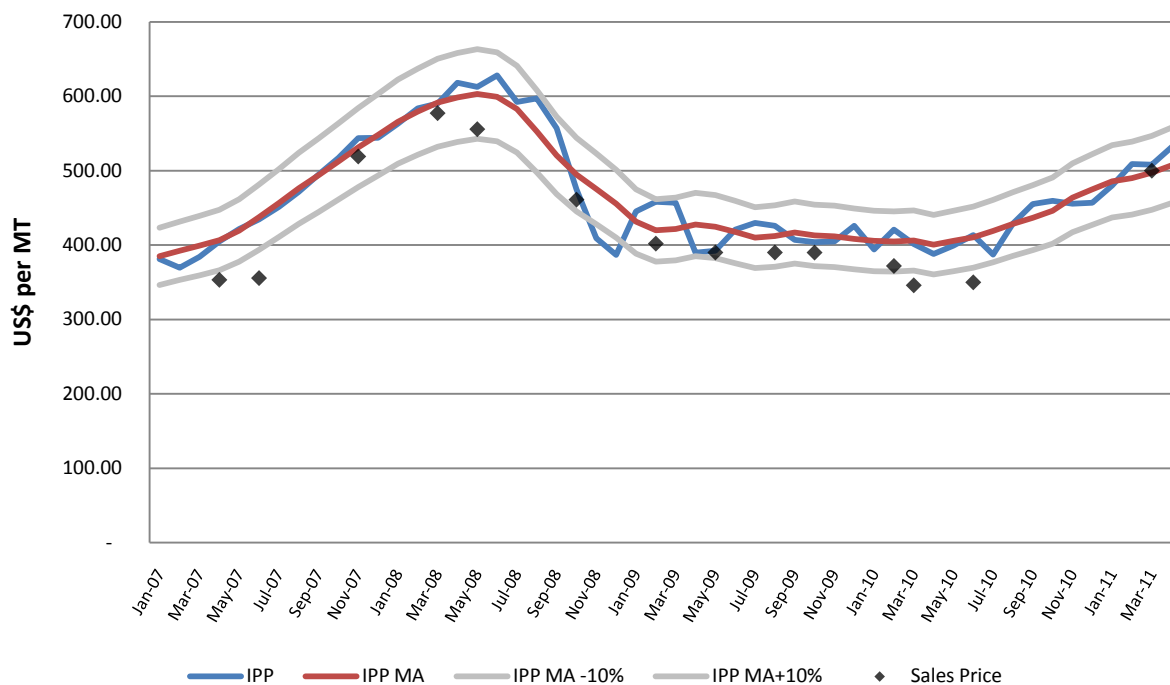
"Millers overwhelmingly credited PL-480 Title II wheat sales as a contributing factor to their growth. Specifically, they attributed US HRW wheat grain's continued market presence for the past ten years and dependable quality as key aspects....Title II monetization sales began when the industry was in its infancy. The steady supply of US-origin hard wheat during this period allowed new mills to build a market for quality flour required by bakers....Critically, most millers concurred that Title II sales were instrumental in their growth in terms of sales, assets and employees... (p 17-18)"

In the five-year period since that study, participation in monetization sales remains strong. For the most recent monetization sales, seven of the ten existing Ugandan flour millers participated on a consistent basis.

Sales prices achieved have been within an acceptable range of an estimated Import Parity Price (IPP). Given the shifts in sourcing, inflation during the past six months, and the absence of Black Sea wheat from the global market, estimating an IPP back in time is complex. Using prices for Argentina Trigo Pan, one of the less expensive wheats of quality roughly comparable to US HRWW and, at present, a common source of wheat among Ugandan millers, the team estimated IPP in order to assess how well monetization sales have performed against one measure of a "fair market price." As shown in the figure below, sales prices have achieved an average of 92 percent of estimated IPP since 2007, which includes a period of volatility on the world markets.<sup>27</sup>

<sup>27</sup> Based on interviews in-country, CIF Kampala for the most comparable quality Canadian wheat is currently US\$563 (the same wheat CIF Jinja is about US\$10 less per MT). For comparison, hard wheat out of Canada commands about a US\$50-80 per MT premium over Ukrainian soft wheat CIF Mombasa. One miller reported that monetized wheat was currently priced at approximately five percent less the price at which the mill was purchasing US wheat via regular commercial channels.

**Figure 4. Comparison of Estimated IPP for Argentine Trigo Pan versus Sales Prices Achieved**



IPP= Import Parity Price; IPP MA= Moving Average, calculated over 6-month period

ACDI/VOCA has acted as the monetization agent for both USAID and USDA Awardees, and has used the same tendering/negotiation process for both agencies; although the study team did not intend to nor did it fully analyze the sales price performance of USDA-funded monetizations, USAID and USDA-funded monetizations should have been indistinguishable.<sup>28</sup>

Please see Annex V for a detailed breakdown of IPP versus sales prices.

#### 4.4.6. Recommendations

Monetization of HRWW in volumes similar to those of the recent past represents no substantial disincentive to domestic producers or processors of wheat grain. The study team finds that, on the contrary, Title II wheat monetizations have played a pivotal role in developing a competitive domestic milling industry, by providing high-quality wheat under favorable sales contract conditions that are generally not available through regular commercial sales (including payment in Ugandan Shillings).

<sup>28</sup> As noted above, this study is not intended to fully analyze USDA monetizations. Nonetheless, there may be lessons to be learned from FINCA's experience for successful future monetizations by any NGO. Relative to IPP, the USDA (FINCA) monetization sales performed less well than the Title II sales, a fact that the lead agent attributes to three factors: (1) The FINCA sales occurred just four months after two tranches of Title II sales, and thus the millers already had relatively sufficient HRWW stocks, (2) FINCA requested millers to bid for minimum quantities of 5,000 MT, which limited the number of mills that could participate, and (3) FINCA requested payment in hard currency (US dollars) as opposed to Ugandan Shillings (the norm for Title II sales), which lowered the price Ugandan millers were willing to pay.

The team recommends one minor adjustment in the tendering and negotiation process. Rather than using soft wheat prices, CIF Mombasa, as a benchmark against which to derive a (unstated) floor price in the tendering and negotiation process, the monetization managers should attempt to discover prices for more comparable quality hard wheat CIF Mombasa, to which costs of commercial clearing and transport to the ultimate delivery point (i.e., the mills) should then be added to estimate a CIF Kampala (or CIF Jinja) price. These may include, but are not limited to, hard wheat varieties of comparable protein content (13-13.5 percent) originating from Canada, US, or Argentina.

The Title II partners currently contract private transporters to deliver the wheat grain directly to the mill's doors; where appropriate, the equivalent commercial costs of handling and transport to the mill's doors should thus be added to the CIF Kampala (or CIF Jinja) price, and built in to the agent's (unstated) floor price.

The study team recommends a maximum tonnage per year of HRWW monetization of 27,000 MT for FY11, which represents 15 percent of the current year's estimated annual demand for hard wheat. This recommendation is based on the following:

- 450,000 MT - estimated demand for wheat grain per year for 2011
- 180,000 MT - estimated demand for hard wheat per year for 2011

Assuming five percent annual growth in demand, the maximum tonnage recommended for FY12 is 28,350 MT of HRWW.

Importantly, the BEST team's standard rule of thumb to recommend up to 10 percent of the average commercial import volume has been adjusted upwards to 15 percent based on the following findings: 1) potential buyers behave competitively; 2) demand is expected to grow at a rapid rate; 3) there are no seasonal surges in demand which might make limiting monetization sales an important factor in reducing the risk of market disruptions; and 4) the monetization sales tendering process approximates commercial transactions. With minor adjustments to further improve the ability of the lead agent to mimic a commercial seller, the team does not believe the tonnage would create any notable disincentive to production or marketing of wheat or likely substitutes. The study team believes this is a conservative but reasonable tonnage based on all available data.

At the time of the field visit, the wheat flour market was down an estimated 10 to 15 percent following February 2011 elections because of inflationary impacts on consumer spending, and expected election-related uncertainty among market actors about demand, which motivated many actors to reduce inventories. However, millers expect demand to pick back up within six to eight months; therefore, the recommendation does not incorporate this temporary dampening of demand.

Given the anticipated growth in demand for wheat flour products, and the current global wheat prices, the team strongly recommends annual review of wheat market conditions to refine appropriate maximum tonnages for future FY programming.

There are no seasonality considerations since demand for wheat grain/flour is constant through the year. However, calls forward should be adequately spaced throughout the year to take advantage of supply chain practices among the millers.

The study team recommends that a single agency continue to act as the monetization agent for future USDA Food For Progress monetizations (contingent on receiving continued USG funding) to 1) ensure efficiency gains from the agent's two decades of experience in that role; and 2) enhance coordination of sales process and timing.

Both agencies, USDA and USAID, are strongly urged to coordinate planned wheat monetizations. Evidence suggests that such coordination is less important in avoiding any over-saturation of the wheat grain market, and more important in maintaining GoU confidence in the careful use of monetization as a critical donor tool for meeting larger food security objectives in Uganda, as well as fostering continued growth of a dynamic domestic wheat milling industry.

#### 4.5. Market Analysis - Edible Oil

##### 4.5.1. Demand and Supply Overview

**Demand.** Although vegetable oil consumption in Uganda is low relative to the world average, and well below the World Health Organization (WHO)-recommended consumption levels, consumption has doubled in the last five years, and is expected to continue increasing. Per capita consumption of edible oil was estimated at 2.3 kg per capita per year in 1998. At present, consumption estimates range from 4.4 to 7.5 kg per capita per year, with most placing per capita consumption levels at 6.4 kg per year. This compares with the WHO recommendation of 19 to 22 kg per capita per year consumption of oil and fat to maintain human nutritional requirements. Key informants in the edible oil sector all agree that key GoU investments in overall economic development have been strong drivers behind improvements in the standard of living, which have increased consumer purchasing power which, in turn, has increased the ability of consumers to incorporate edible oil into their diets.

Edible oil consumed in Uganda is primarily a mix of palm (bulk) and sunflower (second-largest share), with simsim (sesame), cottonseed, soya, and other products together making up a small portion.

Edible oils are near-perfect substitutes from Ugandan consumers' perspective. While consumers in many other countries have strong preferences for frying many foods, Ugandans are accustomed to boiling and roasting typical foods, which increases their sensitivity to edible oil prices. Price and packaging are the primary factors consumers consider when choosing among oils. As a result, processors frequently blend different types of oils.

With increased standard of living, increased consumer purchasing power, and continued marketing and consumer education on the health benefits of oil consumption by Mukwano and BIDCO, demand can be expected to increase year-on-year, barring any major economic shocks that negatively impact consumer purchasing power.

**Supply: domestic production.** Of the estimated annual demand of 222,000 MT, approximately 10 to 15 percent is met through domestic oil seed and oil palm production.

The GoU and the private sector have substantial investments in domestic oil palm and oil seed (sunflower) production and processing capacity, and medium- to long-term growth of domestic production and processing is fully expected. It is critical to fully appreciate these investments in the edible oil sector when assessing the feasibility and appropriateness of monetizing either crude or refined edible oil.

These investments include a Public-Private Partnership to expand domestic palm oil production via BIDCO's oil palm<sup>29</sup> outgrower scheme in the Kalangala Islands in Lake Victoria, which is soon expanding to the Buvuma Islands. The private Ugandan company Mukwano has also initiated a large sunflower outgrower scheme in Northern Uganda. Other investments include Kenyan company Mt. Meru's efforts to increase sunflower, soybean, and shea nut butter production in northern Uganda, and the recent GoU investments which doubled cotton production.

*Vegetable Oil Development Project (VODP), and the Public-Private Partnership (BIDCO).* The Vegetable Oil Development Project (VODP) is a GoU strategic effort which aims to: 1) increase domestic vegetable oil production; 2) address rural poverty through involvement of smallholder farmers in oilseed production and processing; 3) improve health through increased vegetable oil intake in the villages; and 4) address food security through provision of alternative crops for income generation. The overall goal of the project is to expand production of oil-bearing crops in Uganda, with particular emphasis on smallholder farmers in partnership with organized private sector processors. The project has three components: 1) Oil Palm Development, 2) Vegetable Oil Development Fund (Traditional Oilseeds and Essential Oils Development Subcomponents), and 3) Institutional Support. VODP was approved by International Fund for Agricultural Development (IFAD) in 1997, and is due to close in June 2012.

VODP was created in the context of Uganda's heavy reliance on vegetable oil imports, as well as the population's substantially low intake of vegetable oils. The project is funded by the GoU, via a soft loan from IFAD to the GoU and BIDCO, the private sector partner.<sup>30</sup> The program's main component (oil palm production) is co-implemented by BIDCO (based in Jinja), in Kalangala district, Bugala Island. In the future, VODP production expects to spread to the mainland and other areas with suitable climate for production.

VODP has three subprojects: 1) Oil Palm Uganda Limited (OPUL), also on Bugala Island, which opened up 6,500 hectares of nucleus oil palm plantations, installed a 30 MT per hour palm oil mill (along with other infrastructure), and manages 3,500 hectares of outgrowers' plantations; 2) an ongoing expansion of oil palm production, targeting 20,000 hectares of land to be developed by BIDCO,<sup>31</sup> and 10,000 hectares of land to be developed by the GoU, as well as the related establishment of palm oil mills; and 3) the establishment of the edible oil complex at Jinja, which comprises a 300 MT per day refinery and a 150 MT per day oil mill.

The project was designed with environmental impact in mind. Environmental impact assessments for the project were carried out and approved by National Environment Management Authority (NEMA). The project has also constructed over 450 km of roads.

Due to delayed negotiations with BIDCO, a subproject of VODP only started in 2003, and actual planting on smallholder farms did not begin until 2006 (IFAD, 2010). The smallholder outgrower scheme activities seriously began in 2006 after Kalangala Oil Palm Growers Trust (KOPGT)

<sup>29</sup> "oil palm" in this report refers to the oil seed of the palm plant.

<sup>30</sup> BIDCO Uganda is a multinational company, with Kenyan, Malaysian, Indonesian, US (ADM), and Singaporean (Wilmar) joint ownership. On the loan, IFAD reported: "Originally, the total project cost was to be US\$60 million, consisting of an IFAD loan of US\$20 million, US\$33.1 million of co-financing from the private sector partner, US\$3.8 million from the Government of Uganda and US\$3.1 million from beneficiaries. However, due to an increase in the scale of the Oil Palm Subproject, the private investor and the Government increased their contributions to US\$120 million and US\$12 million respectively, bringing the total cost to about US\$156 million." (IFAD, 2010)

<sup>31</sup> As of May 2011, roughly 5,700 hectares of the 40,000 total hectares of expansion have been acquired (1,700 hectares on Buvuma Island, and 4,000 hectares inland).

was initiated. KOPGT administers the oil palm growers' scheme and protects the interests of smallholder oil palm farmers. Farmers have accessed about UGX two billion in production financing (UGX 1.265 billion in cash, and the rest in kind), and they have been trained in oil palm agronomy. Farmers face a transparent and set pricing formula for their output, which is based on (1) the international price of palm oil plus costs to bring it to Jinja (CIF Jinja) plus (2) extraction costs, which are expected to improve over time as palms mature.

A primary palm oil mill has been constructed at Bwendero, in Kalangala. The mill's crude oil product is transported to BIDCO's recently-established refinery in Jinja for final processing. This refinery is responsible for both crushing oil seeds into oil and refining crude palm oil. The refinery has a capacity of 800 MT per day and currently operates at an average throughout of 500 MT per day (personal interview, BIDCO, 2011). BIDCO's edible oil produced from locally-grown palm goes by the brand name Buto.

*Mukwano Sunflower Outgrower Scheme.* Increased competition in the edible oils market has encouraged Mukwano to increase their investment in the sunflower sector. As part of this program, Mukwano is developing milling capacity in Masindi and Lira districts. As of May 2011, the company has established a large warehouse facility in Lira and are considering investing into a solvent extraction oil processing plant. Mukwano aims to place their sunflower oil competitively against palm oil (processed from both imported crude palm oil (mainly from Malaysia) and locally-produced palm oil (produced by VODP, described above)). Mukwano operates a contract farming system, and collaborated with USAID's APEP (Agricultural Productivity Enhancement Project)/CLUSA consortium for technical assistance in developing and organizing the various players. Mukwano was a monopsony buyer, but recently opted for price competition in the procurement of sunflower oil seeds. This scheme is currently supporting over 3,000 farmers, who are selling sunflower oil seeds at a farm gate price of about US\$0.30 per kg.<sup>32</sup>

Current investments in Uganda's agriculture sector reflect investors' increased confidence in the country. To the extent that they are either purely private ventures or public-private partnerships augurs well for the future of Uganda's agriculture. Barring land constraints, the outgrowers scheme being adopted is scalable with positive future expansion prospects. Ultimately, its aim is to advance toward an end goal of decreased dependence on imported edible oil products. The most pressing current constraints are availability and access to improved seeds, and underlying lack of access to credit for smallholder oil seed farmers.

**Imports.** At present, imports appear to account for an estimated 85 to 90 percent of total annual consumption at present. The bulk of imported edible oil (an estimated 60 percent) comes in the form of crude palm from Malaysia and Indonesia for refining in-country. As with wheat grain, there are no tariffs levied on crude oils (this includes palm, soybean, etc.) though refined vegetable oils (including palm and soybean) face a 25 percent tariff according to the current EAC CET Handbook.<sup>33</sup>

Despite the necessity to meet demand through substantial commercial imports, monetization of Title II commodities is properly viewed within the context of the GoU's policy of import substitution industrialization. This is particularly true in the case of vegetable oil (refined or crude).

<sup>32</sup> Figure of UGX 700 per kg converted using rate of 1 UGX = 0.000414931 USD, www.xe.com (accessed June 14, 2011). The program originally targeted 50,000 farmers, but had to be scaled back

<sup>33</sup> The EAC Common External Tariff Handbook notes that there is a "0%" tariff for crude soya bean oil.

**Food aid.** As detailed in Section 4.2 above, Title II monetizations of refined vegetable oil were halted in 2007 due to a zero-rated UMR by USDA, and the removal of a waiver on VAT.

Both BIDCO and Mukwano indicated that distributed US refined vegetable oil poses no disincentive to domestic production of oil seeds, nor to the processing or marketing of their respective refined edible oils. They reported that this is because distributed oil is reaching households who lack the purchasing power to buy edible oil on the market. Mukwano noted that, conversely, distributed vegetable oil is excellent pre-marketing for Mukwano's refined oils since Ugandan households always have the option of boiling or roasting foods.

#### **4.5.2. Competitive environment**

Together, Mukwano and BIDCO control 80 percent of the edible oil market, which suggests that together they exert significant market power. However, each company focuses on separate markets -- BIDCO on palm oil (imported and domestic) while Mukwano focuses on sunflower seed production and processing. At present, the average Ugandan consumer is indifferent among edible oils, which effectively negates any market segmentation that may exist based on the two companies' differing supply chains and long-term sourcing plans. Despite the duopolistic nature of the oil processing and marketing industry, prices appear to be dictated by limited consumer demand, and an extremely high degree of consumer sensitivity to price differences. As noted above, Ugandan consumers have both the ability and willingness to simply boil or roast foods for which frying is an alternative.

#### **4.5.3. Performance of Past Monetizations**

There have been no monetizations of CDSO to inform an assessment of past performance in achieving a fair market price.

As noted above, monetization of refined vegetable oil was the mainstay of the PL-480 program in Uganda for nearly two decades. For overviews of the performance of those sales, please see the 2009 BEST study, the 2006 Bellmon Analysis, and Murphy's study on the impact of Title II monetizations during the period 1989-2006.

#### **4.5.4. Recommendations**

**Refined vegetable oil is NOT recommended for monetization** as the study team believes it has potential to disrupt the marketing of processing industries and, to a lesser extent, a possible disincentive to oil seed production. GoU policy on import substitution, and possible GMO policy, makes monetization of US refined vegetable oil extremely sensitive, an additional reason for our team to recommend against monetization of refined vegetable oil.

**The study team recommends consideration of small volumes of CDSO for monetization** as the team believes it will NOT represent a disincentive to oil seed production and processing industries. Although the GoU and private industry have invested heavily in oil seed and oil palm production, domestic sources account for only 10 to 15 percent of annual demand at present. Both oil processors have excess installed capacity in anticipation of continual growth in demand and will continue to be forced to import crude oil (most likely crude palm oil) for processing in country for the next five years, at a minimum. While the share of domestic production is expected to increase, the ability to meet demand with domestic seed/palm inputs will be a gradual process, driven primarily by the maturation of BIDCO's oil palms in the coming years. Expansion of sunflower oil seed production is expected to be relatively slower, mostly due to lack of seed availability and credit constraints at the small-holder farmer level. However, the

feasibility and desirability of monetizing CDSO should be reassessed on a regular basis (at least yearly) as Uganda continues to increase its domestic production of oil palm and sunflower oil seeds.

CDSO could be monetized in Uganda, and then refined by a private refiner (e.g. Mukwano or BIDCO) to add value and utilize refining capacity in-country. There is excess current installed refining capacity (BIDCO estimates it has 300 MT per day excess capacity, for example). Both processors have expressed interest in purchasing monetized CDSO should USAID make monetized CDSO available in Uganda.

CDSO would not be taxed by the GoU, per current tariff legislation. Any GMO concerns would need to be presented and addressed.

The GoU Ministry of Finance has informed the USAID Mission that they are not supportive of the monetization of CDSO; such GoU support is a critical consideration for the success of upcoming Title II food security funding. Based on only technical considerations, however, the team finds that monetization of CDSO in small volumes -- in the range of 7,000-14,000 MT for the first year -- would represent no substantial disincentive to domestic oil seed or palm oil producers, nor to processors of crude oil, because commercial imports continue to meet 85 to 90 percent of demand for edible oil. This recommended tonnage is based on the following assumptions: 85 percent demand met through commercial imports, 65 percent conversion rate of crude to refined oil, and monetized CDSO representing between 2.5 percent to five percent of commercial import volumes.

Sales would likely be large lot negotiated sales be to one of two large processors (possibly three, should Mt. Meru provide an interested potential buyer) who have the capacity to refine CDSO and market the finished product.

Analysis of whether sales price would represent a fair market price for CDSO, however, will be difficult. Given consumer indifference among types of oils, Title II CDSO should not be expected to command a premium. Instead, expected sales prices for CDSO will likely be closer to (lower) palm oil prices. While cost recovery may be less favorable than USAID might prefer, the Bellmon amendment simply requires the sales price to represent a fair market price. The team believes it is possible to achieve a fair market price, though the determination of that price may be less straightforward. The June 2011 crude palm oil prices are US\$1,183 CIF Mombasa, with port and transport costs adding approximately US\$118.50 per MT, for a CIF Jinja/Kampala price of approximately US\$1,301.50.<sup>34</sup>

Given lack of prior experience monetizing CDSO, uncertainty about sales price performance, and largely duopolistic nature of oil processing industry, BEST recommends a conservative monetization tonnage in first year, with increasing tonnages in the second to fifth years, should the sale prices meet expectations.

There are no seasonal considerations in terms of timing of calls forward and sales because demand is fairly constant throughout the year.

USDA and USAID must coordinate and seek the concurrence of the USAID Mission in Kampala to ensure there is sufficient market space for both USDA and USAID monetization

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<sup>34</sup> Per Louis Dreyfuss spot price quote, VODP, and miller interviews

programming, given market dynamics and GoU sensitivities surrounding vegetable oil monetization in Uganda.

#### 4.6. Market Analysis - Rice

##### 4.6.1. Demand and Supply Overview

**Demand.** Rice is increasingly considered a staple in certain regions of Uganda, particularly in urban centers where its convenience influences consumer choices. Where lowland rice has been grown traditionally, rice is viewed as both a staple and cash crop by the smallholder farmers who produce it. Increasingly, however, it is viewed as an important cash crop with great potential to meet regional market demand, with a premium for the organic methods utilized by many Ugandan farmers.

**Domestic production.** Both upland and lowland rice are domestically produced. FAOSTAT reports paddy rice production of 181,000 MT for 2009, from which about 126,700 MT of milled rice is derived. The table below summarizes estimates of domestic production.

**Table 13. Domestic Rice Production (MT), 2005-2010**

Production	2005	2006	2007	2008	2009	2010
Paddy rice	153,000	154,000	162,000	171,000	181,000	-
Milled equivalent 70%	107,100	107,800	113,400	119,700	126,700	-
Production*	79,000	99,000	100,000	117,000	117,000	120,000

Source: FAOSTAT, USDA-FAS

Note: FAOSTAT has not yet reported 2010 production estimates. USDA-FAS reports "production" without specifying whether it is paddy or milled, though a comparison of the two data source figures suggest FAS is reporting milled equivalent tonnages.

Recent investments in the edible oil sector have increased the local availability of agricultural commodities. This, in turn, should influence food aid programming decisions. The review of recent investments in Uganda's rice sector is critical to appreciating GoU food security objectives that would impact the rice market. Following President Museveni's launch of the Upland Rice Project in 2006, and interest in Ugandan production of NERICA seed varieties from neighboring countries, the GoU and donors have initiated a number of public-private partnerships. Interest among donors, including JICA, USAID (through IDEA and Agricultural Productivity Enhancement Project (APEP)),<sup>35</sup> FAO, and AGRA, and investments have focused on capacity building, technical support to newly-established rice farmers in areas of crop, soil and water management), and strengthening input and output market linkages (Mohapatra, 2009).

The Kibimba Rice Scheme, known for its Tilda rice brand, is one of Uganda's leading rice growing estates. In an effort to protect the growing industry, the GoU increased tariffs on rice imports. Along with donor investments, this policy shift helped to encourage the expansion of production and milling capacity, which has quickly turned Uganda into a regional supplier of rice. Representatives of the Tilda brand estimate that 75 per cent of their rice is domestically-consumed, and 25 percent exported to Kenya, Southern Sudan and DR Congo (Africa News Network).

<sup>35</sup> See, for example, the impact described by USAID of its investments in upland rice, which contributed to increases in production as well as vast expansion of milling capacity in country ([http://www.usaid.gov/stories/uganda/fp\\_uganda\\_rice.html](http://www.usaid.gov/stories/uganda/fp_uganda_rice.html)).

**Imports.** According to official trade figures, five countries account for over 90 percent of all of Uganda's rice imports: Vietnam, Pakistan, Tanzania, UAE, and Thailand. Together, these major rice exporting countries supplied nearly 78,000 MT in 2009, the last year for which data are available. As the following table illustrates, demand has steadily grown since 2005.

**Table 14. Top Five Source Countries for Rice (MT), 2005-2009**

Rice & by-products (broken and nonbroken)	2005	2006	2007	2008	2009	5-year Average
Total Imports	62,186	48,379	70,485	59,988	80,063	64,220
Viet Nam	34,419	31,698	11,688	11,833	36,352	25,198
Pakistan	11,984	9,950	36,878	25,043	24,620	21,695
Tanzania	4,842	912	11,988	13,069	14,045	8,971
United Arab Emirates	1,942	507	2,318	902	1,349	1,404
Thailand	346	9	1,224	3,879	1,420	1,375
Total MT for Top 5 Source Countries	53,533	43,075	64,096	54,725	77,785	58,643
% Total Imports Attributable to Top 5 Sources	0.8608	0.8904	0.9094	0.9123	0.9715	0.9132

**Food aid.** To the best of the team's knowledge, rice has not been monetized or distributed through any USG food aid programming. There may be small-scale rice monetization or distribution programs among other donors, but the team is unaware of any.

The table below summarizes Uganda's rice supply.

**Table 15. Uganda Rice Supply (MT), 2005-2010**

	Rice	2005	2006	2007	2008	2009	2010	Five-year Average
1	Imports	62,613	49,375	70,153	62,081	71,715	66,898	64,044
2	Of which, Food Aid	3,270	2,735	4,223	4,412	..	..	3,790
3	Exports	12,520	15,026	23,524	25,244	32,115	28,679	24,918
4	Net Trade	50,093	34,349	46,628	36,837	39,600	38,219	39,127
5	Production	93,050	103,400	106,700	118,350	121,850	120,000	114,060
6	Supply	143,143	137,749	153,328	155,187	161,450	158,219	153,187

Notes/Sources

- 1 FAOSTAT, Comtrade, ITC, USDA-FAS; 2010 is an average of previous two years' data
- 2 WFP Interfais, IGC
- 3 FAOSTAT, Comtrade, ITC, USDA-FAS, 2010 is an average of previous two years' data
- 4 Imports minus exports
- 5 FAOSTAT, USDA-FAS
- 6 Sum of lines 4, 5

#### 4.6.2. Performance of Past Monetizations

To the best of the study team's knowledge, rice has not been previously monetized in Uganda.

#### 4.6.3. Recommendations

The study team recommends against considering rice for monetization for FY11 and FY12 for two primary reasons: 1) there is relatively low demand for commercial imports of rice, which would limit the funding available through monetization of a small percentage of the average commercial imports; and 2) there is substantial interest among the GoU in investments in domestic rice production.

#### 4.7. Third-Country Monetization

When competition in a commodity market is severely limited, monetization activities in that market run the risk of introducing or intensifying market distortions. These effects frustrate the development of an open and fully competitive market, by contributing to either excessive profits or barriers to entry. By denying producers and consumers the opportunity to operate within a competitive market, over time, the monetization activity could lead to reduced national economic efficiency and assign indeterminate costs to producers and consumers. Monetization in such a market would be contrary to the legal requirements of the U.S. agricultural legislation (e.g. Farm Bill), which requires that monetization does not introduce local market or production disincentives.

Third-country monetization (sometimes referred to as "regional monetization") can offer a legally-compliant alternative for Awardees operating in a country where 1) there exist less than fully competitive domestic commodity markets; 2) commercial markets are relatively limited in size, therefore limiting scope for monetization; and 3) host government policies constrain the ability of USAID implementing partners from meeting sufficient funding needs through in-country monetization.

Third-country monetization provides Awardees with the option of selling into a market where there is sufficient competition among buyers in order to increase the likelihood that bids will be at or near IPP, which is the best measure of a fair market price. With competition, there is increased assurance that the monetization will not distort the market and will generate higher revenues than if the monetization is conducted in a domestic market with limited or no competition. Third-country monetization can generate greater revenue for food security activities and thereby increase the efficiencies of the FFP program. It also provides the Awardees with a fallback position if a commodity that was initially recommended for monetization becomes unviable at a later date due to changing market or policy conditions.

Third-country monetization is a reasonable option in Uganda, either alone or as a supplement to in-country monetization, for the foreseeable future (FY12 and beyond) because:

1. Current GoU policies towards Title II commodities with sufficient commercial demand may constrain the ability of USAID implementing partners from meeting sufficient funding needs through in-country monetization.
2. Monetization should be viewed as an appropriate long-term tool for the development of local markets in Uganda, and not primarily as a source of needed funds for programming.
3. There are multiple potential regional markets with substantial commercial demand for Title II commodities. The appropriate third country or regional market is that market in which one may expect to receive a price for a commodity that is reflective of the international price. According to FFP Guidelines, the country must be either a Low Income Food Deficit Country (LIFDC) or a Least Developed Country (LDC) on the Organisation for Economic Cooperation and Development- Development Assistance Committee (OECD-DAC) list. Within the region, there are many LIFDCs, including Tanzania, Sudan, DR Congo, Rwanda, Kenya, Burundi, Mozambique, Djibouti, Ethiopia, and Egypt. As the final destination of the commodities sold is indeterminate, the relevant reference to ensure that the Bellmon market conditions are satisfied is to ensure that the final negotiated price is comparable to the import price for that market. In addition, the port facilities of the selected market platform need to be sufficient to physically accommodate the commodities. This requires that a Bellmon analysis be

conducted in both the recipient country and the country in which third-country monetization takes place.

These guidelines specifically read:

"Monetization in the recipient country is preferred over monetization in a "third" country, a country where the food security activities will not be take place. If it is not feasible to monetize in the country where proceeds will be utilized, monetization may be carried out in another LIFDC in the region, i.e. "third country." A list of low-income food-deficit countries (LIFDCs) can be found on FAO's web site at <http://www.fao.org/countryprofiles/lifdc.asp?lang=en>. If the LIFDC option is not feasible, then monetization may take place in a U.N. classified, least-developed country (LDC) in the region at <http://www.un.org/special-rep/ohrls/ldc/list.htm>. In the case of "third country" sales, the USAID Mission and/or U.S. Embassy in both the program country and the monetization country must endorse the plan."

Monetization in a relatively large port city is preferred because inland freight and other costs will be assumed by the buyer. The preferred currency in which the transactions would be conducted would be specified in the offer. Based on the above criteria, the following table provides an overview of some of the products in three select markets that may reasonably be considered for regional monetization, including the estimated potential proceeds from monetizing 10 percent of the average annual commercial import volume of each commodity.

**Table 16. Potential Proceeds from Monetization of Select Commodities in Three Regional Ports**

Commodity	Value in US\$/MT	Kenya	10% of Avg (MT)	Potential Proceeds (US\$)	Mozambique	10% of Avg.	Potential Proceeds (US\$)	Tanzania	10% of Avg.	Potential Proceeds (US\$)
		****			****			****		
Maize*	\$319	252,176	25,218	8,051,337	38,975	4,101	1,309,403	8,616	1,192	380,562
NFDM	\$3,450	690	71	244,222	5,707	674	2,326,451	314	34	118,679
Rice*	\$448	128,060	12,746	5,713,509	135,283	15,995	7,169,915	1,022	471	211,193
Oil**	\$1,314	721	72	94,750	19,307	1,704	2,238,425	13,378	891	1,170,386
Wheat*	\$336	594,459	54,764	18,407,651	229,177	24,003	8,067,983	741,812	63,536	21,356,142
Grand Total		976,106	92,871	32,511,468	428,448	46,477	21,112,176	765,142	66,125	23,236,961
LIFDC			y			y			y	
Port City			y			y			y	
Adequate Port Facilities			y			y			y	
Convertible Foreign Exchange			y			y***			y***	
Does not Present Significant Security Issues						y			y	

Source for prices: Maize, rice, oil and wheat: World Bank pink sheet for April 2011; NFDM from International Dairy Product Prices > International 1.25% BF Skim Milk Powder Price, USDA, "Understanding Dairy Markets"

Sources for commercial imports: UN Comtrade for total Imports; WFP Interfais database for food aid; food aid is subtracted from total imports to estimate commercial imports

Notes: \* bulk with bags; \*\* price for CDSO; \*\*\*The convertibility of these currencies can vary depending on internal macroeconomic conditions; \*\*\*\* data for Kenya's imports for 2010 is not yet available. Data for 2005-2009 are used; \*\*\*\*\* Food aid data are not yet available for 2010 for Mozambique or Tanzania (and thus 2006-2010 average is not available). Average food aid figures for 2005-2009 were used as a proxy.

If third-country monetization is selected as an option, a widely-advertised competitive procurement using newspapers, internet, and radio is recommended. Advertisement should be explicit regarding commodity specifications, delivery time range, transaction locations, payment terms, and required currency. An auction process using a commodity exchange should be considered. Finally, both the Mission Director of the regional monetization country and the Title II Non-Emergency Program country must endorse the monetization.

## Chapter 5. Distribution Analysis

### 5.1. Introduction and Guidelines

The Bellmon Amendment requires assurances that a proposed food aid distribution program would not result in substantial disincentive to or interference with domestic production or marketing in that country. The extent to which distributed food aid has the potential to result in disincentive to local production or disruption of markets rests fundamentally on whether proposed food aid represents “additional consumption” for beneficiary households (i.e., food consumption that would not have occurred in the absence of the food aid distribution program). If food aid transfers exceed households’ perceived needs, the beneficiary is more likely to sell the food aid, reduce market purchases of food, and/or increase household farm sales. Such a response could lower market prices and/or reduce local incentives for production.

This pre-Title II Non-Emergency programming distribution analysis outlines the most likely distribution modalities for the upcoming Title II Non-Emergency programming cycle and provides Bellmon-relevant guidance that will help ensure potential impacts on production and markets of such food aid distributions are minimized, and therefore Bellmon-compliant.

### 5.2. Objectives of Distribution Analysis

To help ensure proposed programs will not result in substantial disincentive or market disruption, this chapter presents:

1. An overview of available evidence of national and localized food deficits in Uganda -- particularly the greater Karamoja region and northern Ugandan areas where distributed food aid has taken place, or is expected to take place in the next programming cycle.
2. An overview of the private market's capacity to meet localized food deficits, based on a Structure-Conduct-Performance framework.
3. An assessment of market integration within Karamoja, and nationally for Uganda.
4. Key considerations for all distributed food aid interventions in northern/north-eastern Uganda, and guidelines for each of the most likely modalities for distributed food aid.

#### **5.2.1. USAID Food Aid Distribution Modalities and Geographic Targeting for FY12-FY16 Title II Non-Emergency Programming Cycle**

There is broad scope and range for an array of Title II-funded development interventions in Uganda. USAID/Uganda guidance requests that interventions show how the three components of food security (access, availability, and utilization) will be improved.

The overall strategic objective for the Title II Non-Emergency program in Uganda is to reduce food insecurity among chronically food insecure households. Under this objective, two broadly-defined sector priorities have been identified: strengthening livelihoods and improving nutrition. In line with the principles behind USAID Uganda’s Feed the Future strategy which includes addressing underlying causes of hunger and under-nutrition, this dual-track effort intends to yield multiplicative returns for food security by simultaneously addressing food security’s three underlying components - food availability, access, and utilization. The strategy also recognizes that strengthening livelihoods and improving nutrition are causally linked at household and

community levels; investment in one will strengthen and reinforce the other. Interventions to strengthen livelihoods may include but not be limited to: 1) diversifying livelihood assets and opportunities; 2) increasing market access and orientation; 3) enhancing resiliency and risk management; 4) and improving natural resource management.

Interventions to reduce chronic malnutrition may include: 1) improving infant and young child feeding practices; 2) preventing and treating childhood illnesses; 3) promotion of growth monitoring by local health authorities, and screening and referral for children under five with severe acute malnutrition; 4) improving maternal health and nutrition in pregnant and lactating women; 5) enhancing access to clean water/sanitation, and improving hygiene practices; and 6) improving adoption of improved health practices through effective Behavior Change Communication (BCC) interventions. Interventions are expected to consider gender, complement and link with other USG investments - including Feed the Future - and GoU development priorities. In particular, interventions are expected to complement the Karamoja Integrated Disarmament and Development Program (KIDDP) (and the KIDDP Action Plan for Food Security, in particular), the Peace and Recovery Development Plan (PRDP) Northern Uganda Social Action Fund (NUSAF) for northern Uganda, and the efforts of the World Bank-funded NUSAF-2.

Proposals for USAID/Uganda for the FY12-FY16 Non-Emergency Programs are expected to target:

- Greater northeast Karamoja region, which includes Karamoja proper and/or bordering districts; this would include interventions in pastoralist, agro-pastoralist and/or agricultural zones; it could also include bordering areas in northern Uganda that are still recovering from internal displacement of populations and are in need of further agricultural rehabilitation.
- For the Title II Non-Emergency Programming cycle, the most likely modalities for distributed food aid to address Title II program priorities in northern and northeastern Uganda include food-for-work (FFW), food-for-assets (FFA), and/or Maternal Child Health and Nutrition (MCHN) activities, as described above.

### 5.3. National and Localized Food Deficits

#### 5.3.1. Background

An estimated 80 percent of Uganda's households are subsistence farmers who own less than 2.5 acres of land on which they grow all their crops (both for home consumption and sale) as well as rear livestock. These producers' agriculture and livestock production systems depend primarily on seasonal rainfall. Poorly-distributed rainfall (e.g., timeliness, amount, and/or geospatial coverage) has a significant negative impact on crop and livestock production, which in turn limits households' food availability, access, and overall food security. The mixed cropping and livestock system maximizes land use and helps subsistence farmers cope with rainfall fluctuations. In recent years, farmers have also started coping by moving to lowland areas normally occupied by swamps to grow crops and rear livestock, or by migrating to other areas with their livestock in search of pasture and water.

Traditional production methods,<sup>36</sup> mostly using hand hoe, are used by smallholders to cultivate the same piece of land for many years, which usually restricts household production to subsistence levels. Nonetheless, producers with few other income-generating activities often find it necessary to sell some of their limited produce to meet other needs (e.g., health, education). These small-scale producers are thus continually unable to fully meet their household food needs or stock any surplus food. A cycle of low production and low stocks predisposes many households to food insecurity, especially in areas prone to civil insecurity or poorly-distributed rainfall. This has been the case over the past several years for northern Uganda where civil insecurity persisted for more than two decades. The Karamoja region in northeastern Uganda is currently recovering from both physical insecurity as well as chronic erratic rainfall conditions.

### 5.3.2. Seasonality

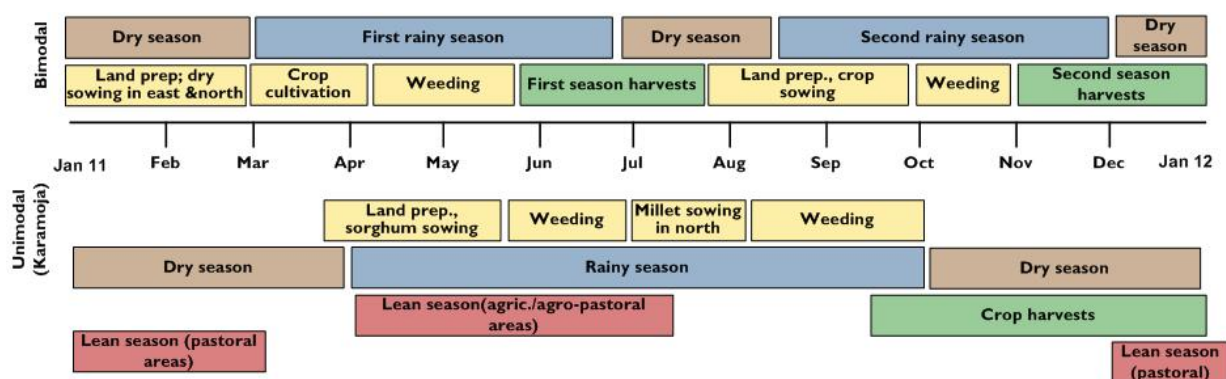
With the exception of northeastern Karamoja region, Uganda has bimodal rainy seasons. The first cropping season contributes about 60 percent of annual household food production, and normally begins in late February to mid-March and runs through mid-June. The dry season sets in by July. The second cropping season occurs between August and early December, followed by a dry period until early March.

Households in bimodal areas of Uganda do not normally experience a pronounced hunger period as they rely on food stocks from both seasons and/or market purchases to meet most of their food needs.

**Karamoja seasonality.** The cropping season in the northeastern unimodal Karamoja area (Abim, Kaabong, Kotido, Moroto, and Nakapiripirit districts) begins in April and continues until late September. The dry season begins in October and continues until April of the following year. Harvests in Karamoja's agricultural and agro-pastoral zones normally start in October and may continue into late December, increasing households' food availability and security, as well as replenishing households' stocks. These stocks normally start diminishing toward March of the following year, and are depleted by May/June. The hunger period for Karamoja's agricultural and agro-pastoral zones normally occurs between April and July. For the region's pastoral zone, the hunger period occurs from October to April, when water for livestock is scarce. The FEWS NET seasonal calendar below illustrates this timeline for the average year.

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<sup>36</sup> Traditional methods include basic tools, such as hand hoes and machetes (and in some instances, rudimentary tools). The majority of producers do not use any production enhancement technology. For example, most producers depend on saved seed from past seasons instead of purchasing improved seed, and do not purchase fertilizer as it is either unavailable or too expensive.

**Figure 5. Seasonal Calendar and Critical Events**

Source: FEWS NET

## 5.4. Food Security

### 5.4.1. Overview

**2004-2006.** Uganda's food insecurity peaked in northern Uganda between 2004 and 2006 due to insurgency and civil insecurity caused by activities of the Lord's Resistance Army (LRA) in northern Uganda, and chronic erratic rainfall and conflict in Karamoja, northeastern Uganda. At one point, up to 1.8 million people were internally displaced in northern Uganda (UNHCR). The GoU implemented intensive military campaigns that eventually weakened the LRA and pushed it out of the region, leading to a gradual restoration of civil security and enabling IDPs to return home. By the first quarter of 2009, Uganda's IDP population had dropped to approximately 780,000. As IDPs started leaving camps to return home, food aid activities shifted accordingly. Instead of general distribution in camps, humanitarian and aid agencies began geographic and program-driven targeting. As the civil security situation continues to improve, food security has concurrently been improving. However, poorly-distributed rains, as well as livestock and crop diseases, remain among the factors which still hampered resident populations' full attainment of food security. In Karamoja, for example, poorly-distributed rainfall and livestock disease from 2005 on left as many as 500,000 to 700,000 people food insecure in the following year.

**2009.** By the first quarter of 2009, food insecurity was widespread in Karamoja,<sup>37</sup> in part as a result of three consecutive below-normal harvests since 2006 (Abim, Kaabong, Kotido, Moroto, and Nakapiripirit districts). Approximately 970,000 (slightly above 95 percent of the region's estimated 2008 total population) were considered highly food insecure, with agro-pastoralists and pastoralists being most vulnerable (FEWS NET 2009). Most households in the region had low incomes and few income-generating opportunities, and faced high crop prices and poor market access.<sup>38</sup> Livestock disease and sporadic insecurity also reduced households' livestock-based income, as their livestock had limited movement and limited access to pastures and water.

<sup>37</sup> Various assessments classify Karamoja as most susceptible to food insecurity during 2009, due to: 1) fluctuating crop and livestock prices; 2) high disease incidence; 3) few income-generating opportunities; 4) unstable to chronic malnutrition, morbidity, and mortality; 5) increased frequency of hazards and diminishing coping mechanisms due to consecutive below-average agricultural production seasons.

<sup>38</sup> Anecdotal information by observation, periodic spot checks indicated low access to markets. However, there were no specific, consistent studies on impact of prices.

**Current.** Many of the conditions hindering food security of Karamoja's households in 2009 continue today, indicating a need for long-term, targeted, and sustainable action. A 2010 FEWS NET study noted factors contributing to Karamoja's food insecurity, many of which were not new as compared to previous years': subsistence-based livelihoods, isolation of inhabitants, civil insecurity, poor rainfall, crop and livestock disease, and reduced coping capacity (FEWS NET, 2010).

The study also concluded that external assistance to Karamoja Region either contrasts with the livelihood context of the region, or only addresses a portion of actual needs, thereby limiting overall impact. The study describes programs initiated by the GoU,<sup>39</sup> UN agencies, and NGOs to enhance crop and livestock production, including provision of planting materials and livestock vaccination. These programs, under the Karamoja Action Plan for Food Security, prioritize sedentary agricultural production and mechanization. Reducing the vulnerability of pastoral and agro-pastoral populations remains an ongoing challenge.

The current Title II Multi-Year Assistance Program (MYAP) targets districts in northern Uganda, while future Title II Non-Emergency programming is expected to target greater Karamoja and bordering districts. Thus, the following subsections will focus on northern and northeastern Uganda.

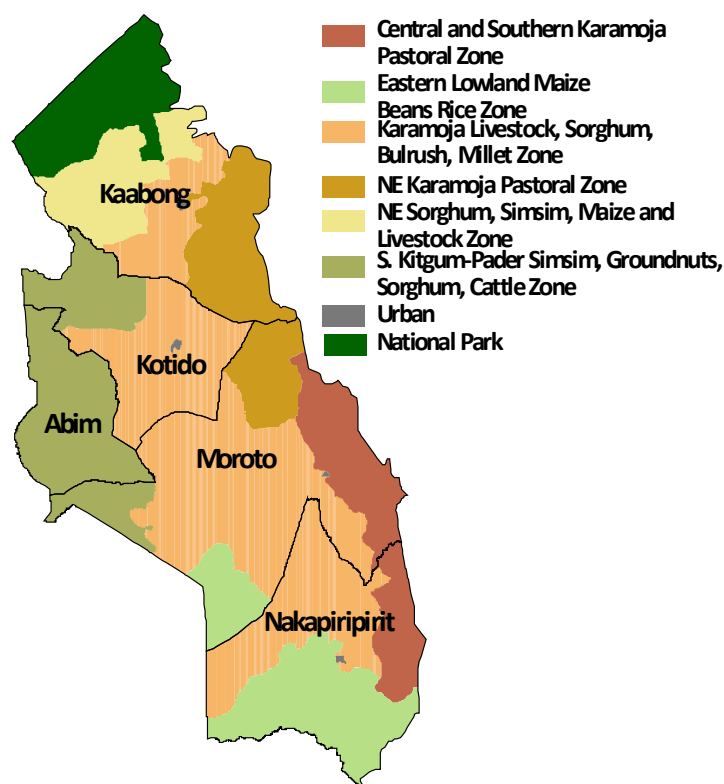
**Northern Uganda.** As stated above, the vast majority of IDPs in northern Uganda had resettled back home by mid to late 2010. These households were able to access more cultivable land and increase food production, with a focus on rehabilitation and development. Relatively well-distributed rainfall in the region, coupled with increased access to land and planting materials, has gradually improved food production, access, and security in northern Uganda, although some livelihood groups, mainly those who resettled later in relatively inaccessible parts of the Acholi region, still experience food insecurity. A combination of market purchases using income from agricultural labor opportunities, and harvests from both cropping seasons, have helped these poor households meet most of their basic needs in the last quarter of 2010, although their food security remains fragile as 2010 second-season stocks dwindle. Better-off households have been using stocks to meet their food needs through the first quarter of 2011, supplementing their first-season food stocks with market purchases using income from the sale of poultry, livestock, and petty trade (FEWS NET, 2011).

As stated earlier, assistance to vulnerable groups in northern and northeastern Uganda began shifting to a more targeted approach by mid-2010. Currently, food distribution in northern Uganda is limited to geographic and program-led targeting, mostly in areas recently resettled (less than 12 to 18 months). For example, in eastern Kitgum and Agago districts, assistance is restricted to nutritional and supplementary feeding programs as well as food-for-work (FFW). Partners conduct community surveys and assessments to better target assistance, and thereby minimize leakage (i.e., inclusion errors).<sup>40</sup>

<sup>39</sup> Government of Uganda, together with development partners' five-year Karamoja Action Plan for Food Security (KAPFS 2010-2014) to ensure sustainable food security and increased household incomes. The plan is to be implemented at the community level, aiming to diversify livelihoods and improve food production to enable households to produce adequate food for own consumption and a marketable surplus. The plan is intended to strengthen livelihoods, improve food security, and reduce the need for external food assistance. The plan also includes the use of machinery to open large tracts of lands.

<sup>40</sup> Inclusion errors occur when food aid is unintentionally or intentionally provided to households not identified by program staff as in need of assistance. Errors of inclusion (i.e., leakage) are a Bellmon concern. Errors of inclusion are also a humanitarian concern because, by definition, leakage involves the inefficient use of scarce resources. See Annex VII for more details.

**Figure 6. Karamoja Livelihood Zones**



Source: FEWS NET

**Karamoja.** Karamoja has six livelihood zones broadly comprised within three livelihood systems: agriculture in the west, agro-pastoral in the center, and pastoral in the east. The study team traveled through three of Karamoja's livelihood zones during their field work in April/May 2011.

As FEWS NET's 2010 Karamoja Food Security Assessment notes, the livelihood zones in Karamoja share many inter-related causes of food insecurity: 1) climatic variability, evidenced by consecutive seasons of poor spatial and temporal rainfall distribution; 2) endemic hazards to productivity, such as crop and livestock diseases; 3) civil insecurity, including significant fluctuations in the incidence and prevalence of cattle raiding and other forms of theft and banditry. Furthermore, as noted above, the region only has one harvest season.

The majority of households in Moroto, Kotido, Nakapiripirit, and Amudat rely on market purchases for food supply. These agro-pastoral and pastoral areas rely on sale of livestock to support their food purchases. This contrasts with Kaabong and Abim, where most households rely on own-production as their main food source, due to improved conditions for agricultural activities (ACF, 2010).

By November 2010, food security in Karamoja had generally improved, in large part due to well distributed rainfall over the region's 2010 single season. Although rains favored crop production, some cereals such as sorghum and bulrush millet in the agricultural and agro-pastoral zones, fell victim to crop disease and water logging, reducing production (FEWS NET, 2011). Although all of the region's livelihood zones generally benefitted from this weather,

pastoralists and agro-pastoralists felt the largest positive impact as they registered better livestock production. Vaccination programs also helped ward off livestock disease, boosting livestock numbers (although reduced movement of livestock in some areas restricted livestock production) (FAO, Karamoja Seasonal Assessment, 2010-2011, 2011).<sup>41</sup> Overall, pastoralists, as noted above, enjoyed increased livestock production and sale, with the exception of those pastoralists whose herds remained vulnerable to cattle raiding (FAO, Karamoja Seasonal Assessment, 2010-2011, 2011).

Many poor and very poor households earn income by selling firewood and charcoal. Although prices for these resources have improved (and are thus expected to increase income for poor and very poor households), over-exploitation of these resources increasingly limits their availability, and related volumes households can sell. On a positive note, cereal supply has increased (as noted above) and cereal prices have declined, both of which positively impact poor and very poor households in Karamoja as well as surrounding areas (FEWS NET, 2011). According to FAO's November 2010 Seasonal Assessment, grain supply in high-production areas is expected to remain secure through July 2011 at the minimum. However, some very poor agro-pastoralist households - especially those in Kotido, Napak, and Moroto - are expected to face food deficits through July 2011.

**Food assistance.** Overall, food security in Karamoja may currently be characterized as improving, but precarious. Food security assessments underscore the need for long-term targeted responses in this area. Stakeholders should plan for recurrent shocks to occur roughly every two to three years.

Direct transfers of food and/or cash, either free or in exchange for work, may be most appropriate. If households face deficits in the upcoming year, they are more likely to: 1) oversell livestock; 2) over-exploit natural resources; 3) reduce investments in livestock and crop production, as well as reduce investment in other expenses such as health or education; 4) reduce caloric intake.

MCHN assistance may be an effective direct transfer in the Karamoja region, which suffers from high malnutrition rates. As of December 2010, Global Acute Malnutrition (GAM) and Severe Acute Malnutrition (SAM) in all Karamoja livelihood zones stood at 9.4 percent and 1.2 percent, respectively. Neither of these figures is a significant decrease from 2009 levels. Underweight percentages ranged from 20 percent in some agro-pastoral and pastoral areas, up to 30 percent (ACF, 2010).<sup>42</sup>

Ultimately, local communities and local government structures should lead discussions with other stakeholders (central GoU, donors, NGOs and others) in determining effective and appropriate long-term program interventions for corresponding targeted areas within the greater Karamoja region.

<sup>41</sup> This is especially true for Kotido and Kaabong, where kraaling (restricting livestock to enclosed shelter during the night) was implemented as a security measure.

<sup>42</sup> Note, for example, that severe stunting in children under five years of age in Karamoja is 25% versus a national average of 15%, severe underweight in children under five in Karamoja is 14% versus a national average of 4%, and severe wasting in Karamoja is 4% versus a national average of 2% (FANTA-2, The Analysis of the Nutritional Situation in Uganda, May 2010).

## 5.5. Private Market Capacity to Meet Food Deficits

### 5.5.1. Introduction

This section focuses on the capacity of private local markets to meet localized food deficits in Karamoja. This section relies on analysis of market prices, and anecdotal data on commodity flows, to explain whether or not markets in Karamoja can address food insecurity as and when it occurs.

Karamoja region, comprising of the districts of Abim, Amudat, Kaabong, Kotido, Moroto, Nakapiripirit, and Napak is part of the pastoralist corridor - an area inhabited by semi-nomadic cattle-keeping groups. The region is characterized by irregular climatic conditions and livelihoods heavily dependent on cattle, both culturally and economically (Ezaga, 2010).

There have been no formal market studies based on the Structure-Conduct-Performance (SCP) framework in Karamoja. However, a study conducted in late 2010 to inform potential WFP cash and voucher programming in Karamoja provides an overview of local markets and marketing characteristics, which inform this report. In addition, a number of market studies have been conducted in Karamoja's neighboring districts, such as Kitgum, Lira, Mbale, and Soroti, which are major cereal and pulse supply points for Karamoja. These studies are based on district-level time series data as well as anecdotal data. Until WFP began collecting market prices for some commodities in early 2010,<sup>43</sup> no consistent, published data for Karamoja have been available.

FEWS NET seasonal production and commodity flow information, as well as anecdotal data, show that staple food markets in the four districts of Kitgum, Lira, Mbale, and Soroti are linked to Karamoja markets. That is, a change in one of these markets is likely to be reflected in Karamoja markets, to varying degrees. Thus, market dynamics of these four above districts are relevant when assessing markets and food security in Karamoja. Lira holds the most production and supply routes destined for Karamoja, whereas Karamoja supplies mostly livestock (not crops) to neighboring areas, especially during lean production periods. For more information on market integration, see Section 5.6.

Although Karamoja does depend on neighboring areas for staple crop supply, the region is able to sell sorghum to surrounding areas during normal years with good harvests. Markets within Karamoja are also well-integrated; significant crop flows normally occur from the production areas located to the south and west of the region towards consumption areas in the middle and eastern parts of Karamoja, which help to alleviate shortages.

Price changes in neighboring areas are translated into higher prices in Karamoja, the final market, resulting in lower purchasing power for Karamoja households. Typically, average prices of commodities such as sorghum, a main staple in Karamoja, are generally higher in Karamoja than in the neighboring areas. Even though Karamoja produces sorghum, any marketed harvest is usually due to cash needs, not surplus. Flows from neighboring areas especially increase before the harvests (September to December), and during bad production years, thereby providing incentives for commodities such as pulses and sorghum to flow to markets into the region.

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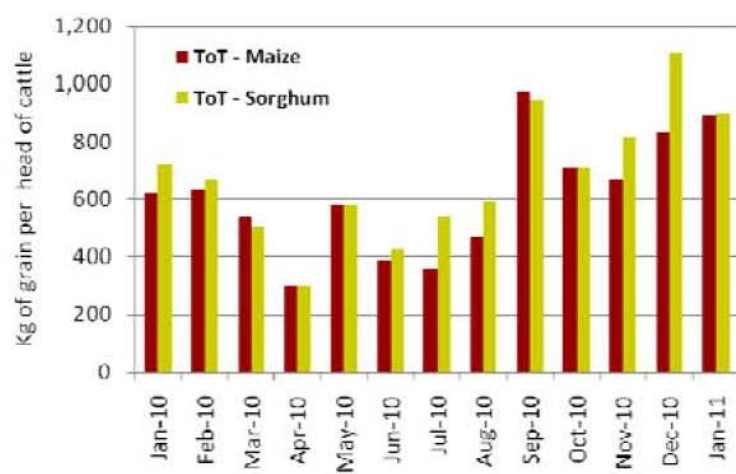
<sup>43</sup> WFP collects prices in Abim, Kaabong, Kotido, Moroto, and Nakapiripirit districts.

The ability of Karamoja's markets to function depends in part on availability of produce in neighboring markets and nominal commodity prices. However, a number of external conditions also play a role, such as security along the main supply routes into Karamoja. Traders may reduce or halt commodity flows and supplies to markets in Karamoja during times of insecurity or perceived insecurity, leading to higher market prices in the region. As a result, many households' economic access to markets is restricted. Poor road conditions, especially during the rainy season, also hinder the inflow of commodities to Karamoja.

Limited income-generating opportunities can hamper economic access to markets (especially for poorer households during the dry period when there is limited demand for agricultural labor). Market access is also restricted among those without livestock. Though livestock can be exchanged for cereals, livestock owners' purchasing power is dependent on the time of year and condition of the livestock.<sup>44</sup>

As the figure below shows, terms of trade between cattle and cereal grains vary substantial over the course of a year, mostly due to seasonality.

**Figure 7. Terms of Trade: Price per Medium Heifer to Sorghum and Maize Grain in Nakapiripirit**



Source: FEWS NET, WFP \*Note this graph is only representative of Nakapiripirit; other districts may have quite different terms of trade.

### 5.5.2. Market Structure

Karamoja generally has separate markets for sale of crops and sale of livestock; this is especially true in the villages, where a market may have only some types of crops, or only livestock. However, businessmen from outside Karamoja have begun bringing food crops to larger livestock markets such as Komuria and Kanawat (Ezaga, 2010). A FAO study found market days (which usually occur weekly) are intensive and short-lived, lasting two to three hours. Markets (especially for food crops) are located near towns or trading centers.

<sup>44</sup> All other conditions remaining the same, livestock are normally healthier during the wetter period and thus fetch higher prices, as compared to the dry season when livestock are unhealthier due to limited pasture and water, and thus fetch low prices.

Market information in Karamoja is often delayed or misguided; information flow is usually by word-of-mouth, among individuals, and long distances between markets make information flow slow or impossible.

**Crops.** Rain-fed crop production is practiced in most parts of the Karamoja region, although many argue that the area's land and climate (which is unimodal, as compared to the majority of the country, which is bimodal) is more conducive to livestock rearing than crop production. Crops grown in Karamoja include sorghum, maize, sweet potatoes, cassava, millet, groundnuts, sunflower, cowpeas, and beans (Levine, What to do about Karamoja?, 2010).

Crops in Karamoja are mostly produced for consumption, and levels of production are generally too low for producers to market surplus. When local harvests do have a surplus, quantities brought to the market cannot last for more than two weeks (Ezaga, 2010).

**Figure 8. Karamoja and Its Districts<sup>45</sup>**



Karamoja's markets are small, hardly formal or organized, and face weak effective demand. This is especially true for village markets and between markets in different districts. There are no food commodity wholesalers in Karamoja (Bashaasha, 2010). The bulk of food commodity sales are direct retail to households and other retailers. Because the area's markets rely heavily on food supplies from other areas of Uganda (mostly Mbale, Soroti, Kitgum, Pader and Lira), factors such as road infrastructure and security are important for market performance (Levine, What to do about Karamoja?, 2010) (Bashaasha, 2010). While the security situation is improving, murram roads make transport into Karamoja difficult and costly.

Despite these challenges, the Karamoja market currently has the capacity to deliver a variety of foods in a timely way to satisfy current demand, which, as stated earlier, is low. The mean response time of traders to respond to increased demand is one week (Bashaasha, 2010). Currently, an average household in Karamoja sources 35 percent of its total food needs from the market (Bashaasha, 2010), and market supply remains steady enough to satisfy demand with little excess. The main factor limiting increased demand is

households' low income levels (Bashaasha, 2010). If demand increases in the near future, however, markets in their current form may not be able to maintain adequate supply, in terms of transport and warehousing capacity<sup>46</sup> (Bashaasha, 2010).

**Livestock.** Cattle, sheep, and goats are the main livestock available in markets.<sup>47</sup> Livestock sales are continuous throughout the year, but sales peak in the hunger season, when households food reserves are low (Levine, What to do about Karamoja?, 2010). Livestock traders have good links to other areas such as Kitgum, Gulu, Mbale, Soroti, Kampala, and

<sup>45</sup> Source: FEWS NET Uganda

<sup>46</sup> Currently, food shops themselves are mainly used as storage.

<sup>47</sup> Camels are rarely sold because they are expensive to replace and not plentiful compared to the other livestock. (Levin, S., 2010)

Southern Sudan, and are able to purchase and transport livestock to these areas (Levine, What to do about Karamoja?, 2010). The same traders usually bring back various food crops and non-food goods for sale to households within the region.

The degree of responsiveness in the livestock market depends, to some extent, on seasonality and harvest levels. For example, when harvests are good and most households have food surpluses, the terms of trade for livestock should benefit the seller. Alternately, livestock sales during the lean season are scarce, and should merit poorer terms of trade for the livestock seller (Ezaga, 2010). However, these scenarios are also dependent on other factors which may impact on overall terms of trade.

### **5.5.3. Market Conduct**

Competition in the Karamoja food market is reasonable with the majority of the traders interviewed (58 percent) having more than five business competitors (Bashaasha, 2010). The results suggest that these regional food markets are fairly free of monopolistic and monopsonistic tendencies, though collusive tendencies could exist.

### **5.5.4. Market Performance**

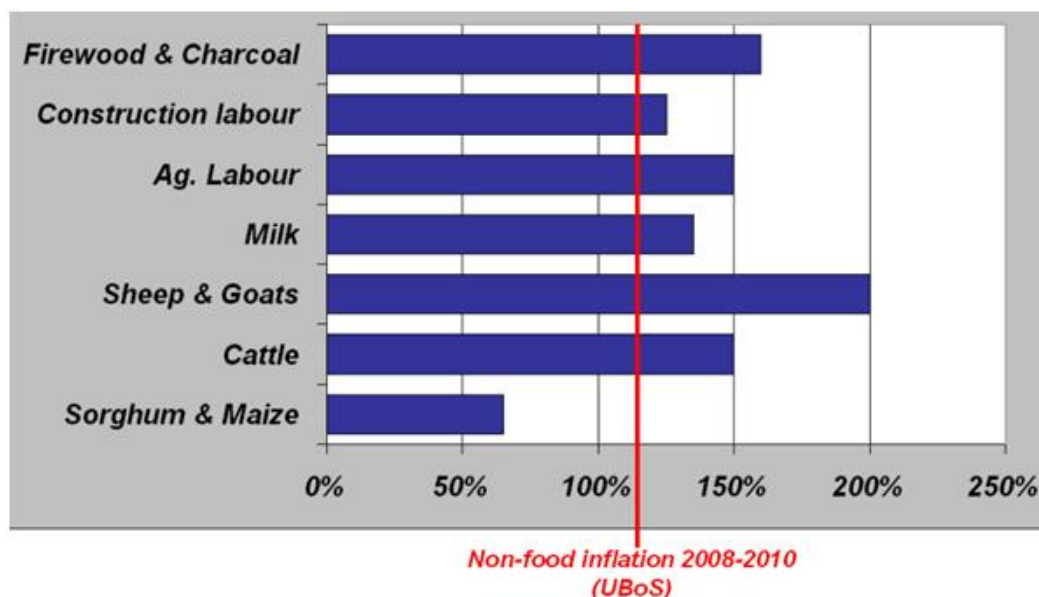
Prices are heavily dependent on the needs of the seller and the time of year. Prices for livestock are generally higher when pastures are in good condition, and lower during dry periods when pastures are low and affect the size of cattle. Additionally, during periods of low food harvests or drought, livestock prices are low as sellers lack negotiation power and are desperate to sell. A household's most valuable livestock is a cow, which is an ultimate last resort in terms of selling (Ezaga, 2010).

Prices are also influenced by the security situation; increased insecurity usually results in increased prices. Neither food crops nor livestock markets maintain a common price structure, and prices fluctuate according to a variety of factors. For example, in Komuria market, overhead costs such as market dues and transport costs have a bearing on the final price of cattle (Ezaga, 2010).

As noted earlier, Karamoja is able to market some of its sorghum supply to surrounding areas, during a good harvest year. As stated elsewhere, this sale is usually due to cash needs of Karamoja-based farmers, and these households typically do not produce enough cereals for home consumption. Karamoja's markets depend mostly on supplies from neighboring areas; thus, prices are higher in Karamoja as they include transport and other costs. Nonetheless, average prices of commodities such as sorghum, a main staple in Karamoja, are generally higher in Karamoja than in the neighboring areas. Prices are especially higher before the harvests, which occur between September and December of a given year, as well as during poor production years. During these times of production shortage, surrounding regions are more likely to market their production to Karamoja.

In Karamoja, staple food prices of sorghum and maize appear to have increased the least as compared to other commodities, from 2008 to 2010, as the following figure shows.

**Figure 9. Market Price Changes in Karamoja: Percent Change in Prices, September 2008 and September 2010**



Source: FAO November 2010, "Karamoja Seasonal Assessment"

The above figure uses the non-food inflation between 2008 and 2010 as a benchmark to judge price changes. Where prices have increased by more than this benchmark, there has been a real increase in the value of the commodity; this is the case for most commodities, and especially for sheep and goats, firewood and charcoal, cattle, and agricultural labor. In the case of firewood and charcoal, the explanation given in the report is supply reduction. Conversely, better harvests in Karamoja and good production in the areas which traditionally supply Karamoja have contributed to a real reduction in prices for sorghum and maize (FAO, Karamoja Seasonal Assessment, 2010-2011, 2011). Higher prices for commodities sold by households (such as firewood and charcoal), coupled with lower prices for staple cereals, meant a significant improvement in the terms of trade and therefore overall purchasing power in 2010 compared to 2008 (FAO, Karamoja Seasonal Assessment, 2010-2011, 2011).

In sum, Karamoja's markets are dependent on both seasonality and harvest levels within the region (which determine locally-supplied market availability, and households' economic ability and/or need to buy on the market), as well as in neighboring regions which also supply Karamoja's markets. Furthermore, external factors such as transport and security affect market performance as well. Lastly, household income fluctuates according to availability of sources of income, household herd size and condition.

A WFP report states that significant forces hindering market performance are low effective demand, low purchasing power, and high levels of poverty (Bashaasha, 2010). Thus, programs that enhance individual and household disposable incomes would in turn enhance market inflows, increasing the options people have to access adequate food in the short term. Karamoja's markets would need improved infrastructure and security to sustain an increased demand.

## 5.6. Market Integration Analysis

**Introduction.** Local markets in developing countries are often poorly integrated with one another due to inadequate provision of public goods (such as infrastructure), inefficient flow of information, imperfect competition, and incomplete or missing institutions for risk management, like credit and insurance—all of which qualify as sources of market failures.

A number of studies have examined price integration in different markets by testing for either static or dynamic correlations between price variables. The most common measure of spatial market integration between time series of commodity prices is the bivariate correlation coefficients. This test uses the Pearson correlation coefficient, a scale-free measure of the covariance between two price series, giving values between  $-1.00$  and  $1.00$ . Statistically significant and positive correlation coefficients indicate a spatial integration between the respective pair of markets through trade; and the higher the correlation coefficient (the closer to 1 it is), the greater the degree of market integration. Absence of statistically significant price correlations suggests that markets are not linked through trade, and prices are determined independently from one market to another.

**Uganda.** Uganda has a wide range of agro-climatic conditions and livelihoods. Years of civil conflict have had damaging effects on its transport infrastructure and its agricultural marketing systems. Thus, to better understand markets, and analyze the impact of monetized and distributed food aid in the market, it is important to better understand the spatial linkages among main food markets.

Matooke (bananas), sorghum, sorghum flour, beans, maize, maize flour, and Irish and sweet potatoes are among the main staple and cash food commodities in Uganda. Using average monthly retail prices from October 2006 to March 2011 for each of these commodities, correlation coefficients were estimated for all the price pairs among select markets. Markets play an important role in trade networks of commodities; markets for this study were chosen primarily on the basis of data availability.

**Karamoja.** Markets within Karamoja are surprisingly well-integrated (considering the difficulties of market information flow, poor transport, and short-lived, seemingly spontaneous market presence), especially for beans and sorghum (Bashaasha, 2010). Price correlation is highest among Moroto, Central Kotido, and Kaabong districts, as noted in the following table.

**Table 17. Price Correlation: Moroto, Kotido, Kaabong**

	Kamuswahili (Moroto)	Kotido Central	Kaabong Central
Kamuswahili (Moroto)	1		
Kotido Central	0.90 (Maize flour)	1	
	0.98 (Beans)		
	0.87 (Sorghum)		
Kaabong Central	0.87 (Maize flour)	0.89 (Maize flour)	1
	0.98 (Beans)	1.00 (Beans)	
	0.97 (Sorghum)	0.96 (Sorghum)	

Source: Bashaasa, B, December 2010. "Market Analysis for Cash Transfer Programs in Karamoja" WFP

**Beans.** Correlation coefficients were computed for the following bean markets: Kampala, Gulu, and Mbarara. Bean markets are strongly correlated to each other (see table below). The bean markets of Mbarara and Gulu, both of which are major production areas, appear to be well-integrated (0.75). Bean price correlation between Kampala, the capital city, located in a bean-

deficit area, and other markets is also strong. The coefficients corroborate anecdotal observations that beans are shipped from Gulu to Kampala, via Lira, and from Mbarara to Kampala, via Masaka.

**Maize.** Correlation coefficients were computed for Kampala, Arua, and Mbarara maize markets. These markets are seemingly well-integrated for maize and maize flour. The highest level of integration for maize exists between Arua and Kampala, with a correlation coefficient of 0.900. This result supports information of maize trade flows from Masindi to both Arua and Kampala. Mbarara and Kampala receive flows of maize from Masaka, and thus the correlation coefficient between Mbarara and Kampala is high (0.847).

**Matooke.** Markets are also well integrated for Matooke. The highest level of integration exist between Kampala and Masaka (0.848), and Kampala and Mbarara (0.714). Kamapala's matooke supply comes from Mbarara and Masaka, both located in major production areas.

**Irish potatoes.** Of the three pairs of Irish potato markets analyzed, only one pair (Masaka and Mbarara) indicated high integration with the other two, which suggests little if any market integration. Masaka serves as a transit point for potatoes from Kabale, Bushenyi, Mbarara, Rukungiri, and Rakai markets in route to urban markets, so the prices in Masaka may influence or be influenced by prices in these producing markets.

**Rice.** Most rice in Uganda is grown in Eastern Uganda, with some grown in Western Uganda due to the areas' lowlands and high moisture content throughout the growing season. Although rice is increasing in popularity, particularly in urban areas, it is not a traditional staple food in Uganda, nor is it among the ten most important crops grown in the country. Rice is increasingly traded to Kenya, Rwanda, and the eastern part of the DR Congo (Odogola, 2006). Price coefficients show strong evidence that rice prices between Arua and Mbarara are correlated. However, given that there is poor accessibility in terms of infrastructure between the two markets, the high correlation coefficient is likely a coincidence.

**Other crops.** Markets for sorghum, sorghum flour, cassava, and sweet potato appear to be poorly-integrated. The lack of integration could be explained by the fact that these crops are primarily grown for domestic consumption. However, some of these crops are increasingly marketed, such as sorghum, which is sometimes sold at the farm-gate level or at the nearest rural market. Of the total sorghum marketed, about 80 percent is sold at the rural markets and 20 percent is sold at the farm-gate level (Shoreline Service Limited, 2010). Very little produce is marketed beyond most production regions, due to strong local markets and weak demand in Kampala.

**Table 18. Price Correlation among Markets in Uganda**

	Kampala	Arua	Mbarara	Masaka	Gulu
Kampala	1				
Arua	0.900** (Maize) 0.191 (Matooke)	1			
Mbarara	0.884** (Beans) 0.847** (Maize) 0.714** (Matooke)	0.894** (Maize) 0.865** (Maize flour_ 0.220 (Sorghum) 0.427** (Sorghum flour) 0.843** (Rice) 0.751** (Sweet Potatoes) 0.631** (Cassava fresh)	1		

	Kampala	Arua	Mbarara	Masaka	Gulu
		0.615** (Irish Potatoes) -0.023 (Matooke)			
Masaka	0.848** (Matooke)	0.676** (Sweet Potatoes) 0.519** (Cassava fresh) 0.492** (Irish Potatoes) 0.027 (Matooke)	0.456* (Sweet Potato) 0.349 (Cassava fresh) 0.839** (Irish Potatoes) 0.697** (Matooke)	1	
Gulu	0.774** (Beans)	0.523** (Sorghum)	0.750** (Beans) 0.310 (Sorghum)		1

Source: Compiled by Fintrac/BEST

## 5.7. Key Considerations

This section covers key considerations for all interventions which involve distributed food aid in northern and northeastern Uganda, including geographic targeting, seasonal targeting, household targeting, evidence of leakage in local markets, activity type, and commodity selection. The section concludes with brief mention of other considerations for distributed food aid.

### 5.7.1. Geographic Targeting

As of May 2011, USAID/Uganda anticipates funding upcoming Title II interventions in northern and northeastern Uganda (the Karamoja region and bordering areas). Based on available proxy indicators of district-level food deficits, any one of these areas would not be expected to pose any immediate Bellmon concerns.

Given the extremely high levels of poverty, crude mortality rate (WFP, 2009), and chronic malnutrition in Karamoja, the study team does not believe initial geographic targeting at the district level in the wider Karamoja region would create Bellmon concerns. However, as noted earlier in this chapter, markets are mostly integrated within parts of Karamoja, and any impacts would need to be studied more fully in neighboring areas (with potentially different livelihood activities) that could be potentially affected by programming in an original, neighboring zone. It is imperative that potential Awardees undertake careful needs assessments and analyze local market conditions to further refine appropriate geographic targeting at a more localized level.

### 5.7.2. Seasonal Targeting

Timing of ration delivery is critical. Food distributed during the lean season is more likely to be consumed by beneficiaries and therefore minimally disruptive (if at all) to markets, because of shortages of household stocks combined with high market prices. The potentially high variability of staple prices and livestock prices between seasons affects household income and consumption. Where food aid distribution is viewed by beneficiaries as either a short-term and/or unreliable source of food, agriculturalists, agro-pastoralists, and pastoralists will all be less likely to adapt food security decisions (access and availability) in response to distributed food aid rations.

Lean seasons are complicated in greater Karamoja because it is a unimodal area, whereas the rest of Uganda is bimodal. Furthermore, pastoralists have different lean periods (generally December through March) than agriculturalists/agro-pastoralists (April through mid-July), and rainfall can be highly variable (FEWS NET, 2011). Potential Awardees must determine the expected lean season for various populations and crops, specific to the geographic areas in

which they plan to work. Please see Section 5.3.2 for a seasonal agricultural calendar and seasonality details.

### 5.7.3. Household/Individual Targeting

In Uganda and the majority of sub-Saharan Africa, women play a major role in household nutrition. They are the primary caregivers and are responsible for acquiring or producing food for the household. Though gender relations are outside of this report's scope, gender equity issues, especially in pastoralist areas, surely affects these caregivers' ability to provide food for their households.<sup>48</sup>

Food security access, availability, and utilization are inadequate throughout certain areas of greater Karamoja, depending on factors such as seasonality, transport, and security. As described earlier in this Chapter, availability on Karamoja's markets is generally not a problem, though markets usually offer a limited quantity of specific goods for a short time period. In regards to utilization, Karamoja has a unique culture that consists of manyattas, compounds where extended families live together.<sup>49</sup> These manyatta structures and other cultural aspects of Karamoja's population (such as the semi-nomadic lifestyle of some households) make it difficult to establish programming targeted for individual families, as ration sharing among manyatta members is likely. However, ration sharing could be seen as a "safety net" response, as it would improve overall aid within the group manyatta structure.<sup>50</sup>

Interviewees during the field visit indicated that food aid may be appropriate in Karamoja, but emphasized that programs should be more targeted as the area's security and productivity improves. Furthermore, interviewees emphasized the need for donors to recognize culture and potential dependency issues as additional factors in programs' success. Potential Title II Non-Emergency programming should take these and other factors into account when designing appropriate food security programs for the diverse, targeted populations within the greater Karamoja area.

### 5.7.4. Evidence of Leakage in Local Markets

Because of: 1) the localized nature of the impact of distributed food aid; 2) the vulnerability of small markets to disruptions; and 3) the sensitivity of small farmers to production disincentives, quantities of food aid which may appear insignificant compared to a country's total food staple consumption can nonetheless have a major impact on markets and production at the local level. The BEST team visited Uganda from April to May 2011. The bulk of WFP food aid and all Title II MYAP activities are currently located in the northern and northeastern part of the country. The team therefore visited local markets and interviewed informants to determine whether food aid was appearing in the markets in Gulu, Bobi, Kitgum, Naam Okoro, Karenga, and Kotido.

The two MYAP partners are distributing minimal quantities of direct distribution commodities over a wide area (approximately 4,000 MT were distributed by each partner in FY10). WFP/Uganda, in comparison, has a much larger food aid tonnage throughout the country. In 2010 WFP's totals were 61,000 MT overall for the country, and 35,000 MT specifically targeted

<sup>48</sup> For further information, see the GoU's 2006 report "Gender Inequality in Uganda."

<sup>49</sup> See "Small Arms and Light Weapons Among Pastoral Groups in the Kenya-Uganda Border Area," by Kennedy Agade Mkuu, African Affairs 106/422, July 2006 for further information

<sup>50</sup> Bashaasha, B. and Mutengu, A., field interviews, 2010 and 2011; they also reported that communities within Karamoja are beginning to understand and accept the importance of targeted individual/family rations for those in acute need, and the role that local council administrators (LC1) can play in identifying and helping targeted individuals receive the aid that they need.

for Karamoja (interview, WFP/Uganda). WFP and the MYAP partners all reported that food aid appearing in local markets happens rarely, and that this was a much more pervasive problem over five years ago.<sup>51</sup> No food aid was seen in markets that were visited. The current MYAP Awardees report that little to no Title II food assistance was appearing on local markets in their target areas in northern and northeastern Uganda.

No international food aid has been distributed around greater Kampala over the last few years. The BEST study team members further visited local markets in Kampala and Jinja, and saw no evidence of food aid being sold in these locations.

### 5.7.5. Activity Type

**General Guidelines.** The presentation of possible distribution modalities and program parameters are based on a review of official USAID guidance and discussions with stakeholders in the field and in Washington, including USAID/FFP and current Title II Awardees (ACDI/VOCA and Mercy Corps), and other important actors in food security in Uganda (including GoU, WFP, FAO, World Bank, Cooperative League of the USA/National Cooperative Business Association (CLUSA/NCBA), Land O Lakes, World Vision, Catholic Relief Services (CRS) and others). These scenarios are meant to serve as illustrative guidance rather than as a prescription, given that the potential Awardees' Non-Emergency Program proposals have yet to be finalized and are thus unavailable to inform the present Bellmon analysis.

**Food for Work (FFW)/Food For Assets (FFA).**<sup>52</sup> The intent of FFW is to create food-wage employment during periods when rural unemployment increases. The rise in unemployment results in lower rural incomes at precisely the time of year when staple prices tend to spike because of food shortages in local markets.

Wage payments in FFW programs are generally made in-kind rather than in cash. If designed correctly, this practice can stabilize the price of staples in the market and improve food consumption and nutrition of participating households. If designed and implemented appropriately, FFW can also increase productivity on semi-subsistence farms (Abdulai, 2005).

The intent of FFA is to reduce community vulnerability to disasters and transitory or chronic food insecurity through micro-projects involving the construction and maintenance of productive community assets. Wage payments are made in-kind rather than in cash, and activities are meant to target the poorest households within a community. If designed correctly, FFA can improve food access for the most food insecure households within a community, while leaving behind useful assets for the entire community, a potentially more long-term approach as compared to FFW.

However, in practice, many activities could be placed under both FFW and FFA classifications in Uganda and other countries because of the programs' similar definitions. Activities that fall under these classifications could include building/rehabilitating roads, communal hand

<sup>51</sup> This would have been during the height of the LRA insurgency in northern Uganda when much larger quantities of food aid were being distributed, and would also have included leakages from southern Sudan, during corresponding years of food aid for displaced Sudanese, and conflict between the SPLA and the Government of Sudan. Interviewees also mentioned that CSB was the most likely commodity to be marketed, because beneficiaries didn't know how to cook it. To alleviate the problem, organizations hold cooking demonstrations at the distribution site, which have reportedly been very useful.

<sup>52</sup> For further guidance on the appropriate design of FFW activities, please see USAID's Commodities Reference Guide, accessible via: [http://www.usaid.gov/our\\_work/humanitarian\\_assistance/ffp/crg/module2.html](http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module2.html)

washing/sanitation facilities, agricultural terraces or permagardens, water points, irrigation canals, latrines, rainwater harvesting systems, and/or other structures.

**Considerations to ensure Bellmon compliance of proposed FFW/FFA programs.** To encourage self-targeting and avoid drawing labor from other agricultural production or livelihood activities, the income transfer value of the ration should be set at slightly less than the prevailing rural wage. It may also be appropriate to include slightly less-preferred but still culturally-acceptable commodities in the FFW/FFA ration. If the value of the FFW/FFA ration is too high, it can disrupt local labor markets by attracting more laborers. Also, if the ration value is too high, the food may not benefit the most needy individuals, and/or families. Inclusion of a food used commonly in child feeding may also help in self-targeting women.

Timing of food distribution is critical. FFW/FFA commodity distribution will be less disruptive if distributed during the lean season rather than during the harvest season, and specific conditions should be taken into account for pastoralist and agro-pastoralist zones. By increasing the demand for labor at the time when staple prices typically spike, careful timing of food wage payments under FFW/FFA can help smooth irregular consumption patterns of food insecure households. During the lean period, rural households - especially the poorest - have little reserves of food from markets because of high prices. By carefully timing FFW/FFA activities to coincide with the lean season, FFW/FFA will maximize food security impact.

As noted above, lean seasons are complicated in Uganda because of the unimodal pattern in Karamoja, while the rest of the country has bimodal rainfall patterns. Also, the country relies on a wide range of foodstuffs to provide carbohydrates (bananas, cassava, Irish and sweet potatoes, millet, sorghum, maize, and rice), but drier parts of Karamoja produce and consume cereals that are more drought-resistant (e.g. sorghum and millet). Potential Awardees must determine the lean season for various populations and the seasonality of crops according to geographic areas. Please see 5.3.2, earlier in this chapter, for a seasonal agricultural calendar for Uganda, and details about seasonal variations across regions and commodities.

As noted above, there must be sufficient supervisory capacity for any proposed FFW activities to minimize possible leakages.

Where warranted and possible, FFW/FFA should target female-headed households, if they are deemed to be most vulnerable. Prior to such targeting, where appropriate, potential Awardees should also investigate the availability of female labor during the typical lean periods to ensure women could participate effectively in such gender-targeted FFW/FFA activities. Awardees should also take into account whether these proposed activities would put women at any increased security risk, based on past and current conditions within greater Karamoja.

**Maternal Child Health and Nutrition (MCHN) Programming.**<sup>53</sup> As stated earlier in this chapter, preventive approaches to malnutrition among children under two years of age will be supported. However blanket feeding will not/not be considered as part of any preventive approach in Uganda due to the Government of Uganda's policy on food distributions. However, preventive programming that specifically targets malnourished children/infants under the age of

<sup>53</sup> For further guidance on the appropriate design of MCHN interventions generally, and PM2A specifically, please see USAID's Commodities Reference Guide: accessible via [http://www.usaid.gov/our\\_work/humanitarian\\_assistance/ffp/crg/module1.html](http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module1.html), and FANTA-2's PM2A Technical Resource Materials (TRM) and other related guidance: accessible via <http://www.fantaproject.org/pm2a/index.shtml>.

two, and pregnant and lactating women, will be supported, similar to existing MCHN programming being undertaken by the current MYAP partner.

**Commodity selection.** Local diet should be considered in the selection of appropriate commodities for distribution. Beneficiaries are more likely to optimize the food aid as designed if the commodity is culturally acceptable and/or the distribution is accompanied by nutrition education and awareness. The Ugandan diet is notable for its diverse, domestically-produced foodstuffs (bananas, cassava, Irish and sweet potatoes, millet, sorghum, maize, rice, beans, groundnuts, milk, and others) that provide carbohydrates and protein for the average Ugandan, as mentioned earlier.

Specifically, sorghum is the main crop produced within Karamoja (WFP, 2009).<sup>54</sup> Karamoja's sorghum farmers also tend to be more food insecure than those in the area who have other income sources. Karamoja is also unique in its diet which also relies heavily on millet and maize, as opposed to other regions of Uganda, where matooke/bananas is the most commonly consumed foodstuff.

Palm oil is the most common edible oil used for cooking/consumption throughout the country, and current edible oil consumption estimates range from 4.4 to 7.5 kg per capita per year (interviews with private sector, 2011). The WHO recommends approximately 21 kg per capita per year consumption of oil and fat to maintain human nutritional requirements. The GoU is trying to increase domestic edible production (and consumption) through projects at Kalangala (palm oil) and Lira (sunflower), but Uganda still imports between 85 to 90 percent of its annual edible oil consumption (interviews with private sector, 2011). However, domestic consumption of edible oil has doubled in the last five years, and is expected to continue increasing with these above and other domestic initiatives.

Most poor households in Uganda tend to be net buyers of food staples (Simler, 2010). Currently, the majority of Karamoja households are meeting their needs through their own stocks and market purchases (FEWS NET, 2011).

The two current MYAP partners are located in northern Uganda, and distribute cornmeal, corn soy blend (CSB), split peas, and vegetable oil. All of these foodstuffs are reported to be readily accepted<sup>55</sup> by beneficiary populations in northern Uganda, and current MYAP coverage areas focus on the districts of Kitgum, Gulu, Pader, and Lira, but also extend into parts of Kaabong and as far south as Soroti (see MYAP Partner map in Chapter 2 for actual districts covered). It is difficult to generalize food preferences over northern and northeastern Uganda, but the above foodstuffs would likely also be readily accepted by agriculturalists, agro-pastoralists, and pastoralists in the greater Karamoja region.

#### 5.7.6. Other Considerations

There is a long history of food aid assistance in Karamoja, and WFP has been providing differing quantities and rations of foodstuffs over the past 40 years. Therefore, it is imperative for future Title II Non-Emergency programming to be well-targeted within the region, and be in coordination with other development initiatives that target agricultural production. To avoid creating disincentives to production and marketing within Karamoja (and avoid worsening any

<sup>54</sup> WFP/Uganda CFSVA, p. 83, 2009

<sup>55</sup> CSB and vegetable oil, in particular, is viewed as extremely valuable (both economically and nutritionally) by beneficiaries, according to interviews.

cases of "dependency syndrome" some interviewees noted), as well as ensure that development programming within the area is harmonized among actors, coordination and well-designed targeting is absolutely essential.

**Conflict.** Karamoja has a history of conflict with other ethnic groups from Kenya and Sudan, and within ethnic groups in greater Karamoja. Different livelihood strategies- pastoral, agro-pastoral, and agricultural- often struggle to share land, water, and limited resources. These tensions are exacerbated by arms, drought, and poor infrastructure. However, the GoU has devoted significant resources to disarm and develop the Karamoja region and local communities and donors have also implemented peace-building activities in the region. To determine the most appropriate program for an area, these local communities should be involved in the decision-making and design process.

**Corruption.** Effective staffing and oversight of program implementers and recipients should be a key component of every food aid program to minimize corruption. Food aid was targeted to northern and northeastern Uganda for over 20 and 40 years, respectively. Dependency will definitely be a challenge for potential Awardees, and anecdotal stories of corruption from IDP camps and under various programs in Karamoja were often heard. During the field visit, partners explained strategies for overcoming duplication of rations (e.g., very targeted distributions, or strictly-monitored ration card systems). Partners noted the importance of community awareness of each program's targeting criteria and rationale, in order to avoid theft and/or violence between beneficiaries and non-beneficiaries.

**Lessons learned.** Potential Awardees should review and incorporate all relevant lessons learned and recommendations from both past and current FFP and development assistance-funded projects in Uganda and neighboring countries. WFP and the current MYAP partners all have a considerable amount of experience in Uganda, and interviewees noted many program improvements which resulted from lessons learned over time.

Potential Awardees should explore opportunities for collaborating and joint programming to maximize the impact of Title II resources. As part of their needs assessments, potential Awardees should review the status of programs and beneficiary coverage (who the target beneficiaries are and how many are covered, how much food is provided, what types of food and when, and whether aid is conditional or not) to assess where new program interventions may provide maximum food security impact and, therefore, minimum disruption of markets and production incentives.

## Chapter 6. The Role of Local and Regional Procurement

### 6.1. Introduction

LRP allows for the local and/or regional purchase of foodstuffs for distribution to beneficiaries in recipient countries. Local procurement includes locally-purchased food for distribution, as well as cash transfers and vouchers provided to beneficiaries for the purpose of purchasing foodstuffs in local markets. Regional procurement involves distribution of food by donors within one country which has been purchased in a neighboring country within the region.

**Locally-purchased food for distribution.** The rationale for LRP is that locally-purchased (or regionally-purchased), donor-financed food aid in countries affected by disasters or other food crises often arrives more quickly than food aid shipped from donor countries and is less expensive than imported food aid shipped from donor countries, allowing for greater beneficiaries coverage.<sup>56</sup> LRP foodstuffs may also be more appropriate to local tastes. Importantly, in a development context, by ensuring a market for local products, LRP can stimulate local production and local markets by providing capital and/or incentives for local market actors (producers, traders, transporters, etc.) to invest in agricultural production and market infrastructure.

From the perspective of local markets and consumer welfare, the major risks associated with local purchase of food for distribution include:

- Inflationary pressure on the prices of foodstuffs purchased by poor consumers due to supply shortages caused by the diversion of food commodities away from local markets and toward aid organizations. This is a very serious risk where local producers have limited capacity to increase supply in response to increased demand by donor-financed LRP initiatives.

From the perspective of beneficiary welfare and donor planning, the major risks associated with local purchase of food for distribution include:

- Inability of donors/implementing partners to ensure locally-procured foodstuffs consistently meet food safety standards.
- Non-delivery or delayed delivery of locally-procured foodstuffs for distribution due to donors/implementing partners' inability to consistently secure and enforce procurement contracts.

**Cash transfers and/or vouchers provided to beneficiaries for the purpose of purchasing foodstuffs in local markets.** A cash transfer to beneficiary households in deficit areas can provide incentives for traders to move grain from surplus to deficit regions. However, if the value of the cash transfer is either set too low or eroded by inflation over time, such transfers will not increase effective demand as much as a program may intend.

<sup>56</sup> See, for example, Tschirley and del Castillo (2007), GAO (2009), USDA-FAS (2009).

From the perspective of local markets and consumer welfare, the major risks associated with cash transfers and/or vouchers are:

- Inflationary pressure on the prices of foodstuffs purchased by poor consumers due to increased demand caused by augmenting the purchasing power of beneficiaries. This is a very serious risk where local producers and/or traders have limited capacity and/or incentives to increase supply in response to increased effective demand.

## 6.2. Overview: LRP and Cash/Voucher Programs

Various aid and development agencies (including WFP, Danish International Development Agency (DANIDA's Restoration of Agricultural Livelihoods in Northern Uganda Component (RALNUC), Appropriate Technology Uganda (ATU), Mercy Corps, and World Vision) have experience with LRP and cash/voucher-based aid programming in Uganda.

### 6.2.1. LRP Programs

**WFP.** From 2001 to 2005, Uganda ranked third, in value terms, of African suppliers to WFP's LRP programs (Haggblade, Local and Regional Food Aid Procurement in Zambia, 2007). Currently, WFP is undertaking both regular LRP activities as well as a specialized LRP program, P4P, which differs from the organization's normal LRP activities in that it focuses specifically on supporting smallholder farmers. P4P is detailed in Section 6.3.1.

**World Vision.** The World Vision LRP pilot project is funded by USDA, and receives roughly US\$2.4 million to reach nearly 50,000 individuals over 13 months (from September 2010 to October 2011). The program targets the northern districts of Kitgum, Pader, and Agago. Beneficiaries receive vouchers for food, seeds, and tools that help former IDPs transition back into agricultural production and rehabilitation. The project also includes construction/rehabilitation of traditional shelters and roads, as well as agronomic training. Based on its own market assessment, World Vision preliminarily determined that maize and bean purchases from central and western Uganda for the project should have a positive impact on overall production, as these areas typically produce a surplus.

Roughly 80 percent of program funding is dedicated toward food vouchers, with the rest supporting seeds and tools vouchers. Vouchers are redeemed in shops owned by pre-selected vendors at the sub-county and parish level. World Vision expects that beneficiaries will purchase about 4,400 MT of food with program vouchers during the 13 months. However, delays in both program implementation and beneficiary redemption of vouchers have been reported; the latter suggesting that perhaps beneficiaries are less vulnerable than expected.

See WV's "Market Assessment and Analysis to Determine the Feasibility of a Local/Regional Procurement Based Food Assistance Project, July 2010" for further details.

### 6.2.2. Cash/Voucher Programs

**Mercy Corps.** Mercy Corps currently implements a seed fair/voucher system to increase smallholders' trust of and access to improved seeds, under an Office of Foreign Disaster Assistance (OFDA) grant which will end during 2011. Mercy Corps activities under the three-year OFDA grant target approximately 300,000 beneficiaries in the Karamoja area, and include economic development, loan guarantees, animal health services, and tool distribution (USAID, 2009).

**Agency for Technical Cooperation and Development (ACTED).** ACTED has been present in Uganda since 2007, and implements cash-for-work and voucher-for-work programs. From 2007 to 2008, the organization implemented five voucher-for-work programs in northern Uganda, and has continued voucher-for-work programs to date. In 2010, ACTED constructed local markets, woodlots, cattle crushes, health facilities, and 1,094 km of community access roads through their voucher-for-work and cash-for-work programs (ACTED, 2010). ACTED also conducts baseline surveys which assess the security environment, socio-economic status, and local economic conditions; ACTED then determines whether cash or vouchers will be used. According to a concept paper the group published based on their Uganda programs, voucher-for-work is preferable over cash and food-for-work (ACTED, 2009), because: 1) vouchers have a lower risk of misuse, offer higher security for staff, and are adequate where no banking systems exist, in comparison to cash for work; and 2) vouchers have easier logistic requirements and allow beneficiaries a greater choice of food items than food for work.

**FAO.** With funding from the EU, FAO also contracted ATU to implement a two-year project called the Agricultural Livelihoods Recovery Project (ALREP) for Northern Uganda, from 2008 to 2010. This project operated by issuing vouchers to returning IDP households to enhance their access to agricultural inputs.

**DANIDA.** The RALNUC program was designed as the last component of DANIDA's ASPS II (Agricultural Sector Program Support).<sup>57</sup> RALNUC's voucher-for-work operations commenced in 2006 and ended in 2009. The program assisted IDPs in northern Uganda to return and settle at home. Program activities included community road construction, market infrastructure, and water points, among others. RALNUC had four objectives: 1) facilitate households' ability to exercise effective demand for improved agricultural inputs (implemented by ATU and UNADA); 2) strengthen the private sector input distribution system (implemented by ATU and UNADA); 3) improve smallholders' access to microfinance institutions (implemented by CARE in West Nile and Lango); and 4) rehabilitate rural infrastructure through vouchers-for-work (implemented by ASPS/AT Uganda).

However, the voucher-for-work component of the program ran into problems. Reports of fake vouchers, farmers exceeding their voucher limits, voucher redemption without corresponding voucher sales receipts, and other issues led ASPS to replace the voucher-for-work aspect of the program with cash-for-work in its final implementation year.

**Oxfam.** Oxfam implemented cash-for-work programs in northern Uganda during 2006 and 2007. Program activities included dam de-silting, tree planting, and road construction. One thousand IDP households in Kitgum and Lokung participated in the project. Households reportedly used their cash to purchase livestock, replace lost assets, and pay debts and school fees. The program was unique in that it partnered with a local bank to deposit cash into beneficiaries' accounts, rather than directly disbursing cash. Each month, Oxfam transferred UGX 40,000 into households' accounts (Oxfam, 2008). This familiarized households with banking/savings systems as well as reduced security threats of direct cash handouts.

**CRS.** From 2002 to 2005, CRS implemented seed fair/seed voucher programs which targeted 24,282 households. Sixty to sixty-five percent of voucher recipients were women. In the

<sup>57</sup> RALNUC implemented some of its activities independently but also sub-contracted some of the activities to ATU. The ATU sub-contract totaled approximately US\$222,605. Conversion of UGX460,074,770, using an average 2009 USD/UGX exchange rate of 2,066.77 UGX = 1 US\$. [www.xe.com](http://www.xe.com) (accessed June 2011).

program, farmers received seed vouchers worth about US\$8.50, to purchase seed from vendors registered with CRS (CRS, 2005).

### 6.3. LRP Initiatives

This section provides a review of operations of various local initiatives that leverage local and regional procurement. Key initiatives include WFP's regular LRP, WFP's P4P pilot, and the Uganda Commodity Exchange (UCE)-regulated Warehouse Receipt System (WRS).

#### 6.3.1. WFP's Regular LRP

WFP Uganda has been involved in local procurement of grain and pulses since 1994 and has contributed greatly to the structuring of the Ugandan grain market. In 2007 alone, WFP Uganda locally purchased over 210,000 MT of food valued at US\$64.7 million, making the organization the largest single purchaser of grain in the country (WFP, 2009). During this time, WFP purchased primarily from large traders. From 2005 to 2009, WFP purchased a total of 27,500 MT of grain directly from farmer associations, through competitive tenders. Although WFP vowed to apportion 10 to 20 percent of its local purchases to smallholder farmer groups in 2004, it has yet to meet the set target, and currently purchases only six to seven percent of its total local purchases (both LRP and P4P) from farmer groups.

**Table 19. WFP Regional Procurement- Destination Countries, 2009-2010**

Destination	Maize 2009	Maize 2010	CSB 2009	CSB 2010	Beans 2009	Beans 2010	Totals
Uganda	69,786.00	33,816.68	8,321.00	4,119.00	8,025.00	3,227.39	127,295.07
Burundi	15,879.25	10,533.60	610.00	-	2,098.00	2,920.90	32,041.75
DRC	3,450.00	1,586.00	55.90	-	3,112.00	351.00	8,554.90
Rwanda	5,510.00	1,310.00	215.00	-	2,132.00	658.00	9,825.00
Somalia	9,362.00	-	607.00	-	-	2,000.00	11,969.00
Sudan	4,865.00	9,068.00	-	-	-	1,451.00	15,384.00
Kenya		41,806.61		3,130.00		5,441.93	50,378.54
Tanzania	640.00	9,464.00	-	932.00	542.00	3,584.00	15,162.00
<b>Totals</b>	<b>109,492.25</b>	<b>107,584.89</b>	<b>9,808.90</b>	<b>8,181.00</b>	<b>15,909.00</b>	<b>19,634.22</b>	<b>270,610.26</b>

Source: WFP/Uganda, 2011

\*Maize figures include maize meal

#### 6.3.2. WFP's Purchase for Progress (P4P)

WFP's P4P program is an initiative supported by the Bill and Melinda Gates Foundation to improve incomes of smallholder farmers through increased marketing of agricultural products. Uganda is one of the 21 countries piloting this program. P4P directly supports WFP's Strategic Objective 5 (strengthening the capacity of countries to reduce hunger, including through hand-over strategies and local purchase) and WFP Uganda priority Area 3 on agriculture and market support. P4P is actively involved in building and strengthening agricultural markets in Uganda through four core activities:

1. Strengthening agricultural marketing infrastructure by establishing market collection points and storage warehouses.
2. Enhancing the stock and capacity of post-harvest technology and training. As of May 2011, WFP has imported nine pieces of grain cleaning and drying equipment into the

country. Of these, two are operational, three have been installed, and four are awaiting installation. Upon completion, all equipment should process an estimated 54,000 MT per year.

3. Building market access infrastructure in partnership with local rural communities and facilitating access to market information by farmers. WFP has a partnership with the Grameen Foundation to disseminate market information sourced from FIT Uganda, a local market information service firm.
4. Strengthening small- to medium-scale commodity traders who are at the frontline in terms of procuring agricultural commodities from farmers.

P4P values partnership as a key to success and has collaborated with a number of local and international institutions. P4P had originally planned for a three-pronged procurement strategy comprised of direct purchasing, forward contracting, and traditional tendering processes. Currently, traditional tendering remains the most dominant strategy. The following table shows P4P commodity purchase performance against year one targets.

**Table 20. P4P Food Purchase Performance against Year One (2009) Targets**

Commodity	2009 target (MT)	2009 actual purchase (MT)	Performance (% of target)
Maize grain	8,914	6,838	76.7
Pulses	857	531	62.0
Sorghum	1029	0	0
Millet	240	0	0
Cassava chips (dry)	857	0	0
Sesame	103	0	0
Total	12,000	7369	61.4

Source: WFP Purchase for Progress Implementation Plan, March 2009 & P4P Progress report

As shown in the table above, maize dominated P4P's purchases; thus, WFP's plans to diversify procurement (by including other local staples such as sorghum, millet, cassava, and sesame) do not appear to have been realized. Reasons behind this lack of diversity may include: 1) unclear marketing chains for commodities other than maize and beans; 2) difficulty of producers (other than maize and beans producers) to meet WFP standards; and/or 3) inadequate experience on WFP's part in working with commodities other than maize or beans.

In 2010, 4,000 MT of grain were procured under P4P, which accounted for about three percent of WFP's total LRP for 2010, and was almost 3,000 MT less than in 2009. This percentage for 2010 is also slightly lower than P4P grain purchases as a percentage of total LRP purchases for 2009, which stood at 5.8 percent. The program continues to strive to procure directly from smallholder farmers; though, as noted in the following table, WFP procured from less farmer groups in 2010 than in previous years. The organization recognizes drought, shortages, price rises, and competition from buyers of un-graded maize (southern Sudan and the DR Congo) as likely causes of this drop in participating farmer groups, and overall tonnage.

**Table 21. WFP P4P Direct Procurement from Farmer Groups, 2007-2010**

Year	Amount purchased (MT)	Detail
2007	7,001	19 farmer groups supplied
2008	3,807	11 farmer groups supplied
2009	4,157	19 farmer groups supplied
2010	1,608	6 farmer groups supplied

Source: Jonathan Coulter, Henri Leturque, Rosemary Kaduru and Maria Pardo: Midterm Evaluation of the AMS/P4P Uganda (Slide presentation, WFP Kampala, Uganda, March 22, 2011).

Farmers struggle to meet WFP grade requirements, a problem exacerbated by WFP's slow procurement processes which impacts small-holder farmers' ability to participate given that they must wait for payment (Coulter, Midterm Evaluation of the AMS/P4P Uganda, 2011). Farmer organizations have also complained of changes in procurement procedures by WFP without prior communication. Savings and credit cooperatives (SACCOS) currently number 2,063 in Uganda, and sometimes provide credit support to farmer organizations, enabling these organizations to pay for grain sorting, cleaning, drying, transportation, packaging, storage, and fumigation.

Effective P4P procurement remains a challenge for WFP/Uganda. WFP remains hopeful that this can be overcome as systems are established and implemented, and still considers itself a major player in the grain market. Private grain traders and WFP estimate WFP accounts for 20 percent of all domestic maize purchases in Uganda; however, data collected during the field visit place this figure closer to six to seven percent.<sup>58</sup>

**P4P vs. LRP.** On a larger scale, the P4P program as part of WFP's LRP program is challenged by the programs' sometimes conflicting objectives. LRP aims to buy large quantities, at low prices, with a main objective to distribute the procured food to many vulnerable people in a short amount of time; increasing local production and marketing is only a secondary goal of the program. P4P aims to buy small quantities, at sometimes higher prices, with a main objective to slowly increase the ability of smallholders to expand production and marketing. Thus, components of P4P - such as its lengthier purchasing process and inherently higher costs - conflict with LRP objectives.

Nonetheless, WFP insists that it will continue to play a major role in the Ugandan grain market in coming years, and is fine-tuning the program to overcome initial challenges as the program matures.

### 6.3.3. Uganda Commodity Exchange (UCE)

The UCE was mandated by the GoU under the WRS Act of 2006 to regulate the WRS, which was launched in 2008 (UCE and WFP, 2008). The goal of the UCE and WRS is to improve rural livelihoods, through supporting private sector-operated, public warehouses which store commodities according to standardized requirements (UCE). UCE was sustained by an EU grant until March 2011; currently, there are good prospects that the GoU will fund UCE's next budget which is effective July 1, 2011.

UCE is currently supporting the establishment of licensed warehouses across the country. These warehouses are open to stakeholders in the agricultural value chain, who can deposit graded commodities to store and trade. Commodities in the WRS are traded in an open exchange system established by UCE. UCE has strict criteria for the licensing and supervision of warehouses; all applicants must meet these criteria during licensing and renewal. The UCE warehouse system includes a secure, electronic component which enables traders and consumers to procure commodities with the confidence of location and quality guaranteed.

WFP has committed to procure up to 150,000 MT of graded commodities per year, for its P4P program, through the WRS (subject to adequate funding and the exigencies of its operations)

<sup>58</sup> BEST field interview and data collection, May 2011

(UCE and WFP, 2008). For its part, UCE has committed to work in collaboration with WFP to identify and evaluate warehouses for UCE.

UCE's target is to establish nine regional warehouses with a total storage capacity of 34,400 MT, with a vision of increasing this capacity to 50,000 MT of storage. Currently six out of the planned nine warehouses are operational. They include Agroways (east Uganda), Masindi (northwest Uganda), Gulu (north Uganda), Mbarara (southwest Uganda), Elshadai (west Uganda), and Nyakatonzi (west Uganda). The distribution of these warehouses essentially covers the entire range of Uganda's grain basket. All the operational warehouses focus on grains and pulses, except for the Mbarara warehouse which only handles coffee.

Both WFP and non-WFP buyers have undertaken procurement through the WRS. There is usually a price difference (about US\$17<sup>59</sup> per MT higher, or 4.7 percent price difference) for maize in the WRS as compared to the informal market price for the same grade of maize. The table below shows WFP maize purchases (in tonnages) through the WRS. From 2008 to 2010, WFP purchased 4,084 MT through the WRS, accounting for 58 percent of total P4P purchases during this period.

**Table 22. WFP Procurement through UCE-Regulated WRS**

Year	Amount purchased (MT)	Details
2008	48	1 warehouse supplied
2009	1,796	2 Warehouses supplied
2010	2,240	3 Warehouses supplied
Total	4,084	58 percent of Total P4P procurement

Source: Jonathan Coulter, Henri Leturque, Rosemary Kaduru and Maria Pardo: *Midterm Evaluation of the AMS/P4P Uganda* (Slide presentation, WFP Kampala, Uganda, March 22, 2011)

Over the same period, UCE sold a total of 7,005 MT to non-WFP buyers including private and public institutions.<sup>60</sup> Interviewees noted that non-WFP sales occur after failure to reach a deal with WFP, typically due to price. Non-WFP buyers are attracted to WRS grain because they can buy large quantities in a single transaction (although sometimes at a higher price), without incurring the transaction costs of bulking. Also, these buyers are willing to buy lower-grade maize.

#### 6.3.4. Private Grain Traders

A number of private grain traders with cleaning and warehousing facilities are actively involved in the Ugandan grain market. These private agents leverage local grain purchases in the sense that they rely on their extensive knowledge of the local market conditions to procure grain from both smallholder farmers and small- to medium-scale traders, are able to bring grain to meet required standards,<sup>61</sup> and then sell to large buyers. These large buyers include WFP, local private and government institutions, and even neighboring countries. A significant difference in these players' purchases as compared to those through UCE is that the large private traders

<sup>59</sup> Figure of 40 UGX per kg converted, using 1 UGX = 0.000414972 USD, www.xe.com (June 13, 2011). 1 kg= 1000 MT, and based on May 2011 maize prices of 850 USH/kg for informal market maize and 890 UGX/kg for WRS-stored and cleaned maize.

<sup>60</sup> Non-WFP buyers include organizations such as: schools, hostels, East African Foods, feed manufacturers, private Kenyan and Sudanese buyers.

<sup>61</sup> The East African Quality Standards meet WFP specifications, other corporate specifications, and the CODEX alimentarius. These standards cover a range of issues such as moisture content, insect damage, foreign matter, pests, and "health" of the grain.

pay for grain in cash. As stated earlier, small-scale farmers and traders with immediate needs highly prefer this payment method.<sup>62</sup>

There are about five large local grain traders who sell to WFP and other large quality grain buyers. Sellers to WFP include Sunrise, Premier, Aponye, Export Trading, and Afrokai;<sup>63</sup> these players hold an estimated 60 percent of the total grain market. Other large sellers include Tidy Millers and Come supplies. The total cleaning and warehousing capacity in the hands of these private traders is estimated at 60,000 MT.<sup>64</sup>

### 6.3.5. Potential for Expansion

**P4P.** The P4P pilot in Uganda is an innovative program with high potential for expansion, although it remains constrained by WFP's strict procurement conditions and lack of a clear, direct procurement mechanism. It is hoped that WFP will improve P4P procurement modalities and fine-tune the program according to recommendations of the mid-term evaluation.

**UCE.** Although the UCE's WRS can currently be characterized as underdeveloped and underutilized, the warehouse network is well-distributed, adequate, well-maintained, and capable of safely handling increased imported or local grain deliveries. The WRS has promising growth prospects once the current constraints of poor and/or scarce price discovery mechanisms, inadequate information flow, and scarce funding, among other challenges, have been addressed.

**Private sector.** Private grain traders remain an invaluable link in Uganda's grain marketing system. They are motivated and control a sizeable amount of grain cleaning, drying, and warehousing capacity, and have the ability to expand these facilities should a need arise.

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<sup>62</sup> One private sector actor hypothesized that if he were to set up a warehouse next to a UCE warehouse, and offer small farmers a lower price for their grain – but, paid immediately in cash - farmers would store their grain with him over UCE despite the price difference.

<sup>63</sup> Afrokai noted that their sales to WFP were decreasing due to their frustration with the organization's slow and unpredictable purchasing process.

<sup>64</sup> Aponye alone has a combined warehousing capacity (in Kampala and Masaka) totalling 9,900 MT and plans to increase this by about 1/3, by the end of 2011. Afrokai owns cereal storage facilities in Kampala, Kayunga, Kabarole, and Masindi.

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