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BEST Project
Bellmon Estimation Studies
for Title II (BEST)

USAID OFFICE OF FOOD FOR PEACE

Zimbabwe USAID-BEST Analysis



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Fintrac Inc.
www.fintra.com

1400 16th NW, Suite 400
Washington, DC 20036 USA
Tel: (202) 742-1055
www.usaidbest.org
infobest@fintra.com

3077 Kronprindsens Gade 72
St. Thomas, USVI 00802
Tel: (340) 776-7600

Front cover: A woman discusses her experience cooking and preparing for her family the donated food aid that she received from participating in a Title II PRIZE Food for Asset activity, Bulilima, Zimbabwe, March 2012.

Back cover: A beneficiary works in a field irrigated by way of a sand abstraction tank, built through a Title II PRIZE Food for Asset project. Bulilima, Zimbabwe, March 2012.

Photos by Fintrac Inc.

Preface

During the months of March and April 2012, the Bellmon Estimation Studies for Title II (USAID-BEST) team undertook a study of the current state of agricultural markets in Zimbabwe to inform USAID food aid programming decisions.

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Acronyms and Notes

ADRA	Adventist Development and Relief Agency
AIDS	Acquired Immune Deficiency Syndrome
AIED	Agricultural Income and Employment Development Program
ALCO	Africa Limited Company
ARDA	Agricultural and Rural Development Authority
ARV	anti-retroviral
BEST	Bellmon Estimation Studies for Title II
BGT	Beira Grain Terminal
BMI	body mass index
CdM	Cornhelder de Mozambique
CDSO	crude degummed soybean oil
CFA	cash for assets
CFC	Cash for Cereals
CFM	Portos e Caminhos de Ferro de Mocambique
CFSAM	Crop and Food Security Assessment Mission
CFT	cash (or vouchers) for training
CFU	Zimbabwe Commercial Farmers Union
CFW	cash for work
CHS	Community and Household Surveillance Study
CIF	Cost, Insurance, Freight
CNFA	Citizens Network for Foreign Affairs
COMESA	Common Market for Eastern and Southern Africa
COMEZ	Commodities Exchange in Zimbabwe
CRS	Catholic Relief Services
C-SAFE	Consortium for Southern Africa Food Security Emergency
CSB	corn-soy blend
CSFVA	Comprehensive Food Security and Vulnerability Analysis
CTDT	Community Technology Development Trust
CY	calendar year
DAC	Development Assistance Committee
DCA	Development Credit Authority
DDRC	District Drought Relief Committee
DFID	Department for International Development
DHS	Demographic Health Survey
EFSP	Emergency Food Security Program
EU	European Union
FANTA	Food and Nutrition Technical Assistance
FAO	Food and Agriculture Organization
FAS	Foreign Agricultural Service
FCS	Food Consumption Score
FDI	foreign direct investment
FDMS	Food Deficit Mitigation Strategy
FDP	final distribution point
FEWS NET	Famine Early Warning System Network
FFA	food for assets
FFP	Food for Peace
FFT	food for training
FFW	food for work
FMCG	fast moving consumer goods
FOB	Freight on Board
FTLRP	Fast Track Land Reform Program
FY	fiscal year
GDP	gross domestic product
GIEWS	Global Information and Early Warning System
GMB	Grain Marketing Board
GMO	genetically modified organism
GNU	Government of National Unity
GoZ	Government of Zimbabwe
HA	Humanitarian Assistance
HIV	Human Immunodeficiency Virus
HRW	Hard Red Winter
IDA	International Development Assistance
IDC	International Development Corporation
IDOC	Irvine's Day-Old Chicks
IPP	import parity price
IRD	International Relief and Development
LDC	Least Developed Country
LIFDC	Low-Income Food-Deficit Country
LOA	length overall
LRP	local and regional procurement
LSC	large-scale commercial
MAP	Market Assistance Program
MCHN	maternal and child health and nutrition
MDC	Movement for Democratic Change
MFN	Most Favored Nation
MoAMID	Ministry of Agriculture, Mechanization and Irrigation Development
MoF	Ministry of Finance
MoH	Ministry of Health
MoIC	Ministry of Industry and Commerce
MoLSS	Ministry of Labor and Social Services
MT	metric ton
MUAC	middle upper arm circumference

MYAP	Multi-Year Assistance Program
NGO	non-governmental organization
NRZ	National Railways of Zimbabwe
OECD	Organization for Economic Co-operation and Development
OFDA	Office of Foreign Disaster Assistance
OI	opportunistic infections
ORAP	Organization of Rural Associations for Progress
PLWHA	people living with HIV/AIDS
PM2A	Preventing Malnutrition in Children Under 2 Approach
PMTCT	Prevention of Mother-to-Child Transmission
PRIZE	Promoting Recovery in Zimbabwe
PRP	Protracted Relief Program
PRRO	Protracted Relief and Recovery Operation
PSD	Production, Supply and Distribution
PVO	private voluntary organization
RSA	Republic of South Africa
SADC	Southern African Development Community
SCP	Structure-Conduct-Performance
SD	standard deviation
SGR	Strategic Grain Reserve
SOW	scope of work
SPLASH	Sustainable Program for Livelihoods and Solutions for Hunger
SPS	sanitary and phytosanitary
SSC	small-scale commercial
STA	Seasonal Targeted Assistance
SYAP	Single-Year Assistance Program
TB	tuberculosis
TCM	third country monetization
UHT	ultra-high temperature
UMCOR	United Methodist Committee on Relief
UMP	Uzumba Maramba Pfungwe
UMR	Usual Marketing Requirement
UN	United Nations
UNICEF	United Nations Children's Fund
URL	United Refineries Limite
US	United States
US\$	US Dollar
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government
VIP	ventilated improved pit
WFH	weight-for-height
WFP	World Food Programme
WHA	World Health Assembly
WTO	World Trade Organization
ZANU-PF	Zimbabwe African National Union-Patriotic Front
ZCGPA	Zimbabwe Commercial Grain Producers Association
ZDHS	Zimbabwe Demographic and Health Survey
ZECT	Zimbabwe Emergency Cash Transfer
ZFU	Zimbabwe Farmers Union
ZIMSTAT	Zimbabwe National Statistics Agency
ZimVAC	Zimbabwe Vulnerability Assessment Committee
ZSE	Zimbabwe Stock Exchange

Exchange rate: 1 US\$=8.28 South African Rand (ZAR); 1 US\$=7.54 Botswana Pula (BWP)
(as of May 2012)¹

HIV infection rate: 15 percent (2010 estimate)^{2,3}

1 Note that the exchange rate has fluctuated quite notably since the USAID-BEST field study in March/April 2012. During the field visit the exchange rate was roughly US\$1 = 7.0063 ZAR (April 2012).

2 Source: Zimbabwe National Statistics Agency and ICF International, 2012. Zimbabwe Demographic and Health Survey 2010-11.

3 Note that UNAIDS (www.unaids.org) estimates Zimbabwe's HIV infection rate at 13.4%-15.4%, based on data from 2009.

Figure 1. Map of Zimbabwe



Source: United Nations, Department of Peacekeeping Operations, Cartographic Section.

Chapter I. Executive Summary



Photo by Fintrac Inc.

Market vendor, Gweru, Zimbabwe, March 2012.

I.1. Overview of Food Aid and Food Security Interventions

Following the establishment of the Government of National Unity (GNU) and a multi-currency regime in early 2009, Zimbabwe's economic stability and food security levels have dramatically improved.

As a reflection of this improved environment, as of early 2012, only 1 million Zimbabweans were receiving targeted food assistance;¹ in comparison, as of early 2009, roughly 7 million Zimbabweans were receiving food aid.² USAID (partly through the World Food Programme (WFP)), the United States Department of Agriculture (USDA), and implementing partners have supported food assistance in the previous decade, as has the Government of Zimbabwe (GoZ).

USAID has provided emergency food assistance to Zimbabwe over the past decade, through the Consortium for Southern Africa Food Security Emergency (C-SAFE) program and the

¹ This assistance includes short-term (less than 1 year) and long-term (1 year or more) assistance.

² WFP/Zimbabwe interview in Harare, March 2012. Prior to US dollarization, roughly 5 million beneficiaries were reached through WFP programming and 2 million beneficiaries were reached through the C-SAFE consortium.

Promoting Recovery in Zimbabwe (PRIZE) program (the latter of which began in July 2010). USAID has also contributed funds to WFP programs in Zimbabwe.

Title II food aid tonnages to both WFP and the C-SAFE consortium averaged 171,890 metric tons (MT) per year from 2007 to 2009, but declined significantly after 2009. Title II food aid to WFP in 2010-2011 averaged only 23,240 MT per year, and Title II PRIZE food aid totals averaged only 7,835 MT per year from 2010-2012. This notable reduction in food aid reflects increasing macro-economic stability in Zimbabwe and corresponding improved food security status.

The C-SAFE program began emergency activities in 2002 to respond to the food security crisis due to failed harvest, drought, and the after-effects of the Fast Track Land Reform Program (FTLRP). C-SAFE targeted the Southern African region; implementing partners in Zimbabwe were World Vision, Catholic Relief Services (CRS), and CARE.

The PRIZE program began in mid-2010, and represented a significant transition by USAID to smaller, targeted programs focusing on relief to recovery. The current PRIZE program is implemented by CRS and its sub-grantees (CARE and ACIDI/VOCA). The program is implemented in eight districts, six in southwestern and two in northeastern Zimbabwe.



Photo by Fintrac Inc.

Sign for a Goat Sales Pen, built under CARE's Title II PRIZE Food for Asset program in Lutumba (Beitbridge), Zimbabwe, March 2012.

Primary activities are focused on improving physical assets that support drought relief, through food for assets (FFA). Food aid was provided in the first year of operation, and WFP met humanitarian needs in subsequent years.

WFP is currently implementing a two-year Protracted Relief and Recovery Operation (PRRO) program, which runs until December 2012. The program has three main components: 1) the Seasonal Targeted Assistance (STA) program; 2) social safety nets; and 3) health and nutrition.

WFP/Zimbabwe also received US\$10 million in USAID International Development Assistance (IDA) funds for its 2010/2011 Emergency Food Security Program (EFSP) grant. Of this, WFP spent US\$8 million to purchase maize from Zambia for distribution within Zimbabwe. The remaining US\$2 million was used for the STA Cash for Cereals (CFC) program, in which beneficiaries received unconditional cash transfers to purchase cereals available at local markets, and Title II-funded and distributed pulses and oil, for a complete food basket.

USDA. United Methodist Committee on Relief (UMCOR) implemented a US\$2 million USDA-funded local and regional procurement/purchase (LRP) program in 2011. The program targeted 68,000 food insecure beneficiaries within southeast Chipinge district.³

3 UMCOR LRP Pilot Project in Zimbabwe, Final Report, 9/30/11.

GoZ. In 2011, the GoZ announced the Grain Loan Scheme, a program similar to previous GoZ food aid interventions. This program began in January 2012 and is expected to end at the beginning of the 2012 harvest (April/May). However, it was extended until approximately April 2013, and this program is not available in all districts. The Grain Marketing Board (GMB) implements the program and manages over 500 distribution points. The Ministry of Local Government, Rural and Urban Development is responsible for beneficiary selection.

Other GoZ programs include the Food Deficit Mitigation Strategy, which now includes a revised maize voucher scheme. The program is designed in collaboration with the Ministry of the Treasury and the Ministry of Labor and Social Services (MoLSS), and lacked adequate funds as of USAID-BEST's April 2012 field work.

Other donors. The Protracted Relief Program (PRP) is another major food security initiative in the country. The program is funded by the Department for International Development (DFID) and other donors, and was initiated in 2004. Phase 2 runs from 2008-2012; its goal is to reduce poverty through program activities in social protection, food security, and livelihoods promotion.⁴ PRP beneficiaries in 2012 received vouchers worth US\$160 to obtain agricultural inputs (seeds, fertilizer, tools), and each individual had to contribute 10 percent (US\$16) to obtain the full voucher. A third phase of the PRP is expected to start in early 2013, with specific interventions expected to focus on long-term development and sustainability.

As of May 2012, early indications from the 2011/2012 cropping season show a significant maize cereal deficit. It is predicted that current distributed food aid tonnages will likely need to increase from 2010/2011 volumes, in order to meet national needs until the following April/May 2013 harvest season.

1.2. Adequacy of Ports, Storage, and Inland Transport

Adequate port, storage, and transport facilities are available for private voluntary organizations (PVOs) currently distributing food aid in Zimbabwe. In the future, ease of logistical management of food aid will depend on condition of infrastructure, quantity of food aid, and location of activities; however, PVOs have successfully distributed food aid to up to 7 million Zimbabwean people in the recent past, and the country still hosts the large majority of infrastructure which made these operations possible. Given that food aid volumes to Zimbabwe are generally decreasing, and that port and transport upgrades are projected in the near future, PVOs planning to undertake food aid programs in Zimbabwe should be confident that the country's infrastructure and port connections are adequate to fit their needs.

4 PRP Program, 2012. Program website (www.prpzim.info), and interview with DFID/Zimbabwe 4/3/2012.

Ports. At present, PVOs and WFP primarily rely on the Port of Durban and secondarily on the Port of Beira to receive food aid. As a last resort, PVOs have occasionally used the Port of Maputo. Partners select which port to use based on cost of total transport and target destination of food aid (for shipments destined to eastern Zimbabwe/Manicaland, PVOs typically rely on Beira; for shipments destined anywhere else, PVOs typically prefer Durban). Although both ports are capable of receiving large food aid shipments, congestion at the Port of Beira and transport conditions from Beira to Zimbabwe make Durban the preferred port. Furthermore, current total freight rates are lower from Durban than Beira, as shown in the table below. Durban handles an estimated 80 percent of food aid shipments at present, and Beira accounts for the remainder.

Table I. Freight Costs, Durban and Beira (US\$)

Origin	Destination	Ocean Freight	Road Freight	Total Freight
Durban	Bulawayo	\$167.00	\$148.00	\$315.00
Durban	Harare	\$167.00	\$159.00	\$326.00
Durban	Mutare	\$167.00	\$169.00	\$336.00
Beira	Harare	\$283.00	\$68.00	\$351.00
Beira	Mutare	\$283.00	\$48.00	\$331.00
Beira	Bulawayo	\$283.00	\$128.00	\$411.00

Source: CRS.

Storage. PVOs and WFP have adequate storage facilities available for current volumes of food aid. PVO warehouses in larger districts are capable of storing volumes between 2,000-10,000 MT; warehouses in smaller districts (e.g., Gwanda, Masvingo, and Beitbridge) are able to store volumes up to about 500 MT. All storage facilities visited by the USAID-BEST team during March-April 2012 appeared to be in good condition.⁵ In addition to warehouses rented by PVOs, the GoZ, WFP, and the private sector have warehouses that could easily serve future Title II partners if necessary.

Transport. PVOs currently prefer to transport commodities by road rather than by rail. Though rail transport is less expensive than road transport, partners all agreed railroad networks are slower and less reliable than road networks.

Major roads are in adequate condition, and minor roads are best accessed by small, 15-30 MT trucks. During USAID-BEST interviews, partners stated that road access is consistent throughout the year. Current challenges to road transport include bottlenecks at the Beitbridge border (due to delays in customs clearance), and very poor road conditions between Beira and Inchope in Mozambique.

1.3. Monetized Food Aid

This Chapter is meant to inform USAID in its determination of the feasibility and appropriateness of monetization in Zimbabwe during FY13. Six commodities were assessed for potential monetization: wheat grain, soybeans, soybean meal,

⁵ Three to four WFP rubhalls in Mutare are in very poor condition, but are not used at present and expected to be replaced soon, as detailed in Chapter 3.

crude degummed soybean oil (CDSO), refined vegetable oil, yellow maize, and milled rice.

Importantly, Chapter 4 represents a thorough review of monetization possibilities as of April/May 2012. Zimbabwe has a unique and unstable business climate, with the potential for very significant economic and political changes between the time of writing and when PVOs might monetize commodities for FY13 programming. PVOs and USAID are strongly encouraged to closely monitor market conditions to inform program design.

A summary of the USAID-BEST team's findings and recommendations follows.

Overall challenges to and opportunities for in-country monetization. Zimbabwe's macro economy has largely stabilized since early 2009 when the GoZ instituted a multi-currency (largely US dollarized) system, established the GNU, and liberalized the grain trade. This stabilization has resulted in substantial improvements in the market environment, including price stability and increased purchasing power. However, lack of investment due to credit risk continues to hinder broader efforts to revitalize industries and expand employment.

The most fundamental challenge currently facing Zimbabwean agro-industry is the lack of financing along entire value chains. For all but a handful of blue chip companies, Zimbabwe is a cash economy. The extremely high cost of credit, and relatively minimal GoZ support to agro-industry, has meant that millers and processors can only access small quantities of raw materials at a time. Average utilization rates of mills and processing equipment are extremely low (an average of 35-40 percent), which renders them uncompetitive against imports (even with tariff protection), and is resulting in failed business and loss of jobs.

Title II monetization in Zimbabwe has the potential to be an extremely useful tool for local market development by increasing the availability of raw materials at cost-effective interest rates. Critical weaknesses in many value chains can be strengthened using either small lot sales, or more traditional large lot competitive sales.

Extending credit through standard Title II repayment terms (5 to 10 percent down payment, with a remaining balance due over the course of 30 to 90 days, for example), can help processors bridge the financing gap, while providing critically needed raw materials.

As with all investments, however, with great potential comes a substantial amount of risk. Measures to mitigate this risk for PVOs and USAID will be an important component of overall monetization program design. Chapter 4 outlines a number of potential options for risk management, including the use of a collateral manager.

Depending on which commodity(ies) is (are) proposed for monetization, the interpretation of genetically modified organism (GMO) policy will be critical. Which commodities fall under current GMO policy is, in fact, somewhat unclear. Most stakeholders agree that GMO policy applies to primary

agricultural commodities. Among the commodities included in the present study, this would preclude the monetization of US soybeans and maize. Less clear is whether soybean meal or CDSO would be permitted. US refined vegetable oil, which is soya-based or a soya-blend and cannot be certified as GMO free, has been a mainstay of Title II donations to Zimbabwe for a decade. Oil processors report CDSO from GMO soybeans would be permitted by the GoZ for monetization.

Because there have been no previous Title II monetizations⁶ in Zimbabwe, PVOs would need to seek all clearances to import food aid for monetization. It appears that at least five ministries⁷ would need to provide clearance: Ministry of Agriculture, Mechanization and Irrigation Development (MoAMID), Ministry of Finance (MoF), Ministry of Labor and Social Services (MoLSS), Ministry of Health (MoH), and Ministry of Industry and Commerce (MoIC). Available information and interviews with GoZ officials indicate that the GoZ would support monetization, particularly if it addresses the liquidity constraints faced by the majority of the agro-industry.

Nonetheless, United States Government (USG) representatives, including the USAID Mission Director and USAID/Humanitarian Assistance (HA) staff, are urged to begin bilateral discussions with the relevant ministries well in advance of a Title II award. USAID Mission staff should accompany eventual Title II Awardee(s) to initial meetings with GoZ ministries and agencies to facilitate transparent dialogue, and ensure all stakeholders are apprised of purpose of and methods for any Title II monetization.

Wheat grain. Though the national staple remains sadza (made from maize meal), wheat has been a regular part of the Zimbabwean diet for many years and is considered Zimbabwe's second most important staple grain. Pan style white bread has become a staple, and is widely available in both rural and urban areas. The Millers Association reports an estimated 1.5 million loaves of bread are consumed annually, with the largest share of protein in the typical household diet coming from wheat bread.

Total consumption of wheat flour is currently estimated at 400,000 MT per year, with 300,000 MT used by bakeries for bread flour and confectionaries, 30,000-50,000 MT for production of home-baking flour (self-rising "pre-packs"), and the remainder (approximately 50,000 MT) used by the processing industry for pasta and biscuits. Domestically milled wheat flour also produces bran for the stock feed industry.

Nearly all of Zimbabwe's wheat supply (approximately 97

percent) is imported commercially, and wheat grain is among Zimbabwe's top commercial imports. Domestic production of soft wheat has declined substantially in the last decades.

Zimbabwe has an old and well established milling industry; an industry that was largely supported by GoZ policies (i.e., GMB price controls) until early 2009. As of 2010, Zimbabwe reportedly hosted 38 wheat mills, with installed capacity to mill 400,000 MT of flour per year. As of April 2012, the country hosts approximately four large or larger-medium industrial wheat mills, only two of which are operational and appear financially stable. Dozens of small to smaller-medium mills exist in and around Harare and Bulawayo, many of which have closed altogether or have mothballed their plants. Overall utilization of milling capacity is in the 35-40 percent range, with substantial variation.

Though National Foods has a dominant market share of the domestic wheat flour market, there are multiple potential buyers, including Victoria Foods (toll milling through Alpha Mills), Blue Ribbon, and smaller mills in Bulawayo. Given the fluidity of market conditions, and the rapid opening and closing of agro-industrial businesses in Zimbabwe, PVOs will need to reassess whether these mills are still operational at the time of a proposed sale.

The study team recommends a maximum tonnage of 40,000 MT of Hard Red Winter (HRW) wheat for FY13, which represents a conservative 10 percent of the current year's estimated annual demand for wheat. The study team's conservative recommended volume would generate US\$16 million, assuming a lowest landed price of US\$400 per MT.

Soybeans and soybean meal. Soybeans are an important source of protein for both livestock and human consumption. The multiple uses of soybeans and soybean by-products generate numerous opportunities for value-addition through the production and processing of by-products including soybean meal, for livestock feed, and soya-based edible oil, soya chunks, soy-flour, and soy milk, all of which are for human consumption.

The national annual requirement for soybeans is approximately 120,000-144,000 MT. A severe structural deficit has developed following the FTLRP. Domestic production of soybeans is currently estimated at 30,000 MT per year, or 20 percent of national requirements. Due to GMO policies, soybeans and soybean meal are sourced almost exclusively from India or Brazil.

Due to GMO concerns, the study team does not recommend monetization of soybeans. However, the team recommends PVOs assess the feasibility of monetizing soybean meal to the stock feed industry.

Stock feed manufacturers unanimously report lack of availability of soybean meal, and liquidity constraints to access raw materials, as major constraints to business. Based on key informant interviews, it appears that GM soybean meal has been imported in the past with special permission, and may be permitted in the future. Title II monetization has the potential to unlock growth in demand simply through the

⁶ Technically, the USAID Market Assistance Program (MAP) was a monetization program but with very specific objectives of increasing consumption of staple foods of specially targeted beneficiaries in urban and peri-urban areas. The only other monetization of which the team is aware was in 1999, when CNFA monetized 2,500 MT of US CDSO in Zimbabwe under a USDA Food for Progress program to support agribusiness activities.

⁷ Ministries primary concerns/oversight regarding monetized commodity are expected to be: MoAMID (import permits, SPS), MoF (duties and taxes), MoLSS (standard regulation of humanitarian assistance activities), and MoH (food safety), and MoIC (commercial transactions).



Photo by Fintrac Inc.

Maize, the most important staple food in Zimbabwe. Mazowe, Zimbabwe, March 2012.

extension of credit via standard payment terms. If future Title II activities focus on livestock, particularly either the pig or poultry industries, monetization of soybean meal can target production and productivity constraints in these value chains. As the recent Technoserve study on the poultry industry in Zimbabwe⁸ illustrates, interventions in the poultry value chain (including interventions that increase the availability and affordability of feed inputs) can have a strong positive impact on the livelihoods of smallholders, since 70 percent of poultry farmers are smallholders.

The study team recommends a maximum tonnage of 10,800 MT of soybean meal for FY13, which represents a conservative 15 percent of the current year's estimated commercial imports of soybean meal. Assuming a conservative landed price in Harare of approximately US\$650 per MT, monetization of 10,800 MT of soybean meal could generate US\$7.02 million in proceeds.

Any of the large and medium actors involved in animal feed manufacture are potential buyers. These include National Foods, Irvines, Colcom, Agrifoods, Profeeds, Blue Ribbon, Premier Milling, Windmill, Montana, Craswell, Victoria, and Burgon Foods, among others. In addition, small-scale farmers

who produce poultry and pig feed on their farms could be targeted by small lot sales of soybean meal.

CDSO and refined vegetable oil. Cooking oil is considered a staple throughout Zimbabwe. Consumption of edible oil is currently estimated at approximately 53,640 MT (approximately 60 million liters) per year. With the declining availability of raw materials (particularly soybeans), illiquidity of Zimbabwean agro-industry, outdated equipment, and removal of tariffs on refined oil the edible oil market is dominated by South African imports. At present, approximately 25-40 percent of edible oil supply is met through domestic processing, and 60-75 percent is met through those imports.

There are only three industrial oil processors presently in operation: Surface Investments, United Refineries Limited and Olivine. National Foods has closed its oil processing plant due to its inability to compete with imports. Surface is presently toll milling for National Foods. United Refineries Limited (URL) and Olivine are struggling to maintain operations, and appear to be operating at a loss.

Liquidity poses the greatest constraint to expansion which would enable processors to utilize more of their mills' installed capacity. Current liberal trade policies increase Zimbabwean

⁸ Technoserve, 2011. Poultry Sector Study Preliminary Findings (PowerPoint presentation).



Photo by Fintrac Inc.

Community members share some of the results of working with Title II PRIZE Food for Assets activities in Bulilima through CRS, Bulilima, Zimbabwe, March 2012.

consumers' access to relatively cheap edible oil from South Africa (perhaps really from Asia), at least in the short run. However, these policies make it nearly impossible for mills to increase utilization to the extent where the mills become competitive enough to refurbish/replace processing equipment. Even under traditional large lot sales, Title II monetization of CDSO could play a key role in helping to address the lack of access to raw materials and credit.

The study team does not recommend monetization of refined vegetable oil, whether in large or small lots because: 1) there is substantial underutilization of installed capacity; 2) consumers reportedly prefer cottonseed oil and are extremely price-sensitive, raising doubt about the efficiency of monetizing Title II refined vegetable through, for example, small lot sales; 3) potential buyers of larger lot sizes are already accessing sufficient supply of imported refined vegetable oil through South African suppliers, and would be unlikely to find marketing of relatively more expensive Title II refined oils a promising business venture.

As noted above, competitive large lot sales to any of the three processors (four potential buyers), is feasible and appropriate for market development. The study team recommends a maximum tonnage per year of 8,450 MT of CDSO for FY13, which represents a conservative 15 percent of the current year's estimated annual demand for refined vegetable oil. As of

early April 2012, the landed price for crude oil was US\$1,500-1,600 per MT. Assuming a landed price in Harare of US\$1,500-1,600, such a sale could generate between US\$12.675 million and US\$13.52 million in proceeds.

Maize and maize flour. Maize is the primary staple in Zimbabwe, and is grown throughout the country by smallholders. A structural deficit has developed following FTLRP; currently, imports make up approximately one-third of total supply.

Average consumption is estimated at 120 kg per capita per year,⁹ with an estimated 50,000 MT currently used in the production of animal feed (primarily for cattle, poultry, and pigs). The maize varieties grown and traded in Zimbabwe are, at least in theory, GMO-free. Despite the structural deficit and the fact that stock feed manufacturers in particular would greatly benefit from greater access to maize and maize bran, the study team recommends *against* monetization of either maize grain or maize flour at this time because US maize is yellow (field) maize and GM, both of which would create nearly insurmountable obstacles.

Sorghum. The team recommends against monetization of sorghum to commercial buyers because: 1) the commercial market for sorghum is limited to red sorghum, which is used by the brewery industry, 2) there is only one potential buyer, and 3) smallholders supply the majority of sorghum under contract and, therefore, monetization to supply the brewery industry would have a negative impact on the livelihoods of the smallholder farmers who produce and market sorghum to the industrial brewery. However, PVOs should consider whether sorghum (grain or flour) might be an appropriate commodity for distribution, perhaps "monetized" and sold at subsidized prices on the market via a Market Assistance Program (MAP)-type program.¹⁰

Rice. Relative to maize and wheat, demand for rice is relatively small; however, demand is growing fairly quickly, especially among urbanites. Zimbabwean consumers buy both milled and broken rice. There is a strong preference for long grain white rice, with maximum 15 percent broken.

Consumption has dramatically increased (from 30,000 MT in 2010 to 78,000-96,000 MT this year) due primarily to an increase in incomes and an increase in the availability of rice

⁹ Other estimates of consumption vary. The 2010 Agricultural Sector Market Study reported an estimated range for maize consumption of 110 kg to 150 kg per capita per year. The GoZ Second Round Crop and Livestock Assessment Report reported 110 kg per capita per year as an estimate of consumption for all cereals excluding wheat (maize, sorghum, finger millet and pearl millet). Based on interviews with market informants knowledgeable about wheat and maize consumption patterns, the team believes consumption of wheat is closer to 120 kg per capita per year. Estimates of the cereal requirement (as opposed to actual consumption) have appeared in annual ZimVAC assessments. The recently released ZimVAC 2012 reports an annual cereal requirement of 148 kg per person per year. This estimate is based on meeting the caloric needs of 2,100 kcal per person per day.

¹⁰ See Diskin, P., 2008. Market Assistance Program (MAP) Field Manual at http://pdf.usaid.gov/pdf_docs/PNADM599.pdf for more information on this type of program.

in markets throughout the country, as the economy stabilized following dollarization. Nearly 100 percent of demand for rice is supplied through imports, which are packaged and distributed by large processors (packagers).

Though National Foods dominates the rice market, the market appears to be quite competitive. There are at least seven “processors” (i.e., packagers) who act as wholesalers and/or retailers in the rice market.

The study team recommends a maximum tonnage of 7,800 MT of milled rice for FY13, which represents a conservative 10 percent of the current year’s estimated annual demand for rice. Milled rice between 5-15 percent broken would be appropriate. Assuming a landed price in Harare of US\$670 per MT, a monetization at this recommended volume could generate US\$5,226,000 in proceeds.

Third country monetization (TCM) is not an appropriate first-best option to support programming in Zimbabwe because: 1) there are multiple commodities with sufficient commercial demand in-country; 2) the markets range from relatively competitive to very competitive; 3) monetization is an appropriate tool to support short, medium, and long-term development of local markets in Zimbabwe — benefit which are in addition to any benefits resulting from the sale and receipt of needed funds for food security programming in targeted rural areas; 4) the current GoZ stance towards the appropriateness of monetization as a tool to support market development is extremely favorable; and 5) Zimbabwe is already at a competitive disadvantage relative to its neighbors due to extremely high interest rates, and the current inability to refurbish plant equipment. If PVOs regularly engage in TCM to fund food security activities in Zimbabwe, this activity would actually have great potential to inadvertently make Zimbabwean food markets even less competitive and, therefore, ultimately more dependent on food aid.

1.4. Localized Food Deficits and Distributed Food Aid

1.4.1. Overview

Chapter 5 provides general guidelines and recommendations to help ensure that distributed food aid programs in Zimbabwe will not result in substantial production disincentives or the disruption of local markets, per Bellmon requirements. These guidelines are provided within a specific framework which analyzes the potential market and production impact of in-kind food aid for distribution. The specific topics covered include: 1) an assessment of national and localized food deficits 2) movement of maize from surplus to deficit areas and the private sector’s capacity to facilitate this movement, 3) market integration, and 4) key considerations for distributed food aid. In addition to considering the analysis and recommendations in Chapter 5, potential Awardees are expected to conduct their own up-to-date market analysis, needs assessments, and

formative research to better understand evolving local market conditions, needs, and the potential range of appropriate responses in Zimbabwe.

National and regional food deficits. The GoZ MoAMID’s Second Round Crop and Livestock Assessment Report was published on April 10, 2012, and predicted a harvest for the 2011/2012 season of 1.077 million MT of cereals.¹¹ Dry spells and erratic rains negatively impacted production in the southern half of the country, and maize production is predicted to decrease by 40-50 percent in the provinces of Mashonaland West and Central, Matabeleland North and South, and Masvingo. This report also calculates the national cereal requirements for 2011/2012 at 1.734 million MT, leaving a deficit of some 657,000 MT. Allowing for variability in the reported totals, and subtracting estimated GoZ (GMB) stocks of 311,000 MT,¹² results in an estimated national cereal deficit of approximately 346,000 MT for Zimbabwe in the 2012/2013 cropping season. Other sources estimate the national cereal deficit at a notably higher level; the differences in the estimated deficit arise from variation in estimates of the 2011/2012 harvest and current Strategic Grain Reserve (SGR) stocks held at GMB sites, among other factors.¹³

1.4.2. Analysis

The USAID-BEST team examined the efficiency of the local maize market, by considering information on localized deficits and existing hypotheses on restricted grains movement, and by considering results from the team’s analysis of trader margins and market integration.

Understanding localized deficits in Zimbabwe and the constraints to movement of local maize grain from surplus to deficit areas is important for a number of reasons: 1) knowledge of localized deficit areas informs targeting; 2) the choice of the most appropriate tool for food security programming (whether in-kind, cash, or voucher assistance) can be informed by the likely market response to increased demand (in the form of cash/vouchers), or constraints to increased supply (in the form of food aid); and 3) understanding the integration between various markets can help to more accurately determine the potential impact of food assistance on local markets, including Title II in-kind food aid.

Existing hypotheses. Studies which have examined localized deficits and constraints to movement of grain from surplus to deficit areas in Zimbabwe have formulated a number of hypotheses on why grain does not easily flow from surplus to deficit areas. Constraints identified by these studies include:

¹¹ Predicted harvest for 2012 includes 968,000 MT (maize), 65,000 MT (sorghum), and 44,000 MT (millet). USDA estimates for maize in Zimbabwe from May 2012 are 900,000 MT, and other private estimates are even lower totals.

¹² Per the Agricultural Marketing Authority report (6/13/12), it was reported that the GMB was only holding 238,966 MT of white maize. If this is accurate, the national cereal deficit could be large.

¹³ This figure is accurate as of June 2012, see OCHA/Zimbabwe and FEWS NET/Zimbabwe websites for further information, and range has been verified by a number of USAID-BEST interviewees in-country.

1) low on-farm productivity, 2) transaction costs, including transport, 3) limited consumer purchasing power, 4) lingering GMB monopoly power, 5) lack of financing, and 6) risk-averse farmers choosing to store rather than sell.¹⁴ These factors are inter-related and all contribute, to varying degrees, as constraints to the movement of grain from surplus to deficit areas.

The team conducted further analysis to understand why local maize does not always reach deficit areas. A review of price data indicates that maize prices are generally, but not always, lower in surplus areas and higher in deficit areas. In a well-functioning national market, maize is expected to move from surplus to deficit districts. This however, is not always the case in Zimbabwe. Using WFP data collected from maize traders between 2010 and 2012, the team further considered the hypotheses presented above, to explain the lack of movement of maize.

Trader margins. Potential margins are a major incentive for traders to move grains. Based on interviews with traders, and analysis of existing price data, the USAID-BEST team believes that variation in trader margins across time and space, as well as a lack of market information available to small traders,¹⁵ are likely among the most important contributing factors to restricted grains movement in Zimbabwe. Better market information would improve the movement of maize from surplus to deficit areas. Because small traders base their decision to move maize from surplus to deficit areas on spatial arbitrage, their knowledge of prevailing maize grain prices in different potential markets is an important factor.

The findings of the team's analysis of trader margins can be summarized as follows: 1) trader margins vary across districts and depend on producer and trader selling prices, transport costs, and overhead costs. Price ranges in surplus areas appear to be more similar across districts, as compared to varying price ranges across districts in deficit areas; 2) trader margins are large where domestically produced maize is not directly competing with cheap imported maize grain (usually from Zambia, per April 2012 market conditions); 3) because of seasonality in maize production, the price range in both surplus and deficit areas is often wide. Small traders would benefit from a better understanding of the seasonality of maize grain supply and the related price fluctuations in order to take full advantage of harvest seasons and mitigate risks in lean seasons; and 4) because small traders base their decision to move maize from surplus to deficit areas on spatial arbitrage, their knowledge of prevailing maize grain prices in different potential markets is an important factor.

¹⁴ These studies include: USAID/Zimbabwe Market Mechanisms to Achieve Food Security, and the USAID Office of Food for Peace/USAID-BEST Project, 2010. Zimbabwe Market Analysis.

¹⁵ Recall that small traders are currently responsible for the majority of grains movement from surplus to deficit areas.

Market integration. The degree to which a market is integrated with other markets influences the degree of impact a distributed food aid program will have on the market in which food aid is distributed. If markets are more integrated, the impact of food aid on pricing tends to be dissipated between these integrated markets. However, if markets are less integrated, the impact of food aid on pricing tends to be concentrated on these relatively less integrated and more isolated markets. Markets in the surplus areas within Zimbabwe appeared to be more integrated than markets in the deficit areas. Harare, the dominant market in the surplus area, is integrated with six other markets in the surplus region. Bulawayo, the dominant market in the deficit region, appears to be strongly integrated with only one other market (Hwange) in the deficit region.

1.4.3. Key Considerations

Localized food deficits, movement of maize from surplus to deficit areas, the private sector's capacity to meet these deficits, and market integration all provide a framework for food aid programming in Zimbabwe. Important considerations for Title II programming include continuing to primarily target the driest, poorest and most food-insecure regions of Zimbabwe, in Natural Regions IV and V, as is currently done under the PRIZE program.

Consideration should also be given to dependency, and geographic consolidation of districts of operation. Regarding household targeting, anecdotal field interviews revealed that beneficiaries generally preferred food rations to cash (which is explored more fully in Chapter 6). Regarding potential leakage of Title II food aid onto local markets, USAID-BEST did not see any Title II food aid for sale in local markets that the team visited throughout the country. Beneficiaries reported general satisfaction with the size and type of ration, though consideration should be given to complementing/ substituting bulgur wheat with sorghum for the next cycle of Title II development programming. Sorghum may be a more appropriate commodity because there are many GoZ and donor efforts to encourage consumers to "reacquire" a taste for sorghum, which is considered a much more appropriate food crop to grow than maize in Regions IV and V due to its drought tolerance.

Political affiliation is a significant issue in the Zimbabwean context for the distribution of food aid and other forms of assistance. USAID reports that over the past decade, food aid beneficiary selection criteria has been less politicized for resources provided by donors rather than resources provided by the government. For food aid and resources provided by donors, WFP has taken significant measures to prevent politicization. WFP beneficiary selection criteria uses a community-based approach which improves transparency and decreases ability for political manipulation. Other measures are taken to ensure transparency of donor resources, including: monitoring the registration process for politicization by WFP

and USAID; non-governmental organization (NGO) training on community based-targeting approaches; multiple help desks present at all distributions; WFP and USAID monitoring of distributions; closure of distribution if there are any political statements or rallies; and post-distribution monitoring by WFP and USAID. USAID has found isolated cases of beneficiary manipulation; however, it is difficult to specifically attribute this to politicization, rather than greed or clan-based affiliations

1.5. The Role of Local and Regional Procurement, Cash, and Voucher Programming

Chapter 6 reports on the use of LRP, cash, and voucher social safety net programs to inform the appropriate use of these tools in Zimbabwe in the near term. This Chapter describes recent and current LRP, cash, and voucher initiatives in Zimbabwe, highlights program considerations, and makes recommendations on how to best use these potentially creative, cost-effective, and efficient programming tools for future programs. The use of these tools is encouraged as a complement to in-kind food assistance to promote livelihoods development, and stimulate local markets and trade.

Both LRP and cash/voucher programs are procurement approaches that aim to support local markets by stimulating production and/or marketing of basic goods. Typically, LRP refers to donors purchasing sizeable food tonnages from larger market actors; cash/voucher programs generally refer to donor provision of cash transfers or vouchers to beneficiaries who then procure small amounts of food and non-food items from local markets.

At present, there are numerous donors and PVOs implementing cash-based programs as stand-alone interventions. There is one large program using a food and cash mix intervention, that is WFP's CFC humanitarian program. The vast number of programs at present reflects a shift in the donor community to wide acceptance and promotion of cash-oriented interventions.

Program considerations. Beneficiaries visited during the March/April 2012 USAID-BEST field study most frequently reported a preference for in-kind food assistance, or a food and cash mix, over an entire cash-based assistance. The first reason for this preference appears to be food price fluctuations and highs. During the field visit WFP CFC program beneficiaries reported that traders can take advantage of cash transfer programs by raising prices. Secondly, beneficiaries reported fear of insufficient market supply. The hyperinflationary environment which households experienced prior to 2009 appears to have left vulnerable households significantly wary of market instability. Finally, beneficiaries may prefer food over cash due to concerns about intra-household allocation of resources; specifically, beneficiaries sometimes believe food is less likely to be exchanged for other less productive goods, or goods that will not necessarily benefit all the intended targeted beneficiaries

According to current beneficiaries the most widely-accepted model to select transfer value is based on household size. Based on discussions in the field with PVOs and beneficiaries there is a preference for a model that is "capped" at a select number of household members.

Transfers should continue to be timed appropriately in terms of seasonality and beneficiary awareness. PVOs should continue to strive to confirm a delivery schedule that is predictable and reliable, so that beneficiary households can plan accordingly.

There are numerous forms and ways to transfer cash, goods, and/or commodities to individuals. Options include: conditional cash transfer, unconditional cash transfers, cash for work (CFW), cash for assets (CFA), commodity vouchers, cash vouchers, and inputs or livestock vouchers. See Chapter 6 for details on modalities and programming options.

Recommendations. While PVOs must always understand their working environment, it is especially imperative for PVOs to learn about the supply side of the market, particularly market conditions for staple foods and the source of the commodities, if they wish to engage in LRP, cash, or voucher programming. Additionally, ongoing market monitoring will be necessary. Given the fluidity of macro political and economic conditions, markets that are relatively functional today may rapidly become "nonfunctional," which would quickly put at risk an otherwise successful cash or voucher program. Cash/voucher transfers should encourage productive use of transfers by setting specific goals and objectives for the transfers, preferably to support an income generating activity or livelihood asset.

Chapter 2. Overview of Food Aid and Food Security Interventions



Photo by Fintrac Inc.

An early maize harvest is being collected at Chikwalawala irrigation scheme in Beitbridge District. The project is run by CARE under the Title II PRIZE program, March 2012.

2.1. Introduction

Following the establishment of the GNU and a multi-currency regime in early 2009, Zimbabwe's hyperinflation rates have decreased, and the economy has become more stable. The country's food security levels and political stability have also improved.

As a reflection of this improved environment, as of early 2012, only 1 million Zimbabweans were still receiving targeted food assistance,¹ through support from WFP, USAID, and other donors; in comparison, in early 2009, roughly 7 million Zimbabweans were receiving food aid.^{2,3} The humanitarian needs have increased from early 2012 to a projected 1.6 million for the 2012 – 2013 hunger season, showing the vulnerability of poor populations and the impact of reliance on rain fed agriculture.

¹ This assistance includes short-term (less than 1 year) and long-term (1 year or more) assistance.

² WFP/Zimbabwe interview in Harare, March 2012. Prior to US dollarization, roughly 5 million beneficiaries were reached through WFP programming and 2 million beneficiaries were reached through the C-SAFE consortium.

³ While multiple currencies, including the US Dollar, South African Rand, and Botswana Pula, are now accepted as legal tender, the US Dollar dominates most commerce with the exception of the border of South Africa, where the Rand is more common.

2.2. Food Aid Program Descriptions

2.2.1. USAID

Development programs. USAID has not previously funded any Title II development programs in Zimbabwe.

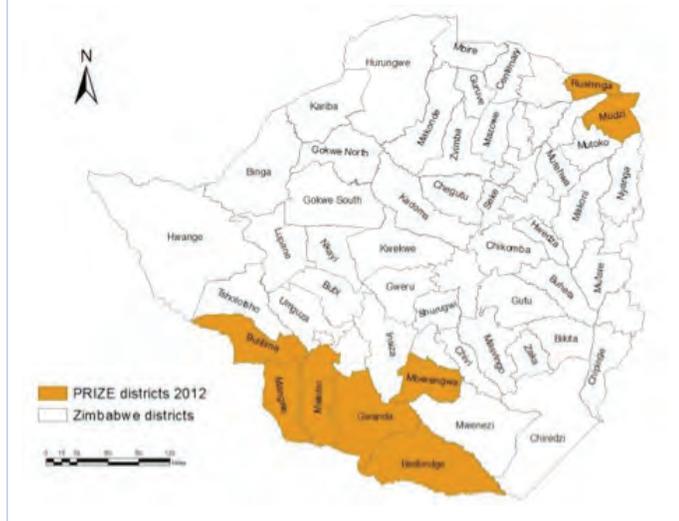
Emergency programs. USAID has funded emergency programs in Zimbabwe over the past decade. Title II emergency funds have been used to implement activities through C-SAFE, PRIZE, and WFP. Descriptions of the C-SAFE and PRIZE programs appear below, while details of Title II funding for WFP emergency programs appear later in this Chapter.

C-SAFE. Primary members of the C-SAFE consortium in Zimbabwe consisted of World Vision, CRS, and CARE. The C-SAFE program initiated emergency activities across the Southern African region in late 2002 to respond to the food security crisis after the failed 2001/2002 harvest season. This crisis compounded the food insecurity situation following the initiation of Zimbabwe's FTLRP in 2000. The C-SAFE regional program initially targeted Lesotho, Malawi, Zambia, and Zimbabwe.

While C-SAFE regional programming concluded in 2006, food insecure areas throughout Zimbabwe continued to receive emergency food aid under C-SAFE from the program's

initiation until 2009. As Table 2 shows, USAID supported the program with food aid commodities from 2007-2009. These emergency distributions complemented WFP food assistance efforts at the time, which were also distributed throughout the country on an emergency basis.

Figure 2. Targeted Districts for CRS PRIZE Program, July 2010 – July 2013



PRIZE. The PRIZE program started in July 2010, and represented a significant transition by USAID to smaller, targeted transition programs using food aid. The current PRIZE program is implemented by CRS and its sub-grantees (CARE and ACIDI/VOCA). The program covers the following eight districts: Bulilima, Mangwe, and Matobo (implemented by CRS), Gwanda, Mberengwa, and Beitbridge (implemented by CARE), and Rushinga and Mudzi (implemented by ACIDI/VOCA). These districts fall within the drought-prone Natural Regions IV and V (see Natural Regions map at beginning of Distributed Food Aid Chapter 5, under section “National and Regional Food Deficits”) which are classified as receiving less than 650 mm of annual rainfall, and are therefore relatively more food insecure than other Natural Regions. CRS and its sub-grantees under the PRIZE program work with local implementing partners (Organization of Rural Associations for Progress (ORAP) and Community Technology Development Trust (CTDT)). Please see Chapter 5 for further details on PRIZE’s programming and targeting criteria.

Activities under PRIZE include: FFA⁴ to improve dip tanks, paddocks, and grazing areas; targeting vulnerable households with food aid rations;⁵ promoting more appropriate, drought-tolerant staple crops (sorghum and millet); supporting market access for farmers; and implementing preventive, disaster risk management practices. Other activities include agriculture-related training for farmers, and village savings and loan

⁴ PRIZE FFA representative ration per laborer: 10 kg. pulses, 60 kg. bulgur wheat, 3.67 kg. vegetable oil per month for 80 hours of work.

⁵ Matabeleland South has the highest HIV prevalence rate in Zimbabwe. Five PRIZE districts are located in this province: Bulilima, Mangwe, Matobo, Gwanda, and Beitbridge.

programming. PRIZE has been extended an additional year, to June 2013, to consolidate the fragile food security gains made over the past two years of programming.

The USAID-BEST field team visited six PRIZE districts in southwestern Zimbabwe during March 2012 field work, but did not visit the two northeastern PRIZE districts due to security concerns.

In addition, USAID/Office of Foreign Disaster Assistance (OFDA) has provided just over US\$11 million in FY12 for emergency humanitarian assistance, including disaster risk reduction activities in Zimbabwe in FY12. Over 40 percent of this total funding directly supported food security and agricultural interventions targeting vulnerable communities.

2.2.2. WFP

Over the past five years (2007-2011), WFP/Zimbabwe distributed an average of 152,793 MT per year of food aid among all of its Zimbabwe programs, with declining tonnages noted after 2009. See the table below. Between January 2012 and March 2012, WFP/Zimbabwe reached nearly 1 million beneficiaries in 40 districts with food assistance.⁶

Table 2. Annual WFP Food Aid Distributed in Zimbabwe (MT), 2007-11

Calendar						
Year	2007	2008	2009	2010	2011	Total
Cereals	125,373	176,448	161,912	82,975	56,136	602,844
CSB	7,444	10,916	14,624	5,604	4,635	43,223
Pulses	11,040	21,279	26,462	13,710	11,248	83,739
Veg. Oil	3,585	8,161	13,272	5,118	4,025	34,161
Total	147,442	216,804	216,270	107,407	76,044	763,967
USG contributions as a %*	54	54	57	64	57	56.6

Source: WFP/Zimbabwe and USAID.

Notes: CSB is corn-soy blend. USG contributions to WFP include actual food aid tonnages and other associated costs.

PRRO. WFP is currently implementing a two-year PRRO program, which started in January 2011 and will continue until December 2012. The program has three main components: 1) the STA program; 2) social safety nets; and 3) health and nutrition.

The STA targets beneficiaries during the lean season which generally occurs from October to March in most regions of the country, but varies across districts depending on rainfall and other factors. US commodities (pulses and oils) are used for the direct distribution component of the STA program. In addition to these food aid rations, some households are targeted to participate in the CFC program where households also receive US\$5 per person, up to a maximum of US\$25 per family, every six weeks. The CFC program only takes place where there are functioning markets and adequate supplies of cereals at a reasonable price. The US\$5 transfer is based on the average retail price of 10 kg of maize, as well as transport and milling costs, per person, for the six week period, and

⁶ WFP/Zimbabwe interview with BEST, Harare, March 20, 2012.

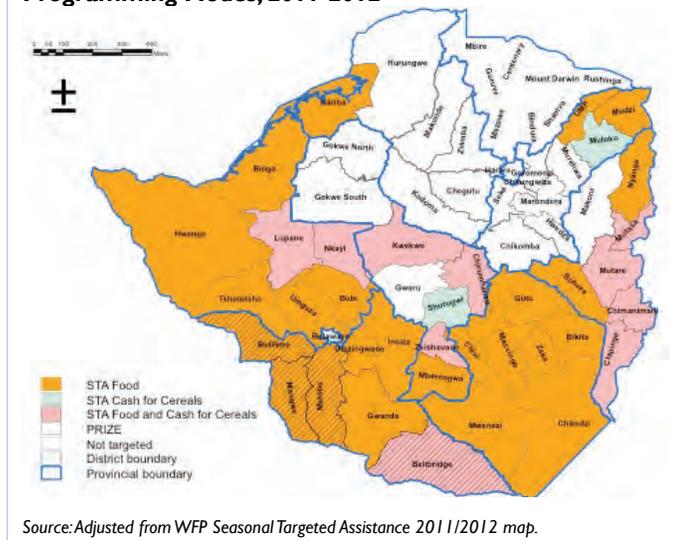
makes up the cereal portion of the food aid transfer. In cases where there are non-functioning markets or unavailability of cereals, a full food basket is provided including cereals, pulses, and oil. The STA program does overlap with the PRIZE program, but the STA program is larger and covers additional food insecure districts, generally outside of Mashonaland and on the periphery of the country. See the map below.

The social safety nets program targets households with orphans/vulnerable children, returnees, and internally displaced persons throughout the calendar year.

The health and nutrition program is also implemented year-round, and targets families affected by HIV and individuals who are malnourished. WFP distributes corn-soy blend (CSB) for this program, and food aid vouchers and antiretroviral (ARV) treatment is provided through GoZ health clinics.

LRP. WFP/Zimbabwe also received US\$10 million in USAID funds for its 2010/2011 EFSP grant. Of this, WFP spent US\$8 million to purchase maize from Zambia for distribution within Zimbabwe. The remaining US\$2 million was used for the STA CFC program, in which beneficiaries received cash to purchase cereals available at local markets. CFC implementing partners include World Vision, Oxfam GB, CARE, Christian Care, CRS, and Plan International in the 2011/2012 programmatic cycle. See Chapter 6 for further details on WFP CFC programs.

Figure 3. WFP Seasonal Targeted Assistance Districts and Programming Modes, 2011-2012



2.2.3. USDA

A number of partners have undertaken LRP efforts in Zimbabwe in recent years. USG LRP efforts undertaken by USDA are outlined below; for further details on this LRP program and other LRP programs, see Chapter 6.

UMCOR implemented a US\$2 million USDA-funded LRP in FY11. The program targeted 68,000 food-insecure beneficiaries within southeast Chipinge district.⁷ The following commodities were purchased regionally in South Africa for distribution in Chipinge: 1,291 MT of white maize, 233 MT of yellow peas, and 89 MT of vegetable oil.

2.2.4. National Government Food Assistance Programs

The GoZ has also instituted food assistance programs to improve national food security levels.

Grain Loan Scheme. In 2011, the GoZ announced the Grain Loan Scheme, a program which appears similar to previous GoZ food aid interventions. This program is not available in all districts. It began in January 2012 and is expected to end at the beginning of the 2012 harvest (April/May); however, it was extended until approximately April 2013.⁸ The GMB implements the program, and manages over 500 distribution points. The Ministry of Local Government, Rural and Urban Development is responsible for beneficiary selection.

Under the program, eligible families are to receive one 50 kg bag of maize per month for up to four months, for a total of up to 200 kg⁹ of maize per family. The scheme is expected to benefit over 600,000 Zimbabwean households. Beneficiaries are obliged to pay back the “borrowed” maize to the GMB once they reap their 2012 harvest; however, there is widespread speculation that beneficiaries will not be forced to pay back the actual maize quantity that was initially “borrowed.”

The USAID-BEST study team heard allegations of corruption related to transport contractors for the GMB’s Grain Loan Scheme, and allegations of political affiliation being used as criteria in beneficiary selection.¹⁰ Furthermore, the USAID-BEST team field visit revealed that not all communities were aware of this GoZ program.

Food Deficit Mitigation Strategy (FDMS).¹¹ The GoZ also implements the program. The program began in the harvest season of 2010/2011,¹² and was initiated to improve overall food security after the 2010 harvest. Phase I started in August 2010, and US\$1.652 million was disbursed in cash among seven districts. The program was expanded in January 2011, and an additional US\$2.295 million was disbursed to

7 UMCOR LRP Pilot Project in Zimbabwe Final Report, 9/30/11.

8 As of June 2012, 60,000 MT of grain were distributed under the GLS to vulnerable individuals (Agricultural Marketing Authority (6/13/12 notes).

9 Government of Zimbabwe website, December 2011 (www.zim.gov.zw).

10 SW Radio Africa, March 29, 2012.

11 Section informed largely by WFP/Zimbabwe, 2012. Summary document of Government Programmes.

12 WFP/Zimbabwe, 2012. Summary document of Government Programmes.



Photo by Fintrac Inc.

Food aid is being measured at WFP's warehouse in the Belmont industrial district of Bulawayo. World Vision manages the warehouse for WFP, March 2012.

16 districts, including the above districts and additional needy areas for the duration of the lean season.

The GoZ recently modified the program so that targeted food-insecure households in 12 districts continue to receive maize vouchers for redemption at nearby designated food distribution points and GMB depots. As of July 2012, the Treasury had not yet disbursed the funds, and the new program did not have provisions for cash distributions of US\$10 per household. MoLSS is assisting with transportation of grain to designated food distribution points.

2.2.5. Other Major Donors

DFID and other donors fund the PRP, a major food security initiative in the country. Phase 1 of the PRP began in 2004, with the goal to stabilize food security and protect livelihoods for households, especially those affected by HIV/AIDS. Phase 1 targeted 1.5 million Zimbabweans with approximately US\$50 million of funded programming.¹³

Phase 2 runs from 2008-2012 (direct food aid distributions ended in 2009; see details below), and includes over US\$130 million in funded programming. DFID, Australia, the European Community, Denmark, Netherlands, Norway, and the World Bank all contributed to current Phase 2 activities.

The goal of Phase 2 of the PRP program is to reduce poverty through programming in social protection, food security, and livelihoods promotion.¹⁴ The program provides short-term support for crop preparation and livestock support.¹⁵

¹³ Interview with DFID/Zimbabwe April 3, 2012, and DFID website.

¹⁴ PRP Program, 2012. Program website (www.prpzim.info), and interview with DFID/Zimbabwe April 3, 2012.

¹⁵ For 2012, PRP recipients received US\$160 in vouchers per household to use for agricultural inputs, and had to provide 10 percent of the cost (US\$16) of each voucher themselves.

A third phase of the PRP is expected to start in early 2013, with specific interventions expected to focus on long-term development and sustainability.

At present, the PRP does not distribute food aid for its programs. PRP previously distributed food aid solely in urban areas, providing nutritional assistance to poor households with members who had HIV/AIDS, but this specific program was discontinued in 2009. Food aid rations included vegetable oil, beans, maize meal, and CSB. Food aid rations were designed to be supplementary, i.e., not to meet the households' entire food needs. Food aid beneficiaries were also provided with training, home based care, nutritional guidance, and other interventions to support the households.¹⁶ At the beginning of the program, food aid was procured through WFP; in the final years, food was procured through Crown Agents/Zimbabwe and a local supplier.¹⁷

The European Commission is also supporting food security funding in 2012. They are requesting proposals by July 2012 to support sustainable agricultural production in Zimbabwe by targeting small-scale farmers, for both crops and livestock. Approximately US\$9 million will be available to support increased production and complementary, improved extension services.¹⁸

2.3. Food Aid Volumes

2.3.1. Monetized Food Aid Volumes (including MAP)

There is very little history of monetized food aid in Zimbabwe. To date, Title II-funded emergency food security programs have been adequately funded with direct cash resources.

The Citizens Network for Foreign Affairs (CNFA) carried out a successful small monetization of 2,500 MT of US CDSO (US\$1.112 million in funding) in Zimbabwe in 1999 under the USDA Food for Progress program to support agribusiness activities.¹⁹ Since then, no further USDA monetization sales have taken place in Zimbabwe.

Additionally, the C-SAFE consortium initiated a MAP in 2003. This novel monetization program provided US sorghum, to be milled, packaged, and sold, initially in Bulawayo, in small (5 kg) quantities, at a subsidized price, during a time of high food insecurity.²⁰ The program was distinct from typical monetization programs in that its goal was "to directly increase the food consumption of targeted beneficiaries." The program met this goal by increasing access to food on the market through subsidized prices. Beneficiaries in this case, were low income residents in high-density urban and peri-urban

¹⁶ Correspondence with GRM, April 2012.

¹⁷ Correspondence with GRM, April 2012.

¹⁸ www.terravivagrants.org, look under Directory: Zimbabwe Food Security, June 2012.

¹⁹ US International Food Assistance Report-1999 and CNFA Agribusiness Volunteer Program in Southern Africa, Report on Activities 4/1/00-9/30/00, 11/6/00; and phone interview with Tracy Slaybaugh-Mitchell, ex-CNFA Zimbabwe Country Director.

²⁰ Tango Intl., C-SAFE Zimbabwe End of Program Evaluation, July 2010.



Photo by Fintrac Inc.

A CRS's Title II PRIZE program farmer near Plumtree used conservation farming techniques to grow maize on the left and sorghum on the right. The maize was harvested two weeks prior to the photo, in late March 2012. As the photo shows, sorghum is generally more drought-resistant than maize.

Table 3. USAID Title II Emergency Distributed Food Aid to Zimbabwe (MT), 2007-2012 (Estimate)

Year	2007	2008	2009	2010	2011	2012 (est.)	Total
WFP	86,540	60,410	96,340	24,470	22,010	10,860	300,630
C-SAFE*	88,920	91,090	92,370	0	0	0	272,380
PRIZE	0	0	0	7,053	11,753	4,700	23,506
Total	175,460	151,500	188,710	31,523	33,763	15,560	596,516

*Source: USAID, WFP, CRS, World Vision; C-SAFE commodities include sorghum, cornmeal, bulgur wheat and maize grain for cereals; peas, beans and lentils for pulses; and vegetable oil. C-SAFE commodity totals are based on USG FYs, while WFP and PRIZE commodity totals are based on calendar years; some discrepancies in MTs may arise due to these differences and carry-over commodities.

Table 4. PRIZE* Commodities (MT), CY 2010-2012

Year	2010 (6 mo.)	2011 (12 mo.)	2012 (6 mo.)**	Total
Cereals (bulgur wheat)	5,661	9,524	3,863	19,048
Pulses (split yellow peas, beans)	1,001	1,643	642	3,286
Veg. Oil	391	586	195	1,172
Total	7,053	11,753	4,700	23,506

Source: CRS; *PRIZE commodity totals are based on calendar years, and program activities started in July 2010; therefore 2010 programming totals only represent 6 months, 2011 programming totals represent the full 12 months, and 2012 programming totals also only represent the first 6 months of the year; additionally, the 2-year PRIZE program has recently been extended another 12 months to June 2013, but planned budgetary funding totals for this time period still need to be finalized by USAID/FFP. **2012 totals for commodities represent an estimate; they have not been fully delivered as of May 2012.

Bulawayo.²¹ The program eventually expanded to urban areas of Hwange, Victoria Falls, Gweru, Masvingo, and Mutare, and was generally seen to be successful in improving the food security of targeted vulnerable urban/peri-urban populations. The program was difficult to implement in later years due to continued hyperinflation and ended in 2008/2009, concurrently with the end of the C-SAFE program.

2.3.2. Distributed Food Aid Volumes

USAID has provided emergency food assistance to Zimbabwe over the past decade, through the C-SAFE program, and WFP programs. Although emergency funds were used for PRIZE, the program focuses on recovery and building resiliency of vulnerable population. PRIZE delivered food aid in the first year of operation, and uses FFA to improve food security of 90,000 households. As the tables below show, C-SAFE distributed Title II food aid from 2007-2010,²² and the two-year PRIZE program began in mid-2010.

Title II food aid tonnages to both WFP and the C-SAFE consortium averaged 171,890 MT per year from 2007 to 2009, but declined significantly after 2009. Title II aid to WFP in 2010-2011 averaged only 23,240 MT per year, and Title II PRIZE food aid totals averaged only 7,835 MT per year from 2010-2012. The C-SAFE program ended in 2009.

This notable reduction in food aid reflects increasing macro-economic stability in Zimbabwe and corresponding improved food security status.

21 Diskin, P., Market Assistance Program Field Manual, February 2008.

22 Note that the C-SAFE program was signed in 2002 and food aid deliveries actually started in January 2003, but the above food aid table only covers C-SAFE activities from 2007-2009.



Photo by Fintrac Inc.

A village committee member in Mangwe District is showing how thorn tree branches are used to prevent soil erosion and gully formation under the PRIZE program implemented by CRS, March 2012.

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



Photo by Fintrac Inc.

Title II partners have many years of experience successfully managing commodities in Zimbabwe, including the refined vegetable oil which is an important component of Title II rations for beneficiaries of the PRIZE program.

3.1. Introduction

PVOs can successfully transport and store current and planned food aid volumes in Zimbabwe, a country which has sufficient roads, port linkages, and warehouse systems. Projected annual food aid volumes are anticipated to be significantly lower than those of the recent past, when as many as 7 million people (over half the population) were receiving food aid. Although the current need in Zimbabwe has decreased, the country still hosts most of the infrastructure and experienced staff that managed very large food assistance programs (such as C-SAFE) in recent years. Furthermore, the experience and expertise of PVOs in transporting, storing, and handling food aid in Zimbabwe is unusually good. Currently, WFP and CRS operate the two pipelines¹ of imported food aid into Zimbabwe.

Zimbabwe is landlocked. Currently, donors use the ports of Durban in South Africa, and Beira in Mozambique, to receive food aid. Port choice is usually determined by cost and the destination province that the food is earmarked for; eastern Zimbabwe/Manicaland provinces mostly receive food aid through the Port of Beira, and occasionally, PVOs will rely on the

Port of Beira for food aid destined to the southeastern province of Masvingo. Food aid destined for the rest of the country generally relies on the Port of Durban. Durban is currently the recommended port to receive food aid, because ocean freight to this port is less expensive than ocean freight to Beira.

On very rare occasions, food aid has been channeled through the Port of Maputo. PVOs avoid using this port mainly because cargo received through Maputo can only be viably transported to Zimbabwe by rail. During USAID-BEST field research in March/April 2012, PVOs and WFP noted that rail transport is considered risky due to long transit time from Maputo, consistent breakdowns of locomotives in often insecure locations, and the manner in which wagons are secured does not make them completely tamper proof. This is particularly true in Zimbabwe, and, to a lesser extent, in Mozambique and South Africa.

Zimbabwe has a good road network which needs maintenance but is operable; current food assistance partners prefer road transport over rail, due to the risks highlighted above. The country has a large number of warehouses in its major centers, and the continual collapse of the country's industrial sector provides a source of good quality warehouses that are suitable for food aid storage.

¹ Pipeline: the system for developing and producing something [in this instance, the system for delivering food aid] (Mirriam-Webster's Learner's Dictionary, 2012).

See the following map of Southern Africa, which shows major ports and transport routes.

Figure 4. Southern Africa Ports and Transport



Source: CSIR Transportek. The blue border line is on the original map. This line does not pertain to the USAID-BEST study and should be ignored in terms of looking at regional transport links for Zimbabwe, as discussed in this Chapter.

3.2. Ports

3.2.1. Port of Beira, Mozambique

Overview. The Port of Beira, Mozambique is located on the east African coast, 20 km from the open sea and at the mouth of the Pungwe River at Longitude 34° 50' E and Latitude 19° 51' S. It is the second largest port in Mozambique, and is considered one of Africa's most modern ports in terms of equipment. The port has served primarily as a transit gateway, handling import and export cargo from Zimbabwe, Malawi, Zambia, and other countries in the region. However, in the near future, the port's main activities may expand with the commencement of the coal exports from Moatize (a district in Mozambique's Tete province). The Port of Beira handles a wide variety of traffic, including containers, break bulk, general (bulk) cargo (wet and dry), and roll on-roll off cargo.² The port handled nearly 160,000 twenty-foot equivalent units (TEUs) in 2011, approximately 2.15 million MT. Port authorities expect this figure to increase by about 50 percent, to 239,000 TEUs, by 2015, based on anticipated future increased capacity. The port is designed to handle 2.3 million MT of general cargo, and

² "roll on, roll off" can be offloaded from the ship on wheels (as opposed to offloading by crane).

handled 1.9 million MT in 2011. With the expected increase in activity due to coal exports, port authorities estimate the port's installed capacity will also increase significantly, to roughly 20 million MT per year, by 2015.³

Cornelder de Mozambique (CdM), a joint venture company between Rotterdam-based Cornelder Holding and the Mozambique Ports and Railways company (*Portos e Caminhos de Ferro de Mocambique*, CFM), has managed the Port of Beira since 1998. CdM accounts for 67 percent of the joint venture and operates the major container and general cargo terminals, which account for about 80 percent of the port's current trade volume. CFM is the port and rail authority.

Congestion is a major challenge at the Port of Beira. This congestion is mostly due to large amounts of silt (almost 2 million MT) deposited annually from the two rivers that serve the channel. Silt buildup restricts larger vessels from entering the port at low tide. The port has two dredgers and is sourcing a third, which will allow dredging to take place 24 hours a day. With this improvement, vessels will be able to enter the port at any time, at any tide, and delays of up to 48-72 hours will be drastically reduced. The third dredger is planned to operate in 2012/2013.

Another apparent challenge for potential food aid shipments at the Port of Beira is that a large number of vegetable oil cartons are received damaged. Port officials stated this is largely because Beira is often the last port of call, due to its congestion/silt issues. Thus, oil received has been stacked at the bottom of the hold, and has endured greater stress over a long time period, making it fragile during offload. During the USAID-BEST March/April 2012 field visit to the port of Beira, the team was unable to dispute or corroborate this point because the team did not observe any vessel discharging vegetable oil cartons.

Facilities. The Port of Beira has 12 quays.⁴ The port's longest quays (quays #2-4) are, together, 484 meters long, with a draft of 12 meters for container and roll on-roll off vessels. Current maximum vessel size is 210 meters length overall (LOA)⁵ and up to 8 meters draft at high tide. In the past, the port has received vessels of up to 20,000MT of food aid; however, this is subject to tidal conditions and current dredging.

Quay #11, formerly an oil terminal, is being rebuilt into a mega coal terminal to handle vessels up to 60,000 MT. The new quay will be 500-600 meters in length. In addition, port authorities are constructing two additional quays of 160 meters each, to replace the general cargo capacity taken up by the new coal terminal. All of these upgrades are expected to be complete by 2015.

³ Port of Beira Profile and Directory 2011/2012.

⁴ Quay: a berth where ships dock.

⁵ Length overall indicates the total length of a ship from one hull to the other (as opposed to waterline length, which is shorter and indicates length of the boat actually in water).

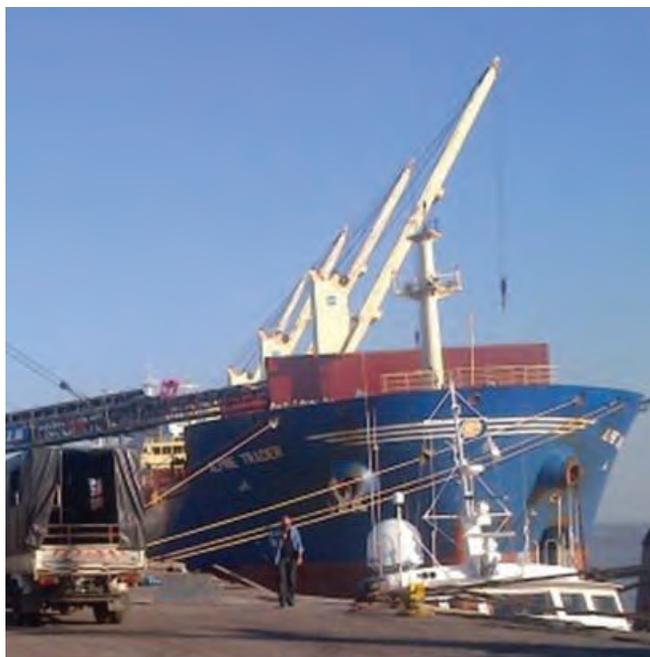


Photo by Fintrac Inc.

The Port of Beira is one of the two main ports for the transshipment of goods into Zimbabwe.

The port has the following equipment:⁶

- Two ship-to-shore gantry cranes, each with 50 MT under hook lifting capacity
- One rail mounted gantry crane, with 50 MT for loading and off-loading of wagons
- 14 reachstackers - 45 MT capacity
- Kalmar forklifts, with 16 - 45 MT capacity
- Terminal tractors, with 60 MT capacity and four wheel drive
- Payloaders for multiuse
- Shunting tractors
- Two mobile cranes, with 35 and 45 MT capacity
- Normal trailers and skeletons
- Bagging units (for grains and fertiliser)
- Grabs (for general cargo)
- Emergency generator – 1,600 KVA
- Weighbridge (28 meters long)

Several stevedoring companies are available, and company selection is determined by a ship's agent.

The port's bulk edible oils facility has 29 tanks ranging from 45-1,750 MT capacity each, and a total storage capacity of up to 22,000 cubic meters (which is roughly 20,200 MT). The facility handled over 40,000 MT of edible oil in 2010.

All grains must be offloaded at the Beira Grain Terminal (BGT). The terminal is privately owned and can store up to 30,000 MT of grain. The company plans to double this capacity in the next year. The facility is designed to receive up to 4,000 MT per day; however, it actually handles about 2,500 MT per day,

largely due to the fact that the outflow to trucks operates at a slower pace than other parts of the offloading process, and creates a bottleneck. In the areas where cargo is received and stored temporarily in BGT silos, the installed rate of 4,000 MT per day is often achieved. The BGT charges US\$14 per MT discharged, and charges an average of US\$0.60 per MT per day for storage, after the first seven free days. The plant can bag cargo and load on truck and rail wagons. The port will only allow cargo to be bagged alongside the vessel when BGT is congested; otherwise, it is obligatory that all cargo is channelled through the BGT facility. There are also five warehouses with a total of 15,000 m² of covered floor space within the port.

For over a decade, the Port of Beira has handled monetized cargo for Mozambique and Malawi through both the BGT and through the port's general cargo terminal where cargo was bagged alongside the vessel. As noted earlier, at present all grains must be offloaded through the BGT, so the latter method is no longer permissible.

Recommendation. The Port of Beira would be a second preference for food aid, largely due to the high cost of ocean freight as compared to Durban. Ocean freight costs to Durban are estimated at about 60 percent of the cost to Beira (see Table 10, which shows ocean freight costs of about US\$167 per MT for shipment to Durban, as opposed to US\$283 per MT to Beira). Additionally, current rail and road conditions from Beira (on both sides of the Zimbabwe/Mozambique border) are poorly maintained, resulting in greater risk of damage or loss of commodity. However, the costs of using Beira for bulk goods is significantly lower than Durban, and according to ships' freight forwarders in Beira, risk of theft is reduced when transporting bulk (not bagged) cargo.

Despite plans to upgrade the facilities at the Port of Beira, as well as to improve road and rail links to Zimbabwe, the timeline as to when these upgrades would be completed is unclear and is more than likely not going to be achieved prior to a new Title II development program. Future partners would need to check the status of port conditions and progress to see whether Beira could be the most-preferred (instead of second-preferred) port to receive Title II food aid in coming years.

3.2.2. Port of Durban, South Africa

Africa's largest port, the Port of Durban, is situated at longitude 31° 02'E and latitude 29° 52'S, 680 nautical miles northeast of Cape Agulhas, the southernmost tip of continental Africa. The port occupies the natural expanse of Durban Bay — an area of 1,850 hectares, with the water area being 892 hectares at high tide, and 679 hectares at low tide. The port has received a food aid shipment as large as 45,000 MT⁷ in the past, during the C-SAFE program which was initiated in 2003.

The Port of Durban has a total of 59 effective berths, excluding those used by fishing vessels and for ship repair. Break bulk

⁶ WFP, 2007. Logistics Capacity Assessment: Zimbabwe.

⁷ USAID-BEST communication with Fettig and Donalty, 2012.

vessels generally berth at the Maydon Wharf, which can handle vessels with 9.6 meters draft and LOA over 200 meters.⁸ Maydon Wharf has a storage capacity of 34,560 MT for maize, and has silos which hold 14,000 MT oil seeds. Bagging is done in the wharf storage facility. The wharf has an hourly intake of 900 MT and an hourly bagging rate of 300 MT.

The port handles approximately 4,550 vessels, 42.6 million MT of bulk cargo, and 2.5 million TEUs (approximately 34.5 million MT) annually. In comparison, the Port of Beira handled 160,000 TEUs in 2011, only 6 percent of Durban's annual quantity. The container terminal can handle vessels with a draft of up to 12 meters, and has 2,128 meters of quayside divided into seven berths. In 2008/09, Durban accounted for about 67 percent of total containers handled in South African ports.⁹ The port is extremely busy; congestion levels remain steady year-round, with little seasonal fluctuation because so many countries utilize the port.

A total of 302 km of rail tracks extends throughout the port area, along with several major marshaling yards.

The port has the following equipment:¹⁰

- Two self-propelled floating cranes with 60 MT and 200 MT max lifts, respectively
- 115 wharf cranes – 4-15 MT capacity
- Heavy weight wharf crane – 80 MT capacity
- Kalmar forklifts, with 16-45 MT capacity
- 8 Super Post Panamax cranes¹¹

Recommendation. The Port of Durban would be the recommended port of entry for food aid, largely due to the fact that ocean freight costs to Durban (about US\$167 per MT) are less expensive than to Beira (US\$283 per MT). As noted earlier, transport from Beira to Zimbabwe is also viewed as riskier than transport from Durban to Zimbabwe due to long transit times, breakdowns, and theft along the route.

3.2.3. Required Documentation and Duties

All food aid imports to Zimbabwe require an import permit and a phytosanitary certificate. Import permits are valid for three months and can be extended only once for a similar period. Grains require a plant quarantine certificate from the GoZ Ministry of Agriculture, which is issued along with the port health certificate issued by the GoZ Ministry of Health at the port of entry.

The current import permit system is being computerized. Although this upgrade currently causes delays of up to three working days due to initial implementation complications, it is envisaged that this system will simplify the import process in the near future.

⁸ WFP, 2007. Logistics Capacity Assessment: Zimbabwe.

⁹ WFP, 2007. Logistics Capacity Assessment: Zimbabwe.

¹⁰ USAID-BEST communication with Fettig and Donalty, Marshalls, 2012

¹¹ Ports and Ships – Shipping and Harbour News out of Africa. <http://www.ports.co.za/>, accessed May 2012.

According to freight forwarders and transporters, PVOs are sometimes unable to provide import permits on time. This results in increased delays at the borders and increased risk of loss. Freight forwarders are confident that if permits are applied for in advance and consignments are pre-cleared by emailing or faxing the forms to the clearing agents at the borders prior to the arrival of the trucks, delays at the borders would greatly decrease.

Currently, all food aid is imported for distribution and is therefore duty free. Commodities which would be monetized in bulk may be subject to duties and payable by the buyer; however, duty payment on commodities for monetization would be determined by the host country agreement, as there is no recent history of such a program to inform this study.

3.3. Storage

In general, overall storage facilities within Zimbabwe and at the receiving ports of Durban and Beira are adequate for the current and planned programs. Some of the smaller storage centers in Gwanda, Masvingo, and Beitbridge could present a problem if temporary storage facilities (such as wickhalls and rubhalls) are not available. According to interviewees, warehouses in these smaller centers are able to store, at most, approximately 400-500 MT at each center. The number of centers varies according to the level of intervention.

3.3.1. Port Storage

Past experience has shown that there is adequate storage in both Durban and Beira ports to handle large-scale food aid programs in the region. The Port of Beira even received an award from USAID for its performance, in 1991. Current congestion issues at Beira are expected to improve with future upgrades to port facilities, and a growing number of privately owned and operated warehouses are available outside the port. See the table below.

Table 5. Table 5. Near-Port Storage, Beira

Company	Flat storage	Silos
Manica Freight	70,000MT	0
Capital Foods	50,000MT	25,000MT
Beira Logistics Terminal	25,000MT	0

Source: USAID-BEST field interviews, March/April 2012.

3.3.2. PVO Storage

CRS. The USAID-BEST team visited CRS' only main warehouse, located in the industrial zone in Harare. This warehouse is located in a warehouse facility owned and managed by Manica Freight Zimbabwe. The facility has 14 warehouses, each 1,400m², of which five were available for rent at the time of the visit. The warehouses are made of brick and have iron metal sheet roofs. The warehouse visited by USAID-BEST is in very good condition, is well lit, and is secure, with one visible leak which had been repaired prior to the USAID-BEST team's visit. Food commodities are well stacked. The warehouse management team keeps shipment records up to date,



Photo by Fintrac Inc.

Yellow split peas are among the Title II commodities stored in the PRIZE and WFP warehouses visited by the USAID-BEST team during the March/April 2012 field visit

and stocks are rotated to reduce wait time. Average stock movements are between 6-12 months. The warehouse stored commodities for the PRIZE program at the time of visit: bulgur wheat, vegetable oil, and beans.

CRS receipt, dispatch, and stock count documents are cross-checked with independent records maintained by Manica, as part of its storage and handling contract with CRS as well as with Socotec, an independent inspection company. The warehouse facility has easy truck access and a rail siding. The furthest final distribution point (FDP) is approximately 200 km from the warehouse facility, and is a round trip that can easily be completed in a day, or prepositioned a day prior to distribution. As noted below, sub-grantees also store food under the PRIZE program.

Table 6. CRS Warehouses

Location	Estimated Storage	Warehouse rental/month	Managed by	Management cost/month
Harare	2,300MT	\$8,176.81	Manica	\$11.00/MT

Source: USAID-BEST communication with CRS, March/April 2012.

CARE and ACDI/VOCA. ACDI/VOCA and CARE are sub-grantees of CRS under the two-year PRIZE program and operate warehouses in southern Zimbabwe, none of which were visited by the USAID-BEST team. See table below for information on CARE warehouses in Zimbabwe.

Table 7. CARE Storage

Location	Capacity	Monthly Rental Cost	Monthly Utility Cost	Security	PRIZE Districts avg. distance to FDP	WFP District avg. distance to FDP	Districts served
Masvingo	1360 MT	\$1,426	\$400	\$3,156	0 km	80 km	Masvingo & Chivi
Mwenezi	1250 MT	\$1,298	\$450	\$2,367	191 km	70 km	Beitbridge/Mwenezi
Zaka	2200 MT	\$550	\$295	\$2,367	0 km	62 km	Zaka, Bikita
Zvishavane	1200 MT	\$1,298	\$430	\$2,367	96 km	34 km	Mberengwa, Zvishavane
Gwanda	1100 MT	\$1,132	\$995	\$2,367	65 km	0 km	Gwanda

Source: Personal Communication, CARE, May 2012.

WFP. The USAID-BEST team visited WFP warehouses in Bulawayo, Harare, Masvingo, and Mutare. WFP has tailored current warehouse capacities to adequately support its 2011 program, which distributes about 100,000 MT of food. At its peak, WFP stored about 25,000 MT in country. See the table below.

Table 8. WFP Storage

Location	Estimated Storage	Warehouse rental/month	Managed by	Management cost/month
Harare	5,000MT	\$8,060	Larcho	\$6.50/MT
Bulawayo	8,000MT	\$15,425	BAK Storage Mutare Dry	\$7/MT
Mutare	10,000MT	\$6,500	Dock	\$4/MT
Masvingo	2,000MT	\$4,000	Larcho	\$6/MT

Source: WFP.

All WFP warehouses are rented and have external management contracts. Socotec inspection staff are permanently based at the warehouse. Effectively the warehouses have three independent records that are cross-checked for each stock movement.

At the time of visit, management of the Bulawayo warehouse was in the process of being handed over by World Vision to BAK Storage. The warehouse is in excellent condition in terms of stacking, security, cleanliness, and stock management. It has a capacity of about 8,000 MT. The Bulawayo warehouse held maize, sorghum, peas, CSB, and vegetable oil at the time of the USAID-BEST field visit. The average distance from the warehouse to the FDPs is about 100 km.

The Harare warehouse is a large, well-structured facility, with ample space to expand as it is situated in one of the storage warehouses of the non-operational Willowvale motor industries, on the southwestern edge of the city. The warehouse's capacity is about 5,000 MT. An additional 3,500 m² of space was available at the facility at the time of visit. Stocks are well managed and rotated in a timely manner. The warehouse had CSB, beans, maize, and vegetable oil at the time of the USAID-BEST field visit.

The Masvingo storage facility is the smallest of WFP's storage facilities in the country, but is the largest available facility in the city. The warehouse holds about 2,000 MT; other available facilities in the city have about 400-500 MT capacity. The longest distance to an FDP is about 230 km, and the commodities are prepositioned the day prior to the distribution. The warehouse receives commodities directly from the ports of Durban or Beira, or from the Harare or Bulawayo warehouses. The warehouse had very small quantities of vegetable oil, maize, and pulses at the time of the USAID-BEST field visit.



Photo by Fintrac Inc.

WFP rubhall in Mutare stands empty with the completion of the year's Seasonal Targeted Assistance, March 2012.

The Mutare warehouse is located in the Mutare dry docks complex, a bonded warehouse facility that is 55 percent owned by a Zimbabwean private company and 45 percent owned by Cornelder, the company that manages the Port of Beira. Most of the cargo in the warehouse is shipped from Beira, though some is from Durban and small amounts of maize come from Zambia via Tete in Mozambique. Although total storage is 10,000 MT, only 3,500 MT is under brick and tile. Commodities stored at the time of the USAID-BEST field visit included beans, vegetable oil, and maize.

The remaining storage in the Mutare (not covered by brick and tile) consists of 13 rubhalls in the dry dock. This area is not ideal for long-term storage, due to water logging and heavy truck traffic (about 150 trucks per day) which contributes to poor and muddy conditions. Three to four of the 13 rubhalls are in poor condition and need to be replaced; at present, these rubhalls are empty and WFP is expecting to replace them when the organization has enough funds to do so.

Based on current programming, WFP is willing to share excess capacity available in Bulawayo and Harare, or even to obtain larger facilities, should the USAID implementing partner of a Title II program have a long-term program of at least 1-2 years. Short-term storage in Mutare would also be available.

3.3.3. Zimbabwe Government Storage

The Zimbabwe Government has storage facilities managed by the GMB. These facilities are large, and are widely dispersed throughout the country. The GMB has a total storage capacity of 4,902,700 MT, distributed over 85 sites as follows:

- Silos: 758,000 MT
- Hard Stands: 3,974,000 MT
- Sheds/warehouses: 170,700 MT

The GMB warehouses are reportedly in need of maintenance and repair; their state was not verified by the USAID-BEST team.

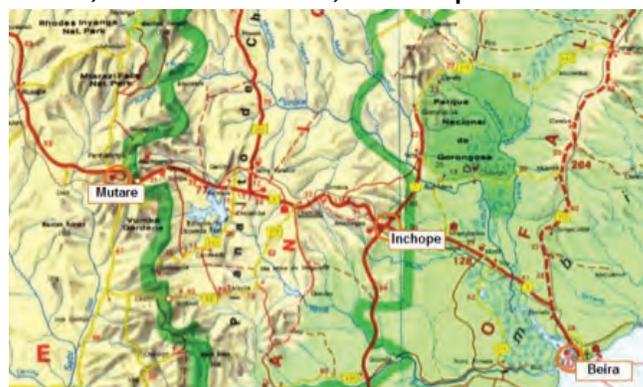
3.4. Inland Transport

3.4.1. Road

In general, Zimbabwe has a good network of tarred roads which are lacking maintenance, but are fit for use.

Main roads. The roads in South Africa from the Port of Durban to Beitbridge are in very good condition and pose no particular risk to food aid transport. Delays at the Beitbridge border could occur due to congestion and/or delays due to paperwork approval; however, this problem can be alleviated through pre-clearing as mentioned in section 3.2.3 above. Average wait times at the border are no more than 48 hours.

Figure 5. Beira Corridor: Road and Rail Links Between Mutare, Zimbabwe and Beira, Mozambique



Source: www.vidiani.com.

On the major road route from Beira to Mutare, the first 170 km of road after crossing the border of Zimbabwe is in relatively good condition. The road is in a total state of disrepair between Beira and Inchope (located at the intersection of Route (EN) #1 and #6, as highlighted in the map above), a distance of 128 km. An average-sized motor vehicle takes about two hours to cross this section of the road. The road has many large potholes that could result in damaged cargo, especially of canned vegetable oil.

However, there are plans for the construction of a new 4-6 lane highway between Beira and Machipanda, with construction to commence sometime in 2012. This improvement, along with proposed pre-clearing of commodity, could significantly decrease the current round trip between Beira and Harare, of 5-7 days, to approximately 3-4 days. There have been no security incidents on the road to date.

Minor roads. FDPs are typically served by unpaved roads, which, at times, can be challenging to reach with 30 MT trucks. Thus, PVOs currently use smaller vehicles (5-15 MT) on roads with extremely difficult access and 30 MT trucks when possible. Since most FDPs do not have large-scale storage facilities and are mostly designed for prepositioning of food for distribution the next day, this issue does not pose a problem. Roads are accessible throughout the year, according to all transporters interviewed.

3.4.2. Rail

Rail transport from either port into destinations in Zimbabwe has been a challenge, mainly due to the fact that National Railways of Zimbabwe (NRZ) has experienced significant cash flow constraints. Exclusive rail routes from both ports to Harare would eventually have to rely on NRZ, and its limited resources have impacted the operational viability of the system to deliver an efficient service at minimal risk. As a result, most PVOs and WFP, as well as commercial businesses, have resorted to road transport.

Theft of electrical cables has led to decreased electric train signals and decreased operation of electric trains. NRZ currently uses more diesel locomotives and a traditional paper signaling system in an effort to alleviate the situation. While NRZ has a large number of rolling stocks,¹² these are generally spread throughout the country and transit times are slow due to low volumes and long turn around periods of locomotives. Rolling stocks take, on average, 10 days to travel from point of origin to Beira. Reduced operations have resulted in NRZ leasing out surplus rolling stock capacity to neighboring countries.

Until last year, the Beira to Machipanda line was operated by an international company whose concessionary right was then terminated. Investment in the line and rolling stock maintenance has decreased, and CFM Beira is prioritizing the revamp of the line's rolling stock. CFM is also leasing locomotives to improve the Beira to Machipanda line's efficiency. CFM and NRZ may agree to use locomotives all the way through to Harare in the near future, in order to alleviate the burden on NRZ's fleet.

Because break bulk cargo is transported in processed and packaged form, it is thus preferred by and more easily stolen by thieves. Therefore, bulk cargo (which is transported in unprocessed and unpackaged form) is currently the only item



Photo by Fintrac Inc.

Zimbabwe has a good network of smooth, paved primary roads. The generally poor state of tertiary roads, as well as competition for the roads, however, presents challenges to the efficient movement of goods.

¹² Rolling stock = railway wagons.

that could be safely transported from either port to Zimbabwe by rail; as noted earlier and shown in the table below, bulk cargo transport rates are less expensive from Beira than from Durban.

3.4.3. Conclusions

Although rail costs are lower from either port to Zimbabwe, donors currently prefer road because it is viewed as more efficient and less risk.

Table 9. Estimated Rail and Road Transport Costs

Origin	Destination	US\$/MT Road	US\$/MT Rail
Durban	Harare	\$148.00	
Durban	Mutare	\$159.00	
Beira	Harare	\$169.00	
Beira	Mutare	\$68.00	\$52.49
Beira	Bulawayo	\$48.00	
Beira	2,000MT	\$128.00	\$75.67

Source: WFP.

PVOs and WFP use private truckers to transport commodities from the port to warehouses and from the warehouses to the FDPs. The average cost of transport from the warehouse to the FDPs is US\$0.13 per MT per km for trucks with a 30 MT load, and US\$2.20 per MT per km on trucks less than 30 MT.

3.5. Recommended Food Aid Routes

Current food aid volumes are split between the two ports of Durban and Beira, with Durban accounting for about 80 percent of food aid shipments and Beira for 20 percent. WFP prefers Durban because the total route is less risky and more cost efficient than the route from Beira, as shown in the table below. Both WFP and PVOs use the Beira route, especially when the commodity is destined for the northern or northeastern part of the country, such as Harare or Mutare, and when commodity shipping consolidation makes Beira freight viable.

Table 10. Freight Costs, Durban and Beira (US\$/MT)

Origin	Destination	Ocean Freight	Road Freight	Total Freight
Durban	Bulawayo	\$167.00	\$148.00	\$315.00
Durban	Harare	\$167.00	\$159.00	\$326.00
Durban	Mutare	\$167.00	\$169.00	\$336.00
Beira	Harare	\$283.00	\$68.00	\$351.00
Beira	Mutare	\$283.00	\$48.00	\$331.00
Beira	Bulawayo	\$283.00	\$128.00	\$411.00

Source: WFP.

In the future, use of Beira for bulk monetized commodities may be considered should there be some improvement to port, road, and/or rail conditions which would reduce transit time or freight rates. As noted above, planned improvements and port expansions could make the Port of Beira more competitive, and the port is currently adequate for handling some food aid shipments destined for specific areas in Zimbabwe. Furthermore, the Port of Beira is considerably less risky (and less expensive) when transporting bulk cargo.



Photo is courtesy of Nick Brubaker

Africa's largest port, Port of Durban, South Africa.

At present, however, lower costs and lower risks make the Port of Durban the preferred port in comparison to the Port of Beira, and road the preferred method of transport in comparison to rail.

3.6. Alternative Ports

Almost all Zimbabwe's commercial imports and exports are through Beira or Durban. The ports of Nacala, Mozambique and Walvis Bay, Namibia were briefly considered for further study, but ruled out for several reasons. A brief note regarding each port follows.

The port of Nacala. The port of Nacala is good natural deep water port that can receive almost any sized vessel. The port is adequately equipped to discharge at acceptable rates of discharge. It has not been considered for an upcoming Title II program for the following reasons:

1. The port predominantly serves northern Mozambique (85 percent of cargo) and Malawi (15 percent of cargo). The rail link is direct to Malawi and is already under heavy pressure to meet demand for Malawi and therefore rail transport to Zimbabwe would not be a feasible option.
2. Truckers are very hesitant to accept loads from Nacala to Zimbabwe due to the long distance, bad road conditions, and lack of return loads to the port of Nacala from Zimbabwe.

The port of Walvis Bay. The port of Walvis Bay, like Nacala, is a viable port to receive vessels and cargo, efficient and modern. Its main commercial traffic comprises of imports and exports for Namibia, Angola, and the hinterland. The greatest challenge to using Walvis Bay, a fact highlighted by a large Zimbabwean road transport company, is that there is no commercial exports out of Zimbabwe that are using this port which could reduce overall transport costs; therefore, any program that would consider using this port would get a good ocean freight rate but would bear a very high road transport cost for the commodity from Walvis bay as the transporters have no return loads. Discussions with all road transporters in Zimbabwe revealed that Walvis Bay would be an option if this situation changed; at present, however, there are no truck operators running that route; thus, estimated costs for this route are unavailable.

Chapter 4. Monetized Food Aid



Photo by Fintrac Inc.

Even the largest of the remaining industrial mills struggle with underutilization of installed capacity. As of March 2012, key informants reported the highest utilization rates hovered around 40 percent of installed capacity.

4.1. Introduction

This Chapter is meant to inform USAID in its determination of the feasibility and appropriateness of monetization in Zimbabwe during FY13. It covers four critical areas of inquiry:

1. How appropriate is monetization for Zimbabwe under any new Title II development program in FY13?
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 considerations (e.g., sales platform or timing of sales) that should be taken into account when considering/undertaking monetization in Zimbabwe?

Importantly, this Chapter represents a thorough review of monetization possibilities as of April/May 2012. Zimbabwe has a unique and unstable business climate, with the potential for very significant economic and political changes between the time of writing and when PVOs might monetize commodities for FY13 programming. PVOs and USAID are strongly encouraged to closely monitor market conditions to inform program design.

The content of this analysis is broken into five core sections: initial commodity selection; an overview of the opportunities and challenges for monetization in-country; general discussion of

small lot sales in the Zimbabwean context; commodity-specific market analyses and recommendations; and a summary of third country monetization as an option to fund programming in Zimbabwe. For the complete methodology for determining the potential impact of monetized food aid, please see Annex V.

4.2. Initial Commodity Selection

The USAID-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 market analyses, review of other relevant country reports, and interviews with key informants during a March/April 2012 field visit. For the purpose of this study, commodities were selected for review and possible recommendation, according to six “tests”:

1. Eligibility for export from the US;¹
2. Eligibility for import to Zimbabwe;
3. Significance of domestic demand²

¹ This “test” implies that it is also on the FFP list of approved commodities for monetization.

² 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.

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.³

Test 1: Eligibility for export from the US. All the commodities discussed in this report are on the FFP commodity list for FY13.

Test 2: Eligibility for import. At present, the GoZ has a law restricting the importation of GMOs into Zimbabwe. In 1998, the GoZ put in place a National Biotechnology Policy, with the vision of creating an enabling environment to harness biotechnology in order to meet the national development needs of the country while protecting the country's natural resources, human health, and economic wellbeing. The National Biotechnology Authority was the GoZ government agency in charge of implementing the biotechnology policy, which included a GMO policy.

However, to date the National Biotechnology Authority has been silent on the major issues related to GMO adoption in the country, as well as issues related to the importation of GM food. According to many informants in both the public and private sector, the GoZ may, at times, temporarily lift this restriction when the interests of national food security justify such an act.

Which commodities fall under current GMO policy is, in fact, unclear. Most stakeholders agree that GMO policy applies to primary agricultural commodities. Specifically, GMO policy appears to apply to any grain that could be planted by farmers because this would jeopardize the Zimbabwe's ability to export non-GMO grain, or beef fed with non-GMO grain to Europe in the future, for example. Others point out that GMO policy is designed to protect human health; this reasoning is inconsistent with the practical implementation of GoZ policy to disallow grain (except under supervised transfer from border to plant, and supervised milling), but to allow GMO processed foods into the consumer market. At present, the country's edible oil market is dominated by GMO refined vegetable oil (though some believe it is in fact palm oil) from South Africa. At several junctures in the recent past, GMO mealie meal from South Africa has also dominated the market.⁴

Among the commodities considered here, US wheat and rice are clearly eligible for import because they are non-GM crops in the US. For the other US commodities considered in this Chapter (all maize or soybean-based), there is lack of clarity whether individual commodities would be eligible for import due

³ 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. We will follow this convention throughout this analysis.

⁴ As one GoZ stakeholder remarked, "GMO policy is in place but has been set aside" (Personal interview, April 2012).

to GMO concerns. This analysis makes the assumption, discussed in more detail later in the Chapter, that most commodities are eligible for import with important caveats to consider.

Importantly, monetization of Title II commodities is properly viewed within the context of the GoZ's policies on industrial development (i.e., rehabilitation) and GMOs. This is particularly true in the case of US GMO commodities (including maize, soybeans, and soy by-products including both refined and crude vegetable oil). Based on field interviews with a wide array of government and commercial sector stakeholders, the USAID-BEST team anticipates proposals to monetize raw materials, even if GMO, would face general support among most GoZ decision makers.

Because there has been no previous Title II monetization in Zimbabwe, PVOs would need to seek all clearances to import food aid for monetization.⁵ It appears that at least five ministries⁶ would need to provide clearance: MoAMID, MoF, MoLSS, MoH, and MoIC. Available information and interviews with GoZ officials indicate that the GoZ could support monetization, particularly if it addresses the liquidity constraints faced by the majority of the agro-industry.

Nonetheless, USG representatives, including the USAID Mission Director and USAID/HA staff, are urged to begin bilateral discussions with the relevant ministries well in advance of a Title II award. USAID Mission staff should accompany eventual Title II Awardee(s) to initial meetings with GoZ ministries and agencies to facilitate transparent dialogue, and ensure all stakeholders are apprised of purpose of and methods for any Title II monetization. There is no precedent for exemption from duties or taxes on monetized commodities, and, therefore, PVOs would need to negotiate any exemptions (if possible) with GoZ under a host country agreement.

With this important caveat in mind, all of the commodities included for consideration are currently imported in Zimbabwe commercially, making them eligible for further consideration for monetization.

Finally, at the time of report writing, there are no non-tariff barriers to trade that would preclude the importation of reviewed commodities. However, there are fluid policies on tariff and non-tariff barriers to trade that may impact the eligibility to import or feasibility of importing for monetization purposes. At present, all grains are zero-rated (i.e., imported duty-free). Duties for processed grains were re-imposed in June 2011. Wheat flour in 50 kg bags (targeted to bakers) faces a 5 percent duty, while smaller "pre-packs" (self-rising flour) (targeted to consumers) face a 15 percent duty. Mealie meal now attracts a 10 percent duty. Refined vegetable oil

⁵ The team is aware of one USDA Food for Progress monetization by CNFA nearly 13 years ago. The team expects CNFA's experience is likely not instructive given the change in political and market dynamics.

⁶ Ministries primary concerns/oversight regarding monetized commodity are expected to be: MoAMID (import permits, SPS), MoF (duties and taxes), MoLSS (standard regulation of humanitarian assistance activities), and MoH (food safety), and MoIC (commercial transactions).

attracts a 15 percent duty. To protect local industry, a surtax of 25 percent on all processed foods was imposed in July 2011. PVOs will need to revisit GoZ policies prior to proposing any commodity for monetization, and prior to each planned call forward and sale.

Test 3 and 4: Significance of domestic demand and deficit in Zimbabwe. 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., a substantial portion of consumption is met through imports).

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 10 percent of average yearly commercial import volumes. Based on the value of the average imports of the last five years, the table below lists the top food commodities, all of which have five-year average import values of approximately US\$2 million or greater, and which also appear on the USAID/FFP list of products eligible for monetization during FY13. This market analysis considers wheat, soybeans, soybean meal, vegetable oil (crude and refined) and rice as potential candidates for monetization for FY13.

Table 11. Average Annual Commercial Import Volumes (MT) and Values (\$US) for Select Commodities, 2006 – 2010

Commodity	Average Import Volume (MT)	Average Imports Values (\$US)
Vegetable Oil (total of CDSO, refined soybean oil, refined sunflower/safflower oil, and refined palm oil)	46,575	95,467,138
Maize grain	516,135	101,582,367
Maize flour	3,877	1,737,212
Soybeans	5,355	2,315,076
Soybean meal	4,126	2,304,104
Wheat grain (does not include durum)	59,532	36,871,677
Wheat flour	42,273	25,219,498
Milled Rice	3,563	2,794,095

Source: UN Comtrade, Downloaded May 2012.

The table below summarizes each of the first four tests.

Table 12. Initial Selection of Commodities Based on Test 1-4

Commodity	Eligibility of export from the US	Eligibility for import to Zimbabwe	Significance of domestic demand	Deficit in Zimbabwe
Vegetable oil	Yes	Yes, with caveat	Yes	Yes
Maize grain	Yes	Yes, with caveat	Yes	Yes
Maize flour	Yes	Yes, with caveat	Yes	Yes
Soybeans	Yes	Yes, with caveat	Yes	Yes
Soybean meal	Yes	Yes, with caveat	Yes	Yes
Wheat grain	Yes	Yes	Yes	Yes
Wheat flour	Yes	Yes	Yes	Yes
Rice	Yes	Yes	Yes	Yes

The remainder of the analysis will assess the ability of local markets to absorb wheat (grain and flour) soybeans, soybean meal, edible oil (both crude and refined) and rice, as all commodities passed initial four tests. Vegetable oil, maize, and soybeans pass with caveats due to possible GMO concerns. A brief review of the sorghum market is also included, per USAID request.

The existence of GoZ 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 GoZ policies are favorable for monetization of these commodities, 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).

"In Zimbabwe, there is not a crisis of credit. There is a crisis of risk."

- key informant remarking on Zimbabwe's financial markets

4.3. Overall Challenges to and Opportunities for In-Country Monetization

Monetization in Zimbabwe has the potential to be an extremely useful tool for local market development. As with all investments, however, with great potential comes a substantial amount of risk. Measures to mitigate this risk for PVOs and USAID will be an important component of overall monetization program design.

Zimbabwe's macro economy has largely stabilized since early 2009 when the GoZ instituted a multi-currency (largely US dollarized) system, established the GNU, and liberalized the grain trade. This stabilization has resulted in substantial improvements in the market environment since early 2009, including price stability and increased purchasing power. However, lack of investment due to credit risk continues to hinder broader efforts to revitalize industries and expand employment.

The extremely high cost of credit, and relatively minimal GoZ support to agro-industry, has meant that millers and processors can only access small quantities of raw materials at a time. Average utilization rates of mills and processing equipment are extremely low (maximum of 40 percent). Mills simply cannot cover fixed costs — rent is very high, and is one of the highest fixed costs — and are closing at an almost monthly rate. Bulawayo, for example, hosts a huge industrial base which lays idle. Several informants noted that 70 businesses in Bulawayo closed last year alone. To maintain some market share, many mills have entered into toll milling⁷ arrangements with other mills.

⁷ Toll milling allows customers to retain ownership over the raw material, but have grain milled. This allows a struggling mill to save on the cost of using its own capital equipment, labor, electricity, and other milling costs by 'outsourcing' the milling (and occasionally bagging/bottling) to another miller. The mill providing the toll milling service benefits both by receipt of a fee, and because by increasing its throughput, it lowers its per unit costs of production.

In addition to low utilization rates, high production costs are a result of several inter-related conditions. The GoZ continues to intervene in the market by frequently changing tariff and non-tariff barriers, which affect input costs for producers and processors, and affect food prices for consumers. The GoZ's apparent strict GMO policy increases costs of production for nearly all basic staples, because the policy limits available source markets for raw materials, and limits local producers' access to maize and soybean seeds. The ongoing process of indigenization,⁸ and threat of expropriation of investments, translates into prohibitively high interest rates for commercial loans. As of April 2012, borrowing rates in Zimbabwe for commercial companies average 18 percent on short-term loans, compared to 7.5 percent in the Republic of South Africa (RSA). Nearly ten years of severe macroeconomic instability have left even the largest commercial processors with increasingly outdated equipment, which is in desperate need of refurbishment.

Finally, with the decline of industry in the last decade in particular, there is also a growing skills gap. Only the very largest companies, particularly those with international ties, can afford to address this challenge through training.⁹ While Zimbabwe maintains high literacy and numeracy rates, this growing skills gap threatens to erode Zimbabwe's ability to employ and attract an efficient workforce.

The most fundamental challenge currently facing Zimbabwean agro-industry is the lack of financing along entire value chains. For all but a handful of blue chip companies, Zimbabwe is a cash economy. This creates an almost unparalleled opportunity for win-wins using monetization as a tool to support local market development.

While the constraints to smallholders are widely appreciated, the critical role of market actors in the middle of the value chain receives less widespread attention, but is equally important to ensure food security for consumers in the farm to fork chain. While farmers demand immediate cash payment at time of delivery (an understandable demand given GMB and other buyers' failure to pay, and immediate cash needs), traders and processors often must extend credit to their buyers (especially the large supermarket retail chain buyers, such as TM, OK, and Spar), despite the fact that retail markets are cash businesses. Key informants consistently report that supermarkets demand 30 to 60 day repayment terms, but regularly pay 30 days late. This has effectively resulted in processors "bankrolling" the large supermarket chains, if these processors wish to stay in business. Extending credit through standard Title II repayment terms (5 to 10 percent down

payment, with remaining balance due over the course of 30 to 90 days,¹⁰ for example), can help processors to bridge the financing gap, while providing critically needed raw materials.

Title II monetization has the potential to increase domestic production and processing of staple commodities by supplying raw commodities, thereby increasing Zimbabwe's competitiveness within the region, and decreasing its dependence on imported foods. While milling operations of Zimbabwe's regional trading partners (RSA, Mozambique, Malawi, Botswana, Zambia) are operating at an average 85 percent capacity, which keeps per unit costs relatively lower, Zimbabwean mills are operating at an average 30 percent capacity. Moreover, because Zimbabwe is landlocked, it faces inland transportation costs to simply access imported raw materials, let alone market its processed products within the region. Support to Zimbabwean industry through increased utilization of the country's installed capacity will enable the country's industry to better compete.

As noted earlier, the GoZ's disjointed GMO policy creates additional uncertainty about whether certain Title II commodities are allowed for importation and sale. The fact that sales could be designed to boost overall capacity utilization, and generate employment, while also funding food security activities in the most vulnerable rural communities, provides a solid platform for discussions with the GoZ about appropriate commodities to import and about appropriate monitoring to ensure Title II commodities are deemed allowable to enter the food supply in an acceptable manner. Please see individual commodity market analysis sections for more details about relevant GMO and other GoZ policies.

Finally, USAID and PVOs should consider whether it may be feasible and appropriate to take a "basket" approach to monetization in Zimbabwe. A basket approach involves selecting more than one commodity to monetize, each commodity likely of lower volume than would be monetized if a single commodity were selected instead. The intentional selection of complementary commodities, such as two or three complementary inputs into stock feed, is one example of such an approach. Another option would be to include two or three distinct commodities chosen not because they are seen as complementary to buyers, but because they have the strongest demand, have the most competitive buying markets, and simply diversify the PVO's risk. The decision to take a basket approach should be informed by: 1) market conditions at the time of a proposed monetization, and 2) the capacity and interest of Title II PVOs to manage monetization of a basket of commodities. A basket approach inherently lowers the risk faced by PVOs, should market conditions shift. However, the larger the number of commodities a PVO intends to monetize, the larger the number of commodity markets the PVO will be required to monitor.

⁸ "The Indigenisation and Economic Empowerment Act requires foreign-held companies with an annual turnover of US\$500,000 or over to transfer 51 percent of their shares to indigenous Zimbabweans,"

<http://talkzimbabwe.com/indigenisation-137-firms-refuse-to-comply>.

⁹ National Foods, for example, relies on its shareholder Tiger Brands of RSA to train workers in RSA for 1-2 weeks.

¹⁰ Sales contracts should require regular payment schedule in which a percentage of the balance due is paid on pre-specified days during the payment period. As an example, other Title II sales contracts have included a 10 percent down payment, with the first payment of 30 percent due at the time of delivery, another 30 percent due 45 days after delivery, and the final 30 percent due 90 days after delivery.

Commodity	Quantity	Price (US\$)	Price (R)
GOLDSTAR WHITE SUGAR	10/2KG	\$20-40	(R163-20)
HULLETS BROWN SUGAR	10/2KG	\$18-30	(R148-23)
HOME PRIDE COOKING OIL	8/2LT	\$2680	(R214-40)
REDSEAL RAISING FLOUR	10/2KG	\$17-00	(R136-00)
REDSEAL COOKING OIL	25lt	\$40-80	(R352-00)
REDSEAL RICE	10/2KG	\$20-24	(R161-12)
REDSEAL ROLLER MEAL	50KG	\$24-40	(R195-20)
REDSEAL ROLLER MEAL	10KG	\$4-04	(R39-52)
REDSEAL ROLLER MEAL	20KG	\$8-07	(R68-04)
BEEF SURVIVAL	40kg	\$986	
BROILER ST. MASH	50kg	\$29-96	
BROILER ST. CRMB	50kg	\$30-46	
BROILER FIN MASH	50kg	\$29-18	
BROILER FIN PELLETS	50kg	\$29-69	
GOAT MEAT	50kg	\$20-10	

Photo by Fintrac Inc.

Stock feed is available at posted market prices through depots in urban centers, but is less available in the rural communities where Title II partners currently work.

4.4. Small Lot Sales in the Zimbabwean Context

The benefits of small lot monetization sales are that they are designed explicitly to enhance local market development by targeting critical weaknesses in the value chain. Large lot sales¹¹ typically generate funds for beneficial food security programming in rural areas, but perhaps miss opportunities for additional spin-off or multiplier effects because they involve the relatively straight-forward sale of a commodity to large scale importers/processors. Commodities sold in large lot sales are often consumed by relatively wealthier urbanites. The distinction between the two sales modalities grays considerably in the Zimbabwean context because, by their nature, even large lot sales -- particularly those designed with just a small amount of creativity -- hold the promise of many positive multiple effects.

Monetizations targeted towards any of the market players in middle of the value chain (agro-dealers, millers (of wheat, maize, stock feed¹²)) can play a particularly important role in injecting much-needed raw materials into the food system, at reasonably priced interest rates.

In short, either large lot or small lot sales have great potential to support local market development, beyond the positive impact from the use of proceeds in rural food security programming.

"[The largest company] gets a license to export food that [stock feed manufacturers] now have to get an import license to import! It's ludicrous."

- key informant in livestock industry

¹¹ Large lot sales refer to tenders or negotiated sales of large volumes of commodity, usually sold to larger importers/processors, rather than small and medium size processors and traders. Small lot sales involve much more frequent sales throughout a year (perhaps monthly) than large lot sales, which generally involve only one or two sales per year.

¹² Stock feed refers to animal feed, including feed for beef and dairy cattle, goats, chicken, and swine (pig).

Based on input from private and public sector informants, and the study team's assessment of the greatest constraints facing the staple commodity markets in Zimbabwe, the following monetization activities would greatly benefit Zimbabwe:

- Increased access to raw materials via provision of reasonably-priced credit, which would enable increased utilization of existing milling capacity.
- Helping to ensure dollars and raw materials for agro-industry remain available for use within the Zimbabwean economy, avoiding outflows of currency and expensive and unnecessary transaction costs for local agro-industry, especially stock feed manufacturers.
- Use of funds to invest in training in basic animal husbandry practices, including basic rearing practices (for example, animal rearing as a business; and dehorning, castration, and branding of cattle).
- Use of funds to invest in improvement in livestock genetics.
- Use of funds to invest in expansion of vocational training appropriate for improving rural livelihoods (of youth especially) in Natural Regions IV and V.

Any of these activities could be accomplished with large lot, open sales, and would not require the extra logistics and management of small lot targeted sales.

On the other hand, several factors favor small lot targeted sales, though perhaps for a slightly different reason than has motivated small lot monetization sales elsewhere. Because the risk of default on payment by buyers is high, larger volume sales may place PVOs at relatively greater risk than small lot sales. Indigenization and the threat of expropriation of investments create a potential environment in which buyers may be unable to follow through with a sale.

Regardless of whether PVOs choose small lot sales or more traditional sales to larger market actors, Zimbabwe is a particularly risky environment in which to try to sell commodities to the private sector, because funds needed for Title II food security activities may be tied up in commodity sales that linger, or fall through altogether, unexpectedly. While the threat of

non-payment from commercial buyers can be partially mitigated through creative payment mechanisms, there is also risk due to occasional threats of expulsion of non-governmental organizations (NGOs) by GoZ. While this threat is not new, and exists for distribution of food, cash, and vouchers, adding an additional layer of NGO activities (monetization, and small lot sales in particular) will, by its nature, make NGO activities slightly less agile. For that reason alone, NGOs may wish to delay plans for more complex, time-consuming, small lot targeted sales until after the next election, and resolution of some of the uncertainty surrounding major political and economic policy shifts.

4.5. Market Analysis - Wheat Grain/Wheat Flour

4.5.1. Demand and Supply Overview

Though the national staple remains sadza (maize meal), wheat has been a regular part of the Zimbabwean diet for many years and is considered Zimbabwe's second most important staple grain.

During the colonial period, commercially baked bread was a convenient breakfast food for Zimbabwe's working urban population. Among poorer households in both urban and rural areas, bread was a special treat incorporated into Christmas and New Year's celebrations. Government support of wheat production and price controls of wheat and bread resulted in increased popularity of wheat and wheat products. The convenience of bread, including its portability, has driven its popularity.

Today, pan style white bread has become a staple, and is widely available in both rural and urban areas. A typical breakfast throughout the country consists of tea with bread. The Millers Association reports an estimated 1.5 million loaves of bread are consumed annually, with the largest share of protein in the typical household diet coming from wheat bread.¹³ The ubiquity of Baker's Inn, as well as competitor bakeries' breads and cakes on the market, reflects the demand for wheat-based products as a convenient choice and quick energy source. Mills generally cater to young mothers' preference for very white flour, whereas older women generally prefer wheat with increased fiber content.

Total consumption of wheat flour is currently estimated at 400,000 MT per year,¹⁴ with 300,000 MT used by bakeries for bread flour and confectionaries, 30,000-50,000 MT for production of home-baking flour (self-rising "pre-packs"), and the remainder (approximately 50,000 MT) used by the processing industry for pasta and biscuits. Domestically milled wheat flour also produces bran for the stock feed industry.

Zimbabwe currently produces a maximum of approximately 5 percent of its required grain,¹⁵ with imports accounting

¹³ Key informant interview, March 2012.

¹⁴ A 2011 USDA Gain report reported per capita wheat consumption estimated at 25kg per annum. Field interviews strongly suggest this is an underestimate.

¹⁵ Some sources estimate that the country produces even significantly less than 10 percent.

for the remaining 95-plus percent of its wheat/wheat flour requirement. Approximately 50 percent of Zimbabwe's wheat requirement is imported as grain for domestic milling, and 50 percent is imported as flour. Of late, wheat grain is sourced primarily from Argentina and Australia.

The price of bread is relatively stable throughout the year, and across the country, which is another reason for bread's popularity. A standard bread loaf costs an average of US\$0.85, while a superior bread loaf cost US\$1. "Chinese" bakeries are known for routinely selling two loaves for US\$1. These relatively low prices make bread a very accessible staple and encourage consumption.

Growth in the wheat sector is unclear and intimately tied to political uncertainties which are expected to impact macroeconomic conditions.

4.5.2. Supply in Detail

Domestic production of wheat grain. In Zimbabwe, wheat is a winter crop produced entirely under irrigation. Planting starts in May, with harvest generally in September. The figure below illustrates the seasonal calendar for wheat.

Figure 6. Seasonal Calendar for Wheat



Source: USAID-BEST/Fintrac.

Per official GoZ statistics Zimbabwe currently produces 12,000 MT per year of soft white wheat (9-10 percent protein) (approximately 3 percent of its total wheat grain requirement, and 0 percent of its total hard wheat grain requirement). Domestic wheat is produced under irrigation, and generally limited to Natural Regions IIA, IIB, and III, in the Mashonaland provinces. Domestic soft white wheat cannot be used for baking flour, and must be blended with hard wheat of a suitable higher protein content to improve gristing qualities to obtain baker's quality bread flour.

Domestic production of wheat increased substantially around 1965 when the Rhodesian government was placed under international sanctions, and began investing heavily in research and other support for domestic wheat production, with the intent of becoming self-sufficient. Government support helped to expand production from 81,000 MT in 1966 to over 203,000 MT in 1978. Production peaked in 1990 at 325,000 MT,¹⁶ and up until the mid-2000s, Zimbabwe produced over 250,000 MT of wheat annually. However, area planted and production of wheat have been sharply decreasing in the last decade due to FTLRP, contraction of credit, and declining availability of electricity and upkeep of irrigation.

¹⁶ Kapuya et al. 2010.

The GoZ reports that current domestic production stands at 12,000 MT.¹⁷ According to USDA data¹⁸ (PSD), there were only 6,000 hectares planted to wheat in 2011/2012, with production at 12,000 MT. These data also show that wheat imports last year totaled 280,000 MT, and estimated consumption of wheat grain totaled 300,000 MT (23 MT ending stock). The same data source suggests imports have remained fairly stable at 250,000 MT in 2009/2010 and 2010/2011, increasing to 280,000 MT in 2011/2012. These grain import figures are generally in line with key informant interviews. Imported wheat flour makes up the remainder of imports to reach current total estimated demand for wheat flour at 400,000-450,000 MT.

Consensus from primary and secondary research suggests that the decline in domestic wheat production is driven by the shift from large-scale commercial (LSC) to smallholder (often communal) systems. This shift has resulted in extremely limited access to working capital due to uncertain or lack of land titles, expensive and intermittent electricity, lack of irrigation or outdated irrigation systems, and lack of timely access to fertilizer and seed. Finally, Zimbabwean smallholders face relatively higher costs of production as compared to foreign producers who supply the Zimbabwe's imported wheat. In an attempt to make up for this situation, the GoZ's GMB offers to buy wheat from local producers at a price above IPP; however, local producers generally avoid selling to the GMB due to the parastatal's reputation for making late or uncertain payments. Until these constraints to expanding production are addressed through widespread and substantial investment, domestic production of wheat is expected to continue to decline relative to wheat imports.

Domestic production of wheat flour. In Zimbabwe, wheat grain is milled primarily into two main types of flour: 1) baker's bread flour (which is a blend of hard and soft wheat), typically sold in bulk to bakers; and 2) self-rising home baking flour (usually soft wheat only, sold in "pre-packs"), typically sold by millers in bulk to retail supermarket chains. There are minimal volumes of domestically produced specialty flours (e.g., cake, donut, hot loaf, brown flour, etc).

Zimbabwe has an old and well established milling industry; an industry that was largely supported by GoZ policies (i.e., GMB price controls) until early 2009. As of 2010, Zimbabwe reportedly hosted 38 wheat mills, with a reported installed capacity to mill over 400,000 MT of flour per year.¹⁹ The table below reproduces the inventory of wheat millers, as reported by Kapuya et al., with updates on the status of a subset of the larger mills as of April 2012 field research. Though the team was unable to confirm whether all of these mills are still in operation two years after the 2010 inventory was conducted, the team did confirm the closures of several of the largest mills due to lack of liquidity.

Table 13. Inventory of Zimbabwean Wheat Millers per Kapuya et al. 2010 Study, with Updates as of April 2012

Name	Capacity per hour (MT)	Updates as of April 2012
National Foods (Harare)	34	2 wheat mills (in Harare and Bulawayo) are operating, with combined 37% capacity.
National Foods (Bulawayo)	19	2 wheat mills (in Harare and Bulawayo) are operating, with combined 37% capacity.
Blue Ribbon Foods (Harare)	18.75	Struggling to remain open. Reported operating at 25% due to difficulty accessing credit to procure raw materials.
Alpha Mills (Harare)	7.5	Operating at 60% capacity. Newer equipment (installed 2004). Toll milling for Victoria Foods. (Also has capacity to mill maize).
Victoria Foods (Harare)	6.5	Struggling to remain open. Alpha Mills is currently toll milling for Victoria Foods.
Walezim Investments	6.3	
Victoria Foods	6	Struggling to remain open. Alpha Mills is currently toll milling for Victoria Foods.
Rize Milling Company	5.4	
Dilcrest Enterprises P/L	5.2	
Claylot Investments	5	
Pluplon Investments	4.2	
Claylot Investments	4.5	
Pairnex Foods	4.2	
GMB Mills	4	Offline (at least in part due to outdated equipment).
Kuwadzana Millers	4	
Jing Feng Enterprises	3.7	
Manyame Milling (Marondera)	3.6	Located in Marondera; considered one of the more viable milling operations at present. "Sunrise" brand, considered very competitively priced, high quality, with attractive packaging.
Bakers' Best (Chiseller Services)	3	
Nutresco	3	Owned by Blue Ribbon Food Industries (holding company).
Beluki Investments (Pvt) Ltd	3	
Broadhavens	2.8	
Simboti	2.7	
Overeast Investments	2.6	
Central Milling Company	2.5	
Strong Bread Bakery	2.5	
Claylot Investments	2.1	
Deplaat Investments Pvt Ltd	1.9	
Crewsh Investments	1.5	
Macsherp Milling	1.5	
Linebay	1.36	
Gumbas Milling	1.25	
Folay Investments	1	
Turzen	1	
Mahari Sunset	0.9	
Muongwe Milling	0.625	
Grindsberg Investments	3.5	
Breakfast Foods	10	
Ammar Foods/Ladka Enterprises	6	
CKP Milling	0.4	
Total	189.485	

Source: Kapuya et al. 2010, with updates per USAID-BEST March/April 2012 field visit.

17 <http://www.thezimbabwean.co.uk/news/zimbabwe/57591/20-million-for-winter-wheat.html>.

18 http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Grain%20and%20Feed%20Annual_Pretoria_Zimbabwe_7-11-2011.pdf.

19 Kapuya et al. 2010.

Mills. As of April 2012, the country hosts approximately four large or larger-medium²⁰ industrial wheat mills, only two of which are operational and appear financially stable. Dozens of small to smaller-medium mills exist in and around Harare and Bulawayo, many of which have closed altogether or have mothballed²¹ their plants. During the April 2012 field visit industry informants reported overall utilization of milling capacity is in the 35-40 percent range, with substantial variation.

While the milling industry certainly benefited from years of GoZ intervention in the wheat market, the closure of mills has had an important negative effect on employment opportunities. The milling industry used to employ 15,000-20,000 permanent staff, but currently employs less than 5,000 permanent staff.²²

Primary constraints to flour milling include lack of liquidity, uneven and expensive electricity, high labor rates (exacerbated with dollarization), and fluid national policies affecting the wheat market. The lack of liquidity has generally constrained millers to mill only small quantities of wheat at a time. This situation has very quickly resulted in mills operating at such low utilization rates that they cannot cover their fixed costs. (Rent is very high and is one of the highest fixed costs.)

Years of hyperinflation and ongoing lack of liquidity, have resulted in nearly all mills using outdated milling equipment. Very few companies have access to capital to enable equipment refurbishment. National Foods milling operations have benefited substantially from Innsco and Tiger Brand shareholdings, principally because these investments have increased National Foods's access to cash for equipment, retooling, and access to raw materials.

As with many Zimbabwean industries, unreliable and expensive electricity remains a major constraint to milling operations. Many mills are burdened with old Zesa (electricity) debt which, for many mills, amounts to hundreds of thousands of dollars and prevents them from running. While availability of electricity is reported to have improved in Harare, it has worsened in Bulawayo. Finally, the country's minimum wage of US\$350 per month makes labor relatively expensive compared to regional trading partners; Zambia's is US\$170-180 per month, and Mozambique's is US\$100 per month. These relatively high wage rates create further disadvantages for Zimbabwean millers attempting to compete in the national market with regional competitors.

Several millers are toll milling for other companies. For example, with an installed capacity to mill 60 MT per day of wheat, and 100 MT per day of maize, Alpha Mills is considered a smaller mill, but is currently toll milling for Victoria Foods (which is considered a larger mill).

²⁰ In relative terms, Zimbabwean wheat mills with a milling capacity on the order of 5-8 MT per hour are considered medium scale, whereas larger industrial mills have a capacity of 18-34 MT.

²¹ Mothball: to stop work on an idea, plan or job, but leaving it in such a way that you can start on it again at some point in the future (Cambridge Online Dictionary, May 2012).

²² USAID-BEST field interview with Zimbabwean Millers Association, April 2012.



Photo by Fintrac Inc.

High fixed costs, combined with lack of access to raw materials, motivate larger mills to maintain brand market share by entering into toll milling arrangements with smaller mills. This small scale miller of maize and wheat toll mills for one of the largest wheat flour producers in the country, Harare, Zimbabwe, March 2012.

Bakeries. Zimbabwe once hosted six to seven large bakeries, but today only two remain (Baker's Inn and Proton). Baker's Inn is the largest industrial bakery in the country, and currently bakes 380,000 loaves per day. Proton, a fairly new bakery, is currently baking 100,000 loaves per day. Lobel's, which was in business for many years baking bread and biscuits, still makes biscuits, but has reportedly gone out of the bread-making business very recently. In comparison to these very large bakeries, one smaller bakery (Probrand, which is owned by Progroup) bakes only 9,000 loaves per day. Other bakeries, such as Mitchell's (Blue Ribbon) have cut back production due to the parent company mill's faltering operations. Bakeries source flour from domestic mills when possible, and fulfill the rest of their flour needs from neighboring countries.

Domestic use of wheat by-products. By-products of the domestic wheat milling industry, known as wheat middlings,²³ including offal and bran, are used by the livestock industry in the manufacture of stock feed. These by-products provide protein for stock feed. Although many other countries commonly rely on soybeans for protein for animal feed for large stock (including cattle), in Zimbabwe, soybeans are considered too expensive to use for cattle feed. Instead, soybeans are only used almost exclusively in feed for poultry and hogs.

At present, the feed manufacturing industry sources about 80 percent of its total bran supply from domestic sources, and imports the remaining 20 percent from Malawi and Zambia. Wheat bran was particularly difficult to access within Zimbabwe last year. The high price of wheat bran, and a strong demand from South Africa, has tempted domestic mills to export maize and wheat by-products to feed manufacturing plants.

²³ The global wheat industry refers to wheat by-products as wheat middlings, millfeed, or wheat mill run.

Imports. As stated earlier, Zimbabwe currently imports approximately 97 percent of its wheat/wheat flour requirement. Approximately 50 percent of this requirement is imported as grain, and 50 percent as flour .

Most millers report they require a wheat grain with a 12-13 percent protein content to improve gristing qualities to obtain baker's quality flour .

As reported by USDA, in one recent year (May 2010-April 2011), Zimbabwe imported just over 194,000 MT of wheat.²⁴ While the largest share of wheat originated from RSA during the reported period, German, Eastern European, US, Australian, Argentine, Canadian and Mozambican wheat represented important contributions. As of April 2012, millers and traders report that Argentina dominates the Zimbabwean wheat import market, though imports are still sourced from a similar variety of origin countries as in previous periods (see table below).

Table 14. Wheat Imports (MT), May 2010-April 2011

Country of Import	Quantity Imported (MT)
South Africa	61,127
Germany	25,044
Lithuania	20,797
USA	13,496
Australia	12,696
Argentina	11,066
Canada	10,962
Mozambique	11,860
Malawi	7,982
Zambia	2,582
Brazil	1,152
United Arab Emirates	9,229
Singapore	6,074
Total	194,067

Source: Reproduced from USDA Gain report, originally from ZIMSTAT – Ministry of Finance.

Zimbabwean millers use international traders, such as Atlas, Holbud, AfriGrain Trading, Intergrain (Paperhole Investments), Croplink, and Staywell to purchase wheat grain. Each vessel holds 15,000-20,000 MT of grain, which is more than any one mill can generally afford to purchase at once.

Holbud has been operating in Zimbabwe as a wheat and maize trader for nearly 20 years. Atlas, a South African company, also trades in both wheat and maize.

Financial arrangements with the traders who access supply ensure mills that can pay cash and maintain a consistent supply of wheat grain.

Wheat flour is also imported, mainly from Mozambique and South Africa, and then sold through local retail outlets including TM and Spar. Flour from Mozambique is largely in bulk and targeted to bakeries, while South Africa wheat flour arrives as “pre-packs” targeted to retail consumers, and sold through South African supermarket chains. During the past three years, as a result of dollarization, Turkish wheat flour has heavily penetrated the Zimbabwean market, and now competes primarily with Mozambican wheat flour in local bulk trade markets (bakeries and large wholesalers).

²⁴ Last year, the same USDA source reported 280,000 MT, which reflects the growth in demand as the economy has improved.

A trader buys grain with the intent to resell at a later time or in a different market at a higher price.

A broker is paid a commission for the service of acting as an agent for farmers or buyers to collect and deliver grain to buyers. A broker does not take ownership of the grain.

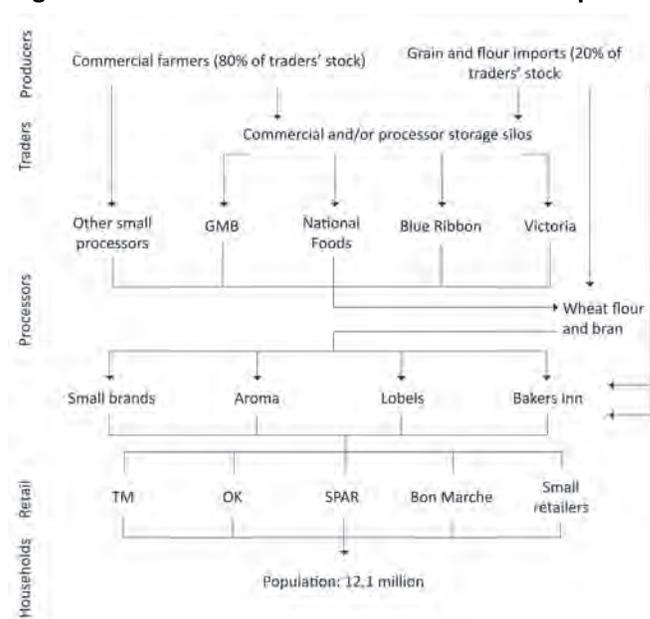
Exports. Though Zimbabwe previously exported wheat, there have been no recent exports of either wheat grain or wheat flour . There have been recent exports of wheat bran by National Foods to South African buyers for use by stock feed manufacturers. An indeterminate volume of wheat bran per year (at a April 2012 price of US\$150 per MT (freight on board (FOB) Aspidale) are presently exported.

Food aid. The USAID-BEST team is unaware of any wheat grain or flour food aid distributions or monetizations in Zimbabwe.

Although Title II food aid has very frequently included bulgur wheat in both emergency and development relief food aid rations, on the order of just over 38,000 MT per year,²⁵ bulgur wheat is not considered a substitute for wheat. In particular, bulgur wheat is eaten in raw grain form as a porridge, and not transformed into flour or baked goods.

The figure below illustrates the wheat/wheat flour marketing chain.

Figure 7. Wheat/Wheat Flour Value Chain Flow Map



Source: USAID-BEST/Fintrac, adapted from Kapuya et al 2010 to reflect market conditions as of March/April 2012

²⁵ Title II bulgur wheat to both WFP and PVOs over the last five years (2007-2011) has averaged 38,218 MT per year. Tonnages drastically decreased in 2010 (12,290 MT) and in 2011 (1,480 MT).

4.5.3. Government Policy

As two of three major staples (maize, flour, and bread), flour and bread were under government price control (what is often referred to as the “3 and 17 policy”).²⁶ Between 2001 and early 2009, the wheat sector was subject to marketing and trade restrictions (including government price controls, trade licensing requirements, and government-sponsored procurement).²⁷ The GoZ continues to monitor the prices of maize, flour, and bread, and retains the right to reintroduce price controls through the Control of Goods Act, which remains on the statutes, but has been ‘set aside’ since liberalization in February 2009.

The GoZ continues to subsidize wheat production through the subsidized distribution of seed and fertilizer.²⁸ However, as with maize or other grain industry supports, GMB input distributions for wheat producers have been frequently delayed, preventing farmers from planting at the recommended time.

Last year, the GoZ set a target for winter wheat plantings of 45,000 hectares; only about 6,000 hectares were planted, however. This represented a decline from 12,000 hectares in the 2010 winter cropping season.²⁹

In an April 10, 2012 news report, the GoZ “...unveiled \$20 million to finance the 2012 winter wheat programme at the same time appealing to the Ministry of Energy and Power Development and Zesa ‘to make necessary arrangements to ensure adequate supply of electricity to wheat growing areas...’”³⁰

Since the country’s transition to more free market policies, and removal of tariffs on raw grain, wheat imports are determined by non-tariff barriers and are priced based on IPP.

Millers and bakeries also operate under an ongoing threat of price controls being re-imposed. Although millers have successfully lobbied the GoZ to introduce duties to protect local industry, the GoZ has changed the duties and surtax applicable to wheat and its by-products. As of March/April 2012, there is no duty or surtax on wheat grain.

On self-rising flour “pre-packs” (fast-moving consumer good (FMCG)), there is a 15 percent customs duty and 25 percent surtax. According to the Miller’s Association, this is a small market; with the imposition of the duties/surtax, local millers now have a 100 percent market share of “pre-packs.”

Though a national fortification policy has been under parliamentary consideration for nearly eight years, there is

26 Under this policy, the most basic consumer foods (mealie meal, bread, and flour) were under GoZ control, while 17 other basic commodities (including, for example, sugar and cooking oil), were under monetary policy control. USAID-BEST field interview.

27 Kapuya et al 2010.

28 As an example, in 2011, subsidized prices were US\$15/25kg of seed and US\$15 for 50kg of fertilizer, compared to the market prices of US\$30 for 25kg seed and US\$32 for 50kg fertilizer, respectively (Source: USDA GAIN).

29 <http://www.thezimbabwean.co.uk/news/zimbabwe/57591/20-million-for-winter-wheat.html>.

30 <http://www.thezimbabwean.co.uk/news/zimbabwe/57591/20-million-for-winter-wheat.html>.

presently no law or practice of fortifying flour or meal. In the last year, however, the GoZ requested creation of a task force to examine the fortification policy which may signal progress towards such a policy. The task force includes the MoH, UN agencies, and NGOs. According to sources, the task force plans to conduct a flour flow analysis to assess how much it will cost a company to fortify flour, and how far-reaching fortification may be in terms of vulnerable populations. In addition, the task force is reportedly also developing guidelines for industry to ensure proper fortification practices.³¹

There appears to be some confusion regarding the status of fortification practices among mills. UN Agency staff was under the impression that Blue Ribbon and possibly other mills were voluntarily fortifying flour; however, key informant interviews with both Blue Ribbon and National Foods mills suggest that is very unlikely. There is wide agreement that some bakeries add additives to increase volumes (potassium bromate) and/or to whiten the flour (ascorbic acid) – these additives do not have nutritional benefits.

4.5.4. Starch Substitution

The typical Zimbabwean diet is very limited in its diversity. Approximately 66 percent of the diet is based on cereals, with the bulk of the diet made up of maize.³² Demand for wheat appears to be driven by the need for an inexpensive carbohydrate source, and convenience and relatively affordable price of pan style bread, and the increasing ubiquity of bread.

Although bread may be substituting for other staple carbohydrate sources (maize, sorghum, millet), there is no reason to expect that in the short-term or medium-term, monetization of a small percentage of the overall current commercial wheat supply would in any way create a disincentive to produce these other staple grains. Indeed, consumer preferences are stronger for maize over wheat-based products, and so the monetization of wheat would not be expected to have any negative impact on maize production or processing. The convenience of bread relative to small grains, especially for younger generations (especially mothers), is reflected in consumers’ natural preference for sadza or bread over the small grains.

4.5.5. Description of Competitive Environment

Even as recently as two years ago, there were more than 35 wheat mills, and 6-7 large bakeries. With the country’s economic collapse and shift in GoZ policies that once supported the local milling industry, market shares have become concentrated as mills have continued to close without steady supply of raw materials, and without favorable protectionist policies. However, very stiff competition from Mozambique and Turkey influences pricing in the wheat sector.

31 Personal interviews, April 2012. See also <http://www.sph.emory.edu/wheatflour/Africa/Zimbabwe.pdf>.

32 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe.

National Foods is the only operational mill with financial strength. Victoria and Blue Ribbon, although still operational, are struggling to keep the mills running.

National Foods has 60 percent market share for the formal market of wheat flour, with the other 40 percent met through smaller mills and imported flour.

National Foods is a publically-listed company; shareholders include Innscor (37 percent), Tiger Brands (37 percent), workers' trust (10 percent), and public stocks (16 percent). National Foods is fully vertically and horizontally integrated. The company's mills produce flour for the company's bakery, called Bakers Inn,³³ as well as other bakeries and the FMCG market. National Foods has two operational wheat mills, one in Harare and another in Bulawayo.³⁴ Combined, the two wheat mills are reportedly operating at a combined 37 percent capacity. National Foods uses traders like AfriGrain Trading to procure both wheat and maize grain. National Foods's wheat flour sales were 2,000 MT per month prior to the imposition of the customs duty; since flour duty imposition the company's sales average 35,000 MT per month.

Blue Ribbon has only one operational wheat mill at present, in Harare. The mill reportedly operates at approximately 25 percent capacity.

As noted above, a relatively small mill (Alpha Mills) is currently toll milling for Victoria, which appeared to be nearly non-operational as of early May 2012.

As illustrated in Table 13, many wheat mills have closed or are currently struggling to remain open; only three large mills are presently operational, and only two are on sufficiently strong financial ground to remain operational, despite that they too are using outdated equipment. These two dominate the wheat flour market.

Millers do have a strong economic incentive to procure more wheat grain locally, since roughly 35-40 percent of the cost of wheat grain is transportation. National Foods is working with the GoZ to boost national production of soft wheat. However, mills will continue to import wheat of higher protein content to produce bakers' flour.

According to key informants, corroborated by market visits, the price of flour is the same across the country.

Regional market dynamics, however, play a key role in setting local market prices, and affect the operations and profitability of Zimbabwean mills. Zimbabwean industry complains that Mozambican wheat products present "unfair competition," because 50 kg of Mozambican wheat flour sells for the equivalent of US\$36 in Mozambique, but then can be transported and sold for US\$30 in Zimbabwe because of the US dollar: Mozambique metical exchange rate differences.

³³ For more information on Baker's Inn products and brands, see <http://www.innsacorinternational.com/brands-bakers-inn.php>.

³⁴ National Foods has seven mills on five sites, but only three of the seven are currently operational. Three mills, which are now closed (Masvingo, Mutare, and Gweru), focused only on maize milling.

Most millers, however, agree that both Mozambique and Turkish wheat flour is of high quality, and that the problem of market competition stems mainly from Zimbabwean millers' insufficient capital investment, which restricts them from upgrading equipment. Without upgraded milling equipment, Zimbabwean mills are less able to compete in international markets.

Key informants indicate that customs duties of 5 percent on 50 kg bags of wheat flour are imposed, but that Turkish suppliers are effectively rebating buyers this 5 percent by offering 5 percent discounts on the price.

4.5.6. Recommendations

The team recommends consideration of US HRW wheat for monetization. Domestic production of this wheat variety contributes a negligible percent to domestic consumption. The latest figures suggest Zimbabwe is producing 12,000 MT of wheat per year. An estimated 97 percent of demand for wheat flour is met through commercial imports from a variety of origin countries. Monetization of wheat, therefore, would not represent a substantial disincentive to domestic producers. Provided participation in tenders is made competitive, and sales are offered on a highest-bid basis, monetization of wheat grain would not represent a substantial disincentive to domestic wheat millers. Indeed, Title II monetization could provide much needed consistent access to high quality wheat, on much more reasonable payment terms than are available to most mills at present.

The study team recommends a maximum tonnage of 40,000 MT of HRW wheat for FY13, which represents a conservative 10 percent of the current year's estimated annual demand for wheat. As of early April 2012, the landed prices are currently US\$400 per MT (most coming from Argentina).³⁵ The study team's conservative recommended volume would generate US\$16 million, at the lowest landed price of US\$400 per MT.

Though National Foods has a dominant market share of the domestic wheat flour market, there are multiple potential buyers, including Victoria Foods (toll milling through Alpha Mills), Blue Ribbon, and smaller mills in Bulawayo. Given the fluidity of market conditions, and the rapid opening and closing of agro-industrial businesses in Zimbabwe, PVOs will need to reassess whether these mills are still operational at the time of a proposed sale.

Importantly, market conditions within Zimbabwe are fluid and the recommended tonnage should be revisited annually, especially if there are any major macroeconomic changes. At this time, the study team believes this is a conservative but reasonable tonnage based on all available data. If the wheat flour trade with Mozambique becomes more substantial, Title II monetization of wheat should be revisited so as to avoid disrupting trade between Zimbabwe and Mozambique.

³⁵ As of early May 2012, prices are \$460 per MT for local wheat, and \$400-420 per MT landed price for Argentine 10-12 percent protein. National Foods was reportedly buying local wheat at March 2012 IPP of \$420, which is the landed price for Argentine or Russian wheat.

There are no stringent seasonality considerations since demand for bread is relatively constant through the year. There is, however, a slight upsurge in demand around the Christian holidays (especially Christmas), and PVOs should take advantage of this increased demand since it should result in higher prices. Calls forward should be adequately spaced throughout the year to accommodate supply chain practices and liquidity constraints among the processors/packagers, wholesalers, and retailers.

As with any monetization activity in Zimbabwe, if there is more than one Title II Awardee, the study team strongly recommends that the Title II partners either: 1) operate under an umbrella monetization arrangement (with one Title II partner acting as lead agent); or 2) work through a purely commercial agent (as opposed to a Title II partner acting as the lead agent) to ensure achievement of the highest sales price. The second option presents three primary advantages: 1) commercial agents are viewed as more professional than PVOs, and will generally have inherently better bargaining power in any sales negotiations; 2) commercial agents constantly monitor the Zimbabwean and international market for trends, prices, supply and demand issues, and are well-informed on commodity trading; 3) smaller PVOs often do not have dedicated resources to do market updates prior to the sale, which is particularly important if there are multiple sales in the year; and 4) commercial agents may continue the service to the smaller millers beyond the life of the monetization activity, which would benefit market development. Importantly, PVOs should consider that the cost normally deducted from the proceeds by the lead agent in an umbrella monetization often is equivalent to the fee a commercial agent would charge. Regardless of modality selected, the position responsible for monetization (e.g., a Monetization Manager) should be a full time, key position that is subject to USAID approval.

In either case, Title II partners are encouraged to consider the use of a collateral manager³⁶ to reduce risk of payment default, and better match the supply of raw materials to the ability of buyers to access cash for payments. A collateral manager is an independent party who takes custody of the commodity for safe keeping, and guarantees to the seller that the commodity will be released to the buyer only by instruction of the seller. Ownership of the commodity remains with the seller. This system would allow the miller (the buyer) to “draw down” grain as needed, and as cash becomes available to the buyer to purchase more grain. This system also removes the risk to the seller of buyer default on the sale of a large volume since the seller (the PVO) retains ownership. Many large mills in Zimbabwe, including Blue Ribbon, have been working under collateral management for many years.

Although a national fortification policy is still under review, and no millers are currently fortifying wheat flour, one creative and important option PVOs should explore is requiring buyers to fortify any Title II wheat purchased for bread

³⁶ The collateral manager does not usually make the sale, but will work with either of the two monetizing entities (a lead agent under a PVO umbrella monetization, or a commercial agent acting on behalf of one or more PVOs).

production. USAID may be able to support the provision of fortificants as part of a package. Several millers reported interest in developing a special brand which could be marketed specifically to young mothers, who are seen as driving market purchases, and other health-conscious consumers.

4.6. Market Analysis: Soybeans and Soybean Meal

This section will discuss the uses of soybeans and soybean by-products, and review the market for soybeans and soybean meal. The following section will focus on the edible oil market specifically, and consider the feasibility and appropriateness of monetizing CDSO and refined vegetable oil.

4.6.1. Overview of Demand and Supply

On a global scale, soybeans are a strategic crop for the edible oils and stock feeds industries. In Zimbabwe, soybeans are an especially critical crop for several reasons: 1) the crop is produced as both a food and cash crop and, although there are production constraints, the crop is presently produced by smallholder farmers; 2) soybeans are an important source of protein for both livestock and human consumption; 3) soybeans’ nitrogen-fixing properties make them an excellent rotation crop with maize and wheat, Zimbabwe’s two main staples, which reduces input costs; and 4) the multiple uses of soybeans and soybean by-products generate numerous opportunities for value-addition through the production and processing of by-products including soybean meal/cake,³⁷ for livestock feed, and soya-based edible oil, soya chunks, soy-flour, and soy milk, all of which are for human consumption.

The domestic market for oilseed crops is well developed, though struggling. The market is supported by the oil extraction industry, and by extension, the stock feed industry. Estimates of total domestic demand vary considerably depending on data source. The national annual requirement for soybeans is approximately 120,000-144,000 MT.³⁸ Extraction rates for soybeans into soybean oil are in the range of 20 percent,³⁹ with extraction rates for soybeans into soybean meal at about 80 percent. Thus, approximately 80 percent of this requirement is in the form of soybean meal for the manufacture of stock feed (primarily for poultry and swine). The remaining 20 percent is in the form of soybean oil.

³⁷ Soybean cake is the by-product of extracting oil from soybeans. Soybean meal is ground soybean cake, ground soybean chips, or ground soybean flake. Soybean meal is very high in protein and a primary input into stock feed globally. In Zimbabwe, soybean meal goes almost exclusively into feed for poultry and swine. Soybean meal goes to white meat producers, whereas soya cake goes to the dairy industry.

³⁸ The Kapuya et al. 2010 study of the grain value chain in Zimbabwe estimated total domestic demand for soybeans at 150,000 MT. Official production trade statistics suggest demand in the last five years has been as low as 55,000 MT per year. The team believes the range of 120,000-144,000 MT soybeans is a reasonable estimate of current national demand.

³⁹ Current oil extraction rates for most oil expressers in Zimbabwe are closer to 16-18 percent because they are using outdated equipment; extraction rates are closer to 20 percent for those using newer equipment. Given that these are rough estimates of the overall requirements, we use the 20 percent figure for simplicity.

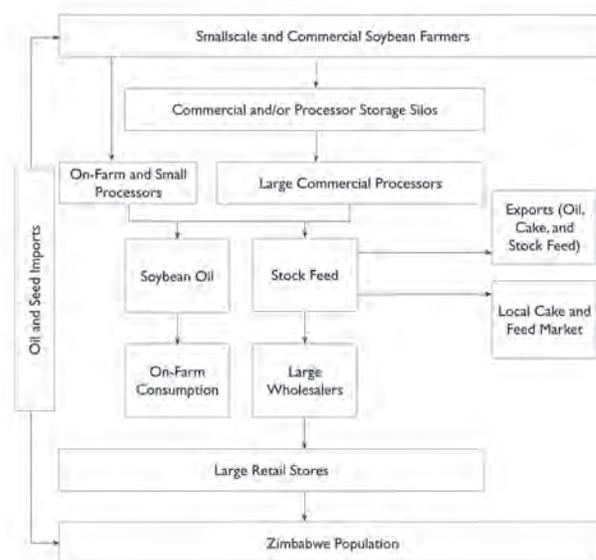
During the extreme food insecurity of 2000-2008, soymeal became an attractive substitute for meat. Even to this day, soya chunks are ubiquitous even in larger supermarket chains. Ten kg bags of soya chunks sell for only US\$9.99 at wholesale warehouses.

Relative newcomer Surface Investments hopes to further improve the health benefits of this increasing popular source of protein by producing and marketing a flavored tofu (texturized vegetable protein) in attractive packaging. Surface notes that most soya chunks currently available on the market in Zimbabwe are produced from soybean meal rather than based on soy flour, which is a reportedly healthier alternative.

Domestic production of soybeans is currently estimated at 30,000 MT per year, or 20 percent of national requirements. Due to GMO policies, soybeans and soybean meal are sourced almost exclusively from India or Brazil. India, which only exports soybean meal, dominates Zimbabwe's soybean market at present, due to relative prices. However, based on key informant interviews, it appears that GM soybean meal has been imported in the past with special permission. According to multiple importers/grain processors, GM maize grain and soybean meal has been imported in the past with special permission. The permission to import any agricultural commodity comes from the Minister of Agriculture. Concurrency to import comes from Cabinet, but the Minister of Agriculture is the Cabinet's expert adviser on agriculture related matters, including GMO.

Zimbabwe's soybean value chain is depicted in the figure below, which shows how raw materials by both LSC producers and small-scale growers are transformed into edible oil and stock feed by market players along the soybean value chain. The meal/cake residue produced after oil expression is further processed into stock feed or soymeal (soya chunks) for human consumption. A number of the country's larger pig and poultry farmers enter into toll processing with oil processing companies, in order to secure feed.

Figure 8. Soybean Value Chain Flow Map

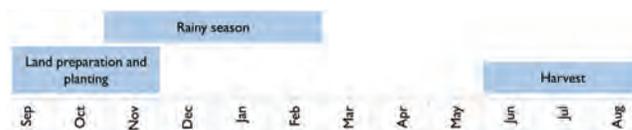


Source: Fintrac/USAID-BEST compilation, adapted from Kapuya et al. 2010.

4.6.2. Supply in Detail - Soybeans for Soybean Meal

Domestic production. Soybeans require either reliable rainfall or irrigation and are grown in rotation with maize, cotton, and wheat, primarily in Zimbabwe's Natural Regions III-IV. As shown in the figure below, soybeans are planted in September-December, and harvested in May-August.

Figure 9. Seasonal Calendar for Soybeans



Source: USAID-BEST/Fintrac.

Soybean production has dramatically declined since FTLRP. Prior to FTLRP, large-scale farmers produced the majority of soybeans, with only a small proportion produced by smallholder farmers. Unlike cotton, which is highly labor-intensive, soybeans are a capital-intensive crop, and profitable operations require combine harvesters. LSC farmers benefited from efficient returns to capital by rotating wheat and soybeans, since both crops are harvested using the same machine. Eventually, large-scale farmers also diversified into summer soybeans production in the low veld, using supplementary irrigation. Following FTLRP, with limited irrigation available, and without new capital investments, soybean production has become predominantly rain-fed.

As Kapuya et al.⁴⁰ reported, the estimated number of soybean producers in Zimbabwe is roughly equivalent to the number of maize producers, an unsubstantiated fact that reflects the shift from soybeans as a LSC crop to a smallholder crop. Indeed, since 2000, communal farmers have shifted a substantial amount of land into soybean production. However, with the shift in production from LSC to smallholder farmers, there has been a loss in overall productivity because smallholders are unable to access combine harvesters and other capital-intensive technologies that would increase productivity and lower costs. Over roughly three decades (1980-2007), relative to commercial yields, communal yields are highly variable and low, ranging from 0.2-1.6 MT per hectare, as compared to commercial yields of 1.7-2.4 MT per hectare.⁴¹

Soybean production figures are conflicting and vary especially due to the fact that most production is now undertaken by smallholder farmers. As Kapuya reports,⁴² the GoZ has reported consistently higher output than the Zimbabwe Commercial Grain Producers Association (ZCGPA). Whereas ZCGPA data show that soybean output has not exceeded 72,000 MT since 2000, MoAMID data indicate output has been as high as nearly 141,000 MT. MoAMID's Second Round Crop and Livestock Assessment predicts this year's soybean harvest at 70,542 MT, a supposed 16 percent decrease from last year's harvest. Key informant interviews with multiple GoZ agencies and large and medium-scale buyers (oil processors) place last year's domestic soybean production at 30,000 MT, with the expectation that this year's harvest may be even lower.

Although there are artisanal presses, soybeans generally enter the processing phase via one of the three major processors who express oil and produce soy by-products. These processors are Surface Investments, Olivine, and URL.⁴³

Processors then sell soybean cake and soybean meal to any number of animal feed manufacturers. The largest actors involved in animal feed manufacture are National Foods, Agrifoods, Profeeds Blue Ribbon, Premier Milling, and Victoria. There is reportedly fairly widespread manufacturing of stock feed on a small-scale (i.e., on-farm) level as well.

In both the edible oil and poultry industries (the two primary consumers of soybeans), Zimbabwe faces stiff competition from South Africa. As noted above, whereas last year, Zimbabwe produced 30,000 MT of soybeans, South Africa grows 700,000-800,000 MT of soybeans every year. The majority of South Africa's soybeans are GMO, however, which restricts imports of South African soybeans for use in the Zimbabwean stock feed and edible oil sectors.⁴⁴ In

40 Kapuya et al. 2010.

41 Though they are still within the general range, Kapuya et al. 2010 report slightly different average yields. Regardless, Kapuya notes that, since the peak yield of 2.3 MT per hectare in 2000/01, national average yields have remained stagnant.

42 Kapuya et al. 2010, pp 43-44. See especially Figure 10 on p.44.

43 As detailed in the next section, National Foods and Blue Ribbon, are no longer expressing oil. National Foods closed its oil expressing plant in Bulawayo in 2007/08, and is doing toll processing through Surface Investments in Chitunguiza.

44 In its recent report on the poultry industry, Technoserve also pointed out

addition, other regional neighbors including Malawi and Zambia also subsidize seed and/or fertilizer, which can render the Zimbabwean grain farmer uncompetitive.

For additional details about the soybean value chain, readers are urged to read Kapuya et al. 2010.

Demand for soybean meal by livestock industry. The domestic livestock industry has suffered tremendously from the downturn in domestic soybean production which has accompanied agrarian reforms. In addition to the takeover and loss of individual farms, shortage of stock feed is one of the primary reasons behind the progressive decline of the livestock sector since FTLRP. Zimbabwe Commercial Farmers Union (CFU) figures illustrate this dramatic drop: the 2008 dairy herd stood at only 41 percent of its 2000 levels, while beef cattle stock stood at only one-third of its 2000 levels.⁴⁵ A large proportion of stock feeds contain soybean meal, due to the feeds' requirements for high protein and energy content. Though the soybean protein source is too expensive to use in feed for ruminants such as cattle,⁴⁶ an estimated 80,000 MT per year of soybean meal is used in white meat production, primarily for the poultry and pig industries. Even for cattle, however, the availability of adequate soybean meal, or other protein source, is critical during certain stages of production. While the commercial viability of beef cattle production depends on a healthy veld for adequate grazing, maize and protein supplements (including cottonseed or soybeans) are critical for winter maintenance and finishing off



Photo by Fintrac Inc.

Cattle feeding in pen built under Title II PRIZE activities in Matabeleland South, Zimbabwe, March 2012.

the RSA parliamentary hearings on poultry brine injections. Brine injections increase the water content and thus the weight of the bird, which is a consumer issue as well as an issue of unfair competition.

45 USAID-BEST 2010 Zimbabwe Market Analysis.

46 A mixture of cotton seed hulls and wheat bran are traditionally used for cattle feed.

Lack of stock feed to keep animals alive, let alone healthy enough to breed, slaughter, and market, has frustrated many Zimbabwean cattlemen. One farmer outside of Bulawayo became so frustrated that he started manufacturing feed himself to ensure his cattle would not die. Today, about 50 percent of the feed he produces is for his own cattle, and 50 percent is for some of the many other cattle owners in Zimbabwe's Natural Regions IV and V who face the same shortage of available feed.

Imports. For the last several years, GM-free soybeans have been imported from India, one of the world's only producers of soybeans from non-GM seeds.

Exports. There have been no exports of soybeans since the 2009 Control of Goods Act banned the exports of key commodities, including soybeans. There have been negligible recorded exports of soybean meal, mostly to RSA for stock feed.

Food aid. There have been no known food aid donations of soybeans or soybean meal. Corn soy blend (CSB), a fortified blended flour which contains US soybean by-products, was distributed as part of C-SAFE and part of WFP emergency distributions in previous years.

4.6.3. Government Policy

Trading in soybeans has been liberalized since 1992. Though the GMB does purchase soybeans, its pricing structure and buying patterns appear to have little influence on production or marketing.

Other than through IDC-partial ownership of the former parastatal Olivine, and IDC-partial ownership of Surface Investments, there is minimal direct intervention of the GoZ in the oil processing industry.

The dependence of the oil processing and stock feed industries on the importation of soybean is, however, heavily and negatively influenced by the GoZ sanitary and phytosanitary (SPS) regulations, which restrict soybean imports to a single origin country (India). Key informants note that GoZ might permit GM soybeans during a time of drastic shortage, but would strictly regulate the import and monitor the delivery of the soybeans to the plant, as well as monitor the processing of the soybeans.

Furthermore, non-GM soybeans are more expensive than their GM counterparts. Kapuya reports that domestic prices for soybeans and soybean oil are heavily influenced by South African and Argentine soybean prices. Prices in both countries are observed by Zimbabwean soybean market actors, but those prices appear to influence market decisions because Argentine soybean harvests, for example, impact international soybean market prices. Neither market is a source of soybeans because both countries produce GM soybeans. The most important

soybean markets to Zimbabwe are Malawi (when exports of soybeans are not banned, as they currently are), India, and Brazil. Zambia had been an important source in the past; recently, however, there is concern that because Zambian farmers are using Panaar seeds (Pioneer Hi-bred, which are GMO), Zambian soybeans can no longer be considered non-GMO.

The implementation of GoZ GMO policy on grains appears fairly clear, which suggests the importation of Title II soybeans for monetization would likely face very stiff opposition. However, GoZ policy on processed commodities is less clear. Because soybean meal is processed, there may be some flexibility in allowing Title II soybean meal to be imported to support agro-industry.

USAID is strongly urged to discuss this issue with relevant ministries to determine whether there may be adequate support for this type of intervention, which is aimed at expanding access to raw materials for the stock feed industry, particularly those large and medium-scale processors that focus on the poultry and pig sectors. Given that 70 percent of all poultry farmers are smallholders, there is some promise of GoZ support for donor interventions targeted towards this industry in particular.

At present, there are no duties on imported soybeans. At present, there are no duties on soybean meal.

Occasionally, there have been other non-tariff barriers to trade, but these have impacted exports rather than imports. For example, in the 2009 Control of Goods Act, MoAMID banned the export of soybeans; this ban was deemed necessary to guarantee domestic food security.

4.6.4. Description of Competitive Environment

Following FTLRP in 2000, and dollarization and the establishment of some political stability with the GNU in early 2009, there has been an enormous shift in the number of soybean producers, and ongoing shifts in the number of and market share of soybean processors.

The estimated number of soybean producers is roughly equivalent to the number of maize producers.⁴⁷ Soybean producers are represented within the two main farmers associations, the Zimbabwe Farmers Union (ZFU) and Commercial Farmers Union (CFU). Within the CFU, oilseed producers are represented by the Commercial Oilseed Producers' Association, which represents their interests in production and marketing.⁴⁸

Soybeans can be sold at farm gate either to the processor or to the processor's brokers/agents. Lack of access to credit precludes soybean farmers from being able to flexibly market crops across the processing industry space. The lack of a vibrant market, particularly near the farm gate (given constraints in access to transport), favors buyers with cash.

47 Kapuya et al. 2010.

48 Kapuya et al. 2010.

Some processors contract directly with farmers for the production of soybeans, and supply necessary inputs of seed and fertilizer. Similarly, some brokers buy crops before harvest and speculate on prices during the marketing season. Other processors contract with growers on terms. Oil processors who procure local soybeans under contract report a buying price of US\$500 per MT for the 2012 season. Most processors, however, must rely on international traders to access imported soybean meal from a limited number of exporting countries. In early April 2012, imported GM-free soybean meal was landing at US\$670-700 per MT.

Three major processors express oil and produce soy by-products. Due both to domestic soybean supply shortages and limited access to reasonably-priced credit, industrial oil processors are currently operating at approximately 30-40 percent of installed capacity. The only three operational processors include Surface Investments, Olivine, and URL. Two companies, National Foods and Blue Ribbon, are no longer processing oil but are producing stock feed. National Foods closed its oil expressing plant in Bulawayo in 2007/2008, and is toll milling through Surface Investments.

Main actors involved in animal feed manufacture are National Foods (multiple), Irvines (poultry), Colcom (pig), Agrifoods (multiple), Profeeds (poultry), Blue Ribbon, Premier Milling, Windmill, Montana (cattle), Craswell (cattle), Victoria, and Burgon Foods (poultry and pig).⁴⁹

To ensure supply of stock feed, poultry and pig farmers frequently enter into toll milling contracts with oil processors. Under such contracts, farmers supply soybeans to the company in exchange for soybean meal stock feed, and allow the company to keep the expressed oil as payment for the milling.

While the majority of processors depend on private capital, Olivine remains majority owned by the GoZ, and Surface Investments is a joint venture between the Midex Group of India (76 percent) and the International Development Corporation (IDC, a GoZ enterprise)⁵⁰ (24 percent).

Though the report is already somewhat outdated because Zimbabwe's markets are so fluid readers are urged to read Chapter 5 of Kapuya et al. 2010 for additional details about key industry players.

4.6.5. Recommendations

Due to GMO concerns, the study team does not recommend monetization of soybeans. The study team recommends a maximum tonnage of 10,800 MT of soybean meal for FY13 for use in pig and poultry feed, which represents a conservative 15

49 Some companies, including National Foods and Agrifoods, manufacture stock feed for many different animals including beef and dairy cattle, poultry, pigs, ostriches, dogs, and fish among others.

50 The IDC describes itself as "a self-financing national Development Finance Institution (DFI)... established in 1963 through an Act of Parliament [and]... wholly owned by the Government of Zimbabwe and accordingly is a state enterprise." (website: <http://www.idc.co.zw/>). Some critics charge IDC with corruption and inefficiency.

percent of the current year's estimated commercial imports of soybean meal. This tonnage is calculated using the following conservative assumptions:⁵¹

- National annual requirement for soybean meal of 96,000 MT⁵²
- Domestic production of 24,000 MT soybean meal
- Domestic shortfall of 72,000 MT soybean meal met through commercial imports

Importantly, the study 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. It is reasonable to assume there will be continued growth in the poultry industry, one of the primary consumers of soybean meal. Demand for soybean meal is expected to grow as incomes increase, creating increased demand for meat, and as more smallholders enter into or expand their poultry enterprises.
2. Stock feed manufacturers unanimously report lack of availability of soybean meal, and liquidity constraints to access raw materials, as major constraints to business. Title II monetization has the potential to unlock growth in demand simply through the extension of credit via standard payment terms.
3. There are no seasonal surges in demand which might make limiting the volume of monetization sales an important factor in reducing the risk of market disruption.

As of early April 2012, the landed prices of non-GM soybean meal from India are currently US\$670-700 per MT. Assuming a conservative landed price in Harare of approximately US\$650 per MT,⁵³ monetization of 10,800 MT of soybean meal could generate US\$7.02 million in proceeds.

Importantly, any Title II activities focused on restoring livestock capacity must take a holistic approach to address production and productivity constraints in the value chains for raw materials used in stock feed. This includes both soybean and soybean meal, particularly for the pig and poultry industries. Changes in commodity prices for feed have a direct effect on the cost of doing business in the poultry and pig industries in Zimbabwe, especially. As the recent Technoserve study on the poultry industry in Zimbabwe⁵⁴ illustrates, interventions in the poultry value chain (including interventions that increase the availability and affordability of feed inputs) can have a strong positive impact on the livelihoods of smallholders, since 70 percent of poultry farmers are smallholders. If a PVO has the capacity and interest to engage in small lot sales of soybean meal, small-scale farmers who produce poultry and pig feed on their farms would be ideal targets.

51 Soybeans converted into soybean meal equivalent assuming 80 percent extraction rate.

52 Recall estimate of national consumption is 120,000-144,000 MT per year.

53 As a reference, in April 2012, Agrifoods reported US\$580 CIF Beira, US\$120 freight to Harare, and no duty. The May 2012 FOB price in US is US\$475 per MT.

54 Technoserve, 2011. Poultry Sector Study Preliminary Findings (PowerPoint presentation).

Market conditions in Zimbabwe are very fluid and therefore, the recommended tonnage should be revisited annually, especially if there are any major macroeconomic changes. At this time, the study team believes this is a conservative but reasonable tonnage based on all available data.

Given the ongoing uncertainty of Zimbabwean macroeconomic conditions, and the ongoing volatility in global soybean prices, the team strongly recommends annual review of edible oil market conditions to refine appropriate maximum tonnages for future FY programming.

Provided the sale is timed so as not to conflict with the domestic harvest during May-August, there are no stringent seasonality considerations since demand for soybeans and soybean meal is relatively constant throughout the year. However, calls forward should be adequately spaced throughout the year to accommodate supply chain practices and the severe liquidity constraints among the oil expressers, stock feed manufacturers, and retailers. Also, because it contains oil, soybean meal has a limited shelf-life which PVOs will need to consider when timing shipments.

As with any monetization activity in Zimbabwe, if there is more than one Title II Awardee, the study team strongly recommends that the Title II partners either: 1) operate under an umbrella monetization arrangement (with one Title II partner acting as lead agent); or 2) work through a purely commercial agent (as opposed to a Title II partner acting as the lead agent) to ensure achievement of the highest sales price. The second option presents three primary advantages: 1) commercial agents are viewed as more professional than PVOs, and will generally have inherently better bargaining power in any sales negotiations; 2) commercial agents constantly monitor the Zimbabwean and international market for trends, prices, supply and demand issues, and are well-informed on commodity trading; 3) smaller PVOs often do not have dedicated resources to do market updates prior to the sale, which is particularly important if there are multiple sales in the year; and 4) commercial agents may continue the service to the smaller millers beyond the life of the monetization activity, which would benefit market development. Importantly, PVOs should consider that the cost normally deducted from the proceeds by the lead agent in an umbrella monetization often is equivalent to the fee a commercial agent would charge. Regardless of modality selected, the position responsible for monetization (e.g., a Monetization Manager) should be a full time, key position that is subject to USAID approval.

In either case, Title II partners are encouraged to consider the use of a collateral manager⁵⁵ to reduce risk of payment default, and better match the supply of raw materials to the ability of buyers to access cash for payments. A collateral manager is an independent party who takes custody of the commodity for safe keeping, and guarantees to the seller that the commodity will be

⁵⁵ The collateral manager does not usually make the sale, but will work with either of the two monetizing entities (a lead agent under a PVO umbrella monetization, or a commercial agent acting on behalf of one or more PVOs).

released to the buyer only by instruction of the seller. Ownership of the commodity remains with the seller. This system would allow the miller (the buyer) to “draw down” soybeans or soybean meal as needed, and as cash becomes available to the buyer to purchase more raw materials. This system also removes the risk to the seller of buyer default on the sale of a large volume since the seller (the PVO) retains ownership. This system could be especially effective in reaching the small and medium size stock feed manufacturers in Natural Regions IV and V who are targeting the livestock industry in likely Title II implementation areas.

4.7. Market Analysis: Edible Oil

This section reviews the edible oil market, and considers the feasibility and appropriateness of monetizing Title II CDSO and refined vegetable oil.

4.7.1. Overview of Demand and Supply

As noted above, though it is struggling, the domestic market for oilseed crops is well developed and supported by the oil extraction industry, and by extension the stock feed industry. Zimbabwe’s traditional edible oilseed crops are soybeans, sunflowers, and groundnuts.⁵⁶ Production of sunflower and groundnut for edible oil are considered a cottage industry, produced at the household level, for which figures are unavailable but believed to be negligible. One source estimates on-farm and hand pressers at the village level contribute about 6 percent to total edible oil consumption.⁵⁷ Cottonseed has recently become a very prominent source for edible oil, particularly as production of soybeans has drastically declined following FTLRP. As discussed in section 4.6 above, the by-product of oil extraction (oil cake or meal) is sold as animal feed.

Most key informants agree that Zimbabwean consumers prefer cottonseed oil because it withstands heat well and can be reused.

Consumption of edible oil is currently estimated at approximately 53,640 MT (approximately 60 million liters) per year, approximately 25-40 percent⁵⁸ of which is met through domestic processing, and 60-75 percent of which is met through imports of refined vegetable oil.⁵⁹ Assuming a population of 12.1 million, this translates into a national per capita average of edible oil consumption of 4 kg (or 5 liters), which is well below the WHO recommended 19-21 kg per capita per year.

⁵⁶ Groundnuts are considered a “woman’s crop” in Zimbabwe, and are the last to be planted on the homestead.

⁵⁷ Kapuya et al 2010, p 49.

⁵⁸ Per Surface Investments (the largest processor), 60 percent of the refined vegetable oil market is served by imports, and 40 percent by domestically refined vegetable oil. Per URL, the refined vegetable oil market is served by 75 percent imports, and 25 percent by domestically refined vegetable oil, though this may reflect the southern market, which is closer to South Africa and farther from two of the three large processing plants in Zimbabwe.

⁵⁹ Kapuya et al. 2010 reports estimated consumption at 36 liters per capita per year. USDA GAIN reports recently estimated edible oil consumption at 100,000 MT per year. Based on review of all available secondary reports, and interviews with all major oil processors, the team believes both of these are gross overestimates.

With the declining availability of raw materials, illiquidity of Zimbabwean agro-industry, outdated equipment, and removal of tariffs on refined oil the edible oil market is dominated by imported blended oils from RSA. Although marketed as sunflower and soybean blend, the imports through Durban are largely believed (at least by the processors, not necessarily the buying public) to be bleached, deodorized, Asian palm oil which is simply packaged in Durban before onward sale to the Zimbabwean market.

Not surprisingly given income levels, Zimbabwean consumers are very price conscious about oils; even still, there is a strong preference for local oils. URL reports consumers are willing to pay 5-10 percent more for local edible oil brands versus the RSA imports.

4.7.2. Supply in Detail: Soybeans for Soy Oil

Domestic production. The domestic oil production sector can absorb nearly 500,000 MT of soybeans per year. Total national soybean production of only 30,000 MT per year translates into the processing of 6,000 MT of domestic edible oil from local soybeans.

In comparison, domestic production of cottonseed is approximately 150,000 MT. About 70 percent of that volume is available for crushing by Surface Investments, Olivine and URL, and about 30 percent of that volume is available for seed.

In the 2010 study, Kapuya recently reported that soybean accounts for 42 percent of the country's expressed oilseeds, with the remainder made up of sunflower and cottonseed. However, based on key informant interviews in March/April 2012, cottonseed appears to have surpassed soybeans as a source for edible oil, and sunflower's contribution has been reduced to almost nil. This reflects both the lack of domestic soybean availability, and the influx of imported refined vegetable oil from RSA.

Once soybeans and cottonseeds are expressed, the cake and meal enter the feed industry, part of the oil enters agro-industry (for use in processed foods), and part of the oil is refined for household use. Refined vegetable oil for household use is distributed through wholesalers and retailers.

Depending on the cost of distribution, wholesalers peg mark-ups within the 5-10 percent range.⁶⁰ The largest wholesalers are currently Muhammed Mussa and Bhadhella wholesalers, along with smaller, more regional players like NR Richards. Wholesalers sell oil to retailers, small traders, institutions (schools and hospitals, for example), and some households who buy in bulk.

The major retailers are the three national supermarket chains: TM (publically listed, part of the Meikles group), OK (publically listed, majority shareholder is Delta) and Spar (publically listed, majority shareholder is Innscor). Other important buyers of processed oil are snack food manufacturers.

60 As reported in USAID-BEST 2010, Zimbabwe Market Analysis; April 2012 field research suggests these mark ups continue to hold.

As noted above, although Zimbabwe has a total installed capacity to process approximately 500,000 MT of oilseed,⁶¹ a large portion of that installed capacity (more than one-quarter) is not truly usable because the equipment is obsolete.⁶² With the exception of Surface Investments, which installed a state-of-the-art plant in 2006, all Zimbabwean plants are in the range of 20-30 years old and can no longer extract and process competitively.

According to Kapuya, as of 2009, about 63 percent of capacity was usable. Since that study, another 7 percent of the reportedly usable installed capacity has been either confirmed or appears to be out of commission.

Based on USAID-BEST key informant interviews in late December 2009 and again in March/April 2012, average actual utilization is closer to 35 percent. This average masks wide variation, however; Surface Investments, which has the most updated equipment and highest utilization rate, reports it currently operates at 39 percent of installed capacity.

The table below, adapted from Kapuya and updated based on key informant interviews during the field visit summarizes processors' installed capacity, apparently usable capacity, and actual utilization.

Table 15. Soybean Oil Pressing Industry Capacity (2009, updated as of April 2012)

Name	Installed Capacity (MT)	Usable Capacity (MT)	Update: % operating capacity as of April 2012*
Surface Investments	200,000	180,000	Operating at 39% capacity; claims 81% market share of local oil, 22% including imported oil
Olivine	120,000	80,000	Struggling to remain in operation
National Foods	90,000	40,000*	Closed; Surface Investments is toll processing of National Foods
United Refinerie	80,000	10,000	
Grafarx Consortium	25,000	12,000	Unknown
Others	15,000	15,000	Unknown
Total requirement @ 100% capacity	530,000	337,000	
Deficit Met By Imports		45	

Source: Kapuya et al. 2010.

Note: * USAID-BEST updated conditions as of April/May 2012 field visit.

Imports. As noted above, approximately 60-75 percent of demand for edible oil is met through imports of refined vegetable oil from South Africa.⁶³ The oil is bottled and branded in South Africa, prior to importation into Zimbabwe. Depending on market location, the average price of imported oil is 5-10 percent lower than local oil. Due to the price differential, wholesalers report that they are disproportionately selling imported oil from RSA, though they do still stock and sell local oils.

61 Kapuya et al. 2010.

62 One study estimated fixed costs for a plant at US\$20 million (Kapuya et al. 2010). One key industry informant noted that oil processors need US\$30-40 million to recapitalize but, at 15-25% interest, simply cannot afford to do so.

63 Kapuya et al. 2010 reports estimated consumption at 36 liters per capita per year. Based on review of all available secondary reports, and interviews with all major oil processors, the team believes this is a gross overestimate.

South African imports dominate many wholesale and retail markets. Although marketed as sunflower and soybean blend, the imports through Durban are largely believed (at least by the processors, not necessarily the buying public) to be bleached, deodorized, Asian palm oil which is simply packaged in Durban before onward sale to the Zimbabwean market.

Exports. As noted above, the Zimbabwean oil processing industry does produce soybean cake as a by-product during the oil extraction process, and soybean meal is also exported primarily to RSA for stock feed. Currently, there are limited exports of refined edible oil. According to official trade data Zimbabwe exported an average of 100 MT of refined oil during the period 2006-2010. According to interviews with Surface Investments, they have exported an indeterminate volume of bulk refined oil to Malawi.

Food aid. The study team is aware of only one monetization of crude vegetable oil in Zimbabwe. As noted in Chapter 2, CNFA monetized 2,500 MT of US CDSO in Zimbabwe in 1999 under a USDA Food for Progress program to support agribusiness activities.⁶⁴ Since then, there have been no monetization sales of CDSO in Zimbabwe. The team is unaware of any monetization of refined vegetable oil in Zimbabwe by any donor or implementing partner.

However, US refined vegetable oil, which is soya-based or a soya-blend and cannot be certified as GMO free, has been a mainstay of Title II donations to Zimbabwe for a decade. In the five year period from 2007-2011, distributions of Title II vegetable oil averaged 7,100 MT per year.⁶⁵ Past and current WFP refined oil donation have included Title II soya-based oil and Asian palmolein oil.

4.7.3. Government Policy

Examination of the edible oil market suggests that partially processed commodities destined for human consumption may be acceptable imports under current GoZ GMO policy. An estimated 60-75 percent of consumer demand for edible oil is met through imports of South African vegetable oil, which cannot be certified as GMO-free.⁶⁶ Moreover, as noted immediately above, US refined vegetable oil, which is soya-based or a soya-blend and cannot be certified as GMO free, has been a mainstay of emergency programming for the last decade.

Prior to the 2009 Control of Goods Act, which was designed to limit exports to ensure sufficient food was available on the local market, some oil was exported to neighboring Southern African Development Community (SADC) countries.⁶⁷

⁶⁴ US International Food Assistance Report-1999 and CNFA Agribusiness Volunteer Program in Southern Africa, Report on Activities 4/1/00-9/30/00, 11/6/00; and phone interview with Tracy Slaybaugh-Mitchell, ex-CNFA Zimbabwe Country Director.

⁶⁵ Per AMEX data.

⁶⁶ Despite that many industry insiders believe that the oil imported through Durban, South Africa is not really a blend of soybeans and sunflower oil (but instead is bleached, deodorized, Asian palm oil), the official GMO policy should preclude importation of South African soybean by-products since the majority of soybeans grown in South Africa are GMO.

⁶⁷ USAID-BEST Zimbabwe Market Analysis 2010.

In mid-2008, in another effort to improve food security, the GoZ removed duties on imported basic goods, including cooking oil. This opened Zimbabwean markets to a flood of South African brands. However, in August 2011, the GoZ imposed a 15 percent duty on refined vegetable oil to stimulate domestic oilseed production and oil processing. At the time of the March/April 2012 field visit there was no duty on CDSO, and there was a 15 percent duty on refined vegetable oil.

Although there has been a fortification policy under review for the past eight years, and some promising signs that this policy may come to law within the next five years, there is currently no fortification of edible oil.

The study team is unaware of any large-scale GoZ-led investments in the oilseed sector.

4.7.4. Competitive Environment

There are only three industrial oil processors presently in operation: Surface Investments and URL, and Olivine (which is struggling). National Foods has closed its oil processing plant due to its inability to compete with less expensive imported cooking oil. Surface Investments is presently toll milling for National Foods.

Liquidity poses the greatest constraint to expansion which would enable processors to utilize more of their mills' installed capacity. The current liberal trade policies that, at least in the short run, increase Zimbabwean consumers' access to relatively cheap edible oil from South Africa (perhaps really from Asia), on the other hand, make it nearly impossible for mills to increase utilization enough to become competitive enough so they can refurbish/replace processing equipment.

The implementation of the indigenization law continues to pose a threat to foreign investment, including foreign owned banks such as Barclays, Standard Chartered, and Standard (RSA), among others. If enforced, this could significantly impact on available credit and the various monetization options detailed in this report. Though differences on implementation modalities exist within the unity government, recent experiences in the mining sector (i.e., Zimplats) are a cause of concern.

Despite increasing market concentration at the processor level, competition from imports and the existence of extremely price conscious customers translate into a competitive market. A recent study estimated the costs and mark-ups at each step of the soybean seed to soybean oil value chain. The study found the contribution of raw material to the final retail product is nearly 58 percent of the product's retail price, while the manufacturer's margin as a percentage of the retail price is just over 11 percent.⁶⁸

During recent years of economic instability, where Zimbabwean companies have faced both shortages of domestic raw materials and severe liquidity constraints due to high interest rates, many companies have been forced to forge strategic alliances with foreign companies to access financing and inputs to maintain

⁶⁸ Kapuya et al 2010, p54.

operations. Several companies employed this strategy during the last decade, including National Foods and Olivine. These alliances have saved many companies from going under, as foreign partners have the credit and trade relations to source inputs from trading houses in South Africa, and other major exporting countries. Most recently, URL acquired Zambian investors.⁶⁹

National Foods is a listed company on the Zimbabwe Stock Exchange, with majority shareholdings by Tiger Brands (37 percent), Inncor (37 percent), and employee's trust (10 percent). Olivine is currently owned by Africa Limited Company (ALCO)⁷⁰ and IDC (51 percent) (a GoZ enterprise). While 10 years ago, Olivine had nearly 2,500 staff, today its staff totals only 800 employees. Olivine currently focuses on bakers' fat which is used by confectioners to produce pies and breads. This reduces Olivine's costs because it no longer has to pay for the marketing or packaging involved in retail sales. Surface Investments is a joint venture between the Midex Group of India (76 percent) and the IDC (GoZ) (24 percent).

Market share is distinct in different geographic areas due to transport costs. In the north, Surface Investments dominates locally produced brands, with imported refined vegetable oil on approximately equal footing in terms of total sales. In the east, in the Mutare market, National Foods' brands capture about one-third of the market, with the other two-thirds shared by Olivine and imported South African refined oil. In some of the southern markets (Masvingo, Victoria Falls, Hwange, Midlands), URL reportedly enjoys 80-90 percent market share.

As illustrated in Table 15 above, the market share of the major actors in oil processing has evolved. Whereas Kapuya reported that Blue Ribbon still had 9 percent market share in 2010, the company has now exited the edible oil processing business. Olivine, which Kapuya reported had a 27 percent market share, is essentially out of the edible oil business altogether at present, and concentrates on bakers' fats. Surface Investments self-reports an 81 percent market share in local oil production, and a 22 percent share when imports are included.

Each processor has more than one brand targeted towards different consumers, and distinguished partly by blends. Typically, Olivine concentrates on soya and cottonseed blends, URL concentrates on both, Surface Investments focuses on cottonseed but has a soybean brand, and also toll processes soya and cottonseed for National Foods.

National Foods' brands include Gold Seal (pure soya), Red Seal (20 percent cottonseed, 80 percent soybean), and Home Pride (100 percent cottonseed). Olivine's brands include Olivine (15 percent cottonseed, 85 percent soybean) and Soyala (marketed as 100 percent soybean). Surface Investments brands are Pure Drop (100 percent soybean) and Golden Glow (100 percent cottonseed). The most popular (and ubiquitous) brand is Dlite (South African import, reportedly bleached and deodorized Asian palm oil).

⁶⁹ Key informant interviews, May 2012. Exact ownership is unclear.

⁷⁰ The Cotton Company of Zimbabwe (Cottco) was delisted and restructured in 2008 to create a new holding company called Africa Limited Company (ALCO).

4.7.5. Recommendations

For several reasons, the study team does not recommend monetization of refined vegetable oil, whether in large or small lots. While the market failures that small lot monetization sales could seek to address (lack of access to credit among small and medium size traders, which results in lack of penetration of rural markets) are certainly of profound importance in Zimbabwe, Title II refined vegetable oil is the wrong commodity to sell in either large or small lot sales.

"Importing refined vegetable oil feeds people, which is important, but you don't create much employment."

- key informant from edible oil sector

First, and most importantly, there is substantial underutilization of installed capacity. Importation of refined vegetable oil for sale on the commercial market will directly compete with already struggling Zimbabwean oil processors. On the other hand, importation of CDSO would bring benefits to rural beneficiaries from traditional fundraising, and would permit value addition and employment creation in the process.

Second, consumers reportedly prefer cottonseed oil and are extremely price-sensitive, raising doubt about the efficiency of monetizing Title II refined vegetable oil through, for example, small lot sales.

Third, potential buyers of larger lot sizes are already accessing sufficient supply of imported refined vegetable oil through South African suppliers, and would be unlikely to find marketing of relatively more expensive Title II refined oils a promising business venture.

The study team does, however, recommend CDSO for monetization. The combination of declining availability of raw materials, illiquidity of Zimbabwean agro-industry, and outdated equipment, is quickly creating a structural deficit. Even under traditional large lot sales, Title II monetization of CDSO could play a key role in helping to address the lack of access to raw materials and credit.

The study team recommends a maximum tonnage per year of 8,450 MT of CDSO for FY13, which represents a conservative 15 percent of the current year's estimated annual demand for refined vegetable oil. This tonnage is calculated using the following conservative assumptions:

- Consumption of refined vegetable oil is currently estimated at 53,640 MT
- Crude to refined rate of 95 percent
- An intentional lack of distinction by the study team between market share of imports versus domestic brands

Importantly, the study 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. It is reasonable to assume there will be slow but continued growth in demand for domestically refined edible oil as the economy continues to stabilize, incomes increase, and the effect of recently re-imposed duties protect oil processors from South African imports.
2. Oil processors unanimously report lack of raw materials and lack of cost-effective financing as major constraints to operating at greater scale, which would increase their ability to compete with South African imports. Title II monetization has the potential to unlock growth in domestic refined vegetable oil supply, simply through the extension of credit via standard payment terms.
3. There are no seasonal surges in demand which might make limiting the volume of monetization sales an important factor in reducing the risk of market disruption.

As of early April 2012, the landed price for crude oil was US\$1,500-1,600 per MT. Assuming a landed price in Harare in this range, monetization of 8,450 MT could generate between US\$12.675 million and US\$13.52 million in proceeds.

Importantly, market conditions in Zimbabwe are very fluid and the recommended tonnage should be revisited annually, especially if there are any major macroeconomic changes. At this time, the study team believes this is a conservative but reasonable tonnage based on all available data. If macroeconomic conditions continue to improve, and GoZ tariffs have the intended effect of increasing market share for Zimbabwean oil processors, this maximum tonnage should be revisited within one year to ascertain whether a higher ceiling would be more appropriate.

There are no stringent seasonality considerations since demand for edible oil is relatively constant through the year. There is, however, a slight upsurge in demand around the Christian holidays (especially Christmas); whether PVOs can take advantage of this increased demand depends on supply chain practices and liquidity constraints among the processors and retailers. PVOs will need to conduct market research, including interviews with potential buyers, to assess the most appropriate timing of calls forward to accommodate any buyer's supply chain practices.

As with any planned monetization activity in Zimbabwe, if there is more than one Title II Awardee, the study team strongly recommends that the Title II partners either: 1) operate under an umbrella monetization arrangement (with one Title II partner acting as lead agent), or 2) work through a purely commercial agent to ensure achieving the highest sales price. The second option presents three primary advantages: 1) commercial agents are viewed as more professional than PVOs, and will have generally have inherently better bargaining power in any sales negotiations; 2) smaller PVOs often do not

have dedicated resources conduct market updates prior to the sale, which is particularly important if there are multiple sales in the year; and 3) commercial agents may continue the service to the smaller millers beyond the life of the monetization activity, which would benefit market development. Importantly, PVOs should consider that the cost normally deducted from the proceeds of the lead agent in an umbrella monetization often is equivalent to the fee a commercial agent would charge. Regardless of modality selected, the position responsible for monetization (e.g., a Monetization Manager) should be a full time, key position that is subject to USAID approval.

In either case, Title II partners are strongly encouraged to consider the use of a collateral manager⁷¹ to reduce risk of payment default, and better match the supply of raw materials to the ability of buyers to access cash for payments. A collateral manager is an independent party who takes custody of the commodity for safe keeping, and guarantees the seller that the commodity will be released to the buyer only on instruction of the seller. This system would allow the processor (the buyer) to "draw down" CDSO as needed, and as cash becomes available to the buyer to purchase more CDSO for refining. This system also removes the risk to the seller of buyer default on the sale of a large volume since the seller (the PVO) retains ownership. Depending on who the buyer(s) is(are), the use of collateral management may be less important to reduce the PVO's financial exposure. As market conditions are likely to change between the time of this report writing and the planning of a monetization sale, PVOs must reassess the number and financial health of potential buyers.

Although a national fortification policy is still under review, and no oil processors are currently fortifying edible oil, one creative and important option PVOs should explore is requiring buyers to fortify any Title II CDSO. USAID may be able to support the provision of fortificants as part of a package.

Finally, although not for fundraising purposes, USAID and Title II PVOs are urged to seriously consider the importation of Title II CDSO for toll processing in-country to meet all or some of its refined vegetable oil requirements for Title II distributed rations for humanitarian purposes.⁷² While distributed Title II refined vegetable oil appears targeted fairly well to households with inadequate purchasing power, refining the edible oil in-country, rather than importing it already refined could provide substantial additional economic benefits to Zimbabwe. Importing CDSO with the intent to refine and then distribute the edible oil in-country would allow oil processors to increase utilization of installed capacity, lower per unit costs of production, and strengthen local market capacity to meet domestic food requirements.

⁷¹ The collateral manager does not usually make the sale, but will work with either of the two monetizing entities (a lead agent under a PVO umbrella monetization, or a commercial agent acting on behalf of one or more PVOs).

⁷² Surface Investments has entered into a similar arrangement in the past with a Canadian NGO, and appears to have the refining packaging, and labeling capabilities, in addition to the willingness to work with NGOs to engage in such in-country value-addition for charity.

4.8. Market Analysis: Maize Grain/Maize Flour

For several reasons outlined below, the study team recommends *against* monetization of either maize grain or maize flour at this time. For completeness, a short summary of the markets for maize and maize flour/meal are included here nonetheless. Given the wealth of market studies focused on the grain markets in Zimbabwe, particularly the maize markets, the reader is referred to the most recent and thorough of those reports for further details. Recommended resources include: 1) Kapuya et al., 2010; 2) 2011 GAIN report on feed; 3) ACDI-VOCA Market Mechanisms Study; 4) USAID 2010 Agricultural Sector Market Study; and 5) South African Ministry of Agriculture Maize Market Profile 2010-2011

4.8.1. Overview of Demand and Supply

White maize is the primary staple food across Zimbabwe.⁷³ Average consumption is estimated at 120 kg per capita per year (based on a population estimate of 12.1 million).⁷⁴ An estimated 50,000 MT⁷⁵ is used in the production of animal feed (primarily for cattle, poultry, and pigs).⁷⁶ The maize varieties grown and traded in Zimbabwe are, at least in theory, GMO-free. Although Zimbabwe was previously a net exporter of maize, it now faces regular maize deficits. This is in part due to the loss of LSC farms, where yields averaged 3-5 MT per hectare, as compared to 1 MT per hectare on communal farms.⁷⁷ Shortfalls in national maize production are complemented through importation of maize grain, chiefly from Zambia and Malawi. Maize meal from South Africa has also been frequently imported when duties have been lifted, such as during early 2009 to June 2011. There are currently fewer than 18 mills (defined as having a registered brand, or toll milling for other larger mills). The livestock industry, which depends on maize as part of feed production, has declined in recent years in part due to lack of adequate and predictable maize supply for feed (as well as due to FTLRP and occasional drought). Demand for maize for feed is estimated at 50,000 MT per year.⁷⁸ Maize for feed is limited primarily to beef cattle, dairy cattle, and pigs, with some poultry.

73 The national dish, sadza, is made from maize meal and water, and eaten with "relish" which can be any kind of vegetable stew (often greens like kale), though nyama, (meat, including beef or chicken), is common among families who can afford it.

74 The 2010 Agricultural Sector Market Study reported an estimated range for maize consumption of 110 kg to 150 kg per capita per year. The GoZ Second Round Crop and Livestock Assessment Report reported 110 kg per capita per year as an estimate of consumption for all cereals excluding wheat (maize, sorghum, finger millet and pearl millet). Based on interviews with market informants knowledgeable about wheat and maize consumption patterns, the team believes consumption of wheat is closer to 120 kg per capita per year.

75 Stock feed manufacturers fairly consistently reported 50,000 MT of maize is currently used in feed production. The 350,000 MT figure in the GoZ Second Round Crop Assessment is for all grains excluding wheat (maize, sorghum, finger millet and pearl millet) and appears to include MT set aside for seed as well as loss.

76 Field interviews; GAIN.

77 As noted in Chapter 5, current maize yields average 0.55 MT per hectare for smallholders and 2.66 MT per hectare on large-scale commercial farms.

78 The 2010 Zimbabwe Agricultural Sector Market Study reported demand for maize for stock feed at 100,000 MT in early 2010. The decline in demand for maize for stock feed appears to reflect decline in livestock holdings.

At present, the country's only maize exports appear to be limited volumes of maize bran, which is sold by Zimbabwean millers to the stock feed industry in Zimbabwe and South Africa. As maize products face an export ban under the Control of Goods Act, millers must show that the Zimbabwean market is not able to purchase the bran, in order to secure permits to export. An indeterminate volume of maize bran per year (at an April 2012 price of US\$200 per MT) is presently exported.

Combined, the GoZ, PVO, and WFP programs continue to distribute relatively large volumes of maize grain. As far as the study team is aware, all of this distributed grain is procured either locally (rarely) or regionally (especially from Zambia) for milling in Zimbabwe by the beneficiaries. Some food security programming involves distribution of cornmeal and/or CSB, which are produced outside Zimbabwe. See Chapters 2 and 6 for more details.

The GoZ continues to regularly intervene in the maize market, both through GMB's role as buyer of last resort, special deals with neighboring country governments to secure sufficient grain, and frequently changing tariff and non-tariff barriers.

4.8.2. Recommendations

The study team recommends *against* monetization of either maize grain or flour at this time. Maize is the staple food commodity, grown by nearly every farmer in Zimbabwe. While the price of maize grain on the market may reflect IP, which is currently lower than the cost of domestic production, the heavy regulation of the maize market by the GoZ creates an inappropriate market dynamic in which to intervene with a monetized commodity. The production and marketing of maize and maize flour for human consumption are extraordinarily politically sensitive.

The market for maize destined for animal feed, however, is less politically sensitive, and in dire need of increased availability of raw materials. Monetization of feed-grade maize to the stock feed industry would be an appropriate use of this tool to address food security in Zimbabwe. The US currently only has GM yellow maize available for programming, which would create additional hurdles for any PVO seeking to sell maize to the Zimbabwean stock feed industry. One costly option would be to conduct a grain swap in South Africa (swapping GM maize for non-GM maize), but this would involve a PVO (or donor) paying the additional cost of purchasing more expensive organic white maize for eventual importation and sale into Zimbabwe. A more appropriate option would be to continue to monitor GoZ policies and stock feed industry trends to determine whether US feed-grade maize might become a viable option at some point during the course of the upcoming Title II development program cycle.

4.9. Market Analysis: Sorghum

4.9.1. Overview of Demand and Supply

Zimbabwe produces both red and white sorghum, primarily on smallholder farms. The market for small grains,⁷⁹ which includes sorghum, is relatively underdeveloped compared to the maize market. The market is characterized by reduced trading volumes, high trading costs, and thin markets.⁸⁰

The commercial market for sorghum is limited to red sorghum, which is used by the brewery industry. Subsistence farmers produce white sorghum primarily for own consumption in porridge form as a maize meal substitute, with some limited village-level (primarily barter) commerce. Along with millet, sorghum is traditionally grown in the semi-arid areas (Natural Regions III, IV, and V). The red sorghum brewery industry relies almost exclusively on local production for inputs, which strongly suggests monetization of sorghum to supply this industry would have a negative impact on the livelihoods of the smallholder farmers who produce sorghum.

There is no commercial market to speak of for white sorghum for direct human consumption; smallholders who produce sorghum do so because sorghum is considered a food security crop, due to its relative drought tolerance. Sorghum is much less preferred to maize. Producers and consumers both report that the extra labor required to process sorghum, compared to maize, discourages greater sorghum consumption. Older consumers who were raised eating sorghum regularly, however, reportedly continue to grow and buy sorghum for direct consumption.

Although sorghum is used in stock feed in many countries, Zimbabwe's livestock industry does not currently incorporate sorghum into feed formulations.

4.9.2. Supply in Detail

Domestic production. Sorghum is a summer rainfall crop, and is considered drought tolerant because it thrives under relatively dry climatic conditions with erratic precipitation.⁸¹ As stated earlier, sorghum production is concentrated in Natural Regions II, IV, and V; farmers in Natural Region III can switch between maize and sorghum depending on rainfall.

Zimbabwe produces 100,000-150,000 MT of red and white sorghum annually. Yields have declined with the shift from LSC to communal farms. Lack of availability of improved seed varieties further inhibits improved yields. Even still, unlike other grains, sorghum production levels have been largely maintained even following FTLRP, which reflects the shift by smallholders from production of other grains to production of this food security crop over larger land area.

79 Small grains in Zimbabwe include sorghum (red and white), pearl millet (mhunga), and finger millet (r poko).

80 USAID Office of Food for Peace/USAID-BEST Project, 2010. Zimbabwe Market Analysis.

81 USAID Office of Food for Peace/USAID-BEST Project, 2010. Zimbabwe Market Analysis.

The market for sorghum is less well-integrated than for more highly traded grains like maize and beans. Compared with maize prices, wholesale prices for sorghum are highly variable; suggesting that localized supply and demand conditions drive prices, rather than transport or marketing costs. In addition, sorghum prices are nearly 50 percent higher than maize, which reflects sorghum's current status as a 'specialty' grain, consumed only by a select group of consumers. These include primarily more health-conscious consumers, and elderly consumers who retain strong preferences for sorghum.

Imports. There are minimal recorded imports of sorghum. According to FAOStat, Comtrade, and USDA PSD databases, imports averaged no more than 36,810 MT in 2006-2010; some of this tonnage appears to have been sorghum for the USAID-funded MAP program, which monetized US sorghum at subsidized prices.

Exports. There are minimal recorded exports of sorghum. FAOStat reports zero exports in 2009-2010, with a maximum of 41 MT exported in 2007.

Food aid. Sorghum was previously monetized under the C-SAFE MAP between 2003 and 2009 (see Chapter 2 for more details). The study team is unaware of any sorghum monetizations by any donor at present. Title II sorghum was previously distributed in WFP's emergency programming. The study team is unaware of the use of sorghum in other donors' programming. US sorghum is GMO-free and, therefore, would not face any potential GMO concerns among GoZ stakeholders.

The most commonly used sorghum in Title II programs is yellow #2 or better sorghum, which can be used for both human or animal consumption, as well as for brewing. White sorghum is available for food aid programming in small quantities.⁸²

4.9.3. Government Policy

The MoH is apparently promoting drought resistant food crops (small grains such as sorghum and millet) in drier areas. Some donors have also begun trying to promote small grains in their programming, including USAID through the current CRS PRIZE emergency food assistance program. However, GoZ policies still primarily favor maize and wheat.

4.9.4. Description of Competitive Environment

There is presently only one large industrial brewery with national reach, one medium brewery, and some small artisanal breweries. Delta Beverages,⁸³ by far the largest market actor, absorbs some 95 percent of marketed red sorghum. To procure its inputs, Delta contracts several thousand⁸⁴ small-scale

82 USAID Commodity Reference Guide, accessed May 2012.

83 Among Delta's brands are Chibuku (opaque sorghum beer), Zambezi, Eagle Lager, and Pilsner. See <http://www.delta.co.zw/index.php> for an overview of Delta Corporation, company history, and brands.

84 According to research the USAID-BEST team conducted in 2009, Delta was contracting an estimated 4,000 sorghum growers. It is unclear how many contract farmers there are at present. See USAID Office of Food for Peace/USAID-BEST Project, 2010. Zimbabwe Market Analysis for further details.

commercial (SSC) and LSC farmers in Mashonaland Central, Mashonaland West, Manicaland, and Masvingo provinces. As the dominant buyer/market for smallholders growing red sorghum, Delta is a price setter for red sorghum. The Bulawayo Council brand, Ingwebu, is much smaller than Delta, and found in and around Bulawayo.

The market for white sorghum is competitive, and relies on barter and cash sales among farming households in rural communities. Given that white sorghum is for human consumption, the price of white sorghum is set based on the price of red sorghum.

4.9.5. Recommendations

As noted above, monetization of sorghum to supply the brewery industry would have a negative impact on the livelihoods of the smallholder farmers who produce and market sorghum to the industrial brewery. Therefore, the team recommends against monetization of sorghum to commercial buyers.

PVOs should consider whether sorghum (grain or flour) might be an appropriate commodity for distribution, perhaps “monetized” and sold at subsidized prices on the market via a MAP-type program. Despite its nutritional value, sorghum is a much less preferred food and therefore would self-target in a distribution or subsidized sales program. PVOs and INGOs interested in promoting drought-resistant sorghum production in Natural Regions IV and V should consider buying sorghum locally for inclusion in food distribution or subsidized sales programs.

4.10. Market Analysis: Rice

4.10.1. Overview of Demand and Supply

Relative to maize and wheat, demand for rice is relatively small; however, demand is growing fairly quickly, especially among urbanites. Whereas rice consumption was an estimated 30,000 MT per year in 2010, it has increased dramatically to 78,000-96,000 MT per year. This rapid growth is due primarily to an increase in incomes and an increase in the availability of rice in markets throughout the country, as the economy stabilized following dollarization.⁸⁵ Official trade statistics corroborate this trend.

Rice is considered a special dish, because it is not an indigenous food and because it is relatively expensive compared to the main staples of maize and wheat. For example, as of April 2012, 2 kg of rice is roughly the price of 10 kg of maize meal. Rice can be consumed with peanut butter for a special meal, for example, when guests visit.

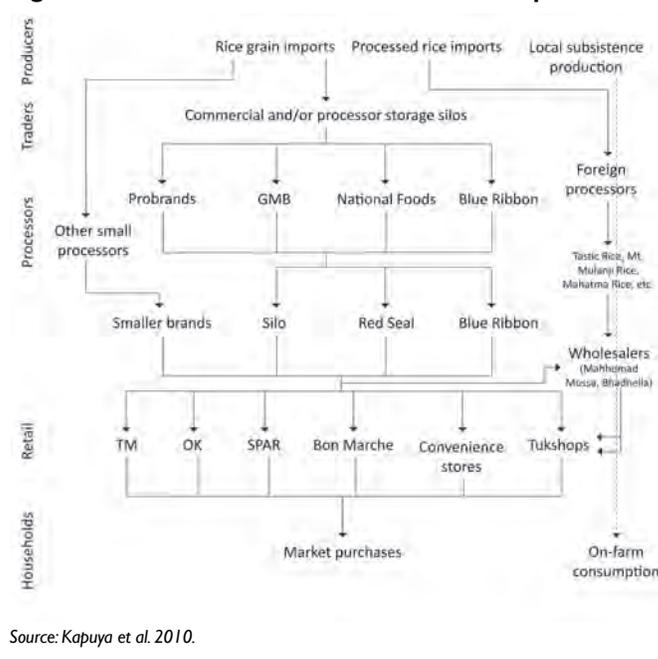
Zimbabwean consumers buy both milled and broken rice. There is a strong preference for long grain white rice, with maximum 15 percent broken. Though its neighbor, South

⁸⁵ Though Kapuya et al reported nearly 146,000 MT imported between 9/08-9/09, this figure was based on import permits, rather than actual imports. The FAO/WFP 2009 CFSAM reported an estimate of 22,000 MT imports for 3/09-3/10 [citation: <http://www.fao.org/docrep/011/ai483e/ai483e00.htm#8>]. Field interviews suggest Kapuya’s figure is an overestimate, and the FAO/WFP figure was an underestimate.

Africa, is strictly a parboiled rice market, the Zimbabwean market is dominated by non-parboiled rice. Because rice is not considered a staple, consumer demand is more sensitive to changes in rice prices than to changes in maize or wheat product prices. While the 2010 report by Kapuya et al. noted that demand for milled rice has been increasing at a faster rate than broken rice,⁸⁶ key informants during the March/April 2012 field visit reported that demand for milled rice, with 5-15 percent broken, has remained quite stable for the last few years. It is not possible to confirm either way with official trade statistics; however, visits to local markets in major urban centers around the country suggest a very wide availability of milled rice, with 100 percent broken rice a rarity.

Approximately 99 percent of rice is supplied through imports, which are packaged and distributed by large processors (packagers). A value chain map completed by Kapuya et al. is reproduced below, with minor updates, to highlight primary rice market channels.

Figure 10. Zimbabwe Rice Value Chain Flow Map



4.10.2. Supply in Detail

Domestic production. There is minimal domestic production of rice. Local rice is generally considered to be low quality and is produced by subsistence farmers for own consumption as a food security crop. A recent Food and Agriculture Organization (FAO) estimate places production at less than 700 MT in 2009, and MoAMID figures place 2009/2010 domestic production at 778 MT,⁸⁷ suggesting that domestic production contributes less than 1 percent maximum to national consumption.

⁸⁶ See pg. 58, Kapuya et al. 2010.

⁸⁷ Kapuya et al. 2010.

Imports. There are no known imports of paddy (unmilled) rice. Milled rice originates from Thailand, Pakistan, India, China, and Malawi. Commercial companies import rice, or purchase from traders, for processing (cleaning and packaging). Rice is cleaned, and pre-packed into smaller bags for retail sale. Wholesalers buy imported rice, repack in retail-oriented “pre-packs,” and sell at their wholesale depots. “Pre-packs” are sold in up to 10 kg bags, with 2kg bags being the most popular.

Rice is imported through Beira, Mozambique, and is primarily packaged in Mutare due to cost advantages; for wholesalers who package and distribute from Mutare (e.g., National and Bhadella).⁸⁸ This system offers distinct advantages, due to the high transport costs. Transport reportedly costs US\$1,500 per load to bring rice from Mutare to Harare.⁸⁹

From the wholesalers’ perspective, three categories of rice buyers exist: 1) schools and hospitals, which buy 25 kg bags; 2) retailers and supermarkets, which buy 2 kg and 10 kg packages; and 3) buying clubs,⁹⁰ which buy a range of package sizes including 1, 2, 10, and 25 kg.

Exports. There are no known exports of rice.

Food aid. An indeterminate volume of food aid rice has been donated by China. Kapuya et al. reports approximately 440 MT of rice may have been imported as food aid between September 2008 to September 2010.⁹¹ As rice is considered a specialty food, it is inadvisable to distribute rice as in-kind food aid. The team is not aware of any monetizations of rice food aid in Zimbabwe to date.

4.10.3. Government Policy

Prior to early 2009, rice was subject to a 15 percent duty and 15 percent value-added tax (VAT). Now, market actors import 25 kg sacks and larger, duty and VAT-free, because rice is domestically packaged and distributed. “Pre-packs” (up to 10 kg packs targeted to consumers) face a 15 percent duty.

With this effectively 30 percent lower price, households have begun more regularly incorporating rice in their diets. However, since early 2012, the GoZ has imposed a 25 percent surtax across the board. Market informants note that, rather than negatively affecting rice imports, this surtax has simply created overall food price inflation

4.10.4. Description of Competitive Environment

Though National Foods dominates the rice market, the market appears to be quite competitive. Consumers are reportedly price sensitive, and can choose from a large number of brands

⁸⁸ The “Mariana” brand, a Mozambican label and likely Asian origin, is also packaged in Mutare. Bhadella is supposedly an exclusive distributor, but the team also saw Mariana brand rice for sale in the wholesale section of Sakubva market in Mutare.

⁸⁹ Key informant interviews.

⁹⁰ Buying clubs are various types of informal groups who pool cash to buy products in bulk at wholesalers to distribute among themselves and make savings. Examples include a group of church members, women in a neighborhood, work colleagues, etc.

⁹¹ Kapuya et al. p. 57

targeted to different consumer groups. There are a number of companies operating as “processors” (i.e., packagers) who act as wholesalers and/or retailers in the rice market: National Foods, Probrands, Bhadella, GMB, Mohammed Mussa, Jasbro, and Metro. National Foods enjoys the largest market share (roughly 50 percent), and currently imports Pakistani and Vietnamese 5-10 percent broken rice. Probrands has the second largest share at present (10-15 percent). Smaller players make up the rest of the market, and include Bhadella (“Mariana”), Metro (“Green Wave”), GMB (“Silo” and “Pagoda” (Thai 5 percent)),⁹² and Jasbro (“Jasbro”).⁹³

National Foods has four grades of imported rice, which it differentiates by brands: Mahatma, the premium brand, is sold almost exclusively in Harare; Mama Africa and Red Seal, which are ‘medium grade’ at 15 percent broken, are sold in Harare (60 percent) and outside the capital (40 percent); the Better Buy brand focuses on the rural consumer.

Most rice importers/processors enjoy 30 days payment terms with their suppliers, with cash-to-cash cycles an average of 45-60 days.

As of April 2012, relative wholesale prices were: Red Seal at US\$18.46 for 20 kg bag (US\$0.92 per kg), Better Buy at US\$15.66 per 20 kg bag (US\$0.78 per kg), and Mariana rice at US\$17.80 for 25 kg bag (US\$0.71 per kg).

4.10.5. Recommendations

The team recommends consideration of Title II milled rice for monetization. Domestic production contributes a negligible percent to domestic consumption, with an estimated 99 percent of demand met through commercial imports from a variety of origin countries. Monetization of milled rice, therefore, would not represent a substantial disincentive to domestic producers. Provided participation in tenders is made competitive, sales are offered on a highest-bid basis, and the commodity is packaged in Zimbabwe, monetization of rice would not represent a substantial disincentive to domestic processors/packagers of rice.

The study team recommends a maximum tonnage of 7,800 MT of milled rice for FY13, which represents a conservative 10 percent of the current year’s estimated annual demand for rice. Milled rice between 5-15 percent broken would be appropriate. Whether 5 percent broken or 15 percent broken would be more appropriate, and be the most efficient use of Title II resources, should be informed by relative prices nearer to the time of a monetization sale. As of early April 2012, landed prices are currently US\$670-US\$700 per MT, regardless of source, dependent on percent broken. Prices have remained fairly stable in the past year. Assuming a landed price in Harare of US\$670 per MT, a monetization at this recommended volume could generate US\$5,226,000 in proceeds.

⁹² Interestingly, while GMB’s commercial venture is not really considered a large player in the rice market by other market actors, GMB reports rice is the second most profitable commodity or GMB, after salt.

⁹³ Jasbro reports it could sell 1,000 MT of rice per year, but is currently selling a bit less because it is not covering the whole country.

Importantly, market conditions within Zimbabwe are fluid and the recommended tonnage should be revisited annually, especially if there are any major macroeconomic changes. At this time, the study team believes this is a conservative but reasonable tonnage based on all available data. If the rice trade with Malawi becomes more substantial, Title II monetization of rice should be revisited so as to avoid disrupting trade between Zimbabwe and Malawi.

There are no stringent seasonality considerations since demand for rice is relatively constant through the year. There is, however, a slight upsurge in demand around the Christian holidays (especially Christmas), and PVOs should take advantage of this increased demand since it should result in higher prices. Call forwards should be adequately spaced throughout the year to accommodate supply chain practices and liquidity constraints among the processors/packagers, wholesalers, and retailers.

As with any planned monetization activity in Zimbabwe, if there is more than one Title II Awardee, the study team strongly recommends that the Title II partners either: 1) operate under an umbrella monetization arrangement (with one Title II partner acting as lead agent), or 2) work through a purely commercial agent to ensure achieving the highest sales price. The second option presents three primary advantages: 1) commercial agents are viewed as more professional than PVOs, and will generally have inherently better bargaining power in any sales negotiations; 2) smaller PVOs often do not have dedicated resources to conduct market updates prior to the sale, which is particularly important if there are multiple sales in the year; and 3) commercial agents may continue the service to the smaller millers beyond the life of the monetization activity, which would benefit market development. Importantly, PVOs should consider that the cost normally deducted from the proceeds of the lead agent in an umbrella monetization often is equivalent to the fee a commercial agent would charge. Regardless of modality selected, the position responsible for monetization (e.g., a Monetization Manager) should be a full time, key position that is subject to USAID approval.

In either case, Title II partners are encouraged to consider the use of a collateral manager⁹⁴ to reduce risk of payment default, and better match the supply of Title II rice to the ability of buyers to access cash for payments. A collateral manager is an independent party who takes custody of the commodity for safe keeping, and guarantees to the seller that the commodity will be released to the buyer only by instruction of the seller. Ownership of the commodity remains with the seller. This system would allow the rice processor/packager (the buyer) to “draw down” rice as needed, and as cash becomes available to the buyer to purchase more rice. This system also removes the risk to the seller of buyer default on the sale of a large volume since the seller (the PVO) retains ownership.

⁹⁴ The collateral manager does not usually make the sale, but will work with either of the two monetizing entities (a lead agent under a PVO umbrella monetization, or a commercial agent acting on behalf of one or more PVOs).

4.1.1. Third Country Monetization (TCM)

TCM is not an appropriate first best option to support programming in Zimbabwe for several reasons. First, there are multiple commodities with sufficient commercial demand and, therefore, there is no expected constraint on the ability of USAID implementing partners to meet any funding needs through in-country monetization. This is particularly true if PVOs monetize non-GM commodities such as wheat or rice.

Second, the sale of any one of several commodities could be made to buyers' markets which range from relatively competitive to very competitive.

Third, given current market conditions, monetization is an appropriate tool to support short, medium, and long-term development of local markets in Zimbabwe. These benefits are in addition to any benefits resulting from the sale and receipt of needed funds for food security programming in targeted rural areas.

Fourth, the current GoZ stance towards the appropriateness of monetization as a tool to support market development is extremely favorable. There is uniform recognition from both the public and private sector that monetization can be a critical resource to improve the availability of raw materials and increase utilization of installed industrial capacity; targeting of the processing industry will reduce Zimbabwe's reliance on imported finished commodities, add value in Zimbabwe, and support the creation of sorely needed jobs.

Finally, Zimbabwe is already at a competitive disadvantage relative to its neighbors due to extremely high interest rates, and the current inability to refurbish plant equipment. While a “one-off” TCM due to exigent circumstances should not further contribute to this issue, if PVOs regularly engage in TCM to fund food security activities in Zimbabwe, this activity would actually have a great potential to inadvertently make Zimbabwean food markets even less competitive and, therefore, ultimately more dependent on continued food aid.

With that caveat in mind, if domestic policies in Zimbabwe suddenly shift such that the current environment becomes suddenly inappropriate for monetization (e.g., the risk of loss is too high, for example), there are several third country markets in the region where monetization would be feasible and appropriate. The table below provides an overview of some of the products in three select markets that may reasonably be considered for third country monetization.

Third Country Monetization

A third country monetization occurs when commodities are sold in one country and the funds generated are used to support the implementation of a Title II program in a different country, usually within the same region.

Third country monetization (TCM, 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.

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. As the final destination of the commodities sold is indeterminate, the relevant reference to ensure that the Bellmont 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 Bellmont analysis be conducted in both the recipient country and the country in which third country monetization takes place.

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.

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 third country monetization country and the Title II development country must endorse the monetization.

Table 16. Import Volumes (MT) of Select Commodities in Three Regional Ports

Commodity	Annual Average Commercial Imports (MT)		
	South Africa	Mozambique	Tanzania
Vegetable Oil (total of CDSO, refined soybean oil, refined sunflower/ safflower oil, and refined palm oil)	560,013	23,599	181,852
Maize grain	481,030	70,620	51,033
Maize flour	1,662	4,849	2,105
Soybeans	30,013	1,342	2,338
Soybean meal	531	116	2323
Wheat grain (does not include durum)	1,210,027	294,461	748,962
Wheat flour	1,652	2,200	25,186
Milled Rice	759,402	153,526	11,987
LIFDC or LDC	No	Yes, LDC	Yes, LDC
Port City	Yes	Yes	Yes
Adequate Port Facilities	Yes	Yes	Yes
Convertible Foreign Exchange	Yes	Yes	Yes
Does Not Present Significant Security Issues	Yes	Yes	Yes

Source: UN Comtrade, accessed May 2012. For total Imports (food aid tonnages not subtracted, but assumed small relative to commercial import volumes). Notes: HS Codes used for vegetable oil: Crude Soy 150710, Refined Soy 150790, Refined Palm 151190, Refined Sunflower 151219; HS Codes used for maize grain 100590; maize flour 110220; soybeans 120100; soybean meal 120810; wheat grain 100190; wheat flour 110100; and milled rice 100630.

Chapter 5. Localized Food Deficits and Distributed Food Aid



Photo by Fintrac Inc.

A baobab tree shelters goats in Beitbridge District, a scene very representative of the Natural Region V, Zimbabwe, March 2012.

5.1. Introduction

The Bellmon Amendment requires assurances that a proposed food aid distribution program will not result in a substantial disincentive to or interference with domestic production or marketing in a recipient country. The extent to which distributed food aid has the potential to have these effects rests fundamentally on whether 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 or trade the food aid, reduce market purchases of food, and/or increase household farm produce sales. Such a response could lower market prices and/or reduce local incentives for production or marketing.

This Chapter provides general guidelines and recommendations to help ensure that distributed food aid programs in Zimbabwe will not disrupt local markets, per Bellmon requirements. These guidelines are provided within a specific framework which analyzes the potential for market impact of in-kind food aid. In addition to considering the analysis and recommendations in this Chapter, Awardees are expected to conduct their own up-to-date market

analysis, needs assessments, and formative research to better understand evolving local market conditions, needs, and the potential range of appropriate responses in Zimbabwe.

This Chapter presents:

1. An overview of available evidence of national, sub-national, and localized maize deficits in Zimbabwe, the movement of staple crops within Zimbabwe (primarily maize), and the private market's capacity to meet localized food deficits. This information is important for distributed food aid in Zimbabwe, because market information provides valuable guidance for interventions.
2. Key considerations for distributed food aid interventions in Zimbabwe (including sections on targeting based on geography, seasonality, and households/individuals; potential food aid leakages,¹ programming activities (maternal and child health and nutrition (MCHN)/1,000 Days), commodity selection, and political affiliation)

¹ Food aid leakages can mean many things, including food aid being given to individuals other than the targeted beneficiaries; theft of commodity; commodity being sold on the markets, and other cases where food aid does not reach its intended beneficiary.

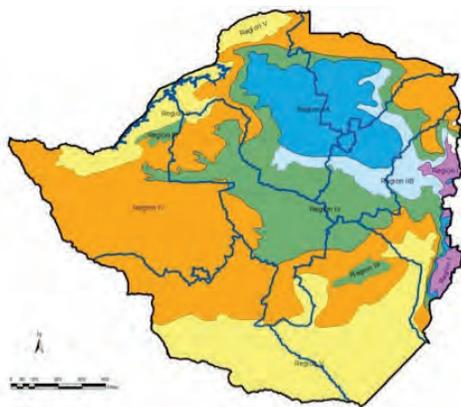
5.2. National and Regional Food Deficits

5.2.1. Overview

Prior to the initiation of FTLRP in 2000, Zimbabwe was a net agricultural exporter in normal years. Agricultural production was concentrated on the country's most arable land (Natural Regions II A/B, as shown on the map below) and dominated by LSC farmers who produced exportable surpluses. With the introduction of FTLRP, commercial farms were generally replaced by smallholder² farms, and communal production overtook the main production areas. Agricultural production from commercial farming areas significantly declined. This change in Zimbabwe's agricultural sector, along with other major macroeconomic changes, has resulted in the country's transformation from a net exporter to a net importer of staples. Furthermore, certain areas of the country suffer from structural food deficits. These areas are described below.

Natural Regions and seasonality. Agro-ecological conditions impact local production and productivity, particularly in predominately rain-fed agricultural systems. Thus, this section begins by describing Zimbabwe's five agro-ecological zones (commonly referred to as Natural Regions, in Zimbabwe), with particular emphasis on regions that have less rainfall and are more food insecure, e.g. Natural Regions IV and V. Distributed food aid in Zimbabwe is presently focused mostly on these areas. The Title II PRIZE program (as described in Chapter 2) undertakes activities in some of the driest and poorest regions of the country, in eight districts which fall within Natural Regions IV and V. See the following figure and table for details on Zimbabwe's Natural Regions.

Figure 11. Zimbabwe Agro-Ecological Zones, with Provincial Borders



Source: USAID-BEST, adapted from FAO 2006.

² Broadly speaking, a smallholder is a farmer with a small amount of land (generally <10 hectares), usually supporting a single household and often producing a mixture of high value crops and subsistence crops. Solely for the purposes of the discussion in this Chapter, we consider farmers of the following land tenure types as "smallholders": communal, A1, Old Resettlement, and small-scale commercial. For the purposes of discussion in this Chapter, we define a largeholder as a farmer with a relatively large amount of land, producing solely for the purpose of selling crops on the commercial market. We consider farmers of the following land tenure types as "largeholders": remaining large-scale commercial, and A2.

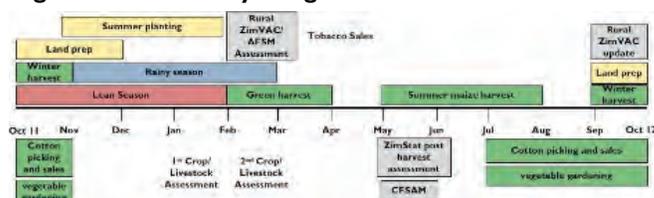
Table 17. Agro-Ecological Zones for Zimbabwe

Agricultural Region	Climatic Conditions	Production Potential	Land Size and Tenancy Potential ³
Region I Specialized and diversified farming	Above 1,050 mm rainfall per annum. Precipitation throughout year.	Afforestation and production of fruit. Intensive livestock. Tea, coffee, macadamia nuts, and other plantation crops (in frost free areas).	7,000 km ² (20% of total area of Zimbabwe).
Region II Intensive Farming	Rainfall 750 – 1,000mm per annum. Relatively short and limited dry spells throughout the rainy season.	Crops and intensive livestock production.	58,600 km ² (15% of Zimbabwe). 74% large-scale commercial land, 22% communal land, 4% small-scale commercial.
Region III Semi – Intensive Farming	Rainfall 650 – 800mm per annum. Fairly severe mid-season dry spell during the rainy season.	Livestock production. Fodder crops and marginal production of maize. Cash crops, maize, tobacco, and cotton.	72,900 km ² (19% of Zimbabwe). 49% large-scale commercial and 8% small-scale commercial.
Region IV Semi Extensive farming	Rainfall 450 – 650mm. Periodic seasonal drought. Severe dry spell during the rainy season.	Livestock production. Drought tolerant crops (sorghum, millet).	147,800 km ² (38% of Zimbabwe). 62% communal, 34% large-scale commercial, 4% small-scale commercial.
Region V Extensive farming	Extremely low and erratic, even for drought tolerant fodder and grain crops.	Extensive cattle ranching. Game ranching.	104,400 km ² (27% of Zimbabwe). 45% communal, 35% large-scale commercial, 20% national parks.

Source: USAID-BEST, 2010. Market Analysis: Zimbabwe.

Zimbabwe, as well as the Southern Africa region, has a unimodal rainy season, with rains typically starting in November and ending in April. The timeline below highlights Zimbabwe's seasonal agricultural events. Note that at time of writing (May 2012), WFP and FAO have both confirmed that the GoZ is not planning to complete a Crop and Food Security Assessment Mission (CFSAM) in May-June 2012 for the 2011/2012 harvest season, counter to the timeline below.

Figure 12. Seasonality of Agricultural Activities



Source: FEWS NET/Zimbabwe, note ZimVAC assessments are typically completed between May-July.

³ Compiled from Zimbabwe Statistical Year, 1997, page 144. The land use and tenancy pattern has changed significantly since 2000 when the FTLRP was formerly initiated.



Photo by Fintrac Inc.

World Vision is managing an irrigation scheme at Malole Dam, Insiza, March 2012.

Main cereals produced during the November-April rainy season in Zimbabwe are maize, sorghum, millet, and barley. Maize typically accounts for 80-85 percent of annual overall cereal production in the country.⁴ Zimbabwe also produces wheat, but typically in the winter off-season, through irrigation.

Because maize is the dominant cereal produced and consumed in Zimbabwe, this Chapter will primarily focus on maize when discussing the grain market.

Estimated cereal supply and demand. Zimbabwe's MoAMID's Second Round Crop and Livestock Assessment Report was published on April 10, 2012. According to the report, the country's predicted harvest for the 2011/2012 season is 1.077 million MT of cereals.⁵ This expected volume is significantly less than the 2010/2011 harvest of 1.608 million MT. Dry spells and erratic rains negatively impacted production in the southern half of the country, and maize production is predicted to decrease by 40-50 percent in the provinces of Mashonaland West and Central, Matabeleland North and South, and Masvingo.

The crop assessment calculates total national cereal requirements for 2011/2012 at 1.734 million MT, leaving a deficit of some 657,000 MT. This estimated deficit of 311,000 MT is expected to be met by 346,000 MT of carry-over by the GMB/GoZ,⁶ the private sector, and international food

aid.⁷ During USAID-BEST field research (March/April 2012), market informants reported that GMB stocks held in the SGR totaled between 400,000-500,000 MT of cereals.⁸ However, the same sources reported that the GMB's storage capacities (which can hold a total of 4.5 million MT) were in great need of rehabilitation. Poor storage conditions are reported to have impacted cereal stock quality; estimates from other sources indicate that only approximately 200,000 MT of the GMB's cereal stocks in the SGR are fit for human consumption.

In addition to uncertainty regarding volume and quality of GMB stocks, sources also reported that estimated cereal production (and, therefore, needs requirements) could vary greatly according to inaccuracies and/or differences in: 1) estimates of domestic cereal production; 2) estimates of storage losses; 3) estimates of carryover stocks; and 4) population estimates. Therefore, a better estimate for the national cereals for the 2012/2013 cropping season would likely be a tonnage higher than the above 311,000 MT estimate, as of June 2012.⁹

As of May 2012, the regional press reports that Zambia's Food Reserve Agency plans to sell 300,000 MT of Zambia surplus maize to Sakunda Trading in Zimbabwe, in response to this deficit.¹⁰

⁴ Per Ministry of Agriculture, Mechanization and Irrigation Development Second Round Crop and Livestock Assessment Report, April 2012 and most recent Zimbabwe CFSAM, FAO and WFP, August 2010. Maize production for the 2011/2012 season is predicted to be 968,000 MT, while small grain production (finger and pearl millet and sorghum) is on average predicted to be 109,000 MT combined.

⁵ Predicted harvest for 2012 includes 968,000 MT (maize), 65,000 MT (sorghum), and 44,000 MT (millet). USDA estimates from May 2012 for maize in Zimbabwe are 900,000 MT. Private sector estimates are even lower.

⁶ GoZ contributions are anticipated through the Grain Loan Scheme (GLS) and other GoZ distribution programs. As of early May 2012, USAID/Harare reported that approximately 100,000 MT of cereals had been distributed through the GLS over the previous few months.

⁷ Ministry of Agriculture, Mechanization and Irrigation Development, Second Round Crop and Livestock Assessment Report, April 2012, p. 23. Food aid is expected to make up less than 15 percent of the total deficit.

⁸ In the 6/13/12 Agricultural Marketing Authority (AMA) notes, it was reported GMB stocks on that date totaled only 238,966 MT of maize. If that is correct, the above cereal deficit would be expected to be larger.

⁹ See OCHA/Zimbabwe and FEWS NET/Zimbabwe websites for further information. This higher estimate has been verified by a number of USAID-BEST interviewees in-country.

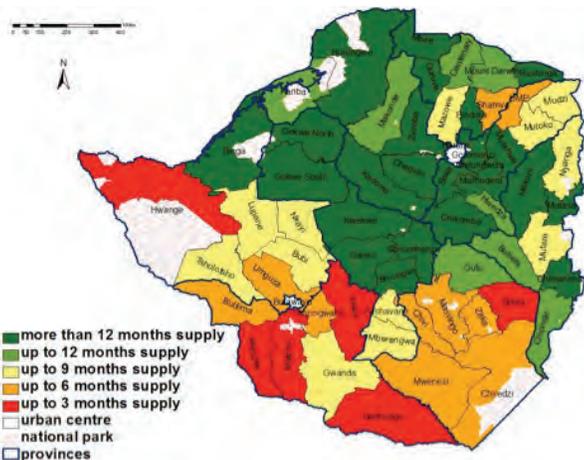
¹⁰ As reported in the *Zambian Watchdog*, May 2012. "Sata Gives Mugabe US\$42.5 million Worth of Maize for Campaigns." Also reported in the *Zimbabwean Mail*, May 2012.

5.3. Localized Food Deficits

This section begins with an overview of localized food deficits based on published food security assessments, and is followed by an analysis of the functioning of the primary staple market. The analysis provides plausible explanations as to why maize does not readily flow from surplus to deficit areas within the country. The existence of localized food deficits particularly in Natural Regions IV and V, suggests that food aid may be appropriate to target to those areas with the greatest deficits. The most appropriate form of food aid, however, requires consideration of how well the market for staples is functioning across the country.

Based on the most recent available data, the April 2012 Second Round Crop and Livestock Assessment Report shows that parts of Matabeleland and Masvingo provinces, and parts of northeastern Zimbabwe, are expected to be the most food insecure regions in 2012. The Zimbabwe Vulnerability Assessment Committee (ZimVAC) also generates an annual rural livelihoods assessment report that identifies food insecure areas and populations. This report is expected to be available in mid-June to July 2012.

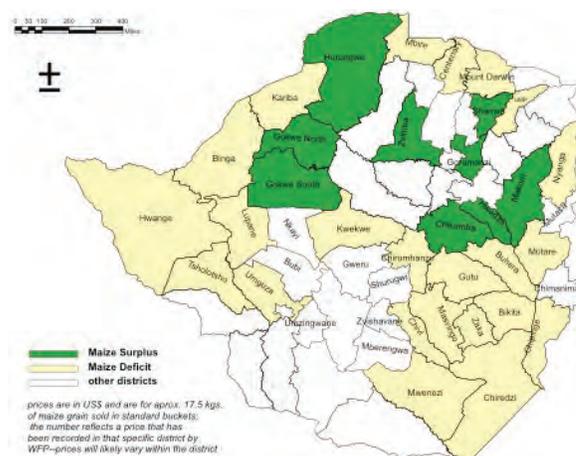
Figure 13. Per Capita 2011/2012 Cereal (Maize and Small Grains) Production at District Level



Source: USAID-BEST, adapted from GoZ Ministry of Agriculture, Mechanization and Irrigation Development Second Round Crop and Livestock Assessment Report, April 2012.

As noted earlier, maize is the most important cereal crop in Zimbabwe in terms of assessing food security, because it forms the basis of the daily diet across the country. Thus, in this Chapter, the USAID-BEST team focuses specifically on the country's maize availability among different geographic areas. See the figure below, which shows maize availability based on information collected from a sub-sample of Zimbabwean traders, as well as from price data, from September 2010 to January 2012. Both types of data were collected through a WFP market monitoring exercise.

Figure 14. Zimbabwe Maize Surplus and Deficit Districts, as Identified by a Sub-Sample of Zimbabwean Traders (Prices Measured Monthly between September 2010 and January 2012)

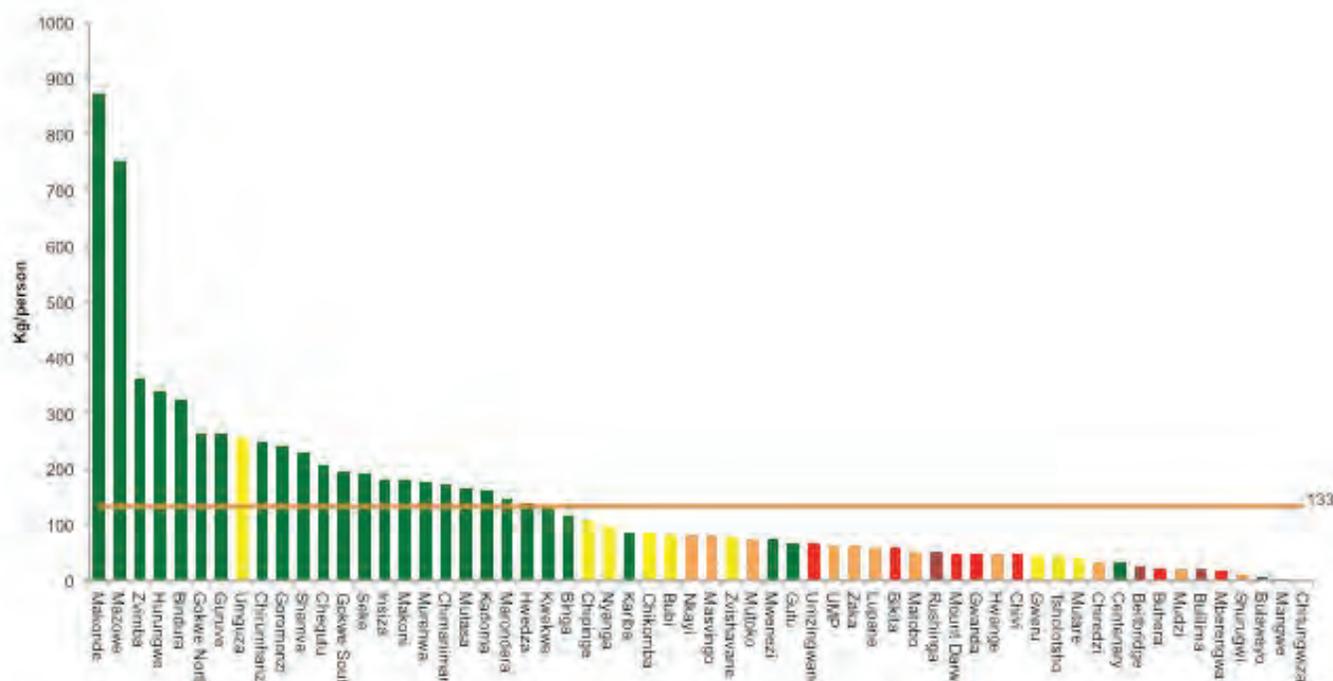


Source: Fintrac, based on data from WFP/Zimbabwe and USAID-BEST field visit, March 2012.

The above map shows maize surplus and deficit areas, maize prices, and predicted maize movements from general surplus areas to deficit areas based on relative price differences. Maize surplus districts are classified as such because traders stated that they traveled to these districts to purchase maize grain. Maize deficit districts are classified as such because traders noted that they target these areas to sell maize. For all other areas, traders did not specifically mention these areas as places where they would purchase or sell maize stocks. These areas would include both maize surplus and maize deficit districts.

The map also shows that maize prices are generally, but not always, lower in surplus areas and higher in deficit areas. With functioning markets, maize should flow effectively from surplus to deficit areas. Observers of the maize market in Zimbabwe have noted that maize does not always flow to these deficit areas, where prices are typically higher. Section 5.4.2 discusses potential reasons for this phenomenon.

This analysis also defines surplus and deficit areas by total months of grain supply, with all grains (including sorghum and millet) considered. Surplus areas are those with more than nine months of grain supply, and deficit areas are those with less than nine months of grain supply. This part of the localized food deficit analysis relies on data from the MoAMID, production and trade market flow maps created by the Famine Early Warning Systems Network (FEWS NET), and USAID-BEST research in 2010 and 2012. These sources describe surplus and deficit areas, trade flows, and key market centers.

Figure 15. Maize Production per Capita (kg/person) by District

Source: FEWS NET/Zimbabwe, note ZimVAC assessments are typically completed between May-July.

FEWS NET market maps show surplus areas concentrated in Natural Regions IIA and IIB, particularly in Mashonaland (all three provinces) and part of Manicaland Province. The mid-altitude and lowland areas are described as areas of deficit and include Matebeleland North and South Provinces, Masvingo Province, and the southern part of Manicaland Province.¹¹ See the figure below for information on per capita maize production by district.

5.4. Market Efficiency in Meeting Food Deficits

This section will examine Zimbabwe's market mechanisms and provide insight on constraints faced by traders in moving grains from surplus to deficit areas. As noted earlier, maize is the major cereal produced and consumed in the country; thus, this analysis relies heavily on available price data and information about Zimbabwe's maize market to inform overall findings regarding the country's grains markets.¹²

¹¹ These maps can be found at: <http://www.fews.net/Pages/marketcenter.aspx?gb=zw&loc=3>. (Accessed May 2012).

¹² Maize is the most important crop in Zimbabwe for food security and is grown by an estimated 80 percent of farmers ZimVAC. Rural Livelihoods Assessment, July 2011 Report. Harare: Food and Nutrition Council (FNC), SIRDC. 2011.

The section first provides an overview of the grain markets (mostly, the maize market) (section 5.4.1), followed by a discussion of possible factors restricting grain movement in the country (section 5.4.2 and 5.4.3). It then analyzes trader margins as an indicator of market efficiency in moving grains from surplus to deficit areas (section 5.4.4), and examines market integration as an indicator of market efficiency in moving grains from surplus to deficit areas (section 5.4.5).

5.4.1. Market Overview: Structure, Conduct, and Performance

Structure-Conduct-Performance (SCP) framework overview. USAID-BEST's first Zimbabwe Market Analysis was completed in February 2010, and includes significant background on the SCP of grain markets studied in the present USAID-BEST report. Please see section 3.5 and Chapter 6 from the 2010 USAID-BEST Zimbabwe Market Analysis for further details. In addition to the 2010 USAID-BEST Market Analysis, ACDI/VOCA's report "Market Mechanisms to Achieve Food Security Assessment," from January 2012, is also based on the SCP framework. Please see Chapter 2, pg. 6-20, from the ACDI/VOCA report for background findings from this study.

Structure, Conduct, Performance Framework

One common way to frame a market analysis is by assessing a market's structure, conduct, and performance. The Structure-Conduct-Performance (SCP) framework recognizes links between the structure of a market (the number of buyers and sellers, the nature of the commodity, etc.), the conduct of participants (how prices are set, what rules are followed, etc.), and the eventual performance of the market. Performance is judged by the degree to which the market meets a diverse set of goals; for example, a food marketing system might have the goal of technical efficiency or affordable retail food prices. Such an analysis can be well suited to low-cost, rapid appraisal techniques. For specific guidance on using an SCP framework in food security analysis, please see FEWS NET's Market Guidance entitled "Structure-Conduct-Performance and Food Security".

(http://www.fews.net/docs/Publications/MT%20Guidance_S%20C%20P_No%202_En.pdf)

Grain market overview. Maize is predominantly cultivated in the Mashonaland Provinces, a northeastern area which records surpluses in most years. In the southern parts of the country, covering Matebeleland, Masvingo Province, and the southern part of Manicaland Province, drought-tolerant grains such as millet and sorghum are predominant, due to limited rain and poor soil conditions.¹³

Historically, Zimbabwe's grain storage industry was dominated by the parastatal GMB. The GMB was established under the Rhodesian government to provide the state with leverage over agricultural prices and production in following its import substitution policy.¹⁴ The GMB had a monopoly and controlled the marketing of maize and other grains, and inherited a country-wide network of silos with the objective of protecting the marginalized communal farmers into the mainstream grain market.¹⁵ The deregulation of the country's grain trade in 2009¹⁶ has led to the emergence of key private players in the storage and trade sectors, including an increasing number of small traders that act outside the large, formal marketing chain and play a key role in moving maize from surplus to deficit areas.

Despite these advances, grain trade marketing in Zimbabwe appears underdeveloped. This could be due to a number of factors, one of which is simply the fact that the creation of functioning market exchange systems takes time. Traders

need time to learn arbitrage skills, build market relationships, and expand price information networks. Additionally, the government needs to establish a history of non-intervention in the market, and continue to encourage the private sector to take over this new role with confidence.¹⁷

Structure. Within the maize grain chain, three distinctive markets can be identified: 1) imported, large buyers' market; 2) domestic, large traders' market; and 3) domestic, small traders' market. The imports market is dominated by large buyers who are mostly consolidators (i.e., those who buy from multiple producers, exporters, and traders to compile large stocks) who sell large quantities of unprocessed grain. These consolidators include the GMB, Croplink, Intergrain, and Staywell, among others. They resell to large millers (e.g., National Foods and Blue Ribbon). The large millers, together with medium millers, also source imported grain from private traders, especially from Zambia and Malawi.

Large/medium market actors. Large consolidators are, in general, viable businesses with relatively large amounts of working capital. They have relatively easy access to credit because they have the advantage of association with large processors. In some cases, these consolidators are vertically integrated with large processors (e.g., National Foods) and use their market clout and reputation as collateral to obtain funding. These consolidators also have relatively low transaction costs due to the scale of their operations and market information networks. Also, as detailed in section 5.4.3, these large consolidators reduce high transaction costs because they source their maize grain from single assembly points, either from agro-dealers or from other private traders, rather than from many individual small-scale farms.

Large and medium size processors are predominantly located in urban centers (Harare, Bulawayo, etc.) where the bulk of imported maize grain is traded.

Small/medium market actors (makoronyera). Agro-dealers¹⁸ are often business people living in grain production areas, involved in a variety of non-agriculture activities (for example, agro-dealers are also teachers, tuck shop (convenience store) owners, etc.). Their operations vary in size, from small to medium, and they typically have very limited capital. However, agro-dealers have low transaction costs because they collect grains from their own communities. Most agro-dealers also have access to small amounts of credit, frequently extended to them by large consolidators. Agro-dealers sell to these large consolidators, or sell to small traders operating outside the main maize processing chains.

¹³ Most households in these drier regions still try to grow some maize, with very little success.

¹⁴ See USAID-BEST Market Analysis: Zimbabwe, 2010, Annex p. 62 for further details on the evolution of the GMB.

¹⁵ Kapuya et al., 2010. The Grain Industry Value Chain in Zimbabwe.

¹⁶ Grain trade was liberalized in 2009 after regulation by the GoZ in July 2001, when maize, maize products, wheat and wheat products were declared controlled products, and only the GMB could buy, sell or move these products, in the wake of the FTLRP exercise.

¹⁷ Blanchard, O., 1997. The Economics of Post-Communist Transition, and McMillan, J., 1995. Markets in Transition. Advances in Economics and econometrics: Theory and Applications.

¹⁸ An agro-dealer is a small rural enterprise that specializes in supplying agricultural and non-agricultural inputs to rural communities, shares market information, and can help in aggregating maize for consolidators.

Small traders buy from local agro-dealers, and then travel, with local grain in hand, to distant urban and rural markets. Small traders sell maize grain to hammer mills and households.¹⁹

These small traders appear to be the only actors moving maize outside the large, formal maize processing chain. They have little or no access to credit, and when they can access credit, loans are prohibitively expensive because small traders lack collateral. Their transaction costs are high because they move small quantities of maize grain (typically less than one 30 MT truck), and base their trading on spatial arbitrage.²⁰ They source maize from surplus regions and move maize grain solely to geographic locations where prices are usually higher. As noted before, these areas are typically deficit areas.

Conduct. Maize grain can flow from grain surplus areas to grain deficit areas, through the market structures and actors identified in Figure 16. Grain flows in Zimbabwe begin at the farm (both small and commercial) where, in a normal year, approximately 1.2 million MT of maize is produced to meet the domestic human consumption requirements of 1.8 million MT.²¹ As stated earlier, the difference between local production and consumption is met by imports from neighboring countries, government distributions, and food aid from the international community.

At the production level, maize grain is either consumed by the farmer's household or enters one of two major marketing routes: 1) sale to informal markets (Mbare, Mucheke, Chikonohono, etc.); or 2) delivery to commercial storage silos (GMB, Staywell, Intergrain, Croplink, etc.). Informal markets supply hammer mills and other small informal markets with grain. Commercial and professional storage silos, on the other hand, supply large processors such as National Foods and Blue Ribbon. These large processors, again National Foods and Blue Ribbon, process both maize meal and stock feeds. GMB provides grain for stock feed processors including AgriFoods, Crest Breeders, Blue Ribbon, and National Foods, but also keeps stock for its own commercial operations.

As noted earlier, the import grain market is dominated by major consolidators (GMB, Croplink, Intergrain, and Staywell). International donors provide cash to WFP for regional purchase and importation of maize grain, and USAID provides in-kind resources.

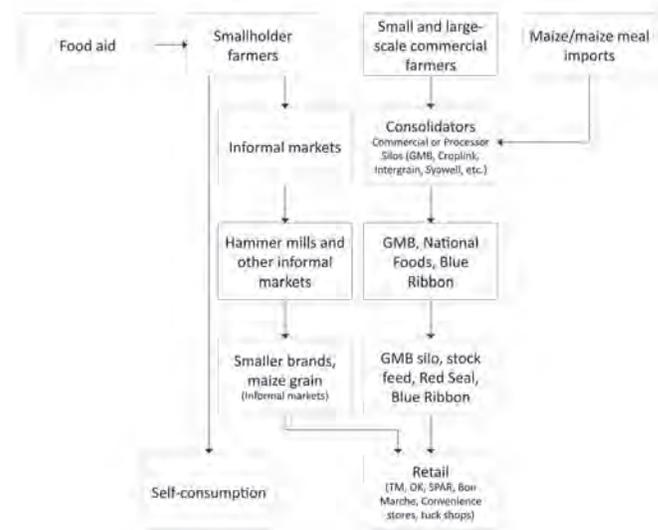
At the end of the market chain, processed flour meals (maize meal, polenta, roller meal) are sold in retail supermarkets (e.g., TM, OK, SPAR, and Bon Marche), convenience stores, and tuck shops. Remaining non-processed maize grains are sold in the informal retail market.

¹⁹ The USAID-BEST team encountered these types of small traders in Gweru where the markets open at 5:00 am and where traders bring maize grain from Gokwe south, and are allowed to sell their commodities wholesale until 8:00 am. After 8:00 am, the retail local market is open to trade.

²⁰ Spatial arbitrage refers to the practice of traders who transport goods from one location to another for resale whenever the price difference between the two locations is large enough to cover the cost of transportation. (IFPRI Food Security Portal, Glossary).

²¹ See Kapuya et al., 2010. The Grain Industry Value Chain in Zimbabwe.

Figure 16. Maize Grain Market Flow



Source: Kapuya et al., 2010.

Performance. Although the grain market has expanded since the introduction of the multi-currency economy in early 2009, and became more competitive with the decreasing role of the GMB, the market still faces major challenges in meeting demand (or, efficiently meeting demand) for maize in deficit areas. This challenge is detailed in the sections below.

5.4.2. Possible Factors Limiting Local Maize Market Efficiency: Overview

Studies which have examined constraints to movement of grain from surplus to deficit areas in Zimbabwe have formulated a number of hypotheses on why grain does not easily flow from surplus to deficit areas. Constraints identified by these studies include: 1) low on-farm productivity, 2) high transaction costs, including transport, 3) limited consumer purchasing power, 4) lingering GMB monopoly/monopsony power, 5) lack of cost-effective financing, and 6) risk-averse farmers choosing to store rather than sell.²² These explanations are below, and considered further in section 5.4.3. As noted in section 5.4.1, the maize trade in Zimbabwe consists of three major marketing chains: one for imports, and two for local maize. The following sections will focus on the movement of local maize.

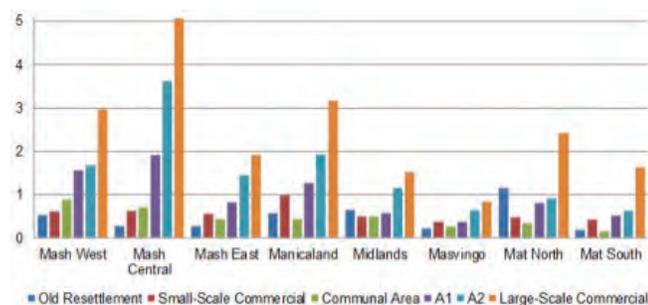
Although these hypotheses provide insight on why local maize in Zimbabwe does not flow efficiently (or at all, to certain areas or at times) from surplus to deficit areas, even further consideration would be necessary to explain factors contributing to a small amount of maize which appears to flow from deficit areas to surplus areas. These counter-intuitive 'reverse' movements from deficit to surplus areas appear to be based on localized price differentials, or other market factors. For example, traders may be incentivized to move maize from

²² These studies include: USAID/Zimbabwe Market Mechanisms to Achieve Food Security, and the USAID-BEST Market Analysis: Zimbabwe.

deficit areas to surplus areas because of: a localized area of maize surplus in an overall deficit district price differences within a district, proximity to transport networks, or other factors that can impact purchasing power, such as concentrated economic activities around diamond mining areas.

Low on-farm productivity. Some studies argue that traders are not encouraged to trade local maize between areas because volumes produced by individual farmers are too small to justify inter-district trade. This hypothesis could be supported by the fact that smallholders currently supply the majority of Zimbabwe's maize. At present, smallholder farms produce an average of 0.55 MT per hectare, as compared to 2.66 MT per hectare for large-scale commercial farms. The figure below shows recent maize yields by land tenure type and by province.

Figure 17. Maize Yield by Land Tenure Type, by Province, 2010-2011 (MT per hectare)



Source: USAID-BEST, based on data from the Ministry of Agriculture, Mechanization, and Irrigation Development: Second Round Crop and Livestock Assessment Report, Zimbabwe April 2011.

The low yields and therefore low volumes of total agricultural production raise the cost of food, both directly (through high production costs) and indirectly (through high transaction costs of moving smaller volumes of commodities to markets).²³ As shown in the above figure, yields are lowest in resettled areas and in the small-scale commercial sector.

High transaction costs. In a competitive value chain, transaction costs include actual search, transport, storage, and processing costs of traders. These costs are arguably different depending on the size of traders' operation. Traders are involved in trading primarily in Harare and other major urban centers. When these traders occasionally decide to expand their operations to rural areas, moving grain from surplus areas to deficit areas, they incur higher transaction costs than they do in major urban areas. This is because they have to source their grain from a large number of suppliers, each typically selling a small quantity of grain.

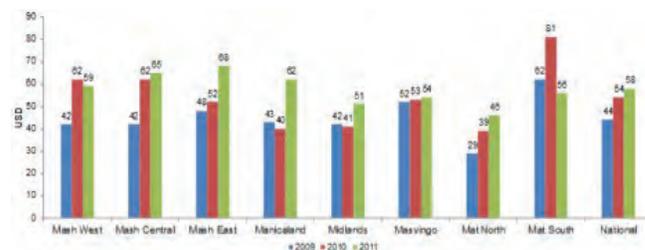
This hypothesis also notes that high transaction costs might serve as a disincentive for small traders, who are the main actors outside of the large formal marketing chain, to move grain from

²³ See USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012, for more discussion.

surplus to deficit areas. Small traders face high transaction costs, mainly driven by cost and unreliability of transport, lack of working capital, and lack of market information.²⁴

Limited purchasing power. During the USAID-BEST March-April 2012 field visit as in past market assessments, traders noted consumers' limited purchasing power as an important disincentive for them (traders) to engage in moving grain across districts and regions. Despite the upward trend in income in the last three years in most provinces (see figure below), purchasing power in rural areas still remains limited as food prices continue to increase and employment opportunities remain scarce.

Figure 18. Average Household Monthly Income by Province, May 2009-2011 (USD)



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC), July 2011.

Between 2010 and 2011, average national income for rural households increased by 31.8 percent, from US\$44 to US\$58 per month.²⁵ However, as mentioned previously, food prices also increased (by 15 percent over the past year) which would make this increase in rural incomes less significant for households. In food-deficit areas, food prices are higher than the national average.²⁶

GMB lingering monopoly/monopsony power. The Rhodesian Government (and, later, the GoZ) created parastatals that integrated financial institutions. These structures aimed to keep transaction costs low and access to credit relatively easy for different actors along the value chain.

Currently, the GMB acknowledges the liberalization of grains markets but continues to play a key role in signaling prices. The board usually sets prices for grains that are higher than IPP (as detailed in the text box below).²⁷ In doing so, the parastatal signals higher prices to producers, for whom the GMB has been the traditional buyer, making it difficult for traders competing with the GMB to negotiate fair prices.

²⁴ See USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012 and Zimbabwe Agricultural Sector Market Study, June 2010, for more discussion.

²⁵ See USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012, and the Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment, July 2011.

²⁶ See USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012.

²⁷ Import Parity Price (IPP): The value of a unit of product bought from a foreign country, valued at a geographic location of interest in the importing country. (FEWS NET, 2008. Import/Export Parity Price Analysis).

This system fosters mistrust between farmers and traders. Farmers state that they should receive a fair price equivalent to the GMB purchasing price (US\$295 per MT), and traders are only willing to pay IPP (US\$220-US\$240 per MT), based on imported Zambian maize. Although the GMB has reduced its market presence, and is known for delays in cash payment to maize producers, producers still continue to demand that private traders pay the same price that the GMB offers. Furthermore, producers are encouraged to sell to the GMB, because the parastatal has provided inputs in the past and there is the expectation that this will continue.

GMB Prices

The GMB is currently the 'buyer of last resort' for maize sellers in Zimbabwe. Its current purchasing floor price as recently raised from US\$285 per MT to US\$295 per MT.²⁸ USAID-BEST field work in March/April 2012 determined that Zambian maize for sale in Zimbabwe's major markets was priced from US\$220 to US\$240 per MT.

As noted earlier, the GMB has a reputation for delayed payment. This artificial pricing structure contributes to inefficient markets.

Lack of cost-effective finance. A serious challenge to Zimbabwean traders is access to credit. If funds are available, they are typically priced at high rates, limiting prospects of expansion for traders. In 2010, there was a shortfall of US\$9.3 billion needed to rehabilitate the economy.²⁹ The Fintrac Zimbabwe Agricultural Income and Employment Development (Zim-AIED) Program and the IRD staff estimate that between 2010 and 2011 there was a shortfall in the demand for credit of US\$136.58 million for smallholder agriculture.³⁰ In particular, small traders had very limited access to finance. In addition to charging clients high interest rates, banks also did not have adequate liquidity. Anecdotal evidence shows that even in cases where traders are willing to pay high interest rates, and banks are willing to extend a line of credit, these traders may still not be able to access actual funds due to lack of liquidity.

Decision to sell or to store. When farmers perceive risks for a future harvest, they may decide to store rather than sell their harvest to ensure they have stock on hand in case of a shortage. In such a situation, traders face challenges in sourcing local grain. It was reported that the lack of rain in December 2011 and the subsequent dry spells in early 2012 increased producers' risk perception for the coming year, and increased the difficulty for traders to source grain to then move to deficit areas for sale.³¹

²⁸ The Herald, 5/17/12.

²⁹ Zimbabwe Agricultural Sector Market Study, June 2010. Fintrac Inc., and IRD. Zim-AIED Program. "Demand and Supply of Short-term Credit for Zimbabwe's Smallholder Agricultural Commodity Value Chains." Harare: USAID, 2011. Print.

³⁰ Zimbabwe Agricultural Sector Market Study, June 2010. Fintrac Inc., and IRD. Zim-AIED Program. "Demand and Supply of Short-term Credit for Zimbabwe's Smallholder Agricultural Commodity Value Chains." Harare: USAID, 2011. Print.

³¹ See USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012.

5.4.3. Possible Factors Limiting Local Maize Market Efficiency: Further Considerations

The above hypotheses exist in many studies, and were noted by informants during the USAID-BEST field visit. However, these hypotheses are supported by limited empirical evidence; most evidence is anecdotal information, and thus may be subject to opinion or inaccuracy. Furthermore, although the hypotheses appear very plausible, further examination is necessary to clearly identify factors which limit movement of grains in a very complex environment. The following section considers each of the above hypotheses, and discusses some of the complexities which they may overlook.

Low on-farm productivity. While the low on-farm productivity hypothesis may provide a strong explanation for why domestic maize grain is not moving from surplus areas to deficit areas, the hypothesis is weakened when considering the broader context of grain market functioning within Zimbabwe. The hypothesis rests on the idea that procuring grain from many smallholders is a disincentive to traders, because transaction costs increase as the number of grain sources increase.

In a common marketing system known as a "two level" system, this scenario would be very likely to occur. In two level marketing systems, traders (or, brokers hired by traders) are responsible for procuring grains from individual farms, transporting grains to deficit areas, and then selling to wholesalers. Traders assume multiple transaction costs while traveling from farm to market.

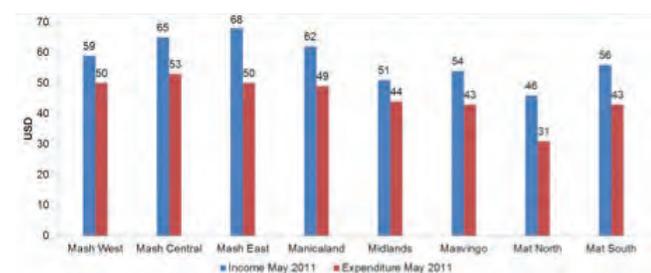
However, the large formal market in Zimbabwe is characterized as an "assembly market" system. In this system, producers come together to sell their harvests to traders at a single location. Traders purchase grain at a single meeting point, incurring fewer transaction costs than in the two level market system. Although the assembly market system typically increases the time between harvest and consumer purchase, it reduces traders' risks and transaction costs. Thus, the argument that high transaction costs to traders (as a result of the country's dominant smallholder farming system) serve as a disincentive to traders to move grain among districts may be less relevant given Zimbabwe's maize market structure.

Limited purchasing power. The purchasing power hypothesis also appears more complex when considering the country context. Throughout the year, both household income and market prices vary greatly according to the harvest and lean seasons. During the lean season, lack of purchasing power is a very likely explanation for why traders would not move grain from surplus to deficit areas. In this season, the likelihood of selling is low, because households have little cash and traders sell at high prices. However, during the harvest period, households have more cash because they just sold their harvest (even those households in deficit areas are able to sell small harvests). In addition, traders are selling at low prices during this time because there is more available stock on the market. Thus, the hypothesis that traders would not move

grain to deficit areas may not hold true during the harvest period and months immediately following harvest (April/May to July).

See the figure below, which shows income and expenditure levels among all provinces in May 2011, shortly after harvest. The graph shows that households earned more than they spent, which implies a higher purchasing power during this period.

Figure 19. Average Mash Income and Expenditure by Province, May 2011 (US\$)



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC), July 2011.

GMB lingering monopoly/monopsony power. As noted above and in the text box on page 95, in recent years the GMB's reputation has declined as a significant market player. Thus, the degree to which the GMB serves as a disincentive to grain flows from surplus to deficit areas is debatable. While the GMB is still operational, it lacks necessary funding to purchase large quantities of grain and its storage facilities are largely unused. Thus, its presence as a large market actor is minimal compared to four or five years ago.

The GMB is believed to currently purchase less than 20 percent of domestically produced grain.³² When the GMB purchases grain on credit, at best it pays producers with significant delays; at worst, this payment may barely compensate the farmer for the full value of his/her grain. Only producers who are not able to sell all of their stock resort to selling to the GMB, very often hoping to benefit from government input programs such as the fertilizer subsidy. Thus, the GMB is viewed more as a last-resort buyer among producers rather than as a dominant market force with considerable power to impede movement of maize from surplus to deficit areas.³³

Decision to store or to sell. Smallholders may conservatively hold back some grain to store for their own consumption if they anticipate future price spikes — which might render them unable to afford to buy maize grain for their own household consumption. Smallholders, however, also likely have other expectations which make them just as likely to sell their harvest. For example, smallholders may sell their stock to meet immediate needs for cash, due to the small size of their operation and short-term liquidity needs. Additionally, the likelihood of a smallholder storing his grain with the sole intent to receive a higher sale price

³² USAID-BEST field work.

³³ The GMB is seen by the GoZ as the buyer of last resort, as reported in GoZ, 2009, "Short-Term Emergency Recovery Programme-Getting Zimbabwe Moving Again."

in the future (i.e., speculative storage) is low; evidence shows that smallholders and small traders in Zimbabwe do not engage in speculative storage. Thus, smallholders appear to have constant incentives to both store and sell.

Lack of cost-effective finance. Finally, lack of cost-effective finance and lack of liquidity is frequently mentioned in Zimbabwe as the primary cause of the limited volume of grain trade between surplus areas and deficit areas. Expensive credit adds costs to trader operations. This forces traders to carefully consider trade volumes, in order to cover costs of getting credit. The more expensive the credit traders receive, the higher the volumes they would need to trade in order to "break even" with their operating costs. During the USAID-BEST field visit interest rates of 15–30 percent were reported.³⁴

This high cost of credit could serve as a disincentive to spatial and temporal trade, but the other above factors are inter-related and may collectively restrict movement of maize from surplus to deficit areas.

"Ladder Pricing"

Zimbabwe dollarized its economy in early 2009 to combat hyperinflation and instituted the use of multiple currencies in-country. However, it is usually difficult to use or obtain change for sums that are less than US\$1 (US coins are extremely rare in Zimbabwe). This effectively forces market actors to sell at prices typically going up or down in US\$1 increments, like moving on the rungs on a ladder, rather than rising and falling more gradually (i.e., in increments less than US\$1).

"Ladder pricing" can lead to greater inflation rates than market conditions actually dictate; for example, when a 17.5 kg bucket of maize goes up in actual price from US\$6 to US\$6.30, but is rounded up to US\$7 per bucket because neither the seller nor buyer is able to provide the 30 cents or 70 cents in change. In some cases change in rand coins (1R, 2R, 5R) is available, and/or bartering is used to make up the difference, but in general this phenomenon leads to pricing that is less specific and often more inflationary than actual market conditions would dictate.

Overall, the most food insecure households that primarily rely on markets to increase their own food consumption and buy in the smallest quantities (e.g., 5 kg. of maize rather than 20 kg. of maize) are the most affected by this trend. For example, a poor household that purchases a quantity of maize worth US\$3.50 may pay US\$4 when prices increase, an acute increase of 14 percent; whereas a better-off family may purchase a quantity of maize worth US\$24.50 and pay US\$25 when prices increase. This increase would only be 2 percent.

³⁴ These rates are consistent with those reported by the USAID/Zimbabwe Market Mechanisms to Achieve Food Security, January 2012.



Photo by Fintrac Inc.

Maize is sold in typical 17.5 kg buckets for US\$6 at Kombayi Market in Gweru, March 2012.

5.4.4. Market Efficiency, as Indicated by Potential Margins for Traders

Introduction. Potential margins are a major incentive for traders to move grains. Based on interviews with traders, and analysis of existing price data, the USAID-BEST team believes that variation in trader margins across time and space, as well as lack of market information available to small traders³⁵ are likely among the most important contributing factors to restricted grains movement in Zimbabwe.

As noted earlier, lack of efficient flow of grains from surplus to deficit areas is a major factor contributing to food insecurity in rural deficit areas, particularly Natural Regions IV and V. These areas which remain underserved by the domestic grain market suffer from grain shortages and high, fluctuating prices. By examining traders' incentives (i.e., margins) to move grain, the USAID-BEST team aims to identify more precisely those particular factors that may drive traders to underserve local markets due to actual poor market conditions or traders' perceived notions of poor market conditions in those areas.

To determine potential margins, a trader needs market information on prices across markets. In Zimbabwe, small traders are operating in a market which has only recently (since early 2009) opened to private actors, and are thus challenged to understand new market conditions and potential profits to be made, due to lack of market information.

In a simple arbitrage model, the price at which traders sell grains in deficit areas is equal to price in surplus areas, plus transportation costs. This relationship can be expressed in the following equation: Price of grain in deficit area (PD) = Price of grain in surplus area (PS) + Transport costs (T).

If this relationship holds, the markets in surplus and deficit areas are said to be integrated, and the arbitrage between the two areas is deemed efficient. In such cases, surpluses in

³⁵ Recall that small traders are currently responsible for the majority of grains movement from surplus to deficit areas.

production areas are expected to fill deficits in shortage areas to the extent possible. This relationship often holds where all market actors can access consistent and current information about market conditions, and where market actors can store the product easily, without additional cost.

Realistically, these conditions are rarely met in any market. Therefore, price differences in two places rarely represent *only* transportation cost. Instead, prices are higher in one market due to transport costs as well as other factors. These other factors could include: 1) impediments to efficient arbitrage, such as trade barriers, imperfect information, or risk aversion; 2) seasonal and unpredictable shocks to supply and demand; 3) fluctuation and unpredictability in transportation costs, mostly due to exogenous factors such as cost of fuel, size of shipment, etc.; and 4) imperfect competition in one or more of the markets (e.g., existence of a monopoly or oligopoly, collusion, etc.). Lack of market competition is the most commonly cited as a main reason for imperfect market integration.³⁶ However, attributing this as the sole or primary cause in Zimbabwe is not possible because there are so many other inter-related factors.

Traders move maize from surplus areas to deficit areas with their own resources. Using price data collected by WFP and FAO, in combination with transport data collected from transporters and traders in the field this analysis calculated price margins among different marketing routes to determine the degree to which price differences change by more than just commodity plus transportation costs (i.e., the amount by which a price in one area differed from the price in another area, after deducting the cost of transport between the two areas).

The working hypothesis is that large margins reflect low traded volume. This hypothesis is then tested against various explanations for why maize is not moving from surplus to deficit areas.

³⁶ Stigler and Sherwin 1985, Ravallion, 1983. Testing Market Integration. Buccola 1983, Stigler and Sherwin, Faminow and Benson, see also Saxton, Kling, and Carman 1991.

Table 18. Maize Grain Trader Margins

Route	Distance (Km)	Wholesale Price surplus market US\$/MT	Wholesale Price deficit market US\$/MT	Total Overhead \$/MT	Transport cost \$/MT	Cost \$/MT	Margin \$/MT
Chereya (Gokwe North)-Masvingo (Masvingo)	720	180-240	400-480	15	67	262-322	138-158
Nembudziya (Gokwe North)-Renkini (Bulawayo)	455	180-240	275-280	15	50	245-305	30-(25)
Guruve (Guruve)-Renkini (Bulawayo)	595	180-240	275-280	15	50	262-305	13-(25)
Guruve (Guruve)-Buhera (Buhera)	390	180-240	330-430	15	40	235-295	95-135
Mbare (Harare)-Renkini (Bulawayo)	450	240	275-280	4	20	264	11-16

Source: USAID-BEST interviews, April 2012; prices in surplus and deficit markets are based on wholesale prices.

Analysis. The table above presents representative budgets for an average small trader of maize grain in Zimbabwe along five geographic marketing routes. Like any agricultural commodity, maize grain production is seasonal, and reflects a range of prices throughout the year, rather than a unique, static price. Trader margins vary greatly according to transport costs, production levels, overhead costs, market information, import volumes, and other factors. For example, between May and June, the price of 1 MT of maize in Magunje (Mashonaland West) drops as low as US\$90. At the same time, the price in Buhera (Manicaland) for 1 MT of maize grain is as high as US\$300. Even after accounting for transportation costs (US\$60 per MT), trader margins in Buhera are still large (US\$150). Other examples of trader margins appear below in the table.

Prices in surplus areas range, on average, from US\$180-US\$240 per MT. In deficit areas, the range of prices varies greatly from one district to another. In Bulawayo, for instance, sales prices are the lowest. This is explained by the fact that Bulawayo is an urban deficit area where domestically produced maize grain frequently competes with imported grain from Zambia. Farmers repeatedly informed the USAID-BEST team that their selling prices in Bulawayo are the lowest and therefore their margins are the lowest. The table above also shows that on the marketing routes, Nembudziya (Gokwe North)-Renkini (Bulawayo) and Guruve (Guruve)-Renkini (Bulawayo), margins range from US\$30 to negative US\$25, and from US\$13 to negative US\$25, respectively. The marketing route Mbare (Harare)-Renkini (Bulawayo) has more consistent and positive, yet smaller, trader margins throughout the year (US\$11 to US\$16). These positive margins are explained by low costs and high volumes of transportation, (US\$20/MT) and low overheads (US\$4/MT).

Findings from the USAID-BEST March/April 2012 field visit as well as the desk study, can be summarized as follows:

- Trader margins vary across districts and depend on producer and trader selling prices, transport costs, and overhead costs. Price ranges in surplus areas appear to be more consistent and similar in range within and across districts, as compared to price ranges within and across districts in deficit areas, which vary more in range.
- Selling prices are higher in deficit regions and districts, but there is also significant price variation across districts within deficit areas. In Bulawayo, selling prices are relatively low compared to other deficit districts

- Trader margins are large where domestically produced maize is not directly competing with cheap imported maize grain (usually from Zambia, per April 2012 market conditions).
- Given that speculative storage is generally not practiced by small traders in Zimbabwe, transport costs and overheads are the most important transaction costs for these market actors. These costs vary according to different marketing routes and depend on factors such as total distance and condition of roads/infrastructure.
- Because of seasonality in maize production, the price range in both surplus and deficit areas is often wide. Farmers understand these seasonal fluctuations well. However, small traders, especially those not living in production areas, would benefit from a better understanding of the seasonality of maize grain supply and the related price fluctuations in order to take full advantage of harvest seasons and mitigate risks in lean seasons.
- Because small traders base their decision to move maize from surplus to deficit areas on spatial arbitrage, their knowledge of prevailing maize grain prices in different potential markets is an important factor.

Awardees should take into account the above information to guide programming decisions for distributed food aid and food security activities that promote staple crop production. For example, the wider dissemination of prices and market information should help smallholders better decide how to manage their own production/consumption. Further, it should also be noted that markets are dynamic, these trends can easily change for upcoming cropping seasons, and Awardees are encouraged to track market changes to maximize programmatic impact.

The next section deals with market integration throughout the country, another factor to more fully understand maize flows between surplus and deficit areas. If markets are effectively integrated in-country, one would expect better flows of maize from surplus to deficit areas.

5.4.5. Market Efficiency, as Indicated by Market Integration

This section focuses on the extent of maize grain market integration in Zimbabwe. Integration is defined here as a set of markets that shares common long-run price information;³⁷ that is, the degree of market integration is defined as the degree to which price changes in one market are reflected in another.

Market Integration

Market conditions in one area of a country may impact market conditions in another area of a country, depending on how well integrated local markets are with one another. Thus, the more integrated markets are, the more likely general food security conditions in one area of the country will impact food security conditions in another area of the country.

Factors such as road/transport infrastructure, phone/internet accessibility, market structure, and cultural barriers can all impact the degree to which markets are integrated. Furthermore, market integration may be more or less stable during certain years, or certain times of the year. When addressing food security, it is important to consider a program's market impact in terms of strength and geographic scope. The more integrated markets are, the less of an impact any change in local food supply will have on a single target market. If the market is well integrated with others, price changes will be transmitted across geographic space, and thus dilute the impact of a food aid program on the target market.

There is a large body of literature on different methods to measure the degree of market integration. This report adopts the Pearson correlation coefficient method to estimate market integration.³⁸ The analysis compares different commodity prices among markets, and assesses the degree to which prices in one market are reflected in another market. A correlation coefficient of 1 represents perfect correlation between two markets; prices in one market are completely reflected in the other, and co-move in the same direction. A correlation coefficient of -1 indicates that prices in each market co-move in opposite (inverse) directions. Thus, the closer a coefficient is to 1, the more integrated the two markets are, and the more prices in one market will impact prices in the second market in the same way. A coefficient of 0 indicates that prices in two markets are determined with complete independence.

Introduction. If markets are integrated, there will be low spatial variation in prices, and regular movement of goods from surplus to deficit areas, implying market efficiency. Important

factors that determine market arbitrage are the market structure and market conduct. If a market hosts adequate competition among market actors, and market actors do not engage in price-setting or other unfair acts, a particular market is more likely to be integrated.

In Zimbabwe, small traders of maize grain are confronted by a number of challenges which limit the efficiency of the maize grain market. These challenges have resulted in relatively fewer market actors involved in trading maize grain from surplus areas to deficit areas. Because small traders are responsible for the majority of grains movement from surplus to deficit areas, their decision on whether to move grain directly impacts the degree to which surplus and deficit markets are related in terms of price (i.e., integrated).

Data sources. The study team conducted this analysis by using price data from FAO and WFP. FAO, in collaboration with FEWS NET, began collecting maize market wholesale price data in 28 districts in November 2008, and has gradually expanded to 60 districts. WFP has been collecting data in 22 large markets since December 2009. Time series data on trade flows across districts are currently not available in Zimbabwe. If such data were available, testing the time efficiency of arbitrage could have been easier to analyze. As a second-best option, this analysis presents trade flow information as informed by existing price data. In order to analyze the relationship between surplus and deficit areas in Zimbabwe, the USAID-BEST team examined the degree to which prices of maize in these two areas appear to co-move, as detailed in figures 20, 21, and 22.

In each region, the time series properties of data will be studied by plotting major markets in each region with its dominant market — either Harare or Bulawayo for surplus and deficit regions, respectively. First, because Harare is the dominant consumption market in the surplus region, this analysis examines the price relationship between Harare and other markets located in the surplus region.

Analysis. Harare prices are higher when compared to all other markets in the surplus region. There is a common pattern among all markets in surplus areas, although there are some short-term variations. Similarly, despite some short-term variation in prices, the deficit region also shows a similar trend among all markets in deficit regions. However, prices in the dominant market (Bulawayo) of the deficit areas are the lowest throughout the time period studied, January 2010–October 2011.

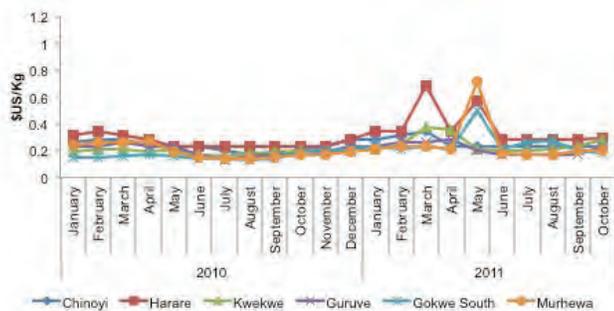
This difference among surplus and deficit areas (where main surplus market prices are highest among all surplus markets, and main deficit market prices are lowest among all deficit markets) is understandable because Harare is surrounded by production areas, where prices are the lowest. Conversely, Bulawayo has lowest prices because it is surrounded by other less-accessible deficit areas where prices are the highest.

Also, consistent with data on traders' budgets identified in Table 18, this analysis revealed that the range of prices is small in the surplus region, and large in the deficit region.

37 Rivera and Helfand 2001. The Extent, Pattern, and Degree of Market Integration: A Multivariate Approach for the Brazilian Rice Market.

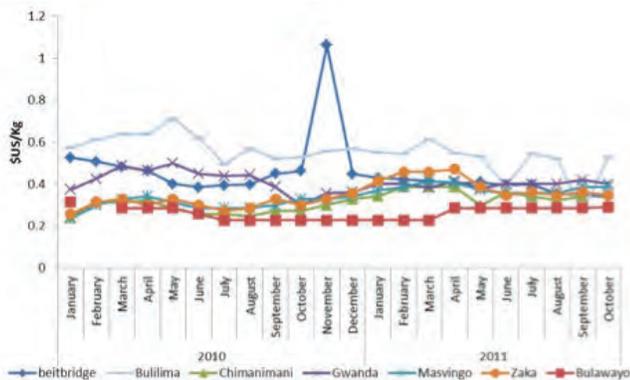
38 E.g., Ravallion 1986. Testing Market Integration, and Barrett 2001, Measuring Integration and Efficiency in International Agricultural Markets.

Figure 20. Surplus Area: Comparison of Maize Prices in Harare and Other Rural Surplus Region Markets, 2010-2011 (US\$ per kg)



Source: USAID-BEST, using data from FAO/ FEWS NET and WFP;
Notes: The March 2011 price spike in Harare is likely due to a delay in the expected maize harvest in northern Zimbabwe; once the harvest started to arrive in April, prices generally decreased.

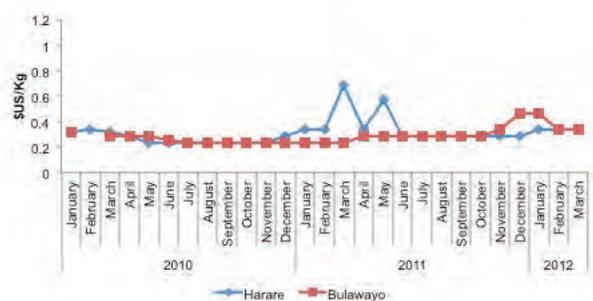
Figure 21. Deficit Area: Comparison of Maize Prices in Bulawayo and Other Rural Deficit Region Markets, 2010-2011 (US\$ per kg)



Source: USAID-BEST using data from FAO/FEWS NET and WFP. (Note: the atypical spike in price in Beitbridge in November 2010 is not fully known, but could have been due to temporary trade restrictions with South Africa at that time.)

A comparison of the main surplus and deficit markets shows that maize prices generally co-move (i.e., maize markets are integrated), as shown in the figure below, with the exception in March and May 2011 when prices in Harare were atypically high. As explained in the first figure, the Harare price spike was likely due to a later than expected maize harvest from northern Zimbabwe.

Figure 22. Maize Prices, Harare and Bulawayo, 2010-2012 (US\$ per kg)



Source: USAID-BEST using data from FAO/FEWS NET and WFP.

See the table below for details on integration among specific markets.

As noted in the text box on page 62, this analysis relies on Pearson's correlation coefficients to indicate degree of market integration. Surplus and deficit areas are based on the Per Capita 2011/2012 Cereal Production at District Level map, from the MoAMID Second Round Crop and Livestock Assessment Report (April 2012) and from earlier in this Chapter: surplus areas are characterized as areas with more than nine months per year of per capita production, and deficit areas are characterized as areas with less than or equal to

Table 19. Maize Correlation Coefficients

Market	Bindura	Guruma	Mazoe	Sturges	Chibamba	Hwange	Musikwa	Saka	Chegutu	Hurungwe	Makonde	Chimara	Gokwe South	Harare	Caditane	Bata	Chiredzi	Masvingo	Muzemba	Zaka	Hwange	Bulilima	Pfunda	Masvingo	Makonde	Umtswari	Mtshini	Bulawayo						
bindura	1																																	
guruma	0.90	1																																
mazoe	0.95	0.90	1																															
sturges	0.83	0.70	0.98	1																														
chibamba	0.86	0.31	0.81	0.94	1																													
hwange	-0.19	0.29	0.19	0.16	0.01	-0.12	-0.22																											
musikwa	0.76	0.35	0.68	0.58	0.38	0.80	0.87	1																										
saka	0.94	0.60	0.82	0.92	0.86	0.82	0.44	0.98	1																									
chegutu	0.95	0.58	0.96	0.54	0.80	0.90	0.90	0.90	0.90	1																								
hurungwe	0.82	0.65	0.85	0.81	0.60	0.77	0.96	0.71	0.83	0.82	1																							
makonde	0.95	0.40	0.96	0.97	0.92	0.96	0.99	0.70	0.89	0.81	-0.02	1																						
chimara	0.71	0.30	0.54	0.60	0.68	0.68	0.43	0.48	0.68	0.40	0.60	0.84	1																					
gokwe south	0.85	-0.11	0.04	0.04	0.30	0.68	0.68	0.38	0.87	0.87	0.86	0.91	0.11	1																				
harare	0.87	0.11	0.74	0.74	0.79	0.80	0.48	0.97	0.78	0.84	0.71	0.20	0.62	0.20	1																			
caditane	0.62	0.38	0.48	0.48	0.64	0.59	0.41	0.20	0.62	0.43	0.67	0.40	0.48	0.04	0.60	1																		
bata	0.82	0.35	0.82	0.88	0.78	0.86	0.76	0.77	0.91	0.90	0.84	0.81	0.72	0.68	0.85	0.48	1																	
chiredzi	0.91	0.81	0.83	0.87	0.84	0.81	0.60	0.62	0.82	0.81	0.90	0.91	0.88	0.70	0.57	0.84	0.79	1																
masvingo	0.75	0.10	0.42	0.35	0.40	0.73	0.92	0.92	0.96	0.95	0.81	0.84	0.90	0.30	0.61	0.86	0.72	0.79	1															
muzemba	0.85	0.34	0.84	0.95	0.90	0.93	0.83	0.79	0.85	0.86	0.84	0.88	0.90	0.80	0.80	0.83	0.80	0.80	0.88	1														
zaka	0.83	0.47	0.86	0.88	0.95	0.95	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1													
hwange	-0.50	-0.00	-0.88	0.00	0.40	-0.20	-0.28	-0.70	-0.03	-0.31	-0.38	0.23	0.08	0.05	0.87	-0.00	0.06	0.25	0.36	-0.58	0.36	0.36	1											
bulilima	0.96	-0.23	0.80	0.91	0.88	0.91	0.43	0.18	0.93	0.91	0.88	0.90	0.28	0.91	0.71	0.00	0.91	0.77	-0.29	0.81	0.86	0.83	0.10	1										
pfunda	-0.11	0.01	0.29	0.16	0.19	0.11	-0.32	-0.10	0.29	-0.21	-0.18	0.11	-0.07	-0.28	0.25	-0.14	0.21	0.00	-0.16	0.19	0.09	-0.32	0.68	0.84	0.23	1								
masvingo	0.75	0.48	0.74	0.72	0.73	0.80	-0.40	-0.11	0.83	0.80	0.70	0.85	-0.11	0.78	0.85	0.08	0.74	0.46	-0.42	0.74	0.54	0.78	-0.28	0.81	0.00	0.81	1							
makonde	0.87	0.36	0.86	0.85	0.86	0.93	-0.08	-0.02	0.88	0.86	0.86	0.83	-0.03	0.91	0.83	-0.14	0.79	0.77	-0.35	0.80	0.79	0.86	-0.01	0.83	0.83	0.83	1							
umtswari	0.88	0.22	0.88	0.90	0.85	0.93	0.47	0.22	0.83	0.82	0.76	0.89	0.49	0.86	0.86	0.86	0.79	0.92	0.86	0.80	0.85	0.92	0.48	0.84	0.86	0.86	0.86	1						
mtshini	0.85	0.28	0.87	0.81	0.14	0.18	-0.48	-0.28	0.28	0.32	0.24	0.14	-0.26	0.36	0.20	-0.19	0.21	-0.12	-0.58	0.14	0.00	0.25	0.68	0.12	0.22	0.47	-0.20	0.80	1					
bulawayo	-0.16	0.11	-0.17	0.02	0.03	0.14	0.09	-0.13	-0.36	0.05	-0.15	-0.11	-0.12	0.19	0.01	-0.38	0.01	-0.25	-0.12	-0.24	0.00	-0.19	0.80	0.26	-0.26	-0.01	0.62	-0.04	0.47	1				
renkini	0.78	0.31	0.80	0.78	0.81	0.86	0.45	0.29	0.74	0.70	0.88	0.77	0.46	0.81	0.49	0.37	0.85	0.81	0.58	0.77	0.74	0.92	0.71	0.83	-0.07	0.85	0.95	0.88	-0.08	0.13	1			
mtshini	0.38	-0.46	-0.07	-0.19	-0.03	0.80	0.70	0.39	0.07	0.22	0.20	0.15	0.20	0.47	0.25	0.11	0.58	0.06	0.31	0.49	0.54	0.20	-0.58	0.35	-0.38	-0.62	-0.19	0.13	-0.46	0.15	0.23	1		
renkini	0.21	0.05	-0.21	0.27	0.01	0.52	0.64	0.44	0.24	0.58	-0.05	0.31	0.11	0.44	0.26	0.03	0.05	-0.03	0.31	0.02	0.33	-0.12	0.64	0.24	0.24	-0.25	-0.08	0.33	0.21	0.38	0.56	0.11	0.86	1

Source: USAID-BEST calculations, based on WFP and FAO data. Colored boxes indicate a Pearson correlation coefficient of >.5, indicating some degree of integration for maize prices between the two district markets. Note that "Renkini" at the bottom of the table refers to Renkini market in Bulawayo.

nine months per year of per capita production.³⁹ The deficit quadrant of this table, in the lower right quadrant, shows Pearson's correlation coefficients or markets in deficit regions. The surplus quadrant of the table, in the upper left quadrant, presents results for markets in surplus areas. The lower left quadrant shows surplus areas along the columns (X-axis) and deficit areas along the rows (Y-axis).

Overall, markets in the surplus areas appeared to be more integrated than in the deficit areas. Integrated markets with a Pearson correlation coefficient of $>.5$ are colored on the above chart, and values $<.5$ are not colored. It should also be noted that the maize price correlation coefficient data are based on one main market within a specific district; other markets within a specific district may have slightly different results.

Harare, the dominant market in the surplus area, is integrated with six other markets in the surplus region. Bulawayo, the dominant market in the deficit region, appears to be strongly integrated only with one other market, Hwange.⁴⁰

All markets in the deficit region appear less integrated. Out of 112 pairs of different markets in the region, only 51 pairs appear to be integrated. The remaining 61 pairs are not integrated, with correlation coefficients below 0.50. Among the 51 pairs that appear to be integrated, 41 appeared to be strongly integrated, with coefficients of correlation 0.70 or above.

In the surplus area, out of 112 market pairs, 88 pairs appear to be integrated. Among those pairs which are integrated, 66 pairs appear to be strongly integrated. Market integration may be stronger in surplus areas because most of the region surrounds Harare, which has relatively better transport infrastructure than other parts of the country. This region also has sufficient levels of maize surplus production, which ranges from 100 to 850 kg per capita. Farmer to farmer trade is common practice.

The intersection quadrant between surplus and deficit in the table above (lower left quadrant) gives results for different pairs of deficit and surplus districts. Out of 272 pairs compared, only 137 (50 percent) are integrated. Among these, 114 appear to be strongly integrated. From this intersection quadrant in the table below, several observations can be noted.

- A number of markets in the deficit areas are almost completely isolated from surplus markets. These include Hwange, Beitbridge, Mangwe, and Matobo. All these markets are located in the

39 Surplus and deficit areas are based on the Per Capita 2011/12 Cereal Production at District Level map, from the Ministry of Agriculture, Mechanization, and Irrigation Development. Second Round Crop and Livestock Assessment Report (April 2012) and from the USAID-BEST analysis which examines per capita production over the year. Surplus areas are characterized as areas with more than nine months/year of per capita production, and deficit areas are characterized as areas with less than or equal to nine months/year of per capita production. Note Mazowe District was listed as a surplus district even though the 2011/12 map only lists its cereal production at "up to nine months." Previous years have shown that Mazowe normally produces a surplus of more than nine months, similar in production to other districts that border it in Mashonaland.

40 Further research is needed to determine why other markets closer to Bulawayo appear less well integrated than Hwange is, e.g. Tsholotsho, Bulilima and Insiza.

distant south or west, far from the surplus region. These districts also appear to have the lowest population densities, which may also partly explain their relative market isolation.

- The fact that deficit areas are poorly integrated with surplus markets suggests that grain does not flow consistently between surplus and deficit areas. Furthermore, this lack of correlation indicates that any distributed food aid in a deficit area – if not properly targeted – is likely to have a more significant market impact than distributed food aid would have in a surplus area, because market supply and market prices in deficit areas are not transmitted or shared with other areas.
- Some deficit markets are consistently integrated with markets in surplus areas. These include Masvingo, Zaka, Mwenezi, Gwanda, Umzingwane, Insiza, Zvishavane, Bikita, and Tsholotsho. These markets are dispersed, and located south and west of Harare, but along quality, accessible road routes.
 - The fact that deficit areas along good transport routes appear more integrated with other markets suggests that infrastructure and market efficiency are intimately linked in Zimbabwe. Furthermore, this suggests that food aid distributed in deficit areas along major transport routes would likely have less market impact than food aid distributed in the most remote deficit areas, regardless of how well the distributed food aid is targeted.
- Overall, when considering surplus area districts and how they are linked to a particular district in a deficit area, the following patterns can be observed:
 - Integrated districts are mostly located where transport infrastructure exists and that infrastructure is in good condition.
 - Surplus districts appear to be most strongly integrated with those districts geographically closest to them; geographic distance is an important factor in determining general integration.
- Not surprisingly, surplus districts with a limited surplus tend to be less integrated than those surplus districts with a substantial surplus (see Table 19 on page 63).

These findings are further reflected in the figures below, which USAID-BEST has created per Table 19.

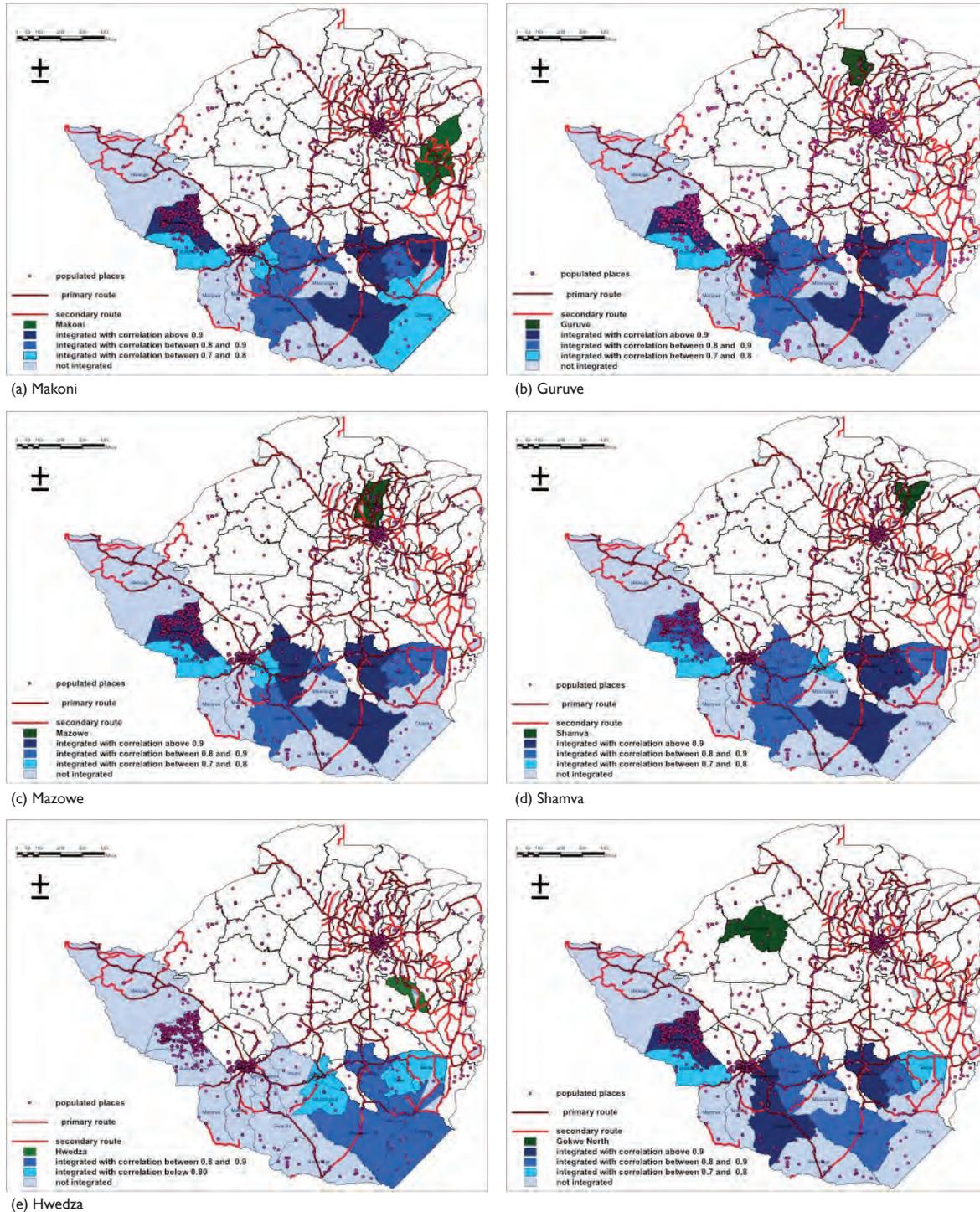
As noted above, Zimbabwean road networks appear to be a significant factor in market integration. The figures below, which show the road network as well as market integration levels, highlight this finding. Surplus districts appear to be integrated with deficit markets located where the road network is more developed. For example, Makoni market (in Manicaland Province), a surplus area, appears to be strongly correlated with Masvingo, Bikita, and Mwenezi markets in the south, and with Tsholotsho in the west.

Although road networks are important in determining market integration, population concentration appears to be another consideration traders take into account when moving grain. For example, in the figures below, Tsholotsho appears integrated with all markets considered. Though the district is

located on the far west of the country, and is not located on the main road between Bulawayo and Victoria Falls, it appears to have the third most concentrated population, after Harare and Bulawayo. This may explain why traders actively engage in the grain trade in Tsholotsho, as evidenced by its apparent level of market integration.

All four major surplus markets considered show very similar degrees of integration with deficit markets. However, Hwedza appears to be relatively weakly integrated with deficit markets in the east. This is likely due to the fact that Hwedza has a limited maize surplus; traders simply do not have enough stock to distribute to the country's farthest western areas.

Figure 23. Maize Markets Correlation Coefficients Maps, Considering Transport and Population



Source: USAID-BEST calculations, based on WFP and FAO data, and Ministry of Agriculture, Mechanization, and Irrigation Development Second Round Crop and Livestock Assessment Report, 2012.

5.4.6. Market Efficiency: Conclusions

In conclusion, there are a number of inter-related factors within the Zimbabwean context that help explain why local maize does not easily flow from surplus to deficit areas. The choice of the most appropriate tool for food security programming (whether in-kind, cash, or voucher assistance) should be informed by beneficiary needs and the likely market response to increased demand (in the form of cash/vouchers) or increased supply (in the form of in-kind food aid). Additionally, the degree of market integration between various markets should also be considered when programming food aid. For example, in-kind distributed food aid in Masvingo (deficit market) which significantly increases the local food supply, could lower the prices in Makoni (surplus area). This could potentially serve as a disincentive to production and/or marketing in Makoni, given the high level of price transmission between these two markets.⁴¹

5.5. Key Considerations

At the time of writing (May 2012), USAID plans to fund a Title II development program(s) in Zimbabwe in FY13. This program could include up to US\$30 million in new funding, and could include multiple awards. Future Title II development programs should be seen as building on the programmatic gains of the current PRIZE program, which has been extended to June 2013. After considering localized staple deficits in Zimbabwe, the private market's capacity for movement from surplus to deficit areas, and market integration in this Chapter, the following section will address key considerations for all distributed food aid interventions in-country, including geographic, seasonal, and household/individual targeting.

One of the most basic key considerations is perhaps the most challenging: how to effectively target a Title II program in Zimbabwe, without contributing to dependency. A decade of emergency assistance, and continued GoZ and donor involvement in the distribution of food aid, seeds, tools, and fertilizer have improved overall food security, but have done so at some cost. Key informants were unanimous in their concern that only the most vulnerable, labor constrained households should receive unconditional transfers. All other households must be encouraged to improve their lives through increased agricultural production and/or enhanced economic opportunities, through training in farming as a business, and appropriate vocational training, for example. Effective Title II programs can help achieve these goals. Potential Title II Awardees should use the full suite of tools available (including in-kind food aid, cash and voucher programming) to appropriately target interventions to support critical food security goals.

⁴¹ The impact of price transmission on production and/or marketing incentives is dependent on whether farmers produce for own consumption or to market surpluses. In Zimbabwe, part of the production is self-consumed by the household, but there is also farmer-to-farmer exchange and sales to traders. The 2011 ZimVac shows that for major cereals, households sell to other households but also to private traders. Also it shows that the most common sources of food are own production (45 percent) and local purchase (43 percent).

5.5.1. Geographic Targeting

As mentioned in section 5.2.1, PRIZE is dispersed, though concentrated in the southwest part of the country. Specifically, it is implemented in five districts in Matabeleland South, one district in Midlands, one district in Mashonaland Central, and one district in Mashonaland East.

The USAID-BEST Project recommends that future geographic targeting take into account the agro-ecological zones of Zimbabwe (as shown in Figure 11), and continue to primarily target the driest and poorest regions of Zimbabwe in Natural Regions IV and V, as is currently done under the PRIZE program. These areas consistently face the largest average food deficits. Targeting distributed food aid in these areas will help to ensure that any food aid is more likely to lead to additional consumption by beneficiaries. The fact that these areas' markets are generally less integrated than other, more productive areas, underscores the importance of ensuring effective targeting of individuals and households, to ensure that food aid is leading to additional beneficiary consumption rather than displacing normal market purchases, for example.

Program consolidation should also be considered, so that geographic proximity can assist program implementation. The current PRIZE program has six districts in southwest Zimbabwe that are contiguous, and two districts in the northeast that are contiguous, but these two clusters are very far apart, making it a challenge to share trainings, logistics, and lessons learned, for example. However, the benefits of program consolidation need to be balanced with the fact that vulnerable populations are dispersed.

Prospective applicants should further take into account agricultural markets (e.g., market integration) and economic opportunities, among other factors (e.g., local partner capacity, local government capacity, and communities' particular socioeconomic characteristics), to target potential areas for future programmatic interventions.

5.5.2. Seasonal Targeting

Currently, GoZ guidelines mandate that any public works project (e.g., FFA programs) must be completed between April 1-October 31 in a cropping year, so as not to interfere with crop preparation or maintenance.⁴²

It is critical to target food assistance during the lean season in Zimbabwe. The main harvests occur in April and May, and lean seasons can begin as early as July for dry, poorer areas which only produce up to three months' worth of food supply. Lean seasons can begin in October for those areas producing up to six months' worth of food supply, and generally include areas within the provinces of Matabeleland North and South, and Masvingo.

⁴² Note that some PRIZE FFA activities did take place outside this time window, with prior GoZ approval.

The peak hunger season nationally occurs between December and February, and food security interventions should take this into account. For example, WFP's CFC program targets beneficiaries between October and March to maximize impact during the lean months.

Potential Awardees should take into account local seasonal conditions to maximize programmatic results, including stored grain production from the previous harvest season, target months that would maximize programmatic impact, expected market surplus and deficit areas within the region, local market efficiency, other food security programs funded by the government and donors, and other factors that would aid in targeting assistance during the neediest times during a cropping year for selected local communities.

5.5.3. Household/Individual Targeting

Labor availability and nutrition are key factors to consider for household and individual targeting. The GoZ estimates that approximately 11 percent of all households lack an able-bodied individual who could participate in a FFW/FFA activity, and therefore require assistance through a social safety net. Male migration affects the availability of household labor for participation in Title II activities, and can create challenges to effective targeting of the most vulnerable food insecure households.⁴³ Potential Awardees should also consider levels of chronic illness (HIV, tuberculosis, etc.) that may impact the community and affect labor availability. HIV rates and orphan numbers in PRIZE districts are typically higher than the national average.

To varying degrees across the country, food availability, access, and utilization are all challenges to improve food security in Zimbabwe, and all three should be considered in program design. While there is fairly widespread agreement that availability and access are challenges, there is less attention to the rapidly developing and complex problem of both undernutrition and overnutrition in rural communities across the country. According to the Zimbabwe 2010 Demographic Health Survey (DHS), for children under 5 years of age, 32 percent⁴⁴ are stunted, 3 percent are wasted, and 10 percent are underweight. However, 6 percent of children are overweight, and nearly one third of women are overweight.

Targeting which impacts those most in need is always a goal of food assistance programs, and something that can always be improved. There is growing debate in Zimbabwe among various levels of the government, donors, and local communities about whether in-kind food aid should be provided or whether cash or other options are more desirable. Anecdotally, field interviews revealed that beneficiaries generally preferred food rations to cash.

⁴³ Anecdotal estimates are that at least 1 million Zimbabweans live and work in South Africa for at least portions of the year, due to the deterioration of economic and agricultural conditions in Zimbabwe over the past decade

⁴⁴ Note the National Nutritional Survey reports that the national stunting rate was 33.8 percent.

Some reasons offered for this preference include: 1) risk aversion – beneficiaries reported that food is more desirable than cash because they know food will not lose value (whereas cash could lose value), 2) food may be more equitably shared among household members than cash, and 3) according to beneficiaries food is much easier to share among beneficiary and non-beneficiary households selected (whereas cash is more difficult practically and/or culturally to share between beneficiary and non-beneficiary households).

Beneficiaries who preferred cash over food appreciated the flexibility to use the cash to pay for other items, e.g. school fees, health costs, clothes, and milling services. Please see the following Chapter, which focuses on LRP, for a more detailed discussion on food aid and cash assistance programs.

Potential Awardees should consider local conditions, seasonality, other food security activities, local capacity, and evolving conditions within communities to make the most efficient choice for the form and modality of assistance. Local communities in Zimbabwe should also continue to determine beneficiary selection criteria based on vulnerability levels and other relevant factors, as is currently done for the PRIZE program. This process should be as transparent as possible. Additionally, as the C-SAFE evaluation concludes, beneficiary selection should minimize, as much as possible, tension within local communities between those selected, and those not selected.⁴⁵

5.5.4. Evidence of Leakage in Local Markets

The USAID-BEST team visited markets throughout the country, including major ones in urban Harare, Bulawayo, Mutare, and Masvingo, as well as a number of smaller markets. The team did not see any Title II commodities for sale on these markets, and did not hear anecdotally from beneficiaries and other stakeholders that leakage was common. The field team heard secondhand that, in the past, US bulgur wheat was infrequently sold at the Jambanja market in Chitungwiza; however, the USAID-BEST team did not see any US bulgur wheat for sale at this market during the April 2012 market visit.

The lack of notable leakage on the markets suggests adequate targeting. It should also be noted that the team visited the country just before the 2011/2012 harvest season, and most PRIZE food aid distributions would have ended for the season in October 2011; also humanitarian distributions would have just ended, as harvests occur in April/May.

5.5.5. Activity Type

The PRIZE program supports public works FFA programs, as the mechanism to distribute food aid. The field team visited PRIZE districts in southwestern Zimbabwe. In these areas, representative FFA activities include maintenance/construction of: irrigation schemes, cattle and small livestock dip tanks, paddocks, sales pens, sand abstraction sites, and gardens.

⁴⁵ Tango Intl., 2010, C-SAFE Zimbabwe End of Program Evaluation.



Photo by Fintrac Inc.

A farmer shows off his sorghum harvest in Mangwe District, a crop very appropriate for Region IV, March 2012.

Infrastructure and asset creation was identified by the community members and local officials as top priorities at the start of the PRIZE program. Initial assessments showed that water (irrigation, sand abstraction sites, etc.) was essential for food insecure households.

Project coordination and management also includes local community committees (e.g., village development committees) which manage the projects, and work with local community households, local NGOs, and local officials

Some recommendations for future programming, informed by these field visits include: 1) local communities should consider the institution of user or maintenance fees for physical assets, so that proper repairs/maintenance can be undertaken, in coordination with local governance structures; 2) NGOs and local communities should work collaboratively, so that effective mentoring and training is implemented, and project sustainability is emphasized; 3) Title II programs should consider advocating local government contributions toward projects in the form of manpower and/or funding; and 4) consideration for FFA activities to be focused on upgrading tertiary, unpaved roads, in collaboration with local government councils. The current PRIZE cycle includes many of these activity types. As noted previously, community public work activities, per GoZ mandate, must be undertaken between April 1-October 31, so that activities do not conflict with the agricultural cycle.

Maternal child health and nutrition (MCHN)/"1,000 Days" programs.⁴⁶ Recuperative and/or preventive approaches to malnutrition among infants and young children should be considered for programming. Both preventive

⁴⁶ For further guidance on the appropriate design of MCHN interventions generally, and Preventing Malnutrition in Children Under 2 Approach (PM2A) specifically, please see USAID's Commodities Reference Guide: accessible via http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module1.html, and Food and Nutrition Technical Assistance (FANTA) Project's PM2A Technical Resource Materials (TRM) and other related guidance: accessible via <http://www.fantaproject.org/pm2a/index.shtml>.

and recuperative programming, similar to existing MCHN activities in other Title II development program countries, with a focus on children under 5, could be considered and adapted to the Zimbabwean context. Additionally, preventive program approaches ("1,000 Days") that target women from conception until the time the child is 24 months old can also be considered. Programs that encourage improved infant and young child feeding practices through behavior change and communication, and improved hygiene and sanitation practices, need not (and should not in the Zimbabwean context) be accompanied by large volumes of in-kind food aid. USAID should encourage PVOs to explore creative options to tackle malnutrition by using LRP, cash, or voucher programming, possibly complemented by other Title II resources. PVOs should take into account the evolving conditions within Zimbabwe, specific health needs and capacity for local communities, and programming approaches that will maximize impact for beneficiaries

5.5.6. Commodity Selection

The PRIZE program distributes bulgur wheat, beans or yellow split peas, and refined vegetable oil.⁴⁷ The commodities currently distributed by the PRIZE program are generally accepted and appropriate for targeted beneficiaries. The wheat and pulse (beans/peas) are generally cooked and eaten in porridge form, and complemented with maize, sorghum, millet and/or local vegetables, depending on the time of year and purchasing power of the targeted households. Also, the wheat and pulses generally add diversity to a heavily maize-based diet for most individuals. During the USAID-BEST March-April 2012 field visit the team received some minor complaints about the taste and preparation of bulgur wheat; still, bulgur wheat was generally accepted by beneficiaries

Overall, the PRIZE program provides less than 8,000 MT

⁴⁷ Representative FFA ration includes 60 kg. cereals, 10 kg. pulses and 3.67 kg. vegetable oil per HH member per month.

of Title II commodities per calendar year to the targeted districts. Such small quantities of commodities would not raise Bellmon concerns. However, a new Title II development program that is substantially larger (with confirmed food aid tonnage levels for direct distribution) would need to take Bellmon disincentive concerns into consideration before actual program implementation.

As mentioned in Chapter 2, a MAP was implemented in 2003. In this novel monetization program, US sorghum was imported, milled in Zimbabwe, and then sold in urban areas at a subsidized price by CRS. The MAP program successfully targeted high-density, low-income households in Bulawayo and other urban areas for those highly vulnerable, food-insecure target groups. The program was also successful in increasing overall food availability and access during the deteriorating national economic conditions.⁴⁸

Further consideration should be given to distributing more sorghum than bulgur wheat for the new Title II development program, as this is locally grown in most Natural Regions IV and V areas. Distribution of sorghum may increase the overall promotion, production, and consumption of sorghum and other small grains that are more drought tolerant. Sorghum is a common local staple, and beneficiaries are more accustomed to having it as part of their normal diet than bulgur wheat, which is not grown locally. Furthermore, sorghum has a significantly higher protein content than bulgur wheat (about three times as much).⁴⁹

However, care should be taken to ensure that the distribution of sorghum is in small enough quantities that it will not serve as a disincentive to the local cropping of sorghum, that distributed sorghum is not primarily used to produce sorghum beer, and that the distribution of sorghum does not lead to market leakage.

If sorghum is included in a new distributed food aid program, USAID should encourage PVOs to bring sorghum in as whole grain, and make arrangements with millers (larger or smaller) in the Title II areas to mill and bag the sorghum for distribution.

5.5.7. Political Affiliation

Politics and political affiliation specifically, are important factors all humanitarian actors will need to account for in their program design in a new Title II cycle in Zimbabwe.

Although clearly documented evidence is sparse, there is some documentation by the Zimbabwe Peace Project, numerous news accounts, and anecdotal evidence from the study team's recent field visits in late 2009 and early 2012, that suggest political affiliation is sometimes a determinant of resource allocation, including distributed food aid.

For GoZ benefits and programs, selection typically depends on local government officials' or traditional village leaders' approvals,

and the real or perceived political affiliation of individuals households. While both of the two main political parties (ZANU-PF and MDC) have faced accusations, most evidence from the Zimbabwe Peace Project and anecdotal accounts heard during the team's field work indicate that ZANU-PF officials and supporters more frequently control food aid through local government officials, traditional leaders, or other groups, so that only ZANU-PF supporters receive food aid or other forms of assistance, and/or so that local communities vote a certain way to ensure continued future assistance.⁵⁰

USAID reports that, over the past decade, food aid beneficiary selection criteria are not typically considered politicized when resources have been provided by donors, compared to resources provided by the GoZ. WFP has reportedly taken significant measures to prevent politicization of donor food aid resources. WFP beneficiary selection criteria uses a community-based approach which improves transparency and decreases ability for political manipulation. Other measures are taken to ensure transparency of donor resources including: monitoring the registration process for politicization by WFP and USAID; NGO training on community-based targeting approaches; multiple help desks present at all distributions; WFP and USAID monitoring of distributions; closure of distribution if there are any political statements or rallies; and post-distribution monitoring by WFP and USAID. USAID reports it has found isolated cases of beneficiary manipulation; however, it has reportedly been difficult to attribute these cases to politicization, rather than to greed or clan-based affiliations.

In sum, it would be fair to conclude that much less political bias occurs with WFP and USAID-supported food aid programming in Zimbabwe, as opposed to GoZ programming. Potential Title II Awardees should incorporate lessons learned from previous and current USAID and WFP programming to ensure targeting avoids political influence.

Finally, elections are tentatively scheduled to be held by March 2013. The field team collected numerous anecdotal stories of how political affiliation has been used in the past to reward or punish local communities, depending on how they voted. Interviewees additionally expected this pattern of behavior to taint the upcoming electoral process.

50 A number of sources can be used to support this bias: the Zimbabwe Peace Project website, www.zimpeaceproject.com (see, for example, 2012 National Reports detailed political manipulation of food distributions, especially the Grain Loan Scheme, nczn.wordpress.com/2012/04/26/zanu-pf-accused-of-politicising-food-aid/; Zimbabwe Peace Project, 11/2011, "Summary on Politically-Motivated Human Rights and Food Related Violations, pp.12-14, www.swradioafrica.com/documents/ZPP2311211.pdf, posted by Stephanie McBride.

48 Tango Intl., 2010, C-SAFE Evaluation.

49 nutritiondata.self.com.

Chapter 6. The Role of Local and Regional Procurement, Cash, and Voucher Programming



Photo by Fintrac Inc.

Typical market vendor stand; selling sugar beans, cowpeas, dried veggies, and small grains. Vendors pay the market directive to leave their goods each night, covered with black plastic and at the hands of a security guard, to avert daily transport. Gweru, Zimbabwe, March 2012.

6.1. Introduction

This Chapter reports on the use of LRP, cash, and voucher social safety net programs to inform the appropriate use of these tools in Zimbabwe in the near term. The Chapter first provides an overview of recent and current LRP, cash, and voucher initiatives in Zimbabwe, then highlights program considerations, and concludes with recommendations on how to best use these potentially creative, cost-effective, and efficient programming tools for future programs. The use of these tools is encouraged to complement in-kind food assistance to promote livelihoods development and stimulate local markets and trade. While current and future Title II partners may be most concerned with USAID-funded programs (currently, PRIZE and WFP; as yet undetermined for the next cycle), the USAID-BEST team believes it is important to understand that there are numerous interventions using cash and vouchers and therefore, this study reports on multiple donor-funded programs, not solely USAID Title II-funded initiatives.

A cash injection into a local economy can have multiple effects. The cash injection may: 1) increase effective demand; 2) trigger more supply through incentives to increase local production, increase trade, or a combination of increases in production and trade; or 3) create conditions which could support inflation if supply does not increase in response to increased effective demand.

6.2. Overview of LRP and Cash and Voucher Initiatives in Zimbabwe

Prior to 2009, cash programming was not a viable option in Zimbabwe,¹ due to hyperinflation and tight governmental control of the maize market, which led to market instability, price uncertainty, and insufficient supply.² With the institution of the official multi-currency economy in early 2009 and the liberalization of grain market, positive growth was forecasted for the first time in over 10 years.³ These economic changes allowed humanitarian and international development communities to broaden food security programming tools and poverty alleviation outreach efforts.

As one cash program manager described the environment, Zimbabwe is presently viewed as a cash/voucher ‘science test lab’ where a variety of approaches are being piloted and evaluated, in order to find the most appropriate program methods for the

1 In the early 2000s, ActionAid implemented some cash programming but stopped activities when hyperinflation and commodity shortages set in.

2 Ruiz Roman, Elena/Concern Worldwide, 2010. Programme Evolution, Planning and Implementation Zimbabwe Emergency Cash Transfer (ZECT) Pilot Programme November 2009 to March 2010.

3 Kairiza, Terrence, 2009. Unbundling Zimbabwe’s journey to hyperinflation and official dollarization

Guidance

Both LRP and cash/voucher programs are procurement approaches that aim to support local markets, by stimulating production and/or marketing of basic goods. Typically, LRP refers to donors purchasing sizeable food tonnages from larger market actors; cash/voucher programs generally refer to donor provision of cash transfers or vouchers to beneficiaries who then procure small amounts of food and non-food items from local markets.

Terminology used throughout this Chapter

Local and regional procurement/purchase (LRP):⁴ Local procurement/purchase refers to the purchase of food in a country affected by food insecurity or a food crisis/disaster to distribute to targeted beneficiaries within the same country. This can include the use of cash and vouchers. Regional procurement/purchase refers to the purchase of food in a country, within the region, other than the recipient country, in order to distribute to beneficiaries in the country with a food crisis.⁵

Conditional cash transfer: Beneficiaries receive cash to purchase items themselves. The conditionality associated with the transfer requires the beneficiary to carry out a certain livelihood activity, or engage in some behavior, such as to visit a health center or to attend a training.

Unconditional cash transfer:⁶ Beneficiaries receive cash to purchase items themselves. Unconditional cash transfers allow beneficiaries to spend the money according to their own perceived need, with no restrictions on behavior or how money is spent. There is no condition associated with the transfer.⁷

Cash for work (CFW): Cash is provided to workers as wages. The projects are generally community-wide, public works that benefit the whole community.⁸

Cash for asset (CFA): Cash is provided to workers as wages for community-based, public works projects that create community assets.

Cash voucher: Beneficiaries receive a voucher that has a cash value. The cash voucher can be redeemed at pre-identified shops, to pre-identified traders or at pre-identified markets. The cash voucher can be exchanged for a range of commodities up to the specific value.⁹ This is also referred to as an open voucher, because end purchases are not defined.

In-kind/commodity voucher: Beneficiaries receive a commodity voucher. The commodity voucher can be redeemed at pre-identified shops to pre-identified traders or at pre-identified markets, for a range of predetermined commodities. Commodity vouchers can be exchanged for a fixed value or quantity of selected commodities.¹⁰ This is also referred to as a closed voucher, because the range of end purchases are predetermined by the program. Closed vouchers can be used for non-food items, such as livestock or agricultural inputs.

context. The vast number of programs show the shift in the donor community to wide acceptance and promotion of non-food-based, cash-oriented interventions, including cash transfers, vouchers, and food/cash mix.¹¹

Cash and voucher based interventions can be used for the purpose of generating income and building livelihoods, by providing a financial or physical input (fertilizers, seeds, etc.). These interventions can also be used as a tool in humanitarian assistance, providing cash for the purchase of basic food needs.

6.3. LRP and Cash and Voucher Initiatives, by Donor and Program

See Annex IV for a more comprehensive list of cash and voucher programs, listed by agency, programming location, modality, donor, transfer quantity, and date/duration. The section below highlights some of the largest and most relevant major donor funded programs in the country, in no particular order.

6.3.1. WFP

In Zimbabwe, WFP has four main focus areas: 1) Seasonal Targeted Assistance, 2) food and cash transfers for food insecure households, which can include CFA and/or FFA programs for households with able-bodied individuals, 3) health and nutrition programs that include fortified blended foods for malnourished and chronically ill people living with HIV/AIDS (PLWHA) and tuberculosis (TB) patients through commodity vouchers, and 4) a Social Safety Net program that includes food aid and voucher assistance for extremely poor food-insecure households with limited or no assets.¹²

4 LRP is used by USAID as an emergency response and, at the time of writing, it is not available to Title II development programs.

5 Cornell University, 2010. LRP Market Monitoring Training, Introduction to LRP.

6 Also, referred to as cash grant.

7 CaLP, 2011. Cash Transfer Programming. Cash Learning Partnership website. Downloaded April 2012.

8 CaLP, 2011. Cash Transfer Programming. Cash Learning Partnership website. Downloaded April 2012.

9 CaLP, 2011. Cash Transfer Programming. Cash Learning Partnership website. Downloaded April 2012.

10 CaLP, 2011. Cash Transfer Programming. Cash Learning Partnership website. Downloaded April 2012.

11 A food and cash mix is also referred to as a food and cash split or a food and cash basket.

12 WFP. 2010. Protracted Relief and Recovery Operations – Zimbabwe.

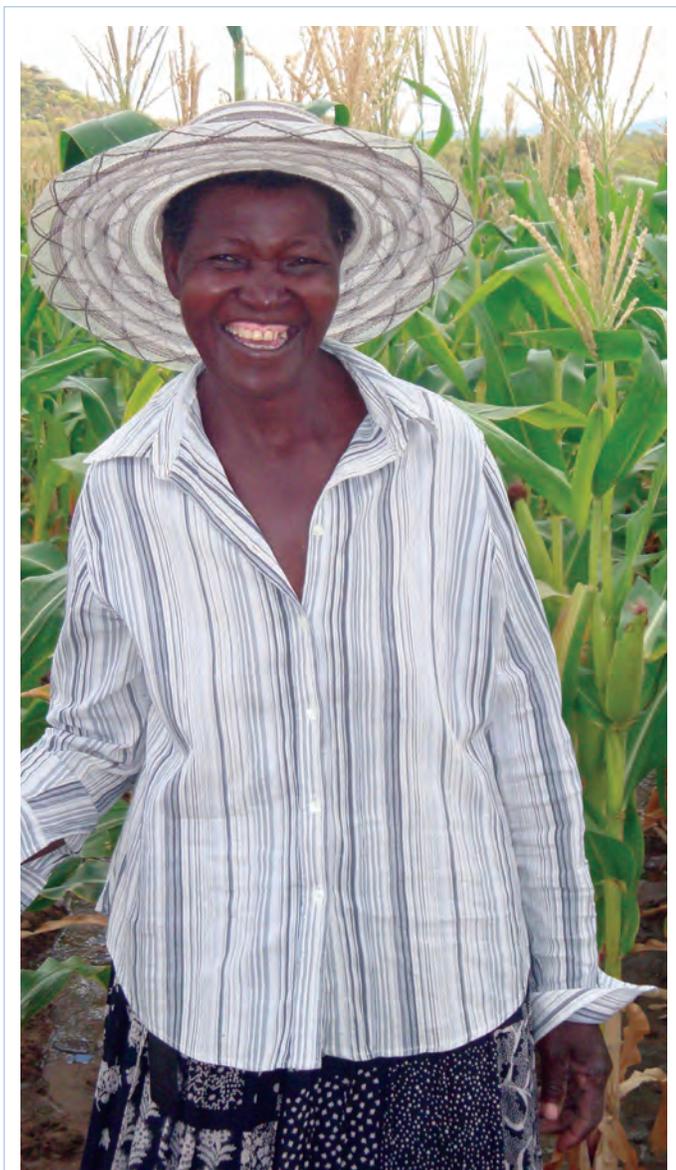


Photo by Fintrac Inc.

A Title II PRIZE Food for Asset beneficiary in Insiza takes a break from irrigating her maize to chat about participating in the program. Insiza, Zimbabwe, March 2012.

WFP operated a pilot program from November 2009-March 2010, titled the **Zimbabwe Emergency Cash Transfer (ZECT) program**, and implemented by Concern Worldwide. The program covered two wards in each of the following districts: Gokwe North, Gokwe South, and Nyanga.¹³ The program's overall objective was to replace food transfers with cash transfers.

The ZECT program was very much a pilot, since no previous studies could inform program design. Without prior examples to rely on, WFP based the cash transfer amount on household size and local market prices. A consulting firm carried out a maize market assessment prior to the program start date. The assessment showed that the market should have been able

¹³ Ruiz Roman, Elena/Concern Worldwide. 2010. Programme Evolution, Planning and Implementation Zimbabwe Emergency Cash Transfer (ZECT) Pilot Programme November 2009 to March 2010.

to withstand the increase in demand for grain; still, program implementers were unclear how market prices would react to a surge of cash.

The ZECT program initially focused on wards identified by the ZimVAC as food insecure, and then further refined geographic targeting at the village level. WFP and Concern Worldwide used a community-based targeting method and prioritized wards located near maize surplus areas with access to functioning markets. Within each district, one ward received cash, one ward received cash and food, and the remaining wards received food aid.¹⁴

The program increased cereal and grains consumption.¹⁵ The external evaluation suggested that the impact of cash on beneficiaries' dietary diversity was less significant than the impact of food distributions on beneficiaries' dietary diversity. According to the evaluation, this was because with in-kind food aid, beneficiaries consumed more beans as compared to cash beneficiaries who generally chose not to buy beans or other protein-rich foods.¹⁶ According to the Concern Worldwide 2010 annual report, households spent cash transfers on the following items (from most amount of purchases to least amount of purchases): maize, other foods, non-food items, milling, debt repayment, transport, alcohol and tobacco, savings, and education.¹⁷ The external evaluation also noted that "cash and food was overall slightly preferred of the three types" (just cash, cash and food, and just food).¹⁸

This program came to an end in March 2010. The following year, WFP decided to scale up the program and renamed it Cash for Cereals (CFC).

The CFC program, as part of WFP's Seasonal Targeted Assistance, is a large cash transfer program in Zimbabwe. The CFC program has been implemented in the country's past two peak hunger seasons, October 2010-March 2011 and October 2011-March 2012. The goal of the program is to promote local cash spending, increase household access to cereals, and provide humanitarian assistance. The principal objective of the initiative is to enable poor households to purchase cereals from surrounding communities and access food during the peak hunger period.

Geographic targeting was based on ZimVAC assessments. Food insecure districts and wards were selected according to areas that had high numbers of households with food deficits missing food entitlements, limited access to cash, and were surrounded by areas with surplus grain. The CFC program intends to help extremely poor households purchase cereals from surrounding communities and access food during the peak hunger season. Selected areas rely on community sharing, casual labor, or the sale of productive livestock, in

¹⁴ Kardan, MacAuslan, and Marimo, July 2010. Evaluation of Zimbabwe's Emergency Cash Transfer (ZECT) Programme.

¹⁵ Gourlay, Deborah/CalP. 2011. Cash Transfers in Zimbabwe.

¹⁶ Kardan, MacAuslan, and Marimo, July 2010. Evaluation of Zimbabwe's Emergency Cash Transfer (ZECT) Programme.

¹⁷ Concern Worldwide, 2010. Annual Report

¹⁸ Kardan, MacAuslan, and Marimo, July 2010. Evaluation of Zimbabwe's Emergency Cash Transfer (ZECT) Programme.

exchange for maize grain. As stated earlier, all of the districts and communities selected are surrounded by areas with grain surpluses.^{19, 20}

Implementing partners in 2010/2011 programs included: Concern Worldwide, Oxfam GB, GOAL, and CRS; implementing partners in 2011/2012 include: World Vision, Oxfam GB, CARE, Christian Care, Plan, and CRS.

During the distribution period, the program provides donor-imported pulses and vegetable oil as in-kind food aid, along with a cash transfer intended to support the purchase of cereals. There is no conditionality associated with the transfer; households receive assistance based purely on geography and food insecurity levels. Food aid and cash is given to each household member. Households receive US\$5 per member, which is based off the market value for 10 kg of maize (approximately US\$4) and milling/transport costs (approximately US\$1) for a six week period. There is no maximum number of household members who may qualify, and there is no requirement on how or where beneficiaries spend cash. Note that the implementing partners hired Safeguard, a private company with armed personnel, to deliver and hand out the cash.²¹

See the following tables for details on the CFC program.

Table 20. WFP Cash for Cereals Program, October 2010-March 2011

Implementing Partner	District	Transfer modality	Works
Concern Worldwide	Gokwe North	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
Concern Worldwide	Gokwe South	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
CRS	Chikomba	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
GOAL	Hurungwe	Cash: \$20 per household* In-kind: pulses and oil	Cash and food without community works
OXFAM GB	Kwekwe	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
World Vision	Insiza	Cash: \$5 per person In-kind: pulses and oil	Cash and food with community works*

Source: WFP/Zimbabwe, March 2012.

*GOAL already had a running cash transfer program of \$20USD/household; therefore when the CFC was introduced it was agreed to continue with the existing modality to avoid disruption. Beneficiaries found it confusing and unfair as to why the in-kind food aid part should vary with household size but the cash part did not. This was not deemed a fair approach.

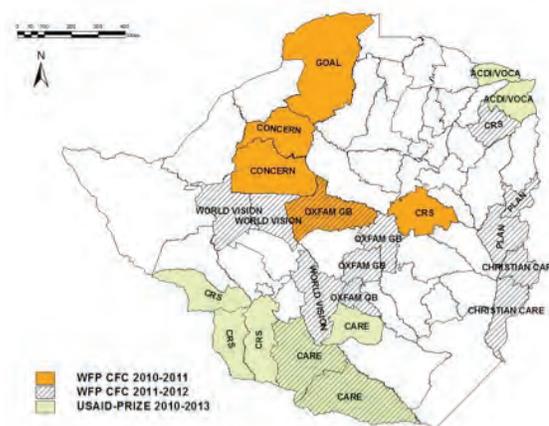
Table 21. WFP Cash for Cereals Program, October 2011-March 2012

Implementing Partner	District	Transfer modality	Works
World Vision	Lupane, Nkayi	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
Oxfam GB	Chirumhanzu, Kwekwe, Zvishavane	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
Oxfam GB	Shurugwi	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
CARE	Gwanda, Beitbridge	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
Christian Care	Chimanimani, Chipinge	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
Plan	Mutare, Mutasa	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
CRS	Mutoko	Cash: \$5 per person In-kind: pulses and oil	Cash and food without community works
World Vision	Insiza	Cash: \$5 per person In-kind: pulses and oil	Cash and food with community works*

Source: WFP/Zimbabwe, March 2012.

*This was not on the same project cycle; it was implemented from August to November 1, 2011, and therefore did not interfere with the GoZ Food Deficit Mitigation Strategy which states that there should be no public works during the lean period of November - March.

Figure 24. Map of Districts with WFP CFC (2010/2011 and 2011/2012) and USAID PRIZE (2008-2013) FFA Programs



19 Great Minds Consultancy, 2011. External Evaluation of the WFP and Partners Pilot Cash for Cereal Program.

20 Areas without functioning markets or distant from grain surplus areas receive food aid distributions under WFP's Seasonal Targeted Assistance and Vulnerable Group Feeding.

21 Gourlay, Deborah/CalP. 2011. Cash Transfers in Zimbabwe.

LRP. WFP procures select commodities, primarily maize, from regional markets. In December 2011, WFP received US\$10 million from USAID for its LRP activities, of which US\$8 million was used to purchase maize, primarily from Zambia. WFP did make an effort to procure maize locally, but Zimbabwean markets did not have sufficient supply. The remaining US\$2 million from USAID was used for cash distributions in the CFC program detailed above. USAID also provided US\$7.5 million to WFP for LRP in late 2010.

Zimbabwe has local manufacturing capacity for CSB and for vegetable oil; however, WFP procures CSB Plus from Malawi and vegetable oil from Asia for distribution in Zimbabwe.²² The USAID-BEST project encourages donors to support local market development and growth wherever possible.

SPLASH. WFP's Sustainable Program for Livelihoods and Solutions for Hunger (SPLASH) program distributes in-kind CSB and provides commodity vouchers. Distribution takes place at medical clinics managed by cooperating partners including CRS, Help from Germany, and Adventist Development and Relief Agency (ADRA). Redan Mobile Transactions is the technical partner, and provides database management, price monitoring, and supply chain support. SPLASH vouchers were introduced to the social safety net program in April 2011; prior to this point, the program distributed in-kind food aid. At present, SPLASH vouchers are used in Harare and Bulawayo urban areas, and are expanding to some peri-urban sites. SPLASH is an on-going program without a defined end date. Program goals include: 1) improve the wellbeing of PLWHAs and associated opportunistic infections (OI) in order to achieve greater human capacity towards recovery; and 2) reduce the prevalence of malnutrition among clients on ARV therapy, clients with TB, and children and mothers in the Prevention of Mother-to-Child Transmission (PMTCT) Project.

Potential beneficiaries must attend a health center for health and nutrition surveys. If surveys indicate a person is below the established health/nutrition threshold,²³ s/he is admitted to the program. The voucher is conditional upon continual health center visits and anthropometric measurements.

Transfers are provided on a monthly basis, and are available on select days, usually determined by CSB supply. Since the CSB is imported from Malawi, the exact date of arrival to each clinic is not defined in advance. Once the CSB arrives, program implementers are able to determine which days beneficiaries can pick up the CSB and vouchers. Beneficiaries receive 10 kg of CSB, as well as a SPLASH closed commodity voucher for the purchase of a food basket (1.5 kg pulses, 750 ml vegetable oil, and 5 kg maize meal) at pre-selected markets, and US\$5 in cash back from the same market retailer. Pulses, vegetable oil, and maize meal quantities increase according to household

size (up to a maximum of five household members); CSB and cash back quantities do not vary according to household size. Beneficiaries have flexibility to choose which brands to purchase, but do not have flexibility on what size quantities to purchase. SPLASH vouchers are valid for 30 days and can be redeemed at the pre-identified vendors any day.²⁴

The value of the food basket (and thus, value of the voucher) is determined by WFP, in coordination with Redan Mobile Technology and the market retailers, on the 24th of each month, for the following month. As of April 2012, the food basket was established at US\$7.12.²⁵ As noted above, each household member receives a full food basket, but only the household beneficiary receives the in-kind CSB and the cash back.

As of March 2012, WFP pays US\$2.15 for producing and administering the vouchers. WFP is currently distributing about 7,000 vouchers per month.²⁶ The price WFP pays for the voucher will decrease as voucher quantities increase. The vouchers are highly secure; beneficiary ID numbers are associated with two pin numbers, and an electronic server verifies the voucher before a transaction can take place. Market retailers are responsible for ensuring that beneficiaries purchase the correct products.

In the context of urban health clinics, communities often associate in-kind food aid with disease, malnutrition, and positive HIV status. During the March USAID-BEST field visit program staff reported that less stigma is associated with vouchers (or cash) than with food aid, because vouchers are not visible and voucher beneficiaries can shop at markets similarly to non-beneficiaries.

During the USAID-BEST field visit all stakeholders, beneficiaries, NGOs, retailers, managers, and donors reported satisfaction with the SPLASH voucher system. The program is expected to scale up in coming months.

PRP is a poverty reduction program which began in 2004, with funding from DFID. In 2008, a new phase began with multiple donors (AusAID, DFID, World Bank, Danida, EU, UKaid, and the Norwegian Embassy) and 26 implementing partners. PRP is managed by a consulting agency, GRM International. The current program is expected to end in November 2012. PRP components include: livelihoods and food security, community-based care, social and cash transfers, water and sanitation, climate change, and environment.

As one example of PRP components, an implementing partner, Oxfam GB, is presently undertaking an urban cash transfer program and input voucher schemes. Under the urban cash transfer program, US\$20 is provided to households through a formal bank (CABS). Beneficiary selection is based off vulnerability; selected beneficiaries include widows, households earning below a certain amount, or households headed by chronically ill, elderly, or children. There is no restriction

²² Personal Correspondence with WFP/Zimbabwe, March 2012.

²³ Adults based off body mass index (BMI) 18.5 and under; age 6-59 months based off weight-for-height; age 5-18 years based off BMI and weight-for-height (WFH); and pregnant and lactating women based off middle upper arm circumference (MUAC).

²⁴ Communication with Redan Mobile Technology, April 2012.

²⁵ Communication with Redan Mobile Technology, April 2012.

²⁶ Communication with Redan Mobile Technology, April 2012.

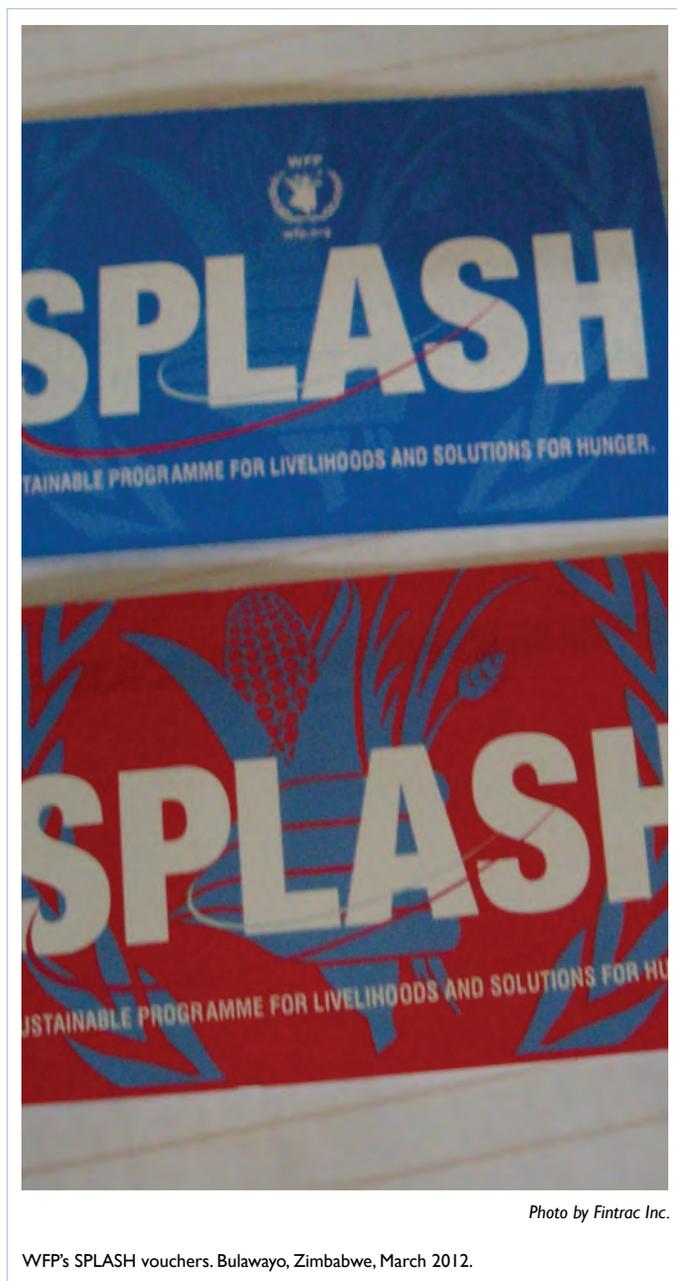


Photo by Fintrac Inc.

WFP's SPLASH vouchers. Bulawayo, Zimbabwe, March 2012.

on the purchases made with the cash. Since this program is implemented in an urban area, key informants report that the cash transfer program is not significant enough in size to lead to price inflations. Although price increases are reported, these increases occur during Christmas holidays and salary/wage bonus periods, and are very likely increases which occur independently of the transfer. Cash committees have been established to follow up on budget and financial management training with the beneficiaries.

The agricultural component of Oxfam's PRP-funded activities has two input voucher schemes: crop voucher and livestock voucher. Food insecure households with limited income and with available labor were selected as program beneficiaries. Households can choose one voucher or the other.

With the crop voucher, beneficiaries receive one US\$160 voucher, and have to pay 10 percent (US\$16) of the voucher value to the agro-dealer. There is no restriction with this voucher; beneficiaries can purchase seeds, fertilizers, plows, wheelbarrows, etc. The vouchers were first distributed in October 2011, and original beneficiaries had until December 31, 2011 to spend the money. Agro-dealers were selected based on storage capacity, accessibility to customers, phone service, and access to electricity. PVOs report that the program has helped create linkages between suppliers and agro-dealers, beneficiaries have enjoyed having a choice when purchasing items, and beneficiaries have even invested in inputs in which they have had to add additional money of their own.

With the livestock voucher, beneficiaries receive a US\$160 voucher, and have to pay a 10 percent (US\$16) cost share into a village savings account. Vouchers were distributed in January 2012. Oxfam GB organized a market fair where beneficiaries were able to purchase any type of livestock. Livestock sellers cashed in the vouchers with Oxfam the same day of the temporary market, so there was no delay in payment. PVOs report that 8-9 months for this type of project is too short, and more time is needed for the necessary follow-up with beneficiaries on livestock management.²⁷

6.3.2. Government of Zimbabwe

The GoZ's Ministry of Labor and Social Services began a four-year cash transfer program in October 2011, called the **Harmonized Social Cash Transfer Program**. UNICEF is the main funding agent for this government program. The program directly distributes cash to household members. The goal of the program is to reduce child vulnerability, with four supporting pillars: 1) cash distribution; 2) child protection services; 3) access to basic education, health, nutrition, and livelihood services; and 4) program management.

The program is under the Child Protection Fund, managed by UNICEF, who works with MoLSS and the private banking sector to deliver the cash transfers. The program currently reaches 10²⁸ of the 62²⁹ districts. In the next three years, UNICEF anticipates that 50 percent of the country's districts will be covered. Targeting is based on household labor constraints, food insecurity, whether a household is headed by someone under 15 or over 60 years of age, and/or a household dependency ratio greater than four. The GoZ hired an independent contractor to conduct household surveys in order to determine targeting of households. UNICEF reported that the targeting procedure was costly and lengthy, and that the organization may change the contractor and/or method in the future.

²⁷ Based on communications with Oxfam GB/Zimbabwe, April 2012.

²⁸ As reported by CaLR, 10 Districts include: Makoni, Chivi, Mangwe, Rushinga, Kariba, Goromonzi, Umguza, Zvishavane, Harare, and Bulawayo.

²⁹ Total number of districts as reported by USAID/Zimbabwe, OFDA Zimbabwe Complex Emergency Situation Report #1, April 26, 2010.



Photo by Fintrac Inc.

A woman discusses her experience cooking and preparing for her family the donated food aid that she received from participating in a Title II PRIZE Food for Asset activity, Bulilima, Zimbabwe, March 2012.

The quantity of the transfer is calculated based on number of household members. Households with one member receive US\$10, households with two members receive US\$15, three members US\$20, and four or more members a maximum of US\$25. The program uses a security company to manage the cash deliveries.³⁰

The program's first cash transfer occurred in February 2012, and the second transfer occurred at the end of April 2012. The cash is transferred on a bi-monthly basis at present, but the frequency may change in the future. Beneficiaries have no restrictions on market purchases and there is no conditionality attached to the cash.³¹

At present, this social protection program is not very visible and communications are kept to a minimum to reduce any political association with the targeting or actual receipt of program benefits

6.3.3. The Joint Initiative in Urban Zimbabwe

The Joint Initiative was a consortium of five NGOs: Mercy Corps (the lead agency), Africare, CARE, CRS, and Oxfam GB. The program ran from May 2008-June 2011. The consortium implemented the program in Mbare, Chitungwiza, Bulawayo Urban, Gweru Urban, Mutare, and Masvingo Urban.³² A variety of donors funded the program, including the USAID/OFDA, New Zealand Aid, and AusAID, DFID, World Bank, Danida, EU, UKaid, and the Norwegian Embassy through the PRP initiative. Households received US\$20 per month, and the target

population included very poor and poor households with vulnerabilities (e.g., households headed by children, the elderly, and/or the chronically ill). The program transferred money via bank checks and vouchers, with no conditionality attached. The only voucher requirement was that beneficiaries had to spend at least half of the transfer (US\$10) at the supermarket chain, OK. No restriction was placed on the type of product purchased at OK supermarkets.

6.3.4. USDA

LRP. The USDA local and regional procurement pilot was authorized in the 2008 Farm Bill, which committed US\$60 million for USDA-sponsored pilot programs that supported local and regional food purchases in order to examine the efficiency of LRP in food assistance programs.

In Zimbabwe, USDA initiated a LRP program as an FY11 emergency food assistance program.³³ UMCOR implemented the program, and contracted Nathan Associates to oversee the pre-procurement price analysis, as well as to monitor ongoing and final market components of the LRP program.

The UMCOR pilot program procured non-GMO white maize, peas, and vitamin A-fortified cooking oil in South Africa, for distribution in Chipinge district. According to the final program report, UMCOR chose Chipinge because of the district's high population, food insecurity, high percentage of child stunting, and strong United Methodist Church presence.³⁴

UMCOR chose to procure regionally rather than locally due to perceived uncertainty regarding Zimbabwe's food supply,

30 Gourlay, Deborah/CaLP, 2011. 3W Review of Cash and Voucher Programs in Zimbabwe.

31 Based on communications with key informants and UNICEF, April 2012.

32 Gourlay, Deborah/CaLP, 2011. 3W Review of Cash and Voucher Programs in Zimbabwe.

33 USDA, Foreign Agricultural Service, Local and Regional Procurement, Accessed March 2012

34 UMCOR, 2011. Local and Regional Procurement Pilot Project in Zimbabwe Final Report.

and based off of WFP's successful regional purchases in South Africa in the past. In total, UMCOR procured 1,291 MT of non-GMO white maize and 89 MT of vegetable oil from South Africa's Gauteng province, and 233 MT of yellow peas from South Africa's Kwazulu-Natal province.³⁵ UMCOR evaluations later reported that the yellow peas were likely originally sourced from Canadian imports, since South Africa produces minimal amounts of yellow peas. UMCOR procured the goods in a single transaction at the beginning of the program, rather than on a monthly basis.

UMCOR distributed the food to vulnerable households monthly, over a six month period. Household size was considered in ration size, and there was no cap on number of beneficiaries per household. Individual monthly rations included: 10 kg maize, 1.8 kg peas, and 0.69 kg cooking oil; thus, a beneficiary household of six members would receive 60 kg of maize; 10.8 kg peas; and 4.14 kg of vegetable oil. In total, distributions reached 68,129 beneficiaries including both transitory food insecure households and chronically food insecure households.³⁶

As reported in the UMCOR final report, market monitoring revealed that maize (both GMO and non-GMO) prices in South Africa did increase during the program, but not as a result of UMCOR procurements. Price increases were primarily attributed to poor weather, bio-fuel demands, reduction in world stocks, and other macro-economic factors unrelated to the UMCOR program. Since the yellow pea and vegetable oil procurements were small, UMCOR evaluators reported no impact in South Africa on local supply and demand from these purchases.³⁷ Beneficiaries sold maize harvests rather than consuming because they received maize from the program. The final report also states that there was no impact on the beneficiary market in Zimbabwe from this LRP program.

6.4. Results and Lessons Learned

This section highlights key lessons learned from past LRP and cash/voucher programming efforts in Zimbabwe. Recommendations for current and future programs are based on literature review and information gathered by USAID-BEST during field visits (including visits to program sites and markets), and during stakeholder interviews as of April 2012.

Numerous studies report on the use of cash versus food aid in an effort to identify appropriate contexts for each response. Neither response is inherently superior to the other; which response is feasible and most appropriate depends on market functionality, local cultural context, and donor funding resource availability.

35 UMCOR, 2011. Local and Regional Procurement Pilot Project in Zimbabwe Final Report.

36 UMCOR, 2011. Local and Regional Procurement Pilot Project in Zimbabwe Final Report.

37 UMCOR, 2011. Local and Regional Procurement Pilot Project in Zimbabwe Final Report.

6.4.1. Program Considerations

As USAID partners design new Title II development proposals for Zimbabwe, it is highly recommended that partners utilize the most efficient available program approaches (which may include non-food aid transfers) by building off existing successes and making the best use of all available resources.³⁸ Program considerations, lessons learned, and a variety of modalities are detailed below, which can help ensure that partners are efficient in their program approach.

Importantly, potential Awardees should note that food for assets, cash for assets, food for work, and cash for work programs can only be implemented between April 1 and October 30, as required by the GoZ to guarantee non-interference with labor intended for planting and harvesting.

Beneficiaries visited during the March/April 2012 USAID-BEST field visit most frequently reported a preference for in-kind food assistance, or food and cash³⁹ mix⁴⁰ over an entire cash-based assistance, for three main reasons.

The first reason appears to be food price fluctuations and hikes. During the USAID-BEST field visit interviews with WFP CFC program beneficiaries revealed that traders can take advantage of cash transfer programs by raising prices. The same beneficiaries reported, anecdotally, that prices did not increase when there was solely in-kind food aid distributions. Economic indicators do show that prices have stabilized immensely since the establishment of the multi-currency system, but beneficiaries still report increases. No price data were available to corroborate or discount this claim.

The second reason beneficiaries reportedly prefer food over cash is their fear of insufficient market supply. Prior to 2009, Zimbabwe experienced hyperinflation causing loss of household purchasing power and food availability. This market shock and hyperinflationary experience has left vulnerable households significantly wary of market stability. Poor rural households have traditionally exchanged goods and labor within their communities by means of bartering, a practice still very common today. Bartering is a very comfortable way for poor individuals to engage in the informal market.

The third reason beneficiaries may prefer food over cash is due to concerns about intra-household allocation of resources and gender dynamics. Beneficiaries show a preference for food aid over cash in certain situations because food may be less likely to be exchanged for other goods. Thus, food assistance will likely directly benefit the household – especially children – whereas cash can go toward non-food and potentially less essential items which may not support the intended beneficiaries in the entire

38 Please note that cash resources for any cash-based intervention would come from complimentary funding to the Title II Development Program, monetization revenue, and/or 202(e) funding.

39 This was reported by current WFP CFC beneficiaries in Beitbridge and Mutare districts.

40 This was reported by current WFP CFC beneficiaries in Beitbridge and Mutare districts, and PRIZE FFA beneficiaries in Bulilima and Insiza but not by PRIZE Village Savings and Loan beneficiaries in Beitbridge.

household. If the intervention was purely cash-based, rather than in-kind food aid or a mix of food and cash, women reported that husbands may spend cash assistance on non-essential items. Note that diversion of the transfer to non-food items can and does occur with food aid distributions as well, but faces higher transaction costs and thus is far less attractive to households. The retail value of bulgur or split peas, for example, may not be worth the while of the household to exchange or sell it for other goods.

Mixed Messages

When beneficiaries or non-beneficiaries are asked about donations or humanitarian interventions, there is always a concern that interviewees may report what they think the interviewer wants to hear. Community members could be biased based on their stake in the program. For example, beneficiaries may report a preference for in-kind food aid simply because they worry that the alternative may be no assistance, or may be cash assistance that never materializes. Such risk aversion is natural. This report shares information from the USAID-BEST field visits that included meetings with PVOs, local governments, and beneficiaries of the WFP CFC program and the USAID PRIZE program.

Some PVO staff remarked that program beneficiaries are 'lazy and taking the easy way out' when they show a preference for food over cash because in-kind food aid is distributed right to their community and does not require as much participation in the market. While rural households should become more integrated into the market, there will remain some food insecure households who lack the physical ability to meet their basic needs through market visits. Thus, it is imperative for PVOs to determine the objective of the program (particularly, the efficiency of targeting those households that cannot easily make market purchases because of limited physical access) to decide on the intervention strategy.

The CaLP network reports an overall preference for cash on behalf of beneficiaries in Zimbabwe. The network reported several reasons for this preference:⁴¹

"Flexibility on purchases seems to be the main benefit of cash over some other in-kind distribution as it allows beneficiaries to determine their own priorities and spend the cash accordingly. Other reasons given for preferring cash to food was "easy to transport", "can save part of it" and "it does not encourage unfair transaction practices". Households preferring cash believed that the lack of cash prior to the program encouraged unfair bartering practices especially when it came to maize milling and purchase of hygienic products such as soap."⁴¹

41 Gourlay, Deborah/CaLP, 2012. Review of Lessons Learned from Past Cash and Voucher Programs in Zimbabwe.



Photo by Fintrac Inc.

Livestock are important to rural food security and can be incorporated into cash and voucher programming. Bulilima, Zimbabwe, March 2012.

Notably, this finding does not distinguish between urban and rural settings which are actually quite different when referring to this topic. Urban beneficiaries are more active participants in the market, and the cash transfers in urban settings are less likely to affect prices because of the scale of the market.

Pre-program planning. Program managers and evaluators all reported the need for sufficient planning time before program initiation to inform community actors before the program starts. Increased program planning time would allow for the required formalities of informing provincial governments, as well as provide time for discussion with traders who would need to prepare for increased demand.⁴² Additionally, wholesalers would also need to be advised; if necessary, wholesalers may need to provide credit to traders.⁴³

Targeting. Beneficiaries reported that selection should be fair and transparent, and that interventions should reach as many households as possible.

At present, USAID and WFP programs target households according to district food security levels as identified in the ZimVAC. Wards within the ZimVAC-selected districts are then ranked in order of vulnerability. WFP and the PVOs conduct

42 While there may be some reason to be cautious that 'pre-planning' with traders and wholesalers may provide opportunity for these same traders/wholesalers to potentially make 'windfall profits' based on inside information, careful market monitoring, and a plan to disqualify vendors or shift programming would help ensure any such behavior has little room to negatively impact beneficiary or non-beneficiary households.

43 Ruiz Roman, Elena/Concern. 2010. Programme Evolution, Planning and Implementation Zimbabwe Emergency Cash Transfer (ZECT) Pilot Programme November 2009 to March 2010.

this further analysis in coordination with the District Drought Relief Committee (DDRC), Rural District Development Council, police officials, Department of Social Welfare, Ministry of Health, Agritex, community chiefs/headmen, and others. Vulnerability is determined according to livelihoods, number of livestock, coping mechanisms, and numerous production factors. PVOs' selection methods aim to be as technical, rather than political, as possible. This method can result in exclusion of households with limited social networks, influence, or political connections.⁴⁴

Targeting with cash assistance is challenging and requires a solid understanding of local culture and context. Regardless of someone's income, wealth status, or level of food security, cash will almost never be denied. Self-targeting applies in conditional schemes such as food/cash for asset programs where an individual is unlikely to participate unless poor. Community-based targeting relies on community structures and hierarchies to select beneficiaries.

Self-targeting and community-based targeting, common methods undertaken when targeting food assistance, are also feasible, yet challenging options when targeting cash assistance. As highlighted in the following reports:

"...community based targeting not only leads to high exclusion and inclusion errors but also creates conflicts in the communities, and that the consequences may be worse in the context of cash transfers because cash is more attractive and will not easily be shared between beneficiaries and non-beneficiaries... The major weakness of community based targeting was felt to be that in a communal setting it is very hard for marginalized households to speak freely and relatively easy for powerful households to secure nominations and validations from those in their social network."⁴⁵

"CBT [community based targeting] can potentially lead to an increase in local participation and to the empowerment of marginalised community members, thereby improving targeting effectiveness. However, it is claimed that elite capture can undermine targeting effectiveness, with a few community leaders delegating resources to community members on a basis other than actual need or more politically active communities crowding out less vocal communities in need... In addition, a community's poverty assessment may be subjective, may not correspond with the poverty characteristics as defined in programme design and are unlikely to be comparable across communities; therefore, there may be challenges operating CBT on a national scale."⁴⁶

44 Gourlay, Deborah/CaLP, 2012. Review of Lessons Learned from Past Cash and Voucher Programs in Zimbabwe.

45 Gourlay, Deborah/CaLP, 2012. Review of Lessons Learned from Past Cash and Voucher Programs in Zimbabwe.

46 Hyper and Veras, International Policy Centre for Inclusive Growth. Does Community-Based Targeting Really Work in Cash Transfer Programmes in Africa? April 2012.

As with all targeting methods, the quality of the implementation heavily influences the effectiveness of targeting. The USAID-BEST team is not discouraging PVOs from using a community-based targeting method; rather, the team wishes to emphasize that it is not an imperfect system which requires PVOs to be fully aware of the potential weaknesses.

Food aid beneficiaries noted that when food aid does not reach all households in a community, non-beneficiary households may ask beneficiary households to share. Due to cultural norms, this sharing typically occurs. As mentioned in the excerpt above, traditional community and household sharing is perhaps even more complicated with cash, rather than food, transfers.

For rural households led by elderly persons, chronically ill persons, or children, appropriate programs should be designed to meet their needs. Cash and voucher interventions require travel to markets, which can be challenging for this beneficiary group; on the other hand, carrying large bags of food aid can also be taxing for these groups.

Transfer value. Cash/voucher value should be appropriate in terms of program objectives. Transfer value differs according to program objectives; for example, some cash programs are in place to fulfill basic food needs while others intend to support a productive livelihood activity.

According to current beneficiaries in Zimbabwe, the preferred model to select transfer value, at present, is based on household size. This model is "capped" at a certain household member number (finite household members, for example, but could be any number appropriate to the community). When the household is capped at a certain number, it discourages families from taking in orphans or others, when they are not in the most appropriate state to do so.

A flat amount per household may be appropriate, for instance, if the program distributes closed vouchers for the purchase of inputs or a specific food. If a program distributes a livestock voucher redeemable for US\$100 worth of goats, chicken, rabbits, or cattle, for example, then a set amount could be established rather than adjusting it to household size. Establishing a fixed value for the voucher, rather than adjusting it to household size, is easier for PVO management.

Timing. Transfers should be timed appropriately in terms of seasonality and program objective. PVOs should strive to confirm a delivery schedule that is predictable and reliable, so that beneficiary households can plan accordingly. If the transfer is an agricultural production input, the transfer must be delivered to the household according to the production cycle. For example, if the transfer is seed or fertilizer for maize production, those inputs must be delivered just prior to planting. If the transfer is received too early, some households will likely sell the inputs to raise much needed cash. Conversely, if the inputs are received after planting has begun, planting will be delayed which will negatively affect yields. If tools/seeds/fertilizers are not delivered at the appropriate time, they may be under-productive, unused, or even sold as they become less relevant to meet production cycle needs.



Photo by Fintrac Inc.

Cattle in rural areas frequently feed on forage, as owners do not have the means to purchase stock feeds. Bullilima, Zimbabwe, March 2012.

Transfers of cash may be used differently depending on when they are received, and the demands on the household at that time. For example, if a humanitarian assistance cash transfer, with the objective of providing basic food needs, coincides with payments of school fees, then more of the transfer could be directed towards school fees rather than food.

Frequency. Households generally spend smaller value transfers, which are distributed more frequently (monthly for example), on meeting immediate basic needs, rather than on more long-term productive assets. Able-bodied households, however, tend to use larger value transfers, distributed less frequently (quarterly for example), on more productive assets. For instance, able-bodied households purchase livestock or plows with large quarterly transfers, and thus improve long-term food security. However, households facing labor constraints (which are also not receiving food aid) may always require smaller, monthly cash distributions to cover basic food needs.

Program duration. PVOs reported that programs less than a year in length do not have sufficient time to achieve program objectives and conduct follow-up monitoring, especially if the objective is income generation and livelihood development. In order to complete proper planning, monitoring, and capacity building, as well as actually implement the program, PVOs need more than 12 months. Ideally, a longer-term program would fit into a larger, integrated livelihoods package. Programs shorter than 12 months in duration are most relevant when the objective is to support households during seasonal food shortages.

LRP. A number of advantages exist for different types of LRP, in terms of beneficiary preferences and market development.

Locally procured commodities (versus imported commodities) can be more appropriate to local culture and taste preferences (note, however, that these commodities need to be available in sufficient supply). Cash and vouchers (versus donor procurement) allow beneficiaries the freedom to purchase commodities and inputs from the local markets themselves. This enables beneficiaries to have a choice, while also stimulating market growth. Donor procurement (versus cash/vouchers) can also stimulate local markets and infrastructure by purchasing food aid commodities, such as CSB and vegetable oil, from in-country manufacturers. As noted previously, as of April 2012, Zimbabwe appears to have the capacity to produce CSB and vegetable oil. Donors and implementing partners are encouraged to explore local procurement of at least some portion of the commodities to enhance overall impact of food security programs.

Conditional cash transfer.⁴⁷ In Zimbabwe, some government officials stated that they do not favor unconditional cash transfers for able-bodied households, and that any cash transfers to households with able-bodied individuals should be conditional. Conditionalities associated with cash transfers could be: infant growth monitoring, health center screenings, skills trainings or an income generating activity, health and nutrition education seminars, community gardens, etc. Whereas both cash transfers and vouchers support markets by increasing in local transactions, cash transfers empower households by allowing them to determine how to spend their resources.

⁴⁷ For a complete list of cash delivery service providers (including banks, mobile phone, and electronic voucher options) in Zimbabwe refer to: Gourlay, Deborah/CaLP, 2011. Review of Cash Delivery Service Providers in Zimbabwe.

Unconditional cash transfer. For any households with able-bodied individuals, the GoZ recommends against distributing cash with no conditionally attached. At present, the MoLSS and WFP distribute unconditional cash transfers, but solely for food-poor, labor-constrained households.

Importantly, an external evaluation of the ZECT unconditional cash transfer program revealed that the majority of the cash was spent on maize, other foods, and milling, and very limited amounts went towards savings, education, and debt repayment.⁴⁸ This finding led WFP to develop the CFC program, since beneficiaries were buying significant amounts of maize locally. Additionally, Concern Worldwide moved towards cash and voucher programs which are conditional on a livelihood investment, such as agricultural inputs or livestock purchases to encourage asset building.

CFW. As noted above, the GoZ prefers that cash transfers be conditional. Thus, CFW is a politically acceptable option. The GoZ policy on CFW is that activities should be for four hours per day, for 15 days, with a compensation of US\$20. Partners must determine if the CFW activity would compete with the normal labor market in that specific area. As stated earlier, the GoZ only allows CFW program implementation between April 1 and October 30, so as not to conflict with harvest preparation activities.

Even if CFW compensation is valued lower than the normal labor market levels, self-selection is similar with FFW. However, since CFW distributes payment in cash, a valuable commodity, self-selection may not be as straight forward. If compensation is below the market labor wage, one can assume self-selection could be a reliable targeting method, as only the poorer members of the communities will be willing to work below the going labor rate. CFW activities could include: irrigation schemes, road rehabilitation, latrine construction, well construction or rehabilitation, etc.

At present, the USAID-BEST team is familiar with one CFW program in Zimbabwe. The program is funded by PRP, managed by the Zimbabwe Community Development Association, and implemented in Gutu, Kwekwe, and Harare. The CFW activity is latrine construction at schools. Participating beneficiaries are parents with school age children that have outstanding debts of school fees. The organization, in agreement with the Department of Social Services, structured this program so payment is based on 30 days worked (rather than just 15) with cash earnings of US\$40.⁴⁹

CFA. As noted above, the GoZ prefers that cash transfers be conditional. CFA, similar to CFW, compensates someone's labor with cash. In the context of Zimbabwe, CFA tends to refer to community-based public works projects, such as rainwater catchments, irrigation canals, livestock diptanks, nutrition gardens, etc., that benefit the greater population. In the current USAID PRIZE program, community-based projects are primarily centered on infrastructure and physical capital.

⁴⁸ Concern Worldwide, 2010. Annual Report.

⁴⁹ Based off electronic correspondence with Zimbabwe Community Development Association, May 2012.

GoZ guidelines for community public works projects require that the activities are used for the creation of assets that will improve community food security. This may include infrastructure and physical capital creation, as well as environmental projects (stream bank stabilization, gully reclamation, hillside terracing, micro-basin management, water harvesting, tree planting, soil management, etc.).

Cash voucher. Poor and vulnerable households seemed less comfortable with cash vouchers than they did with cash or food assistance. In situations where the objective is to provide humanitarian assistance and give beneficiaries freedom on purchases, cash vouchers may be favorable to food assistance. However, due to natural price fluctuations in the market, donors have less control over the quantity of commodities cash voucher beneficiaries could receive. This issue of fluctuating market prices and supply would have to be addressed with very good program design, as well as with price and market monitoring.

Furthermore, if the program is not well planned from the beginning with suppliers and traders, these market actors can take advantage of the program and increase prices. Proper agreements with traders from the start would help to overcome this potential challenge.

Currency Challenges

There is one unique issue in Zimbabwe related to dollarization. With the introduction of the multi-currency system, and the predominant use of the US dollar, there is very limited access to coins and small change in Zimbabwe. The US bills in circulation in Zimbabwe are old, worn, and in poor shape. As a rule, US coins are not in circulation and small bills, especially US\$1 bills, are scarce. In some locations, transactions are in US Dollars for the higher denominations and in South African Rands for lower denominations, especially when coins are needed.

Market actors have become creative with this limited access to coins, by offering low-price candies and gum to increase the total price to a whole number or large round number, instead of a decimal or small number. In this way, the transaction avoids the need for coins or small bills.

For example, a customer may purchase a few items in a store, for a total of US\$5.20. If the customer offers the store owner US\$6, the store owner may, rather than providing US\$0.80 change, encourage the customer to 'buy' something additional (candy, gum, biscuits, etc.), at the US\$0.80 value, that the customer did not originally want to buy. This lack of change hurts consumers. This is especially true for very price sensitive poor households, who would likely rather use that US\$0.80 towards the purchase of maize or another essential staple food. Please see the text box on "ladder pricing" in Chapter 5 for additional information on this currency challenge.

In-kind/commodity voucher. In-kind/commodity vouchers are the preferred option when the objective is to ensure beneficiaries receive a concrete quantity of a good, while also participating in the market, especially in rural areas where vast supermarkets are unavailable. In a market with price instability, in-kind/commodity vouchers allow beneficiaries to redeem vouchers for specific commodities such as 2 liters of vegetable oil or 10 kg of maize, regardless of price. This type of voucher allows for some degree of beneficiary choice, and also ensures that program resources are spent productively.

For households that have basic food needs met, either through in-kind food aid or through their own production and labor, closed vouchers can be an excellent way to further build their livelihoods and generate income. Closed vouchers can be used for non-food items, such as livestock (cattle, goats, rabbits, chickens, etc.), agricultural inputs (seeds, fertilizers, plows, hoes, tools, fencing, etc.) or towards participation in trainings (welding, carpentry, agro-processing, baking, sewing, dressmaking, livestock management, agro-trading, sales and negotiation, etc.). PVOs could coordinate fairs and set up temporary shops for voucher distribution days in deficit areas. These productive assets encourage income-generating activities and sustainable livelihoods, both of which have positive long-term impact.

The PRP programs have had recent success with vouchers that beneficiaries have to “buy” at 10-25 percent of the value. For example, beneficiaries “buy” a US\$100 livestock voucher for US\$15. This method ensures commitment on the part of the beneficiary and allows traders to adequately prepare for the program (because the program would advise traders on the quantity of vouchers purchased). Input vouchers are widely used at present. An estimated 45 percent of donor inputs for distribution in the 2011/2012 growing season are distributed through vouchers that can be redeemed with local agro-dealers, supporting their business development and expanding a customer base.⁵⁰ Vouchers that require beneficiary “buy-in” are not humanitarian interventions and are not targeted towards the poorest individuals since those households would be unable to access the required cash to contribute a percentage of the voucher and these vouchers are not focused on meeting basic needs.

Higher program costs are associated with vouchers rather than with cash. Programs should incorporate voucher management and monitoring; however, not all programs require systems as sophisticated as those included in the SPLASH program. In-kind vouchers, such as livestock vouchers, would not require highly-sophisticated electronic monitoring.

6.4.2. Considerations Regarding Market Impact

A cash injection in a deficit region will incentivize traders to move goods from surplus regions to deficit regions in theory. Local agro-dealers and traders will stock commodities and inputs if there is guaranteed purchasing power. However, when the cash/voucher transfer value is affected by inflation or if the cash/voucher value or the size of the program is too small to incentivize traders, the program will not achieve all intended results.

Effective demand⁵¹ increases when cash is injected into an economy. If cash is injected into poorly integrated, isolated market then prices will increase because there is limited or no response on the supply side. When there is a cash injection in an integrated market, effective demand increases, but prices will be tempered as traders from neighboring markets respond by increasing supply.

Beitbridge, for example, as noted in the market integration section of Chapter 5, is poorly integrated with other markets in Zimbabwe. In theory, a cash injection in Beitbridge would lead to an increase in demand and an increase in prices. Based off beneficiary interviews in the USAID-BEST field visit this phenomenon is occurring, and negatively affecting beneficiaries

According to WFP CFC beneficiaries rural traders are responding to cash transfer programs by increasing price.⁵² Whether this is a reflection of constraints on supply or a reflection of lack of adequate competition is unclear; however, according to beneficiaries interviewed during the USAID-BEST field visit prices were apparently more stable before cash/voucher programs, when only distributed food aid programs were in place. Furthermore, representatives of urban cash transfer programs did not report price increases, due to generally higher levels of market competition. Urban programs differ from rural cash transfer programs, because they are integrated with well-planned, organized supply chains, in which suppliers set prices in coordination with program managers.

In areas near the border with South Africa, market transactions are generally conducted in South African Rand, so cash transfers provided in US Dollars are not as well received. Exchange rates are determined by the sellers, and beneficiaries reported receiving poor exchange rates between US Dollars and South African Rand in this process.

As noted earlier, Zimbabwe's poorer households are risk-averse and generally prefer the most stable option. In the context of humanitarian food assistance, in-kind food aid is viewed as less risky than cash. Beneficiaries are wary of cash/voucher transfers because the quantity they are able to purchase is inconsistent, and completely depends on market prices.

⁵¹ Effective demand is 'demand' which can be satisfied by adequate purchasing power. This contrasts with latent demand, which is 'demand' that is not satisfied. Only effective demand has potential to increase prices.

⁵² This was reported in Beitbridge and Mutare Districts.

⁵⁰ USAID/Zimbabwe, January 2012, Market Mechanisms to Achieve Food Security Assessment.

Against this frequent preference among poorer households, PVOs need to balance other objectives and constraints. PVOs often state that it is more cost effective to move and manage cash over food. Additionally, when the objective of the program is to increase liquidity in rural areas and encourage cash exchanges amongst neighbors and rural market actors, a cash transfer would be most appropriate.

The effect of cash transfers on non-beneficiary households needs to be heavily considered. As stated earlier, cash transfers can potentially lead to price increases, which can be detrimental to non-beneficiaries in the community.

6.5. Recommendations

Consider environment. As with all development interventions, the first and foremost goal is to do no harm. Partners should consider markets and household access to food, gender dynamics, health concerns, cultural norms, and environmental constraints when making food security programming decisions. In a country like Zimbabwe, which has experienced immense instability and economic change in recent years, partners should expect that conditions are likely to continue to evolve in coming years. These changes could result in a very different operating context for food security programs. Interventions should also be adaptable to the context of each district; a widespread “blanket approach” to a program may overlook the unique market conditions of each area.

For cash transfers to be effective, there is need for a sound understanding of four basic conditions: market supply, government policy, security, and capacity of financial institutions.⁵³ These conditions will be especially important to take in consideration for any new organizations adjusting to the working context in Zimbabwe. In addition to potential economic uncertainty in the future, Zimbabwe faces uncertainty around government policies and upcoming elections which naturally impacts markets. Financial institutions are limited in rural areas and rural household savings are generally in the form of livestock. Thus, the relative stability in which cash transfer programs are currently being implemented is fragile and subject to rapid change.

It is imperative for the PVOs to learn about the supply side of the market, particularly market conditions for staple foods. PVOs need to understand what factors motivate traders to move commodities and how those factors are evolving. For example, PVOs should understand typical sources for commodities and what factors drive price fluctuations.

If the objective of the program is for beneficiaries to use cash vouchers to stimulate local markets and local production, it is critical to understand the source of commodities being sold in rural stores. Beneficiaries may in fact simply purchase imported goods from the market; although such purchases might stimulate trade generally and traders in particular, purchase of imported goods will obviously not stimulate local production.

⁵³ Bashaasha, Bernand. Market Analysis for Cash Transfers Programme in Karamoja. Uganda, 2010.

Monitor markets. When markets are functioning and food stocks are available, cash transfers can increase household purchasing power and smooth consumption patterns. A successful cash/voucher program requires functional markets. As noted earlier, Zimbabwe’s recent history of market fluctuations makes constant market monitoring essential for any program that could impact the market, including both food and cash/voucher interventions. While there are a number of markets which can be considered “functioning” for the purposes of cash/voucher programming at present, not all local markets can be considered so. Of equal importance, given the fluidity of macro political and economic conditions, markets that are relatively functional today may rapidly become “nonfunctional,” which would quickly put at risk an otherwise successful cash or voucher program. Ongoing market monitoring at the regional, national, sub-national, and local levels is critical to ensure Awardees can respond appropriately to any shifts in conditions.

Encourage productive use of transfers. Cash/voucher programs aimed to support livelihood and production assets and generate income should encourage productive use of transfers by setting specific goals and objectives for the transfers. For example, programs could enable the purchase of productive assets, like livestock, agricultural inputs, sewing machines, or carpentry equipment, while also providing related skills training. Such a program requires beneficiaries to thoroughly consider their time and financial investments. This approach would be a logical complement to food aid distributions, because the food aid would meet beneficiaries’ basic needs, while the voucher would contribute to livelihood building activities.



U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
Tel: (202) 712-0000
Fax: (202) 216-3525
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for Title II (BEST)

USAID OFFICE OF FOOD FOR PEACE

Zimbabwe USAID-BEST Annexes

June 2012

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Annex I. Economic Overview

I.i. Economic Indicators

GDP

The Zimbabwean economy has slowly recovered from several years of negative growth. Since 2008, gross domestic product (GDP) has significantly increased and is projected to maintain a positive growth rate of 9.4 percent in 2012. In 2011, the main drivers of economic expansion were mining, agriculture, finance, insurance, and tourism. In 2012, it is expected that the same sectors, particularly mining, will continue to strongly contribute to GDP growth.¹

However, the envisioned growth level for 2012, as shown in Figure 1, is not likely given the following reasons:

- Even though the mining sector remains buoyant and driven by firm commodity prices in gold and platinum, the indigenization² process continues to create uncertainties in the sector.
- Agriculture faces challenges; for example, this year about 43 percent of the total maize area has been estimated as a write off due to drought. Estimated local maize production stands at around 900,000 metric tons (MT), which leaves an estimated maize deficit of one million MT (based on an the GoZ's estimated requirements of 1.8 million MT). This deficit must be met by imports.
- In the manufacturing sector, utilization of technology and equipment has remained stagnant at 40-50 percent of capacity. Challenges include erratic electricity availability, and high production costs.
- Liquidity remains another challenge for the productive sectors of the economy. The mobilization of long-term liquidity

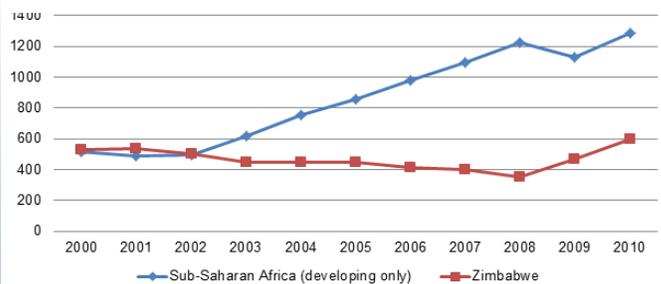
¹ Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe January 2012

² The Indigenisation and Economic Empowerment Act requires foreign-held companies with an annual turnover of US\$500,000 or over to transfer 51 percent of their shares to indigenous Zimbabweans," <http://talkzimbabwe.com/indigenisation-137-firms-refuse-to-comply/>

is very expensive as the level of domestic savings is still very low. National savings are estimated at below 4 percent of GDP compared to regional averages of 10 percent.³ Foreign direct investment (FDI) flows remain largely constrained mainly because of Zimbabwe's credit rating and country risk factors.

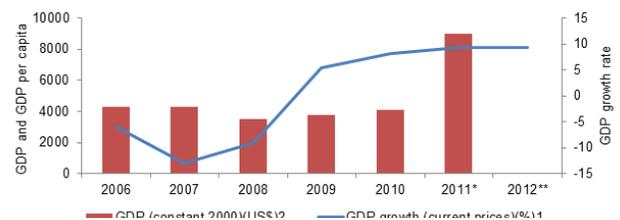
Although GDP growth is increasing (as shown in Figure 1), per capita GDP has remained among the lowest in the

Figure 1. GDP per Capita Zimbabwe and Sub-Saharan Countries (Constant 2000 US\$)



Source: The World Bank Database

Figure 2. GDP per Capita and GDP Growth Trend, 2006-2012



*Estimated; **Projected

Sources: (1) From 2006 to 2008: Stanbic Bank Zimbabwe "Economic Update March 2011"; From 2009 to 2012: "The 2012 National Budget Presented to the Parliament of Zimbabwe by the Minister of Finance Hon. T. Biti, M.P." 24 November 2011; (2) The World Bank <http://data.worldbank.org/topic/economic-policy-and-external-debt>

region. While per capita GDP in other sub-Saharan countries has increased since 2002, Zimbabwe's per capita GDP was declining at a slow but steady rate until 2008, with increases beginning in 2009 and 2010. See Figure 2.

Inflation

In 2009, inflation significantly decelerated (-7.7 percent) from the record level achieved in 2008. The multiple currency system implemented in early 2009 brought an immediate end to hyperinflation. Since 2010, annual inflation levels have averaged about 3 percent, which falls far below regional averages.⁴ See Table 2.

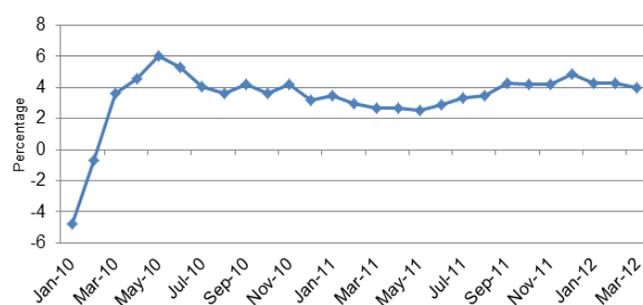
According to the Reserve Bank of Zimbabwe, in 2011, increased food prices contributed to an increased inflation rate. The inflation rate started at 3.5 percent in January 2011 and ended at 4.9 percent in December 2011.⁵ At the beginning of 2011, food price inflation stood at 6.8 percent; by May 2011 it had declined to 2.3 percent, and in December 2011 it rose to 5.8 percent. Non-food inflation also increased during the year, driven by increases in domestic electricity rates, gas and other fuel prices, and rental and passenger transport fares. Finally, the appreciation of the South African Rand against the US dollar until September 2011 also generated inflationary pressure.⁶ Annual inflation declined to 3.98 percent in March 2012 from 4.3 percent in February 2012.⁷ Inflation is expected to gradually increase due to pressure from food shortages caused by poor harvests and food imports, low production levels, and high utility expenses. Despite these factors, inflation is still expected to remain in the single digits, ending the year at around 6 percent.⁸

Table 2. Annual Inflation Rate for Zimbabwe

Year	Percentage
2000	55.2
2001	112.1
2002	198.9
2003	598
2004	132.7
2005	585.8
2006	1,281.50
2007	66,212.30
2008	231,000,000.00
2009	-7.7
2010	2.9
2011	4.9

Source: Stanbic Bank Zimbabwe "Economic Update March 2011" and Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe January 2012

Figure 3. Monthly Inflation Rate (%)



Source: Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe January 2012 and Reserve Bank of Zimbabwe "Month-to-Month Inflation Rate" <http://www.rbz.co.zw/about/inflation.asp>

Table 1. GDP by Sector and Expenditure Categories, 2005-2010 (% of GDP at Factor Cost, Estimate)

Year	2005	2006	2007	2008	2009	2010
GDP at factor cost	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture, hunting and fishing	18.6	20.3	21.6	19.4	17.3	16.1
Mining and quarrying	9.0	13.6	15.3	11.3	9.4	17.5
Manufacturing	16.4	16.9	16.4	16.6	16.3	13.6
Electricity and water	5.8	5.9	6.0	6.3	5.4	4.5
Construction	0.6	0.6	0.6	0.7	0.6	0.5
Finance and insurance	5.4	5.3	5.2	4.6	4.4	3.6
Real estate	3.0	3.0	3.0	2.3	2.2	1.8
Distribution, hotels and restaurants	9.2	9.5	10.0	12.5	12.1	10.0
Transport and communication	13.3	13.9	14.0	18.1	16.8	13.8
Public administration	5.2	2.0	0.8	0.5	3.7	5.3
Education	6.0	2.2	0.9	0.6	4.1	6.0
Health	1.9	0.7	0.3	0.2	1.4	2.0
Domestic services	1.9	1.9	1.9	2.2	2.0	1.7
Other services	4.3	4.5	4.5	5.1	4.8	3.9

Sources: Government of Zimbabwe, IMF, and World Bank estimates.

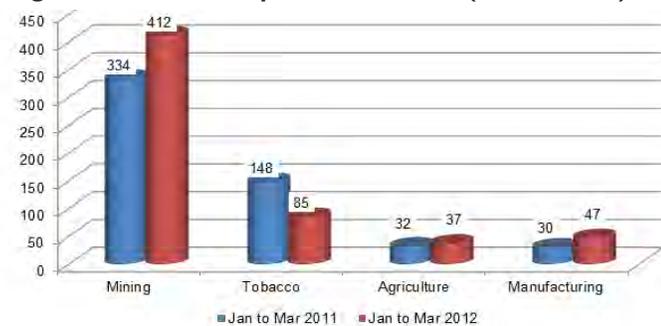
⁴ Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe

⁵ Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe

⁶ Monetary Policy Statement issued in Terms of the Reserve Bank of Zimbabwe Act Chapter 22:15, Section 46 by Dr. G. Gono Governor Reserve Bank of Zimbabwe

⁷ Reserve Bank of Zimbabwe "Month-to-Month Inflation Rate" <http://www.rbz.co.zw/about/inflation.asp>

⁸ Economic Update - January 2012 STANBIC BANK

Figure 4. 2011-2012 Export Performance (Millions, US\$)

Source: Reserve Bank of Zimbabwe "State of the Economy: February 2012"

Trade Balance

Under the current dollarized regime, economic growth depends significantly on export performance. Exports from January-March 2012 totaled US\$584 million, an increase from US\$549 million during the same period in 2011. Mining, tobacco, agriculture, and manufacturing are the country's most important export sectors. While mining and manufactured shipments show increases, tobacco exports during the same period decreased. Agriculture exports remained relatively unchanged.⁹ See Table 3.

Even though the country's exports have continued to grow since 2009, as shown in Table 3, the country's trade deficit has remained relatively high due to a disproportionately large amount of imports.

Under the regime of dollarization, Zimbabwe no longer has the ability to stimulate the economy through instruments such as interest rates or exchange rates. As a result, the Zimbabwe economy has become very dependent on export performance

Table 3. Trade Balance, 2009-2012, (US\$, Millions)

	Jan-Dec 2009	Jan - Dec 2010	Jan - Dec 2011 (estimate)	Jan - Dec 2012 (forecast)
Exports(USD m)	1613	3380	4430	5164
Imports(USD m)	3213	5182	6400	6800
Trade deficit (m)	-1600	-1782	-1970	-1636

Source: Ministry of Finance & African Development Bank 2011

Table 4. Mineral Production

	2009 Production	2010 Production	2011* Production	2012** Production	2010 Change	2011 Change	2012 Change
Gold (kg)1	4,950	9,620	13,000	15,000	94%	35%	15%
Nickel (t)1	4,857	6,133	7,700	8,800	26%	26%	14%
Coal (t)1	1,600,000	2,668,183	3,000,000	3,500,000	67%	12%	17%
Chrome (t)1	201,000	516,776	700,000	750,000	157%	35%	7%
Platinum (kg)1	6,848	8,639	10,500	12,000	26%	22%	14%
Paladium (kg)2		6,916	8,400	9,600		21%	14%
Black Granite (t)2		169,318	168,000	170,811		-1%	2%
Diamonds3		8,435,584	8,200,000			-3%	

** Revised Forecast

Source: (1) For 2009 Stanbic Bank Zimbabwe "Economic Update March 2011" From 2010 to 2012 "The 2012 National Budget Presented to the Parliament of Zimbabwe by the Minister of Finance Hon.T. Biti, M.P." 24 November 2011 ;(2) "The 2012 National Budget Presented to the Parliament of Zimbabwe by the Minister of Finance Hon.T. Biti, M.P." 24 November 2011 ;(3) African Development Bank Group Zimbabwe Monthly Economic Review Issue No 3 August 2011

to create the capacity for growth. With very limited FDI, Zimbabwe would be more likely to balance import and export trade volumes by increasing local production and local capacity to process or add value to raw goods.

I.ii. Major Industries

Growth to the economy is largely driven by mining and agriculture, both of which are vulnerable to shocks.

Agricultural Sector

Agriculture continues to play an important role in the development of the country, contributing 16.1 percent of the overall GDP in 2010. Agricultural inputs and agricultural products account for 60 percent of national industrial activity, and agricultural exports contribute around 40 percent of national export earnings. Agriculture remains the largest source of both formal and informal employment. Although the sector is no longer the dominant contributor to GDP (due to growth of the mining sector, as described below), agriculture is extremely important because it supports livelihoods for many Zimbabweans, particularly in rural areas. The majority of poor households resides in the rural areas, and spends about 40 percent of household income on food. Thus, to rural poor households, agriculture is a crucial contributor to livelihoods.

Agriculture is Zimbabwe's most uncertain sector, for reasons including: 1) Zimbabwe continues to be a net importer of food, largely due to land ownership issues which came to the forefront in 2000; 2) agriculture has experienced a decline in investment (private and public); 3) conflict is high among actors in the agricultural sector (due to unresolved issues regarding land tenure); 4) lack of decisiveness in the market (market liberalization versus re-emergence of state controls through parastatals in service provision to farmers); and 5) remnants of private sector monopsonies which cannot thrive in the changed agricultural landscape.

Zimbabwe has continued to pursue a food self-sufficiency policy dominated by producer and consumer subsidies on white maize. Through its Grain Loan Scheme, the

9 Ministry of Finance, March 2012

GoZ provides a 'loan' of grain at 50 percent of the GoZ's procurement costs.¹⁰ This year, nearly 3 million Zimbabweans received 50 kg of maize grain, per month, for six months. The scheme has been extended by a year, giving farmers until 2013 (instead of 2012) to repay. The focus on maize has crowded out production of small grains, root crops (cassava), and livestock in areas where these crops/livestock physiologically perform better than maize (i.e., drier, marginal areas of the country). Quasi-state institutions (Agricultural and Rural Development Authority (ARDA), Grain Marketing Board (GMB), and Agribank) continue to promote this policy. Market distortion and low productivity have resulted from the country's strong focus on maize.

Local markets for livestock remain suppressed by low purchasing power in the rural economy. The level of integration of the livestock sector with the export market has become very weak, as Zimbabwe's beef export markets have shrunk as a result of the declining capacity to effectively control animal disease, improve animal nutrition, and adopt better breeds. Foot and Mouth Disease, in particular, has restricted the movement of live animals between the country and Zambia, Botswana, and South Africa. Zimbabwe is still able to export some livestock to the DR Congo, mostly due to lax restrictions and monitoring in this market.

Mining Sector

In recent years, mining has increasingly become the most important contributor to GDP, as shown in Table 4. Zimbabwe's mining export value increased by 143 percent, from US\$708 million in 2009 to US\$1.72 billion in 2010. Platinum, diamonds, gold, and chrome accounted for almost all mineral exports during these years.¹¹

However, according to the Government of Zimbabwe (GoZ) Treasury, remittances of diamond revenues have been underperforming.¹² This is somewhat surprising since the GoZ estimates that around 95 percent of the country's mining houses are currently operational. In his state of the economy update for February 2012, the Minister of Finance indicated that diamond remittances to Treasury for the month of February were only US\$5 million, against a target of US\$41.50 million. Cumulative remittances for January and February 2012 were US\$19.5 million against a target of US\$77.5 million.¹³ This implies that a significant amount of diamond revenues are not officially accounted through the government system.

Mining activity also depends on the investment climate, which has recently been adversely affected by the publication of the new indigenization law and its rapid implementation. The sector has attracted FDI, as reflected in the increased activity of foreigners on the Zimbabwe Stock Exchange (ZSE).

However, February 2012 saw a fall in foreign participation on

the ZSE. Although the country recorded a net inflow of US\$3.4 million in that month, this was a decline from a net inflow of US\$13 million received in February 2011, and US\$17.8 million in January 2012. This is mainly due to the prevailing economic environment, with February 2011 being a period prior to the implementation of the indigenization policy which, once announced, dampened stock performance later in the year. The fall in foreign participation on the ZSE may also be attributable to a decline in bearish behavior by foreign investors [which began in January] who wanted to take advantage of the low price of shares that had been obtained during the festive season.¹³

Finance and Insurance Sector

The finance and insurance sector's contribution to GDP is expected to significantly grow in coming years, fueled by increases in the deposit base. The Ministry of Finance (MoF) estimates that the current deposit base is US\$3.3 billion, of which 80 percent is available for lending. Lending to productive and service sectors has increased since 2009, contributing to financial sector growth.

With the multiple currency system, the Reserve Bank of Zimbabwe (RBZ)'s role in directing monetary policy has changed, increasing vulnerabilities in the banking system. These vulnerabilities stem from the following:

- Large exposures to the financially distressed RBZ (US\$174 million, or 40 percent of the bank's equity capital, as at the end of 2010).
- Rising liquidity risk, which is in part attributable to weak prudential requirements against a background of possible balance of payment pressures and lack of lender of last resort facility. Liquidity ratio in the majority banks is as low as 20 percent.
- An increase in the number of smaller banks failing to comply with minimum capital requirements, and delays in supporting some small banks in distress.
- Raising credit risk and non-performing loans, particularly among smaller banks.

The following transactions still require approval from the Reserve Bank of Zimbabwe: foreign investors' divestments from private entities; cross-border investments by Zimbabwean companies; domestic corporate bodies' investments on both the money and capital markets outside Zimbabwe; and operation of offshore accounts by Zimbabwean corporate bodies. The purpose of these restrictions is to prevent capital flight from Zimbabwe.¹⁴

10 Zimbabwe Ministry of Finance, July 2012. Personal Correspondence.

11 Stanbic Bank Zimbabwe "Economic Update March 2011"

12 Ministry of Finance, State of the Economy: February 2012. Press Statement by Hon T Biti Minister of Finance

13 Zimbabwe Monthly Economic Review Issue No 6 March 2012 - African Development Bank

14 Trade Policy Review, no date. Report by the Secretariat: Zimbabwe.

I.iii. Global/Regional Economic Linkages/ Memberships/Agreements/Partners¹⁵

Zimbabwe and the World Trade Organization (WTO)

Zimbabwe is an original WTO member and a General Agreement on Tariffs and Trade (GATT) contracting party. Zimbabwe ratified the WTO Agreement on March 5, 1995. Within the WTO, Zimbabwe is an active member of the African, Caribbean and Pacific (ACP) group, the WTO African group, the G-90, and the G-33 and G-20 groups of developing countries on agricultural issues.¹⁶

Regional Agreements¹⁷

African Union and African Economic Community.

Zimbabwe is a member of the African Union (AU) and the African Economic Community (AEC). The AEC is an AU institution which aims to create an African customs and monetary union in six stages, to be complete by 2028. However, the AEC has encountered several challenges which may compromise its full implementation.¹⁸

Common Market for Eastern and Southern Africa (COMESA).

Zimbabwe is a member of the COMESA Customs Union. Although the Customs Union was initiated in June 2009, the union is not yet fully operational. Challenges facing COMESA include: the common external tariff (CET) is not yet in force and other trade policy instruments need to be harmonized; there is no revenue-sharing formula; and there is no free movement of goods within COMESA.¹⁹

Zimbabwe is implementing several COMESA trade initiatives, including the COMESA Simplified Trade Regime with Zambia (a pilot project), the COMESA Yellow Card Scheme (motor vehicle insurance valid in all participating countries), and the Regional Customs Bond Guarantee Scheme.²⁰ Zimbabwe is also a party to the COMESA Protocol on Trade in Services and participates in a number of COMESA institutions, including the Regional Investment Authority, the Competition Commission, and the COMESA Court of Justice.²¹

15 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

16 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

17 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

18 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

19 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

20 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

21 Other institutions include: the COMESA Leather and Leather Products Institute; Federation of Women in Business (FENCOM); PTA Bank; Re-insur-

Southern African Development Community (SADC).

Zimbabwe signed the SADC Trade Protocol and is a participant in the Free Trade Area (FTA), which was launched in August 2008.²² Around 85 percent of trade in "community goods" in the original 12 signatory countries is now traded duty free; the remaining tariff lines on products identified as "sensitive" are to be phased out by the end of 2012. SADC's sensitive product list is not identical to COMESA's, and includes textiles and clothing. The simple average preferential tariff is 10.2 percent on imports from South Africa, 7.8 percent on imports from other SADC countries, and a maximum tariff of 25 percent.²³

However, in February 2011, Zimbabwe obtained derogation from implementing the tariff phase-down for sensitive products (Category C Products); this allows the country to delay phase-down of sensitive products until 2012. The country has begun this phase-down, and is expecting to complete it in 2013.

Bilateral Agreements

Zimbabwe has bilateral trade agreements with Botswana, Malawi, Namibia, South Africa, Democratic Republic of the Congo (DR Congo), and Mozambique. The relevance of these bilateral agreements has diminished with the emergence of the SADC FTA. Once a customs union is in place for either COMESA or SADC, bilateral agreements with members of any customs unions would need to be reviewed.

Other Preferential Agreements

Zimbabwe was an original beneficiary of the US African Growth and Opportunity Act (AGOA). However, Zimbabwe has been de-listed from the beneficiary list, making it ineligible for any benefits under AGOA.

Zimbabwe currently benefits from the Generalized System of Preferences (GSP) schemes of Australia, Canada, the European Union (EU), Japan, Korea, New Zealand, Norway, Sri Lanka, Switzerland, and the United States.

In the negotiations on an Economic Partnership Agreement (EPA) with the EU, Zimbabwe is party to the Eastern and Southern Africa (ESA) negotiating group, a sub-group of COMESA member states. Zimbabwe signed an interim EPA with the EU in August 2009. It has yet to sign the final agreement for which negotiations are ongoing.

Zimbabwe has an agreement on trade, investment, and technical cooperation with China.

ance Bank; COMESA Clearing House; COMESA Regional Investment Agreement; and the Africa Trade Insurance Agency.

22 Angola, DR Congo, and the Seychelles have not yet ratified. For information on the tariff phase-out and other details see WTO document WT/REG176/4, 12 March 2007.

23 World Trade Organization WTO. 2011. "Trade Policy Review Report by the Secretariat - Zimbabwe" Available at http://www.wto.org/english/tratop_e/tp_r_e/tp352_e.htm

I.iv. Major Shifts in Agricultural Policy

Decades of state control and heavy state intervention in agricultural markets have undermined the growth and development of a vibrant private agribusiness sector in Zimbabwe. The country does not as yet have a policy blueprint to coordinate the many ongoing efforts to revive the agricultural industry.

Land reform. Even though signatories to the Government of National Unity (GNU) declared the irreversibility of the resultant land redistribution from the Fast Track Land Reform Program (FTLRP), there remain critical unresolved issues which continue to limit production and successful marketing, investment opportunities, and access to credit among intended beneficiaries. These include:

- Land audit
- Land valuations
- Compensation
- Tenure instruments that provide security of investments

Resolution of these issues will have a positive impact on many actors, institutions, and systems across the agricultural and food security sectors. To date, the GNU has made no real commitment to resolve these issues. With no alternative finance sources, many farmers now rely on contract farming financing, despite the inherent risk in this strategy.

GMB. The GMB's mandate has narrowed since early 2009; at present, the GMB's main function is buying grain for the Strategic Grain Reserve (SGR). The parastatal's buying capacity has been constrained by limited government funding. However, the GMB remains the government's main mechanism for providing subsidized agricultural inputs to about 30 percent of farmers.

The GMB also implements the government-sponsored farm input support programs and the Presidential Input Supply Scheme. These programs suffer from lack of transparency in targeting, as well as from inefficiency. Many informants argue that the programs contribute to a culture of dependency, by rewarding patronage among recipients. The payment of farmers who deliver grain to the GMB for subsidized inputs results in a double subsidy (through a producer price, currently at US\$295²⁴ per MT, which is above import parity price (IPP)) and input costs, and is below commercial market value. Regardless of whether the above criticisms are well-founded, this system contributes to the Government of Zimbabwe (GoZ)'s expanding debt levels, and crowds out the private sector, reducing private industry viability and stifling competition.

GMB depots are used for the storage and distribution of some food relief and for the Grain Loan Scheme.

Agricultural imports. From early 2009 to mid-2011, the GoZ waived duties on imports of basic foodstuffs and other basic commodities to enable the population to access basic commodities after many years of acute shortages of these

goods on domestic markets. The measures were enacted at the expense of efforts to rebuild the manufacturing sector.

The government restored import duties during August and September 2011. Duties were placed on maize meal (10 percent) and cooking oil (15 percent) in August, and on other foods (i.e., potato chips, jams, baked beans) in September 2011.

The waiver of duties on food imports from 2009 to mid-2011 directly promoted consumer purchasing power by lowering food prices, and by promoting the recovery of the food wholesale and retail sector. Many new players have entered the sector, increasing competition and creating more stable consumer prices for basic foodstuffs and other commodities. Although the GoZ has re-introduced import duties on basic foodstuffs, consumers continue to benefit from increased competition in the market. At the same time, net producers and processors have been exposed to more cost-competitive imports, while failing to access cost-effective credit and/or inputs, which has put producers and processors at a severe disadvantage.

Genetically modified organisms (GMOs). Imports of genetically modified (GM) maize, in whole grain form, have been prohibited since 2002. The government banned such imports on the grounds of perceived negative long-term health impacts. The Minister of Agriculture who announced this policy is still in office, and continues to be a strong critic of GMO crops. Thus, the anti-GMO maize policy is likely to continue to be enforced.

Agricultural exports. Through the Control of Goods Act, the GoZ introduced an export ban on all basic goods (groceries) in January 2011, which is still in place. The ban was implemented to ensure that the nation meets its basic food requirements. Considering that industrial capacity utilization is around 57 percent at present, that a phase-down of the sensitive commodities list under SADC is expected to be complete by the end of 2013, and that the country once exported basic foods to the region before the ban was enacted, a relaxation of this policy in the future will help position Zimbabwean industry for competition.

I.v. Economic Outlook

As noted earlier, the country's adoption of a multicurrency regime has helped restore price stability and forced stronger fiscal discipline as the government adopted a cash budget, which prohibits the GoZ from running a deficit. With the adoption of foreign currency, GoZ also lacks the ability to print money to increase government spending and cut frivolous spending. Price and exchange liberalization has increased efficiency, boosted output, and encouraged renewed capital inflows. A review of the monetary regime is scheduled for 2015;^{25,26} at present, there is 'attrition' in terms of fundamental

²⁵ Trade Policy Review, no date. Report by the Secretariat: Zimbabwe.

²⁶ According to the IMF, five foreign currencies (the U.S. dollar, the South African rand, the euro, the pound sterling, and the Botswana pula) have been

²⁴ Per The Herald, 5/12/12.

policy changes required to move the nation forward.

The country's economic recovery is fragile, irregular, and vulnerable to external shocks and internal political developments. Negotiations continue for an transparent and consistent election process; some groups advocate elections take place immediately, while others argue that elections should take place after major political reforms are established, including the adoption of a new constitution and an updated voters' roll. These political tensions complicate progress in shaping economic policy, and fuel uncertainty in the country's economic outlook.

The medium-term economic outlook is highly uncertain, as investment is most likely to remain subdued on account of significant structural impediments acceleration of indigenization in mining, perception of risk, and lingering uncertainties about ownership requirements in other sectors.

granted official status. However, there has been a general preference for the U.S. dollar and, to a lesser extent, the South African rand.

Annex II. Agricultural Overview

II.i. Introduction

Agriculture is an important sector in the Zimbabwean economy, for reasons including: 1) its contribution to the export market; 2) its contribution as the main livelihood activity for many rural Zimbabweans; 3) it produces the bulk of the country's food requirements; 3) its strong linkages with the manufacturing sector; 4) it supplies a sizeable proportion of raw materials; and 5) it consumes a large proportion of industrial sector output (fertilizer, chemicals, stock feed, machinery, spare parts, and liquid fuels, for example).

Maize is the main staple crop for the majority of the population, with almost 90 percent of farmers¹ growing maize. The country's most prominent commodity in terms of value is tobacco, which accounts for more than half of agricultural exports.² The country also relies on cotton and groundnut production, and, to a lesser extent, soybean, sorghum, and millet production.

The country has a thriving livestock sector with sizeable production of cattle, goats, sheep, and poultry.

II.ii. Production Base and Trends

See Figure 6 for crop production levels in recent years.

In 2012, production of all grains and cereals is expected to significantly decrease due to weather constraints. Maize production has decreased, mostly due to late and erratic rainfall patterns, coupled with mid-season dry spells. Mashonaland West and Midlands are expected to account for the largest share of the maize harvest. Dry spells also affected traditional groundnut producing districts. Total groundnut production decreased from 138,200 MT in 2011 to 120,000 MT in 2012. Production of tobacco and cotton, considered traditional export crops, is expected to slightly increase in 2012.

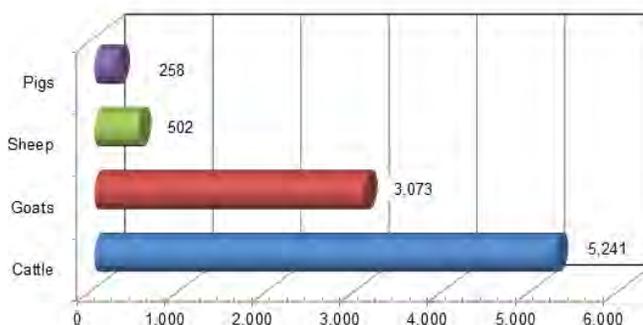
1 Zimbabwe Multi-Donor Trust Fund, 2010. Zimbabwe: Agricultural Sector Assessment Study.

2 Zimbabwe Multi-Donor Trust Fund, 2010. Zimbabwe: Agricultural Sector Assessment Study.

Total cattle population increased by 2 percent from 5,157 million heads in 2010 to 5,241 million heads in 2011. Calving rates slightly increased to 46 percent compared to 45 percent in the previous year. According to the Ministry of Agriculture, milk production increased by 16 percent compared to 2010 levels.³

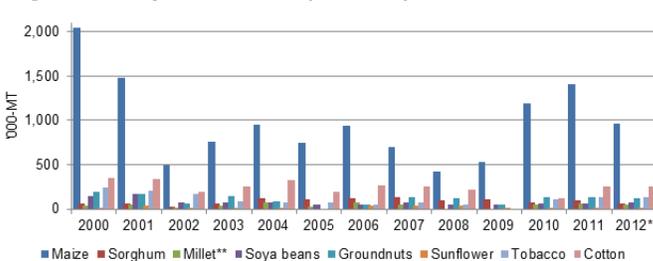
The number of goats declined by 26 percent in 2011 compared to the previous year, likely due to a decrease in market demand. In 2011, sheep population increased by 6 percent.

Figure 5. Total Number of Livestock, 2011 ('000)



Source: Ministry of Agriculture, Mechanization and Irrigation Development, 2012

Figure 6. Crop Production ('000-MT)



* Second round assessment; ** Millet includes rapoko and mhunga

Source: From 2000 to 2008 Commercial Farmers' Union of Zimbabwe, 2009; From 2009 to 2011 ZIMSTAT; For 2012 Ministry of Agriculture, Mechanization and Irrigation Development, 2012

3 Ministry of Agriculture, Mechanization and Irrigation Development, 2012. Second Round Crop and Livestock Assessment Report, 10 April

Pig population has varied over the years. Currently, the total pig headcount is 258,000. Main challenges to pig production include high initial capital requirements, availability of stock feed, and availability of quality breeding stock.⁴

Masvingo accounts for the largest share of cattle population (1,039,013 heads), followed by Mashonaland West (739,442 heads), and Midlands (689,175 heads). Mashonaland West and Manicaland account for the largest share of the sheep population with 126,398 and 100,462 heads, respectively. The largest goat populations are in Matabeleland North (805,884 goats) and Manicaland (634,742 goats). Most of the pig population is located in Mashonaland West (69,871 heads), followed by Mashonaland Central (53,905 heads), as these are also the main maize and soybean production areas. Soybean and maize are main ingredients in pig feed.

Since 2009, broiler and egg production has rapidly increased after a major plunge in production observed in 2008. See Figure 8.

By December 2010, dressed broiler⁵ production reached 2,029 MT, while egg production reached 1.8 million dozen.⁶ However, the country's current production level is still insufficient to satisfy national demand for broilers and eggs.⁷

According to recent GoZ data, during the period 2010/2011 to 2011/2012, broiler production increased by 40 percent from 37 million day-old chicks to 52 million day-old chicks.

II.iii. Seasonality

The figures on this page summarize seasonality of all activities and major cereal production, respectively.

II.iv. Exports

Zimbabwe's main agricultural export (excluding tobacco) is sugar, as shown in Table 5. The country also has exported other agricultural commodities such as cotton.

II.v. Imports

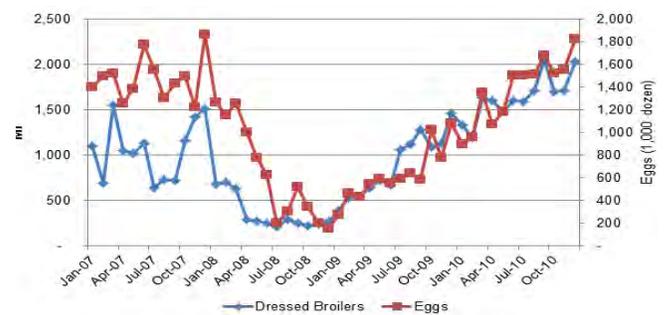
See Table 6 for details on Zimbabwe's import market.

II.vi. Key Policies Affecting Agriculture⁸

Agriculture is a tariff-protected sector in Zimbabwe, with an average applied Most Favored Nation (MFN) tariff rate of 19.6 percent (as compared to 14.1 percent on manufactured

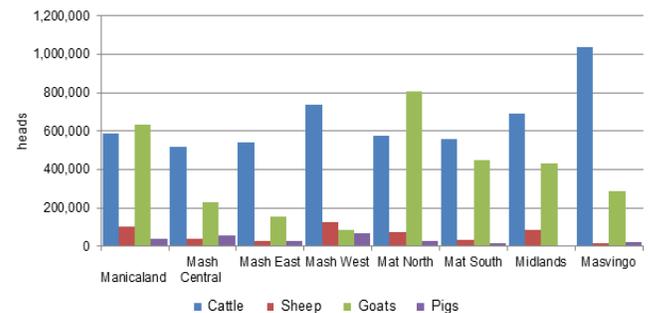
goods).^{9,10} A range of other duties and charges may apply to imports and/or exports including surtax, trade development surcharge, value added tax (VAT), excise duties, carbon tax, and redemption levies on fuel imports.¹¹ Different, specific excise duties are applied on tobacco products, depending on place of origin. Presumptive taxes which target the informal sector, and price controls, are also in place. Tariff suspensions apply to a number of essential food items, and full rebates of tariffs and VAT may be granted for a variety of reasons.¹² See Table 7 for more details on controls and licensing of agricultural imports.

Figure 7. Poultry Production



Source: Technoserve based on Zimbabwe Poultry Association data

Figure 8. Livestock Levels, by Province



Source: Ministry of Agriculture, Mechanization and Irrigation Development, 2012

www.wto.org/english/tratop_e/tpr_e/tp352_e.htm, accessed April 2012).

9 World Trade Organization, 2011. Trade Policy Review: Zimbabwe (http://www.wto.org/english/tratop_e/tpr_e/tp352_e.htm, accessed April 2012).

10 These sectors are defined as "Agriculture and Hunting," and "Manufacturing (excluding food processing)" in the source document.

11 World Trade Organization, 2011. Trade Policy Review: Zimbabwe (http://www.wto.org/english/tratop_e/tpr_e/tp352_e.htm, accessed April 2012).

12 World Trade Organization, 2011. Trade Policy Review: Zimbabwe (http://www.wto.org/english/tratop_e/tpr_e/tp352_e.htm, accessed April 2012).

4 Ministry of Agriculture, Mechanization and Irrigation Development, 2012. Second Round Crop and Livestock Assessment Report, 10 April

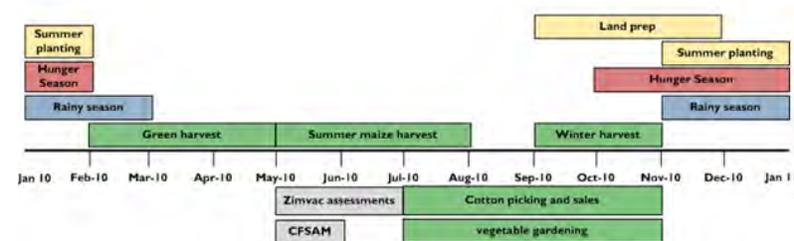
5 Dressed broilers are slaughtered, de-feathered, eviscerated whole birds, i.e., a ready-to-cook whole bird (USDA definition)

6 TechnoServe, 2011. Zimbabwe Poultry Sector Study

7 Ministry of Agriculture, Mechanization and Irrigation Development, 2011. Second Round Crop and Livestock Assessment Report, 14 April

8 World Trade Organization, 2011. Trade Policy Review: Zimbabwe (<http://>

Figure 9. Seasonality



Source: FEWS NET

Figure 10. Major Cereals Seasonality

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maize												
Sorghum												
Wheat												
Key												
Sowing												
Growing												
Harvesting												

Source: Based on FAO/GIEWS, with adjustments made to sorghum sowing based on USAID-BEST research

Table 5. Zimbabwe: Exports, 2005-2010 (Estimates, Million US\$)

Indicators	2005	2006	2007	2008	2009	2010
Agricultural exports	336	372	397	367	415	575
Tobacco	204	207	234	229	301	384
Sugar	43	81	52	68	48	78
Coffee	1	2	2	1	1	0
Maize	0	0	0	0	0	0
Meat	0	0	0	0	1	1
Other	87	82	109	68	64	111
Mineral exports	623	771	803	738	660	1573
Gold	191	202	154	94	155	334
Asbestos	26	31	21	6	3	0
Nickel	96	160	227	78	31	60
Platinum	232	311	344	475	355	701
Copper	3	6	5	8	8	14
Other	75	60	52	76	107	464
Manufacturing exports	555	526	491	444	422	1106
Ferro-alloys	158	146	179	153	70	118
Cotton lint	96	108	103	114	65	120
Iron/Steel	24	16	7	6	34	9
Textile/Clothing	23	17	18	15	16	55
Machinery/Equipment	26	24	10	9	33	110
Chemicals	16	14	1	1	11	36
Other	213	202	172	147	194	658
Unclassified exports	74	55	111	113	119	129
Total exports	1588	1723	1801	1662	1616	3382

Source: IMF and GoZ estimates

Table 6. Zimbabwe: Imports, 2005-2010 (Estimates, Million US\$)

Indicators	2005	2006	2007	2008	2009	2010
Imports by main categories						
Food*	180	368	365	341	741	554
Beverages and tobacco	42	41	34	41	45	91
Crude materials	92	91	82	89	104	208
Electricity	63	84	73	53	72	57
Fuel	428	447	471	530	568	945
Oils and Fats	29	28	21	25	36	72
Chemicals	385	378	360	493	511	818
Manufactured goods	268	263	247	321	333	732
Machinery and transport	400	392	381	597	657	1394
Others	107	105	80	140	145	290
Total imports, f.o.b.	1994	2196	2113	2630	3213	5162

Source: IMF and GoZ estimates; *USAID-BEST team obtained up-to-date information on food (and other above categories) as of May 2012; attempts will be made to add more detailed and reliable information for specific foodstuffs within this category before submission of the second draft, expected in June/July 2012.

Table 7. Agricultural Goods Subject to Import Controls and/or Licensing

Description	Conditions/Requirements
Maize seed/wheat seed	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Secretary's signature), conditional on: (1) GMO-free certificate (2) Plant Import Permit; (3) Agricultural Marketing Authority support letter; (4) Seed Services support letter
Wheat, maize grain, sorghum (grain, meal and malt), mhunga (grain, meal and malt), soya beans	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Secretary's signature), conditional on: (1) GMO-free certificate (2) Plant Import Permit; (3) Agricultural Marketing Authority support letter
Cotton (lint, meal, seed and cake), soya cake, corn meal, corn soya blend, apples, bananas, grapes, peaches, pears, plums, potatoes, sugar (raw and refined) vegetable oils, vegetable fats, margarine	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Secretary's signature), conditional on: (1) Plant Import Permit
Poultry products (1-day-old chicks, frozen chickens and their products, hatching and table eggs, ostrich meat, ostrich eggs), animal oils and fats (lard, tallow, dripping), animal semen and animal embryo, animal feed stuffs, beef, veal, goats, bees, butter, ghee, cream, cattle, meat (above 5kg), meat meal, blood meal, carcass meal, milk (pasteurized, sterilized, UHT, lacto, condensed, or any other liquid form), milk powder (skimmed and full cream), honey, pigs (live and dead)	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Director's signature), conditional on: (1) Veterinary Import Permit; (2) Veterinary Health Certificat
Horns, hides, and skins	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Director's signature), conditional on: (1) Veterinary Health Certificat
Beans, bean meal, mealie-meal, oil seeds (cake, cake meal, offal and residues from oil seeds), seed for planting (cereals, trees, vegetables), flour	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Director's signature), conditional on: (1) Plant Import Permit
Fertilizer	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Director's signature), conditional on: (1) Fertilizer registration Certificat
Maize and soya meal, barley, barley malt	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Chief Economist's signature), conditional on: (1) GMO-free certificate (2) Plant Import Permit
Bones, bone meal, cheese, ice cream	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Chief Economist's signature), conditional on: (1) Veterinary Import Permit; (2) Veterinary Health Certificat
Fish (dried and fresh)	Import license issued by the Ministry of Industry and Commerce, conditional on: (1) Veterinary Import Permit; (2) Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Chief Economist's signature)
Baby corn, fruit (citrus and non-citrus), coffee beans, ground nuts, jugo beans, manure, mopane worms, rapoko (grain, meal and malt), rice in the grain, sunfl wer,	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Chief Economist's signature), conditional on: (1) Plant Import Permit
tea, vegetables (dried and fresh)	Permit from the Ministry of Agriculture, Mechanization and Irrigation Development (Chief Economist's signature), conditional on: (1) Plant Import Permit; (2) Seed services support letter
Katambora grass	conditional on: (1) Plant Import Permit; (2) Seed services support letter

Source: WTO, based on information provided by the Zimbabwean authorities

Annex III. Food Security

II.vii. Introduction

This Annex gives an overview of food security in Zimbabwe, based primarily on desk research, complimented by information gathered during the USAID-BEST March-April 2012 field visit. The Annex first provides a brief summary of current conditions, as informed by food security snapshots during March and April 2012. The Annex then reviews the country's seasonality of activities, and provides a summary of recent food security assessments, including the GoZ Crop and Livestock Assessment Report, Agritex/FAO's ZimVAC report, and the Zimbabwe National Nutrition and National Demographic and Health Surveys. Topics covered in this Annex include: production levels, food insecure areas, climatic and economic shocks, price trends, income and expenditure patterns, food sources, water and sanitation, consumption levels, and poverty.

II.viii. Current Outlook

As of March 2012, the Food and Agriculture Organization Global Information and Early Warning System (FAO/GIEWS) has deemed Zimbabwe's food security situation as generally stable.¹ The Famine Early Warning System Network (FEWS NET) has classified the country as having minimal levels of acute food insecurity.² Poor social protection systems have limited the scope of food assistance interventions.³

A late rainy season reduced area planted to maize by about 20 percent as compared to last year, especially among communal farmers. Rain shortages are most prevalent in southern areas.⁴ Masvingo and Matabeleland are predicted to suffer the most food insecurity in the coming year, as these areas currently have the highest rates of food insecurity.⁵ The latest outlook indicates that, although adequate to good livestock conditions

1 FAO/GIEWS, 2012. GIEWS Country Brief: Zimbabwe. March 13 2012.
 2 FEWS NET, 2012. Food Security Outlook Update: Zimbabwe, March 2012.
 3 FEWS NET, 2012. Food Security Outlook Update: Zimbabwe, March 2012.
 4 FAO/GIEWS, 2012. GIEWS Country Brief: Zimbabwe. March 13 2012.
 5 NOAA/USAID/FEWS, 2012. Climate Prediction Center's Africa Hazards Outlook, April 5-11, 2012.
 6 FAO/GIEWS, 2012. GIEWS Country Brief: Zimbabwe. March 13 2012.

in the southern area of the country are likely to contribute positively to food security among better-off households, the poorest households with few or no livestock will be less likely to make up for crop losses through sale of livestock.⁷

FAO/GIEWS's latest update estimated the crop size of the 2012 maize harvest (November-December) at 900,000-1 million MT, a volume which also agrees with GoZ estimates in the Second Round Crop and Livestock Assessment. FAO/GIEWS estimates a maize deficit of 700,000 MT for the 2012/2013 marketing year. Improved economic conditions and available stocks could help meet this deficit; on the other hand, Malawi's maize export ban will reduce available imports.⁸

Maize prices in Harare have been stable with slight increases. In March 2012, the GMB finally paid producers for its procurements last season; payments totaled about US\$22 million.⁹

II.ix. Seasonality of Activities and Prices

Zimbabwe's planting season for main crops is from October to December; the maize harvest occurs from March/April until June. The hunger season for farmers is between September and

Figure 11. Seasonality of Activities

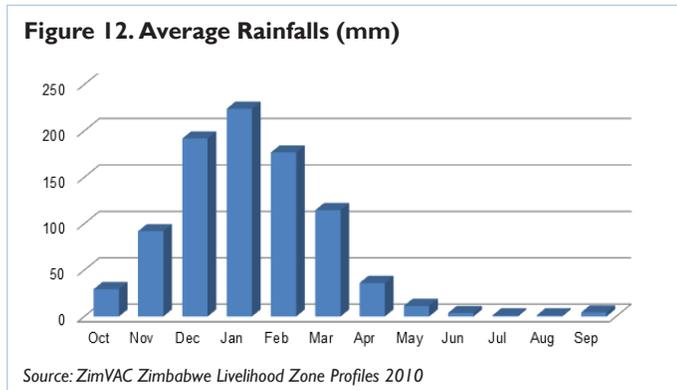
Activity	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Planting												
Planting cereals	■	■	■									
Planting groundnuts	■	■	■									
Planting cotton												
Harvesting												
Maize						■	■	■	■	■		
Millet						■	■	■	■	■		
Groundnuts						■	■	■	■	■		
Cotton												
Other activities												
Tobacco weeding												
Casual labor												
Market Gardening												

Source: ZimVAC Zimbabwe Livelihood Zone Profiles 2010 (page 10)

7 FEWS NET, 2012. Food Security Outlook Update: Zimbabwe, March 2012.
 8 FAO/GIEWS, 2012. GIEWS Country Brief: Zimbabwe. March 13 2012.
 9 FEWS NET, 2012. Food Security Outlook Update: Zimbabwe, March 2012.

March (with a peak of January through March), when on-farm labor demand peaks. Green mealies can be harvested beginning in February/March and consumed or sold, which helps improve household food security just prior to maize harvest in April. See Figure 11

The summer rainy season typically starts in late October and ends in April. Compared to the mid and highland areas, lowland regions receive less rainfall, and storms are more irregular and more infrequent. On average, January precipitations exceed 200 mm, while July and August precipitations account for an average of 1.2 mm and 1.4 mm, respectively. See Figure 11.



In general, maize retail prices show some seasonal variation during the year. Prices tend to be higher during the rainy season and lower during harvest time or low rain season, as shown in Figure 13.

As Figure 14 indicates, retail prices for white maize increased from September 2010 to January 2011. Prices remained relatively stable across main markets until they dropped in April (except for Murewa, where prices decreased the most after February 2011). In Sakubva, Bindura, and Chikonohono, retail prices remained unchanged from May 2011 to September 2011.

Farm gate prices for maize show more seasonal variation depending on the region. Farm gate prices increased from September 2010 until around March 2011 in select surplus areas. The most significant variation was observed in Kwekwe; in this area, prices from February 2011 to May 2011 increased the most. In April 2011, prices returned to lower levels in areas noted in Figure 13. In Guruve, prices were highest from February 2011 until April 2011. After this increase, prices dropped and remained unchanged from June 2011 until September 2011. Prices in Murewa were relatively stable compared to other regions. Prices in Gokwe south were relatively stable until June 2011, when they significantly increased.

II.x. Summary of Recent Assessments

NOTE: This section provides a summary of findings of recent food security assessments and recommendations for food security assessments conducted between 2010 and 2012, and recommendations for interventions. Any findings or recommendations noted below belong to the original assessment authors and do not reflect findings or recommendations of USAID-BEST.

Second Round Crop and Livestock Assessment Report, April 2012

Findings: Crop production. The GoZ's Second Round Crop and Livestock Assessment reports similar findings from those in the first round assessment. Both reports highlight low rains in southern areas, limited feed availability, and maize production decreases.

Area planted to cotton, millet, sorghum, and groundnuts has decreased by more than 10 percent from the previous year; area planted to maize, banana, citrus, apples, and sugarcane has increased by over 10 percent.

Rains have been erratic since November 2011, with dry spells up to seven weeks in some areas. The southern parts of the country have received the least rain, with southernmost areas receiving less than 300 mm.¹⁰

Maize production for the season is predicted at 968,041 MT, a decrease by about 33 percent from the same season in 2010/2011. This decreased production is attributed to late and

Figure 13. White Maize Farm Gate Price Seasonality in Select Regions (US\$/kg)

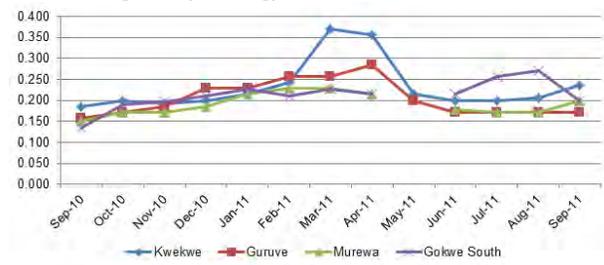
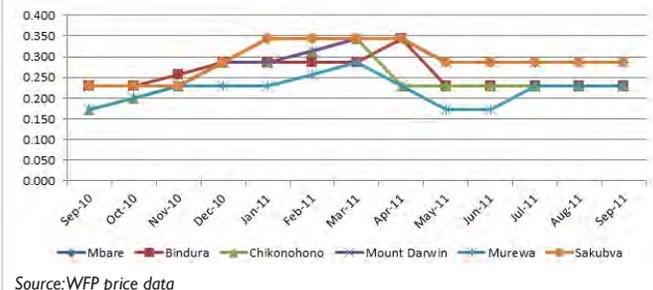


Figure 14. White Maize Retail Price Seasonality in Selected Markets (US\$/kg)



¹⁰ Government of Zimbabwe, 2012. Second Round Crop and Livestock Assessment, February 2012. pg.10.

erratic rainfall, and prolonged drought. Mashonaland West and Midlands account for the largest percent of production.

Findings: Livestock. Cattle production increased slightly from the 2010/2011 season. Masvingo province accounts for the most cattle, followed by Midlands. This season, sheep production has increased and goat production has decreased (likely due to increased market demand) as compared to last year; kidding and lambing rates are below targets.¹¹ Pig production decreased, but levels have varied over recent years due to feed shortages. Poultry and egg production have both increased significantly.¹² For further details on the poultry industry, see Annex II.

Recommendations. The report recommends that the GMB purchase grain from farmers at a price of US\$455 per MT, and pay farmers promptly. The report also recommends that the government release livestock funds (to enable farmers to save breeding stock), and release irrigation funds (to enable repair of irrigation infrastructure), and settle debts. Authors suggest that the government continue to allow private companies to import grains, maize meal, and flour, and also set aside government funds to import 300,000 MT of grain. Lastly, the report recommends that the GoZ approve the National Comprehensive Agriculture Policy.

First Round Crop and Livestock Assessment Report, February 2012

Findings: Crop production. Seasonal rains started late in most parts of the country, and dry spells affected some areas of the country. Maize production as of February 2012 was noted as fair to good in the north, and poor to fair in the south. The southern areas (and some parts of northern areas) experienced low rains, leading to wilt and an estimated loss of about 30 percent of the maize crop nationwide.¹³

Most area dedicated to crop production went toward maize, with an estimated 1,689,609 hectares dedicated to the crop for the first assessment of the 2011/2012 season. Cotton production accounted for 432,709 hectares, closely followed by area dedicated to groundnut and sorghum. Area dedicated to maize, groundnut, and sorghum in the beginning of the 2011/2012 season decreased since the 2010/2011 season by about 10-25 percent; area planted to cotton increased by 14 percent.¹⁴

The GoZ and donors supplied a portion (or all) inputs for about 50 percent of farmers, and 60 percent of farmers purchased a portion (or all) of seed supply. The report notes that a shortage of top dressing fertilizer existed in all provinces

at the start of the season.¹⁵ The GoZ's Presidential Well Wishers Scheme (a US\$26 million dollar initiative spearheaded by the President which supplied inputs to 712,400 families in 2011/2012) was listed as most successful in terms of size and timing of input distributions.

Findings: Livestock. Livestock conditions were deemed fair to good across the country, although overgrazing and poor dipping conditions were noted for some areas. Water shortages in Manicaland, Masvingo, Midlands, and Matabeleland North and South could threaten livestock in coming months. The birthing rates for cattle, goats, and lambs were all below target; day old chick production increased by 40 percent. Disease threatened livestock most severely in Midlands and Masvingo, and Mashonaland East suffered from Newcastle disease.

Feed was noted as available, but unaffordable for most small producers. Soybean meal shortages led to increased prices of stock feed.¹⁶

Recommendations from the Second Round Crop and Livestock Assessment. The Crop and Livestock Assessment recommends that the GoZ's Grain Loan Scheme be expanded due to an expected low maize harvest. The report also recommends that the winter wheat cropping facility be finalized that irrigation and electricity restoration and supply take place; and that a livestock savings fund be established.

Agriculture and Food Security Monitoring System Update, February 2012

FAO and Agritex, with additional support from Caritas, collaborated on a study examining food security among 55 districts and 218 sentinel sites in February 2012. At the time of writing, initial findings are available in a brief presentation.

Findings. The study finds that 77 percent of households surveyed have an acceptable diet; 17 percent are deemed borderline; 5 percent are deemed poor.¹⁷ Forty-five percent of surveyed household members over 5 years of age consume two meals a day; 36 percent consume three meals per day. About 57 percent of children 6-59 months of age in the survey consume two or three meals a day; 37 percent consume four or more meals a day.¹⁸ Maize, vegetables, oils and fats, and sugar are commonly consumed by most households.

The study finds that 77 percent of the 218 study sites have maize, maize meal, and/or small grains available for purchase. Almost half of the study sites have maize grain available, and almost half of the study sites have maize meal available.¹⁹ Most

11 Government of Zimbabwe, 2012. Second Round Crop and Livestock Assessment, February 2012. pg.37.

12 Government of Zimbabwe, 2012. Second Round Crop and Livestock Assessment, February 2012. pg.44.

13 Government of Zimbabwe, 2012. First Round Crop and Livestock Assessment, February 2012. pg.5.

14 Government of Zimbabwe, 2012. First Round Crop and Livestock Assessment, February 2012. pg.4.

15 Government of Zimbabwe, 2012. First Round Crop and Livestock Assessment, February 2012. pg.10.

16 Government of Zimbabwe, 2012. First Round Crop and Livestock Assessment, February 2012. pg.44.

17 Agritex, FAO, and Caritas. Agriculture & Food Security Monitoring System, 2012. February 2012 PowerPoint presentation. Slide 7.

18 Agritex, FAO, and Caritas. Agriculture & Food Security Monitoring System, 2012. February 2012 PowerPoint presentation. Slide 9.

19 Agritex, FAO, and Caritas. Agriculture & Food Security Monitoring Sys-

households source grain from purchase, followed by own production and casual labor. Matabeleland South and Masvingo have the highest dependency on purchase of grains; Manicaland and Mashonaland West show the highest dependency on own production of grains. Farmer-to-farmer purchase is the most common “market,” though households in Masvingo and Mashonaland West are more likely to purchase maize grain at local markets.²⁰ Government and non-state agency assistance accounts for about 10 percent of surveyed households’ maize and maize meal supply.²¹ About 31 percent of households receive support from outside the household; of this, 77 percent is provided by the government, non-governmental organizations (NGOs), or churches.

Maize grain prices have increased about 20 percent from last year. Maize grain prices in Chiredzi and Zvishavane are above the national average at all times of the year; prices in Hwedza and Mudzi are higher than the national average at some points in the year.²²

ZimVAC, July 2011

Objectives and methodology. The purposes of the ZimVAC are to provide strategic information for rural livelihoods revival and development, and to identify constraints to improved rural livelihoods as well as present opportunities for improving them in a sustainable manner. The July 2011 ZimVAC objectives are: determine the rural population that is likely to be food insecure in the 2011/2012 consumption year, their geographic distribution and the severity of their food insecurity; describe the socio-economic profiles of rural

households in terms of such characteristics as their assets, income sources, incomes and expenditure patterns, food consumption patterns, and consumption coping strategies; identify and assess the functioning of current and appropriate staple cereals markets for cereal deficit households in rural districts; assess cereal postharvest practices and identify opportunities for addressing potential postharvest losses; assess the functioning of rural markets for agricultural inputs; update information on rural households’ water and sanitation situation; assess access to education by rural households, and identify challenges to optimum access of the service; and identify transitional development priorities for rural communities in all rural provinces of the country.

The ZimVAC team consisted of 24 assessment supervisors from the GoZ, the United Nations (UN), and NGOs, as well as 240 enumerators. Two primary sets of data were obtained from existing data, community informant interviews, and household interviews. Data are representative at the district, provincial, livelihood zone, and national levels.

Food security was assessed by comparing households’ food entitlements to food requirements. Food entitlements were measured by summing households’ cereal stocks, production, and potential incomes. The ZimVAC assumes a per capita cereal requirement of 133/kg per year.

Findings: Crop production. About 80 percent of surveyed households reported planting maize; 20 percent reported planting sorghum. Less than 10 percent of households in all provinces reported planting finger or pearl millet with the exception of Manicaland (10 percent planting finger millet)

Table 8. Income Sources by Province (%)

Income Source	Mash				Mat			
	Manica	Central	Mash East	Mash West	Mat North	South	Midlands	Masvingo
Casual Labor	50.8	49.3	44.9	45.3	45.2	39.9	46.5	49.0
Vegetable production/sales	25.5	22.4	34.6	25.4	11.3	25.2	31.5	33.7
Remittances	21.1	14.5	25.5	20.5	31.5	38.0	19.1	27.1
Food crop production/sales	31.0	29.2	38.2	42.7	25.8	28.9	36.7	23.6
Livestock production/sales	17.5	13.6	14.0	12.5	29.1	28.8	16.8	22.7
Petty trade	9.6	8.9	13.0	8.3	9.5	19.1	12.1	10.2
Formal salary/wages	11.8	9.8	10.2	7.9	5.8	6.5	6.3	9.3
Skilled trade/artisan	5.3	9.1	5.8	5.3	9.9	4.6	4.0	7.3
Gathering natural products	6.4	2.5	5.3	1.6	9.3	7.6	4.4	6.0
Cash crop production	3.1	26.4	7.5	25.4	1.5	0.8	14.0	5.7
Beer brewing	1.0	1.3	1.0	0.7	4.5	0.9	3.2	5.4
Other	4.1	4.8	1.8	3.3	2.0	4.6	4.1	4.9
Gifts	2.1	1.2	3.1	2.0	3.7	2.9	3.5	3.9
Food assistance	2.2	0.9	1.8	3.2	2.5	6.7	1.1	3.2
Pension	3.1	2.1	2.3	1.1	1.9	2.0	3.0	2.2
Own business	2.0	2.3	3.9	2.5	1.2	2.0	1.8	2.1
Fishing	0.9	1.2	0.9	2.5	2.3	1.4	1.6	1.5
Small scale mining	0.7	0.8	3.8	3.0	1.9	2.9	5.2	1.4
Begging	1.1	1.1	1.1	2.1	1.7	4.1	2.1	1.4
Cross border trade	1.4	0.4	1.1	0.5	0.4	1.1	0.7	1.2
Rentals	0.6	0.6	1.8	1.0	0.7	0.6	1.0	0.6
Collecting scrap/waste material	0.1	0.2	0.1	0.2	0.2	0.2	0.0	0.3
Currency trade	0.1	0.1	0.0	0.2	0.0	0.0	0.1	0.2

Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment July 2011 Report

tem, 2012. February 2012 PowerPoint presentation.Slide 3.

20 Agritex, FAO, and Caritas.Agriculture & Food Security Monitoring System, 2012. February 2012 PowerPoint presentation.Slide 5.

21 Agritex, FAO, and Caritas.Agriculture & Food Security Monitoring System, 2012. February 2012 PowerPoint presentation.Slide 12.

22 Agritex, FAO, and Caritas.Agriculture & Food Security Monitoring System, 2012. February 2012 PowerPoint presentation.Slide 6.

Matabeleland North (20 percent planting pearl millet), and Matabeleland South (18 percent planting pear millet).²³ Households reduced area planted to groundnuts in the 2010/2011 season; only 45 percent of surveyed households planted groundnuts, as compared to 66 percent in 2009/2010. During the winter, most households planted leafy vegetables.

Pests accounted for the large majority (83 percent) of postharvest losses.

Fertilizer use was practiced by about 30 percent of households; Matabeleland South had the fewest households using fertilizer (11 percent).²⁴ Most households obtained seed from purchase, the government, and NGOs. Many households also retained seed.²⁵

Findings: Income and expenditure. After an increase of 17 percent in rural income from 2009 to 2010, rural income decreased by 4 percent from 2010 to 2011. Matabeleland North recorded the lowest income levels for the third consecutive year.²⁶

Main sources of income for the 2010/2011 season included casual labor, food crop/vegetable production, remittances, and livestock production.²⁷ Cash crop production ranked highest in terms of value, paying about US\$279 per month; the second-most valued income source was formal salary/wage, at US\$129 per month. Livestock production/sale was a common income source for households in Manicaland, Matabeleland North, Matabeleland South, Midlands, and Masvingo. See the tables and figures below.

As Figure 17 shows, most urban households received income

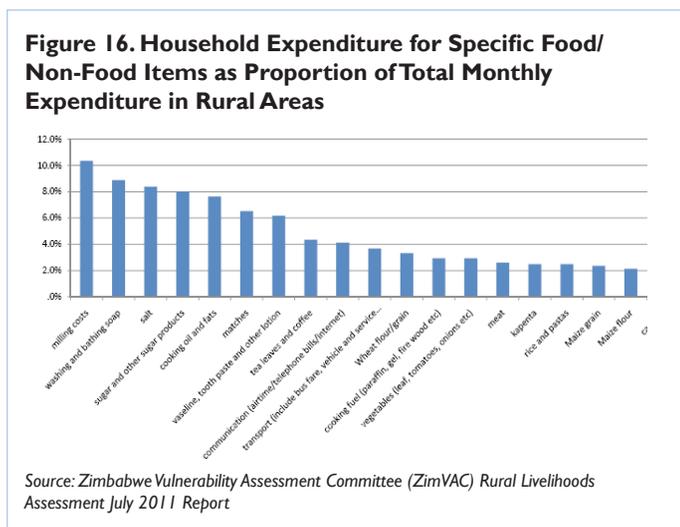
through self-employment or formal employment. Agriculture-related activities were a common source of income for about 5 percent of urban households.

Milling costs, soap, salt, sugar/sugar products, cooking oil/fats, and matches accounted for the largest share of household expenditure among all rural households sampled.

Findings: Livestock and poultry. Almost half of all households sampled reported owning at least one beast. Just over 40 percent of households reported owning a goat, and 76 percent of households reported owning poultry. Livestock ownership was most prevalent in Midlands (53 percent of households owned livestock) and least prevalent in Manicaland (37 percent of households owned livestock). Overall, livestock herd sizes increased from 2009/2010 levels.²⁸

Findings: Markets. The ZimVAC found that about 80 percent of households had geographic access to cereal, legume, and livestock markets within their ward. The most common type of “market” was another household in the area. Only 13 percent of households reported going to local markets to purchase cereals, and slightly more households reported sourcing cereals from traders.

Masvingo, Matabeleland South, and Manicaland markets all had maize prices higher than the national average in 2010/2011.²⁹



23 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. pg.58.

24 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. pg.60.

25 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. pg.64.

26 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. Pg.44.

27 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. Pg.42.

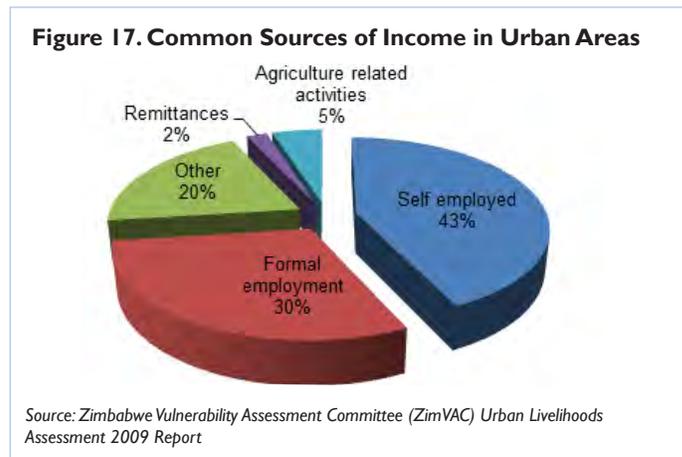


Table 9. Average Incomes by Income Source in Rural Areas (US\$)

Source	US\$
Cash crop production	279
Formal salaries/wages	129
Livestock sales	44
Food crop production/sales	32
Skilled trade/artisan	29
Remittance	28
Petty trade	23
Casual labor	18
Fishing and gathering of natural products	13
Vegetable production/sales	12

Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment July 2011 Report

28 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. pg.52

29 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 1, July 2011. pg.66.

Masvingo, Matabeleland South, and Midlands also had cattle and goat prices higher than the national average.

Findings: Food security. The 2011 ZimVAC estimated that 12 percent of the total rural population will not meet minimum cereal needs during the lean months of the 2011/2012 season. Food security appears to be improving; food insecurity statistics for 2011/2012 were lower than 2010/2011 (15.1 percent) and 2009/2010 (17.8 percent). The estimated cereal gap for 2011/2012 is 54,633 MT.³⁰

The ZimVAC predicts that Matabeleland South, Midlands, and Masvingo provinces will have the highest percentages of food insecure people in 2011/2012.³¹

The ZimVAC identifies Masvingo, Matabeleland North, and Matabeleland South as the most food insecure provinces at the time of study, in terms of percentage of population at risk.³² An estimated 16 percent of the population was food insecure in each of these provinces at the time of study. In regards to total number of food insecure, Masvingo and Manicaland had the most total food insecure people (215,965 and 185,079 people, respectively). At the district level, Binga (Matabeleland North), Kariba (Mashonaland West), and Mudzi (Mashonaland East) were the most food insecure districts, with over 30 percent of these areas' populations deemed food insecure.³³

According to the ZimVAC, the most significant challenges to food security in 2010/2011 were poor rainfall, low availability of inputs, and "poor markets." Drought appeared to be particularly challenging for Masvingo, Midlands, and Matabeleland North.³⁴

Nineteen percent of communities ranked dam construction/irrigation as a top development priority, followed by water and sanitation activities. Only 1 percent of households listed food assistance as a development priority; 3 percent listed gardening support as a priority; 6 percent listed agricultural inputs as a priority.

Findings: Consumption patterns. Households most commonly consumed maize, followed by vegetables. Oils and fats, and salt and sugar, were also consumed somewhat regularly. The most commonly consumed proteins were beans, peas, and groundnuts. Forty percent of surveyed households had consumed beans, peas, and/or groundnuts at least once in the seven days before the survey.³⁵ See Figure 20.

Slightly over half of adults consumed two meals a day; about

30 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg.9.

31 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Report, pg. 83.

32 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Report, pg. 81.

33 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg. 11.

34 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg.27.

35 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg.22.

1/3 of households consumed three meals a day.³⁶ Among children, 47 percent consumed three meals a day; 31 percent consumed two meals a day; 16 percent consumed four or more meals a day.

The ZimVAC states that 60 percent of households had an "acceptable," nutritionally balanced diet. Sixty-eight percent of households with children under 5 had their children receiving Vitamin A supplements.

Own production and local purchase were the most common sources of food in rural areas, and local purchase was most common source in urban areas.

For household maize supply, rural households depended primarily on own production for maize; only 19 percent depended on local purchase for maize. Although the graph above groups together all food (rather than solely maize), the situation is nearly reversed for urban households which rely on market purchases for 70 percent of food, and own production for only about 15 percent of food.

Findings: Water and sanitation. Type of drinking water source is an indicator of water quality. An improved drinking water source can be defined as a water source or delivery point that is likely to protect the water from outside contamination, in particular from fecal matter. Improved drinking water sources include: piped water into dwelling, plot or yard, public tap/stand pipe, tube well/borehole, protected dug well, protected spring, or rainwater collection.

In 2008, a cholera outbreak killed more than 2,000 people in Zimbabwe. By January 2009, almost 3,000 people had died from the disease. According to the 2009 ZimVAC, main causes of the cholera outbreak were absence of clean water supply at all times, collapse of the sewage and refuse collection systems in most urban areas, and collapse of the public health system.³⁷

At the national level, around 27 percent of households did not have access to an improved water source at the time of the survey.

By province, lack of access to improved water sources during dry and rainy season were higher in Manicaland, Matabeleland South, and Midlands.

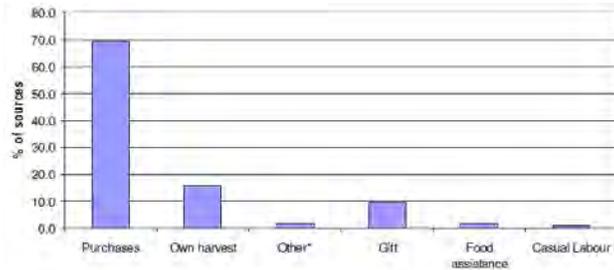
The proportion of households traveling more than 1 km to source drinking water was higher during the dry season (15.9 percent) as compared to the rainy season (13.2 percent). More than 50 percent of households traveled less than 500 m to access drinking water during the rainy season, compared to 47 percent during the dry season.

At the province level, more than 20 percent of households in Matabeleland South, and around 20 percent in Matabeleland North and Midlands traveled more than 1 km to access improved drinking water sources.

36 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg.18.

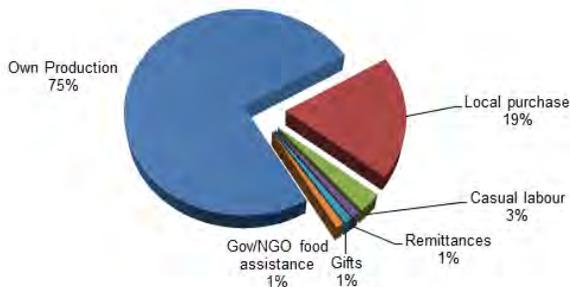
37 Zimbabwe Vulnerability Assessment Committee (ZimVAC) 2009. Urban Food Security Assessment.

Figure 18. Food Sources, Urban Areas



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Urban Livelihoods Assessment 2009 Report

Figure 19. Maize Sources, Rural Areas



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment July 2011 Report

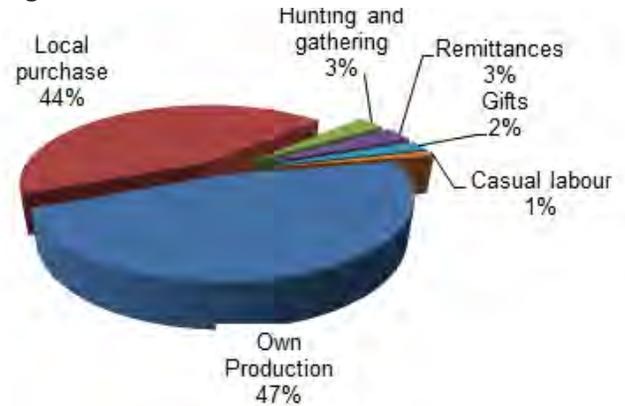
Table 10. Proportion of Households using Different Sanitation Facilities or Practicing Open Defecation by Province

Province	Improved	Shared	Unimproved	Open defecation
Manicaland	38	20	23	19
Mashonaland Central	37	28	15	20
Mashonaland East	39	28	11	21
Mashonaland West	32	25	7	45
Matabeleland North	23	6	2	69
Matabeleland South	43	10	4	43
Midlands	33	11	8	48
Masvingo	25	15	10	50

Notes: Open defecation: defecation in fields, forests, bushes, bodies of water or other open spaces, or disposal of human feces with solid waste; Unimproved sanitation facilities: Facilities that do not ensure hygienic separation of human excreta from human contact. Unimproved facilities include pit latrines without a slab or platform, hanging latrines and bucket latrines; Shared sanitation facilities: sanitation facilities of an otherwise acceptable type shared between two or more households. Shared facilities include public toilets; Improved sanitation facilities: facilities that ensure hygienic separation of human excreta from human contact. They include: Flush or pour-flush toilet/latrine, Ventilated improved pit (VIP) latrine, Pit latrine with slab, composting toilet

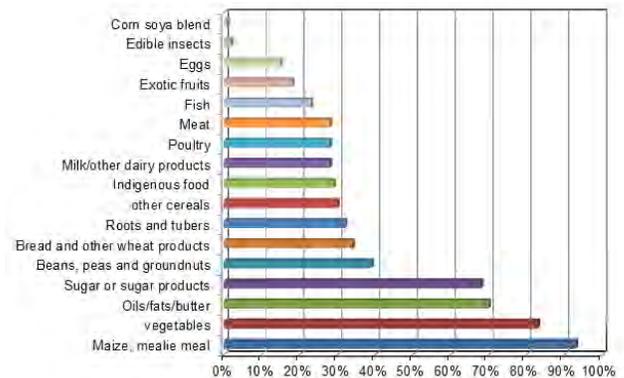
Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

Figure 20. Food Sources, Rural Areas



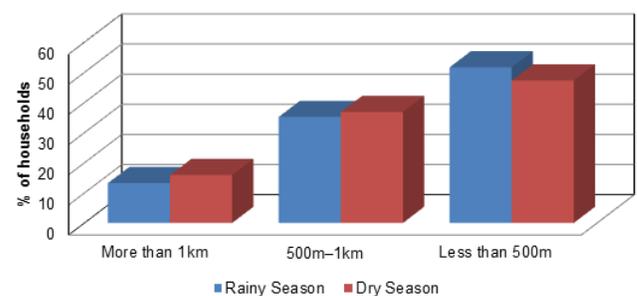
Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment July 2011 Report

Figure 21. Most Common Food Items Consumed by Households in Rural Areas



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) Rural Livelihoods Assessment July 2011 Report

Figure 22. Country Level Distance Traveled by Household to Drinking Water Sources



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

Around 34 percent of rural households used improved sanitation facilities, and 17 percent shared sanitation facilities, which are not considered improved because most of these facilities fail to ensure hygienic separation of human excreta from human contact. Almost 40 percent of rural households practiced open defecation, which is risky and facilitates the spread of several diseases.

Almost 70 percent of households in Matabeleland North and 50 percent in Masvingo practiced open defecation. More than 40 percent of households in Mashonaland West, Matabeleland South, and Midlands practiced open defecation.

Recommendations from the 2011 ZimVAC report.

Directly regarding food security, the report recommends that donors, communities, and the GoZ should:

- Improve and stabilize household incomes, and encourage agricultural diversity (especially production of cash crops) and dependency on non-agricultural income
- Address livestock disease to reduce loss
- Continue to support increased draught power

- Support irrigation construction/repair
- Support household production during winter months
- Encourage use of improved seed
- Support redistribution of cereals in order to smooth prices among surplus and deficit areas
- Strengthen postharvest management and household storage techniques
- Prioritize Manicaland, central parts of Masvingo, and parts of Kariba, Binga, Hwange, and Zvishavane for food security interventions, as well as districts that may not be served by large scale assistance programs
- Continue to monitor and evaluate food security conditions

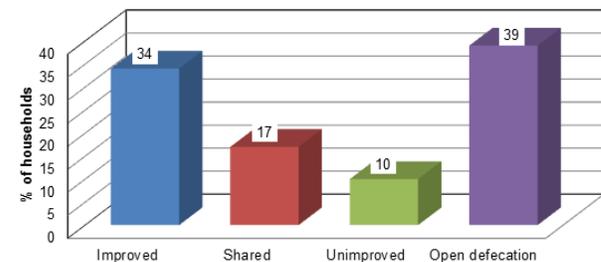
The ZimVAC also recommends that donors, communities, and the GoZ strengthen encouragement of school attendance for both sexes, improve access to improved drinking water sources and hand-washing facilities, and improve access to sanitation facilities.³⁸

Figure 23. Country Level Water Sources



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

Figure 24. Rural Households Using Different Sanitation Facilities (%)



Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

Table 11. Household Water Sources by Province (%)

Province	Dry Season Improved	Dry Season Unimproved	Rainy Season Improved	Rainy Season Unimproved
Manicaland	66	34	68	32
Mashonaland Central	82	18	82	18
Mashonaland East	81	19	80	20
Mashonaland West	70	30	69	21
Matabeleland North	75	25	74	26
Matabeleland South	67	33	68	32
Midlands	67	33	68	32
Masvingo	70	30	70	30

Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

Table 12. Distance Traveled by Households to Improved Drinking Water Sources, by Province

Province	More than 1km		500m-1km		Less than 500m	
	Rainy Season	Dry Season	Rainy Season	Dry Season	Rainy Season	Dry Season
Manicaland	15.44	18.4	31.7	33	52.87	48.7
Mashonaland Central	12.61	13.9	32.99	33.7	54.4	52.4
Mashonaland East	3.83	7.5	25.82	30.1	70.34	62.4
Mashonaland West	8.31	11.5	29.93	32.2	61.76	56.3
Matabeleland North	16.77	19.8	44.26	43.5	38.96	36.7
Matabeleland South	20.79	23.6	40.98	42.8	38.11	33.5
Midlands	17.46	19.9	39.56	41	42.98	39.1
Masvingo	14.71	17.5	40.46	41.7	44.83	40.8

Source: Zimbabwe Vulnerability Assessment Committee (ZimVAC) "Rural Livelihoods Assessment July 2011 Report"

38 Government of Zimbabwe/Food and Nutrition Council, 2011. Rural Livelihoods Assessment Part 2, July 2011. pg.31.

Crop and Food Security Assessment Mission (CFSAM), August 2010

Objectives and methodology. The 2010 CFSAM aims to verify production figures and estimate the country's food shortfalls. The study was conducted from June 13-June 19, 2010, and assesses 2009/2010 cereal production. Food security findings inform food import and food assistance needs for 2010/2011.

The CFSAM relies on existing production figures provided by the GoZ, other donors, and interviews with local institutions.

Key findings. Key findings from the CFSAM include:

- Cereals production increased in 2009/2010, though millet, sorghum, and wheat production declined. Area planted to maize increased.
- Food security levels increased from the previous years, mostly due to increased production levels and improved economic conditions. However, this improvement came after two years of very poor production and economic crisis; overall conditions in 2009/2010 were still worse than they were pre-crisis (2006/2007).
- Food access, not availability, was reported as the greatest threat to food security.
- Input and production support programs positively impacted production levels.
- Area dedicated to livestock decreased in favor of maize. Although this shift increased maize yields, areas climatically inclined to livestock rearing (such as Masvingo, Matabeleland, and Manicaland) produced maize under less favorable conditions.
- The GMB reduced its role in the market but continued to impact market dynamics.
- Unlike the May 2010 ZimVAC, which estimated that 15 percent of Zimbabwe's population was food insecure in 2010/2011, the CFSAM estimated that about 30 percent of the population was food insecure in 2010/2011.³⁹

Findings: Crop production. The CFSAM states that national production levels slightly increased from 2008/2009 levels, due to increased support from donors and the government and good rains in some areas. Poor rains and delayed fertilizer distribution decreased production in eastern and southern areas.

Area planted to maize increased by roughly 20 percent from the previous year.⁴⁰ Maize production estimates for the 2009/2010 season were 1,352,572 MT.⁴¹ Declining prices for cash crops led to a reduced area planted to cash crops such as cotton, soybeans, sugar beans, and sunflower; farmers planted

maize instead.⁴² Not surprisingly, production levels for cash crops decreased. The same situation existed for cereals other than maize (wheat, sorghum, and millet).⁴³

Manicaland, Masvingo, and Mashonaland suffered the most from low rain levels. Overall, the country's production north of the watershed was ranked average to good; production in the northeast and south was ranked mediocre to poor.⁴⁴

Findings: Food supply. The report estimated that Zimbabwe would require approximately 2 million MT of cereals for 2010/2011; national supply, however, was estimated at 1.66 million MT. Thus, the CFSAM estimated a net import requirement of 428,000 MT of cereals for 2010/2011, which it predicted would be met by commercial imports.⁴⁵

Findings: Livestock. Livestock population and conditions improved during 2009/2010 from previous years (which saw decreases in large livestock holdings and dairy production). Dairy production increased by about 30 percent from the previous year (during the January-February timeframe). Masvingo and Matabeleland South provinces had limited growth in livestock production due to poor rains.⁴⁶

Improved dipping frequency and supply helped support growth in the livestock sector, although a number of pests and diseases still threatened growth. Livestock producers took measures to control complete outbreaks of these infections.⁴⁷

Terms of trade for livestock were reportedly stable, with the exception of Manicaland and Mashonaland East provinces, which witnessed price decreases. The ban on import of poultry was noted as an expected impact on livestock and feed markets.⁴⁸

Findings: Markets. The CFSAM noted that all markets had major cereals and cooking oil available, as well as domestic and imported foods (sugar, rice, etc.). The 2009 market liberalization positively impacted market dynamics, especially the grain trade.

The GMB controlled less of the market in 2010 than it did before 2009; however, the parastatal still impacted market dynamics. The GMB set the producer price at a level higher than the prevailing market price at the start of the 2009/2010 season, and was reported to have difficulties paying producers in a timely fashion. In 2008/2009, the GMB purchased 63,000

42 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.6

43 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.15

44 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.12

45 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.6

46 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.16

47 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.16

48 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.20

39 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.29

40 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.12

41 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.14

MT and 20,561 MT of maize and wheat, respectively.⁴⁹

Major millers in the grains markets were noted as National Foods and Blue Ribbon Foods; major importers of refined cereal products were Spar, OK, and TM. Financial liquidity was reported as the largest challenge facing all of these actors in 2010/2011.⁵⁰

The CFSAM estimated that the country's large millers each imported 5,000-10,000 MT of maize per month. Millers faced competition from importers of refined maize flour⁵¹ who sold the finished product at a lower price than domestic millers.

Prices were reported as rising again, after a period of decrease following the 2008 price spikes. The CFSAM attributed the 2010 price increase to maize shortages, especially in Bulawayo and Mutare.

Interestingly, the maize meal market was reported to perform differently than the maize market in the country's two largest urban markets. Maize meal prices did not correlate with maize prices in Harare and Bulawayo, and maize meal availability and prices were more stable than maize prices.⁵² As detailed in Chapter 4, according to USAID-BEST research, the maize meal market was dominated by imports from South Africa, whereas maize grain was locally produced.

Findings: Food consumption. The CFSAM estimated that Zimbabweans met about 66 percent of minimum caloric needs through cereals (mostly maize) consumption in 2010. Consumption of millet and sorghum decreased in 2009/2010, and consumption of wheat remained equal to 2008/2009 levels. Diet diversity was reported as decreasing among poorer households, despite the fact that availability of foods on the market had reportedly increased.⁵³

Maize was consumed an average of seven days a week by households; poor households consumed mostly maize and vegetables; borderline households consumed maize, vegetables, and some fats/oils and other cereals; households deemed acceptable consumed maize, vegetables, fats/oils, other cereals, and some sugar and beans/peas.

The CFSAM also reviews the World Food Programme (WFP)'s Community and Household Surveillance study (CHS). According to the CHS, food consumption levels were slowly increasing among all households, but were nonetheless categorized as poor among 15 percent of surveyed households. Surprisingly, only 70 percent of WFP food aid beneficiaries were recorded as having acceptable food consumption levels.

Findings: Livelihoods. Seventy percent of Zimbabwe's

49 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.17

50 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.20

51 As noted in in the Report section, mealie meal and maize flour are considered synonymous in this report.

52 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.18

53 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.21

population was estimated to live in rural areas in 2010. Rural livelihoods were supported mostly by livestock rearing and/or crop production. Barter exchange of goods was reported as common, but decreasing in popularity due to the dollarization of the country's economy.⁵⁴ Off-farm and non-farm income appeared to have been impacted both positively and negatively by an increasingly formal working environment; on one hand, large employers provided employment opportunities for many; on the other, the poorest increasingly lacked the ability to cope through informal employment.

Findings: Food security. Rural communal farming areas were deemed most food insecure, with the largest population suffering the longest period of food insecurity during the year. The CFSAM estimated that 1.29 million people in rural areas suffered from chronic or transitory food insecurity. Urban areas were assumed to be better-off in terms of food security; although the CFSAM did not conduct any in-depth analysis of urban food insecurity, it estimated that 11 percent of the urban population suffered from chronic and transitory food insecurity.

Rural households sourced most of their food supply from own production and/or market purchase; market purchase was reported as most prominent in cash crop production areas and livestock-rearing areas.

Urban/peri-urban livelihoods were supported mostly by agriculture, petty and cross-border trade, and self-employment.

Recommendations. The CFSAM recommended that food assistance be provided to households unable to access food, in order to increase food security, reduce child malnutrition, and reduce erosion of productive assets. The report recommended food for work as an appropriate food assistance program for most households.

The CFSAM estimated that food assistance volumes for the 2010/2011 season should total 133,000 MT. In addition, the CFSAM recommended that the GoZ and donors provide more emergency input support, that the GMB and private market producer prices align, and that irrigation and conservation farming become more prevalent. The report urged the GoZ to update the national cereal balance sheet regularly, and to improve the Agritex crop assessment.

The CFSAM also recommended that food assistance programs continue to target the most vulnerable households, constantly monitor the food security situation, and provide inputs. The CFSAM suggested that the GoZ continue its liberalized food grain import policy.

Zimbabwe National Nutrition Survey, May 2010

Objectives and methodology. The National Nutrition Survey has three objectives: 1) determine the nutritional status of children 6-59 months of age in each district; 2) explore

54 FAO/WFP, 2010. Comprehensive Food Security Assessment Mission: Zimbabwe. pg.23

the prevalence and distribution of underlying determinants of malnutrition among children 0-59 months of age in each district; 3) provide a platform for recommendations for action at district and national levels. The report aims to provide the GoZ and development partners with evidence-based information to address malnutrition and underlying causes of malnutrition.

The study team consisted of government workers, NGOs, and UN partners. The survey was conducted in 60 rural domains and four urban domains. The team targeted 600 children in each domain, selected randomly within different segments of the district. A total of 38,332 children between 0-59 months were surveyed. Importantly, the survey was conducted during the lean season, when diarrhea and disease rates are most prevalent. The survey was the first nutrition survey conducted at the district level since 2007.

Findings. The survey found that 34 percent of children between 6-59 months of age were stunted nationwide.⁵⁵ Ten percent of children 6-59 months of age were underweight.⁵⁶ More boys were found to be stunted, underweight, wasted, or overweight, than girls.⁵⁷ Rural households were more likely to have stunted and underweight children; urban areas hosted more overweight children. Wasting rates were about equal in urban and rural areas.

Only 28 percent of children 6-23 months of age received the minimum number of meals recommended for their age. In some districts (Gweru, Buhera, Mt. Darwin, and Uzumba Maramba Pfungwe (UMP)), only 9.9-16.9 percent of children received the minimum number of daily meals for their age.⁵⁸ About 1/3 of children 6-23 months received the minimum number of recommended food groups. In sum, only 8 percent of children 6-23 months received a diet deemed acceptable in terms of diversity and meal frequency. Less than 40 percent of children 12-23 months received fruits, vegetables, legumes, nuts, milk, meat, or eggs; for younger children, these percentages were lower. Over 40 percent of children 6-8 months received vitamin A-rich foods, over 60 percent of children 9-11 months received vitamin A-rich foods, and 80 percent of children 12-23 months received vitamin A-rich foods. Overall, 85 percent of children between 6-59 months of age received a vitamin A supplement within 6 months prior to the survey.⁵⁹

Sixty-seven percent of children 0-59 months lived in households with acceptable food consumption scores; 21 percent lived in households considered borderline; 12 percent

lived in households ranked poor.⁶⁰ Households with poor food consumption scores were mostly located in north and northeast districts. Thirty-five percent of children lived in households which had experienced a food deficit which lasted over five months in the past year.

About 16 percent of children had a cough and/or diarrhea two weeks prior to the survey, and 14 percent of children had a fever in the same time period. Fever and cough were more prevalent in rural areas; diarrhea prevalence was about equal in both urban and rural areas.

About 3/4 of children were breastfed up to 12 months of age.⁶¹ More than half of children received soft, semi-solid, or solid food before 6 months of age.

Conclusions and recommendations. The study concludes that Zimbabwe has an unacceptably high chronic malnutrition rate, and an acceptable acute malnutrition rate. Boys are more frequently malnourished than girls, and children in rural areas are more frequently malnourished than children in urban areas. The percentage of children underweight and the rate of under-5 mortality are both off target in terms of meeting Millennium Development Goals.

Malnutrition was associated with high frequency of illness, low utilization of improved water and sanitation services, and poor dietary intake. The study estimates that roughly 12,000 child deaths each year are due to maternal and child undernutrition. The study recommends that the GoZ and development partners:

- Consider malnutrition as a development priority.
- Collaborate across sectors and effectively mainstream nutrition as a part of all government ministries.
- Develop a comprehensive food and nutrition policy.⁶²
- Target direct nutrition interventions to pregnant women and children under 2 years of age.
- Acquire more resources to address breastfeeding and complementary feeding practices, micronutrient supplementation/fortification care for sick children, and hand washing practices.
- Continue to provide care for severe malnourishment.
- Continue to be a leader in nutrition surveillance.
- Invest further in indirect nutrition interventions such as social transfer and social protection measures, food security interventions that promote access to nutritious and affordable foods, water and sanitation improvements, and women's empowerment activities.
- Continue to prioritize care to HIV infected/affected people.
- Conduct further research on malnutrition and its determinants.
- Conduct surveys on adult nutrition and micronutrient status.

55 Note that this percentage differs from the 2010 Demographic and Health Survey which states a national stunting figure of 32 percent.

56 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 20.

57 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 26.

58 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 30.

59 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 51.

60 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 39.

61 Government of Zimbabwe, 2010. Zimbabwe Nutrition Survey Presentation. Slide 46.

62 Note that as of June 2012, this has been developed and awaits public release.

Zimbabwe Demographic and Health Survey, 2010-2011

The 2010-2011 Zimbabwe Demographic and Health Survey (2010-11 ZDHS)⁶³ presents findings from a survey of a large, nationally representative sample of nearly 11,000 households. The Zimbabwe National Statistics Agency (ZIMSTAT) conducted the survey from late September 2010 through March 2011.⁶⁴

Objectives and methodology. The primary objective of the 2010-2011 ZDHS is to provide current information for policymakers, planners, researchers, and program managers. Topics include fertility levels; marital status; sexual activity; fertility preferences; knowledge and use of family planning methods; breastfeeding practices; nutritional status of mothers and young children; early childhood mortality and maternal mortality; maternal and child health; malaria prevention and treatment; awareness and behavior regarding HIV and other sexually transmitted infections; and domestic violence. In all households, height and weight measurements were recorded for children age 0-59 months, women age 15-49, and men age 15-54.

ZIMSTAT recruited and trained 125 people for the main field work to serve as supervisors, deputy supervisors, interviewers, and reserve interviewers. A total of 10,828 households were selected for the sample, of which 10,166 were found to be occupied during the survey field work. The shortfall was largely due to members of some households being away for an extended period of time and to structures that were found to be vacant at the time of the interview. Of the 10,166 existing households, 9,756 were successfully

interviewed, yielding a household response rate of 96 percent.

Findings: Childbirth. The total fertility rate for Zimbabwe was 4.1 children per woman, ranging from 3.1 children per woman in urban areas to 4.8 children per woman in rural areas.

Almost all women aged 15-49 who gave birth in the five years preceding the survey received antenatal care from a skilled provider during pregnancy for their most recent birth; however, less than 1/5 of women received this care during the first trimester. Over half of live births took place in a health facility or with a skilled provider.

About 2/3 of childhood deaths took place during infancy. The under-5 mortality rate in Zimbabwe was 84 deaths per 1,000 live births. The infant mortality rate was 57 deaths per 1,000 live births, and the neonatal mortality rate was 31 deaths per 1,000 live births. For every 1,000 births in Zimbabwe, there were about 10 maternal deaths.

After Mozambique and Zambia, Zimbabwe has one of the highest under-five mortality rates in Southern Africa. In terms of infant and neonatal mortality rate, Zimbabwe is fourth in the region. Zimbabwe has the largest maternal mortality ratio per 100,000 live births compared to other Southern African countries.

Five in ten children under 5 years old had a birth certificate or had their birth registered. Approximately 1/5 of children under age 18 were orphaned (that is, one or both parents were not living).

Breastfeeding was reported as very common; among last-

Table 13. Nutritional Status of Children by Province

Province	Stunting(1)	Wasting (Acute Malnutrition)(2)	Underweight(3)	Overweight(4)
Manicaland	33.7	2.1	8.1	8.8
Mashonaland Central	32.9	3.8	12.0	2.9
Mashonaland East	34.9	3.8	9.5	5.0
Mashonaland West	31.2	2.4	10.2	6.4
Matabeleland North	33.8	5.8	14.4	4.8
Matabeleland South	30.7	4.1	12.0	5.3
Midlands	32.7	2.7	10.5	4.2
Masvingo	30.7	2.1	6.5	5.5
Harare	29.0	2.8	8.9	4.6
Bulawayo	26.2	2.3	7.9	6.8

(1) Stunting: children 6-59 months < -2 SD height for age

(2) Underweight: children 6-59 months < -2 SD weight for age

(3) Wasting: children 6-59 months < -2 SD weight for height

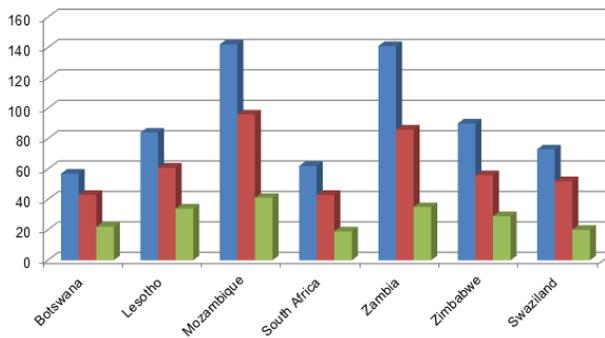
(4) Overweight: children 6-59 months < +2 SD weight for height

Source: 2010-11 ZDHS, 2012

63 The following agencies provided funding for the 2010-2011 ZDHS: United States Agency for International Development (USAID), the Centers for Disease Control and Prevention (CDC), the United Nations Population Fund (UNFPA), the United Nations Development Program (UNDP), the United Nations Children's Fund (UNICEF), the United Kingdom Department for International Development (DFID), the European Union (EU), and the Government of Zimbabwe. ICF International supported the project through the MEASURE DHS project, a USAID-funded project providing support, technical assistance, and funding for population and health surveys in countries worldwide.

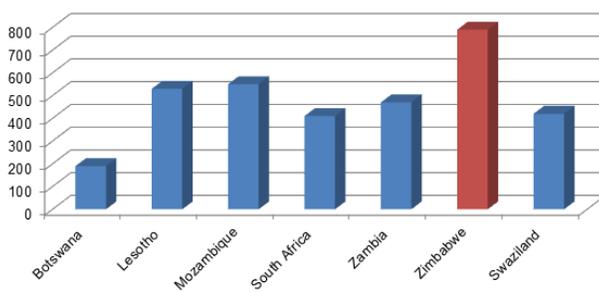
64 Zimbabwe National Statistics Agency and ICF International, Inc. 2012. Zimbabwe Demographic and Health Survey 2010-11

Figure 25. Mortality Rates in Select Southern African Countries



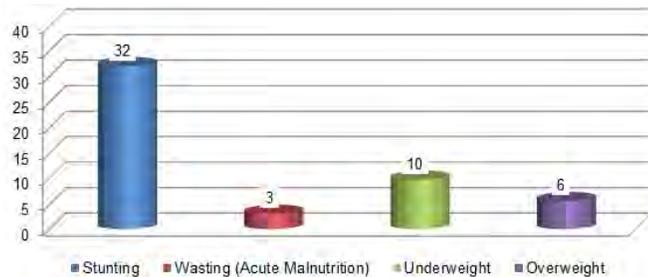
*rate per 1000 live births
 Source: UNICEF Maternal, Newborn & Child Survival, January 2010 available at <http://www.unicef.org/lesaro/theregion.html>

Figure 26. Maternal Mortality Ratio



Adjusted rate per 100,000 live births
 Source: UNICEF Maternal, Newborn & Child Survival, January 2010 available at <http://www.unicef.org/lesaro/theregion.html>

Figure 27. National Nutritional Status of Children (%)



Source: 2010-11 ZDHS, 2012

born children under 2 years of age, 97 percent were breastfed at some point in their life. Exclusive breastfeeding was less common; only 31 percent of children were exclusively breastfed throughout the first six months of life, and the median breastfeeding duration among children under 3 years of age was 17.8 months. Exclusive breastfeeding had a median duration of 1.1 months. Of children age 6-23 months, only 11 percent met minimum standards according to infant and young child feeding practices.

Findings: Malnutrition. Among children under 5 years old, the study found that 32 percent were stunted (short for their age), 3 percent were wasted (thin for their height), and 10 percent were underweight (thin for their age). Six percent of children were overweight (heavy for their height).⁶⁵

As Figure 27 shows, stunting rates were over 30 percent in all provinces. The highest stunting rates were in Mashonaland East (34.9 percent), Matabeleland North (33.8 percent), and Manicaland (33.7 percent). The stunting rates in Harare and Bulawayo were 29 percent and 26.2 percent, respectively.⁶⁶

At the national level, the wasting (or, acute malnutrition) rate was relatively low (3 percent). At the provincial level, Matabeleland North and South had the highest rates of wasting at 5.8 percent and 4.1 percent, respectively. Manicaland (2.1 percent) and Masvingo (2.1 percent) had the lowest rate of wasting. Wasting rates in Harare and Bulawayo were 2.8 percent and 2.3 percent, respectively.⁶⁷

Underweight rates were also relatively low at the national level. However, at the provincial level, underweight rates showed significant variation. Matabeleland North (14.4 percent), Matabeleland South (12.0 percent), and Mashonaland Central (12 percent) accounted for the highest rates in the country. Harare (8.9 percent) and Bulawayo (7.9 percent) both had underweight rates below the national average.⁶⁸

The 2010-2011 ZDHS also found that more than half of Zimbabwean children (56 percent) age 6-59 months were anemic, 27 percent were mildly anemic, 29 percent were moderately anemic, and 1 percent was severely anemic.⁶⁹

Overall, 62 percent of women and 75 percent of men had a body mass index (BMI) in the normal range. Nearly one in three women was overweight, and 11 percent were obese. Twenty-eight percent of women and 14 percent of men were anemic.⁷⁰

65 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

66 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

67 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

68 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

69 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

70 Zimbabwe National Statistics Agency and ICF International, Inc, 2012. Zimbabwe Demographic and Health Survey 2010-11

Findings: Other categories. Seventy-nine percent of Zimbabwean households were using an improved source of drinking water. Literacy rates among men and women were 96 and 94 percent, respectively. Thirty six percent of women employed in the past year worked in sales and services, for men, 29 percent had worked in agriculture. Median age at first marriage among women was 19.7 years; median age at first marriage for men was 24.8 years.

II.xi. Poverty

At present, there are no official data on poverty rates in Zimbabwe. However, in 2010, the United Nations Children's Fund (UNICEF) reported that around 78 percent of the population was poor and 55 percent lived below the food poverty line.^{71,72} People living below the food poverty line are those who cannot meet any of their basic needs and suffer from chronic hunger. According to UNICEF, an estimated 6.6 million people (including 3.5 million children) in Zimbabwe suffer from this extreme form of deprivation.

71 According to UNICEF (2010) "People living below the poverty line cannot meet any of their basic needs and suffer from chronic hunger" p.6

72 UNICEF, 2010. Child-Sensitive Social Protection in Zimbabwe.

Annex IV. Cash and Voucher Programs

Number	Agency	Project	Province	District	Mode	Amount of Cash / Month (USD)	No. of HHs	Total Cash / Month	Donor	Total Cash Transferred (USD)	Start Date	End Date
1	ActionAid International (AAIZ)	Urban Poor Communities Responding to HIV/AIDS & Poverty	Harare	Harare Urban	Urban Poor	20		n/a	AusAID, EC, Netherlands, Norwegian Embassy, UKAid	\$468,640	June 08	June 11
			Mashonaland East	Seke	Communities	20		n/a			June 08	June 11
			Midlands	Gweru Urban	Responding to HIV/AIDS and Poverty	20	2600	n/a			June 08	June 11
			Bulawayo	Bulawayo Urban		20		n/a			June 08	June 11
2	Action Contre le Faim	Building Livelihoods & Reducing Food & Nutrition Vulnerability in Zimbabwe: PRP Year IV	Matabeleland South	Insiza	Vouchers						Sept 11	Aug 12
			Midlands	Mberengwa	Vouchers	\$160 for livestock, \$70 for agric inputs	4100	Single payment	SNV, ICRISAT, CIMMYT	\$476,000	Sept 11	Aug 12
3	CARE	PRIZE: Enhancing Productivity by Creating Productive Assets (SYAP)	Matabeleland South	Gwanda	Direct Cash	15			USAID EC/PRP	\$319,965	July 10	June 13
			Matabeleland South	Beitbridge	Direct Cash	15	TBC	n/a				
			Midlands	Mberengwa	Direct Cash	15	100	2500				
			Bulawayo Urban	Mzilikazi	Direct Cash	25	100	2500				
4	Catholic Agency for Overseas Development (CAFOD)	PRP Urban Livelihoods Promotion and Protection Programme	South	Plumtree	Direct Cash	25	50	1250	EC/PRP EC/PRP PRP	Euro 43,200 (current)	July 10	Jun 12
			Manicaland	Nyanga	Direct Cash	25	100	2500				
			Manicaland	Nyanga	Cash Card	25	100	2500				
			Matabeleland North	Binga	Direct Cash	25	100	2500				
			Masvingo	Chivi	Cash Card	25	250	6250				
			Masvingo	Bulilima Mangwe	Cash Card	25	100	2500				
5	Christian Aid Consortium for Secure Livelihoods	Improving Living Conditions for PLWHIV and their HHs	Bulawayo	Peri-urban (Hope Fountain & Hyde Park)	Direct Cash	20	101	2020	DFID/GRM	68,000	July 08	June 11
			Bulawayo	Peri-urban (Pamula, Hope, Fountain & Hyde Park)	Direct Cash	20	300	6000				
6	Christian Aid Consortium for Secure Livelihoods	Improving Living Conditions in Peri-urban Areas of Bulawayo	Bulawayo	Bulawayo	Direct Cash	20	300	6000	EU / GRM	12,000	July 10	June 12

			Matabeleland North	Binga		200	29,400					
	Christian Aid Consortium for Secure Livelihoods	Action for Graduation from Survival to Secure Livelihoods	Matabeleland South	Insiza		150	22,000					
7			Matabeleland South	Gwanda	Direct Cash	\$5/ day	45	6,600	DFID/GRM	58,000	Aug 11	July 12
				Gokwe North Gokwe South						Livestock (£779,752)		
8	Concern Worldwide	Improving Livelihood Security of Vulnerable Populations	Midlands	Nyanga	Vouchers	Crops \$20-80, Livestock \$160	27,317 6334		DFID (livestock), EC (crops)	Crops (£473,654)	July 11	June 12
9	Concern Worldwide	Cash for Cereals / Food-Cash for Assets Improving Livelihoods	Midlands	Gokwe South	CIT/ Security	\$5/HH member to \$50 max	8571		UN WFP	\$752,570	Jan 11	March 11
10	Concern Worldwide	Security of Vulnerable Populations	Mashonaland West	Kariba Harare	Cash Voucher Vouchers	\$160 single payment	2100	Single payment	DFID/PRP	£264,256 n/a	Jul 11	Jun 12
11	Cordaid	Food Security Support for the Most Vulnerable	Mashonaland East	Seke Mutare	Vouchers	FVFW \$25/ month FV \$25/ month	5625	140,625	ECHO, Cordaid	n/a n/a 180,000	Nov 09	Dec 10
12	GOAL	Short Term Food Security Support Non-conditional Cash Transfers to Vulnerable Populations in Hurungwe District (10-11)	Mashonaland West	Hurungwe Makoni	CIT / Security	\$15	1000	n/a	ECHO	\$75,000	Jan 10	Oct 10
13	GOAL	Non-conditional Cash Transfers to Vulnerable Populations in Hurungwe District (11)	Mashonaland West	Hurungwe	CIT / Security	\$20	3666	73,320	Irish Aid	366,000	Sept 10	Feb 11
14	GOAL	Hurungwe Food Assistance	Mashonaland West	Hurungwe	CIT / Security	\$85 once off	3666	n/a	Irish Aid	311,000	Oct 11	Dec 11
15	GOAL		Mashonaland West	Hurungwe Makoni Chivi Mangwe Rushinga	CIT / Security	\$20	7256	145,120	WFP	435,360	Jan 11	Mar 11
16	Gov't of Zim/ Dept of Social Services	Zimbabwe Harmonised Social Cash Transfer Program Integrated Social	Harare Bulwayo	Kariba Goromonzi Umguza Zvishavane Harare Epworth Bulwayo Urban	CIT / Security Bank transfer (POSB)	1 member HH \$10; 2 member HH \$15; 3 member HH \$20; 4+ member HH \$25	23,000	460,000	UNICEF and Gov't of Zim	TBA	Oct 11	2015
17	HelpAge Zimbabwe	Protection Social Protection for Chronically Ill Older Persons	Midlands	Zvishavane		\$30 / 2 mths, then \$20 / mth	180	3600	EC	\$15,200	Jan 11	June 12
18	HelpAge Zimbabwe	Addressing Needs of OVC Under Care of Older Persons	Midlands Harare Masvingo Bulawayo	Zvishavane Mufakose Chiredzi Mpopma Zvishavane	Direct cash	\$20	180	3600	PRP	\$70,200	June 09	June 11
19	HelpAge Zimbabwe		Midlands		Cash Card and Food Hampers	TBC	500	TBC	UNICEF	\$563,700	Marc 10	Dec 10

			Matabeleland South	Gwanda Urban			1000	20,000				
			Manicaland	Chimanimani			1000	20,000				
20	IFRC and Red Cross	Food Security and Livelihood Support to the most Vulnerable	West	Kadoma	Food Voucher	20	2000	40,000	Japanese Gov't	320,000	Jun 11	Sept 11
	Imperial College of London & Biomedical Research and Training Institute (BRTI) Harare	Evaluation of Cash Transfer Support to OVCs in Manicaland	Manicaland Harare	Nyanga Mbare	Direct Cash		2746	Bi-monthly	Various	428,376	Dec 09	Dec 10
21			Harare	Chitungwiza	CABS Bank OK Voucher		800	16,000			April 10	June 11
			Bulwayo	Bulwayo Urban	Direct Cash		320	6,400			April 10	May 11
			Gweru	Gweru Urban	Direct Cash		700	14,000			May 10	Mar 11
			Manicaland	Mutare	CABS Bank		300	6,000			Mar 10	May 11
22	Mercy Corps	Joint Initiative for Urban Zimbabwe Improving the Protection of IDPs through Resettlement and Sustainable Integration Cash for Cereals / Cash for Assets	Masvingo	Masvingo Urban	Direct Cash	20	300	6,000	OFDA, PRP, New Zealand	678,670	April 10	May 11
	Norwegian Refugee Council		Manicaland	Chipinge							Mar 10	May 11
23			Masvingo	Chiredzi	Direct Cash	\$25	500	12,500	ECHO	\$37,000	Jan 11	Oct 11
24	Oxfam GB		Midlands	Kwekwe Chiredzi Mwenezi	CIT / Security	\$5 / beneficia y in HH	19,100	63,700	WFP	191,100	Jan 11	Mar 11
	Plan International	Producing and Earning Enough for Children and the Family	Masvingo Mashonaland East	Mutoko Kwekwe Mutasa	Cash Voucher	TBA	10,338	TBA	USAID, Sponsorship Funds	TBA	Jul 11	June 12
			Manicaland									
			West	Kariba			150	3000		36,000		
26	Save the Children	Upper Zambwezi Valley Integrated Livelihoods Project	Mashonaland North	Binga Hwange	TN Cash Card	20	100	2000	EU	24,000	Aug 10	Jan 12
		Binga Integrated Food Security and WASH Project	Matabeleland North	Binga	CIT / Security		200	4000		48,000		
27	Save the Children	Chimanimani School Feeding and Cash Transfer Program	Manicaland	Chimanimani	Direct Cash	\$12.50	1500		AusAID Norwegian Ministry of Foreign Affairs	\$168,750	June 10	Feb 12
28	Save the Children	Support to the Economic Recovery of Urban and Peri-Urban HH	Mashonaland West	Hurungwe Makonde	CIT/ Security Smart Card	25	1000	25,000	USAID/OFDA	225,000	Oct 10	Sept 11
29	Save the Children	Recovery of the Food Security and livelihoods Situation of Urban and Peri-urban HH	Mashonaland West	Zvimba	CIT / Security, Goods, Vouchers	25	2400		ECHO	213,019	May 10	Sep 11
30	Save the Children	HIV&AIDS Mitigation Strategy, Rushinga	Mashonaland Central	Rushinga	Direct Cash	TBC	TBC	n/a	Save the Children	\$45,000	Oct 09	Dec 10
31	Save the Children										Oct 11	Dec 11

32	UNICEF	Test run of Zim Harmonised Social Cash Transfer Program SPLASH Vouchers	Mashonaland East	Goromonzi	CIT / Security	20	105	n/a	Multi donors through UNICEF and the Gov't of Zim	n/a	Jan 11	Feb 11
33	WFP	Bulawayo SPLASH Vouchers	Bulawayo	Bulawayo Urban	Goods Voucher	\$7.12 pp to max	4700	n/a	WFP	\$555,087	Apr 11	ongoing
34	WFP	Harare	Harare	Harare Urban	Goods Voucher	\$35.60	2500	n/a	WFP	\$1,777,463	Aug 10	ongoing
35	WFP	Seasonal Target Assistance (Cash for Cereals)	Mashonaland East	Kwekwe	CIT/ Security	\$5 pp to max	50	19,100	WFP	\$1,365,555	Jan 11	Mar 11
36	WFP	Seasonal Target Assistance (Cash for Cereals)	Mashonaland East	Mutoko Mutasa Mutare Chimanimani Chipinge Gwanda								
			Manicaland	Chimanimani Chipinge Gwanda								
			Matabeleland South	Insiza Beitbridge Zvishavane Shuruqwi Chirumhanzu Kwekwe Nkayi								
36	WFP	Seasonal Target Assistance (Cash for Cereals)	Matabeleland North	Lupane	CIT/ Security	\$5 pp		n/a	WFP		Jan 12	Apr 12
37	World Vision	Insiza Food / Cash for Assets Program	Matabeleland South	Insiza	CIT/ Security	10	350	3500	WFP	10,500	Aug 11	Oct 11
38	World Vision	Prevent Destitution & Protect & Promote the Livelihoods of the Poorest & most Vulnerable in Bulawayo Urban	Bulawayo Urban	Bulawayo Urban (Mzilikazi, Makokoba)	Smart card	20	100	2000	EC		July 11	Jun 12
39	World Vision	Prevent Destitution & Protect & Promote the Livelihoods of the Poorest & most Vulnerable in Matabeleland	Matabeleland South	Bulilima	Cash Voucher	\$70 once for agric inputs	11,200	n/a	PRP, World Bank	n/a	Aug 10	Jun 11

Source: CaLP, 3W Review of Cash and Voucher Programs in Zimbabwe, December 2011 and USAID-BEST team interviews with key informants, March/April 2012.



Annex V. Methodology for Determining the Impact of Monetized Food Aid

V.i. Introduction¹

The Bellmon Amendment requires assurance that a proposed food aid program would not result in a substantial disincentive to or interference with domestic production or marketing. The extent to which monetized food aid has the potential to introduce a production disincentive or market disruption rests primarily on whether the monetized commodity is sold at a fair market price, and in a volume that would not be expected to cause disruption of normal trade patterns.

The objective of the BEST pre-MYAP report is to provide sufficient information to relevant USAID policy decision makers and program managers to allow them to make a determination of whether a proposed food aid program would have a substantial impact on local market and production incentives. If it is determined in the negative, then the proposed Title II food aid program would be compliant with the Bellmon Amendment. The BEST report accomplishes this objective by providing specific guidance as to

- The appropriateness of monetization in a Title II recipient country.
- If appropriate, which commodities might be appropriate to monetize.
- The approximate maximum tonnage feasible for monetization.
- Any special considerations (such as sales platform) that should be taken into account when undertaking monetization in the study country.

V.ii. Analytical Process

Step I: Initial Commodity Selection

A desk review will identify an initial set of commodities for study. This review will be based on the best available trade statistics and any previous Bellmon studies, and informed

¹ This methodology was developed to provide guidance prior to the initiation of a new MYAP/SYAP cycle; however, in the case of monetization, the methodology for the market analysis is exactly the same whether the analysis is conducted mid-MYAP or prior to the beginning of a new MYAP/SYAP cycle.

by country situational reports and policy reviews. Ideally, each commodity will be selected based on a complete set of objective criteria involving eligibility, freedom from trade and policy restrictions, and, most importantly, the market's ability to absorb a volume of monetized commodity without substantial disruption. In practice, this ideal is constrained by information gaps and varying standards of what may be considered "substantial" in different country and regional contexts. Official trade data is often incomplete, out-of-date, or contradictory.

The field visit will involve triangulating trade figures, filling in data gaps, and discussing with traders and potential buyers to assess 1) interest and ability to purchase commodities in various quantities; and 2) factors affecting demand and supply of commodities with which a monetized commodity would likely compete.

The following set of "tests" is used, in whole or in part, to make an initial assessment of the feasibility of monetization without introducing Bellmon concerns:

Test 1: Purchase and export restrictions. There are various layers of US government policies, regulations, and practices that may restrict the purchase of commodities intended for monetization. In consideration of these restrictions, Food for Peace (FFP) maintains a list of approved Title II commodities that can be used for emergency or development programs (see Annex V.I). There may also be special policies, such as the FFP Policy on Use of Milk Powder for Monetization (see Annex V.II), which must also be reflected in sales transactions.

Test: If a commodity is on the FFP list, it is eligible for consideration as a monetization candidate. If it is not on the list, it is ineligible.

Upon special request by FFP, commodities not currently on the FFP list may be selected for review.

Test 2: Recipient country policy, regulation, and practice. Recipient country policies, regulations, and practices may restrict importation of commodities intended

for monetization. These may include, but not be limited to, one or more of the following:

- Restrictions on genetically modified foods
- Political sensitivities to staple crop industries
- National industry promotion or protection favoring local purchase of certain commodities
- Food aid-specific regulation of monetization sales volumes and prices

Test: If potential monetization of a commodity is affected by such barriers, analysis and recommendations will consider each barrier in light of its restrictiveness in practical terms. Extreme barriers to monetization (such as a complete restriction on GMOs, for example) will render a commodity ineligible for monetization. However, government institutions that regulate monetization may set guidelines that have little to no effect on an overall recommendation, but may impact a detail such as minimum sales prices. In this case, a commodity would still be considered eligible for monetization.

Test 3: Significant demand and commercial import activity. To warrant importation and sale of monetized food aid, both local dietary preferences and available market information must strongly suggest that a proposed commodity is consumed in significant amounts (i.e., there is significant demand), and that national production is insufficient to meet demand (i.e., there is insufficient national supply to meet demand). National demand is estimated based on the latest 5-year overall supply trend, equivalent to the sum of domestic production, net trade, and food aid.²

Assessment of the 5-year supply trend considers products of the same specification or those that are the most likely substitutes. Commodity specifications (class and grading) are particularly important for some of the most frequently monetized commodities, such as wheat, rice, and vegetable oil. In order to compare commodities accurately, the analyst must take into account the exact specifications of normal commercial imports. Processors' requirements and consumer preferences will determine the required and/or desirable specifications. Field visits must include meetings with commercial importers, processors, millers, and large traders because these are the market players who can provide the most accurate information in regards to specific commodities' commercial demand.

Annex V.III is a survey questionnaire tailored to potential buyers of Title II monetized commodities. This set of questions should form the basic foundation for meetings with millers,

² Where supply in the previous years is especially stable, a single-year projected increase in supply is possible using annual population growth figures. In the most recent round of BEST studies, many Title II countries had experienced substantial inter-annual fluctuations in supply during the five-year period under review (on the order of 100 percent change year-on-year), partially due to the food price crisis of 2007. This made projections much more difficult and unreliable. However, as prices and therefore supply stabilize, such projections would be a reasonable basis on which to estimate a recommended volume for monetization.

traders, and other potential buyers of monetized commodities.

Annex V.IV is a survey questionnaire form tailored to current NGO Monetization Units, for those countries where these units are operational. This set of questions should form the basic foundation for meetings with Monetization Units to assess their experience monetizing commodities in-country.

In countries with substantial informal trade, the analyst will gather all available market intelligence on the volume and pattern of informal trade where available. This will involve reliance on FEWS NET cross-border trade estimates and discussions with key stakeholders (such as Ministries) in the field. Informal trade may be substantial, because informal trade is generally between two low-income food-deficit countries. Disruption of such trade would be considered particularly undesirable. The volume of commodity recommended for monetization will exclude informal trade volumes and rely instead on commercial import and food aid import volumes as a basis for estimating unmet demand.

Test: Generally, the value of the commercial import market must be large enough so that monetization sales would generate at least US\$1 million. This amount is a guideline based on analysis of perceived Awardee funding need, but which is subject to review, especially as funds become available from other sources (e.g., 202(e) funding). Commodities that would generate less than US\$1 million in funds will be considered, particularly where there are only one or two commodities eligible/feasible for monetization and a diversified basket of commodities would be preferable. If sales are expected to displace normal commercial imports, the displaced volume should not exceed 10 percent of commercial import volumes (averaged over 5 years) per BEST's current guideline. If sales are expected to compete with domestic production, the displaced volume should not exceed 5 percent of domestic production (averaged over 5 years) per BEST's current guideline.

Step 2: Market Analysis

Additional market research and analysis are conducted to assess the likelihood of achieving a fair and competitive market price. The analyst will review all available evidence of market structure, level of competition, and available sales platforms, including findings from interviews with traders, producers, potential buyers, and any current monetizing agents. To support a recommendation of commodity monetization, the analyst must conclude that there is a high likelihood of achieving a fair market price in the near-term. Achievement of a fair market price may be expected in the near-term based on the following criteria.

Criterion 1: Structure and composition of the buyer market supports competition. There must be enough potential buyers with sufficient purchasing power and market positioning to absorb the likely volumes of monetized commodities without exerting a negative influence on fair and

efficient market function. In some cases, monetizing agents may have long-term relationships with a single buyer. This may or may not indicate a problem. As discussed in the following section, whether Awardees are able to monetize commodities at or near IPP provides strong suggestive evidence of the level of competition.

Test: If there is a single buyer, evidence of a collusive group of buyers, or other indications of a buyer's market that regularly restricts free trade and competition, dominates the market, or exercises anti-competitive practices while purchasing monetized and/or commercial food commodity imports, then it may be expected that a fair market price may not be achieved and monetization may be supporting an uncompetitive industry. If there are many buyers, or there is no substantial evidence to indicate that a single or few buyers are exhibiting this negative behavior, a fair market price may be

achieved.

Criterion 2: Likelihood of achieving a fair market price is high. An IPP is the best estimate of a fair market price for commercially imported commodities. An estimated IPP is based on the sum of a simulated commercial entity's cost to import and sell the same (or very similar) food commodity. If import parity price has been consistently achieved in the past, and can be expected to be achieved in the near future given current market conditions, a commodity may be recommended for monetization.

The estimated import parity price is calculated by adding the following costs:

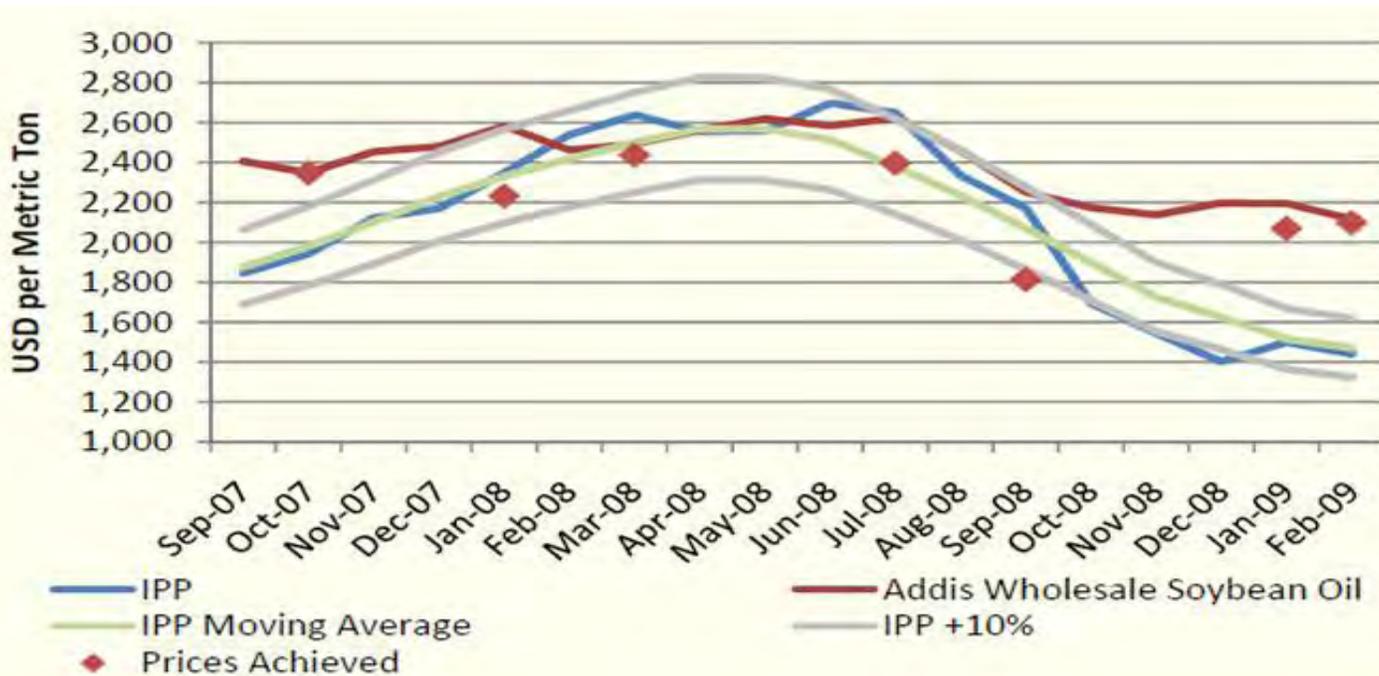
- Freight On Board (FOB) from exporting location/market (for the same or similar commodity)
- Insurance
- Ocean freight to point of import³
- Port charges at port of entry (taxes, handling, packaging, storage, agents' fees, etc.)
- Import duties and subsidies
- Taxes (including VAT if applicable)
- Inland transportation
- Any other costs that bring the per unit cost into a parity estimate with the reference price, such as a price adjustment for a difference in commodity quality

Given that each of these components of IPP is estimated, and that certain components, such as freight charges, are likely estimated with some error, BEST analysis allows for a margin of error of +/- 10 percent. Monetized sales transacted at prices above or below the margin of error can be reasonably

Table 14. Soybean Oil Import Parity Price Calculation Template

Item	Source	US\$/MT
Refined Soybean Oil		
Ex Rotterdam	USDA FAS Data	748
Ocean Freight	Marill Freight	50
Insurance	1% of #1	7.5
CIF Djibouti	#1+#2+#3	805.5
Customs Duty	30% of #4	241.6
VAT	15% of (#4+#5)	157.1
Withholding Tax	3% of #4	24.2
Port Charges, handling etc.	Axis Transit Services	39.5
Inland Freight	Axis Transit Services	41.1
Storage	ECEX	7.5
Packaging	Whey Consulting Ltd.	119.5
Administration	World Bank Salary Data	4.0
Total Import Parity Price	Sum(#4:#12)	1440.1

Figure 28. Comparison of Addis Wholesale Soybean Oil Prices and Calculated IPP



3 BEST will use CIF at port prices whenever they are available.

attributed to profit or loss respectively.

Test: If IPP analysis reveals a consistent pattern of pricing below IPP, and there are no substantial prospects for improvements in the negotiating capacity of the Awardee(s) (e.g., no significant increase in the number of potential buyers), future monetizations of that commodity would not be recommended since such sales would be unlikely to obtain a fair market price.

If there is little or no history of monetization sales transactions to compare with IPP, then market structure and conduct must be assessed as indicators of the potential for achieving a fair market price.

*Example of IPP calculation and use in monetization analysis:*The following is an example of an IPP calculation and a comparison of achieved sales prices relative to IPP. Figure 29 shows an individual import parity price calculation for soybean oil for possible sale in Addis Ababa. Figure 28 shows historical IPP charted against actual monetization sales price achievements for soybean oil monetized in Addis Ababa.

Criterion 3: Other Key Considerations for Monetization Transactions. There are a number of other important factors that should be considered when assessing the feasibility of monetizing commodities. These factors include, but are not limited to:

Price responsiveness of local production. General

Figure 29. Decision Tree

5 initial commodities considered for Monetization in Country X:

- CSDO
- HRWW
- NFDN
- Rice
- Pinto Beans

No policy restrictions prevent the importation of HRWW, NFDN, Rice, or Pinto Beans, but there are restrictions for CSDO.

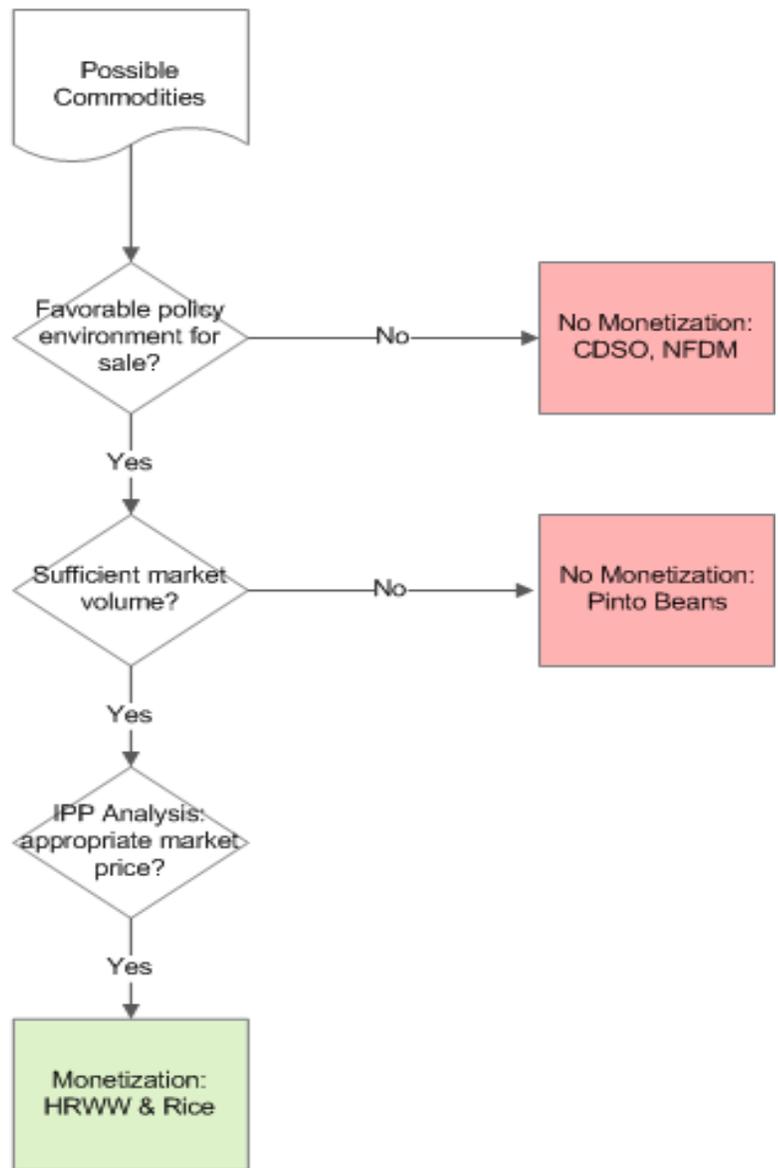
BEST research also indicates that the buyer for NFDN would probably use it to manufacture breast milk substitute, which preclude its monetization.

Based on trade data, HRWW, Rice and NFDN have an import market value of approximately \$60 million each.

The market for Pinto Beans is estimated to be only \$2 million however – this market is thus too small to be cost effective to generate monetization proceeds.

Import Parity Price calculations estimate that HRWW and Rice would be sold at appropriate local market prices.

Based upon market volume trade data, BEST analysis would recommend selling HRWW and Rice at 10% of their respective market volumes in Country X. This would generate an expected \$6 million in proceeds for each commodity.



characteristics of the agricultural sector, such as average farm size, access to agricultural inputs (labor, seeds, fertilizer, etc), and average crop yields, provide an indication of how responsive local producers may be to changes in output prices (i.e., how elastic supply is). For example, if farm sizes are relatively small and farmers lack access to inputs, domestic production is likely to be relatively less responsive to changes in output prices (i.e., relatively inelastic) simply because producers lack the capacity to make large changes in their production plans in response to price incentives. If production is inelastic, the disincentive effects from additional Title II food aid will therefore be minimized. Domestic supply is often price inelastic in developing countries.

Conversely, if local production is extremely price responsive (or elastic), a small price change on the local market will result in a large percentage change in local production. While a drop in output prices may benefit consumers such a drop could create disincentives to produce as well as cause a drop in traders' incomes.

Monetization may affect the marketing or production of substitute commodities. If commodities considered for monetization are highly substitutable with other commodities in the local diet, the analyst must assess market conditions to reveal the likely cross-price effects on those substitute commodities. As an example, suppose consumers typically consume black beans, but view pinto beans as a very close substitute. If pinto beans are monetized, resulting in an increase in the supply of pinto beans and therefore a drop in the price of pinto beans relative to black beans, consumers may substitute away from black beans and increase pinto beans in their diets. Depending on how easily consumers substitute the two goods (as reflected in the cross-price elasticity between black beans and pinto beans), monetization of pinto beans could result in a decrease in demand for black beans, which could affect production incentives and markets for black beans.

Estimates of elasticities are generally not available. Qualitative assessments of factors which determine demand and supply, however, are fairly easy to undertake during field visits particularly with the insights of local agricultural marketing specialists.

The willingness to substitute commodities in the local diet often follows a socioeconomic gradient and differs in urban versus rural areas. Understanding these dynamics is important to strengthening market intelligence and providing appropriate guidance regarding the likely effects of food aid (both monetized and distributed) on local markets. As an example, there may be very strong preferences for rice in an urban area which makes consumers relatively nonresponsive to price changes (i.e., the own price elasticity of demand for rice is inelastic), whereas rural consumers may have a preference for sorghum but are willing to substitute sorghum with millet as the price of sorghum increases relative to millet.

Monetization sales platform may support competition.

The monetization sales platform may provide insight into the level of competitiveness and the monetization agents' ability to achieve a fair price. In most cases, the most common platforms available are direct negotiation and auction. Though it is entirely possible to realize a competitive or non-competitive process under each sales platform, some platforms are more likely to result in a competitive bid. For example, while it is possible to obtain a fair market price through large lot sales, small lot sales will promote greater competition (which increases the probability of achieving IPP) and may help promote the trading sector. Details to consider regarding sales platforms are discussed in Annex V.V.

Timing of sales is critical. When supplies are relatively low (e.g., during lean season), prices are relatively higher. A monetization sale timed to coincide with normal seasonal supply shortfalls has the potential to yield a higher price for the monetized commodity. Although it is not the intent of the monetization program, well-timed sales can help also help stabilize market supply and dampen seasonal price spikes, which harm consumers in recipient countries.

Tests: A monetization program would generally be considered positively if a sale takes place:

- During the lean or hunger season(s), and up to the seasonal or annual harvest(s).
- In avoidance of another substantial monetization sale.
- In avoidance of a major food aid distribution.⁴

Awardees should demonstrate awareness of any other monetizations planned (e.g., through USDA) during the same season as their proposed monetization, and should seek to avoid overlap of transactions. Likewise, Awardees should seek to avoid major monetizations during large food aid distributions.

However, as emphasized in the 1998 Food For Peace Monetization Field Manual, timing sales during lean seasons can, over the longer-term, create a disincentive for traders to engage in normal intra-annual price arbitrage. Based on discussions with traders in-country, the analyst will only recommend a practice of timing monetizations during in the lean season if the analyst can demonstrate that such timing will have little impact on incentives for traders to engage in intra-annual storage.

Monetization should avoid disrupting trade between two Low-Income Food-Deficit Countries (LIFDCs).

Typically, commercial import markets in LIFDCs are dominated by large non-food deficit exporting countries. Occasionally, however, LIFDCs may dominate a particular commodity markets (e.g., the maize market in Zambia may be dominated by Malawi, though this market dominance will vary from

⁴ Depending on demand and supply dynamics for the specific commodity recommended for monetization, it may be more important that the monetized commodity is sold in an urban area while the distributed commodity is targeted in rural areas.

year to year since South Africa is a strong regional supplier). Monetization of a commodity typically imported from another LIFDC would be considered highly undesirable.

Regional monetization can offer a legally compliant alternative for Awardees operating in a country with less than fully competitive domestic commodity markets or insufficient commercial demand to meet Awardee funding requirements. Regional 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 import parity. Competition increases assurance that 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. Regional 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. In countries with highly limited competition and/or limited import volumes of available Title II commodities, the BEST team will analyze the feasibility of regional monetization of specific Title II commodities.

Step 3: Conclusions and Recommendations

The BEST team does or does not recommend a commodity for monetization. If recommended, a maximum volume is recommended based on either a threshold of 10 percent of the commercial import market, or 5 percent of domestic production, averaged over 5 years, per BEST's current guideline.⁵ Anticipated proceeds from such a sale are presented.

Hypothetical example. Figure 28 summarizes the basic steps in a decision tree for a hypothetical monetization analysis in Country X in which 5 initial commodities are reviewed for potential monetization: CDSO, HRWW, NFD, rice, and pinto beans.

Annex V.I. FFP FY12 Commodity List

Packaged
A-20 Paste
A-28 Rice Bar
A-29 Wheat Bar
Aseptic Sweet Potato Puree
Beans, Black
Beans, Great Northern
Beans, Kidney (dark & light)
Beans, Navy

⁵ A threshold of 10 percent of commercial imports (5 percent of domestic production) has been used, but is subject to review on a case-by-case basis, and may be adjusted downwards or upwards based on the findings of the market analysis.

Beans, Pink
Beans, Pinto
Beans, Small Red
Buckwheat Farinetta
Buckwheat Grits
Buckwheat Groats
Buckwheat Supreme Flour
Bulgur
Bulgur - SF
Chickpeas/Garbanzo Beans - Desi (small, dark)
Chickpeas/Garbanzo Beans - Kabulis (large, white)
Corn Soy Blend
Corn Soy Blend +
Corn Soy Masa Flour
Corn Soy Milk
Corn Soy Milk (Instant)
Corn, bagged
Cornmeal
Cornmeal - SF
Instant Corn Soy Blend
Lentils
Mainstay 3600
Mainstay Complete
Non-fat dry milk
Nutrition Bars
Nutritional Supplementary Paste
Peanut Butter Paste
Peas, Green
Peas, Split Green
Peas, Split Yellow
Peas, Yellow
Potato, Dehydrated Flakes
Potato, Dehydrated Granuals
Raisins (California)
Ready to Use Therapeutic Food (spread)
Rice X
Rice, bagged
Rice, bagged (par-boiled)
Salmon (canned)
Sorghum Grits - soy fortified (SF)
Sorghum, bagged
Soy Flour, Defatted
Soy Protein, Concentrate
Soy Protein, Isolate
Soy Protein, Textured
Soybeans, bagged
Sunflower Seed oil, refined 4 Ltr
Sweet Potatoes, #10 cans

Sweet Potatoes, 29 oz cans
 Sweet Potatoes, 40 oz cans
 Vegetable oil, 20 Ltr
 Vegetable oil, 208 Ltr
 Vegetable oil, 4 Ltr
 Vitameal
 Wheat Flour, AP
 Wheat Flour, bread
 Wheat Soy Blend
 Wheat Soy Milk
 Wheat, Hard, Red, Spring, bagged
 Wheat, Hard, Red, Winter, bagged
 Wheat, Hard, White, bagged
 Wheat, Northern, Spring, bagged
 Wheat, Northern, Spring, Dark, bagged
 Wheat, Soft, Red, Winter, bagged
 Wheat, Soft, White, Winter, bagged
 Whey Protein Concentrate #34
 Whey Protein Concentrate #80
 Whole Milk Replacer

 Bulk
 Corn, bulk
 Corn, bulk, w/bags
 Rice, bulk, w/bags
 Sorghum, bulk
 Sorghum, bulk, w/bags
 Soybean meal, bulk
 Soybean, bulk
 Sunflower Seed oil, (crude), bulk
 Vegetable oil, (CDSO) bulk
 Vegetable oil, refined bulk
 Wheat, Hard, Red, Spring, bulk
 Wheat, Hard, Red, Spring, bulk, w/bags
 Wheat, Hard, Red, Winter, bulk
 Wheat, Hard, Red, Winter, bulk, w/bags*
 Wheat, Hard, White, bulk, w/bags
 Wheat, Northern, Spring, bulk
 Wheat, Northern, Spring, bulk, w/bags
 Wheat, Northern, Spring, Dark, bulk
 Wheat, Northern, Spring, Dark, bulk, w/bags*
 Wheat, Soft, Red, Winter, bulk
 Wheat, Soft, Red, Winter, bulk, w/bags
 Wheat, Soft, White, Winter bulk
 Wheat, Soft, White, Winter, bulk, w/bags

Annex V.II. FFP Policy on Use of Milk Powder for Monetization

USAID's Office of Food for Peace (FFP) will consider proposals for monetization of Non-Fat Dry Milk (NFDM) under the following conditions:

The Awardee will provide FFP a written policy for the monetization of NFDM. This policy must comply with the International Code of Marketing of Breast-Milk Substitutes and all subsequent relevant World Health Assembly (WHA) resolutions pertinent to the sale or distribution of breast milk substitutes. Awardee will include a statement under "special provisions" which states, "It is the intention of the US Government that the NFDM commodities provided herein are not to be used as breast milk substitutes, nor in their production or manufacture."

Preference will be given to countries that have current laws or policies implementing the International Code of Marketing Breast-Milk Substitutes.

NFDM may be sold for industrial use as an ingredient in processed foods, baked goods, yogurt, etc. NFDM must not substitute for breast milk or be used for products represented or locally perceived as breast milk substitutes. It must not be sold for direct market distribution, for example in small tender sales, and should not be sold directly to the consumer.

Awardee will not sell NFDM to known manufacturers or marketers of breast milk substitutes or replacement foods with breast milk substitute production facilities in the program country. The sales contract will have a written commitment from the buyer that the product will not be sold or freely distributed as a breast milk substitute, nor used to manufacture breast milk substitutes and that the seller's name or the name or logo of USAID will not be used in marketing, advertising, product promotion, or any implied relationship to any of the manufacturer's products. Furthermore, the Awardee shall make it clear to the buyer that failure to comply with this clause will constitute a material breach of the contract.

The Awardee will submit to FFP, as part of the proposal, a plan to monitor the end-use of the product for a reasonable period of time. The plan should include sensitivity to problems in countries with high lactose intolerance, proper storage and handling information, and information on possible leakage from the buyer to the general market. This monitoring plan must be in place prior to the arrival of the commodity in the country.

The buyer agrees in writing that the uses of NFDM will be accessible for monitoring by USAID personnel to ensure that the use of NFDM adheres to the above policy and does not violate the International Code of Marketing of Breast-Milk Substitutes.

NFDM commodities for monetization must be labeled, "Not for feeding children under one year of age." If repackaged for any reason, any such package should also be so labeled.

To ensure market parity, all Title II and FFP policies and regulations, including cost-recovery, Bellman and Usual Marketing Requirement (UMR) considerations, shall apply.

The Director of the Office of Food for Peace must approve in writing any exceptions to the above policy.

Annex V.III. Survey Questionnaire for Potential Buyers of Title II Monetized Commodities

The purpose of this questionnaire is to provide BEST team members with a practical approach to assessing the market's prospects for monetization of Food for Peace commodities. These questions are designed to act as an informal but standardized survey questionnaire, as most traders are unlikely to provide a detailed and structured dataset to suit our analysis.

Potential buyers are typically private industry representatives, many of whom may hold the public interest and food security in high esteem, but by nature of their business should be expected to be motivated by profit. Levels of interest, honesty, and forthrightness will vary from person to person. On the one hand, a potential buyer may be motivated, honest, and open, expecting that monetization will facilitate a transaction favorable to his or her business. On the other hand, potential buyers may attempt to manipulate or misguide the analyst in an unfair or dishonest fashion.

Key questions that should be addressed to potential buyers include:

1. What commodities do you typically trade in? In what volumes?
2. What is the current fair market price for these commodities?
3. Do you prefer local or imported product? What drives these preferences: Milling or processing requirements? Consumer preferences? In general, is local or imported product cheaper?
4. If offered on or around <date I>, would you buy X, Y, and/or Z volumes/values of Food for Peace commodities A, B, and C?
5. What is the fair market price for the volumes suggested?
6. If no to question #4, is there a variation of, or substitute for, one or more of these FFP commodities that you would buy?
7. If yes to #6, what degree of substitution might be normal?
8. Would you participate in a direct negotiation, auction, or—if one were available—purchase through a commodity exchange?
9. Are you aware of any policy and/or trade barriers that might impact importation of FFP commodities?

Annex V.IV. Survey Questionnaire for Current NGO(s) Monetization Unit

1. How many years have you been monetizing in-country?
2. Do you monetize for a single NGO or as a consortium?
3. What is the professional background of the negotiators? (i.e., do they have prior commodities trading experience?)
4. Who calculates IPP? What is their source of data? How often is IPP updated (e.g., monthly, only immediately prior to a call-forward or anticipated monetization transaction)?
5. Has the unit changed its approach (e.g., choice of commodity or preferred sales platform) as a result of past experience?
6. What are the greatest constraints to successful monetization in this country? Put another way, if you could change one just thing about the way monetization occurs in country, what would that one change be?
7. We understand rice, wheat, wheat flour, and vegetable oil (or commodity X) have been monetized in the last X years. Can you confirm?
8. Could you provide the following data for each transaction?
 - Date of transaction
 - Commodity (and specs if available)
 - Buyer
 - Price paid per MT or for whole lot (in local currency and US\$)
 - Volume
 - Sales platform (auction, direct negotiation, exchange)
9. Which companies import the largest volumes of [cereals], [oil], [commodities on top ten list of commercial imports for country under study]?
10. Which imported and local commodities do FFP commodities compete against?
11. Could you describe the effect in terms of consumer preferences?
12. Are there any policy constraints or political sensitivities?

Annex V.V. Monetization Sales Platforms

Careful selection of a monetization sales platform may enhance the monetization agents' ability to achieve a fair price. In most cases, the most common platforms available are direct negotiation and auction, although commodity exchanges, while generally limited in overall availability to monetization agents, are also an option and have particular advantages.

Direct negotiation is the only option if auction or commodity exchange is not available or otherwise feasible. It is most appropriate when there are few buyers (less than 10) and/or where there is high likelihood of collusion. Direct negotiators must have a deep knowledge and understanding of international costs, current and historical volumes and prices—domestic and import—and have a keen sense of what the market will bear in terms of supply, demand, and price. Historical local price and volume information may indicate what the market will bear, and international costs will show the price traders and other buyers may have to pay

if they were to purchase/import from another source. The advantages generally present themselves in smaller markets and where monetization agents are highly skilled, experienced, and plugged into local and international information sources over a long period of time. Options include:

- Monetization at the border, or in the main urban centers (or wherever the mills are located)
- Small lots/many sales, or large lots/fewer sales
- Monetizing as single agents or within a consortium

Auctions are an option if there are many buyers present and have the advantage of playing the market against bidders who will compete with open knowledge of what their rivals will pay. Monetization agents who manage sales through auctions need not necessarily have the same set of skills direct negotiators need, but they must identify and manage the auction process. In general, it is advantageous to maximize the number of participants at each auction to stimulate competition and increase price pressure. To ensure maximization of participants, monetization agents should identify the lot size that will attract the largest number of buyers, and therefore agents must have a knowledge of the potential buyers' capacities and financial capabilities (i.e., access to credit). A disadvantage is that collusion and speculation are still possible, as in direct negotiation, although the more buyers are involved, the less likely this is to occur. Another disadvantage may be that if small lots and traders are chosen, then many buyers may not have credit, transport, or VAT registration. Large and/or monopolistic corporations or parastatals may be challenging to work with as they may wield unfavorable influence on the terms. Options include:

- Monetization at the border or in main urban centers
- Smaller lots will involve more auctions and higher administrative costs; larger lots suggest less on both accounts

Sale on a commodity exchange is an option where available, and brings the advantage of eliminating risks of collusion, involves very low costs (brokers fees only), and reduces risk of failing to achieve a market price (assuming the exchange represents the market). If trading is done on the basis of warehouse receipts, then the exchange should absorb storage costs, perhaps for as long as six months. Furthermore, futures may also be an option. A disadvantage is that lot sizes and conditions may be pre-determined and fixed.

Recommended Reading

USAID Monetization Field Manual (1998).

FEWS NET Markets Guidance No 1 May 2008). Import/Export Parity Price Analysis.

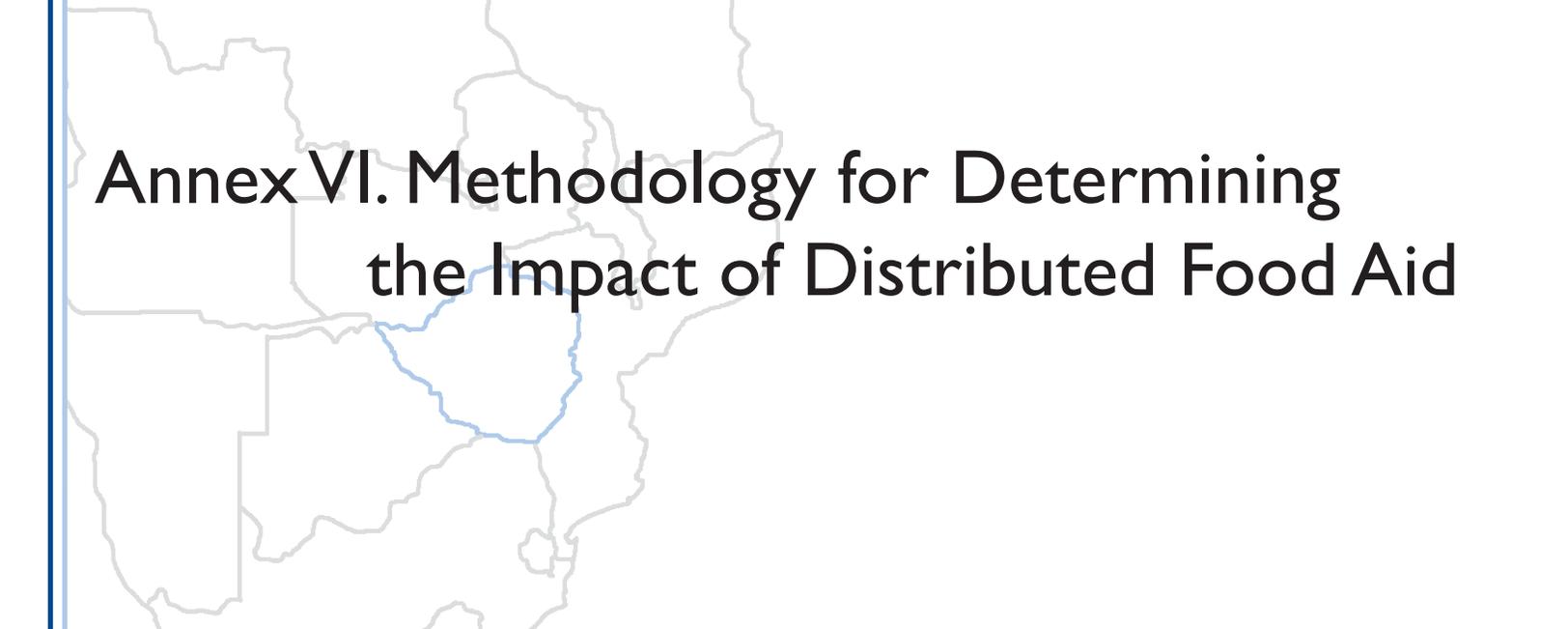
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Tschirley, David and Julie Howard (2003). Title II Food Aid and Agricultural Development in Sub-Saharan Africa: Towards a Principled Argument for When, and When Not, to Monetize.

Simmons, Emmy (June 2009). Monetization of Food Aid: Reconsidering U.S. Policy and Practice.

Oxfam (2005). Food aid or hidden dumping?

Staatz, John, Pat Diskin, and Nancy Estes (Dec 1999). Food Aid Monetization in West Africa: How to Make it More Effective.



Annex VI. Methodology for Determining the Impact of Distributed Food Aid

VI.i. Introduction¹

The Bellmon Amendment requires assurance that a proposed food aid distribution program would not result in a substantial disincentive to or interference with domestic production or marketing. The extent to which distributed² food aid has the potential to introduce a disincentive to production or disruption of markets rests fundamentally on whether proposed food aid will represent “additional consumption” for beneficiary households, i.e., food consumption which would not have occurred in the absence of the food aid distribution program.

The objective of a BEST report is to provide sufficient information to relevant USAID policy decision makers and program managers to allow a determination of whether a proposed distributed food aid program would have a substantial impact on local market and production incentives. If it is determined in the negative, then the proposed Title II food aid program would be compliant with the Bellmon Amendment.

Why might distributed food aid introduce a substantial disincentive to local production and markets?

Beneficiaries of food aid receive an exogenous positive income shock: they are given free food (a good with non-negative monetary value).³ The provision of in-kind food aid effectively

¹ This methodology was developed to provide guidance prior to the initiation of a new MYAP cycle; however, the methodology is essentially the same where the BEST team undertakes special studies mid-MYAP, for example, to inform future programming.

² Please note that this methodology covers only the potential impact of distributed food aid. While some of the data and analysis of market dynamics, such as substitutability of staples and level of market integration, is relevant for both analyses, a separate methodology has been developed to assess the potential impact of monetized food aid. The monetization analysis focuses primarily on commercial markets rather than the behavior of beneficiary households.

³ Occasionally, food aid rations are provided to beneficiaries in exchange for their labor or time, in which case the ration is not provided entirely free. For example, some Maternal Child Health/Nutrition interventions require attendance at a clinic; Food for Work beneficiaries are provided food in exchange

for work, in which case the food acts as an in-kind wage.

increases the beneficiary's purchasing power. The changes in demand for food and non-food goods resulting from that increase in purchasing power will determine the ultimate impact of the food aid on prices and therefore supply.

Although food aid beneficiaries are expected to consume the food provided, households may respond to the receipt of food aid in a number of ways depending on prices, local diet preferences, perceived needs for non-food goods, and access to local markets. A beneficiary household may:

- Consume the food aid without reducing its regular market purchases or small-scale production to compensate for a food deficit in the normal diet caused by insufficient purchasing power, in which case the food aid represents additional consumption;
- Use a portion or all of the food aid to displace market purchases that otherwise would have been made;
- Use a portion or all of the food aid to substitute for the home consumption of a household's own production and sell the released production in the market; or
- Consume some portion (or none of) the food aid and sell the other portion (or all) on the market, and use the income generated from that sale to purchase other food and/or non-food goods.

Distributed food aid also has the potential to change household labor supply decisions, particularly when food is distributed under a Food for Work program.

If enough beneficiaries (intended and/or unintended beneficiaries) within a given geographic area react to food aid by altering their decisions about market purchases, small-scale production, or own labor supply, distributed food aid has the potential to cause a number of negative impacts. The most frequently alleged problems include:

- Depressed producer prices (production disincentive).
- Dependency.
- Labor supply disincentives.

for work, in which case the food acts as an in-kind wage.

- Disruption of markets (especially traders).

Targeting. The BEST methodology begins with the assumption that a well-designed and executed food aid program, whose transfers correspond to the needs of the household, will have minimal to no impact on the market or local production incentives.⁴ Effective application of criteria which accurately identifies those households in need of food assistance is the first and arguably the most important condition to ensure Title II resources are used effectively and efficiently and yield the maximum food security impact. Once households are well-identified maximum food security impact and minimum leakages are ensured when the size, frequency, and commodity composition of rations correspond most closely to household food needs. Similarly, distribution modalities and any associated conditionality of participation (such as Food for Education, Food for Work/Assets, or Maternal Child Health activities), play an important role in maximizing food security impact through effective targeting.

Two concepts are fundamental to targeting. Exclusion errors occur when food aid fails to reach the needy. Errors of exclusion are a humanitarian concern. Inclusion errors occur when food aid is provided to the non-needy. Errors of inclusion (“leakage”) are a Bellmon concern. Errors of inclusion are also a humanitarian concern because, by definition leakage involves the inefficient use of scarce resources. Improvements in targeting (reductions in inclusion errors) achieves three simultaneous objectives: 1) increases efficiency of food of food aid in accomplishing humanitarian and development goals; 2) maximizes efficiency of Title II resources; 3) ensures compliance with the Bellmon Amendment.

While the BEST approach to assessing the potential impact of food aid starts with this assumption, it also recognizes that effective targeting is both expensive in terms of human and financial capital and extremely difficult to implement and sustain. Even the most effectively targeted programs can never prevent all leakage.⁵ Even where targeting reaches the most food insecure households, precisely because poor people are both food-poor and cash-poor, beneficiary households will always face an incentive to sell some of the food aid to meet cash needs. In the absence of food aid, many food insecure households may suffer by not getting enough food (quantity and quality) or may use coping strategies that adversely affect their health, productive capacities, etc. Therefore, decision makers inevitably have to strike a balance between exclusion and inclusion errors. Inclusion errors are particularly important for Bellmon considerations because they impact markets.

How can we determine whether a specific proposed food aid distribution program would introduce a

⁴ For a review of the economic rationale, see Christopher Barrett, 2002, “Food Aid Effectiveness: It’s the Targeting, Stupid!”

⁵ For more background on targeting, see Hoddinott (1999), Barrett (2002), and EU/FAO (2008).

substantial disincentive?

The goal of the BEST study is to present USAID decision makers with sufficient information to allow determination of whether or not inclusion errors will substantially impact markets.⁶ As noted above, the extent to which distributed food aid has the potential to disrupt private markets or introduce production disincentives rests fundamentally on whether food aid will represent “additional consumption” for beneficiary households, i.e., food consumption which would not have occurred in the absence of the food aid distribution program. Unfortunately, the only certain method to determine whether food aid represents (or would represent) additional consumption is to conduct household surveys to determine whether a household would consume the food aid rations without changing its household production and market purchasing behavior. However, because household surveys are expensive and time-consuming, proxy indicators of “additionality” must be used to assess the potential for leakage. Further details about each of these possible proxy indicators are discussed in Annex VII.II.⁷ This makes assessing the impact of food aid on markets and producer incentives an inherently problematic undertaking, even in relatively stable economies.

With that caveat in mind, combined with basic information about the current state of a country’s agricultural markets—how strong consumer preferences are for various foodstuffs, how responsive producers are to price changes, how well-integrated local markets are with one another, and how sensitive traders are to changes in market conditions, among other indicators—well-selected indicators of additionality typically provide sufficient information to allow some generalizations to be made about the type, form, timing, and geographic targeting of food assistance that would unlikely harm markets and production incentives.

The BEST analysis will, therefore, combine the highest quality of quantitative and qualitative information available about demand and supply characteristics that are likely to influence the production and market responses to food aid. The analysis focuses on three inter-related subject matters: needs assessments, effectiveness of targeting, and analysis of markets that are critical for food security. An overview of a standard analytical process follows.

⁶ Importantly, whether the effect is substantial is quite subjective and will likely vary quite widely across contexts. While the BEST study will strive to provide adequate information about the type and proportion of market players that may be affected by distributed food aid, ultimately the determination of whether the impact might be “substantial” will rest with the informed judgment of the relevant USG decision-maker (typically the USAID Mission Director).

⁷ Additional qualitative indicators provide critical context to a discussion of potential household responses to the receipt of food aid. These include descriptive analyses of the ways in which households secure their livelihoods (main sources of food and income), particularly among the most food insecure households, and varying degrees of vulnerability to external shocks.

VI.ii. Analytical Process

The sub-national distribution analysis will be based primarily on secondary data from all available food security and vulnerability assessments, livelihoods baselines or profiles relevant country situation reports, and any direct FFP guidance regarding geographic or beneficiary-characteristic targeting (including FANTA's Food Security Programming Framework). The amount of reliable, available data will vary somewhat from country to country; under these conditions, BEST will analyze the highest quality and most relevant data available. BEST field visits and discussions with stakeholders will provide key information as well as validate findings from secondary data analysis.

An initial desktop study will focus on review and analysis of secondary data and reports, and discussions with Food for Peace and FANTA in Washington, DC. This portion of the study will involve the following steps.

Step 1: Review Relevant Background Materials

Research and review all background materials relevant for a potential distributed food aid program including food security assessments (e.g., CFSAM, CSFVA, VAC reports, and FANTA's Food Security Country Framework, if available), previous Bellmon Analyses or Updates, reports of Awardees' previous and ongoing food aid programs, livelihoods reports, and reports of production, trade, and food aid flow.

Step 2: Determine Most Likely Modalities for Distributed Food Aid for Upcoming MYAP Cycle

Review the country Food Security Country Framework along with any other official USAID/FFP guidance relevant for future Title II programming. Based on this review, as well as discussions with stakeholders in Washington and the field determine most likely distribution modalities (Food for Work/Assets, Food for Education, Maternal Child Health Nutrition, etc).

Step 3: For Each Modality, Provide Bellmon-Relevant Guidance

For each of the most likely distribution modalities, provide Bellmon-relevant guidance and scenarios of possible coverage, where appropriate, that will help ensure potential impact on production and markets of such food aid distributions are minimized, and therefore Bellmon-compliant. Given that potential Awardees' MYAP proposals will not yet be final (and are therefore unavailable to inform the analysis), this Bellmon-relevant guidance will be necessarily general but should discuss each of the following:

- Ration size
- Ration composition
- Timing of delivery with an emphasis on the months of lowest food availability (lean season)

- Any special targeting considerations
- Balance between cash and food resources to ensure effective program implementation and thereby avoid potential leakages

Regarding ration composition, BEST will provide general guidance as to which Food for Peace commodities might be appropriate for distribution to potentially targeted beneficiary groups. This requires both secondary and primary research of local diets, including preferences and substitutes, among different socioeconomic groups and in rural versus urban areas.⁸ The main staples consumed by poorest households in each potential target area will be outlined, with any seasonal differences noted.

Where current Awardee Mid-term or Final Evaluations are available, BEST will review evaluations to summarize any "lessons learned" for each modality.

Step 4: Review All Food Security Assessments to Identify an Appropriate Proxy Indicator of Additionality

USAID/Food for Peace development programs focus on chronically food insecure regions within Title II recipient countries. By definition (or default) program activities will be geographically targeted within a subset of sub-national units (e.g., districts/countries/provinces). Because of the localized nature of the impact of distributed food aid, the vulnerability of small markets to disruptions, and the sensitivity of small farmers to production disincentives, quantities that 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. Therefore, while previous Bellmon analysis has often used an estimated national food deficit to determine the appropriate level of distributed commodities, the BEST analysis explicitly recognizes that distributed food aid will be concentrated in only select areas within a country, and therefore must assess the volume of commodities suitable for distribution at a more localized level in order to provide Bellmon guidance.

⁸ If commodities considered for distribution are highly substitutable for other commodities in the local diet, the analyst must assess market conditions to reveal the distributed commodity's likely cross-price effects on those substitute commodities. As an example, suppose consumers typically consume black beans, but view pinto beans as a very close substitute. If pinto beans are monetized, resulting in an increase in the supply of pinto beans and therefore a drop in the price of pinto beans relative to black beans, consumers may substitute pinto beans for black beans. Depending on how easily consumers substitute the two goods (as reflected in the cross-price elasticity between black beans and pinto beans), monetization of pinto beans could result in a decrease in demand for black beans, which could affect production incentives and markets for black beans. The willingness to substitute commodities in the local diet often follows a socioeconomic gradient and differs in urban versus rural areas. Understanding these dynamics is important to strengthen the market intelligence, and provide appropriate guidance regarding the likely effects of food aid (both monetized and distributed) on local markets. As an example, there may be very strong preferences for rice in an urban area which makes consumers relatively nonresponsive to price changes (i.e., the own price elasticity of demand for rice is inelastic), whereas rural consumers may have a preference for sorghum but remain willing to substitute sorghum with millet as the price of sorghum increases relative to millet.

Through review and application of appropriate indicators of additionality, an assessment of the relatively absorptive capacity of sub-national administrative units (typically at the first administrative unit such as province or district), based on proxy indicators of additionality, can further refine geographic targeting guidance and provide estimates of the populations that may be targeted for future food aid programs. While geographic targeting may not always be the most preferred or appropriate targeting criteria, in most cases it will be the easiest and least costly to administer and, of course, can be followed by application of other administrative or self-targeting criteria.⁹

In the case of a distribution modality such as PM2A, which targets households with pregnant and lactating women and children under two years old for preventive nutritional supplementation, regardless of household wealth or food deficit initial geographic targeting is critical as it represents the key program parameter to avoid potential Bellmon concerns. Effective targeting of a PM2A program, from a Bellmon perspective, therefore involves further refinement of initial geographic targeting based on estimated household food deficits on a relative basis, followed by targeting households based on PM2A program eligibility (i.e. all children 6-23 months and all pregnant/lactating women).

See Annex VII.II for a description of possible proxy indicators of additionality.

Step 5: If Possible, Assess Potential Beneficiary Coverage Using Country Budgetary Guidance

If applicable, when likely program dimensions are available (such as program budget and proposed ration), the analysis will assess the absorptive capacity of potential target districts. This assessment will be based on comparing the number of potentially eligible food insecure households with the estimated number of rations available for distribution under the given program.

For modalities with fairly standard rations in terms of both size and composition (e.g., Food for Work/Assets or Food for Education), BEST will provide basic cost comparisons of ration by modality, which will provide some guidance as to total beneficiary coverage possible, and therefore total volume of distributed commodities possible given budget constraints.

For modalities with (at present) less-standard rations in terms of both size and composition (e.g., PM2A), BEST will base ration scenarios on guidance from FFP/FANTA and review of current Awardee MCHN experience, if applicable. Likely parameters of a PM2A program (including ration size and composition) will be used to estimate the number of household rations available under various levels of funding.

⁹ Hoddinott, John. 1999. "Targeting: Principles and Practice." IFPRI Technical Guidance No 9, Washington, DC: International Food Policy Research Institute, accessible via <http://www.ifpri.org/sites/default/files/publications/tg09.pdf>.

For PM2A, BEST will use the most current and reliable demographic data to estimate the number of households with either a pregnant or lactating mother or a child under two. Based on these figures, BEST will estimate the number of households who are both PM2A-eligible and for whom PM2A rations would most represent additional consumption (using the proxy indicator(s) of additionality), to estimate the number of households that could be targeted for year-round individual and household rations within each district without introducing Bellmon concerns.

BEST will then rank sub-national administrative units according to those in which PM2A rations would:

1. Most likely represent additional consumption, and therefore be unlikely to pose any negative Bellmon impact;
2. Address the highest rates of malnutrition at the district level; and
3. Target the largest total number of PM2A-eligible households, an important efficiency consideration when implementing an integrated development program.

Step 6: Review Food Security Assessments and Livelihoods Reports to Inform Sub-National Analysis

Descriptive analyses of the ways in which households secure their livelihoods, and their varying degrees of vulnerability to external shocks, provide critical context to a discussion of potential household responses to the receipt of food aid.

Assessed food insecurity. Whenever possible, BEST will list the relative ranking of administrative units' levels of food insecurity (e.g., high, medium, low) for each target area. The ranking may be based on measures of poverty (for example, from available Demographic Health Survey (DHS), poverty mapping, and/or census data) and the prevalence of stunting in children under five. Such a ranking would provide a measure of both food access and utilization. This assessment will be derived from the Food Security Country Framework whenever available.

The data available to assess food insecurity levels will vary from country to country, depending on the types of surveys and assessments conducted within a relevant time period. The BEST team, including all consultants, will undertake careful review of all alternative sources of food security assessments to determine the best available data for the distribution analysis.

Livelihoods. Based on a review of all available livelihood assessments and consultation with relevant experts in the field BEST will provide an overview of livelihoods including key characteristics of food insecure households within each target area such as sources of food, sources of income, and possible impediments to utilization (for example, a high prevalence of diarrheal disease within the district which prevents proper absorption of nutrients).

Key vulnerable populations. Whenever possible, key vulnerable populations will be identified and latest available

population figures will be provided.

Step 7: Report On-Going Food Aid and Cash Transfer Programs

To properly assess the expected level of “additionality” with the introduction of a new food aid program, BEST must first account for all pre-existing programs that affect households’ cash and food receipts including in-kind and/or cash transfers households receive through a variety of government and non-governmental sources, which contribute to households’ current level of food insecurity. Both the amount of in-kind aid and the timing of distribution must be considered to properly account for the volume of food deficits throughout the year. Whenever possible, BEST will report:

- NGO or government agency
- Location
- Modality
- Expected duration of activity
- Ration (size, composition, kcals)
- Planned and actual beneficiary coverage

Combined with food insecurity measures and estimated district-specific nutrition gap (or other proxy indicators of additionality), this overview of existing food aid and cash transfer programs will provide relevant USAID decision makers a more accurate measure of the “food gap” a proposed food aid distribution program should fill. This overview will allow both a spatial and temporal assessment of a potential food aid disincentive effect.

Step 8: Review All Available Baseline Market Analyses

Whether a donor provides food aid rations to food insecure households across the breadth of a country or only in a localized area, the donor must have an understanding of the current functioning of agricultural markets critical for food security, as those are the markets most likely to be impacted by the introduction of food aid.

When attempting to assess the potential impact of food aid in a localized area (whether distributed in kind, in cash, or through subsidized food sales), it is especially important to understand 1) the functioning of local markets and 2) how well-integrated local markets are with markets outside of the food aid intervention area, and therefore how any changes in food prices might be transmitted to other markets.

A unique challenge in attempting to assess the impact of food aid on markets and incentives in many LIFDC countries arises due to the lack of available high-quality and disaggregated baseline market information. Markets and market players have often been impacted by a series of complex changes; these changes reduce the utility of any but the most recent thorough market assessments. Production and market data is often scarce and of very poor quality, and/or is tainted by concerns about politicization of the data. That said, while market analysis is often thought of as a highly quantitative exercise, much can

be gained from a descriptive analysis of the structure, conduct, and performance of markets. Analysis using a SCP framework can be well-suited to low-cost rapid appraisal techniques, such as those used in BEST market analyses.

Step 9: Determine Key Commodities Markets and Set of Physical Markets for Field Visit

Without an understanding of how markets are currently functioning, it is not possible to provide guidance on the type, form, timing, or geographic targeting of food aid that is not likely to negatively impact markets or producer incentives. To address this initial gap in knowledge, the study team may be required to undertake a baseline Market Analysis, using a Rapid Assessment Tool (see Annex VII.I), to assess the current state of agricultural markets as of the study date. The baseline will be accomplished through a combination of desk study, key informant interviews, and intensive field work.

The choice of commodity markets for assessment will be determined by the food aid commodities typically distributed in-country, commodity markets likely impacted by such distribution, and any commodities critical for food security whose prices may be impacted by a sudden increase in the supply of food in food insecure areas. These commodity markets will generally involve the major cereal markets (e.g., wheat, maize, small grains), major pulses, edible oils, and livestock markets.

The choice of physical markets to include in the field visit will likely include those major markets currently monitored by, for example, FEWS NET, WFP, and/or recipient country Ministries or Central Statistics Offices, along with a host of other markets throughout the country that are critical for food security. The BEST team will consult with the USAID and FFP missions to develop the field visit itinerary, and incorporate any specific Mission objectives. For example, the Mission and/or the BEST team may deem local markets in remote food insecure areas not covered by regular monitoring appropriate to cover during the field visit.

To maximize coverage of the broadest cross-section of markets possible, the study team will typically split into separate teams. Teams will employ a Rapid Assessment Tool (see Annex VII.I) and use a Structure-Conduct-Performance (SCP) Framework as a lens through which to investigate the state of markets across the country. Team members will conduct interviews with subsistence farmers, small-scale and large-scale producers, traders, small and large processors and millers, wholesalers, and retailers. In geographic areas where food aid interventions are currently taking place, team members will also interview a sample of beneficiaries and non-beneficiaries of food aid.

Commodity markets and physical markets will be assessed using Structure-Conduct-Performance (SCP) model, as adapted by FEWS NET from Industrial Organization

Theory¹⁰ to the realities of markets in developing countries.”

According to traditional neo-classical economic theory, a market is “performing” if an increase in demand or a decrease in supply results in a new equilibrium characterized by a higher price, which clears the market by equating quantity supplied and quantity demanded. This definition of market performance is insufficient from a food security perspective because a price increase that substantially diminishes the purchasing power of households, though an equilibrium, has undesirable social outcomes that threaten food security. For this reason, we turn to the SCP concept of market performance.

Within the SCP framework, markets are said to perform well if they achieve socially desirable goals such as availability of a sufficient quantity, diversity, and quality of goods to satisfy demand at prices that are “fair” to traders, producers, and consumers. Fair prices ensure reasonable margins to traders, enabling them to continue engagement in that market. Fair prices to consumers assure that a cross-section of the population is able to access goods via the market. Short and long-term price stability, as well as market efficiency, are indicators of market performance. **Market performance is derived from basic conditions, market structure, and market conduct.**

Basic conditions broadly describe basic traits of the country and economy, including seasons and seasonality, infrastructure, consumption characteristics such as elasticities¹² and income distribution, stability, government policies, and incentives for producers and traders.

Basic conditions set the parameters for market structure, which is composed of the relatively stable features that influence the behavior of market participants. Features of market structure include the number and concentration of buyers and sellers, barriers to entry and exit, vertical and horizontal coordination, and licensing requirements.

In conjunction, basic conditions and market structure influence **market conduct**, or the behavior of market actors. Price setting behavior, buying and selling practices, informal norms of trade, and information use are all aspects of market conduct.

As part of the market analysis, BEST will perform an

10 See Bain (1959).

11 Readers interested in more details about a Structure-Conduct-Performance framework for analysis in the context of food security in developing countries, please see FEWS NET (2008b).

12 Elasticities are a common way to describe the responsiveness of demand or supply to changes in prices or income. For example, the price elasticity of demand describes the percentage change in quantity demanded resulting from a percentage change in the price of a good, while the price elasticity of supply describes the percentage change in quantity supplied resulting from a percentage change in the price of a good. The income elasticity of demand describes the percentage change in quantity demanded in response to a percentage change in income. Importantly, price and income elasticities are very rarely available, and extremely difficult to collect. Elasticities are mentioned here solely for the purpose of tying these important concepts of supply and demand price responsiveness from economic theory to the qualitative indicators often relied upon in practice. For more details, please see Annex VI, Consideration 3 and FEWS NET (2008b).

assessment of the level of market integration. Where markets are well-integrated, price changes due to supply and demand shocks in one market are more easily transmitted to other markets. By dissipating the price effects, such shocks will have less of an impact on any one local market. Any effect of temporarily increasing the local food supply through localized food aid distribution will therefore be dampened wherever markets are well-integrated. Conversely, where markets are poorly integrated, prices are likely to decrease more significantly when food supply is increased with the addition of distributed food aid. Where time-series of market prices for key commodities relevant for food security are available or obtainable, BEST will assess the level of market integration through analysis of covariance of prices over time and across markets. These data are generally, though not always, available by request to WFP and/or FEWS NET within the study country.

Step 10: Field Visit

The BEST field visit will involve filling in data gaps, triangulation of secondary data, and discussions with all key stakeholders to ensure an accurate and thorough analysis. Upon arrival, the BEST team shall first meet with USAID/FFP Mission personnel to come to a common understanding of the purpose of the assignment and outline the activity timetable.

Following the meeting with the mission, the BEST team will seek insights, data, studies, and reports through meetings with key government ministries, aid and development project offices, assessment committees and networks such as FEWS NET, United Nations offices (WFP/AM and FAO), universities, and others. Insights into future initiatives that may impact food security in potential Title II intervention areas (e.g., a World Bank, Millennium Challenge Corporation, or other donor’s planned program affecting agriculture) are more likely to be gained through these meetings than through desk review prior to the field visit.

In-depth meetings with the private sector—producer/farmer groups and associations, traders and other middlemen, processors, importers and exporters, and shippers—will be critical. Formal and informal intelligence gathered through these meetings will be key to understanding the latest market dynamics and future trends. Discussion with producers, processors, and traders¹³ will provide an understanding of the factors affecting demand and supply of commodities with which a distributed commodity would likely compete. The overarching goal of such meetings in regards to the BEST analysis is to gain an understanding of the price responsiveness of supply and demand of select commodities, constraints to expansion, and inter-temporal arbitrage practices of traders that may be impacted by a supply increase via distributed food aid.

13 When combined with a monetization analysis, discussions with traders and potential buyers will also involve assessing their interest and ability to purchase commodities in various quantities.

Travel to current and/or potential sites for Title II program implementation is an integral part of assessing potential impact of distributed food aid. Assessing conditions “on the ground” allows a detailed contextual knowledge of demand and supply dynamics affecting local markets. It is generally not possible to gain such knowledge through desk review and, therefore, travel to the specific sites in the study country will be an essential component of every BEST study. In addition to meeting with current and potential Title II Awardees, informal discussions with current or potential beneficiaries can offer insights into the appropriateness of specific Title II commodities for distribution, including palatability, ease of preparation, and price and quality factors relevant to demand responsiveness.

The BEST study is not intended to evaluate current food aid programming, but may nonetheless make observations during field visits which can be instructive for future food aid programming. BEST will report general observations about current food aid distributions and any challenges to improving targeting effectiveness reported by current Awardees.

Inspection of a sample of storage facilities in current use is required to assess the adequacy and cleanliness of storage facilities for distributed food aid. During inspections, the average storage time and frequency of fumigation will be noted.

In all cases, the visit should be completed with a private and candid briefing to relevant Mission personnel.

Step 1 I: Report Production

BEST will report results according to the agreed-upon report outline as detailed in the country study SOW. BEST team members should anticipate submission of an initial draft within approximately four to six weeks after conclusion of the field visit. FFP/W and the Mission will generally reply with comments, questions, and requests for clarification within two to three weeks of receipt of the initial draft. A final 508-compliant report must be submitted to FFP/W generally within two to three weeks of receipt of all FFP/W and Mission comments.

Annex VI.I. BEST Rapid Assessment Tool

Producers

(If possible, speak with both small-scale and larger-scale producers.)

Agricultural

When did you settle?

How many acres (ha) do you have access to?

How many acres (ha) do you cultivate?

How many acres of maize? Wheat? Other grains (if appropriate)?

What other crops do you grow?

Which crops are you increasing? Which are you decreasing?

Why?

How do you decide how many acres (ha) to devote to maize/wheat/small grains?

Are seeds and fertilizers available? Are they accessible? How much did you use/plan to use this year and how much did/will it cost?

What does your household need cash for?

How do you raise this cash?

How much maize/wheat/other grains did you produce for selling from the last harvest? How this did compare to other years?

How many months of household stocks do you currently have?

Who do you sell your maize/wheat/other grains/other crops to? Where do you go to sell? How do you get there, and how much does it cost?

What price do you receive when a trader comes to your farm to buy? When you travel to the market?

Are prices based on grades and standards? What are the prices for different grades?

Do you contract with any companies? If YES:

What company and for what commodity?

What do you receive and what do you give?

Are there problems with contract enforcement?

Are you a member of a farmer’s cooperative? If so, what are the terms of membership and benefits?

Do you ever sell on credit? If yes, to whom do you provide credit and on what terms?

Do you ever buy inputs on credit? If yes, where do you receive this credit from?

Livestock

What is the size of your herd?

Have you utilized dipping services this year?

What are the current range conditions? Water conditions?

How many heads (large/small) did you sell last year? This year?

Food Aid

Do you receive food aid? If so, how much? Do you know why you were chosen?

What is your household eating? How many meals a day are you taking?

If you don’t have maize/wheat/other grains, what do you eat?

How do you obtain this substitute food?

Does the community believe that the distribution reaches the people who need it most? Do you?

Do you ever sell/exchange food aid on the market for something you need more than food aid?

If there was no food aid, how would your farm change? More land cultivated? More staple crops?

Traders

(If possible, speak with small, medium, and large-scale traders.)

Background

What are the main agricultural commodities traded on this

market?

What are the main cereals traded in this market?

When are grains/pulses plenty? What are the [standard unit, e.g., 1kg or 20kg] prices after harvest?

When are grains/pulses in short supply? What are the [standard unit] prices in the lean season?

What commodity do you trade, and how long have you been trading?

Structure

How many other traders are selling similar goods in this location?

Who are the big traders in grains/pulses/oils/livestock, and how what volumes do they transact?

Who are the market authorities, and what role do they play in the market?

Where do you get your grains/pulses/oils/livestock from? How far away is the source?

How many bags/liters/heads do you buy at a time? How often do you buy? Who do you buy from? How much does it cost to transport?

What is the condition of the roads between your source and destination markets? What are your transportation options?

Where do you store your goods? Where do big traders store their goods? What are the costs of storage?

Conduct

How do you know where to go to get low cost stock?

If the cost in your source market increases, what do you do?

What prevents more traders from entering into this market?

Does anything prevent traders from dropping out of this market?

How do you determine the price?

Do you ever buy on credit? If yes, from whom and on what terms?

Do you ever extend credit to buyers? If yes, to whom and on what terms?

Do your buyers want high quality or low prices? Why?

Performance

Costs: transport, loading/offloading market fees, license fees, taxes, electricity, rent,...

How much profit can you find in [standard unit]?

What risks do traders have in grain/pulse/oil/livestock trade?

What prevents you from doubling the volume of your business?

Food Aid

If households had more purchasing power, could you increase your stocks? How long would it take to organize?

Do households ever sell or trade food aid? If so, which commodities do they sell/trade and for how much?

How does food aid affect your business?

Wholesalers/Retailers

If possible, speak with several wholesalers and retailers in each urban area.

What percentage of this market (local or regional) does your company supply?

How many other wholesalers/retailers of are there in this market? (if known, name them)

Where is the major source of commodity X (local, regional, import)?

Do you prefer to stock local or imported product? Why? Higher marketing margins? Less competition? Niche market?

What are current barriers to expansion of business? Access to credit? Lack of effective demand? Transportation costs that restrict possible geographic coverage?

In your opinion, has your business been affected by the food aid distribution program conducted in this area? If so, has it increased or decreased?

Local Market Spot Checks

Observe whether there are any food aid commodities for sale. Title II? WFP?

If you suspect the food aid is Title II, copy down lot number from the back of can, or bottom of milled bag between the bottom seam and USAID label.¹⁴

Ask for basic information from traders and wholesales in the local markets, including:

Normal prices

Consumers' preferences for different commodities, and grades of commodities

Do they notice any impact on their business from food aid distributions?

NGOs distributing food aid

What is targeting criteria (geographic targeting, household targeting, food delivery mechanisms)?

Do you have the capacity to implement and enforce the selection criteria?

Do you think households understand the targeting criteria?

Do you have any "lessons learned" from your own past programs or other NGOs' programs?

What are the greatest constraints to improving targeting?

If there is one thing you could change about the targeting process, what would it be?

How appropriate is the food aid program in terms of commodity type, ration size, delivery schedule, and venue?

Is the distributed food likely to be an "inferior good," one consumed in disproportionately greater quantities by the poor?

¹⁴ The lot number will tell you (1) something about market integration because you can trace back to origin and; (2) something about modality (if came from a MCJH,VGF, FFW etc) beneficiary, which can signal that you should investigate possible causes of inclusion errors associated with that specific intervention to see if it sheds light on necessary adjustments in targeting.

Annex VI.II. Description of Proxy Indicators of Additionality

Among the possible proxy indicators of additionality are food consumption scores (or some other measure of actual consumption), a composite indicator of food security (such as through food security and vulnerability assessments), sources and levels of income (particularly extreme poverty), malnutrition rates, an estimated nutrition gap, or some combination of these indicators. Proxy indicators are typically available at the first administrative unit (e.g., province or district) and provide a gross measure of the relative additionality across sub-national administrative units. Thus, the proxy indicators can provide guidance on initial geographic targeting and volume of commodities that might be appropriate for distribution.

Nutrition or Food Gap

A nutrition or food gap estimate provides a measure of the difference between available food (proxied by domestic food production) and the amount of food needed to support a specific per capita daily nutritional standard (generally 2100 kcal per person per day, although FAO estimates have been revised and are now country-specific). If estimated on a more localized level (i.e., at the level closer to the communities in which a cooperating sponsor would implement a distributed food aid program), a nutrition or food gap can provide a very useful measure of that volume of food which is not currently supplied by local production and/or markets, and which would represent an appropriate volume under a proposed Title II non-emergency food aid distribution program to assure minimal to no disincentive effect. In order to estimate a sub-national food or nutrition gap, it is necessary to collect data on population, production and trade flows within relevant catchment areas. Collection of trade flow data at a sub-national level is an extremely time-consuming and expensive undertaking and outside the present BEST scope of work. For the purposes of the distribution analysis, one or more proxy indicators of “additionality” are used to characterize the relative food or nutrition gap at the sub-national level.

One source of estimated food deficits is AO’s new “depth of hunger” estimates, which provide national averages for the estimated food deficit of undernourished populations in countries across the globe. These figures provide a useful national benchmark which can be used prior to conducting formative research in proposed target communities to determine in more precise detail the average household deficits of beneficiary households. While the BEST report may make use of these figures to develop an illustrative household ration under PM2A, for example, the analysis will nevertheless maintain the use of proxy indicators of “additionality” to characterize the relative food or nutrition gap at the sub-national level in order to provide initial geographic targeting guidance.

Food Consumption Scores / Composite Indicators of

Food Security

A Food Consumption Score¹⁵ (FCS) is collected via household surveys, and is generally based on a 7-day recall of food consumption. The weighted score reflects both dietary diversity and frequency of consumption of food items. Depending on whether the survey is implemented during a typical harvest or typical lean season will affect the validity of the FCS as a measure of average household food consumption. If, for example, the survey that derives the FCS is conducted during a favorable harvest period, households identified as food insecure using “poor FCS” as an indicator may reasonably be considered as chronically food insecure, since these households consumed very poor diets in favorable harvest periods.

FCS is not a quantitative measure of a “nutrition gap,” and cannot be compared with the ration under the proposed food aid program to determine the extent to which the program fills (or potentially overfills) the nutrition gap. However, a FCS does provide a snapshot of both the frequency and diversity of household staple consumption and is therefore a reasonable proxy indicator of the availability and access dimensions of food security and, to a lesser extent, the utilization dimension.¹⁶

Composite indicators of food security, which encompass measures of both food consumption and food access, may be available instead of or in addition to a food consumption score. The food access measure provides an indicator of a household’s ability to produce or purchase food.¹⁷

Extreme Poverty

Poverty is the best indicator of access-driven food insecurity. Extreme poverty is an indicator that a household is unable to meet its basic nutritional requirements. This is because households living under conditions of extreme poverty simply do not have enough money to purchase sufficient foods for meeting the energy and nutrient needs of all of their members. Such households can be described as “food poor.” Depending on intra-household distribution of food, it is typically assumed that at least one member of a “food-poor” household is always

¹⁵ For details on the calculation, use and validity of food consumption scores and other measures of dietary diversity in food security analysis, please see (1) WFP’s “Technical Guidance Sheet - Food Consumption Analysis: Calculation and Use of the Food Consumption Score in Food Security Analysis”, accessible via http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf; (2) Wiesmann, Doris (June 2009), Validation of the World Food Programme’s Food Consumption Score and Alternative Indicators of Household Food Security, IFPRI Discussion Paper 870, Washington DC; and (3) Hoddinott, John and Yisehac Yohannes (2002), Dietary Diversity as a Food Security Indicator, IFPRI Discussion Paper 136, Washington DC: IFPRI.

¹⁶ The recent BEST analysis for Burundi’s FY2009-2014 PM2A initiative relied on Food Consumption scores as reported in the 2008 CFSVA. As reported in Wiesmann (2009) (see footnote 2 above), the FCS in Burundi was found to be well correlated with food security status.

¹⁷ The recent BEST analysis for Liberia relied upon the “food insecure” and “highly vulnerable” categories of food insecurity as defined in Liberia’s 2006 Comprehensive Food Security and Nutrition Survey. This composite indicator of food consumption and food access was the best available indicator of the relative absorptive capacity of food aid on a county-level basis for Liberia.

hungry, and potentially all members are hungry.¹⁸ However, extreme poverty is not a quantitative measure of a nutrition gap that can be used to determine the extent to which a proposed food aid ration might fill (or potentially overfill) that gap. Nevertheless, households living in extreme poverty can reasonably be considered households for whom food aid would likely represent additional consumption.

Prevalence of Malnutrition in Children

Chronic malnutrition (stunting, or low height-for-age) in children under five is an additional potential indicator of chronic food deficits. Malnutrition rates may reflect either inadequate intake, malabsorption due to infectious disease, or some combination of both. To the extent malnutrition rates reflect disease prevalence more than inadequate intake, any conclusions about food deficits drawn from malnutrition rates will be an inaccurate reflection of household food deficits. To the extent the prevalence of stunting reflects poor availability and/or poor access, such prevalence rates can appropriately inform geographic targeting from a Bellmon perspective.

Where a high percentage of households report both poor food consumption and poor food access, and surveys show high rates of chronic malnutrition in children under five, poor nutritional outcomes will likely be more responsive to food aid intended as supplemental nutrition. By geographically targeting areas where these indicators coincide, a PM2A program will help ensure that any given PM2A beneficiary household will more than likely increase overall household food consumption, and therefore represent additional consumption, relative to households in other geographic areas with lower rates of poverty and chronic malnutrition.

The most recent and reliable source of reliable district-level malnutrition rates is often available from Demographic and Health Surveys.

Recommended Reading

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¹⁸ DeRose, Laurie, Ellen Messer and Sara Millman (1998). *Who's hungry? And how do we know?* Food Shortage, Poverty, and Deprivation. United Nations University Press.

Annex VII. Contacts

Name (Last)	Name (First)	Organization	Title	Phone	Email
Angelevski	Sasha	CRS	COP-Prize Project	04-794-546	Sasha.angelevski@crs.org
Baloyi	George	CARE	Masvingo Prov. Proj. Field Asst.		georgenikabaloyi@gmail.com
Belo	Orlando	Cornelder de Mocambique	Operations Director	+258 23 322735	o.belo@cornelder.co.mz
Benzon	Mark	Fintrac	Zim-AIED Horticulture Prog. Mgr.	04-338-964	mbenzon@fintra.com
Bergstrom	Timothy	Agrodealer Strengthening Program	Program Director	263-772-107-630	tbergstrom@cnfzimbabwe.org
Bhadra	Roopak	Dominion Trading FZ-LLC		263-914-09806	rbhadra@surfglobe.co.uk
Botso	Charles	Blue Ribbon Industries Ltd	Group CFO	0772-469-751	botsoc@brf.co.zw
Brice	Chris	Socotec	Director	04-746-330	chirsbrice2704@gmail.com
Brigham	David	Mercy Corps	Country Director	04-301-028	dbrigham@zw.mercycorps.org
Brown	Edward	World Vision	National Director	04-369-027	edward_brown@wvi.org
Brown	Bob	Colbro	Transport Director	0772205072	rbrown@byo.colbro.co.zw
Butaumocho	Blessing	FEWS NET	Country Rep.	0772-513-647	bbutaumocho@fews.net
Cammelbeeck	Simon	WFP	Dep. Country Director	04-799-215	simon.cammelbeeck@wfp.org
Cape	Leeanne	Eluminary	Founder COO	27-83-650-9220	leeanne.cape@eluminary.com
Chadya	Regina	Manica Zimbabwe Limited	Manager-Beitbridge	263-2862280	andrew.chimedza@wfp.org
Chasakara	Lance	Manica Zimbabwe	Harare Warehouse Manager	263-4-666751	reginac@manica.co.zw
Chicumbe	Rogerio	Manica Beira	Imports Manager	258 23 322295	lancec@manica.co.zw
Chikavhanga	Loveness	Grain Marketing Board	Business Analyst	263-4-701870-95	ichikavhanga@gmbdura.co.zw
Chimedza	Andrew	WFP	Senior Logistics Assistant	263 4 799215	andrew.chimedza@wfp.org
Chimwaza	Sam	WFP	VAM Head	04-799-215	sam.chimwaza@wfp.org
Chingengo	L.	MoLSS	Deputy Director		chinhengo@sdf.org.zw
Chingore	Caroline	PLAN	M&E Spokesperson		caroline.chingore@plan-international.org
Chinheya	Petronella	CRS	Assistant FFA Technical Coordinator		
Chirimambowa	Trevor	CRS-MMPZ	Prog. Mgr.		mbowatv13@gmail.com
Chiumburu	Jeph	Crest Poultry Group Ltd.- AgriFoods	Managing Director	263-0-4756-100-5	jephc@agrifoods.co.zw
Chivell	Claire	AudAid	FS Dept.		claire.chivell@ausaid.gov.au
Chivere	Taswell	Agrodealer Strengthening Program	Management and Finance Office	263-772-107-577	tchivere@cnfzimbabwe.org
Cornish	Tyler	Redan Mobile Transactions	Manager	04-81148	tyler@emari.co.zw
Coulibaly	Jessica	USAID	Office	27-12-452-23520	jcoulibaly@usaid.gov
Dewji	Hasnain R.	Holbud Ltd.		20-7488-4901	hasnain@holbud.co.uk
Dlamini	Nketha	Mangwe Rural DC	CEO	19-3388	mswati@classicmail.co.za
Dombo	Kelvin	IRD	AgriTrade Fin. Spec.	04-304-763	kdombo@irdglobal.org
Gapara	Tawanda	WFP	Logistic Ass - Masvingo	0772-139 140	tawanda.Gapara@wfp.org
Gardiner	Thomas	Fintrac	AIED Value Chain Mgr.	04-338-964	tgardiner.av@gmail.com
Gondo	Joseph	Min. of Ag/Mech/Irrig	Principal Director	04-790-319	gondojoseph@yahoo.com
Handina	James	CRS	BYO Office P og. Mgr. Prize		james.handina@crs.org
Harper	Mark	Concern	Country Director	04-705-845	mark.harper@concern.net
Hauser	Sharon	Save the Children	Program Director	04-732-501	sharonh@savethechildrenzw.org
Jassat	Ishmael	Jasbro Foods Ltd.	Sales and Marketing Executive	263-9-68198	rajassat@yahoo.com
Jenkins	Carol	USAID	FS Team Leader	04-252-590	cjenkins@usaid.gov
Jenkins	Ronald	Capital Foods Group	Group Operations Manager	+258 84 330 2552	ronald@teledata.mz
Jensen	Michael	J & J Transporters LDA	Director	+258 23 302955	mmj@jjafrica.com
Johnson	Richard	US Embassy	Asst. Reg. Security Office	04-250-593	
Jone	Candido	CFM Central	Executive Director	+258 23 325200	joneca@tdm.co.mz
Jovcev	Vladimir	WFP	Logistics	04-799-215	vladimir.jovcev@wfp.org

Jovceva Kabat	Liljana Dale	WFP CRS Ministry of Agriculture, Mechanisation and	Program Office Sr. Regional Technical Advisor	04-799-215 260-211-236-487	liljana.jovceva@wfp.org dale.kabat@crs.org
Kabudura Kasasa Kembo Khumalo King Kucherera Kudakwashe Kufa Kutamahufa LaFleur Leanders Machado Madondo Magunda Mahove	Collen Patrick George Sylvia Neville Herbert Chuga Ricky Lovemore James Jason Felix Solomon Douglas Tendai	Irrigation Development CTDT Food and Nutrition Council Agrodealer Strengthening Program Spesfeed World Vision CARE WFP AMAN-O'-BRIE USAID Major Meats Cornelder Olivine Industries FAO CARE Ministry of Agriculture, Mechanisation and	Deputy Director - Economics & Markets Prog. Mgr.-Ag. Biodiversity Director Senior Agribusiness Advisor Managing Director Commod. Prog. Mgr. Field Based PRIZE Program Manager Masvingo Sub-Office Hea AgriTrade Trader EG Team Leader Managing Director Sales and Marketing Manager Director-Supply Chain FAO ER Unit Beitbridge District Field Supervisor	263-4-790358 0772-863-811 04-862-586 263-4-251-861-7 0712-220 340 04-301-172 0778020673 0772-417-315 0772919251 04-252-590 0712-220340 +258 23 322735 071-2-207-350 04-253-6558 0772245174	patrick@ctdt.co.zw georgek@mweb.co.zw skhumalo@cnfazimbabwe.org herbert_kucherera@wvi.org chogakuda@gmail.com ricky.kufa@wfp.org klovemore@yahoo.com jlafleur@usaaid. ov smadondo@olivine.co.zw douglas.magunda@fao.org tmahove@gmail.com
Makotose Mandizha Mano Manyanya Manyerenyere Mariga Marshall Masango Masendu Matsilele Mayer Mbedzi Mesquita Mhlanga Moyo Moyo Moyo Moyo Mpofu Mudonhi Muishi Muleya Mumera Munyengerwi Mupeyiwa	William A. Reneth Arina Oliver Kudzai Gillian Brian Learnmore Isaac Jennifer Albert Carlos Clement Praxedes Thabisani M. Busisa David Zenzo Sekai S.G. Simon Henry Kenneth Justin	Irrigation Development Grain Marketing Board IRD Ministry of Finance WFP Fintrac Marshalls (Pty) Ltd ORAP Bravo Transport Chiredzi Rural District Council Mercy Corps Beitbridge Rural District Coucil Cornelder de Mocambique Oxfam GB WFP USAID Insiza Rural DC United Refineries Ltd Fulgens Milling Co ORAP ACDIVOCA MoLSS Bietbridge District Council CARE CRS USAID Ministry of Agriculture, Mechanisation and	Acting Director - Economics & Markets General Manager AgriTrade Value Chain Spec. Deputy Director Mutare Sub-Office Hea Producer Org. training co-ord. Director Program Manager Managing Director CEO Dep. Country Director CEO Executive M.D Senior Program Manager BYO-Sub-OfficeManage Food Security Specialist DA CEO MD Field Coord. Prog. Mgr-Prize Director DA Masvingo Prov. Proj. Field Asst. BYO Prog. Mgr. Prize FS Specialist	+263-790358; 0772142714; 0712871069 263-4-701870-95 04-304-763 263-4-734789 0772-417-317 04-338-964 +27 31 7009592 0712-374285 263-31-2547 04-301-028 0286-22404 +258 23 322735 4-796699 0772-139-133 04-252-590 263-9-410561-5 0712-741833; 0773-283439 0772-513-417 0286-22404 04-252-590	wmakotose@gmail.com mandizhaa@gmbdura.co.zw rmano@irdglobal.org deputydirector@wfp.org oliver.mnyerenyere@wfp.org kudzai@clusa.org.zw marshalls@marshalls.co.za matsileleisaac@gmail.com jmayer@zw.mercycorps.org albert.mbedzi@gmail.com carlos.mesquita@cornelder.co.mz cmhlanga@oxfam.org.uk praxedes.moyo@wfp.org tmayedo@usaaid.gov busisamoyo@yahoo.com smudonhi@acdivoca-prize.org muishi@sdf.org.zw henso2001@yahoo.co.uk kenneth.munyengerwi@crs.org jmupeyiwa@usaaid.gov
Musamadya Musarara Mushai Mushonga Mutsavi Muzenda Ncube Ndhlovu Nheta Nhongo Nkomazana Noko Nyamutswa Nyathi Nyanya	Gamuchirai Tafadzwa Hillary J.N. Edmond Sikhulekile Temba Chipo Kudzai Joseph Bonolo Bertina Putso Peter	Irrigation Development Grain Millers Association of Zimbabwe World Vision CTDT CARE Ministry of Local Govt COSV Millers Association -Southern Region National Foods Operations Ltd. Oxfam GB Rock Forest Milling NOKO livestock consultancy PLAN Agrodealer Strengthening Program Zimbabwe WFP	Principal Economist Chariman ADP Manager Deputy Director Masvingo Prov.-Zaka Field Sup. Ass DA, Chiredzi Hwange Office-F Chairman Managing Director Office MD Consultant Program Coordinator Senior Agriculture Services Office Masvingo Sub-Office Deput	263-4-790358 263-4-486591 0774101682 04-589242 0772-521180 0772-418105 263-4-620481-4 04 700824 0773-246293 0712720145 263-772-107-710	ceo@alphagrains.co.zw hillary_mushai@wvi.org joe@ctdt.co.zw ncube.sikhulekile@yahoo.com chiponh@natfood.co.zw knhongo@oxfam.org.uk bnoko@live.com bertina.nyamutswa@plan-international.org pnyathi@cnfazimbabwe.org peter.nyanya@wfp.org

Nyoka	Rosemary	Fintrac	Prog. Manager Livestock	04-338-964	rnyoka@fintra .com
Paik	Kathryn	UMCOR	Program Office	212.870.3508	kpaik@umcor.org
Pena	Pedro	Global Collateral Control-Mozambique	CEO	+258 21 497811	pedro.pena@gcc.co.mz
Philp	Nigel	Progroup	CEO	263-4-667173	nigel@produtrade.com
Phiri	Swadi	CARE	Masvingo Prov. Proj. Mgr.		
Roberts	Sandra	Fintrac STAMP	COP	0772-142-675	sroberts@fintra .com
Roeder	Christian	Beira Logistics Terminals LDA	Managing Director	+258 23 302955	chris@bltmoz.com
Sammon	Elayn	UNICEF	Child Protection Specialist	04703941/2	esammon@unicef.org
Sibanda	Gift	World Vision	Reg. Coordinator.-Food Resources	09-884-216	gift_sibanda@wvi.org
Sibanda	Mtokozisi	Mathokozisa Milling	MD	0712-505767	
Sibanda	Vusisiziwe	Crown Foods	Managing Director	0712-720367	
Sikhosana	Thandanani	ORAP	Value Chain Field Office		
Siphali	Jonathan	"A" Team Freight	Director	0773-386-817	theaateam@yahoo.com
Somani	Naruttam	Surface	Managing Director	0774-454853	ns@midexgroup.com
Somani	Rudraksh	Surface	Production Executive	0774-454853	rs@midexgroup.com
Spink	Peter	DFID	FS Specialist	04-8585-5307	p-spink@dfid. ov.uk
Stillman	Toby	Unicef	Spec. Adv. For FNC Directorate	04-703-941	tstillman@unicef.org
Tome	Dario	Global Collateral Control - Mozambique	Director	+258 21 497811	dario.tome@gcc.co.mz
Townsend	Paul	CRS	Country Director	04-794-550	paul.townsend@crs.org
Urvoy	Jean Claude	FAO	Sr. ER and Rehab Coord.	04-253-6558	jeanclaude.urvoy@fao.org
Van Duursen	Nicolette	Concern	Asst. Country Director	04-705-845	nicolette.vanduursen@concern.net
Van Sice	Heather	CARE	Assistant Country Director	04-735874	heatherVa@carezimbabwe.org
Walker	Peter	Manica Freight Services (Mozambique) SA	Beira General Manager	+258 23 329081	pwalker@beira.manica.co.mz
Zimunya	Kennedy	Zim-AIED	Field Manager	263 4 338964	kzimunya@fintra .com
Zinanga	Fred	CTDT	Prog. Mgr-Food Security and LLH	0772-731-575	fred@ctdt.co.zw
Zvobgo	Kerina	GRM	Manager	0773-445-903	kerina@grm.co.zw
Zwier	Janelle	World Vision	BYO Grants Director		janelle.zwier@wvi.org



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U.S. Agency for International Development
1300 Pennsylvania Avenue, NW
Washington, DC 20523
Tel: (202) 712-0000
Fax: (202) 216-3525
www.usaid.gov