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USAID OFFICE OF FOOD FOR PEACE HAITI BELLMON ESTIMATION

DECEMBER 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by Fintrac Inc.

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Preface

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

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Acronyms and Notes

ACDI/VOCA	Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance
ACF	Action Contre Le Faim
ACP	Africa, Caribbean, and Pacific
ACS	Association of Caribbean States
ACTED	Agency for Technical Cooperation and Development
ADM	Archer Daniels Midland
AGD	Administration Générale des Douanes
AGEMAR	Agences Maritimes Réunies
ARR	Annual Results Report
BCC	Behavior Change Communication
BCMNV	Bean Common Mosaic Necrosis Virus
BCMV	Bean Common Mosaic Virus
BDM	Bureau de Monetization
BEST	Bellmon Estimation Studies for Title II
BGYMV	Bean Golden Yellow Mosaic Virus
BND	Bureau de Nutrition et Développement
CaLP	Cash Learning Partnership
CARE	Cooperative for Assistance and Relief Everywhere
CARICOM	Caribbean Community
CARIFOCUM	Caribbean Forum of the ACP States
CASR	Chamber of Agriculture of San Raphael
CECI	Canadian Centre for International Studies and Cooperation
CF	Call Forward
CFW	Cash For Work
CIDA	Canadian International Development Agency
CIF	Cost, Insurance, Freight
CIMMYT	Centro Internacional de Mejoramiento de Maíz y Trigo (International Maize and Wheat Improvement Center)
CMSE	CARICOM Single Market and Economy
CNSA	Coordination Nationale de la Sécurité Alimentaire
COMTRADE	Commodity Trade Statistics Database
CROSE	La Coordination Régionale des Organisations de Sud-Est
CRS	Catholic Relief Services
CSB	Corn Soya Blend
CV	Coefficient of Variation
DAP	Development Activity Program
DCHA	Department of Conflict, and Humanitarian Assistance
DR	Dominican Republic
EFSA	Emergency Food Security Assessment
EFSP	Emergency Food Security Program
EMMA	Emergency Market and Mapping Analysis
EMOP	Emergency Operation
EPA	Economic Partnership Agreement
EU	European Union
EWS	Early Warning System
FANTA-2	Food and Nutrition Technical Assistance Project
FAO	Food and Agriculture Organization
FAS	Foreign Agricultural Service
FCS	Food Consumption Scores
FFE	Food For Education
FFP	Food For Peace
FFT	Food For Training
FFW	Food For Work
FINCA	Foundation for International Community Assistance
FOB	Free or Freight on Board
FY	Financial Year
G11	Group of Eleven
GDP	Gross Domestic Product
GFD	General Food Distributions
GNI	Gross National Income
GOH	Government of Haiti
HAVA	Haitian Association of Volunteer Agencies
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HRWW	Hard Red Winter Wheat
HUHSA	Huileries S.A
HUNASA	Huilerie National S.A
IDB	Inter-American Development Bank
IICA	Inter-American Institute for Cooperation in Agriculture
IPP	Import Parity Price
IPPP	International Public Port of Port-au-Prince
IRC	International Rescue Committee
IRD	International Relief and Development
ISPS	International Ship & Port Facility Security
LMH	Les Moulins d'Haiti

LRP	Local and Regional Procurement
LZ	Livelihood Zone
MARNDR	Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural
MCHN	Maternal Child Health and Nutrition
MDTF	Multi-Donor Trust Fund
MOU	Memorandum of Understanding
MT	Metric Ton = 2,204.62 pounds
MUSOG	Mutuelles Solidarités
MYAP	Multi-Year Assistance Program
NGO	Non-Governmental Organization
ODVA	Organisme de Développement de la Vallée de l'Artibonite
OFDA	Office of Foreign Disaster Assistance
ORE	Organization for the Rehabilitation of the Environment
P4P	Purchase for Progress
PARPANASA	Projet d'Appui à la Relance de la Production Agricole Nationale et à l'Accroissement de la Sécurité Alimentaire (Oxfam-Québec)
PDNA	Post-Disaster Needs Assessment
PIA	Programme d'Intensification Agricole de la Vallée de l'Artibonite
PL 480	Public Law 480 (PL-480 Title II)
PLWH	People Living With Aids
PM2A	Prevention of Malnutrition in Under Two Approach
PPP	Purchasing Power Parity
PRRO	Protracted Relief and Recovery Operation
PRSP	Poverty Reduction Strategy Paper
PVO	Private Voluntary Organization
QPM	Quality Protein Maize
RACPABA	Rezo Asosyasyon Kooperativ pou Komes ak Pwodwi Agrikol Ba Latibonit
SCF	Save the Children Foundation
SFB	Soy Fortified Bulgur
SME	Small and Medium Enterprise
SYAP	Single-Year Assistance Program
TB	Tuberculosis
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USDA-FAS	United States Department of Agriculture, Foreign Agricultural Service
USG	United States Government
VAM	Vulnerability and Mapping Analysis
WASH	Water, Sanitation, and Hygiene
WB	World Bank
WFP	World Food Programme
WV	World Vision

Exchange Rate: On July 1, 2011, the exchange rate was USD 1 = 40 gourdes
Units of Measurement: Marmite =2.5 kg

Chapter 1. Executive Summary

1.1. Introduction

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

This study is based on a desk study and field work conducted during the period June to August 2011. This study builds on the comprehensive August 2010 Haiti Market Analysis conducted by the same study team (2010 Haiti Market Analysis).

1.2. Food Aid Overview

Haiti has been receiving food aid intermittently since the mid-1950s (Smillie, 2001). Donor intiatives in the country have increased after the 2010 earthquake. According to the InterAction/US Chamber of Commerce's Haiti NGO map (InterAction), Haiti will host at least 106 food security projects in 2011, which include 17 food aid and 46 agriculture programs. According to unofficial estimates, thousands of PVOs now provide humanitarian assistance throughout the island nation.

Title II Non-Emergency. In FY10, USAID delivered 37,640 MT of Title II non-emergency food aid to Haiti, and non-emergency contributions totaled US$36.5 million (USAID Haiti, 2011). In FY11, Title II non-emergency food aid tonnages are 15,480 MT[1], and Title II funding for FY11 is US$35.5 million (USAID Haiti, 2011).

The large decrease in non-emergency tonnage for FY11 is mostly due to the fact that Title II monetizations will not be undertaken in FY11. Though Title II Awardees undertook monetization of Hard Red Winter Wheat (HRWW) and wheat flour in FY09 and FY10[2], the US Government (USG) has curtailed its monetization activities for FY11, mostly because Haiti's import market structure is not configured for successful monetization.[3]

Multi-Year Assistance Program (MYAP) partners currently include: ACDI/VOCA, Catholic Relief Services (CRS), and World Vision.

Title II Emergency. In 2010, USAID emergency food aid totaled 115,320 MT. Of this, Single-Year Assistance Program (SYAP) Awardees accounted for 50,830 MT; the World Food Program (WFP) accounted for the remainder. In FY11, USAID emergency food aid totals 5,950 MT, which is distributed per World Vision's SYAP and WFP.

USDA. USDA anticipates third-country monetization under its Food For Progress FY11 programs, by sale of commodities in the Dominican Republic (DR). USDA originally planned to undertake monetization in Haiti for FY11, but decided against in-country monetization after

[1] This volume includes the remainder of 2010 SYAP tonnages that were not distributed in 2010.
[2] Wheat has actually been the only Title II commodity monetized since 1998.
[3] For more details, please see 2010 Haiti Market Analysis, available at http://www.usaid.gov/our_work/humanitarian_assistance/ffp/besthaitireport.pdf.

USAID decided against monetizing in Haiti. At present, USDA partners Inter-American Institute for Cooperation on Agriculture (IICA) and FINCA anticipate monetizing soybean meal and/or vegetable oil in the DR to support programs in Haiti. These programs will be the first Food for Progress initiatives undertaken in Haiti since 2003 (personal communication, USAID/FFP, 2011).

USDA has also awarded Haiti Vision and WFP with McGovern-Dole school feeding programs for FY11-FY13.

WFP and other actors. WFP operates in Haiti with funds from both FFP and other donors. In addition to WFP and its implementing partners, a large number of donors distribute food aid in Haiti, as detailed in Ch.2.

1.3. Ports, Transport, and Storage

Ports. Although the International Public Port of Port-au-Prince (IPPP) suffered major damage from the January 2010 earthquake, it has quickly regained capacity and is the likely (and, currently, only) option for significant volumes of food aid delivery to all parts of Haiti except for Cap Haitien.[4][5]

For bulk deliveries of wheat, port Lafiteau is most appropriate because it is owned by Haiti's only wheat mill, Les Moulins d'Haiti (LMH), and allows for discharge of wheat grain directly into the mill.

Importing into Haiti will continue to be very expensive. Given the uneasy security situation in country, containers will continue to be the preferred means for importing goods because of the extra security they provide; however, this will also mean incurring an excessively high wharfage fee—currently, US$310 per container.

Transport. Road networks in the Port-au-Prince area remain poor, and gridlock is a major problem. In recent years, road infrastructure has apparently improved on primary roads outside the capital, but secondary roads still need attention and will likely not improve in the foreseeable future.

Storage. There appears to be sufficient covered warehouse space for present needs. However, if demand for covered space spikes, it is uncertain whether sufficient excess capacity exists in the Port-au-Prince area—or for that matter, elsewhere in the country. Vacant land is available for goods that do not require covered storage, although security for open air storage will be problematic.

Recommendations. BEST recommends that Awardees collaborate when planning and implementing logistical aspects of their programs. Multiple interviewees during the BEST field visit noted benefits of such coordination, such as:

- Assurance that all organizations' goods arrive together at the port, and that all can be cleared at a single time. This means that less overall effort would be needed to corral the various essential actors required to break the seals of imported containers.
- Decreased individual risk when importing goods, improved administrative efficiency, and shared resources and combined expertise.

[4] Food aid shipments destined for the Cap Haitien area should be shipped to the Cap Haitien port, as road condition to and from the area are poor.

[5] Regional cabotage ports are available for small volumes of food aid, but are expensive and more time-consuming than IPPP.

If possible, Awardees would also benefit from staff member(s) dedicated to communicating and monitoring Customs procedures, which change often without notice.

1.4. Monetized Food Aid

The BEST monetization analysis considers wheat grain, wheat flour, maize, maize flour, beans, and vegetable oil based on criteria outlined in Chapter 4.

Wheat grain is not recommended for monetization in FY12, because a fair market price would likely not be achieved, due to the fact that a single market actor controls the wheat grain market.

Wheat flour is not recommended for monetization in FY12, because: 1) the FY10 wheat flour monetization was problematic; 2) contract enforcement appears to be a challenge; 3) Port-au-Prince's limited capacity slows delivery of containers, which threatens the short shelf life of wheat flour; 4) the wheat flour market is time-sensitive, volatile, and unsuitable for shipments with unpredicatable or slow arrival dates; 5) wheat flour monetization will likely be inappropriate once the LMH mill is repaired and in operation; 6) although wheat flour would provide a relatively inexpensive carbohydrate source, it appears to replace locally produced crops that can be processed into flour or consumed directly, such as yams, sweet potatoes, and cassava.

Maize and maize flour are not recommended for monetization in FY12 because: 1) the market is dominated by a small number of importers and wholesalers who have significant control over prices; 2) local production would likely be negatively impacted by the importation of additional maize or maize flour; and 3) the proceeds generated from a monetization of maize flour would not generate enough funds for Awardees to meet resource needs.

Beans are not recommended for monetization in FY12 because local bean production would likely be negatively impacted by the additional importation of beans.

Large lot monetization of vegetable oil is not recommended for monetization in FY12, because: 1) the structure of the market is concentrated; 2) two large actors dominate the market, and could use their market power to obtain an unfair market price. **Title II Awardees may wish to consider a pilot of small lot targeted sales of refined vegetable oil**. The team advises monetization of no more than 1,015 MT, which has potential to generate approximately US$1,572,189 worth of proceeds.[6] The logistics of establishing a pilot with only one year remaining is a substantial obstacle, however. Such a pilot may be more appropriate for a new Title II development program beginning in FY13.

This market analysis recommends further investigation into the feasibility of **third country monetization** of maize grain, vegetable oil (soy bean oil), rice, wheat grain, or wheat flour at any of the four ports (in Nicaragua, Peru, Dominican Republic, and Honduras) to gauge the level of interest among potential buyers for these products. Third country monetization is a legally compliant alternative for Awardees operating in a country with less than fully competitive domestic commodity markets.

1.5. Distributed Food Aid

Markets' role in food insecurity. Food insecurity in Haiti is not caused by the lack of food availability. Clearly, the private market has the capacity to meet localized food deficits. However,

[6] Calculated IPP is $1,549.65 per MT

this availability is heavily dependent on imported foods, prices for which are subject to fluctuations in global food prices and, more importantly in Haiti's case, to manipulation by the oligopolistic firms that control an estimated 80 percent of Haiti's marketed food supply. Thus, average Haitains face the issue of economic access to markets with fluctuating prices.

At first blush, the availability of food, combined with the lack of consumer purchasing power, suggests that increasing poor households' income and therefore access to food is the logical answer. This is partially true: in the short- and medium--term, continued cash and in-kind support will be necessary to ensure basic needs are met.

However, in the long-term, the structure of the Haitian food market, which is dominated by a handful of importers who collude to fix prices, is not conducive to sustainable food security through increasing incomes alone. Longer-term solutions to reducing food insecurity will require reducing the dependence of the poor on the market in its current structure. This entails: (1 stimulating local production and linking local producers to markets so they can compete with imported goods, while simultaneously 2) increasing incomes so that people can purchase from the least expensive food source—which may often be importers but, over time, should be local producers.

The market's ability to meet food security needs is impacted by the degree of integration among different geographic markets. Imported rice and edible oil[7] are the only commodities of those analyzed that show significant market correlation. Thus, food aid stakeholders should acknowledge that Haiti's markets are generally not well-integrated, and that food aid programs will have greater potential to strongly impact the targeted local market through depressive price effects on local grain and pulse markets, than would be the case if markets were better integrated.

Seasonality and timing. The timing of ration delivery is critical for the success of all activities. However, from the perspective of market impact, careful timing is *most* critical for FFW activities. The seasonal calendar is complex in Haiti due to the variety of agro-climatic conditions and commodities grown within a relatively small geographic area. However, the main lean season for most of the crops is from April to June; Awardees should investigate the seasonality of each program area to most appropriately time activities.

Timeliness of delivery is a recurrent theme in reviews of program effectiveness in Haiti. A number of key informants noted problems with delayed delivery of assistance following the earthquake, with wide variance among the timeliness of food/cash distributions. Based on interviews, pipeline disruptions appear relatively minimal outside of major shocks.

Food-insecure populations. While acute food insecurity arising from specific shocks may temporarily alter the appropriate criteria for household/individual targeting, Title II development food aid should be tightly focused and directed to specific vulnerable groups that face chronic food security. In Haiti, these groups include:

- Pregnant and lactating mothers.
- Infants and young children, particularly those under two years of age, who require additional nutritional support to ensure positive long-term human capital outcomes (including education, productivity, adult wage-earning potential, and health).
- Vulnerable groups such as orphans and people living with HIV/AIDS or TB.

[7] CNSA reports retail prices for two brands of edible oil, "Alberto" and "Rika." Correlations are analysed for the "Alberto" brand of edible oil as an indicator of the integration of all edible oil prices because "Alberto" had the most complete time series of price data.

Activities designed to support agricultural production and productivity, and other income-generating activities, should avoid the use of food aid rations as general, direct support for these activities. Instead, food aid rations should be viewed as complementary for specific vulnerable individuals within households targeted for agricultural and/or income-generating activities.

Activity types.

- Vouchers and/or cash: as detailed in Chapter 5, food vouchers and/or cash distributions can be appropriate responses to address access-based food insecurity. As noted above, Haitian consumers suffer the most from limited market access. While Title II development resources are limited to in-kind food aid, potential Title II Awardees may wish to consider combining resources from a variety of sources to creatively meet the needs of the proposed targeted beneficiaries, while capitalizing on the existing strengths of the private sector to meet local market demand.
- FFW: FFW can create food-wage employment during the hunger period of the year when rural unemployment rises. To minimize possible leakages, any proposed FFW activities must include sufficient supervisory capacity to ensure timing of activities is most appropriate given seasonality of crop production and labor. Where warranted and possible, FFW should target female-headed households. FFW activities should include slightly less-preferred food aid commodities to encourage self-targeting.
- School Feeding (SF): school feeding can increase school attendance and students' attention during lessons, and thus enhance productivity, increase incomes, and result in greater gender equity. From a Bellmon perspective, SF activities should be carefully targeted geographically and carefully monitored to avoid leakage. The provision of "wet meals," or meals served and consumed in the school, will help prevent leakage and ensure the food is consumed by the intended beneficiary.
- PM2A: Current Title II Non-Emergency Program partners are implementing a Prevention of Malnutrition in Children Under Two Approach (PM2A) for their MCHN programming. PM2A presents both an opportunity for long-term human capital investment and a unique challenge to avoid disincentives in the short-to-medium term. Awardees should appropriately target communities with poor Food Consumption Scores (FCS), high rates of extreme poverty, and high rates of malnutrition among children under 5. By incorporating Behavoir Change Communicatin (BCC) messages and a suite of health and nutrition-related services, Awardees decrease the likeliness of leakage. Because PM2A activities are intended to ensure improved nutrition for vulnerable women and young children, for which self-targeting is not relevant, the choice of commodities must be driven by nutritional considerations.

Commodity selection. The most commonly distributed commodities in Haiti include cereals, pulses, and oil. Given the heterogeneity of livelihoods and food preferences in Haiti, and the uneven performance of food markets across the country, it is incumbent upon Title II Awardees and other NGOs involved in food distribution to develop a t horough understanding of local conditions in the areas where they distribute (or expect to distribute) food aid. For further examination of commodities, see Chapter 5.

1.6. Local and Regional Procurement Food Aid

Since the 2010 earthquake, LRP has generated great interest as a method for simultaneously (1) stimulating the economy and the agricultural sector and (2) improving the food security of the most vulnerable. The MARNDR, WFP, and the World Bank have been engaged in discussions

to support large-scale school feeding programs through local procurement. However, thus far, most of the interest in LRP remains unrealized.

As detailed more fully in the 2010 Market Analysis, two major initiatives by WFP and the Rezo Asosyasyon Kooperativ pou K omes ak Pwodwi Agrikol Ba Latibonit (RACPABA) currently involve local procurement of food for distribution, and a nu mber of initiatives involve unconditional cash transfers for the local purchase of food by beneficiaries.[8]

LRP in Haiti is a logical tool to consider adding to the donor toolbox, particularly as donors contemplate the delicate balance between addressing short-term needs with long-term food security goals. However, before donors engage in LRP on a l arger scale, it is critical that the goals of local procurement projects are clear. One must distinguish between the goal of promoting local agriculture versus improving access for food insecure households.

While there appears to be some capacity for procuring locally produced maize and beans in Haiti, as well as fruits and vegetables, any initiative should be viewed as developmental rather than as a source of large-scale, emergency food relief.

[8] Here, we consider only unconditional cash transfers. Conditional cash transfers (e.g., Cash For Work) are treated in Chapter 6.

Chapter 2. Food Aid Overview

2.1. Introduction

This Chapter deatils USAID and USDA food aid programs, describes USAID cash/voucher programs, and describes food security programs undertaken by actors outside of USAID and USDA. For further details on monetized food aid, distributed food aid, and Local and Regional Purchase (LRP) programs in Haiti, please see Chapters 4, 5, and 6, respectively.

Haiti has been receiving food aid intermittently since the mid-1950s (Smillie, 2001). During the 1980s, total food aid assistance to Haiti reached an annual average of US$50 million—enough to meet 15 percent of Haitians' calorie requirements (Schwartz, 2008). In the six months following the January 2010 earthquake, food aid increased nearly eight-fold beyond the pre-earthquake annual average.

Most of Haiti's food aid comes from the US, the Canadian International Development Agency (CIDA), the European Union (EU), the French Cooperation Mission, and the World Food Program (WFP). Among this group, the US has provided the largest volume of food aid, according to WFP and International Grain Council data, from 2005-2010 (Fintrac/BEST 2010).

These diverse aid flows have made a visible imprint. According to the InterAction/US Chamber of Commerce's Haiti NGO map (InterAction), in 2011 Haiti will host at least 106 food security projects, which include 17 food aid and 46 agriculture programs. According to unofficial estimates, thousands of PVOs now provide humanitarian assistance throughout the island nation.

In FY11, Title II non-emergency and emergency food aid tonnages total 21,430 MT (FFP/AMEX, 2011). Of this, 15,480 MT is destined for non-emergency programs—about 57 percent lower than in FY10.[9] However, funding for FY11, at 35.5 million, has only slightly decreased compared to FY10 levels. The large decrease in non-emergency tonnages alongside approximately equal funding from the previous year is mostly due to the fact that Title II monetizations will not be undertaken in FY11. In FY10, monetized tonnages accounted for a significant portion of program resources, at 19,600 MT.

2.2. USAID: Non-Emergency Programs

2.2.1. Distributed Food Aid

Title II non-emergency partners include ACDI/VOCA, Catholic Relief Services (CRS), and World Vision. These organizations are currently implementing five-year Multi-Year Assistance Programs (MYAPs), scheduled to end in FY13. These MYAPs included monetization activities in the past, but currently do not monetize any commodities (for details on past monetizations, see Section 2.2.2)

Since 2004, soy-fortified bulgur wheat, milled rice, and wheat-soy blend have been the most common commodities for distribution, followed by pulses and vegetable oil. However, milled rice is not planned for distribution in FY11.

[9] In 2010, USAID delivered 37,640 MT of Title II non-emergency food aid to Haiti, and non-emergency contributions totaled US$36.5 million (USAID Haiti, 2011).

See an overview of non-emergency programs below.

Table 1. USAID Title II Development Programs, FY10-FY11

MYAP Partner	Fy10 MT (received)	Fy11 MT (received)	FY10 Beneficiaries (actual)	FY11 Beneficiaries (estimate)	LOA Beneficiaries (estimate)	FY10 funds (US$ mil)	Program Dates
CRS MYAP	11, 610	7,560	115,029	122,600	131,300	10.5	FY08-FY13
ACDI/VOCA MYAP	8,040	1,980	51,812	56,825	174,515	10.1	FY08-FY13
World Vision MYAP	17,990	5,940	206,494	167,740	661,463	15.9	FY08-FY13
Total	**37,640**	**15,480**				**36.5**	

Sources: Sources: FY10 and FY11 MT: AMEX ACE Reports. FY10 beneficiary count, CRS and World Vision: PVO ARR trackers. FY10 beneficiary count, ACDI/VOCA: personal correspondence, ACDI/VOCA. FY11 beneficiary count, CRS : PVO ARR tracker. FY11 beneficiary count, World Vision: PVO Amendment Narrative text. FY11 beneficiary count, ACDI/VOCA: personal correspondence, ACDI/VOCA. LOA beneficiary count, CRS and ACDI/VOCA: personal correspondence, PVOs. World Vision LOA beneficiary count: PVO Amendment Narrative text. All FY10 funds: Personal correspondence, FFP/AMEX.

ACDI/VOCA: MYAP. ACDI/VOCA is currently in year three of its five-year Title II Non-Emergency Program. The project has three components:

1. Increasing and diversifying both agricultural and non-agricultural livelihood opportunities for the rural vulnerable in southeast Haiti.
2. Long-term nutrition and health needs of vulnerable populations, which includes health education, clinical training, improved sanitation, and providing supplemental food rations.
3. Increasing the ability of communities to prepare for and respond to shocks, such as natural disasters, by developing an Early Warning System (EWS).

With assistance from the *Bureau de Nutrition et Développement* (BND), ACDI/VOCA is targeting 174,515 direct beneficiaries over the course of the MYAP (Personal communication, ACDI/VOCA, 2011). In FY10, ACDI/VOCA received 8,040 MT for its MYAP program, and in FY11, the program received 1,980 MT for distribution (Personal communication, FFP, 2011) (AMEX International 2011). Rations consist of soy-fortified bulgur (SFB), corn-soya blend (CSB), yellow peas, and vegetable oil.

Food distribution includes Preventive Malnutrition in Children Under 2 Approach (PM2A) rations, as well as recuperative rations for children 24 to 59 months old. Maternal/Child Health and Nutrition (MCHN) activities are located throughout the southeast, in Anse á Pitre, Belle Anse, Côtes de Fer, Grand Gosier, and Thiotte. By mid-March 2011, the ACDI/VOCA had reached 11,616 children and 1,847 PLWs through its MYAP program (ACDI/VOCA PL480 Summary, 2011).

In addition to food distribution activities, program activities include:

- Supporting community-based organizations through grants and association development training.
- Diversifying livelihoods support (fishing, handicrafts, financial savings education).
- Creating *Mutuelles Solidarités* (MUSOGs), Water, Sanitation, and Hygiene (WASH) activities.
- Training on family planning, and provision of family planning supplies.
- Early Warning System (EWS) activities.

As part of the EWS component of its program, the organization has assisted over 100 southeast localities develop linked early warning and response systems, titled the Food Security Early

Warning network. The group also publishes food security bulletins, including price data, available at their website, http://www.cnsahaiti.org.

In the aftermath of the 2010 earthquake, ACDI/VOCA's Title II program provided seed and cash mini-grants to 9,357 farmers to help them buy agricultural inputs and labor; the Food and Agriculture Organization (FAO) provided additional seeds and tools, and Save the Children provided additional funding (ACDI/VOCA, Relief and Recovery in Haiti, 2011). At the end of 2010, ACDI/VOCA had reached 11,955 farmers with agricultural input support, which included providing improved seeds (including bean, maize, sorghum, pigeon peas, yam, and cassava) and, in partnership with the Ministry of Agriculture, related training on improved planting techniques (ACDI/VOCA PL480 Summary, 2011).

CRS: MYAP. CRS' five-year, US$56 million MYAP is located in the south of the country, and continues through September 30, 2012. The program targets 131,300 direct beneficiaries, and 130,000 indirect beneficiaries (Personal correspondence, CRS, 2011) over the five year period.

CRS targets households in highly food insecure, environmentally fragile watersheds (NGO Aid Map, 2011). Activities include MCHN (food for children from 6-24 months of age, and PLWs), school feeding, FFW, improved farming and conservation technique training, seed demonstrations, and natural resource management activities (NGO Aid Map, 2011). CRS also participates in the Food Security Early Warning network, in concert with ACDI/VOCA and the Ministry of Agriculture, Natural Resources, and Rural Development (MARNDR, "Ministère de l'Agriculture des Ressources Naturelles et du Développement Rural").

CRS received 11,610 MT under its MYAP during FY10 (AMEX, 2011).[10] As reported in the organization's Annual Results Report (ARR), in FY10, CRS provided food to about 12,500 highly vulnerable individuals. In addition, 9,900 women received supplemental food and/or health services; 2,900 children under age five received food; and approximately 8,000 children 6-24 months of age received monthly take-home dry rations during FY10. Dry rations were also given to 3,000 People Living With Aids (PLWH). After the earthquake, CRS received authorization to transfer MYAP resources toward emergency operations.

World Vision: MYAP. World Vision's MYAP is scheduled to end in September 2012, and targets a total of 661,463 direct beneficiaries (World Vision MYAP Amendment Narrative, 2011). FFP will provide World Vision with a total of approximately 26,000 MT (excluding commodities for monetization) for distribution over the five-year period (World Vision MYAP Amendment Narrative, 2011). World Vision currently holds the largest Title II development program in the Western Hemisphere (World Vision Amendment Narrative, 2011).

World Vision continues its MYAP in the upper central plateau, La Gonave, Artibonite, and the lower central plateau. Program activities include: MCHN, health/nutrition, agricultural improvement, and Food For Assets (FFA). MCHN activities include training and direct ration distributions to mothers and children, with a focus on PM2A programs. Agricultural improvement programs focus on: 1) expanding market-based production; 2) linking farmers to markets; 3) promoting utilization of improved inputs; and 4) establishing conditions to ensure sustainable increases in crop yields (World Vision Amendment Narrative, 2011). FFA activities include strengthening irrigation and water management systems, rehabilitating canals, and protecting ravines in watersheds. An estimated 3,280 people benefit from the FFA program each year (World Vision Amendment Narrative, 2011).

[10] Note that this figure does not include 4,439 MT originally intended for the MYAP, which was then loaned to CRS's SYAP.

World Vision partners with several other entities, including Development Alternatives International (DAI), Hospital Albert Schweitzer, AgriDev, and Land O' Lakes. USDA Programs

USDA implements food aid programs which have involved monetization and direct distribution, as detailed below.

USDA initiated Food for Progress (FFPr) programming in Haiti during FY03, and has not monetized in Haiti since then. USDA currently has two FFPr programs in Haiti, implemented by the Foundation for International Community Assistance (FINCA) and the Inter-American Institute for Cooperation in Agriculture (IICA). These programs were originally designed to monetize wheat and soybean meal within Haiti, but, following the decision of USAID to not monetize in FY11, USDA has also decided against in-country monetization for FY11. The FFPr programs are currently being redesigned as third-country monetization programs, by sale of commodities(soybean meal and vegetable oil) in the Dominican Republic (DR).

USDA underwrites McGovern-Dole school feeding programs in Haiti, implemented by Haiti Vision and WFP. These programs total US$10.2 million in funds, and will receive a total of 27,460 MT during program dates of 2011-2013 (Personal correspondence, FFP, 2011).

2.2.2. Monetized Food Aid: FFPr

FINCA. FINCA plans to undertake third-country monetization for its Haiti program during FY11 (through the sale of vegetable oil or soybean meal in the DR). With the monetized funds, FINCA is expanding microfinance services by providing loans to agriculture-related businesses in rural and peri-urban areas. The organization currently targets a total of 4,300 beneficiaries with village banking and enterprise bank services (Personal correspondence, FFP, 2011); almost all of FINCA's clients are women. FINCA is located in Port-au-Prince, Aquin, Cap-Haitien, Hinche, Jacmel, Les Cayes, Limbe, Petit-Goâve, Ounaminthe, Miragoane, and St.Marc.

IICA. IICA plans to undertake third-country monetization for its Haiti program during FY11 (through the planned sale of soybean meal in the DR). With the monetized funds, IICA plans to continue implementing an Agriculture Quarantine Inspection unit, which will create standardized inspection and quality control for the DR and Haiti. The program focuses mostly on quality control at the DR and Haiti borders[11]—specifically, international cargo inspection, international garbage and disposal inspection, and policy development related to international quality control(Personal correspondence, FFP, 2011).

IICA also conducts a number of other activities, including preparing land for farming, supplying tractors, and animal health (IICA, 2011).

2.2.3. Distributed Food Aid: McGovern-Dole Food For Education

Haiti Vision. Haiti Vision currently targets 30,000 school children with 4,280 MT of food through its McGovern-Dole Food for Education program, which was granted in June 2011 and terminates in June 2013 (Personal correspondence, FFP, 2011). The program is designed to receive US$4.2 million in total funding. Locales of activity include Petit-Goâve (and surrounding rural areas) and Léogâne. Rations include hot meals of beans, milled rice, and vegetable oil. Take-home rations of vegetable oil are given every 60 days to female students (Personal correspondence, FFP, 2011).

WFP. WFP is currently implementing a USDA McGovern Dole Food for Education project in Haiti valued at approximately US$6 million during 2011-2013. The program will provide school

[11] According to IICA, other partners are currently covering the issue of quality control on the Haiti/DR internal border.

meals to 230,000 students per year, and is active in 800 Haitian schools (Personal correspondence, WFP, 2011). WFP will receive a total of 23,180 MT over the three-year time period.

As of October 2011, the program has distributed 4,300 MT. Rations include rice, pulses, and vegetable oil, and are served in school. Distribution is implemented in collaboration with the GOH's National School Meals Program (PNCS, Programme Nationale de Cantines Scolaires). WFP also works with 18 partners to transport and distribute the food at the local level.

2.3. WFP and Partners[12]

For 2011, WFP is targeting 3,859,230 beneficiaries with 102,320 MT of food aid thorugh all of its programs (WFP, 2011), supported by donors worldwide. Its PRRO program targets 2,5000,000 beneficiaries in FY11 (PRRO document, Jan. 2011).

Program activities include school feeding, CFW and FFW (directly targeting 140,000 workers and amounting to 700,000 total beneficiaries), and MCHN activities (WFP, 2011).[13] WFP's implementing partners include ACF, Adventist Development and Relief Agency (ADRA), *Agence de Coopération Technique et de Développement* (ACTED), CARE, CRS, GOAL, International Medical Corps (IMC), Samaritan's Purse, Save the Children, and World Vision, among others.[14]

After the earthquake, WFP provided general distributions of rice, pulses, vegetable oil, high energy biscuits, ready-to-eat meals, and hot meals, among other commodities (WFP, 2010). Within one week of the earthquake, the organization had delivered one million rations to over 200,000 beneficiaries (WFP, 2011). General distributions continued through February 2010; more targeted distributions began in March (WFP, 2010).[15] As the year progressed, WFP began implementing CFW and FFW, school feeding, and MCHN activities. MCHN programs included blanket supplementary feeding to children 6-59 months old and to PLWs in camps; in total, WFP provided MCHN assistance to 450,000 beneficiaries in 2010 (WFP, 2011). School feeding targeted an estimated 800,000 children over the year (WFP, 2010).

WFP also procured 1,000 MT of local maize and 500 MT of local rice for its programs in 2010, and began locally purchasing milk at the end of the year. The program continues to aim for local procurement when possible.

Below are some of WFP's partners, whose activities are supported by WFP to varying degrees.

- **ACF.** ACF has been present in Haiti since 1985, and currently provides food distribution and food vouchers with resources from WFP, the European Commission, and Canada, among others (FTA, 2011).

[12] As noted in this report and the 2010 Haiti Market Analysis, the overwhelming number of actors conducting food security programs in Haiti is almost impossible to track. A number of small-scale projects operate with funding from grants and private donations; obviously, this report cannot embrace them all. Not detailed in this report, for example, are groups such as: (1) Plan International, which provided 1,500 families with daily meals during January 2010 (and perhaps after);(2) Lutheran World Relief, which distributed food, seeds, and tools (amounts unknown) after the earthquake, and targeted roughly 8,000 beneficiaries with CFW; (3) Samaritan's Purse, which locally procured 10 MT of maize and beans after the earthquake for distribution, and later distributed on behalf of WFP; and (4) Welthungerhilf, which provided food rations to 1,200 families during the two weeks following the earthquake (OneResponse, 2011).

[13] These estimates include partner operations. MCHN/PLWA activities are not listed as having a target number of beneficiaries.

[14] One past partner of WFP noted that his agency no longer works with the organization due to WFP's unpredictability and/or tardiness; for example, some CFW payments in a 2009 program were delayed by three months.

[15] Targeted general distribution rations included one month of beans, two weeks of rice, and CSB, oil, and salt.

In 2010, ACF targeted 800,000 people in Port-au-Prince, Artibonite, and Nord-Ouest (ACF, 2010) with food aid. Activities included MCHN food distributions, breast-feeding and malnutrition education/trainings, WASH activities, nutrition education/outreach with the Ministry of Health, cash donations, tool distribution, and CFW.
In 2010, ACF distributed 47,000 food rations (from January to June), and 14,000 basic essential kits. ACF distributed US$1.5 million to 17,000 people in Port-au-Prince through CFW activities (February through October), and distributed additional CFW funding for 5,000 families in Gonaives. In the same year, ACF distributed 43,447 food vouchers (equal to US$1.5 million) to 15,000 families in Port-au-Prince, and gave cash donations totaling US$450,000 to 5,000 elderly, disabled, or sick people in Port-au-Prince (ACF, 2010).

- **Save the Children.** Save the Children conducts food security programs in the Central and Artibonite provinces. Activities include MCHN, community health/nutrition improvement programs, cash and voucher distribution, CFW, and improved agricultural production and marketing programs (Save the Children, 2011). In 2010, Save the Children distributed food to nearly 300,000 beneficiaries (Save the Children, 2010).
- **CARE.** After the earthquake, CARE immediately began distributing high-energy biscuits from its warehouses; by the end of January the organization had distributed a total of 60,000 emergency meals. The organization also distributed emergency rations in Port-au-Prince, on behalf of WFP (OneResponse, 2011). The organization's five-year earthquake response includes MCHN health and training, CFW, WASH activities, and construction, among other interventions.
- **Operation Blessing.** Operation Blessing distributes food kits that reach an estimated 4,500 Haitians per day (NGO Aid Map, 2011). It makes part of its donations in partnership with WFP; the remaining resources come from 17 other partner groups.

2.3.1. Other Actors

Food for the Poor. Food for the Poor has been in Haiti since 1986, and currently runs 121 projects (Food for the Poor, 2011). The organization is currently conducting food distribution as well as local procurement. In partnership with USAID, Food for the Poor has signed a Memorandum of Understanding (MOU) to purchase 3,000 MT of cereals from local producers in the USAID WINNER project. Food for the Poor partners with other organizations, schools, orphanages, and churches to distribute food rations to an estimated 25,000 people per day. About 80% of their distributions are take-home rations and 20% are hot meals.

The organization also distributes seeds for fruit trees and vegetables, undertakes a large amount of construction work, and participates in agricultural and community development, animal husbandry, and sanitation projects. The program works closely with Feed My Starving Children, another NGO that distributed 32.9 million meals in Haiti in 2009/2010 (FMSC, Annual Report 2010).

Stop Hunger Now. Since the 2010 earthquake struck, Stop Hunger Now has been distributing packed meals in Haiti, mostly through school feeding. Main locales of operation include Port-au-Prince, Léogane, Delmas, Jacmel, Cap-Haitian, and Croix-des-Bouquets. For 2011, the organization has distributed about 3,000,000 meals as of July. Meal packets are created in the US, and include rice, soy-protein, dehydrated vegetables, and vitamin flavoring packets. School feeding accounts for most distribution activities. Most funding for Stop Hunger Now comes through individuals, rotary groups, and churches. Stop Hunger Now partners with local NGOs such as Hearts and Hands for Haiti, Mission of Hope Haiti, and Haiti Outreach Ministries.

During the five to six months following the earthquake, the organization had shipped over five million pre-packaged meals to Haiti (Stop Hunger Now, 2010), and by the close of 2010 had distributed an estimated 8.78 million meals, along with roughly 300 MT of food, mostly near Port-au-Prince.

Oxfam. As of January first 2011, Oxfam is helping 1.2 million people in Haiti (Oxfam, 2011). Projects include CFW, water/sanitation activities, construction and rubble removal, and food/seed distribution.

In 2010, Oxfam provided food, cash, and tools to nearly 42,000 families (Oxfam, 2011). In addition, the organization provided 10,000 families with "food kits" consisting of locally-sourced foods including plantains, local rice, beans, maize meal, and yams. In the two months following the earthquake, Oxfam provided local vendors with cash grants to feed almost 20,000 people with hot meals (Oxfam, 2011). The organization also provided cash/basic needs grants of US$125-US$250 to roughly 26,000 families during 2010 (Oxfam, 2011). Twenty thousand beneficiaries received food (cereals and peas) and seed, and 7,000 beneficiaries received agricultural tool kits.

Life for Relief and Development. Life for Relief and Development is an Arab/Muslim-American organization that distributes food and medicine throughout Haiti. Since the earthquake, the organization has donated over US$500,000 in the form of distributed food.[16] Activities are centered around Port-au-Prince, and include food baskets, meat distribution (in coordination with the Eid ul-Adha holiday), and hot meal distribution. Food baskets contain imported rice, black beans, oil, milk powder, tomato paste, macaroni, sugar, salt, and other spices, and typically last about one month. Most of the group's funding comes from international partners; funding is also received from national partners and private donations.

World Concern. In 2010, World Concern distributed emergency food rations and cash, and provided farmer training. World Concern's CFW program employed over 7,000 Haitians, whose activities included building more than 1,200 houses and transitional shelters (World Concern, 2011).

[16] This aid is reported here as a dollar amount because the organization is unable to provide the quantities of food distributed.

Chapter 3. Ports, Transport, and Storage

3.1. Introduction

This Chapter reviews the adequacy of ports, storage and inland transport for the purposes of a FY12 Bellmon determination for Haiti. The specific questions addressed in this Chapter are:

1. What is the current capacity of Haitian ports, storage facilities, and inland transport?
2. What are the lasting impacts of the January 2010 earthquake on the availability and practicality of available ports, storage, and transport supply across the country?
3. What are current conditions at ports, storage, and transport that Title II Awardees are now using, and are most likely to use, during the next Title II cycle?
4. Is there any capacity for barging in-country (i.e., using secondary ports to transport goods in-country once goods are received in Port-au-Prince or Cap Haitien)?
5. What form does food aid arrive in: bulk or containers?
6. Does US food assistance arrive via the port in Cap Haitien?
7. Given the current conditions of ports, storage, and transport in country, should Title II Awardees work in a consortium in the future? [17]

The findings in this Chapter are based on (a) field visits to ports around the country; (b) meetings and interviews with Awardees; (c) meetings with key stakeholders in Port-au-Prince (PaP), Cap Haitien, Les Cayes, Jacmel, Hinche, Mirebalais, Gonaives, and Saint Marc; and (d) a review of secondary data and reports.

This Chapter begins with an overview of conditions related to ports, inland transport, and storage, and then addresses each topic specifically.

3.2. Overview of Ports, Inland Transport, and Storage

Although the International Public Port of Port-au-Prince (IPPP) suffered major damage from the January 2010 earthquake, it has quickly regained capacity and is the likely option for food aid delivery to Haiti. In fact, the Public Port is currently the only suitable port for shipping significant quantities of containers to those parts of the country that are accessible from the Port-au-Prince area (i.e., all but the Cap Haitien area). Goods destined for the Cap Haitien area should be shipped to that port, because the roads leading to and from that area are in poor condition.

The majority of food aid arrives bagged and containerized via the IPPP. ACDI/VOCA, CRS, and World Vision receive all of their food aid there. WFP receives the majority of its food aid via the IPPP, but also receives some in Cap Haitien.

The port at Lafiteau is the preferred delivery point for bulk shipments of wheat because this port is owned by the country's sole wheat mill, Les Moulins d'Haiti (LMH), and allows for discharge directly into the mill's facilities.

[17] USAID was also interested in finding out if one of the institutional logistical support contractors now used by Awardees (specifically, BND and IMT) offered a better value over the other. In part because of the different services they offer and cost structures they employ, BEST has not yet been able to definitively determine which offered the better value as of this report's publication.

Regional *cabotage*[18] ports are available for shipments of smaller volumes. However, these regional ports are more expensive and time consuming, and should only be considered when roads are unavailable or heavily damaged.

Customs procedures are often changed without notice to market actors. Therefore, it may be useful for Awardees to have seasoned brokers on staff who are very familiar with the procedures, and are able to (1) monitor changes in regulations and (2) assess how changes affect importing procedures. Having dedicated customs staff may also offer other efficiencies: they would be in position to attend to some procedures, and smooth them out, before the vessel arrives, and are likely to know who must be paid and when—since this is not always clear.

Road networks in the Port-au-Prince area remain poor, and gridlock is a major problem. In recent years, road infrastructure has apparently improved on primary roads outside the capital, but secondary roads still need attention and will likely not improve in the foreseeable future. Thus, inland transport from Port-au-Prince to major towns is quicker and safer than it has been in the recent past, but shipping to rural areas away from the main roads is slow and often done on very poor roads.

There appears to be sufficient covered warehouse space for present needs. However, if demand for covered space spikes, it is uncertain whether sufficient excess capacity exists in the Port-au-Prince area—or for that matter, elsewhere in the country. Vacant land is available for goods that do not require covered storage, although security for open air storage will be problematic.

Generally, BEST field data suggest that Awardee organizations believe there are advantages to be gained by collaborating on some aspects of their work rather than working independently. For example, the following benefits were mentioned on several occasions:

- By coordinating their pipelines, organizations would be assured that all goods arrive together at the port, and that all can be cleared at a single time. This means that less overall effort would be needed to corral the various essential actors required to break the seals of imported containers.
- Collaborating would allow organizations to (a) decrease individual risk when importing goods, (b) improve administrative efficiency, and (c) share resources and combined expertise.

3.3. Ports

Haiti has about 20 ports; the IPPP is the largest port in the country and is publicly owned. All other ports in the Port-au-Prince area are privately owned. The second largest public port in the country is located in Cap Haitien. The IPPP and Cap Haitien public ports are International Ship and Port Security (ISPS) certified, as are many of the private in-country ports; some *cabotage* ports are ISPS certified as well.[19,20]

[18] For the remainder of this chapter, this word will not be italicized.

[19] ISPS certification is important. International shipping companies–especially US companies–refuse to ship to ports that do not have current ISPS certification, because their insurance companies will not insure them for loss incurred at those ports.

[20] ISPS-certified ports include the IPPP, Terminal Varreux, Ciment du Sud, the Terminal Pétrolier de Thor, the Cimenterie Nationale, Lafiteau (Les Moulins d'Haiti), the Port International du Cap-Haïtien, and Saint-Marc. ISPS certification has been received for other ports as well (Gonaives, Jacmel, Miragoâne, Port-de-Paix et Terminal Gonaives S.A.), but the current status of their certification is unclear (APN, 2009).

Goods arriving in Port-au-Prince are generally transported out to the city or regions by truck, but the system of cabotage ports exists for regional domestic waterborne trade.[21] Typically, *cabotage* ports handle only a relatively small volume of trade. This is because running shipments through them is costlier and more time consuming than transporting by truck (at least when roads are available and in good condition).

All Title II food aid for distribution arrives via containers at the IPPP.

3.3.1. Institutional Environment

The National Port Authority (APN – *Autorité Portuaire Nationale*) oversees the port sector. The APN was originally created in 1956, and its role and authority has evolved over time. From 1985 to 2007, the APN oversaw the direction, control, and operation of all ports within the Republic of Haiti (International Finance Corporation, 2010). Before 2007, the APN managed and controlled all ports; it now primarily administers outsourced services that are provided by the private sector. However, the APN retains sole authority over what types of services may be offered at what locations.

The APN's activities are overseen by the Haitian Maritime and Navigation Service (SEMANAH – *Service Maritime et de Navigation d'Haïti*). The maritime agents that serve the port work together via the Maritime Association of Haiti (AMARH – *Association Maritime d'Haïti*) and perform most of the activities at the IPPP. AMARH sets the rates for stevedoring and demurrage (TranSystems, 2009).

3.3.2. Customs Procedures

The earthquake rendered the IPPP completely unusable. With assistance from the US Marines, the port was able to resume receiving containers January 22, 2011, and a regular flow of goods was assured in February 2011.

The earthquake severely disrupted customs processing; for several months, it became commonplace for goods to take 45 days or longer to clear customs (Seaboard Maritime, 2011). Clearing customs now takes approximately two weeks—at least for experienced importers who understand the importing regulations and duties that must be paid (AGEMAR, 2011), (Seaboard Maritime, 2011). The procedures for clearing customs are not always clear to all market actors however, and rules and regulations occasionally change without notice (WFP, 2011), (GOAL, 2011). Experienced importers can generally able to clear their goods much more quickly than those who are not familiar with the system.[22]

Non-food items can take considerably longer. CRS reported that it has experienced delays of up to one year to clear some items, such as vehicles (CRS, 2011). A logistician from a major international nonprofit explained that over 100 of the 600 vehicles her organization imported spent over a year and a half in customs. Her organization spent over US$15 million in customs and port-related fees, in addition to car rental fees as a result of not being able to use the vehicles awaiting customs clearance.

Most organizations prefer containers over break bulk because of the security they provide.

All containers imported into Haiti must be inspected on opening. In order to open containers, organizations must have a representative of the marine shipping line present, as well as a representative of the certification company (SGS), a customs official, and a representative of the importer. Coordinating all four of these can be quite difficult and time consuming; that is why

[21] Although, as implied by their ISPS certification, some cabotage ports do accept international commerce.

[22] Some actors reported that it took as long as one month or more to clear food items.

Awardees have noted a potential benefit in working together: if they import their goods together, it decreases the number of times they need to coordinate bringing these parties together.

3.3.3. Description of Ports

The predominant majority of goods handled at Haitian ports are handled at ports within the Port-au-Prince area (International Finance Corporation, 2010). The International Public Port of Port au Prince handled approximately 2.9 million MT of goods in 2009-2010.[23] Of the approximately 3.1 million MT of goods handled by all Haitian ports in 2008–2009, only approximately 165,500 MT were handled by the *cabotage* ports.[24] It has been estimated that the port in Cap Haitien handles 10% of all imports arriving in country, but the Director of that port's operations believes this estimate is somewhat high (APN, 2011).[25]

According to APN data, the IPPP handled 58,101 containers for import in the 2009-2010 period weighing 974,372 MT; in the same period it handled 1.9 million MT of non-containerized imports. It exported 48,437 containers weighing 64,801 MT; no exports of non-containerized goods were handled in the period. Details on imports and exports are not available for the 2009-2010 period, but they are available for previous periods. A summary of import statistics for 2008-2009 follows.[26]

Table 2. Breakdown of Tonnage Handled at Haitian Ports 2008-2009 (Metric Tons, 000's)

Type	Imports	Exports	Total
Containerized	938.9	105.7	1044.6
Consumer Bulk	217	-	217
Commercial Bulk	153	3	156
NGO Bulk	1,056	-	1,056
Liquid Bulk	729	-	729
Total	**3,094**	**109**	**3,203**

(International Finance Corporation, 2010)

Table 3. 2008–2009 Cabotage Port Cargo and Vessel Call Statistics[27]

Port	Vessel Calls (No.)	Percentage	Cargo unloaded (MT)	Percentage Total
La Saline	129	9%	110,851	67%
Cayes	6	0%	8,961	5%
Saint-Marc	34	2%	64	0%
Jeremie	78	6%	19,125	12%
Port de Paix	15	1%	5,328	3%
Jacmel	-	0%	-	0%
La Gonave	312	23%	-	0%
Carries	456	33%	10,009	6%
Anse d' Hainault	236	17%	1,123	1%
Corial	86	6%	-	0%
Pett-Goave	10	1%	5,730	3%
Gonaives	10	1%	4,302	3%
Total	**1,372**	**100%**	**165,493**	**100%**

[23] Figures for 2010-2011 are not available at this time.

[24] Updated, detailed figures on the cabotage ports are not available at this time. However, given the condition of most cabotage ports in country, it seems unlikely that this figure would have changed significantly (the time of crisis immediately following the earthquake notwithstanding when the IPPP was not available).

[25] The Director did not have precise figures available however, and BEST is still awaiting updated historical data as of the date of this publication .

[26] The APN has not yet responded to requests for up-to-date figures on import volumes and types.

[27] Updated statistics for these ports have not been made available at the time of publication.

(International Finance Corporation, 2010)

It is very expensive to import goods into Haiti. A detail of fees follows.

Table 4. Port Fees[28]

Fee	Cost	Unit
Pilotage	$5	Per food of draft
Pilotage: Surcharge	$15	Per ship move
Pilotage: Pilot Boat	$150/$75	First hour/add'l hour
Port Dues	$.03	Per Gross Ton
Light Dues	$0.18	Per Gross Ton
Dockage	$0.07	Per Gross Ton
Wharfage[29,30]	$310	Per TEU[31]
Stevedoring: import 20-ft	$485/$185[32]	Per TEU
Stevedoring: import 40-ft	$485/$270[33]	Per FEU
Floating dock fee	$260/$150/$100/$0[34]	Per TEU

3.3.4. Port au Prince Cluster

There are six separate ports that operate within the Port-au-Prince area. Collectively referred to as the "Port-au-Prince Cluster," they handle the large majority of goods arriving in Haiti (International Finance Corporation, 2010). There are accommodations for dry bulk, Ro-Ro,[35] and container vessels in the bay, although there has been an emphasis on container traffic in recent years (IHS Fairplay Sea-Sentinal, 2010).

International Public Port of Port-au-Prince (IPPP). The IPPP is the main general cargo port in the country. Prior to the earthquake, the country relied on the IPPP for 90% of its container imports (WFP, 2011). It handles containers, general cargo, and bulk; it does not handle fuel or liquid bulk. It is owned by the Government of Haiti (GoH) and is directly managed by the APN.

The IPPP has been described as a "cash cow" for the country and is one of the most expensive ports in the Western Hemisphere (CNN, 2010), if not the world (Palm Beach Post, 2010).

Port Capacity – IPPP

The IPPP operates on a first come, first served basis. The port had a capacity of approximately 250 containers per day prior to the earthquake, but with repairs made and floating barges installed in the ensuing months,[36] the port has been able to handle as many as 600 containers in a day (Montreal Gazette, 2010). WFP has estimated throughput to be approximately 300 TEU

[28] Source for all fees except floating dock fee: TranSystems, 2009; source for floating dock fee: OPR, 2011.

[29] The wharfage fee was described as a "tax" by two key stakeholders during in person conversations. They contended that no services were provided in exchange for this fee.

[30] This fee is exceptionally high in relation to wharfage fees for other ports in the region and has been described as a "significant cost burden for Haitian importers and exporters" (TranSystems, 2009).

[31] Twenty-foot Equivalent Unit - a container approximately 20 feet in length, as opposed to a container that is approximately 40 feet in length (or FEU, which is equal to approximately two TEUs).

[32] The first figure is for the IPPP, the latter for Terminal Varreux (if that port's plans for a container terminal come to fruition; the port does not currently handle containers.

[33] As above, the first figure is for the IPPP, the latter for Terminal Varreux.

[34] Order of fees: commercial/non-profit/goods for assembly/exports.

[35] Roll-on/roll-off (RORO or ro-ro) ships are designed to carry wheeled cargo such as automobiles, trucks, semi-trailer trucks, trailers, or railroad cars that are driven on and off the ship on their own wheels. This is in contrast to lo-lo (lift on-lift off) vessels, which use a crane to load and unload cargo. (Wikipedia)

[36] Discussed below.

per day (WFP, 2011), although port management estimates current capacity to be between 600 and 700 TEU per day.[37]

The port itself did not own a gantry crane for loading and unloading containers from vessels. A joint venture to purchase that crane, the United Port Operators (OPR – *Operateurs Portuaires Reunis*), was launched in 2009 by all three container terminal operators and 14 other investors. The group purchased the crane toward the end of 2009 and rented it out to shipping lines to load and unload the vessels. Unfortunately, this arrangement lasted less than two months before the country was struck by the 2010 earthquake. The gantry crane was destroyed with the earthquake, along with most of both piers and all covered warehousing at the port.

The US Marines installed two 400-foot floating barges to temporarily serve as floating piers until the infrastructure at the port could be rebuilt. The Marines handed over control of the floating barges to OPR a few months later, on April 15, 2010. To cover operating expenses, OPR imposed the fee noted in the table above[38] for container movements that made use of the barges. A third barge was introduced in October 2010 (OPR, 2011).

After port operations were resumed following the earthquake, vessels frequently experienced delays of up to 24 hours prior to being served; this has been reduced to approximately 5 hours (AGEMAR, 2011). One key stakeholder explained that the addition of the third floating barge in October of 2010 allowed the port to accommodate three ships at a time, even though its actual pier space is shorter than prior to the earthquake (Baussan, 2011).[39]

The port has three container terminals where different operators have space. These terminals are known locally as Haiti Terminal, CIMEX, and IMT.

APN management provided the following current details for the port:[40]

- Pier Length: 200 m (reduced from 500 before the earthquake)
- Floating piers: 3 piers 400ft long x 100 ft wide
- Draft: 7-9m
- Open warehousing space: approximately 80,000 sq. m[41]
- Covered warehousing space was destroyed in the earthquake (APN, 2011)

The port is ISPS[42] certified.

[37] Port management did state that the port handled 6,295 TEU in the month of June 2011, which equals approximately 210 containers handled (imported and exported) per day; this was a decrease of 22% from May, when it handled approximately 8,070 containers (or about 270 containers per day) (APN, 2011). The summer months are the slow season for the port and BEST is awaiting data from APN to confirm how many containers the port handled toward the end of 2010, as this is when the height of activities supposedly occurs at the port.

[38] Listed as "floating dock" fee. This structure will be in place until the port is able to reconstruct the damaged piers. Once repairs are complete, the floating barges will no longer be needed and will be returned. While APN management feels confident that repairs could be done relatively quickly, they did not appear confident that the government would be able to quickly approve the budget necessary to allow them to do that work (APN, 2011). Another major stakeholder believes that floating barges would be needed, in and kept in place, for at least another two years.

[39] This does not seem to be the case, however: the third barge only arrived in October. The port was able to attain twice the throughput of pre-earthquake levels within a month after the earthquake, following the installation of the first two floating barges by the US Marines. BEST is awaiting clarification on this matter from APN.

[40] BEST is awaiting further details on port capacity as of submission of this report.

[41] Reduced from 85,000 sq. m prior to the earthquake (International Finance Corporation, 2010).

[42] ISPS certification is important. International shipping companies–especially US companies–refuse to ship to ports that do not have current ISPS certification, because their insurance companies will not insure them for loss incurred at those ports.

Bagging – IPPP

The port has capacity to bag commodities that arrive in bulk. The bagging equipment is owned by a private company and must be hired on an ad hoc basis. Unloading bulk commodities appears slow, however, because the port lacks a vacuator to pull goods directly from vessels. A 16,000 MT vessel takes approximately 7 days to unload.

Storage Capacity – IPPP

The port lost its covered storage facilities during the earthquake. There are plans to rebuild covered storage when plans for extensive repairs are finally put into place—but this will not likely happen in the near future. There is substantial open air storage at the port, generally run by the private container terminals. Prior to the earthquake, the port had the storage facilities described in the table below.[43]

Table 5. IPPP Pre-earthquake Facilities

Facilities Operator	Area (sq-m)
Antillean D' Haiti	12,916
IMT - III	49,188
IMT - III (2)	13,500
IMT-II	39,108
Saint Joseph Terminal & Warehouse	32,914
La Haiti Terminal S.A.	81,141
Maritime Logistics Haiti S.A.	33,097
Cimex (Seaboard) S.A.	24,763
NABAICO S.A.	7,520
EMMARCALDA S.A. II	10,200
Le Grand Das Store et Import Export	3,073
Insurance & Steamship	21,149
Total Leased Area	**328,569**

(International Finance Corporation, 2010)

Security – IPPP

Security is reportedly highest at Haiti Terminal. CIMEX, where Seaboard operates, is directly adjacent to the Cité Soleil slum, and is located in the part of Port-au-Prince known as "Kosovo," one of the most dangerous in the city. Security there was an issue with shipments made during the 2010 wheat monetization: buyers would not strip containers in the terminal because of security concerns, and instead shipped them to the buyer's warehouse for stripping (WVI, 2010). Security conditions appear to have improved as part of the overall general improvement in Haiti following the earthquake—but security concerns could ratchet considerably in the event of another major disaster.

Tugging and Towing – IPPP

The port has tugging and towing capacity. These services are outsourced to private companies.

Seasonality and Priority of Goods – IPPP

There is some fluctuation in seasonal demand, with demand increasing from approximately mid-August, following the resumption of the school year, into December for the holidays; at that time demand decreases until approximately mid-May (Seaboard Maritime, 2011).

APR management reported that food aid is given priority at the port (APN, 2011).

Demurrage – IPPP

[43] Updated details on this not available at time of publications.

The above table on fees (Table 4) does not include demurrage fees,[44] which are incurred only when a container stays past its initial free period in a storage yard. These fees vary according to the maritime company that is contracted to handle the container.

As previously mentioned, following the earthquake, delays of up to 45 days were frequent to clear containers through customs (Seaboard Maritime, 2011). Clearing time has been reduced to approximately two weeks for most organizations (Seaboard Maritime, 2011), although some organizations take longer than others (AGEMAR, 2011). Nonetheless, the manager of one container terminal has noted that his company was "flexible" when it came to demurrage times and rates, whereas other terminal operators were more rigid in enforcing demurrage fees.[45]

The table below provides an overview of the number of days goods are allowed to remain in storage without paying demurrage, and the cost per day beyond that period, which varies by shipping line, as noted above.

Table 6. Demurrage Fees (DECSA)

Company	Days allotted	Cost per day TEU/FEU ($USD)
Hapag Lloyd	10	$75/$95
Zim	17	$50/$70
Hambourg Sud, CGM et CSAV	15	$30/$50
Other Lines	17	$20/$30

(ACDI/VOCA, 2011)

Terminal Varreux. Terminal Varreux[46] is an option for bringing general cargo into Haiti. It is a multipurpose terminal that handles general cargo, liquids (such as fuel), and dry bulk goods. A privately owned port, it currently handles 70% of all liquid petro-chemicals coming into the country (SunSentinal.com, 2010).

The owners of Terminal Varreux aspire to build a container terminal at the port (American Shipper, 2010). It seems unlikely that these plans will come to pass, because (1) the APN has the sole authority to determine what type of cargo ports can handle and (2) the influential group AMARH has asserted that there is not enough demand in country to sustain two competing container ports[47]. If this investment is ultimately approved, it could introduce competition into the container shipping business in Haiti—which might drive prices downward at the ports. Until that approval is given, however, the terminal will only be able to accommodate goods brought in as general cargo, not containerized goods.

Terminal Varreux suffered extensive damage due to the earthquake, losing two of its four piers and the majority of its berthing length. It is currently only able to accommodate vessels up to 7,000–8,000 MT in size, although this capacity would be enlarged considerably if the investment plan noted above was approved.

Terminal Varreux operates under a first in/first out plan.

- Berths: 2
- Length: 175m

[44] Demurrage fees are charged to encourage port efficiency by penalizing those who take undue time to clear their goods though customs.

[45] This statement was corroborated by one of the USAID partners, which indicated they were able to negotiate a longer free period for its imports because of the unreasonable time it was taking to clear goods through customs.

[46] Many of the ports in Haiti are known by several names. Terminal Varreux is also known by the names TEVASA (presumably an acromyn for "*Terminal Varreux S.A.*", HASCO, and Mevs (after the owners' surname).

[47] During a personal interview, the former president of AMARH said that this was stated in reports by the IFC and Alatech. However, BEST has not been able to acquire copies of these reports to confirm this.

- Depth: 9m
- Throughput: 825,000mt/year (2010 estimate)
- Capacity: vessels up to 7-8,000mt

(International Finance Corporation, 2010)

The port is ISPS certified.

Lafiteau. The port at Les Moulins d'Haiti (LMH), known as Lafiteau, is fitted to handle bulk commodities such as wheat and rice. LMH is the country's only flour mill. Although the mill was destroyed and the port sustained damage, Lafiteau was able to support the importation of general cargo soon after the earthquake, on temporary permit from the APN (International Finance Corporation, 2010). The port had not been rebuilt as of the time of the BEST team visit at the end of June 2011; however, construction of the new pier was slated to begin approximately end of July 2011 and should be completed by October 2011 (LMH, 2011),[48] which is well in advance of the slated reopening date for the mill on December 15, 2011.

Lafiteau is physically connected to LMH and will be installing new equipment that will expand its previous capacity to remove bulk goods. Instead of installing a vacuator to replace the one lost with the earthquake, the management plans to utilize a number of "grabs" and a series of hoppers and conveyors to unload and ship bulk goods from incoming vessels to storage and the mill (LMH, 2011). While the port will continue to receive only approximately one vessel per month, when construction has completed, unloading capacity at Lafiteau will stand at approximately 400 MT per hour, which is nearly double the capacity before the earthquake (LMH, 2011). At this improved rate, it will take only approximately 3–4 days to unload a vessel of approximately 10,000 MT. Port management noted that it should be able to receive ships that are as large as or larger than before the earthquake.[49]

The mill contains storage for approximately 15,000 MT of bulk goods; this capacity has not changed from before the earthquake. LMH management contends that although the silos are not ventilated, storage conditions are "reasonably good," and throughput will be such that this would not be a factor affecting commodity shelf life. Also, all wheat received is fumigated on arrival.

LMH management has claimed—without corroborating data—that wheat flour produced in Haiti is the cheapest in the Latin America and Caribbean region, second only to Mexico; they believe they can take advantage of this and begin exporting wheat flour regionally.

- Piers: 1
- Pier length: 78m
- Berth Draft: 9m
- Open Storage Area: 2,700 sq. m

(International Finance Corporation, 2010)

The port is ISPS certified.

Southern Cement (aka Terminal Abraham). Southern Cement, known locally as Terminal Abraham,[50] is a private port that handles oil and cement products as well as bulk materials and general cargo. It has hoppers and clamshells to handle bulk materials. While the port does not own a crane, it subcontracts to a company that has two cranes capable of handling 50 MT each.

[48] Unless otherwise noted, all information here is based on an in-person interview with mill manager Christian Fucina that took place June 30, 2011.

[49] However, no details were provided as to the exact size of vessels the port should be able to receive.

[50] Apparently after the first name of the original owner.

The port has two warehouses of approximately 2,000 sq. m, and a third of approximately 2,500 sq. m. The port owners own a construction company and would be able to build additional construction if the demand existed.

The owner states he has handled goods for WFP in the past but prioritizes the importation of cement (Khawly, 2011). Additionally, he states he expects to build another pier of approximately 150 m within the next two years.

- Pier: 1 (International Finance Corporation, 2010),
- Pier length: 140m (Khawly, 2011)
- Berths: 2 (International Finance Corporation, 2010)
- Berth Draft: 12-14m (Khawly, 2011)

The port is ISPS certified.

Other ports in the Port-au-Prince area. There are a small number of other ports in the Port-au-Prince area that are ISPS certified but generally would not be suitable for shipments of food assistance. For example:

1. National Cement (aka Fond Mombin Pier). National Cement is owned and run by Cimenterie Nationale S.E.M. and handles primarily cement and aggregate.[51]
2. Shell Doc (aka Thor Terminal) handles primarily petroleum products.

3.3.5. Cap Haitien

The port of Cap Haitien is the second largest public port in Haiti. As with the IPPP, Cap Haitien Port is overseen by the APN but contracts out many of its services to private companies (International Finance Corporation, 2010).

Some believe that the port of Cap Haitien is under-utilized and has surplus capacity (Baussan, 2011). However, Cap Haitien does not offer a practical option for transporting imports to areas outside the immediate region to the north, because the roads connecting the city to Gonaives to the west and Hinche to the south are poor and impractical for transporting large volumes of goods. Moreover, the port's director has said that he was "not confident" about plans to connect the city with the rest of country by good roads in the near future. On the other hand, the port can be an option for handling goods destined for programming in the north, and WFP does use the port for that purpose.[52]

The port typically handles approximately 300 containers per month (APN, 2011). The private container terminal has two mobile cranes which, while somewhat old, are functioning (APN, 2011). Half of the ships arriving at the port carry containers with a mix of cargo types (APN, 2011). According to the port director, each vessel contains 40 containers and the rest of the cargo is frequently second-hand vehicles (APN, 2011).

- Berths: 4, but can accommodate 3 vessels at one time (WFP, 2011)
- Berth Length: 550m of commercial dock (International Finance Corporation, 2010)
- RoRo Ramp: 30 m wide (APN, 2011)
- Draft: approximately 8.5 - 9m (APN, 2011)
- Covered Storage: 2,210 sq. m (International Finance Corporation, 2010)
- Dedicated Container Storage: 45,000 sq. m (International Finance Corporation, 2010)
- Cranes: 2 mobile cranes (WFP, 2011)

[51] Aggregate is granular mineral material (such as sand, gravel, crushed stone) used with a bonding medium (such as cement or clay) to make concrete, plaster, or terrazzo mixture. (BusinessDictionary.com, 2011)

[52] BEST is awaiting confirmation of details on the volume of goods that WFP imports via the Cap Haitien port.

- Throughput: approximately 4-5 vessels per week (APN, 2011)

The port also contains the following facilities for cabotage:

- Pier: 100m in length
- Draft: 3.5 m

(APN, 2008)[53]

The port is ISPS certified.

3.3.6. Cabotage Ports

USAID expressed interest in capacity at the regional cabotage ports around the country. The BEST team spoke with Awardees and stakeholders on this subject and visited several cabotage in an effort to assess their capacity, and the practicality of shipping goods between Port-au-Prince and the cabotage ports, or between the cabotage ports themselves.

USAID Awardees generally felt that some capacity exists in the ports for shipping goods to and between the cabotage ports, but that it is almost always a second-best option when road transportation is available.

CRS is using the cabotage port in Les Cayes for shipments to Ile à Vache and Jeremie and has shipped to Mirogoane in the past (CRS, 2011). World Vision is using Terminal Varreux for shipments to Ile de la Gonâve (WVI, 2011).

The cabotage ports generally seem to be small, under-resourced, and in poor shape.

A description of some of the country's cabotage ports follows.

3.3.7. Les Cayes

The port in Les Cayes is small and in very poor shape. A new pier is currently under construction for official use by the police and the Coast Guard.[54] Vessels are not able to harbor directly at the port: goods must be offloaded and brought to pier for manual unloading by row boats (WFP, 2011).

Currently, the harbor has no handling equipment, including equipment for handling bulk commodities (WFP, 2011). There is a customs office at the entrance to the port (WFP, 2011).[55]

- Berths: 1 (currently not suitable for berthing however)
- Draft: 4m (new pier)

(WFP, 2011)

3.3.8. Jacmel

The International Port of Jacmel has one pier that can accommodate small- and medium-sized vessels (WFP, 2011). It is managed by the APN (WFP, 2011). Immediately after the earthquake, one ship arrived daily from Santo Domingo; traffic has since decreased significantly, and a ship now calls at the port approximately once every six to eight weeks (WFP, 2011).

Cargo arrives containerized or in break-bulk (WFP, 2011).

[53] BEST has requested more current information from APN.

[54] As of the writing of this report, authorities have not responded to inquiries regarding the details of the new pier.

[55] BEST is awaiting further details from APN on capacity for the port at les Cayes.

Few services or facilities are available at the port. It has no equipment for unloading containers, and has no mobile cranes or forklifts; vessels hailing there must have their own unloading equipment on board (WFP, 2011). Furthermore, the port has no silos or grain elevators, and handling must be contracted out to private companies (WFP, 2011). Furthermore, except for one small, dust-covered warehouse that seems to have served as a customs clearing warehouse (and which has been out of use for years), the port has no warehousing or other storage facilities.

- Pier Length: 106m
- Width of Pier: 5m
- Depth: 2m

(International Finance Corporation, 2010)

3.3.9. Gonaives

There are two ports in Gonaives—a public port and a private port. The public port is out of use due to disrepair and heavy silting (APN, 2011), although its parking lot is still used for customs purposes for vehicles imported from the private pier (WFP, 2011).

The private port, known as "TEGOSA",[56] is owned by the same owners as Terminal Varreux and the Shodecosa warehouse, is operational. It was originally built to handle the export of aggregates such as copper ore, marble and limestone (WIN Group, 2011). It has a deep draft (between 10–14m) and approximately 6,000 sq. ft. of covered storage (WIN Group, 2011). Storage facilities appear to be in adequate, if not in excellent, condition. The port can handle cement, containers, vehicles, and break bulk cargo (WIN Group, 2011). There is one pier, and approximately 4–5 vessels call there each month (Terminal Gonaives, 2011). The road to the port is in very bad shape, and is prone to flooding during the rainy season; trucking over this road when it is flooded is not possible.

WFP uses the private port of Gonaives to import some of its goods for the region.

The private port's owners are interested in expanding its capacity, but this initiative has been placed on hold until other, more immediately profitable, investments are borne out, such as the West Indes Free Zone or transforming the Varreux port into a container terminal (WIN Group, 2011).

- Length of Pier: 30m
- Width: 15m
- Draft: 9 meters
- Warehouse: 6,000 sq. ft.

(International Finance Corporation, 2010)

The port is ISPS certified.

3.3.10. Saint-Marc

The cabotage port at Saint-Marc appeared to be a relatively busy one. It is primarily a RoRo port, although it can also receive LoLo[57] style vessels. One of the port's berths was blocked by a vessel that sank in place approximately 10 years ago and had not yet been moved. The port handles a variety of goods, such as rice, peas, mattresses, and electronic goods such as

[56] Presumably an acronym for *Terminal Gonaives, S.A.*

[57] Lift On/Lift Off – a style of container vessel where containers loaded and discharged over the top of the vessel using cranes or derricks (Globalsecurity.org).

televisions (APN, 2011). Prior to the 2010 earthquake, there had been plans to dredge the port; those plans have been taken off the table (APN, 2011).

There is no storage available at the port, nor are there any cranes available (APN, 2011). It can handle vessels carrying up to approximately 1,500 MT of goods.

- Berths: 3 (2 functional)
- Pier width: 60m
- Draft: 5.5m

(APN, 2011)

3.4. Transport

3.4.1. Road Conditions

Road conditions throughout Haiti are very poor. The government has few resources to build or maintain roads. Few are paved. Many that are paved are riddled with potholes. Port-au-Prince, the capital, is frequently gridlocked. Nonetheless, the previous administration made improving primary roads a priority and conditions outside PauP appear to have improved along major arteries.

Primary stakeholders did voice concern that secondary roads and feeder roads are not a priority and that these will remain undeveloped, thus hindering market access indefinitely for those far from primary routes. One stakeholder in the construction industry expressed concern that resources were not being devoted to the areas that needed it most, and felt that no comprehensive needs assessment had been done to address the country's many needs, and in what priority.

3.4.2. Availability of Transport

It is difficult to approximate the number of trucks currently available in-country for transport. Common consensus seems to be that there was a shortage of trucking prior to the earthquake and markedly increased demand for transportation of goods and services following the earthquake.[58] But since then, there has been a glut of transportation providers available. Price data are not available to confirm whether current shipping rates have decreased to reflect this increase in supply.

Organizations appear to prefer transporting goods to their warehouses via a through bill of lading. Done this way, the maritime shipping companies are responsible for transporting goods to those warehouses and the organizations do not need to send trucks to the ports to pick them up. In fact, based on its experience with the wheat flour monetization of 2010, World Vision highly recommends using a through bill of lading to transport goods to Awardees' warehousing space.[59]

Trucking companies typically use aging Mack trucks from the US for inland transport. Parts and tools for repair are generally available, but if not available locally can be ordered from the US (Khawly, 2011). One major trucking company observed that it was not the age of the truck that

[58] CRS noted this in its 2010 MYAP Annual Results Report.

[59] World Vision explains the many challenges that organizations experienced in trying to get vendors to come to the port to pick up the goods they had purchased after the price of the commodity had dropped. Vendors preferred to let the goods sit at the port, hoping the commodity would increase in value, before coming to pick it up. However, in doing so, they forced WV to incur significant demurrage fees. (WVI, 2010)

mattered, but only whether it would last on the roads in Haiti. That company, which has grown aggressively since being founded only 15 years ago and is now one of the few large trucking companies in country, exclusively purchases used Mack trucks from the US and ships them to Haiti for use (Natrans, 2011).

Transport companies seem able to meet increases in demand by subcontracting other drivers and trucks for deliveries when needed.[60] Almost all stakeholders have confirmed that sufficient transportation options were available in Haiti, and almost across the board indicated that even if the need for transportation increased by as much as 50–%60% (WFP, 2011), the transportation sector would be able to respond and adequately meet needs.

3.4.3. Small Companies

There are few large transport companies in the country, and those that exist are based in the Port-au-Prince region. WFP Cap Haitien noted that there were no major transport companies in its area, and contracts out exclusively to individuals (WFP, 2011).

When large trucking companies are available, their services are generally preferred for a number of reasons (Natrans, 2011), including:

- The availability of a large number of trucks and various hauling capacities.
- A list of satisfied customers as references.
- Assurance that their vehicles are reliable, or in case of a breakdown or accident, that they can replace or repair the vehicle and ensure delivery.

The trucking company Natrans noted that while they rarely underbid other companies in-country, there was a strong demand for the timely, reliable transportation that only a large, well-resourced company could offer (Natrans, 2011).

3.4.4. Security and Theft

CRS has pointed out that in previous years it used their own truck fleet to ship goods from warehouses to distribution points. These trucks were branded with the CRS logo. However, this meant that in-country food aid shipments were easily recognizable—and many were hijacked. CRS has since switched to using private companies for its deliveries and theft has declined dramatically. CRS thus feels strongly that contracting out shipping, and using anonymous vehicles, is a best practice.

Awardees also protected themselves via their contracts with transportation companies. The contracts stated that if losses occurred during transport, the transport company would be responsible—in short, they would not be paid unless the goods were delivered. This helped guarantee food delivery, and performance reviews when bidding for future contracts were routinely cited as a motivating factor for transport companies to keep losses to a minimum.

ACDI/VOCA[61] and CRS also include contract clauses stating that trucks must be in sanitary and hygienic condition at the time of transport (ACDI/VOCA, 2011) (CRS, 2011). Drivers for ACDI/VOCA's shipments also must agree (1) that they will not ship hazardous goods in their vehicles at any time (even when not shipping food assistance) and (2) that when on runs to distribution centers for ACDI/VOCA, they will ship only goods for food distribution by ACDI/VOCA; they may not ship goods for other customers at the same time (BND, 2011).

[60] Awardees felt that this would not affect certainty of product delivery, because it was the company that was taking the risk by hiring these other drivers, and their performance under contract was an important factor when they applied for future contracts.

[61] Via its logistical contractor, BND.

3.4.5. Cost

Awardees generally reported that they were satisfied with their current transport companies and expressed confidence that their goods would be delivered as scheduled with minimum losses. But this confidence does not come without cost. According to their own estimates, Awardees generally paid 1.25–1.5 times the going market rate for transportation. Awardees pay more because of the above-mentioned clauses they include in their trucking contracts, such as passing on responsibility for lost goods to the trucking company (which is not normally the case for trucking in Haiti).[62]

3.4.6. Destinations for Food Aid, as Listed on Bill of Lading

As noted above, all Title II food aid commodities for distribution are shipped via containers and are received at the IPPP.

The table below details the final destination of Title II commodities. Locations outside Port-au-Prince would have received their goods via a through bill of lading from the IPPP. Port-au-Prince (which includes the port of Lafiteau, where bulk commodities for monetization would be sent) has been the destination of the large majority of food assistance. The table below does not include shipments of food for WFP.

Table 7. Destinations for Title II Food Shipments, as Listed on Bill of Lading

Location	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	Grand Total
Gonaives	3,332	886	70			4,288
Lafiteau	55,644	41,925	34,502	45,451		177,522
Les Cayes	3,762	3,206	7,237	3,969	8,512	26,686
Port au Prince	9,575	8,207	27,407	30,359	85,254	160,801
Grand Totals	**72,314**	**54,224**	**69,215**	**79,779**	**93,766**	**369,298**

(USDA, 2011)[63]

The table below details the destination of US-sourced food shipments received by WFP. It shows that while Port-au-Prince receives the majority of food aid from the US, it is not always a large majority.[64]

Table 8. Destination for WFP Food Aid Received from the US

Year	Sub-Office	MT	Percent of Yearly Total
2011	Cap Haitien	2,179.8	16%
2011	Gonaives_New	3,655.4	27%
2011	Hinche	1.5	0%
2011	Jacmel	1,129.4	8%
2011	Les Cayes	1,203.5	9%
2011	Port-Au-Prince	5,310.4	39%
2011 Total		**13,480.0**	**100%**
2010	Cap Haitien	6,603.6	8%
2010	Gonaives_New	14,093.0	18%
2010	Jacmel	4,409.6	6%
2010	Leogane	77.3	0%

[62] Owners usually travel with the goods and are responsible for losses because shippers carry goods for several merchants at the same time (Bayard, 2011).

[63] This table contains data as reported by USDA. USDA states these data comprise all food aid shipments sent by the USG for a given fiscal year, but there have been instances where they did not agree with data from other USG sources. However, these are the only available data that detail the final destination as stated on the bill of lading for food aid shipments. BEST is seeking other data to corroborate this.

[64] BEST has requested data detailing shipments of food aid for all donors. This request is still pending.

Year	Sub-Office	MT	Percent of Yearly Total
2010	Les Cayes	3.5	0%
2010	Port-Au-Prince	54,579.3	68%
2010 Total		**79,766.2**	**100%**
2009	Cap Haitien	3,447.0	27%
2009	Gonaives_New	3,453.8	27%
2009	Jacmel	128.0	1%
2009	Port-Au-Prince	5,734.8	45%
2009 Total		**12,763.7**	**100%**
2008	Cap Haitien	2,775.7	22%
2008	Gonaives	2,646.4	21%
2008	Port-Au-Prince	7,142.9	57%
2008 Total		**25.2**	**100%**
2007	Cap Haitien	371.5	6%
2007	Port-Au-Prince	396.7	0%
2007 Total		**25.2**	**100%**
Grand Total		**118,971.5**	

(WFP, 2011)

3.4.7. Awardee Transportation Capacity (by Region)

Also as noted above, organizations generally ship their food aid goods from the port to their warehouses in the capital on a through-bill of lading.[65] From there, they use the larger trucking companies that are based in the Port-au-Prince area for shipments between those warehouses and the organizations' primary field warehouses, provided those field warehouses are easily accessible by good roads. If not, smaller companies with trucks more suitable for the roads are used. Food is shipped to distribution points from these field warehouses.

Port-au-Prince. For all of its trucking to regional warehouses, ACDI/VOCA contracts out to *Bureau de Nutrition et Développement* (BND). This arrangement helps promote efficiency, since BND also manages its warehousing space. Via its contracts, BND has trucks with capacity ranging from 12–15 MT.

CRS uses one trucking company for its shipments to les Cayes, with a fleet varying in capacity from 10 MT, 15 MT, 20 foot and 40 foot containers (CRS, 2011). World Vision uses two trucking companies (WVI, 2011).[66]

WFP has a fleet of approximately 29 trucks of varying hauling capacity (WFP, 2010).[67]

Les Cayes area. WFP has a very small fleet—consisting of two M6 (2.5 MT) trucks—which is managed by MSB.[68] MSB contracts out to local shipping companies for the majority of its shipping, but uses its own trucks when it is too costly to use the private sector, or for routes the private sector will not run.

CRS Les Cayes uses private shipping companies for between 85%–90% of its transportation. The organization is currently using two companies for its inland transportation. The organization only works with companies that have more than six trucks that can haul loads of between 20–30 MT each; currently, six companies meet those criteria.[69]

[65] This has the enhanced security of containers not yet being stripped: fewer people have had access to the goods inside.

[66] BEST is awaiting confirmation of the size of the fleet available to World Vision via these trucking companies.

[67] Confirmation of current trucking capacity is pending from WFP.

[68] A Swedish government emergency management agency.

[69] One stakeholder expressed concern that trucking companies may be colluding with one another to fix prices. BEST is seeking more information on this.

There appears to be some overlap between the companies transporting for WFP and CRS (WFP, 2011). At present, the overlap does not seem problematic. However, if the need for transport services increases significantly, conflict or congestion may result.

Cabotage

CRS also noted that it uses cabotage to ship to Ile à Vache and to Jeremie, and has shipped goods to Les Cayes via Mirogoâne in the past (though CRS is not currently doing this).[70]

Depending on the destination, CRS uses the port on a monthly basis (for some of its MCHN and Safety Net centers). It ships to others bi-monthly, depending on the centers' warehouse capacity, and still others on a quarterly basis (for its school feeding activities, for example (CRS, 2011). CRS has indicated that it would make more frequent use of the port if capacity was increased and if congestion was reduced, or if it was possible to unload containers there (CRS, 2011). It is unclear how construction at the port will affect deliveries and whether it will enable more or more frequent deliveries, given that, as noted above, the port is primarily intended for the police and Coast Guard.

Jacmel. WFP Jacmel maintains the inter-agency fleet at its base (WFP, 2011). The agency's fleet contains 16 M6 trucks of 2.5 MT capacity, and 1 "DAF" truck of approximately 12 MT capacity, for a total capacity of 52 MT (WFP, 2011). The agency works with four separate private contractors that have a total of 16 trucks, representing a total capacity of 212 MT (WFP, 2011). Company capacity ranges from 1 truck with a 12 MT capacity and 7 trucks for a total of 105 MT capacity (WFP, 2011). Between its own fleet and private contractors, WFP Jacmel has capacity to move 264 MT of goods.

ACDI/VOCA's logistical support contractor, BND, contracts out to local trucking companies for distributions from their warehouses in the region. In addition to this, ACDI/VOCA owns small two trucks in the region, both used by BND (ACDI/VOCA, 2011). One is maintained in Thiotte and the other in Côte de Fer (BND, 2011).

WFP noted that its M6 trucks dated from the 1950s and were in need of replacement, not only because they would break down, but because it was very difficult to secure replacement parts for them and they had to be very resourceful with available supplies to keep them running (WFP, 2011). Some trucks are on order to replace the aging fleet, but these would not fully replace the trucks in use (WFP, 2011).

Central Plateau. World Vision reported that there were approximately 25 transporters available in the local market, each able to move between 10–15 MT of goods (WVI, 2011).

Gonaives. WFP Gonaives maintains a fleet of 14 MT trucks, which are available locally for the humanitarian community (WFP, 2011). These trucks mainly serve areas in Artibonite and the north-west that are difficult to reach--and where commercial trucking companies may refuse to go (WFP, 2011). WFP has its own garage to fix and maintain vehicles (WFP, 2011). WFP also has contracts with seven different trucking companies (WFP, 2011), and notes that it has not had problems with shipping delays (WFP, 2011).

Cap Haitien. WFP Cape Haitien has a small fleet of 5 M6 trucks available for inter-agency use (WFP, 2011). As noted above, there are no major trucking companies in the area and WFP contracts with 24 individuals who own small trucks, each having approximately 2–3 MT of hauling capacity. According to WFP, these individuals are generally reliable (WFP, 2011).

[70] Details on frequency and tonnage are not yet available.

3.5. Storage Capacity

The general sentiment among partners was that although they had sufficient storage space to meet current needs, they would not necessarily have sufficient space to meet storage needs in the event of another large-scale emergency like the earthquake of 2010.

The major findings of the BEST team were:

- Partners generally use a hub and spoke system for storage and distribution.
- The Shodecosa compound is adequate for current needs, but expensive, and management is slow to make repairs.
- Outside of Shodecosa, there is a lack of available warehousing space. When available, storage space is expensive.
- Open land is available in the Port-au-Prince area, but needs to be developed.
- The private sector is interested in investing in warehousing, but only with assurance of demand.
- Security is an issue for many.

A discussion of food storage systems, by location and partner, follows.

3.5.1. Country-wide

All partners have storage in the Port-au-Prince area as well as in their general areas of operation. They use a hub and spoke system of distribution, where a main warehouse is used to store goods until they are shipped out to another location.

At present, covered warehousing is generally in short supply,[71] although in and around the Port-au-Prince area, large tracts of undeveloped land are available. On the other hand, few if any new warehouses are being built.

Developers are generally seeking commitment from potential customers before building new warehouse space, whether to enable project financing or simply to confirm that sufficient demand exists to justify the investment.

Security is also a concern in some parts of Port-au-Prince and some parts of the city are not suitable for storing food goods.

3.5.2. Port-au-Prince

The majority of warehouse space for Title II Awardees is located in the Shodecosa industrial compound, the largest privately owned industrial and commercial park in the country (WIN Group, 2011). Other storage is available in the city, but covered warehousing space is lacking, and security can be an issue. By most accounts, prices throughout the region are excessive, and many would consider using other options if they were available.

Shodecosa:

- *Adequate for current needs and slow to make repairs:* ACDI/VOCA, CRS, and World Vision all previously shared warehouse space in the Shodecosa industrial compound in

[71] This is not always the case, however. With the end of their SYAP, CRS is currently reviewing whether the organization would need to continue using all of the storage it had taken on for the program (which would then allow the excess to return to the market). Additionally, World Vision also opined that storage space was generally available in the communities of the Central Plateau if it needed additional storage space for its activities there (WVI, 2011). This covered storage would generally be found in community centers and churches (WVI, 2011) and would likely not meet general requirements for lighting and ventilation, but would nonetheless suffice should the need arise.

Port-au-Prince, which is managed by the IMT group. The shared compound lost approximately 2,000 MT of storage due to damage from the earthquake. Because of the space lost from the earthquake and the sudden increase in beneficiary needs, the shared compound no longer had sufficient space for all of ACDI/VOCA's storage needs in Port-au-Prince (ACDI/VOCA, 2011). The organization thus sought its own warehouse in Shodecosa, and now contracts out the management of its warehouse to BND.
World Vision and C RS continue to share space in the Shodecosa compound. Both organizations seem relatively content with the warehouse management services provided by IMT, and hi re separate trucking companies to ship their goods to their regional warehouses.

- *Expensive:* ACDI/VOCA pointed out that following its move, it has paid significantly less than it would have paid under the previous agreement and yet has far more storage available; its current arrangement seems cheaper overall (ACDI/VOCA, 2011). The organization also stated that IMT is charging a very high management rate, and that its senior management commands a large portion of the budget (ACDI/VOCA, 2011). Nonetheless, the organization hopes that it will be possible to join the other organizations in a single warehouse in the future because of the potential to be more "efficient, cost effective, and most important safe" (ACDI/VOCA, 2011) in the event of another earthquake or major disaster.
  All partners expressed frustration with the manner in which Shodecosa management raised rental rates unilaterally following the earthquake—prices rose from US$1.5 to US$6 per square foot as of January 1, 2011. The WIN Group contended that the US$1.5 rate was well below market rate[72] and the increased rate was necessary if they were going to repair the damaged parts of the compound. Not all facilities within the compound have been r epaired as of July 2011, when BEST visited the compound; management estimated it would be anot her 12 t o 18 m onths before repairs were complete (WIN Group, 2011).

Port-au-Prince, generally:

- *Lack of space:* Outside of Shodecosa, there is a lack of available warehousing space. All stakeholders spoke of a shortage of warehousing supply in Haiti generally and in Port-au-Prince in particular. Many felt constrained to use Shodecosa because of lack of other options. And when other options do exist, they are not always suitable for storing high-demand goods such as food. ACDI/VOCA is actively searching for a new location outside the compound with sufficient space that could house all three groups for a reasonable price.[73]
- *Space is available is expensive:* A logistics officer for the International Federation of the Red Cross spoke of the "excessive prices" that landlords are charging for space. As noted above, most Title II awardees complained of the Shodecosa management quadrupling the price of storage; however, other space in the city does not appear less expensive than Shodecosa's current rates.

[72] This was corroborated by one commodity manager working for an Awardee , as well as through several interviews with people in the construction sector, who contended that the market rate for new, built warehousing was at least $5 per square foot ("it would not be profitable for $3.5–$4.5 per square foot…" (Baussan, 2011), and likely between $5.5 (Emmarcolda, 2011) and $12–$15 per square foot (V&F Construction, 2011).

[73] However, a warehouse big enough to accommodate all three organizations would need a capacity of at least 12,000–15,000 MT (ACDI/VOCA, 2011).

- *Open land is available in the Port-au-Prince area, but needs to be developed*: Large tracts of vacant land are available in the Port-au-Prince area, but for organizations that need covered warehousing space, it must be developed.
- *Security is an issue*. CRS expressed that its facility at Petit Place Cazeau was a nice one, but the organization refused to store food there because of poor security conditions—it has been sacked twice, once in 1991 and again in 2004. The warehouse manager for an international GOAL said that its drivers did not want to drive to its facility in the Gressier arrondissement of Port-au-Prince because of poor security.[74]
- *The private sector is interested in investing in warehousing*, but only with assurance of demand. Investors are hesitant to build space before commitments are made to rent from them. In addition to ensuring that they would have a source of income to lock in some return on their investment, investors are looking for commitments they could use to obtain loans for financing the facilities they are looking to build. Investors such as Jeff d'Adesky, Edouard Baussan, Dominique Vorbe and others[75] have expressed interest in building to meet the needs of groups needing warehousing space. All said they would charge going market rates for such space. The WIN Group also has several plans in the works to build storage in the city as well—its West Indies Free Zone, for example.

3.5.3. Outside Port-au-Prince

- *ACDI/VOCA* has a total of 4 warehouses in the South-East department, some of them in remote locations. It generally ships to its main warehouse in the Shodecosa compound in Port-au-Prince on a through bill of lading, and from there ships to these satellite warehouses. All 4 warehouses are in good condition (ACDI/VOCA, 2011). Drivers under contract with ACDI/VOCA's logistical contractor transport goods directly to the satellite warehouses, where rations are packed according to beneficiary good, and sent from the satellite warehouses to the distribution site (ACDI/VOCA, 2011).
- *CRS* seems to have a relatively large network of satellite warehouses. With the introduction of the SYAP, the organization took on additional storage in Les Cayes. The majority of its storage facilities are in good conditions but some are dark, poorly ventilated and hot, and may not be appropriate for all commodities.[76] Commodities are frequently shipped to Les Cayes on a through bill of lading, or shipped from the Shodecosa warehouse. Goods are then either shipped to a satellite warehouse for distribution or shipped directly to the distribution centers.
  Other than the storage CRS is already using, CRS is not aware of any available storage offered by the private sector in its region of operation (CRS, 2011).
- *World Vision* ships goods directly via a bill of lading to warehouses in Mirebalais, Hinche, or Thomassique, and from there, on to regional warehouses, and then on to distribution centers.[77]
  As noted above, World Vision believes that storage is available in its region of operation generally, and if needed, in community centers and churches (WVI, 2011). These

[74] However, this same stakeholder expressed that she did not believe covered warehousing space was necessary, and that security was more a question of management and coordination. Organizations could generally deal with poor security provided they adequately planned for it. She gave the following example: using containers to enclose an area, they can be arranged so that the front outside corner of a container is touching the back inside corner of the container in front of it, forming a zigzag wall to the outside. The perimeter of the area is closed off to the outside but the doors to the containers are still accessible from the inside. Guards can survey the surroundings from atop the containers and thus maintain security from above.

[75] Such as Baussan's other partners at the Airport Industrial Park.

[76] See discussion below for comments on how these conditions may not be appropriate for all commodities.

[77] This is not indicated in the above table of data from USDA (Table 10). BEST is seeking clarification from WV and USDA.

locations will not conform to the specifications generally required for storage, but they are available and low in cost. It should also be noted that World Vision owns the land where its primary storage has been built in the region (Hinche). WV has observed that this is greatly preferable for efficiently managing the space.

- *WFP* maintains a network of warehouses throughout the country, a good deal of which is available for inter-agency use. Nonetheless, there are still areas where WFP feels its capacity could be increased. For example, WFP Les Cayes noted that it still needed an additional 5,000 MT of storage capacity in order to adequately respond in the event of another emergency (WFP, 2011).

Table 9. MYAP Storage (by Partner)

Organization	Warehouse	City	Capacity (MT)	Ownership Status	Cond.	Note
ACDI/VOCA	Belle Anse	Belle Anse	150	Rented	Good	
ACDI/VOCA	Ricot	Cotes de Fer	200	Rented	Good	
ACDI/VOCA	Shodecosa	Port-au-Prince	3,000	Rented	Fair	Ventilation system damaged from earthquake
ACDI/VOCA	Thiotte	Thiotte	150	Rented	Good	
ACDI/VOCA	Thiotte	Thiotte	100	Rented	Good	
CRS	Batimat	PaP	700	Rented	Good	
CRS	Bergeaud	Les Cayes	900		Good	
CRS	Borgella 1	Les Cayes	400	Rented	Good	
CRS	Borgella 2	Les Cayes	300	Rented	Fair	
CRS	Brefette	Les Cayes	380	Rented	Good	
CRS	Depot de Charpentier	Les Cayes	1,640	Rented	Good	
CRS	Gabions	Les Cayes	2,400	Owned	Good	
CRS	Plastec	Port-au-Prince	500	Rented	Fair	
CRS	Petit Place Cazeau	Port-au-Prince	1,200	Owned	Good	Security not sufficient to store food
CRS	Rubhalls On Stock	Port-au-Prince	1,800		Good	
WV/CRS	Shodecosa	Port-au-Prince	8,000	Rented	Good/Fair	
WV	Airport Road, former Dilyan garment factory	Port-au-Prince	7,000	Rented	Good	
WV	Anse A Galet	Anse A Galet	650	Rented	Good	
WV	Boucan Carre	Boucan Carre	255	Rented	Fair	
WV	Cerca Carvajal	Cerca Carvajal	70	Rented	Fair	
WV	Cerca La Source	Cerca La Source	80	Rented	Fair	
WV	Hinche	Hinche	1,200	Owned	Good	
WV	Hinche	Hinche	300	Rented	Fair	closed
WV	La Gonave	La Gonave	1,000	Rented	Good	
WV	Maissade	Maissade	80	Rented	Fair	
WV	Marchand Dessalines	Marchand Dessalines	80	Rented	Fair	
WV	Mare Sucrin	Mare Sucrin	70	Rented	Fair	
WV	Mirebalais	Mirebalais	300	Provided by community	Fair	Phasing out
WV	Mirebalais	Mirebalais	1,000	Provided by community		Newly constructed
WV	Petite Riviere	Petite Rivierre	70	Rented	Fair	
WV	Saltadere	Saltadere	70	Rented	Fair	
WV	Thomassique	Thomassique	650	Owned	Good	
WV	Ti Lory	Ti Lory	80	Rented	Fair	
WV	Ti Palmiste	Ti Palmiste	50	Rented	Fair	

Source: Awardees, BEST field interviews.

Table 10. WFP's Storage Capacity

City	Location	Capacity (MT)	Surface (sq. m)	Note
Cap Haitien	Port of Cap Haitien	800	600	
	2 concrete warehouses	6,500	3,300	
	4 mobile storage units	2,000		For inter-agency use
Jacmel	9 mobile storage units	3,000	2,480	
	1 Hurricane-proof warehouse	1,000		
Leogane	6 mobile storage units		1,920	
Les Cayes	1 concrete	1,155	550	
	2 mobile storage units	1,200		
	2 Hurricane-proof warehouse	1,100		Newly constructed
Port-au-Prince	Tabarre - 1 concrete; 2 jumbo tents	17,293	7,092	
	Delmas 2 – Concrete		7,858	
Gonaives	3 concrete	13,500	7,560	Large capacity needed in case roads get flooded and city gets cut off (as has happened in past)
	1 x MSU in Saint-Marc			

Source: WFP, BEST Field Interviews.

3.5.4. Other Issues Related to Storage

Other concerns relating to storage merit discussion.

- Attention needs to be given to the shelf life of food aid commodities, because they may spoil before reaching their intended beneficiaries. Although Haiti is relatively close to the United States, as pointed out above, its ports can be highly inefficient, particularly in times of crisis.
- The country's climate appears to be a factor for decreasing already short shelf lives for some commodities.
- USAID should provide advanced notice of changes in commodity packaging to Awardees prior to shipping, because this can have ramifications for their available storage.

These concerns are now addressed in greater detail.

Shelf life. Some commodities, such as wheat flour and CSB, seem poorly suited for the heat and humidity in parts of the country, decreasing shelf life. This problem often occurred during the wheat flour monetization of 2010, and World Vision's report is very clear in its recommendation: "the choice of the commodity to be monetized should be carefully considered, processed food commodities with shelf life less than 6 months is just not appropriate. Delivery from the port shall take more than 3 months" (WVI, 2010). World Vision highly recommends a through bill of lading when possible.

Time spent in pre-positioning can also be a factor affecting shelf life and may not be appropriate for commodities with very short shelf life. CRS and World Vision both experienced commodity losses for products shipped from pre-positioned warehouses (WVI, 2011), (CRS, 2011). CSB appears to have a shelf life of 3–4 months in some parts of the country, and wheat flour has a shelf life of 6 months if new, and 9 months under optimal conditions (WVI, 2011).

Climate. The climate in some parts of the country contributes to what appears to be an increased rate of spoilage. On numerous reported occasions, CSB spoiled well before its estimated expiry date in conditions which were not altogether ideal, but which were suitable for commodities in other locations (CRS, 2011). CRS attempted to resolve this by requesting WSB, which seems to more resistant to heat and humidity, but at times WSB has been in short supply —and CRS continued to receive CSB despite its requests. Further spoilage occurred.

Unannounced changes in packaging. At times, unannounced changes made to packaging have had impacts on available storage. Vegetable oil, for example, was previously shipped in metal canisters that were packaged together in boxes. The strength of these materials allows them to be stacked to a certain height before failing. CRS and WV explained that they received, unannounced, vegetable oil packaged in plastic containers. These containers cannot withstand the same load as the metal containers, and some of the plastic containers have ruptured while in storage. As a result, all three Awardees have changed their specifications for oil storage, employing lower and broader stacks to house the same volume of product (CRS, 2011), (ACDI/VOCA, 2011), (WVI, 2011). Storing to this specification now takes up more floor space in their warehouses, reducing the amount of space available for storing other goods. This was a problem for all Awardees, but proved to be particularly acute for ACDI/VOCA, since the organization had imported a large amount of oil for monetization (600 MT) (ACDI/VOCA, 2011). The timing for this was also unfortunate because of the increased demand, decreased supply, and increased prices for warehousing in-country following the earthquake. The organization faced major space constraints until it moved to the warehouse managed by BND in Shodecosa (ACDI/VOCA, 2011).

Chapter 4. Monetized Food Aid

4.1. Introduction

The goal of monetization is not only to fund development programs,[78] but also to "promote low cost, competitive food markets by encouraging investment in transportation, infrastructure and human capital (traders, entrepreneurs)," through the distribution of monetized product (USAID, 1988). Challenges to monetization abound, to the extent that some NGOs no longer want to participate in monetization activities. Monetization requires substantial knowledge of local markets and extensive management capacity, and is inherently risky—from procurement and shipping risks, to commodity-related financial trade risks, to potentially impacting local markets in negative ways.

This Chapter is intended to inform USAID in making its determination about whether monetization is appropriate for Haiti during FY2012 (FY12). Four critical areas of inquiry are covered:

1. How appropriate is monetization for Haiti during FY12?
2. If monetization is appropriate during FY12, which commodities are the most appropriate to monetize?
3. What is the approximate maximum feasible tonnage for each monetized commodity?
4. What special consideration (e.g. sales platform or timing of sales) should be taken into account when considering/undertaking monetization in Haiti?

The content of this analysis is broken into three core sections: initial commodity selection, commodity-specific market analysis, and monetization recommendation.

4.2. Initial Commodity Selection

The BEST study team performed a desk review to identify an initial set of commodities for study in this report. The selection is based on available trade statistics, previous Bellmon studies, review of other relevant country reports, and interviews with key informants during a June/July 2011 field visit. For the purpose of this study, in order for a particular commodity to qualify for selection and possible recommendation for monetization, the following six "tests" were applied:

1. Eligibility for export from the US.[79]
2. Eligibility for import to Haiti.
3. Significance of domestic demand.[80]

[78] According to the CRS Report for Congress: *Agriculture: A Glossary of Terms, Programs and Laws* (2005 Edition, Updated June 16 2005), "monetization" is defined as follows:
Monetization — A P.L. 480 provision (section 203) first included in the Food Security Act of 1985 (P.L. 99-198) that allows private voluntary organizations and cooperatives to sell a percentage of donated P.L. 480 commodities in the recipient country or in countries in the same region. Under section 203, private voluntary organizations or cooperatives are permitted to sell (i.e., monetize) for local currencies or dollars an amount of commodities equal to not less than 15% of the total amount of commodities distributed in any fiscal year in a country. The currency generated by these sales can then be used: to finance internal transportation, storage, or distribution of commodities; to implement development projects; or to invest and with the interest earned used to finance distribution costs or projects.

[79] This "test" implies that it is also on the FFP list of commodities approved for monetization.

4. Whether domestic supply shortfalls are filled through commercial imports and food aid.
5. Presence of adequate competition for the commodities.
6. Expectations that fair market prices can be achieved.[81]

Test 1: Eligibility for export from the US. All of the commodities discussed in this report are eligible for export from the US because they are (a) on the FFP import list and (b) commercially imported into Haiti. Based on this first test, this Bellmon analysis considers rice, wheat, wheat flour, vegetable oil (palm, soybean), beans, maize, and maize flour as potential candidates for monetization in FY12.

Test 2: Eligibility for import. None of the commodities discussed in this report are specifically barred from import into Haiti.

Test 3: Significance of domestic demand. To warrant importation and sale of monetized food aid, both local dietary preferences and available market information must strongly suggest that a commodity is consumed in significant amounts (i.e., there is significant demand), and that national production is insufficient to meet the demand (i.e., there is insufficient national supply to meet demand). National demand is estimated based on the latest five-year overall supply trends, equivalent to the sum of (1) domestic production and (2) net trade.

Test 4: Commercial import activity. All of the commodities discussed in this report have insufficient national supply to meet demand and therefore depend on imports and/or food aid to fill these supply shortfalls, except for maize and maize flour.

Test 5: Presence of adequate competition for the commodities. 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, it may be expected that a fair market price may be achieved.

Test 6: Expectation that fair market prices can be achieved. An import parity price (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 IPP 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.

This analysis adapts a common rule of thumb: monetized food aid should not exceed 10% of average yearly commercial import volumes. Based on the value of the average imports of the last five years, the table below lists the 10 food products with five-year average import values of greater than US$5 million and which also appear on the FFP list of products eligible for monetization during FY12.

[80] 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.

[81] Implicit in the above six "tests" is that the destination market must be able to absorb the volume of the monetized commodity in question without "substantial" disruption to that market. Recent precedent follows a 10% rule—that is, "substantial" disruption is assumed not to occur below a threshold of either 10% of commercial imports or 5% of the domestic production of any particular commodity if there is substantial domestic production. We will follow this convention throughout this analysis.

Table 11. Average Annual Import Value (Last Five Years) for Selected Commodities

Commodity	Average Value ($000) of Imports	Commercial imports?
Semi-milled and wholly milled rice	153,569	Yes
Wheat	50,584	Yes
Refined palm oil	45,546	Yes
Wheat flour	28,063	Yes
Refined soya-bean oil	22,831	Yes
Rice, husked (brown)	11,118	Yes
Dried beans	10,081	Yes
Rice, broken	8,981	Yes
Maize meal	8,886	Yes
Crude soya-bean oil	8,544	Yes

Source: ITC

Table 12 summarizes each of the first four tests. The remainder of this analysis will assess the ability of local markets to absorb rice, wheat, wheat flour, vegetable oil, and maize flour, because these are the only commodities that passed the first four tests. If it is determined that local markets are able to absorb 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).

Table 12. Initial Selection of Commodities Based on Tests 1–4

Commodity	Eligibility for Export from US	Eligibility for Import to Haiti	Significance of Domestic Demand	Deficit in Haiti?
Rice	Yes	Yes	Yes	Yes
Wheat	Yes	Yes	Yes	Yes
Vegetable oil	Yes	Yes	Yes	Yes
Wheat flour	Yes	Yes	Yes	Yes
Beans	Yes	Yes	Yes	Yes
Maize flour	Yes	Yes	Yes	No
Maize	Yes	Yes	Yes	No

4.3. Market Analysis – Rice

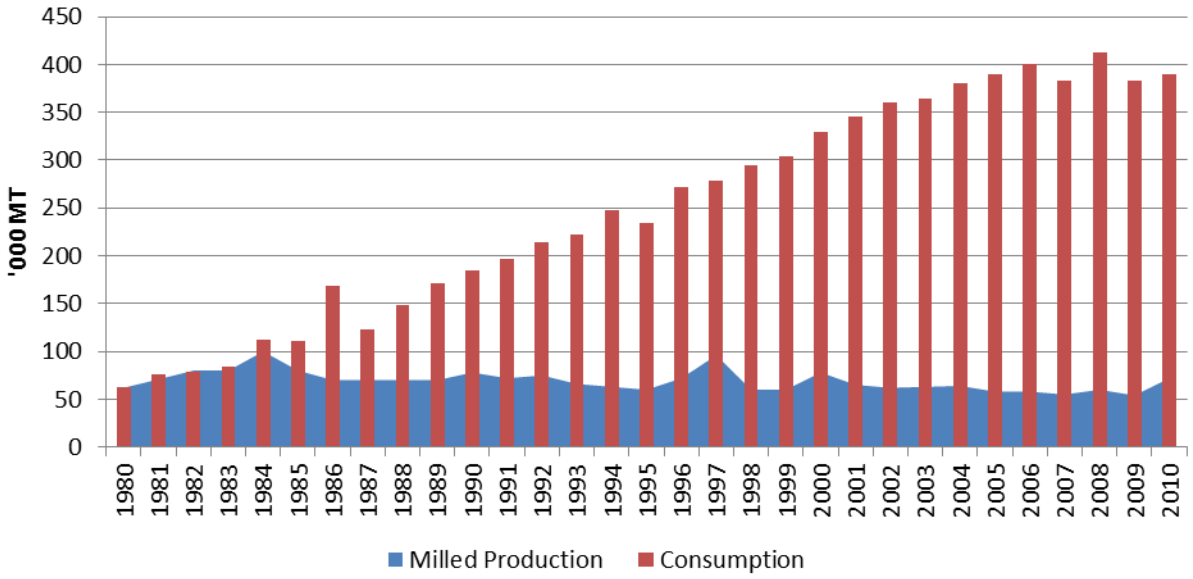
4.3.1. Domestic Production

As discussed in the BEST 2010 Haiti Market Analysis Report (2010 Haiti Market Analysis), rice production in Haiti has been stagnant for decades. Though the country once produced enough to meet its rice demands in the 1970s and mid-1980s, it can no longer do so. Stagnant rice production alongside an increasing population, and an increasing per capita rice consumption rate alongside increasing rice imports, have all contributed to the current state of Haiti's rice market, which depends on cheap imports. Producers, government officials, traders, and USDA all agree on an average production of figure of 70,000 MT per year (milled basis), for the past 25 years (USDA/FAS, 2010). Oxfam America estimates milled rice production in Haiti at 80,850 MT for 2010 (Oxfam America, February 2011).

4.3.2. External Trade

Imports. Since the mid-1980s, rice imports have gained ground at a highly accelerated pace over—and have long since surpassed—domestic production. Imported US rice is affordable and thus, more expensive local varieties struggle to compete (USDA/FAS, 2010). As a result, rice imports are necessary to meet Haiti's increasing domestic demand. The figure below shows the wide disparity between domestic milled production and domestic demand (consumption).

Figure 1. Rice Consumption and Milled Production



Source: FAS PS&D.

Haiti's rice production (paddy, husked brown, semi-milled, wholly-milled and broken) is about 455,000 MT[82] per year, of which an average of 68,000 MT to 89,000 MT is produced locally. As stated previously, the country is highly dependent on rice imports (mostly from the US), which account for about 82% of market share. According to ITC and Comtrade, an average of 379,000 MT of rice was imported in the past five years, with annual volumes ranging from 307,000 MT to 419,000 MT.

The majority of the rice market (approximately 70%) is held by six importers. These importers deal mostly in two varieties: long grain rice, and 4%broken rice from the US (USDA/FAS, 2010). Only about 10% to 15% of rice imports originate from other countries, mainly the DR, France, and Guyana. (COMTRADE) (ITC).

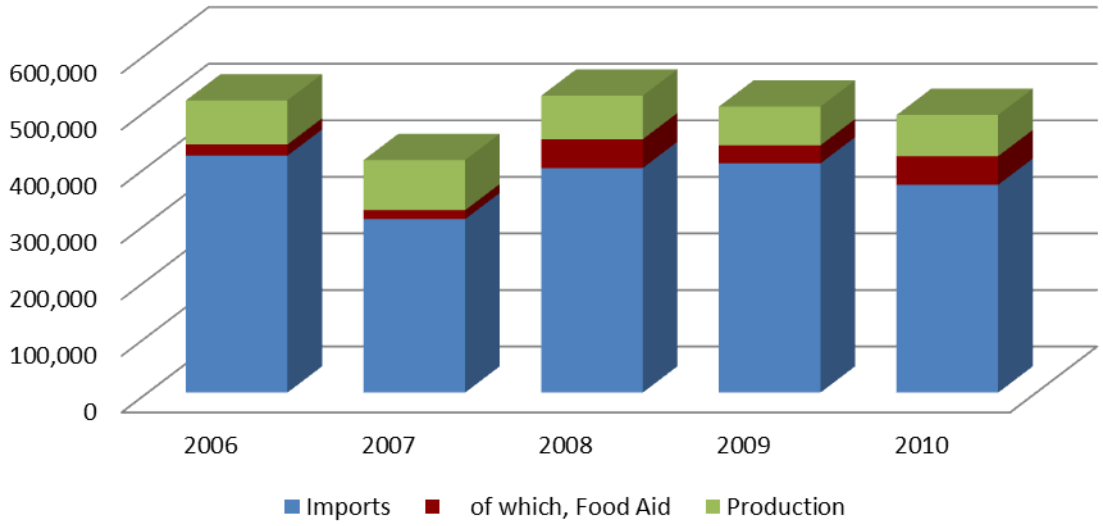
Food aid. Rice has not been used for Title II development food aid in Haiti, although it has been used for emergency programming. Following the January 2010 earthquake, which required a massive and immediate humanitarian response, large volumes of rice were donated by many donor countries and PVOs.

The 2010 Haiti Market Analysis concluded that donated food aid rice may have helped temper the rice price spikes that occurred in the immediately aftermath of the earthquake. Despite that port infrastructure is still under repair, which limits imports to some extent, prices in markets appear to have normalized and are now back to pre-earthquake levels. In May 2011, prices for imported rice were:

- 31% lower than prices in February 2010.
- 10% lower than prices in 2009.
- 26% lower than prices in July 2008, when spiraling prices in world markets led to riots in Haiti (and other countries).

[82] Rice imports numbers are average import statistics from Comtrade, FAO, ITC, and Haiti Customs.

Figure 2. Domestic Rice Supply (MT)



Source: Comtrade, WFP, and ITC.

4.3.3. Competitive Environment

As mentioned previously, the 2010 Haiti Market Analysis found that 6 large importers control 70% of all rice imports into Haiti. The other 30% are controlled by 14 smaller importers. Market prices depend on the prevailing price of rice on the world market, although some market players have the ability to influence rice prices at the importer level.

At the wholesale level, the number of market players varies from region to region. Some regions have a large number of wholesalers and others have only a few. In the latter regions, wholesalers may have enough market power to influence the market and may marginally benefit from the limited competition.

The retail level is the most competitive, with innumerable small market actors selling the same varieties of rice, at the same price. At this level, prices are determined mostly by the forces of supply and demand and not the activities of larger market players.

4.3.4. Recommendations

Based on technical grounds, there is adequate room to monetize Title II rice. However, the study team highly recommends against the monetization of rice for two reasons:

1. *Uncompetitive Market Environment.* Because a handful of market participants hold a significant amount of power in the imported rice market, this could create an uncompetitive market environment for Title II sales —and a fair market price may not be achieved. While market development is a reasonable motivation for rice monetization in Haiti, the market dynamics and political environment are unconducive to
2. *Perceptions Around US Rice Imports.* There is a strong perception that Haiti's rice industry has been profoundly and negatively impacted by US rice imports, which have increased rapidly since the 1980s—and thus created political sensitivity around the industry. Despite that the study team found local rice and imported rice to be two distinct commodities from the consumer's perspective, and despite that the team found the history around the increase in US rice imports to be a much more complex story than is

perpetuated in the media and popular thought, Title II monetization programs is not well-placed to change that perception.

4.4. Market Analysis – Wheat and Wheat Flour

4.4.1. Domestic Production

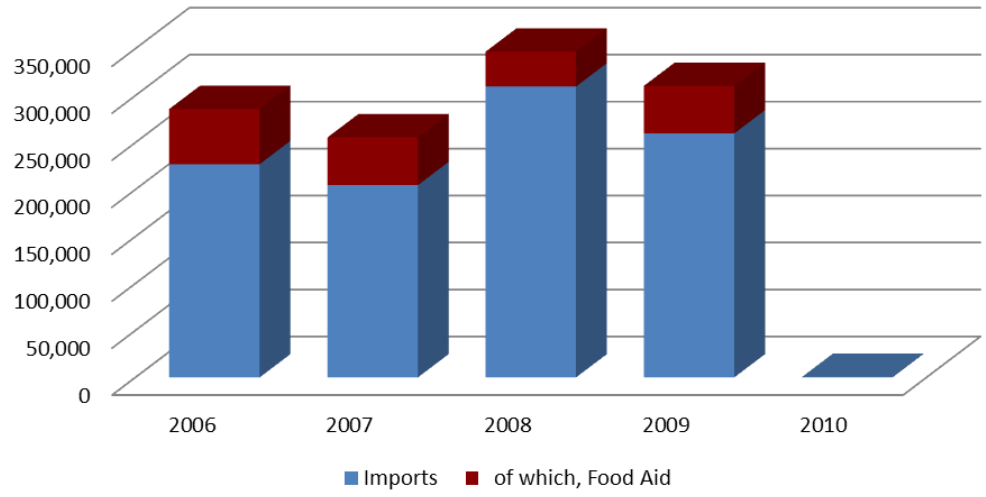
Haiti does not produce wheat grain due to climatic limitations. The country did have a mill--only one—to produce wheat flour, but it was damaged during the earthquake and, as of the date of publication, has not yet been replaced or restored.

4.4.2. External Trade

As stated in the 2010 Haiti Market Analysis, the majority of wheat imports originate from the US, because of quality, proximity, and price. Historically, Haiti has almost exclusively imported Hard Red Winter Wheat (HRWW), which is less expensive than other wheat varieties. In 2009, 67% of Haiti's wheat came from the US, 18% from France, 8% from Argentina, and 7% from Canada.

As reflected in Figure 3 below, Haiti's total wheat grain imports reached a high of 310,000 MT in 2008, but averaged about 200,000 MT during the 4 year period from 2006–2009. Of that average, about 49,000 MT per year was food aid. According to AMEX, no wheat grain food aid was received in 2010, which is expected given that after the earthquake, the country no longer had a functioning mill to produce flour.

Figure 3. Domestic Wheat Supply (MT)



Source: Comtrade, WFP, and ITC.

Sources in the field indicated that within days of the earthquake, private traders in Haiti were purchasing wheat flour in the DR with cash, and transporting it back into Haiti. Those sources also stated that within weeks, the two DR flour mills had hired more staff shifts and had increased US wheat imports to cover Haiti's needs. As a result, and as shown in Table 13, DR's wheat imports from the US climbed to 436,838 MT in 2010 from 238,651 MT in 2009—a 49% jump (ITC).

Table 13. Top Exporters of Wheat to the Dominican Republic

Exporters	2006	2007	2008	2009	2010
USA	354,741	453,106	540,607	221,390	436,838
Canada		29,044	27,656	11,727	16,994
France					3,492
Lebanon			3		
Germany	6,740	2,656		5,535	
Japan	5				
Panama	503				
Total (World)	**361,991**	**484,806**	**568,268**	**238,651**	**457,324**

Source: ITC.

While specific data are unavailable, current industry sources estimate that wheat flour imports from the DR range from 30,000 MT to 50,000 MT annually. Prior to the destruction of the mill, on average, wheat grain imports accounted for approximately 76% of total supply and domestic production of wheat flour accounted for approximately 25% of total supply.

Table 14. Wheat or Meslin Flour Exports from Dominican Republic to Haiti

	Value ($000)	Net Weight (MT)
2010	51,965	109,080
2009	20,574	40,323
2008	20,577	32,395
2007	14,387	32,373
2006	12,662	31,289
2005	6,785	18,818
2004	2,667	7,827
2003	997	5,690

Source: Comtrade.

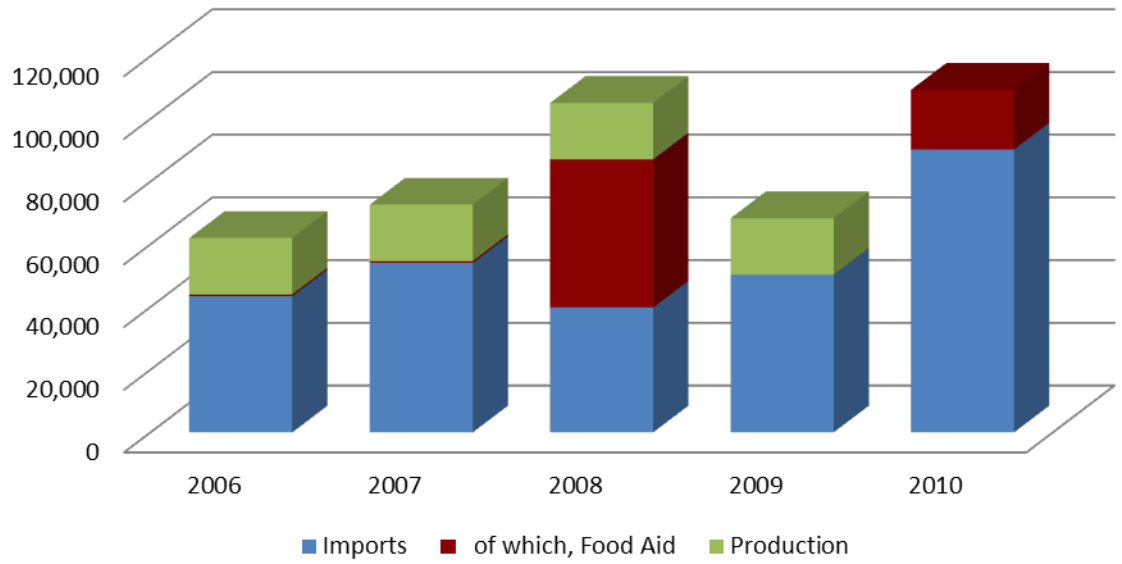
The earthquake disrupted Haiti's internal market for flour products and destroyed many bakeries and related outlets, leading to an overall decline in demand for wheat flour. Domestic supply (via imports) of wheat flour increased tremendously in 2010 as a result of the damage to the mill following the earthquake.

In recent interviews, officials of the country's only flour mill, Les Moulins D'Haiti (LMH), have said that demand decreased following the earthquake because of:

- Population loss from the earthquake.
- Population movement following the earthquake.
- Diminished baking capacity.
- Distributed food aid.

They believe that these combined factors reduced demand by about 30%. The director of LMH believes that the population of Haiti is now at pre-earthquake numbers, with a population growth rate of about 2% to 3% per year. Yet, LMH does not expect demand to attain pre-earthquake levels for another three years.

Figure 4. Domestic Wheat Flour Supply (MT)



Source: Comtrade, WFP, and ITC.

4.4.3. Competitive Environment

Prior to the earthquake, there was one wheat mill in Haiti, with smaller market actors competing for Haiti's wheat flour market (bakeries and end-consumers). These actors have minimal market share as compared with the largest wheat grain importer and wheat flour importers (LMH and donors). With the destruction of the mill in the earthquake, LMH also shifted to importing and distributing wheat flour.

The director of LMH believes that the mill should be operational by December 2011. In the interim, LMH is still importing and distributing wheat flour. Once the mill is back on line, the director of LMH expects to be milling about 1,200 MT of wheat flour per day. This would represent an increase in capacity of 10%–15% from before the earthquake.

LMH also has a port and is building a new pier, with construction beginning at the end of July. Construction is expected to take 65 days. With the new installation, LMH expects to produce the cheapest wheat flour in the region after Mexico.

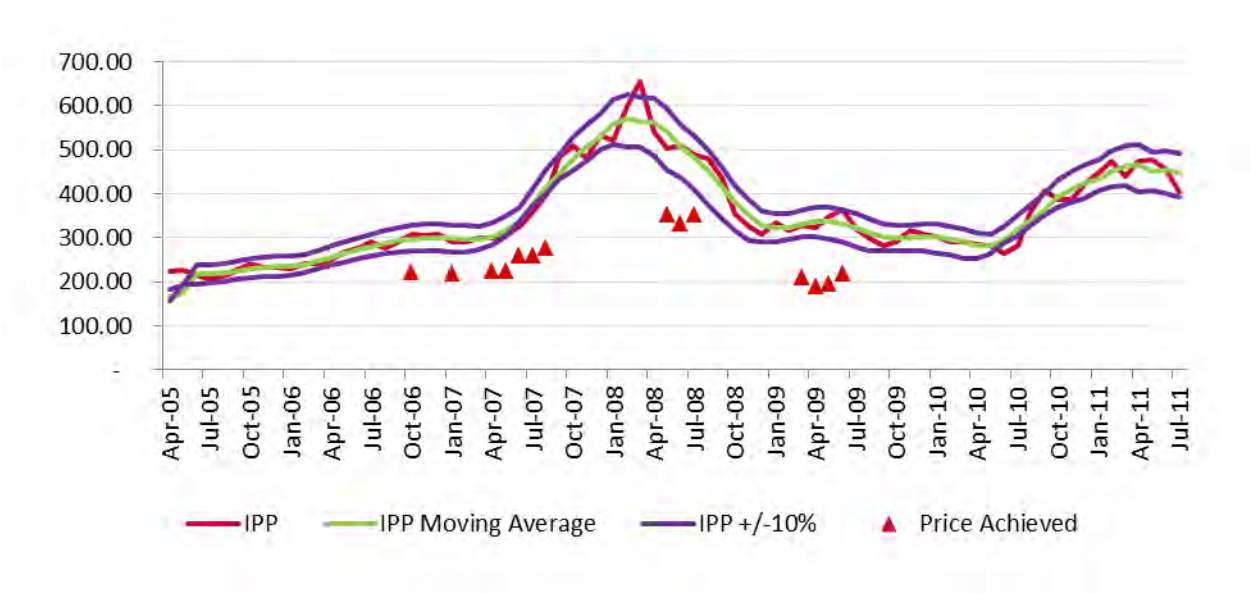
As indicated in the 2010 Haiti Market Analysis, the presence of numerous wheat flour importers might suggest a competitive market; however, one large importer has significant power to set prices at the wholesale level. This means that the smaller importers, regardless of their varying transaction costs, are essentially forced to match the price set by that single dominant importer.

4.4.4. Monetization Past Performance

Prior to the earthquake, CARE, Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI/VOCA), Catholic Relief Services (CRS), and World Vision (WV) all relied on the monetization of a single commodity: HRWW. CRS, SCF, and World Vision monetized HRWW between FY04 and FY08, with CRS as the lead agency on Title II monetization. In FY09-FY10, ACDI, CRS, and World Vision monetized wheat and wheat flour, with World Vision as the lead agency.

No monetization of wheat has occurred in Haiti from January 2010 (when the earthquake struck) to today, but before then, the prices achieved through monetization were consistently below average prices in the country. Figure 5 compares wheat monetization sales prices with the calculated IPP prices of wheat delivered on a CIF basis to Port-au-Prince. The graph shows that 2007 monetization transactions were, on average, 19% below the estimated IPP, and 2008 transactions were approximately 24% percent below IPP. In 2009, monetization prices averaged 33% below IPP.[1]

Figure 5. Comparison of Prices Achieved and Calculated IPP (Wheat)



Source: USDA/Agricultural Marketing Service, Government of Haiti, and Amex.

After LMH was destroyed in the earthquake, ACDI/VOCA, CRS, and World Vision partnered in the monetization of wheat flour, with World Vision as the lead agency. They monetized a total of 19,000 MT, which was shipped in four tranches. The wheat flour was sold directly to first- and second-tier distributors through open, competitive bidding.

According to World Vision, the Haiti Monetization Consortium planned to receive 19,000 MT of wheat flour as follows:

- 4,000 MT, first shipment between May 3 and May 13, 2010
- 5,500 MT, second shipment between June 4 and June 14, 2010
- 5,500 MT, third shipment between July 5 and July 15, 2010
- 4,000 MT, fourth shipment between August 6 and August 16, 2010

First shipment. The first shipment was scheduled to arrive on May 13, 2010. This shipment initially yielded a sales price of US$29 per bag, above the set floor price of US$27.07 per bag. However, the shipment was not delivered as scheduled--and in fact, arrival was delayed for about two months. The delay was attributed to the following:

[1] IPP calculated assuming no port charges. No cost of bagging and inland freight since LMH had its own port.

- The bags for wheat flour were marked "Not for Sale," and were therefore not appropriate for sale in Haiti. FFP considered re-bagging very expensive and decided to procure different wheat flour instead, which delayed operations.
- The new wheat flour needed to be fumigated before it could be shipped, which further delayed delivery.
- A change in the protein specification was requested, from 9% to 11.3%; however, this happened before the offers were received and was promptly corrected.

The two month delay in the expected arrival of the wheat flour directly affected the sales price offered by the buyers and the performance bond deposit with the Bureau of Monetization (BDM – *Bureau de Monetisation*). BDM stated that the buyers declined to maintain a performance bond of 20% with BDM for two months until the commodity was received. This was not in the interest of BDM and the Title II partners, given the price fluctuations in Haiti. BDM and the buyers reached an agreeable solution, where the buyers reduced the performance bond from 20% to 5%.

When the wheat flour arrived on June 24, 2010, buyers were asked to begin taking delivery after customs clearance. However, the buyers notified BDM that they were not willing to honor the contract, since the market situation had changed since their original bids—the price of wheat flour had fallen during the delay and therefore their bids were based on different market conditions. The buyers requested a price reduction in order to for the contracts to stand; the sale price was renegotiated and dropped to US$27.75 from the initial offer of US$29.

Second and third shipment. The second and third shipment of 11,000 MT was received and sold as one lot. Two boats (5,500 MT and 5,500 MT) arrived on July 22 and August 16, 2010 respectively. The BDM received six offers, two of which were successful. The 11,000 MT was sold at a price of US$28 per bag.

According to a World Vision report, the second shipment was challenged with an infestation problem. The buyers and BDM agreed to:

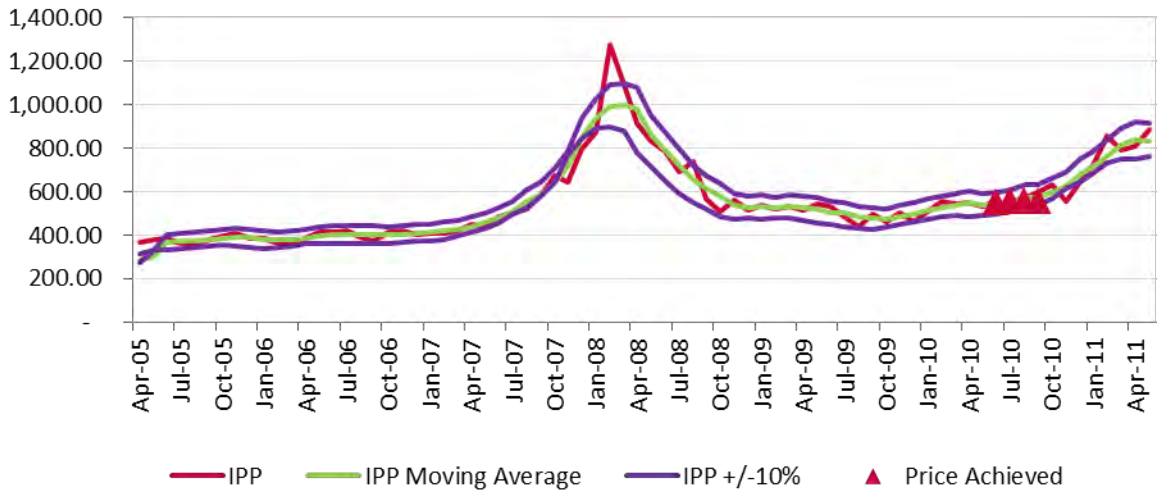
- Fumigate the containers at the seller's cost.
- Extend the delivery timeframe to reflect the fumigation time.
- Extend the letter of credit due date.

On a few occasions, un-fumigated containers were accidentally delivered to the buyer and had to be returned back to the yard for fumigation. It took two months to fumigate and deliver 276 containers, as port facilities were overwhelmed with shipments.

Port capacity was also a problem for the third shipment, though trucking capacity was not.

Fourth shipment. The last shipment of 4,000 MT arrived on September 8, 2010. Upon inspection, it was found that the containers were infested. World Vision suspects that the fumigation was not properly done at the load port or that fumigant was not effective. The containers were re-fumigated at the expense of their shipping line.

Figure 6. Comparison of Wheat Flour Prices Achieved and Calculated IPP



Source: USDA/ERS, Government of Haiti, and Amex.

The figure above shows that, on average, the 2010 monetization for wheat flour achieved a price very close to IPP, averaging about 0.5% below the IPP.[2] Reports from the field suggested that the buyers bought the flour at close to the floor price, which appears to have been set very close to the prevailing market price.

Interestingly, LMH described the 2010 wheat flour monetization as a "disaster." According to LMH, wheat flour monetization should have occurred through LMH: they are a single buyer with a 10-year history of purchasing for monetization, and with existing means of distributing—in one location and not through multiple buyers. LMH also recommend shipping many small shipments, of about 8,000 MT each, to enable Awardees to cope with the logistics.

4.4.5. Recommendations for Wheat Grain

Wheat grain meets four of the six tests for monetization: eligibility for export from the US, eligibility for import to Haiti, significance of domestic demand, and domestic supply shortfall. At the time of this report writing, the mill is still not operational. Should the mill become operational within the next six months, wheat grain may be considered. However, based on past performance, wheat does not meet the remaining two tests for monetization: expectation for a fair market price, and presence of adequate competition.

- **Expectation for a fair market price**. A fair market prices may not be achieved due to the fact that one market participant holds a significant amount of power in the imported wheat market, which could create an uncompetitive market environment. The largely below-average wheat sale prices achieved by Title II Awardees may inadvertently support an uncompetitive market environment. Barring changes in the relative bargaining power of the buyer (LMH) and seller (Title II PVO), such monetizations should be avoided in the future.

[2] The IPP was calculated based on data for Minneapolis bread flour from ERS.

- **Presence of adequate competition.** As stated earlier, LMH has been the Haiti Monetization Consortium's single buyer of HRWW for the past twelve years. Because LMH does not have competitors, it has the market power to influence prices for both its inputs (wheat) and its marketed products (wheat flour marketed to the Haitian consumer).

4.4.6. Recommendations for Wheat Flour

Although the 2010 wheat flour monetizations ultimately achieved prices which were reasonably close to fair market prices, the team does not recommend monetization of wheat flour for the following reasons:

- The 2010 wheat flour monetization was faced with many challenges. As detailed above, a combination of events resulted in a two months delay in the arrival of the wheat flour and subsequently a lower selling price.
- Contract enforcement is still a challenge in Haiti. In addition to evidence of buyer collusion in the bidding process, buyers did not comply with contractual obligations after the shipment arrived. The delivery time frames that were stipulated in the sales agreements were not strictly adhered to. The buyers were less than attentive to taking delivery within the agreed timeframe. The buyers sent trucks to transport commodities from the terminal according to their own particular pace and need, yet BDM seemed to lack leverage to enforce contractual compliance.
- Port-au-Prince port has limited capacity to handle a large number of containers; according to World Vision, some terminals have only one fork lift to handle around 700 containers. This slows down the delivery rate of containers. For details on transport, storage, and ports, see Chapter 3 of this report.
- Processed food commodities such as wheat flour have short shelf lives and are not appropriate for monetization in Haiti given that delivery at the port could take more than three months.
- The Haiti wheat flour market is very time sensitive and volatile. Prices fluctuate greatly, depending on supply. Traders take these factors into consideration when making offers and deviation from the expected arrival dates directly translate to higher profits or loss for the buyer.
- Wheat flour monetization will likely be inappropriate once LMH is operating again.
- Restating one of the recommendations of the 2010 Haiti Market Analysis, the monetization of wheat flour may not benefit the Haitian economy because, although it would provide a relatively inexpensive carbohydrate source, it may replace locally produced crops that can be processed into flour or consumed directly, such as yams, sweet potatoes, and cassava.

4.5. Market Analysis – Vegetable Oil

4.5.1. Domestic Production

In general, practically no oilseed is produced for crushing in Haiti. Soybeans are not produced domestically because of unfavorable climatic conditions. The country once produced other oilseeds, but no longer produces them in sufficient quantities for various reasons,[3] including the fact that other imported vegetable oils have lower prices.

[3] For example, coconut tree disease decreased coconut oilseed production in the 1970s.

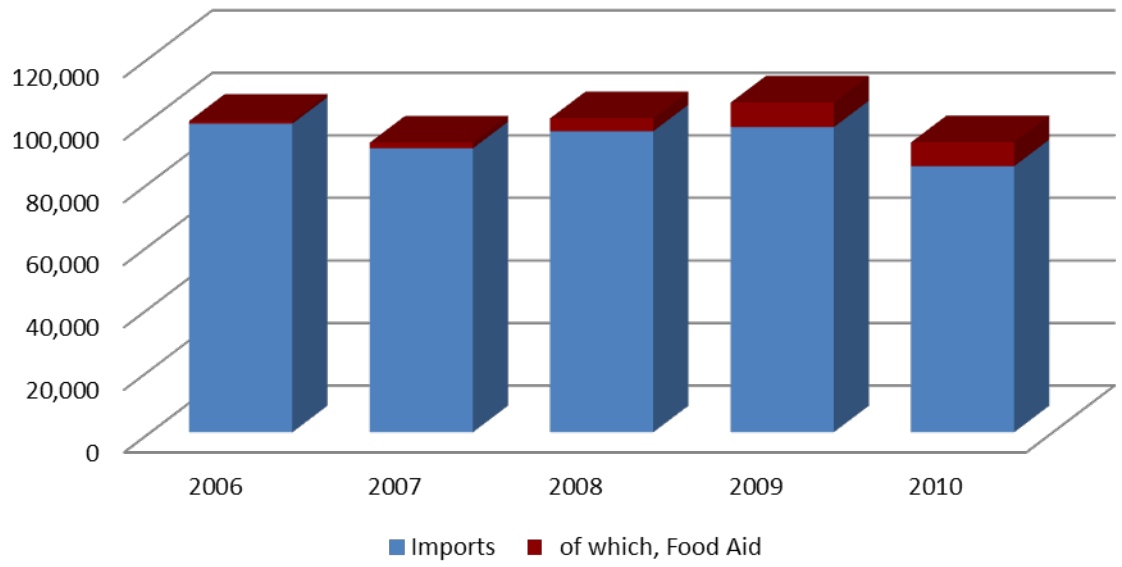
4.5.2. External Trade

Crude palm oil is imported from Malaysia and refined in the US before being sent to Haiti. The US also produces and refines another 17% of Haiti's soybean oil imports. According to field interviews, a substantial amount of vegetable oil comes from the DR informally, though it is difficult to quantify the exact tonnage.

The 2010 Haiti Market Analysis states that palm oil accounts for about 64% of all edible oils consumed in the country; the remainder consists mainly of soybean oil. During 2006 to 2010, Haiti imported an average of 93,660 MT per year of soybean and palm oils.

Donor imports are a small proportion of commercial imports. Food aid accounts for an average of 4,500 MT per year, which is about 5% of total imports, none of which is palm oil. See Figure 7, below.

Figure 7. Domestic Vegetable Oil (Soybean and Palm Oil) Supply (MT)



Source: Comtrade, WFP, and ITC.

4.5.3. Competitive Environment

As discussed in the 2010 Haiti Market Analysis, the market at the importer level is highly concentrated; two importers hold about 41% of the edible oil market, selling mostly palm oil (the cheapest oil in the market). The rest of the market is made up of about 14 other importers, more than 100 wholesalers, and hundreds of retailers, selling a variety of cooking oil. The larger importers have the power to set prices, and the smaller players then sell at the price they set.

The main concern across the industry is that the oil market is thin,[4] with very many small actors; thus, any additional supply of oil in the market has the potential to negatively impact these small actors' businesses.

[4] A "thin" market is one that has few buyers and sellers, and is thus more vulnerable to abrupt change.

4.5.4. Monetization Past Performance

As a result of the earthquake, the planned monetization of vegetable oil by ACDI/VOCA for FY10 was canceled. The study team learned that ACDI/VOCA transferred the oil (600 MT) to another Title II non-emergency program, with appropriate adjustments in future calls forward to account for this additional quantity.

4.5.5. Recommendations

The study team recommends against large lot sales of Title II vegetable oil for Haiti for the following reasons:

- The structure of the market is concentrated at the importer level, with very many small actors at the retail level. Additional supply of oil in the market could negatively impact their business and livelihoods.
- A fair market price may not be achieved because the two largest market actors hold a significant amount of power in the local market, which could create an uncompetitive market environment.
- Additional analysis is needed to further study the market structure of this industry. There is a need for more widespread data collection and verification in the relevant customer market due to the relative thinness of the national market.

Small lots sales, however, may be feasible. With the above caveats in mind, it would be advisable to monetize no more than 1,015 MT of vegetable oil via small lot sales generating approximately US$1,572,189 worth of proceeds[5].This volume represents approximately one percent of the five-year average commercial import volume. The team recommends potential Awardees approach such a sale (1) as a pilot to test the feasibility of successful small lot sales, with a back-up plan should such a pilot result in less than favorable outcome, and (2) as a secondary stream of funding intended to develop the wholesale and retail markets rather than as a source of critical funding resources.

4.6. Market Analysis – Beans

4.6.1. Domestic Production

Beans are produced in almost all regions of the country. The 2010 Haiti Market Analysis reported that beans are produced mainly in the South (20%), the Southeast (15%), Central Plateau and West (12%), Artibonite (11%) and Grand'Anse (10%). Black and mottled red beans are the most commonly grown varieties.

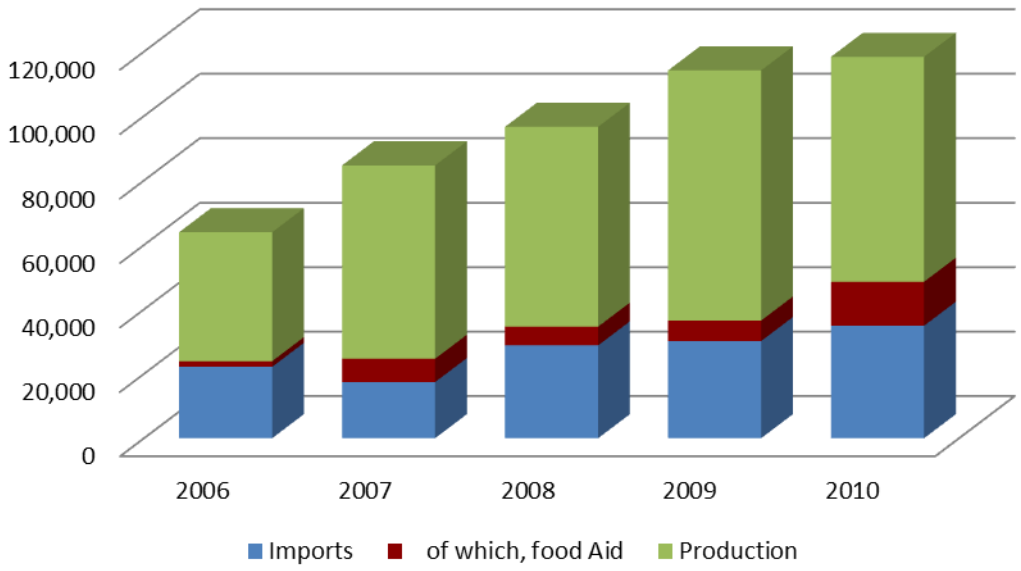
Domestic production represents about 71% of total bean supply. All imports account for about 29% of total supply, and food aid accounts for approximately 8% of total imports. According to the WFP/FAO CFSAM, the late and inadequate rainfall in the spring of 2010, followed by excessive rains, favored the emergence of the common mosaic virus which reduced bean production, particularly in the humid mountains of Southeast, South, Centre, and Northeast departments. That report estimated that 2010 bean production would decline by about 17%.

[5] Calculated IPP is $1,549.65 per MT

4.6.2. External Trade

Bean imports averaged at 26,687 MT per year over the last five years.[6] Imports fluctuated during this period and peaked at 30,350 MT last year. Commercial imports represent approximately 29% of total supply, of which food aid represents 8% of total supply. Haiti imports beans from Brazil, the DR, US, Canada, France, and Italy. Informal trade in beans between the DR and Haiti is strong.

Figure 8. Domestic Bean Supply (MT)



Source: Comtrade, WFP, and ITC.

4.6.3. Competitive Environment

In June 2010, the study BEST team found that the Haitian bean market is characterized by a very large number of market participants, ranging from about 350,000 producers to thousands of wholesalers and retailers, not including vendors and street traders.

Given the large number of market actors at each level of the distribution channel, the market for local beans seemed to function competitively. Prices on the retail markets appear to be determined by the forces of supply and demand, with no market actor able to unilaterally set prices. Investment levels at each segment of the local market are relatively small for local bean varieties and do not allow any single individual to exert any degree of market power.

4.6.4. Recommendations

The study team does not recommend the monetization of beans for the following reasons:

- Disincentive effects on local production are likely to result from importing beans, since Haiti produces almost 71% of the beans consumed in the country.
- Monetized beans would likely displace locally produced beans, especially during the periods when local stocks are low and prices are high.

[6] To calculate the 5-year import average for beans, the study team averaged 4 different data sources: ITC, Comtrade, FAO, and AGEMAR.

- The structure of the bean market (many small traders making frequent small purchases) does not appear to be suitable for cost-efficient monetization.

4.7. Market Analysis – Maize and Maize Flour

4.7.1. Domestic Production

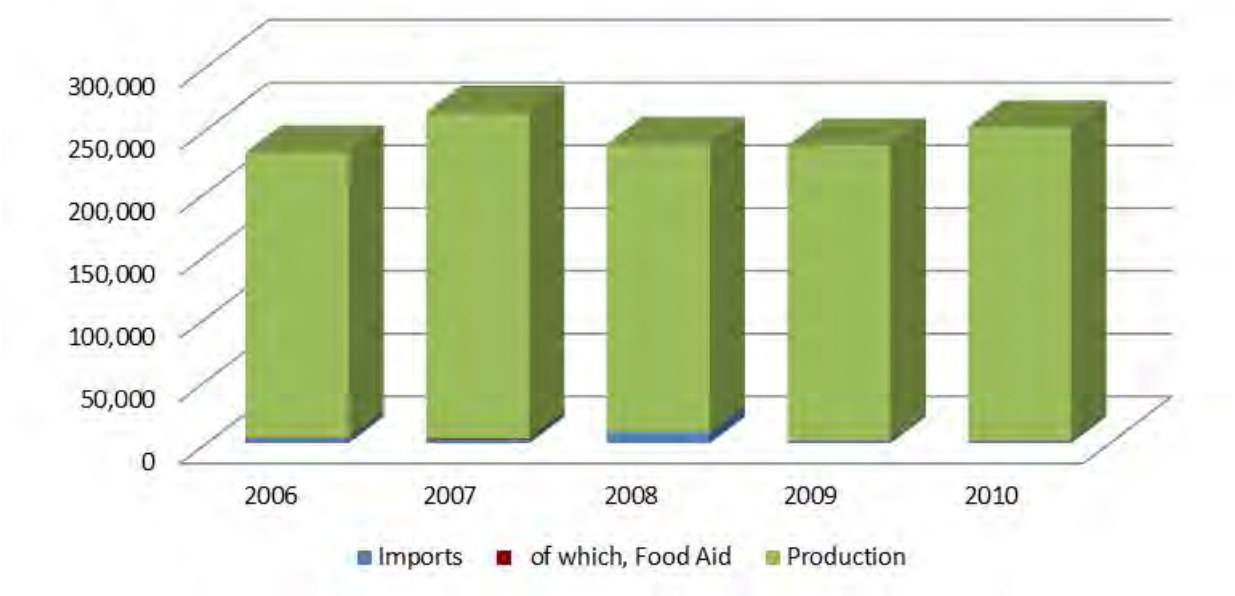
Maize is produced across Haiti, with the southern regions and the Central Plateau accounting for the majority of production (Fintrac/BEST, 2010). Haiti is almost self-sufficient in maize production. Domestic production represents about 98% of total maize supply. Maize production has increased from 227,500 MT in 2006 to 364,500 MT in 2010. Maize is usually marketed as grain, until it reaches the retailer or consumer, either of which mills the grain into maize flour. It is difficult to quantify the amounts of domestically milled maize flour, but on average the milling rate is about 60%, which brings estimated domestic maize flour production to about 144,300 MT per year.

The 2010 WFP/FAO CFSAM reports that the 2010 spring rainy season began four to six weeks late—at the end of April/beginning of May—after a particularly dry 2009/2010 winter. Because of the delayed onset of the rainy season, there was a reduction in planted area during the spring cropping season, which was expected to be partially offset in the 2010 summer season. Also, crops suffered from insect and pest infestation. As a result, the CFSAM predicted that the 2010 maize crop production would decline by about 8% compared with the same season in 2009. Surprisingly, the Ministry of Agriculture has reported a 20% increase in maize production from 2009 to 2010.

The spring season was also delayed in 2011. Maize planting occurred at the end of May/beginning of June. Planting in mountain areas was seriously reduced. For 2011, production can be expected to fall by about 30% from the level projected by CFSAM for 2010.

LMH will resume producing maize flour once the mill becomes operational, reportedly in December. According to interviews with the director, LMH will be milling 100 MT of maize flour per day, translating to about 30,000 to 35,000 MT per year. LMH would like to purchase locally, but sufficient quantities of high quality maize to mill may not be available locally.

Figure 9. Domestic Maize Grain Supply



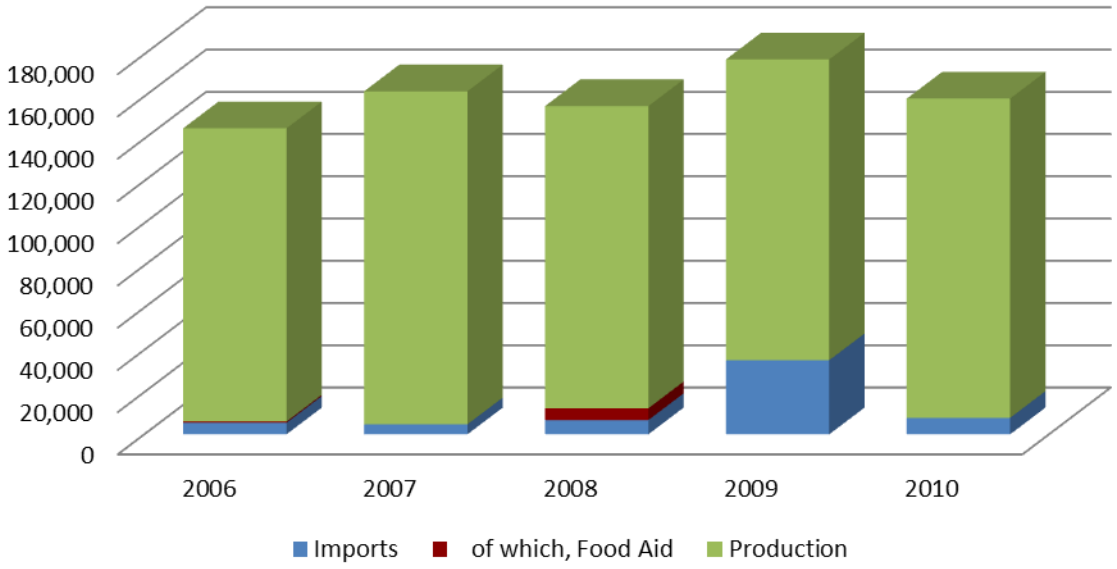
Source: Comtrade, WFP, and ITC.

4.7.2. External Trade

The DR accounts for about 98% of maize imports in the form of broken maize and maize meal, with the US, Columbia, and Brazil accounting for the small remainder. Maize imports averaged 3,854 MT per year during the past five years. Haiti informally exports a limited amount of maize, as broken grain or maize meal, along the DR border; there are no known official maize exports from Haiti. Food aid averaged less than 1% of total supply in 2010.

Maize flour imports have increased over the past five-year period, with the exception of a 78% decrease in 2010. Maize flour imports averaged about 11,963 MT per year, ranging from 4,700 MT in 2007 to 35,088 MT in 2009. Most of the maize flour came from the DR, the US, Netherlands, and Canada. As mentioned in the 2010 Haiti Market Analysis, there is a strong preference for imported maize meal over locally-produced maize meal, due to superior hygiene and food safety standards for imported goods.

Figure 10. Domestic Maize Flour Supply



Source: Comtrade and ITC.

4.7.3. Competitive Environment

The smaller importers and large wholesalers (especially those that import rice) also import maize and maize flour as secondary commodities. The 2010 Haiti Market Analysis reported that the maize flour market is characterized by some oligopolistic powers at the import and major wholesaler levels, where a small number of market actors are able to collectively exert control over supply and market prices. The other levels of the market have a large number of marker participants.

For information on the maize and maize flour markets, please refer to the 2010 Haiti Market Analysis, Chapter 5, available at:

http://www.usaid.gov/our_work/humanitarian_assistance/ffp/besthaitireport.pdf

4.7.4. Recommendations

This study does not recommend the monetization of maize flour in Haiti for the following reasons:

- Disincentive effects on local production are likely to result from importing maize flour, since Haiti produces almost 92% of the maize flour consumed in the country. Based on the 60% milling rate, and an average of about 240,500 MT of maize grain produced in the country, Haiti produces approximately 144,300 MT of maize flour annually.
- Demand for maize and maize flour is elastic (i.e., consumer demand is very sensitive to changes in price). Maize and maize flour are substitutes for other crops on the supply side when the conditions or resources are more conducive for producing maize. On the demand side, maize and maize flour are also substitutes for other products since their prices are often lower than those of other staple food products. When households suffer negative income shocks, they may switch from rice to maize flour consumption or vice versa.

- Unless the commodity will be used for livestock production, monetized maize and/or maize flour may have a negative impact on local production, on which 300,000 producers depend. Although maize flour imports may affect local production in the long run as was the case for rice, monetization of such a commodity may speed up the process, exacerbating rural poverty.
- As shown in the table below, the proceeds generated from the sale of an appropriate range of maize flour tonnage would constrain Awardees from meeting program resource needs.

Table 15. Monetization Scenario – Maize Flour

Monetization Scenario (% of annual average commercial imports)	1%	5%	10%
Estimated Commercial Imports (MT)[7]	11,963	11,963	11,963
Scenario Volume (MT)[8]	67.46	337.30	674.60
Estimated Total Value of Sales (US$)[9]	**$56,954.45**	**$284,772.27**	**$569,544.54**

Potential Awardees are strongly encouraged to monitor policy, production, and usage trends for possible future opportunities for importation and monetization of maize flour in Haiti, and/or seek to combine consignment of maize flour with one or more recommended Title II commodities, through a basket approach, and/or seek alternative opportunities through third-country monetization".

4.8. Third-Country Monetization

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

Third-country monetization (TCM), can offer a legally compliant alternative for Awardees operating in a country with less than fully competitive domestic commodity markets. TCM 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. TCM 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.

[7] The estimated commercial import figures is the average of imports for years 2006 – 2010 (6,543).

[8] The scenario volume figure is calculated by taking 1%, 5% and 10% of the median import figure.

[9] The estimated total value of sale is calculated by multiplying each scenario volume by the sale prices estimated ($844 per MT). The sale price estimated is the average calculated from average monthly IPP price estimated, from March to May 2011.

TCM is a reasonable option in Haiti for the foreseeable future (FY12 and beyond) because:

- Competition in markets for typical Title II commodities (wheat, wheat flour, vegetable oil) is highly limited.
- The TCM approach is suited for overcoming likely losses over time that would occur in regular in-country monetizations because of the unfair business practices of large importers, which are likely to view Title II wheat flour or vegetable oil sales as directly threatening their market share.
- There is successful history of TCM for Haiti programming. USAID approved a third-country monetization with CARE/Peru, the lead agency for a CDSO monetization for the consortium in Peru. This project ran for two years, and was incorporated into the MYAP at the end of the DAP. CARE-Peru was responsible for every aspect of the transaction. The monetization encountered no problems and was executed to the satisfaction of all the parties. In the first year, 5,200 MT of crude degummed soybean oil (CDSO) was monetized, and 6,700 MT was monetized in the second year.

However, it is important to note that TCM may face challenges, such as:

- The appropriate third country or regional market for TCM is that market in which one may expect to receive a commodity price commensurate with the international price. A market analysis to inform a Bellmon Determination would need to be conducted in both Haiti and the regional market in which the monetization is to take place. According to FFP Guidelines, the country must be either a LIFDC (Low Income Food Deficit Country) or a LDC (Least Developed Country) on the OECD-DAC (Organisation for Economic Cooperation and Development – Development Assistance Committee) list.
- Within the region, only Haiti, Nicaragua, and Honduras are LIFDCs. As the final destination of the commodities sold is indeterminate, the relevant reference to ensure that the Bellmon market conditions are satisfied is to ensure that the final negotiated price is comparable to the import price for that market. In addition, the port facilities of the selected market platform need to be sufficient to physically accommodate the commodities. This requires that a Bellmon analysis be conducted in both the recipient country and the country in which TCM takes place.
- USDA Food for Progress has already approved large-scale monetization activities for both Honduras and Nicaragua. In Honduras, FINCA International is scheduled to monetize about 91,462 MT of wheat with an estimated value of US$7.8 million. The Government of Nicaragua will monetize about 200,000 MT of tallow and vegetable oil, with an estimated value of US$7.9 million. Thus, these countries may be economically unsuitable for additional monetization activities.

Monetization in a relatively large port city is preferred because inland freight and other costs will be assumed by the buyer. The preferred currency in which the transactions would be conducted would be specified in the offer. Based on the above criteria, the table below provides an overview of the products and markets that may be considered for TCM.

Table 16. Quantities of Select Commodities Imported into Nicaragua, Honduras,[10] Dominican Republic, and Peru

Commodity	Honduras (MT)	Honduras $000	Nicaragua (MT)	Nicaragua $000	DR[11] (MT)	DR $000	Peru (MT)	Peru $000
Maize	2,950,472	516,433	1,159,616	250,010	557,413	1,183,708,870	8,736,101	1,698,829,006
Rice in the husk (paddy or rough)	1,204,885	320,697	1,122,423	425,592				
Rice Semi-milled or wholly mill					175,564	112,097,715	867,487	312,309,736
Wheat (durum and non-durum)	2,374,916	611,745	11,590,356	454,707	2,658,594	696,320,366	9,015,451	2,181,872,257
Wheat flour	37,091	13,837	261,535	117,756	11,840	5,760,090	19,414	823,110
Soya-bean oil crude	775	678	370,240	304,108	856,487	660,330,627	1,608,348	1,260,602,381
LIFDC	Yes	---	Yes	---	No	---	No	---

If TCM 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 TCM country and the MYAP country must endorse the monetization.

[10] Only countries that are classified as LIFDC or Least Developed countries are eligible for third country monetization. Other than Haiti, Honduras and Nicaragua are the only other countries in Central America and the Caribbean fitting this criterion.

[11] The Dominican Republic is not in the DAC list but its close proximity to Haiti makes the DR a viable candidate for Third country monetization. As mentioned above, there was a successful third-country monetization of CDSO through CARE in Peru.

Chapter 5. Distributed Food Aid

5.1. Introduction

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

This Chapter focuses on the potential and actual impact of *distributed* food aid on local markets and production incentives. Because only one year has elapsed since a comprehensive study was conducted, and the current Title II MYAP is still being implemented, very little has changed in terms of the impact of distributed food aid on local markets. The majority of the information presented in this Chapter is drawn directly from the 2010 Haiti Market Analysis.[94] This Chapter should be read in tandem with Chapters 5 and 6 of that report, which describe in detail how the commodities markets and marketplaces across Haiti are structured, how market actors conduct trade, and how the country's markets are performing overall.

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

1. An overview of available evidence of national and localized food deficits in Haiti.
2. An overview of the private market's capacity to meet localized food deficits, based on a Structure-Conduct-Performance framework.
3. An assessment of market integration within Haiti.
4. Key considerations for all distributed food aid interventions in Haiti, and guidelines for each of the most likely modalities for distributed food aid.

5.2. Assessment of National and Localized Food Deficits

National Deficits. Haiti is a small, impoverished island nation with a rapidly growing population, increasing urbanization, and exceptionally high unemployment. Agricultural production is unable to meet domestic needs, and large volumes of imports of agricultural commodities are required to feed an ever-growing population. Although agriculture employs 60% of Haiti's labor force, and is the main activity for more than 1 million small farm households, most rural households are unable to live on farming alone. With average farm sizes of 1.5 hectares, subdivided into two or more small plots, most rural households are obliged to find alternative income from other activities including petty trade, part-time employment in non- agricultural sectors, and off-farm agricultural jobs. This smallholder production system depends primarily on traditional technologies and seasonal rainfall—and is therefore frequently and negatively impacted by

[94] USAID Office of Food for Peace (August 2010). Haiti Market Analysis. Available at http://www.usaid.gov/our_work/humanitarian_assistance/ffp/besthaitireport.pdf.

severe climatic events such as drought and tropical storms, which in turn limits households' food availability, access, and overall food security.

In order to estimate Haiti's food supply deficits, the natural first step is to create an estimated national cereal balance sheet. However, a dearth of production data makes it difficult to do so. This lack of production data, coupled with insufficient consumption and expenditure data, may in part explain the crucial, and unexplained, paradox in Haiti: much lower levels of malnutrition than one would expect given the high incidence of poverty—and may have led to an overestimate of average household food deficits.

The joint FAO/WFP/MARNDR Crop and Food Security Assessment Mission (CFSAM), last conducted in June/July 2010, provides the best national baseline of needs. Based on rough approximations for 2010/11 marketing year import requirements, the CFSAM study team expected the following:

1. Cereal, pulses, and banana import requirements would be approximately 711,000 MT in cereal equivalent.
2. Of that amount, 525,000 MT would be obtained through commercial imports.
3. Therefore, based on these estimates, an uncovered deficit of 186,000 MT.

The study team noted that three zones in the country would require close monitoring—specifically, the North-West, the central highlands (Central Plateau), and the West—which were considered at-risk because of poor harvests.

Local Deficits. The impact of distributed food aid is often highly localized. Small markets are vulnerable to disruptions, and small-scale farmers are sensitive to production disincentives. For these reasons, quantities of food that may appear insignificant compared to a country's total consumption of food staples can nonetheless have a major impact on local markets and local production.

An assessment of local food deficits is possible using the best available data on relative household food deficits in Haiti to inform geographic targeting based on proxy indicators of additionality. This analysis focuses on indicators of *chronic* food insecurity, and should be viewed as distinct from analysis of *acute* food insecurity arising from specific shocks (e.g., the January 2010 earthquake) because although the impact of specific shocks may be profound, their impacts have been fairly concentrated geographically, and require responses that go beyond long-term distributed food aid.

In determining the geographic target areas appropriate for development interventions, such as under a Title II non-emergency program, a departmental-level food security analysis was performed to determine the most chronically food insecure areas of the country, using secondary department-level data on food security indicators. Indicators include:

- The percentage of households reporting poor food consumption (an indicator of food availability and access).
- The number of households reporting poor food consumption (an indicator of the magnitude of the food availability and access problem).
- Poverty levels (a proxy for access).
- Stunting rates for children under five years of age (a measure of chronic malnutrition).
- Rainfall levels (a proxy indicator of food availability).[95]

[95] In preparation for their MYAP, CRS conducted a similar analysis, data from which were shared with and validated by counterparts at the Famine Early Warning System Network (FEWSNET). As indicators of food security, CRS used stunting rates, average rainfall, poverty rates, literacy rates, diarrhea rates in children under five (as a measure of utilization); levels of threats to floods,

The following tables illustrate the results of the analysis.

Table 17. Indicators of Food Security, by Department

Department	Percentage of Households with Poor FCS[96]	Percentage of Population under Poverty Line[97]	Stunting (% -<=2 SD)[98]	Rainfall (mm)[99]
West	4	32	3.5	585
South East	5	65	9.3	585
North	12	67	8.6	675
North East	8	84	5.8	575
Artibonite	6	68	8.2	625
Center	3	61	12.2	600
South	4	68	12.2	725
Grande Anse	6	66	10.1	725
North West	12	70	7.8	550
Nippes	3	66	10.1	675

The distribution of food insecurity, based on an anal ysis of these indicators, illustrates the inherent difficulty in using department-level data in Haiti to inform geographic targeting. Depending on which proxy for availability, access, and utilization is used, one could reasonably conclude that any of the following departments face high levels of food insecurity: North, Northwest, Northeast, South, Center, Southeast, Grand 'Anse, and Nippes. Such department-level indicators do not capture pockets of food insecurity within each department, and therefore can act as general guidance only. It is therefore imperative that donors and i mplementing partners conduct their own independent needs assessments, market analysis, and formative research—all at a highly localized level—to fully understand local conditions and the range of appropriate responses.

Importantly, the Title II Non-Emergency Program II Awardees (ACDI/VOCA, CRS, WV) all undertook baselines in 2008 to guide current programming, and produced carefully designed, high-quality surveys with transparent methodologies. The three partners were assisted by an independent team of professionals with extensive survey design and M&E experience. This is the type of practice that should be emulated by other NGOs and PVOs.

Through its Vulnerability and Mapping Analysis (VAM) Unit, WFP consistently produces the highest-quality needs assessments using well-designed surveys with transparent methodologies. The most recent national survey is the 2007 rural CFSVA. The most recent Emergency Food Security Assessment (EFSA) in the earthquake-affected areas was a joint effort led by the *Coordination Nationale de la Sécurité Alimentaire* (CNSA), with FAO, FEWS NET, *Action Contre la Faim (ACF)*, OXFAM, and WFP participation. More details may be found in Annex 4 – Food Security.

hurricanes, and drought (as a measure of risk); and literacy rates (as a measure of education/human capital). A ranking of these indicators indicated that the South and Northwest were the most chronically food insecure, and appropriate for targeting of the activities planned under the current MYAP. Following this departmental-level analysis, CRS conducted a commune-level analysis to determine priority communes within the most food insecure areas using additional criteria.

[96] Food Consumption Scores were derived through household surveys as part of the 2007 rural CFSVA.

[97] HISI *Enquête sur les Conditions de Vie Haïti* (ECVH), 2003. Percentage of the population living in extreme poverty, defined as living on less than US$1 per day.

[98] *Enquete Mortalité, Morbidité, et Utilisation de Services* (EMMUS) III, 2000. Stunting rates are widely regarded as the most reliable indicator of chronic food deficits, since it captures availability, access, and utilization. The prevalence of stunting among children under 5 should, therefore, be heavily weighted when conducting analysis to guide geographic targeting of assistance to chronic food insecure communities.

[99] FEWSNET average annual rainfall data 1948–2002.

5.3. Assessment of Private Market's Capacity to Meet Localized Food Deficits

Food insecurity in Haiti is not caused by the lack of food availability. Clearly, the private market has the capacity to meet localized food deficits. However, this availability is heavily dependent on imported foods, prices for which are subject to fluctuations in global food prices and, more importantly in Haiti's case, to manipulation by the oligopolistic firms that control an estimated 80% of Haiti's marketed food supply. Based on available evidence, these firms engage in rent-seeking behavior, which results in unfair market prices for consumers.

These characteristics of the Haitian food supply create an access issue among average Haitians—an estimated two-thirds whom are unemployed, and 50% of whom lived on less than US$1 per day prior to the earthquake. At first blush, the availability of food, combined with the lack of consumer purchasing power, suggests that increasing poor households' income and therefore access to food is the logical answer. However, the structure of the Haitian food market, dominated by a handful of importers who collude to fix prices, is not conducive to long-term food security through increasing incomes alone. Longer-term solutions to reducing food insecurity will require reducing the dependence of the poor on the market in its current structure. This entails: (1) stimulating local production and linking local producers to markets so they can compete with imported goods, while simultaneously (2) increasing incomes so that people can purchase from the least expensive food source—which may often be importers but, over time, should be local producers.

While the longer-term solutions to enhancing market performance and improved food security will depend on overall investment in agriculture, infrastructure, and development of income-generating opportunities, in the near-term, continued cash and in-kind support will be necessary to ensure basic needs are met in the short- and medium-term.

5.4. Market Integration

Years of underinvestment in agriculture and infrastructure, combined with frequent natural disasters, have damaged Haiti's infrastructure and agricultural marketing systems. To better understand markets, and analyze the impact of monetized and distributed food aid Haiti's markets, it is important to better understand the spatial linkages among the country's main food markets.

Markets are integrated (or price transmission occurs among markets) when the price in one market affects prices in others through trade flow adjustments. A simple (albeit imperfect) method to measure market integration is based on the Pearson correlation coefficient estimate between prices. A positive and statistically significant correlation coefficient suggests that two markets are integrated through trade. Absence of price correlation suggests that markets are not linked through trade, and prices are determined independently from one market to another.

Imported rice, local rice, wheat flour, edible oil, sorghum, black and red beans, and bulgur wheat are among the main food commodities in Haiti. Using monthly nominal retail prices reported by CNSA for the period June 2007 to June 2011 for each of these commodities, correlation coefficients were estimated for all price pairs among five major markets: Croix-des-Bossales, Les Cayes, Hinche, Cap-Haitien, and Jeremie. These marketplaces were primarily selected on the basis of data availability; nonetheless, these markets play an important role in the trade networks of these commodities.

The analysis reveals that imported rice and edible oil[100] are the only commodities of those analyzed that show significant market correlation. Thus, food aid stakeholders should acknowledge that Haiti's markets are generally not well-integrated, and that food aid programs will have greater potential to strongly impact the targeted local market through depressive price effects on local grain and pulse markets, than would be the case if markets were better integrated. For further details, see the following sections.

5.4.1. Beans

Both red and black bean retail prices are generally found to not be strongly correlated among Haitian markets (Table 18 and Table 19). The only markets with moderately strong and significant correlations[101] are Jeremie and Croix-des-Bossales for red beans (0.779); Jeremie and Les Cayes for red beans (0.792); and Jeremie and Les Cayes for black beans (0.724). These results conform to the actual situation in the market, as beans usually move by boat from Jeremie to Port-au-Prince, and Les Cayes and Jeremie both receive beans from the Beaumont production area.

Table 18. Black Beans Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.233	1			
Les Cayes	.445**	.034	1		
Hinche	.518**	.131	.418**	1	
Jeremie	.346*	.200	.724**	.388**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

Table 19. Red Beans Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.329*	1			
Les Cayes	.673**	.482**	1		
Hinche	.426**	.145	.319*		
Jeremie	.779**	.376**	.792**	.413**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

5.4.2. Imported Rice and Oil

Markets are generally well-integrated for imported rice and edible oil (Table 20 and Table 21). The Croix-des-Bossales (Port-au-Prince) market receives the majority of imports, and appears to be well-integrated with the other four rice and edible oil markets. Price transmission from the international, to import, to local level is imperfect. Prices change the most between the import and local levels, which could be attributed to transport, storage, and other handling costs and most importantly, the lack of competition in both the imported rice and edible oil markets. At the import level, 70% of the rice market is handled by six major importers who seem to have the power to set prices. Two large importers dominate the market of imported oil. As a result, the markets resemble that of a leader/follower market where the larger sellers set the price and allow smaller suppliers to sell what they can at the set price, thus creating some integration within the local markets. With the exception of the Cap-Haitien and Les Cayes (0.595) oil

[100] CNSA reports retail prices for two brands of edible oil, "Alberto" and "Rika." Correlations are analysed for the "Alberto" brand of edible oil as an indicator of the integration of all edible oil prices because "Alberto" had the most complete time series of price data.

[101] Generally speaking, correlation coefficients between 0.3-0.7 are considered positive but weak, while correlation coefficients greater than 0.7 are considered positive and strong.

markets, and the Cap-Haitien and Jeremie edible oil markets (0.531), most markets are well-integrated. These results are significant at the 1% level. The weak integration between these markets is probably because vegetable oil (Alberto) comes directly to Cap Haitien from Miami and is distributed throughout the northern region (North, Northeastern, Gonaives, and upper Central Plateau). The vegetable oil in Les Cayes and Jeremie come from Port-au-Prince.

Table 20. Imported Rice Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.915**	1			
Les Cayes	.944**	.901**	1		
Hinche	.923**	.911**	.894**	1	
Jeremie	.907**	.871**	.947**	.882**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

Table 21. Edible Oil Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.607**	1			
Les Cayes	.849**	.595**	1		
Hinche	.859**	.662**	.788**	1	
Jeremie	.906**	.531**	.804**	.851**	1

*** . Correlation is significant at the 0.01 level * . Correlation is significant at the 0.05 level.*

5.4.3. Local Rice

Unlike imported rice, local rice prices are generally found to not be strongly correlated among Haitian markets. Local rice prices vary according to seasonality and production levels, and vary across markets. Usually, prices of local rice remain low during the harvest periods and begin to rise two months later, remaining high until the next harvest. Although most local rice markets do not appear integrated, there does appear to be some correlation between Jeremie (a minor deficit area which brings in rice from other regions) and the other markets, especially Les Cayes and Hinche, as shown in Table 22.

Table 22. Local Rice Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	-.170	1			
Les Cayes	.293	.400**	1		
Hinche	.265	.237	.570**	1	
Jeremie	.438**	.318*	.863**	.838**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

5.4.4. Sorghum and Maize

Markets for sorghum and maize appear to be relatively poorly integrated. The lack of integration is likely because the areas of production for these crops are also the areas of domestic consumption, thus dampening outward flows of these commodities. However, these products are increasingly sold to raise cash for basic home requirements. Farmers sell either at the farm-gate or at the nearest rural market. Retail prices are lowest in areas of high production: Hinche, Croix-des-Bossales, and Les Cayes.

Although most markets for sorghum and maize are not strongly integrated, the sorghum markets of Hinche and Croix-des-Bossales (0.859), and Les Cayes and Croix-des-Bossales (0.788), appear to be better integrated. These results conform to the actual situation in the

market because the lowest prices are usually observed in Hinche, one of the largest sorghum-producing areas in the country, followed by Croix-des-Bossales and Les Cayes, which are also located in immediate zones of production.

Table 23. Sorghum Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.562**	1			
Les Cayes	.788**	.670**	1		
Hinche	.859**	.595**	.703**	1	
Jeremie	.463**	.576**	.568**	.530**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

Table 24. Maize Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.136	1			
Les Cayes	.517**	.103	1		
Hinche	.591**	.459**	.620**	1	
Jeremie	.522**	.483**	.469**	.654**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

5.4.5. Bulgur Wheat Grain and Wheat Flour

Of the four pairs of bulgur wheat and wheat flour markets analyzed, only one pair (Les Cayes and Croix-des-Bossales, with 0.735 for bulgur wheat and 0.787 for wheat flour) shows moderate price integration. Retail prices of wheat and wheat flour vary from one location to another.

Data on prices indicate that both bulgur wheat and wheat flour prices are generally lower in the Croix-des-Bossales market (Port-au-Prince) than in other urban markets in the country. This is expected, given that the capital city has a major port for grain imports as well the country's only wheat flour mill.[102] Nominal prices in the other markets seem to increase according to distance from Port-au-Prince, suggesting that transport plays a role in discriminating prices among regions. Transportation costs in Haiti are not standardized, and vary greatly among different parts of the country.

Table 25. Bulgur Wheat Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.535**	1			
Les Cayes	.735**	.345*	1		
Hinche	.501**	.339*	.657**	1	
Jeremie	.687**	.569**	.608**	.565**	1

*** Correlation is significant at the 0.01 level * Correlation is significant at the 0.05 level.*

Table 26. Wheat Flour Correlation Coefficients

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Croix-des-Bossales	1				
Cap-Haitien	.545**	1			
Les Cayes	.787**	.324*	1		
Hinche	.584**	.230	.578**	1	

[102] This mill was severely damaged in the 2010 earthquake, and is not currently functioning—leaving the country without any wheat flour-producing capability. However, production is expected to resume in December 2011. More detail on the mill is provided elsewhere in this report.

	Croix-des-Bossales	Cap-Haitien	Les Cayes	Hinche	Jeremie
Jeremie	.537**	.281	.685**	.438**	1

***. Correlation is significant at the 0.01 level *. Correlation is significant at the 0.05 level.*

Implications for food aid programming. The most important implication for food aid programming is this: donors and implementing partners should expect that food aid which might substitute for imported goods (imported rice and edible oil) will have a relatively low impact on local markets, since changes in price will be dampened as prices are transmitted across space. Conversely, food aid that might substitute for locally produced goods—for which the likelihood of price transmission across space in Haiti is very low—should be expected to have a greater impact on local markets. For the locally produced commodities outlined here, any impact on production incentives and/or trade for market actors outside of the immediate local market setting is less likely.

As Haiti's local transport and market information systems slowly improve over time, markets will likely become more integrated. The more integrated markets become, the less of an impact any change in local food supply will have on the single target market. If the market is well-integrated with others, price changes will be transmitted across geographic space, and thus dilute the impact on the target market. This appears to be the case for the edible oil and imported rice markets, though much less so for locally produced commodities. In this case, in order to appropriately measure the impact of their programs, donors and implementing partners should incorporate market monitoring outside of their immediate local market catchment area.

5.5. Summary of Key Considerations for All Distributed Food Aid

This section summarizes key targeting considerations for all distributed food aid interventions in Haiti from the perspective of market impact. Geographic targeting was discussed in Section 5.2. In this section, considerations include seasonal targeting, household targeting, and commodity selection. Importantly, because this study covers a broad range of activities over nearly the entire country, the findings and general guidelines offered are intended to act as general guidance only. It is imperative that donors and implementing partners conduct their own independent needs assessments, market analysis, and formative research to fully understand local conditions and the range of appropriate responses.

5.5.1. Seasonal Targeting

The majority of food aid distributed in Haiti occurs via Maternal Child Health and Nutrition (MCHN), School Feeding (SF), and Food for Work (FFW) activities, many of which are supported by multiple donors and implemented by multiple NGOs/PVOs. By design, food distribution under MCHN is year-round, SF is during the school year, and FFW is intended to occur during the lean season.

The timing of ration delivery is critical for the success of all activities. However, from the perspective of market impact, careful timing is *most* critical for FFW activities. Assuming FFW activities coincide very closely each year with the lean season—when domestic stocks are lowest and staple food prices are highest—it is reasonable to assume there will be little to no negative impact on production incentives or local markets. Food distributed during the lean season is more likely to be consumed (rather than sold) by beneficiaries because of shortages of household stocks combined with high market prices. The high variability of staple prices between seasons affects household income and consumption. Where food aid distribution is viewed as either a short-term and/or unreliable source of food, subsistence farmers will be less likely to adapt planting decisions in response to distributed food aid rations.

The seasonal calendar is complex in Haiti due to the variety of agro-climatic conditions and commodities grown within a relatively small geographic area. However, the main lean season for most of the crops is from April to June. The latest available livelihood profiles (2005) indicate that vegetables are the main crop harvested during the winter, though peas are harvested year-round in some parts of the country. Cereal crops such as maize and rice are mostly harvested in the summer, with the exception of millet, which is mostly a winter crop. Rice is grown in only one livelihood zone.

Table 27. Seasonal Calendar, Indicating Harvest (Surplus) Periods (S=Summer (Jun-Aug); A=Autumn (Sep-Nov); W=Winter (Dec-Feb); Sp=Spring (Mar-May))

	Dry Agro-Pastoral Zone	Plains under Monoculture Zone	Humid Mountain Farming Zone	Agro-Pastoral Plateau Zone	Agro-Pastoral Zone	Agriculture and Fishing Dry Zone	Sea Salt Production Zone
Maize	S,W	S	Sp	S,A	S,A	S,A	
Millet	A			A,W		W	S,W
Rice		S					
Beans		W	Sp		Sp,A,W		
Peas	S,A		Sp	W	W	W	

Source: Compiled by BEST, based on USAID/FEWS NET, CNSA, USAID Haiti, CARE, CRS, SC, WV (2005), Livelihood Profiles in Haiti, September 2005.

Timeliness of food aid delivery is a recurrent theme in reviews of program effectiveness. A number of key informants noted problems with delayed delivery of assistance following the earthquake, with wide variance among the timeliness of food/cash distributions. Based on interviews, pipeline disruptions appear relatively minimal outside of major shocks.

Some of the factors that lead aid agencies to undertake ill-informed food aid shipments are due to problems with program *implementation* rather than program *design*. These problems include delayed food shipments, and delayed distributions due to administrative inefficiencies. While all food aid programs are subject to pipeline disruptions, ensuring adequate staffing and proper contingency planning (including possible prepositioning of food aid and local procurement to meet shortfalls due to pipeline breaks) can minimize the negative impacts of poorly timed assistance.

Given Haiti's heavy dependence on rain-fed agriculture, shortfalls of locally produced commodities follow a strong seasonal pattern in Haiti. A recent study of the impacts of food aid on production incentives in another country context (Ethiopia) (Tadesse, 2009) cites the importance of conditioning food aid on *local* supply shortfalls, rather than national production figures. The authors concluded that:

> "…food aid produces no significant disincentive during deficit periods….[However,] food aid that arrives in the absence of a major production shortfall will depress prices. This finding underscores that, were food aid properly and efficiently planned and delivered, it would not likely threaten long-run production." (Tadesse, 2009, p. 20)

Although the timeliness of food aid assistance is clearly critical from the perspective of meeting acute food security needs, for donors and implementing partners who seek long-term food security outcomes, the importance of timeliness cannot be overstated.

5.5.2. Household Targeting/Beneficiary Targeting

While acute food insecurity arising from specific shocks may temporarily alter the appropriate criteria for household/individual targeting, Title II development food aid should be tightly focused and directed to specific vulnerable groups that face chronic food security. In Haiti, these groups include:

- Pregnant and lactating mothers.
- Infants and young children, particularly those under two years of age, who require additional nutritional support to ensure positive long-term human capital outcomes (including education, productivity, adult wage-earning potential, and health).
- Vulnerable groups such as orphans and people living with HIV/AIDS or TB.

Activities designed to support agricultural production and productivity, and other income-generating activities, should avoid the use of food aid rations as general, direct support for these activities. Instead, food aid rations should be viewed as complementary for specific vulnerable individuals within households targeted for agricultural and/or income-generating activities. In short, donors and partners should avoid sending mixed signals by simultaneously providing food aid rations while attempting to stimulate local production and productivity. Effective targeting of food insecure households, and careful timing of food aid-related activities, including ration distributions, can avoid introducing production disincentives.

5.5.3. Type of Direct Distribution Activities (e.g., GFD, MCHN, Food Vouchers)

This section outlines key considerations when choosing between a market-based response to food insecurity versus direct distribution of food aid. Basic considerations for three food distribution activities are outlined: FFW, FFE, and PM2A.

Market-based response versus direct distribution. Broadly speaking, market-based responses are most appropriate when food access rather than food availability is the underlying cause of food insecurity within a community. Where food is available, market-based responses such as Cash For Work, vouchers (food stamps), or subsidized sales of select food commodities, can help to meet immediate food security needs *and* support the longer-term development of the private sector—which is essential for sustainable improvements in food security at the community level.

Through the Emergency Food Security Program (EFSP), USAID awarded US$35 million to WFP to support its CFW/FFW activities through December 2010. This award enabled WFP to reach approximately 200,000 direct beneficiaries in the greater Port-au-Prince area (WFP, 2011). Mercy Corps received a US$12.5 million EFSP award to provide monthly food vouchers worth US$50 to approximately 20,000 households in the Lower Artibonite and Central Plateau regions (Mercy Corps, 2011). A summary of Mercy Corps' food voucher programming is provided in Chapter 6 – Local and Regional Procurement.

When access—as opposed to availability—is the constraint, vouchers (i.e., food stamps) can be an appropriate method of improving consumer access while helping to stimulate local markets. Vouchers improve consumer access to a specified range of commodities and support traders in supplying these commodities. Food vouchers often give beneficiaries some flexibility in choosing the types of food they can purchase; more general vouchers may also allow beneficiaries a choice between purchasing food and necessary non-food items, such as soap.

While vouchers are certainly appropriate in Haiti's urban centers, whether vouchers would be both feasible and successful would be highly dependent on the capacity of implementing partners to design such a program, undertake the necessary social marketing, and manage a voucher program free from the threat of counterfeiting.

At present, FFP is currently only able to use cash (as well as vouchers) in emergency programs (through the IDA-funded EFSP program); for Title II development programs, Awardees would not be able to implement CFW, LRP, or voucher programs. While Title II development resources are limited to in-kind food aid, potential Title II Awardees may wish to consider combining resources from a variety of sources to creatively meet the needs of the proposed

targeted beneficiaries, while capitalizing on the existing strengths of the private sector to meet local market demand.

CFW is one market-based response that can effectively support household access to food and support local market development. As a general rule, n contrast to FFW, CFW should generally be timed to coincide with the harvest season, when marketed food supplies are abundant, and producers and traders need a market for their goods. This is less true in urban areas, or in markets where food availability is less seasonal because imported foodstuffs are available. Depending on the activity, CFW can be more cost-effective in meeting food security needs than in-kind distributed food aid.

In Haiti, markets generally have food available throughout the year, and CFW programs would be most appropriate during times when households have less wage income (e.g., when demand for seasonal labor is low) and prices for locally-produced commodities relatively high.

However, just as FFW may draw labor away from planting activities, CFW may draw labor away from harvesting activities. Thus, just as the value of FFW should be set slightly below the agricultural wage and include less preferred commodities (i.e., should be self-targeting), so too the CFW wage must be carefully calibrated so as to avoid attracting seasonal labor away from critical agricultural activities. Awardees are encouraged to learn from other organizations' experiences with cash and voucher programming (including CFW), particularly organizations operating in similar agro-ecological zones.

Direct distribution of food aid. This section outlines the basic considerations for three food distribution activities: FFW, FFE, and PM2A. These three activities are highlighted because they are among the most popular for major donors in Haiti.

5.5.4. Food for Work (FFW)

The intent of FFW is to create food-wage employment during the hunger period of the year when rural unemployment rises. The rise in unemployment results in lower rural incomes at precisely the time of year when staple prices tend to spike because of food shortages in local markets.

FFW activities will vary, but often involve constructing and maintaining productive community assets. Wage payments are generally made in-kind, as food rations rather than cash. If designed correctly, this practice can stabilize the price of staples in the market and improve food consumption and nutrition of participating households. If designed and implemented appropriately, FFW can also increase productivity on s emi-subsistence farms (A. Abdulai, 2005). To encourage self-targeting, the income transfer value of the ration should be set at slightly less than the prevailing rural wage and i nclude slightly less-preferred food aid commodities. If the value of the FFW ration is too high, it can disrupt local labor markets by attracting more laborers and potentially not benefitting the neediest individuals, i.e., women and families. Including of a food commonly used to feed children may also help in self-targeting women.

Timing of FFW food distribution is critical. Distribution will be less disruptive if it occurs during the lean season rather than during the harvest season. During the lean period, rural households —especially the poorest— have little reserves of food from markets because of high prices. By carefully timing FFW activities to coincide with the lean season, FFW will maximize food security impact. As noted above, the seasonal calendar is complex in Haiti due to the variety of agro-climatic conditions and commodities grown within a relatively small geographic area. However, the main lean season for most of the crops is from April to June.

As mentioned earlier, the harvesting seasons in Haiti vary for different crops: vegetables are the main crop harvested during the winter, though peas are harvested year-round in some parts of the country. Cereal crops such as maize and rice are mostly harvested in the summer, with the exception of millet, which is mostly a winter crop. The prices of most grains, including wheat grain, wheat flour, imported rice, imported maize, local maize, and sorghum, tend to decline after the main summer harvest. The only exception to this seasonal variation is the price of local rice, which tends to be fairly stable throughout the year. For further details, see the Food Security Annex (Annex III).

To minimize possible leakages, any proposed FFW activities must include sufficient supervisory capacity. Where warranted and possible, FFW should target female-headed households, since recent evidence suggests female-headed households are more vulnerable.

Prior to such targeting, Awardees should investigate the availability of female labor during the typical lean periods to ensure women could participate effectively in such gender-targeted FFW activities.

For further guidance on the appropriate design of FFW activities, please see USAID's Commodities Reference Guide, which is accessible via
http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module2.html.

5.5.5. School Feeding (SF)

School feeding (SF) activities (also known as Food For Education or FFE) are designed to provide food supplements to school-age children and increase school attendance. By increasing school attendance, SF can enhance productivity, increase incomes, and result in greater gender equity.

Because free meals at school represent an income transfer to the student's household, SF can make it feasible for families to send their children to school. In some SF programs, take-home rations are provided, contributing additional access to food for a household.

Key considerations to ensure Bellmon compliance of proposed SF programs include:[103]

- Geographic targeting of food insecure areas.
- Sufficient supervisory capacity for any proposed SF activities to minimize possible leakages.
- "Wet" meals, or meals served in school, will help ensure food rations are consumed by the intended beneficiary, the student.

Take-home rations can act as an effective incentive to promote school attendance by partially compensating poor households for the lost income or the time children would normally have spent working at home during school hours. Awardees should determine whether or not take-home rations are appropriate to ensure school-based meals are not substituting for home consumption, but are in fact additional consumption. Post-distribution monitoring is critical, because take-home rations are subject to a greater risk of leakage.

[103] For additional USAID Food for Peace information about FFE guidance, please *see Fiscal Year 2010: Title II Proposal Guidance and Program Policies* (Draft Date: August 2009). For additional information about FFE programming objectives, please see Bergeron, G. and J.M. Del Rosso (2001).*"Food For Education Indicator Guide*. Washington DC: Food and Nutrition Technical Assistance Project, AED. For a review of the effectiveness of FFE interventions, see Adelman, S., D. Gilligan and K. Lehrer (2008). *How Effective are Food for Education Programs? A Critical Assessment of the Evidence from Developing Countries.* International Food Policy Research Institute Food Policy Review 9, accessible via: http://www.ifpri.org/sites/default/files/publications/pv09.pdf.

For further guidance on the appropriate design of SF activities, please see USAID's Commodities Reference Guide, which is accessible via
http://www.usaid.gov/our_work/humanitarian_assistance/ffp/crg/module3.html.

5.5.6. Prevention of Malnutrition in Children Under Two Approach (PM2A)

Current Title II Non-Emergency Program partners are implementing a Prevention of Malnutrition in Children Under Two Approach (PM2A) for their MCHN programming. PM2A presents both an opportunity for long-term human capital investment and a unique challenge to avoid disincentives in the short-to-medium term. The traditional recuperative approach targets children who are already malnourished and may have severe, irreversible physical and cognitive damage. In contrast, PM2A provides food aid to *all* children between the ages of 6 to 24 months within a target geographic area. As with the traditional recuperative nutrition approach, PM2A also targets pregnant and lactating women with Behavior Change Communication (BCC), preventive health care, and food supplementation. However, distributed rations under PM2A activities have greater potential to provide food aid to households for whom the food aid would not represent additional consumption; this is because the key PM2A targeting criteria are based on a child's age and a women's physiological status, rather than on an estimated household food deficit. Before implementing a program, initial geographic targeting of those areas with a greater proportion of food deficit households—as identified by secondary sources—will help avoid disruption of local production and markets.

To assess the relative absorptive capacity of food aid on a sub-national basis in Haiti, thereby providing Bellmon guidance on the appropriate magnitude of distributed food aid under a PM2A activity, this report relies on three proxy indicators of additionality:

1. Poor Food Consumption Score (FCS).
2. Rates of extreme poverty.
3. Prevalence of chronic malnutrition (stunting) in children under five years of age.

These three indicators, however, are not quantitative measures of a current household food gap, which could then be compared with the proposed ration under a food aid program to determine to what degree the "food gap" might be filled (or potentially overfilled) under the program. On the other hand, all three—particularly when taken together—provide strong indications of chronic household food deficits and are reasonable proxy indicators of the probability that food aid rations would represent additional food consumption.

By geographically targeting areas with a high prevalence of households with poor FCS, high rates of extreme poverty, and high prevalence of chronically malnourished children, a PM2A activity will help ensure that any given beneficiary household will more than likely increase overall household food consumption, relative to households in other geographic areas with lower percentages of households with poor FCS, lower rates of extreme poverty, and lower rates of malnutrition among children under age five. As noted above regarding Table 17, however, the use of department-level data in Haiti to inform geographic targeting is problematic. Depending on which proxy for availability, access, and utilization is used, one could reasonably conclude that any of the following departments face high levels of food insecurity: North, Northwest, Northeast, South, Center, Southeast, Grand 'Anse, and Nippes.

In accordance with formative research on the underlying causes of early childhood malnutrition, PM2A activity guidance includes BCC messages and a suite of health and nutrition-related services. By delivering the food ration as part of a carefully-designed package of MCHN interventions custom-tailored to beneficiary communities, a PM2A program will further increase the likelihood that direct beneficiaries will consume the entire food ration, which will simultaneously maximize nutritional impact and minimize any potential Bellmon concerns.

5.5.7. Commodity Selection

In selecting appropriate commodities for distribution, local diets must be considered. To avoid creating a substantial disincentive to production or disrupting local markets, selection should be based on analysis of local market conditions, consumer preferences (particularly the strength of those preferences), and beneficiary willingness to substitute foods for one another. This study provides general guidance regarding the appropriate selection of commodities for distribution. Given the heterogeneity of livelihoods and food preferences in Haiti, and the uneven performance of food markets across the country, it is incumbent upon Title II Awardees and other NGOs involved in food distribution to develop a thorough understanding of local conditions in the areas where they distribute (or expect to distribute) food aid.

The most commonly distributed commodities include cereals, pulses, and oil. Each of these is reviewed in turn.

Cereals. Cereals are the staple food and main source of energy. The type of cereal Awardees should distribute depends on how important it is for the cereal ration to be self-targeting versus, for instance, how important the cereal is for nutritional support or as an asset transfer. Depending on availability, Awardees may have limited control over the selection of a specific cereal that would be most appropriate to their area of intervention. To discourage inclusion error (particularly for FFW), rations should be self-targeting. The appropriate cereal for any nutrition-focused intervention (such as PM2A, an MCHN approach) would not have the same need for self-targeting as FFW, although there may be reason to design the household ration in a PM2A to be self-targeting.

Title II options include wheat, sorghum, maize, rice, cereal flours, processed cereal grains, and soy-fortified grains. Commercial processing of whole grain cereals is available for a variety of food aid commodities: flour and meal; parboiled rice;, bulgur wheat;, soy-fortified cereal grains; soy-fortified bulgur wheat (SFB); soy-fortified wheat flour (SFWL); soy-fortified maize meal (SFCM); and soya-fortified sorghum grits (SFSG). Compared with unprocessed cereals, processed cereals are quicker to cook, more fuel efficient, and therefore preferable, given the extensive environmental degradation in Haiti.

Self-targeting implies that people want the commodity (value it as a consumable), but should only be willing to eat it if they are poor. In other words, it is a commodity which is acceptable, but not preferred. Consumption habits in Haiti are based primarily on regional production. For example, people consume many roots and tubers in Grand'Anse and Nippes, maize and sorghum in the South, and local rice in Artibonite. Plantain and tubers are consumed in the North and Northwest. People prefer rice, maize, and sorghum in rural areas (particularly in production areas), and rice in urban/peri-urban areas (particularly imported rice, which is relatively less expensive following trade liberalization). Maize is consumed in both areas as a substitute for rice. Sorghum is the least preferred in both urban and rural areas, and generally consumed only by the poorest households. Bulgur wheat is considered an inferior substitute for both rice and maize in both urban and rural areas. Given the Haitian diet and consumer preferences, the following would be appropriate commodities to ensure self-targeting: (1) bulgur wheat and (2) sorghum, particularly in urban areas, where it is considered a less-preferred cereal. Conversely, the following would *not* be appropriate commodities to ensure self-targeting: (1) Title II rice (a good quality rice) and (2) Title II maize.

Pulses. Livestock and fish consumption is relatively low in Haiti. Therefore, pulses are a particularly important component of the Haitian diet, representing approximately 18% of the protein requirement (Akibode, 2011).

The particular pulse(s) that Awardees should distribute depends on how important it is for the cereal ration to be self-targeting versus, for instance, nutritional support. Depending on availability, Awardees may have limited choice in selecting a specific pulse that would be most appropriate to their area of intervention. As with cereals, to discourage inclusion error (particularly for FFW), rations should be self-targeting. The appropriate pulse(s) for any nutrition-focused intervention (such as PM2A, an MCHN approach) would not have the same need for self-targeting as FFW, although there may be reason to design the household ration in a PM2A program to be self-targeting.

In Haiti, local red beans are preferred to local black beans, and local black beans are preferred over imported pinto beans.

Edible oils. Barring local procurement of a different type of imported edible oil, Awardees do not have control over the type of oil for distribution.[104] However, Awardees can adjust the amount of oil to include in the ration. To discourage inclusion error, the overall ration should be self-targeting (i.e., the overall value and the individual components of the ration should be self-targeting).

There is no domestic production of edible oil in Haiti. There are two large importers of oil, who package and distribute both palm oil and various vegetable oils, and many smaller importers. Demand and supply conditions within local market catchment areas will influence whether distributed oil has a depressing effect on prices, thereby disrupting the private sector oil trade.

Based on the apparent high degree of substitutability among the many varieties of edible oil available on the market (especially soybean oil and palm oil), consumer preferences appear relatively weak. This may suggest that distributed Title II vegetable oil has a greater potential to displace normal market purchases, as compared with a commodity with no close substitute. The study team is unaware of any studies reporting the income elasticity of edible oil in Haiti and, unfortunately, there are no data available to estimate the price elasticity of oil.[105] However, the fact that imports increased from 2002–2004 while oil prices were increasing suggests an inelastic demand curve for oils. As prices fell from 2004–2006, import levels remained relatively steady, again suggesting inelastic demand for oils. However, changes in palm oil prices lead to significant shifts in the composition of total oil imports. This suggests that perhaps the oil requirement is relatively fixed, but the demand for palm oil is price sensitive. Please see Chapters 5 and 9 of the 2010 Haiti Market Analysis for more detail about supply and demand dynamics of Haiti's edible oil market.

Alternative commodities, particularly locally-procured commodities, may be available and suitable for distribution under a nutrition-focused intervention. To encourage adoption of nutritious dietary habits among vulnerable groups (especially among PLW and children under five), and to increase the likelihood of sustainability, donors and NGOs should consider incorporating locally available commodities into their programming, including avocados,

[104] There could be an issue importing GMO-oil from the US, and thus conflicting with the GOE Bio-Safety Proclamation of 2009.

[105] Considering data from 1995–2009, as the wedge between the world price of soybean oil and the world price of palm oil increased starting in 2002, commercial imports of palm oil dramatically increased, and overtook declining soybean oil imports almost immediately after the price divergence. Total oil imports in 2003–2006 increased to about 160% of their 2001 level (which was itself somewhat high), during which period of the world price of both oils rose nearly 67%, peaking in the latter half of 2003, and settling from 2005 to 2009 at about 1.16 times their 1999–2002 level. While price of soybean oil was quite stable between 2005 and 2009, the price of palm oil was more volatile. During this period, as the price of palm oil increased, approaching the price of soybean oil in late 2006, soybean oil imports increased, while palm oil imports decreased. Though soybean oil prices remained flat, when the price of palm oil began to drop again in early 2007, soybean oil imports rapidly declined as the rate of decline in palm oils substantially subsided. These data reflect the decisions of commercial importers, and therefore suggest that palm oil is a less preferred substitute for soybean oil.

mangos, plantains (dense in energy), root tubers, and dried fish. Including local foods will have the added benefit of stimulating the local economy. Current Title II MYAP partners already encourage the formation of Mothers Clubs as a forum for health and nutrition education. Also, some form of PD Hearth will increase the likelihood of adoption and sustainability and, over time, reduce the dependence of vulnerable groups on imported foods to meet critical nutritional needs.

Calculating household size for rations. The study team was unable to determine the average household size either by wealth group or by department-based secondary data. The 2007 CFSVA, which reports average household size according to livelihood zone, estimates a range between 4.4 and 5.7 persons.

For the practical purpose of calculating household sizes and adequate food needs, WFP provides rations based on a household size of 5. Based on available data, current programs appear to be designed so that the ration size will not exceed the needs of the household, lessening the chance that food would be resold.

Chapter 6. Local and Regional Procurement Food Aid

6.1. Introduction

Since the January 12, 2010 earthquake, donor interest has increasingly shifted away from importing in-kind food aid for distribution and towards local and regional procurement (LRP) of agricultural staples for use in food distribution programs. This Chapter:

- Outlines the purpose of LRP.
- References previous LRP initiatives.
- Summarizes current LRP initiatives.
- Provides general guidance for future LRP initiatives in post-earthquake Haiti so that future initiatives do no harm to local markets.

Much of the information for this Chapter is drawn directly from Chapter 6 of the August 2010 Haiti Market Analysis (2010 Haiti Market Analysis), which contained a similar review of LRP initiatives.

6.2. Definition of and Rationale for Local and Regional Procurement (LRP)

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

Locally purchased food for distribution. The rationale for LRP is that locally purchased (or regionally purchased), donor-financed food aid in countries affected by disasters or other food crises often arrives more quickly than food aid shipped from donor countries and is less expensive than imported food aid shipped from donor countries, allowing for greater beneficiaries coverage.[106] LRP foodstuffs may also be more appropriate to local tastes. Importantly, in a development context, by ensuring a market for local products, LRP can stimulate local production and local markets by providing capital and/or incentives for local market actors (producers, traders, transporters, etc.) to invest in agricultural production and market infrastructure.

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

- Inflationary pressure on the prices of foodstuffs purchased by poor consumers because of supply shortages caused by diverting food commodities away from local markets and toward aid organizations. This is a very serious risk where local producers have limited capacity to increase supply in response to increased demand by donor-financed LRP initiatives.
- Producers and traders also face the risk of "losing" a market created by donor LRP activities. Farmers and traders may scale up to meet this demand and need assurance

[106] See, for example, Tschirley and del Castillo (2007), GAO (2009), USDA-FAS (2009).

that investments made to meet new market demand will not be lost because of a sudden cessation of donor programming.

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

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

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

From the perspective of local markets and consumer welfare, the major risk associated with cash transfers and/or vouchers is that because they augment the purchasing power of beneficiaries—and therefore may increase consumption/demand—inflationary pressure may result on the prices of foodstuffs purchased by poor consumers who are *not* beneficiaries of the cash transfer or voucher program. This is a very serious risk where local producers and/or traders have limited capacity and/or incentives to increase supply in response to increased effective demand.

6.3. Previous LRP Initiatives

Although local procurement is not a new concept in Haiti, LRP initiatives in Haiti are currently limited in number and scope. The most prominent initiative was a multi-year Canadian Centre for International Studies and Cooperation (CECI) project, which ran from 1992–1999 and involved the purchase of grains from local producers in surplus areas for distribution to beneficiaries in deficit areas. CECI procured local rice from Vallée de l'Artibonite, maize from Plaine des Cayes, and sorghum from Plateau Central, and complemented these locally procured grains with vegetable oil and beans imported from Canada.

As detailed in the 2010 Market Analysis, due to the program design, the CECI project benefitted actors across the market chain, including producers, millers, and Madam Saras (female traders). The program was especially effective in assisting producers, by offering them a higher price for their crops and providing some investment in advance (seeds). However, though its impact spread across many levels of the market, the program's overall impact was nonetheless limited by its modest size.

At the end of 2004 and the beginning of 2005, the Ministry of Agriculture (MARNDR) began encouraging food aid agencies and donors to procure local commodities for their programs. In response, a number of efforts commenced and are continuing. These include the World Bank-funded *Programme National de Cantines Scolaires*, which purchases milk from a local dairy network to distribute in schools, and the *Cooperation Française*[107] program, which buys local rice and maize meal for distribution to WFP beneficiaries. With the support of the *Cooperation*

[107] The *Cooperation Française* is the official bi-lateral aid agency of the French government.

Française, WFP has been involved since 2005 in contracts with five producer groups in Artibonite, North and South, which provide maize meal, rice and beans for school feeding, nutrition programs, and FFW.

6.4. Current Initiatives

Since the 2010 earthquake, LRP has generated great interest as a method for simultaneously (1) stimulating the economy and the agricultural sector and (2) improving the food security of the most vulnerable. The MARNDR, WFP, and the World Bank have been engaged in discussions to support large-scale school feeding programs through local procurement. However, thus far, most of the interest in LRP remains unrealized.

As detailed more fully in the 2010 Market Analysis, currently underway are two major initiatives involving local procurement of food for distribution, and a number of initiatives involving unconditional cash transfers for the local purchase of food by beneficiaries.[108] This section summarizes each of these initiatives.

6.4.1. Local Procurement, by Donors

WFP (2005 – current). *The information below is taken directly from the 2010 Market Analysis. The team was unable to obtain additional information about WFP's LRP and cantines scolaires programs in time for report submission.*
With the support of the *Cooperation Française*, WFP purchases maize meal from three producer groups in the North (Chamber of Agriculture of San Raphael, Chamber of Agriculture of Limonade, and Chamber of Agriculture of La Victoire); rice from the *Association des Planteurs de Moreau Peye;* and beans from an association in Les Cayes. The rice and beans are used for WFP school feeding and nutrition programs, while the maize meal is used in school feeding as well as FFW. In 2010, the study team met with the management of the Chamber of Agriculture of San Raphael (CASR).[109]

With the support of the *Cooperation Française*, CASR set up a commercial mill with three machines to hull rice, polish rice, and grind maize and other grains for the greater San Raphael community.

Since 2005, WFP has been contracting with CASR for the purchase of high-quality ground maize from CASR, totaling 933 MT to date.[110] To amass the contracted quantities, CASR advances seeds on credit to 28 producer groups through 6 distribution networks across Saint Raphael. The seeds are distributed to producers to ensure quality compliance. CASR also contracts approximately 80 Madam Saras to buy from participating producers (at a premium of 1–2 gourdes per marmite above market price) and to bring the grains to the mill, where they grind the grain, at the standard rate of 2 gourdes per marmite. CASR then purchases the maize meal from these Madam Saras, paying an additional 5% to 12% premium for the high- quality product (with a 5–10 gourdes premium above the market price of 80–90 gourdes per marmite). The maize meal is then bagged by a team of 80 local women, who are also responsible for cleaning the mill.

For the last two years, WFP has paid between 75 and 100 gourdes per marmite of maize meal purchased from CASR. WFP provides both bags and transport for the maize meal. According to

[108] Here, we consider only unconditional cash transfers. Conditional cash transfers (e.g., Cash For Work) are treated in Chapter 6.
[109] In French, the *Chambre d'Agriculture de San Raphael*.
[110] These figures were reported as of June 2010. The team was unable to obtain updated tonnages procured from WFP.

CASR, the delivery terms are always respected, and the volume contracted is significantly lower than the volume CASR can mobilize.[111]

Rezo Asosyasyon Kooperativ pou Komes ak Pwodwi Agrikol Ba Latibonit (RACPABA) (2008 – Current). A smaller-scale initiative by Unitransfer provides a creative mechanism for members of the diaspora to purchase local rice for distribution to Haitian relatives and friends. Unitransfer procures rice from the Rezo Asosyasyon Kooperativ pou Komes ak Pwodwi Agrikol Ba Latibonit (RACPABA).

Founded on July 25, 2001, RACPABA is an organization of seven agricultural cooperatives across six communes of Low Artibonite. It currently has 2,423 commercially-oriented producer members, who farm and engage in the rice trade as well. RACPABA currently has seven mills.

The association has received tractors, combine harvesters, and mills from the European Union (EU), and technical training from Oxfam International. Training, improved access to credit and inputs, and receipt of machinery has enabled members to increase yields from 2.5 MT per ha to 4–6 MT per ha.

To ensure quality, an agronomist visits farms, takes samples, and analyses the grain as part of the inspection control process. The high quality grain is sold to RACPABA at a premium of 3% to 4% above market price, and RACPABA then sells the rice to various organizations, such as Unitransfer[112] (300 sacks of 50 kg/month) and the *Mouvement Paysan Papaye (*MPP), an organization in Hinche (100–125 sacks of 50 kg/month).

RACPABA has a storage capacity of 100,000 bags of 50 kg, and claims to be able to provide greater quantities than it currently contracts for. A supply assessment would need to be conducted in order to determine the quantity of rice RACPABA can provide without affecting rice prices.

6.4.2. Regional Procurement of Food by Donors for Distribution to Beneficiaries

The study team is unaware of any large-scale donor initiatives involving regional procurement of foodstuffs for distribution within Haiti. However, with an estimated 10,000 PVOs currently operating in post-earthquake Haiti, it is possible that some smaller PVOs are engaged in regional procurement of foodstuffs, especially given Haiti's proximity to and trading relations with the Dominican Republic.

6.4.3. Cash Transfers

A cash transfer to households in deficit areas increases household purchasing power, and can provide incentives for traders to move grain from surplus to deficit regions. However, if the value of the cash transfer is either set too low or eroded by inflation over time, it will not increase effective demand as much as the donor intends. It is important to note that traders will only react

[111] Though CASR claims capacity to produce more maize meal (farmers in Artibonite estimated they could produce1,000 MT more while farmers from the northeast estimated 350 to 400 MT more), CASR representatives note that they do not produce more because imported rice limits their ability to market local maize meal.

[112] Unitransfer, a subsidiary of Unibank, is one of the leading remittance services in Haiti. Haiti receives between US$1.5 and US$1.8 billion in remittances a year (Source: http://blogs.worldbank.org/peoplemove/node/1233, accessed 29 July 2010), through unofficial channels and official channels, such as Unitransfer. In addition to cash transfers for home delivery or pick-up, Unitransfer also provides a delivery mechanism for food and non-food remittances.

Since 2008, Unitransfer has contracted with RACPABA for the procurement of local rice to deliver as a remittance commodity. Unitransfer tried to procure beans and maize locally as well, but could not rely upon Haitian producers to provide these commodities year-round. Local rice is sent to individuals either in sacks or as part of a standard kit, which also includes imported rice, beans, maizemeal, oil, spaghetti, milk, and canned sardines. US clients can purchase kits in three different values: US$59, US$90, and US$130.

to opportunities for spatial arbitrage in some proportion to the increase in effective demand (after accounting for relative transportation and other transaction costs for potential traders).

The largest umbrella group currently involved in cash transfer programs is UNDP. However, many PVOs are involved in at least some cash transfer programming. In a recently published report, UNDP conducted a preliminary assessment of cash programming in Haiti based on a review of the experience of 17 different organizations currently involved: UNDP, WFP, Oxfam, Save the Children, ALL Hands, Fosac, Mercy Corps, Christian Aid, Catholic Relief Services, American Red Cross, British Red Cross, Lutheran World Foundation, Fonkoze, Unibank, Voila, Digicel, and ACTED (Sivakumaran, 2011). While more details may be found in that report, the main preliminary findings suggest the need for careful program design and strong monitoring to avoid corruption and/or the manipulation of beneficiary lists by local officials to gain political support. UNDP expects to conduct follow-up research on the broader impacts of cash programming, and will publish a revised version of the report later in 2011.

Currently, ACF is implementing an Emergency Food Security Program (EFSP) Cash for Work (CFW) program in Haiti. FFP has provided the program with US$3.65 million, from July 2011 to July 2012. The program will benefit 6,064 persons directly with CFW activities(with 2 shifts each); based on a household size of 6, the program targets 36,384 total beneficiaries (ACF, CFW proposal, 2011). ACF implements the program in north Artibonite. Beneficiary households are chosen through the creation of a local committee, which then selects beneficiaries. Women must make up at least 30% of the committee.

Workers are paid 200 HTG (about US$4.90)[113][114] per day, and as stated earlier, each beneficiary household will accrue two workdays. Each workday occurs from 6:30 am to 1 pm (ACF, CFW proposal, 2011). Activities include infrastrucutre rehabilitation and construction, among others.

Area managers are in charge of collecting and analyzing local prices. Toward the end of the program, ACF plans to conduct an assessment analyzing constraints facing fresh produce supply chains (ACF, CFW proposal, 2011).

6.4.4. Vouchers

Mercy Corps. In June 2010, USAID awarded Mercy Corps US$12.5 million to implement a voucher program via the Emergency Food Security Program (EFSP). The "Kenbe-La" program[115] provided monthly food vouchers worth US$50 to approximately 20,000 households (166,000 people) in the Lower Artibonite and Central Plateau regions (Mercy Corps, 2011).

The program, originally intended to last 12 months,[116] was designed to meet immediate cash and food needs of households displaced by the earthquake. Three categories of households were eligible to receive vouchers within the program's geographic areas:

1. An "IDP household," made up of at least three IDPs within the household.
2. A "host household," hosting at least 3 IDPs within the household.
3. A "resident household" classified as extremely vulnerable (e.g., head of household is handicapped, elderly, or an unaccompanied minor).[117]

[113] Based on rate of 1 USD = 40.8300 HTG, www.xe.com, November 2011.

[114] Team leaders are paid 300 HTG (US$7.43) per day, and community monitors are paid HTG 350 (US$8.67) per day.

[115] The study team is awaiting requests for information from Mercy Corps to update the information about their voucher programming. The information presented here is based on initial interviews with Mercy Corps, and will be updated once documentation from Mercy Corps is received.

[116] Mercy Corps recently received a three-month no cost extension, which will allow them to serve the current beneficiary household caseload through the end of the EFSP program in September 2011.

The program was implemented in three waves: In the first wave, Mercy Corps targeted 10,000 households, then expanded to 15,000 in the second wave, and finally 20,000 households in the third wave. The first transfers, at a value of US$40 each, occurred in December 2010. In April 2011, the voucher value was increased to US$50.

The vouchers were redeemable for four foodstuffs: rice, beans, maize, and oil. Importantly, the vouchers did not require a set volume of each foodstuff to be purchased and did not require that goods be locally produced versus imported, which allowed beneficiaries to best determine their needs and make purchases accordingly.[118,119] At current prices during distribution, the monthly voucher allowed households to purchase approximately 25 kgs rice, 4–5 kgs beans, 2 kgs maize, and 2 gallons of edible oil. Mercy Corps reports that their vendors had no problem stocking and re-stocking sufficient supplies to meet the program beneficiaries' needs.

Transfers were provided via paper vouchers in Mirebelais (to approximately 6,100 households) and Hinche (to approximately 8,000 households), and via mobile money transfers in Saint-Marc (to approximately 7,700 households). Mercy Corps partnered with Unibank and Voila for the mobile money transfers. The decision to use paper vouchers was driven by the lack of banking services in those rural areas of Mirebelais and Hinche where vouchers were distributed.

Although the voucher program is was only a year in length, Mercy Corps reports it learned several lessons to ensure successful voucher programming. Among these are:

- Independent monitoring of market prices is critical to avoid inflationary impact and potential problems with vendors.
- Establishing strong and professional relationships with vendors is critical to enable the PVO to address problems with vendors as they arise.
- Clear, written agreements with vendors are critical so that everyone "knows the rules." For example, vendors must agree that retail prices will not be increased in response to participation in the voucher program.
- Even with written agreements, PVOs should be prepared to terminate agreements with vendors if they break the rules (e.g., selling goods for which the vouchers are not intended to be redeemable).
- Larger vendors who would not and do not normally sell in smaller villages may travel to those markets on voucher distribution day in an attempt to gain the business of those beneficiary households with sudden effective demand, thus impacting the business of the smaller vendors who normally serve those communities and potentially affecting trade flow. Good relations with the larger vendors, and monitoring their business practices on distribution days, can help protect smaller vendors who might otherwise be hurt by this entrepreneurial practice.
- LRP has the potential to make food more costly to consumers in the areas where the food is procured by increasing demand and driving up prices. Lack of reliable market intelligence—such as market prices, production levels, and trade patterns—makes it difficult to determine the extent to which LRP can be implemented without causing

[117] The decision to include resident households of up to 20% of Mercy Corps' caseload was driven by the desire to touch the communities in which Mercy Corps was working. Mercy Corps originally contemplated including households with people living with HIV/AIDs (PLWHA), but had to abandon that plan because of the sheer number of households fitting that criterion.

[118] This could allow beneficiaries to purchase more than they need of a particular food stuff and sell the excess on the market for cash, but at present there does not seem to be much incentive for beneficiaries to do so. According to Mercy Corps' regular household survey, there are only very few households that engage in the practice (only approximately 1% of all beneficiaries), and they have only started to do this since March 2011 (Mercy Corps, 2011).

[119] The majority of these products do tend to be imported, however, because local products are generally not available at markets in beneficiary communities (Mercy Corps, 2011).

adverse market impacts. In the case of Mercy Corps, prices of their LRP food basket increased significantly, by an average of about 13% in the Central Plateau and Artibonite markets, from November 2010 to May 2011. The largest increases were in black bean prices, which increased about 28%, compared to the national average of 14%. However, these price increases could be attributable to many factors, only one of them being the implementation of LRP programs in these markets. Poorly functioning and un-integrated markets pose a challenge to avoiding adverse market impacts.

In FY11, CRS and CARE implement voucher programming through EFSP awards. These two programs target different vendors, but allow beneficiaries to select from either program's vendor pool (CRS, APS Technical Application Revised document, 2011).

CRS. CRS received its award in August 2011, and its program will extend to the end of July 2012. Funding for the program is US$3.96 million, and cost per beneficiary is US$94.35 (CRS, APS Technical Application Revised document, 2011). The Grand Anse Relief and Recovery Program targets 6,995 households (a total of 41,970 individuals) in Abricot, Jérémie, and Bonbon communes.

The program will distribute vouchers in the form of booklets (as well as in the form of mobile money, for the commune of Jérémie) each worth approximately US$50. Voucher distribution will take place monthly, during a 6-month time period, and value will be adjusted according to price changes(CRS, APS Technical Application Revised document, 2011).

Beneficiaries are selected based on levels of poverty, number of assets, vulnerability, and household composition (orphans, children-headed households, people living with HIV/AIDs, pregnant/lactating women, physical restraints). The vouchers enable beneficiaries to procure both local and imported rice, beans, corn, oil, bananas, yams, manioc, and breadfruit (CRS, APS Technical Application Revised document, 2011). No more than half of the voucher can be allocated to rice and oil, which CRS has identified as a high-priority imported item.

CARE. CARE is currently working in Grand Anse through its voucher program, "Kore Lavni Nou." The program received US$5.9 million in EFSP funds, and is scheduled from August 2011 through June 2012. The program tragets 12,000 households (72,000 individuals) (CARE, Kore Lavni Proposal Revised, 2011). Program goals include: 1) provision of short-term safety nets for needy families; 2) creation and reinforcement of market linkages, with a focus on local production and marketing; 3) creation of an electronic social safety-net mechanism.

The program distributes vouchers via printed check card or mobile phone, which are issued monthly to women. The distribution will last for six months, and each voucher is worth US$50. Commodities available for purchase with the vouchers include rice, corn, beans, cooking oil, bananas, yams, manioc, and breadfruit. Similar to CRS, CARE will allow beneficiaries to spend up to half of the vouchers on rice and oil.

6.5. Potential for Expansion

In its 2010 Market Analysis, the study team noted that LRP in Haiti is a logical tool to consider adding to the donor toolbox, particularly as donors contemplate the delicate balance between addressing short-term needs with long-term food security goals. LRP can stimulate local production and increase income-generating opportunities along the marketing chain, while simultaneously reducing dependence on imported foods, which have market structures that are less competitive than locally produced foods.

As the team argued previously, however, before donors engage in LRP on a larger scale, it is critical that the goals of local procurement projects are clear. One must distinguish between the

goal of promoting local agriculture versus improving access for food insecure households. At least in the short term, improving access for food insecure households is more efficiently met through cash transfers than through local procurement of food commodities. Given household expenditure patterns and the preference of poor households for cheaper, lower-quality imported food, a significant portion of the transfer spent on food will be directed to imports. This will increase household food security but will not simultaneously stimulate domestic production. As the imported commodities markets exhibit a c oncentration of market power among major importers, non-negligible portions of cash transfers to households can be ex pected to be captured by non-competitive, price-fixing importers.

While there appears to be some capacity for procuring locally produced maize and beans in Haiti, as well as fruits and vegetables, any initiative should be viewed as developmental rather than as a source of large-scale, emergency food relief. Local procurement on a small scale is more likely to succeed if it incorporates heavily supported, incremental investment that allows sufficient time for producers, traders, and transporters to adjust to increased demand.

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Annex I. Economic Data and Trends

I.i. Economic Growth

Over the last decade, the Haitian economy has been influenced—in fact, buffeted—by a combination international and domestic factors. Even without international impacts, the domestic economic environment inherently complex: an amalgam of political, social, market, and natural components.

In recent years, the following specific, major drivers have combined to impede Haiti's economic performance and efforts at growth:

- For most of the last 10 years, Haiti has been politically unstable.
- Global price increases in food and fuel in 2008, which spurred high average annual inflation rates.
- Damage from tropical storms in 2004, 2008, and 2010—and from the devastating January 2010 earthquake.

Table 1 presents economic performance in Haiti for the last 10 years.

Table 1. Haiti Economic Growth

Fiscal Year	GDP (constant 1986–87; million gourdes)	Annual Growth Rate of GDP	Share of Agriculture (% of GDP)
2000–01	13,001	-1.1	27
2001–02	12,930	-0.5	26
2002–03	12,992	0.5	26
2003–04	12,502	-3.8	25
2004–05	12,783	1.8	25
2005–06	13,071	2.2	25
2006–07	13,508	3.3	25
2007–08	13,622	0.8	23
2008–09	14,015	2.9	23
2009–10	13,307	-5.1	25

Source: IHSI 2004, 2009, and 2010.

As reflected in Table 1, the economy experienced negative or low growth rates from 2001 to 2004, mainly due to political instability and natural disasters that affected production. The economy grew at an average rate higher than 2% in three of the four fiscal years between 2005 and 2009. In 2008, rising global food prices, along with damage from four tropical storms, triggered a sharp decline in growth compared with the previous two fiscal years. In the aftermath of the 2010 earthquake, economic growth fell by more than 5%, due to large-scale damage to infrastructure (buildings, roads, and water supply) and widespread disruption in economic activities.

The agricultural sector continues to play an important role in the Haitian economy, employing nearly half of the population. However, the sector's overall contribution to the economy has declined: from 27% in 2001 to 23% in 2009. In 2010, this percentage slightly increased (to 25%), but only because the earthquake ravaged the economic sectors.

I.ii. Trade

Trade was liberalized in the 1990s. Since then, Haiti has become the most open economy in the Caribbean and Latin American regions. A new tariff schedule has reduced the main tariff rates on agricultural goods. As shown in the tables below, removing trade barriers has led to an appreciable increase in imports of food items, but exports of agriculture have remained rather low.

Table 2. Exports of Primary Products

Year	Total Exports (million $US)	Exports of Primary Products (million $US)	Primary Products/Total Exports (%)
2001	277.6	20.15	7
2002	279.91	32.36	12
2003	350.43	26.11	7
2004	392.23	28.94	7
2005	470.77	32.71	7
2006	511.49	33.49	7
2007	515.24	37.17	7
2008	479.08	43.01	9
2009	577.76	35.17	6
2010	579.22	32.53	7
Average	443.373	32.163	7

Source: Compiled by author based on data from BRH.

Total exports have increased gradually in the last ten years (except for 2008), averaging US$443.3 million per year. Exports of primary products—mainly coffee, cacao, mangoes, and essential oil—averaged US$32,163,000 per year, representing 7% of total exports.

Over the last decade, imports have increased and have outpaced total exports by far. The value of total imports has ranged from US$1,016.43million in 2001 to US$3,158.09 million in 2010, averaging US$1,720.5 million per year (Table 3).

The impacts of the global fuel and food price crisis are evident from changes in import figures:

- Expenditures on food imports have more than doubled between 2001 and 2010, reaching a peak at US$623.19 million in 2008. Food imports represented, on average, 22% of total imports.
- Expenditures for importing petroleum products more than tripled between 2001 and 2010, with the amount spiking markedly and peaking in 2008. Petroleum product imports represent on average 17% of Haiti's total imports. Haiti's main trading partners are United States of America (US), Dominican Republic, Thailand, Canada, Belgium, China, Malaysia, Brazil, and Venezuela.

Table 3. Haiti's Food and Petroleum Product Imports

Year	Total Imports (million $US)	Food Imports	Food as % of Total Imports	Petroleum Product Imports	Petroleum Products as % of Total Imports
2001	1,016.43	237.09	23	138.72	14
2002	1,146.17	251.98	22	152.33	13
2003	1,186.57	292.42	25	157	13
2004	1,305.39	316.95	24	197.52	15
2005	1,463.41	344.57	23	283.75	19
2006	1,623.61	355.99	22	319.79	20
2007	1,843.13	394.43	21	398.29	22

Year	Total Imports (million $US)	Food Imports	Food as % of Total Imports	Petroleum Product Imports	Petroleum Products as % of Total Imports
2008	2,338.67	623.19	27	509.77	22
2009	2,123.85	492.55	23	387.59	18
2010	3,158.09	531.65	17	406.95	13
Average	1,720.53	384.08	23	295.17	17

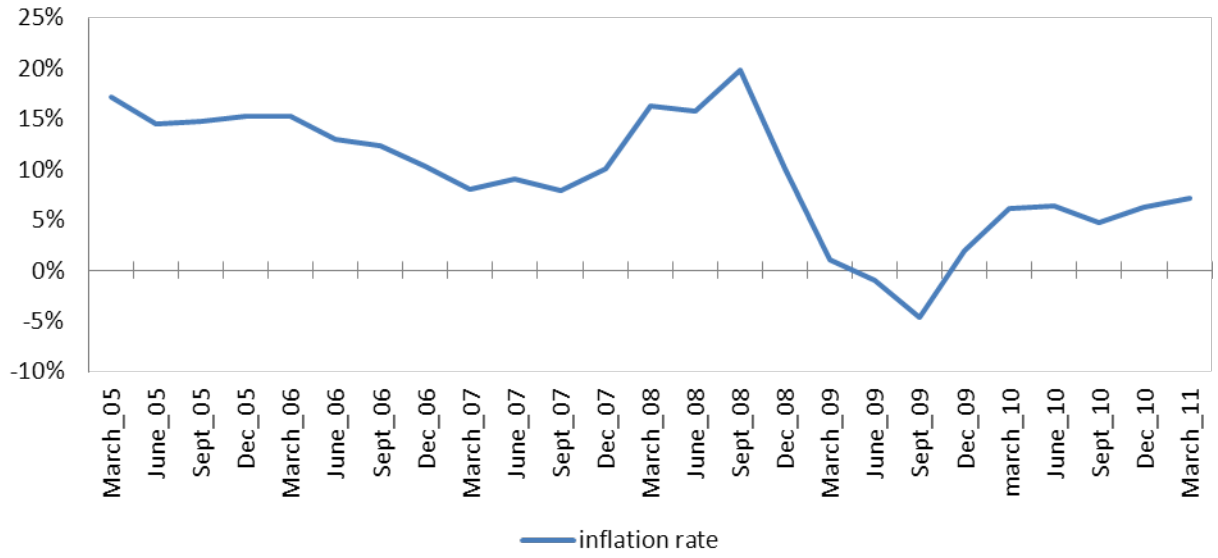
Source: Compiled by author based on data from BRH.

As for the composition of imports, food comprised 23% of Haiti's imports from the US, with cereals accounting for two-thirds of those food imports. Slightly over 15% of Haiti's imports from the Dominican Republic are food, with cereals accounting for nearly 10% of those imports.

I.iii. Inflation

As shown in Figure 1 below, inflation rates have generally declined over the last five years, from 17% in March 2005 t o 7.23% in March 2011. However, the inflation rate temporarily but substantially spiked in 2008, peaking at 19.8% in September, mainly because of the global food crisis. After the crisis subsided, inflation notably decreased, reaching a record low rate of -4.7% in September 2009.

Figure 1. Trends in Haiti's Inflation Rate



Source: Banque de la Republique d'Haiti (BRH).

I.iv. Global and Regional Economic Linkages

Haiti belongs to the WTO (World Trade Organization) and participates in regional trade accords, including FTAA (Free Trade Area of the Americas), CARICOM (Caribbean Community), and CARIFORUM (Caribbean Forum of ACP14 states). It is also a signatory to the US-Caribbean Basin Trade Partnership Act (CBTPA).

I.v. Poverty

As of 2009, Haiti's estimated population was 10.08 million people. According to the most recent poverty headcount figures (2005), more than half (54%) of the population was estimated to be living on less than US$1 a day. If the poverty benchmark is increased to US$2 per day, then the percentage increases to three-quarters (76%) of the population.

I.vi. Economic Policy

The performance of the economy is partly attributable to policies applied in the country for over a decade. These policies were largely supported by international donors such as the International Monetary Fund (IMF). In recent years, the GoH's objective was to stimulate economic growth and reduce the poverty level. Macro-economic policy had been guided by the need to face the multiple shocks that have affected the economy and to adapt to the evolution of the world economy. GoH interventions have been aligned with its agreement with IMF. The Haitian Government continued to implement policies aimed at maintaining the macro-economic stability as required by the international donors.

Here are the main components of recent GoH economic policy:[1]

- *Budgetary and fiscal policy.* During the last five years, the GoH has maintained greater budgetary and fiscal discipline. Greater effort has been made to control GoH spending and to increase fiscal revenues.
- *Monetary policy*. Monetary policy has focused on stabilizing prices and the exchange rate; by controlling the monetary base, the Central Bank was able to keep the exchange rate at around 40 gourdes for 1 US dollar. A degree of control over the inflation rate has also been observed.
- *Trade policy.* The GoH continues to liberalize domestic agricultural markets, which has resulted in significant import of food items. These items have become substituted for locally produced goods, which are heavily subsidized by foreign governments. During the last two years, fertilizers were distributed at low cost, but this initiative did not improve agricultural productivity and production, because of a dearth of well-articulated agricultural and economic policies.

Despite GoH efforts to stabilize the economy, scant private investments were made during the last five years. The cost of capital (interest rates) did not stimulate private sector investment and the foreign sector was reluctant to invest due to political risks. The unemployment rate is extremely high, estimated at 52% in 2010 (IHSI 2011); this has forced much of the population into small informal trades.

With the majority of the country's approximately 10 million inhabitants unemployed, family remittances were the main income source supporting household consumption.[2] In fiscal year

[1] *Banque de la Republique d'Haiti* (BRH).

[2] This figure was estimated by the *Institut Haïtien de Statistique et d'Informatique*, based on the results from the 2003 general census of the population, which was the first census conducted in 24 years. This figure assumes a population growth of 3% per year.

2009–2010, the level of registered remittances reached US$1,075.19 billion, a 7% increase from fiscal year 2008–2009.

Haiti is facing major economic and development challenges, especially after the January 2010 earthquake, which devastated the nation's capital. Given its geographical location, Haiti is threatened by hurricanes every year. The political environment continues to be uncertain, and therefore uninviting for business: more than two months after newly elected officials have taken office, the country is still waiting for a new government—and for the policies and programs that will orient and shape the economy for the next five years.

Annex II. Agriculture Overview

II.i. Production Base and Trends

Between 2000 and 2005, Haiti's overall population grew at an annual rate of 1.64%—down from 2.3% between 1983 and 2003 (the year of the last general census). The urban population grew an estimated 3%, in contrast to the rural population, which grew less than 1%. In 2008, IHSI projected that Haiti's population would reach 10.4 million in 2010, with 52% living in rural areas (IHSI, May 2008). That 2010 projection was rendered virtually meaningless when a devastating earthquake hit the country on January 12, 2010, and 250,000 people perished.

However, the population is expected rebound rapidly to the pre-earthquake level. This conclusion is supported by data from an unpublished July 2010 United Nations Population Fund (UNPF) study of women in 120 camps, which indicated that pregnancy rates have nearly tripled since the earthquake.[3] More specifically, UNPF observed that nearly 12% of those women between 15 and 49 years old were pregnant in 2010 (UN Population Fund, January 10 2011), compared with 4% before the earthquake.

For the past 25 years, the performance of the Haitian economy has not kept pace with population growth, leaving many households in poverty. Between 1983 and 2003 (the year of the last general census), the Haitian population grew by 2.3% per year, but the economic growth rate averaged less than 1% per year. The economy did not fare much better during the five years preceding the earthquake, growing on av erage only 2% per year. After the earthquake, cholera broke out in the Artibonite region—the largest rice-producing area—exacerbating the precarious conditions already imposed by the earthquake. Before the 2010 earthquake, GDP in nominal terms was increasing by an annual rate of about 3%. In 2010, because of the earthquake, GDP fell by more than 5% (IHSI, 2010).[4] The most severely impacted sectors were manufacturing and trade, which decreased by almost 15% and 8 %, respectively.

In 2010, the agricultural sector accounted for about 25% of Haiti's GDP, a sharp decline from 40% in the 1990s, but a slight increase from 23% in 2009. The sector employs more than 60% of Haiti's labor force. Data from the last agricultural census indicate that agriculture is the main activity for more than 1 million small farm households in Haiti. On average, a Haitian household operates 1.5 hectares subdivided into two or more small plots. Few producers are involved in commercial farming, and most of them are located in the Cul-de-Sac plain near Port-au-Prince. Even though most Haitians work in agriculture, most rural households are unable to live on farming alone. They are obliged to find alternative income from other activities including petty trade, part-time employment in non- agricultural sectors, and off-farm agricultural jobs.

[3] See, for example, UN Population Fund (January 10, 2011). One Year after the Earthquake, Haiti's Recovery Proceeds Slowly. Available at http://www.unfpa.org/public/home/news/pid/7106.

[4] During the last 20 years, declines of similar proportion occurred only during the embargo imposed on Haiti from 1992 to1994, during which all goods (except humanitarian supplies) were barred from entering the country. This crippled the economy.

In recent years, and particularly after the January 2010 earthquake, GoH and multilateral donors have considered the agricultural sector the key driver of future economic growth. In particular, growth in the smallholder agricultural sector is considered critical for expanding the economy and reducing poverty, especially in the short term. However, agricultural production has not met local needs, leading to massive imports of agricultural commodities to feed an ever- growing population. This section analyses the levels of crop production in Haiti.

II.ii. Production

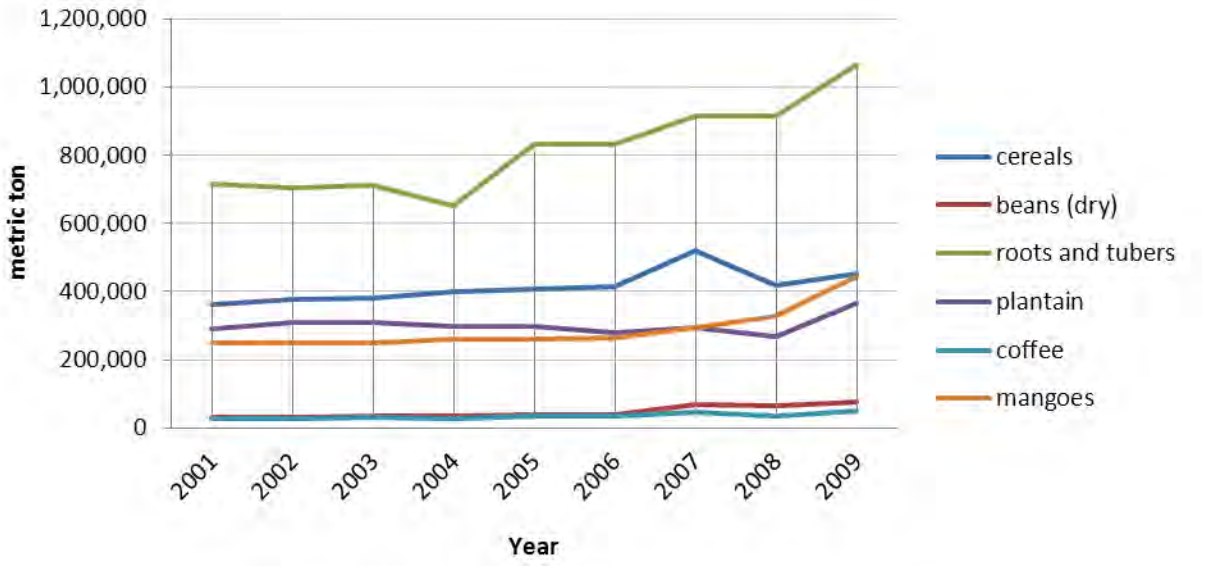
Haiti produces a variety of crops across various agro-ecological zones. The agro-ecological zones include humid and very humid mountains (47% of the country's total land); humid and semi-humid plains and plateau (19%); dry and semi-arid plains (15%); dry and semi-arid mountains (16%); and irrigated plains (2%) (Bellande, 2005a). The main crops produced are cereals (maize, sorghum, and rice), legumes (beans, pigeon peas, and vigna), roots and tubers (yams, sweet potatoes, cassava, and potato), plantain, coffee, fruits, and fresh vegetables.

Only 1.5 million of Haiti's total 2.75 million hectares—only 55% of the total land—are cultivated. The country is mostly mountainous; only 20% of the total lands are located in plains. Irrigated areas cover 80,000 hectares (less than 3% of the total land), 40% of which are concentrated in the Artibonite Valley.

Production data regarding agriculture in Haiti is not readily available, and the validity of the available data is often questioned. In the absence of reliable data, FAO estimates are used in this report.

As shown in the figure below, agricultural production for most crops has generally stabilized or declined during the period from 2001 to 2008. The visible exception to this general observation is production of roots and tubers, which has fluctuated but generally increased since 2004.

Figure 2. Evolution of Agricultural Production in Haiti



Source: FAO.

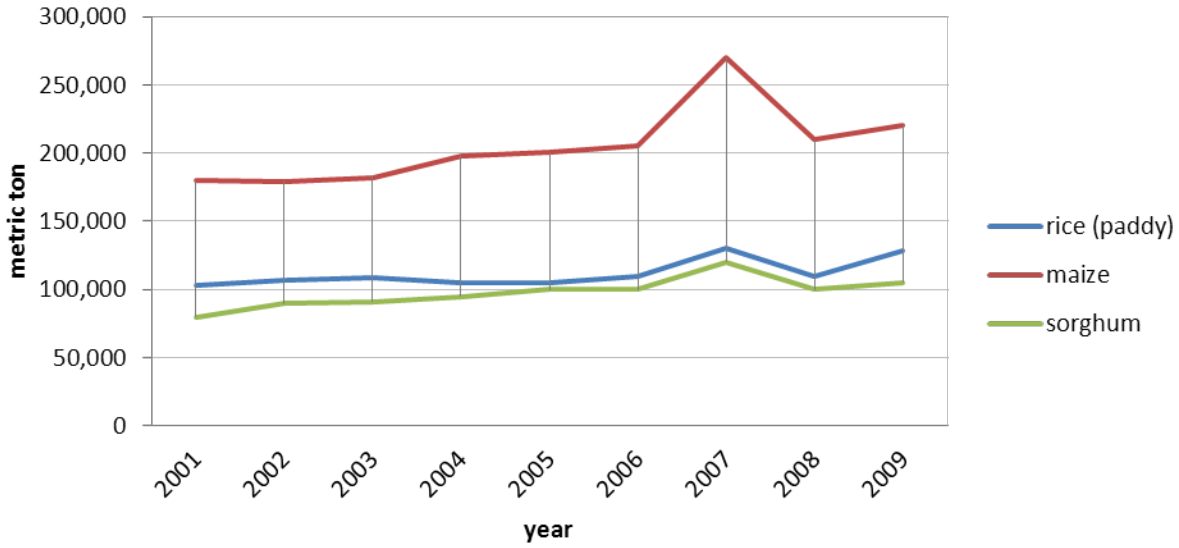
The above figure also illustrates the relative importance of the Haitian staples: cereals, roots and tubers, and plantain. Among all crops, root and tuber production was the highest during 2001–2009, at a yearly average of 815,527 MT, followed by cereals (414,694 MT average per year) and plantains (301,944 MT average per year). The Ministry of Agriculture reports a significant increase in overall agricultural production in 2009 and 2010. The report indicated (and the above figure reflects) that in 2009, production of all crops increased by approximately 35% from 2008 levels and by 29% from 2009 to 2010. In 2010, production of roots and tubers was evaluated at 1,345,368 MT and cereals 651,375 MT (CNSA, May 2011). According to Haitian authorities, the significant rise in agricultural production was due to the availability of affordable seeds and fertilizer and improved irrigation systems.

Changes in production levels are mainly caused by variations in planting areas. Under normal weather conditions, an increase in planting areas is likely to raise production. This is particularly true when more farmers have more access to affordable seeds and fertilizers.

II.iii. Cereal Production

The three main cereals produced in Haiti are rice, maize, and sorghum. Recent trends in cereal production are shown in the figure below.

Figure 3. Evolution of Cereal Production in Haiti



Source: FAO

II.iii.i. Rice

Two types of rice are grown in Haiti: mountain and swamp rice. Mountain rice is grown for subsistence, while swamp rice is produced for local consumption and sale in urban areas.

With an area of cultivation hovering around 3,000 ha, mountain rice production is rapidly declining due to environmental degradation (Bayard, 2007). Marketing of surplus mountain rice

is insignificant, and such trade occurs only in neighboring local markets. Further data on mountain rice production is not available.

Swamp rice varieties are grown in paddies across 15 zones in the country, though the Artibonite Valley accounts for the majority (60%). Other regions producing swamp rice include the south (Torbeck, Saint-Louis du Sud); the north (Saint-Raphael, Grison-Garde); the northeast (Maribaoux); and the Nippes (Abraham, O'Houk). Swamp rice varieties include Sheila, Shelda, TCS-10, Prosequisa, Madam Gougousse, Bogapote, and Sica. TCS-10 is the most commonly grown variety in the Artibonite Valley area, and plays a large role in determining market price. The Sheila and Madam Gougousse varieties are of superior quality, and are sold at a very high price; however, their share of the market is too small to affect overall local price movements.

In recent years, rice production has generally remained stable or slightly varied, ranging from 103,000 MT to 130,000 MT on average per year. Between 2001 and 2009, production of paddy rice averaged 111,861 MT per year, representing approximately 27% of all cereals produced in the country. During this period, rice yields remained close to 2.0 MT/ha. Variation in rice production is primarily associated with changes in planting areas. Between 2001 and 2009, the area planted with rice each year varied from 51,200 to 57,800 ha, and averaged 53,700 ha per year. Farmers increase planting areas as a result of good weather, availability of fertilizers and seeds at affordable prices, and favorable market prices. In 2010, rice production was estimated at 141,075 MT (CNSA 2011).

II.iii.ii. Maize

Maize, an important food crop, is extensively cultivated in Haiti. In fact, maize is grown by almost all Haitian farmers across all agro-ecological zones. A major contributor to food security, maize is used to assuage hunger while awaiting the harvest of other crops. Although fertilizers are rarely applied to maize, and even then in negligible quantities, farmers continue to generate positive net returns from its production. Maize is also a strategic crop; it is planted as a substitute for rice when rainfall is low on the plains and/or whenever quick output is required after a disaster or damage strikes other crops.

During the 1990s, the maize varieties grown in Haiti were La Maquina 7827, La Maquina 7928, Comaya, UNPHU-301C, and UNPHU-304C (Azael, 1994). The main varieties grown today are those that have been improved: Chicken Corn, Maquina, Comayagua, Hugo, and two local populations (Ti Mayi and Gros Mayi) that are adapted to Haiti's particular environmental conditions. Still, maize seeds, like those of most staple crops in Haiti, are characterized by lack of selection, improper processing and storage, and low germination. Almost all farmers retain grains from previous crops for planting during the next season, although they often differentiate between the grains intended for consumption and those earmarked for planting. Grains for planting are usually large and free from blemishes while those for consumption are not as well graded and may contain a mix of smaller grains and some blemishes.

Maize production averaged 204,989 MT per year between 2001 and 2009, representing about 49% of total cereal production. During that period, maize production reached its highest level of 270,000 MT in 2007 and then fell to 210,000 MT in 2008. According to reports from the Ministry

of Agriculture, maize production has been increasing over the past two years. In 2010, maize production was estimated at 364,500 MT. Maize yields are relatively low in Haiti, averaging 0.75 MT/ha. Variation in maize production is highly related to areas under cultivation; between 2001 and 2009, total planting area ranged from 240,000 ha to 346,000 ha, and averaged 271,111 ha per year.

II.iii.iii. Sorghum

After maize, sorghum is the second-most widely planted cereal crop in Haiti. Haiti produces two varieties of sorghum: a long-cycle crop (six to nine months) and a short-cycle crop (three months). The short-cycle season lasts from March/April to June/July, and the long-cycle season lasts from April/May to January/February. Sorghum is grown across the country, mostly in water-deficit areas and in association with maize and pigeon peas. The Central Plateau, Upper Artibonite, Nippes, and South regions account for the majority of sorghum production (Paul, 2005). Farmers also grow sorghum In the Cul-de-Sac plain, near Port-au-Prince, because of deficiencies in the irrigation system. In response to environmental degradation, sorghum production has gradually extended to less arable areas, averaging a total of 120,000 ha cultivated during the two seasons. Between 2001 and 2009, sorghum production ranged from 80,000 MT to 120,000 MT averaged 97,844 MT per year. In 2010, the Ministry of Agriculture estimated sorghum production at 145,800 MT.

Although sorghum is well-adapted to harsh environments, drought is often a major constraint to crop growth. Diseases, insects, and birds also cause extensive damage to sorghum crops. While sorghum yields vary from 0.75 to 1.5 MT per ha depending on location and varieties, hybrid varieties have the potential to yield 3 to 4 MT per ha. Sorghum is typically produced by subsistence farmers on lots which average less than 2 ha. These farmers usually have extensive cropping systems, with no improved technologies.

II.iv. Pulse Production

Haiti produces numerous varieties belonging to the genus Phaseolus, including white and yellow beans, pigeon peas (pois congo), black-eye peas (vigna), green peas, and lima beans. The varieties grown the most, however, are the black and red mottled beans. These locally produced beans are preferred over imported beans and, therefore, imported beans are viewed by consumers as imperfect substitutes for local beans.

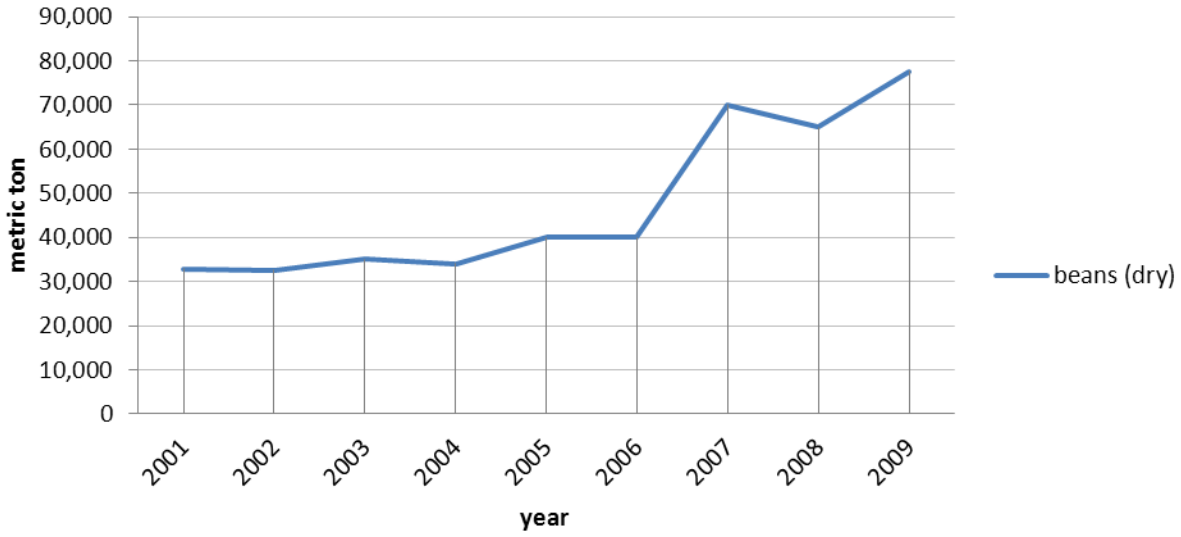
Beans are grown in humid and sub-humid mountainous regions and in irrigated plains throughout Haiti. There are three main seasons of bean harvest: February/March (lowlands), May/June (highlands), and September/October (highlands). Highland harvests cover 100,000 ha, and lowland harvests cover 20,000 ha. In terms of volume produced, Haiti's main areas of bean production are: South (20%), Southeast (15%), Central Plateau and West (12%), Artibonite (11%), and Grand'Anse (10%). Other regions produce less than 10% each, with the lowest contribution coming from the Northwest (3%).

The evolution of bean production is shown in Figure 4. Production has trended up slightly from 2001 to 2009. During that period:

- Bean production averaged 47,444 MT per year, ranging from 32,500 MT to 77,599 MT.
- The areas planted with beans ranged from 50,000 ha to 108,000 ha, and averaged 72,295 ha per year.

Since annual bean yields are relatively low, averaging 0.7 MT/ha, changes in the level of bean production are highly dependent on areas cultivated. For 2010, bean production was estimated at 92,070 MT, well in excess of the 2009 yield reflected in Figure 4.

Figure 4. Evolution of Bean Production in Haiti



Source: FAO.

II.v. Root and Tubers Production

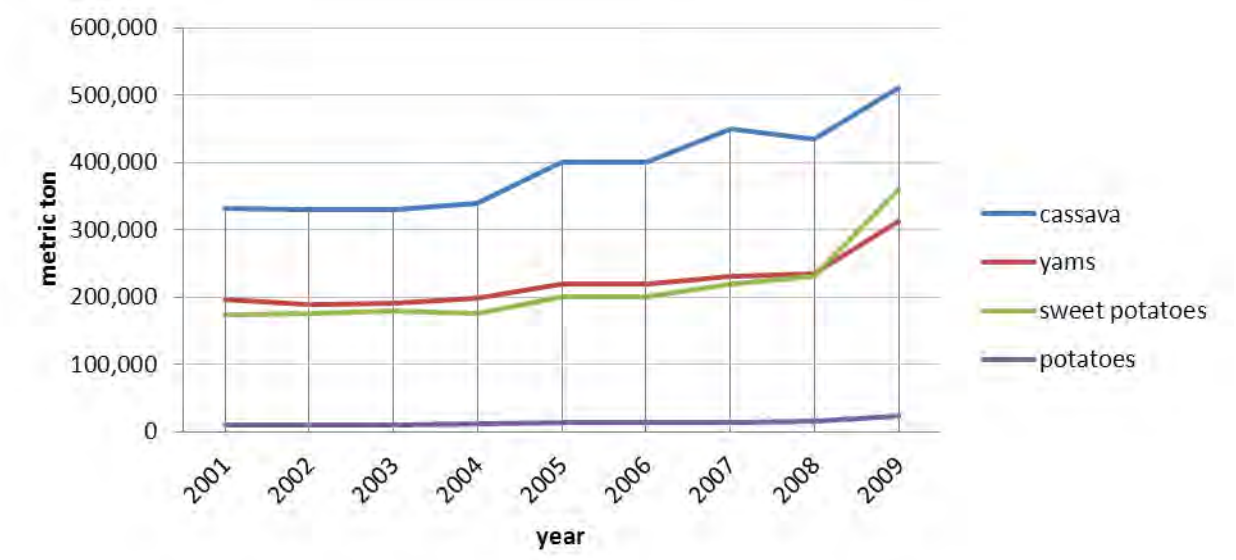
Roots and tubers are grown throughout Haiti. The main roots and tuber crops are cassava, sweet potato, yams, and potatoes; dasheen is also produced in some areas. Cassava is grown in dry and semi-humid areas; yams in humid areas and in plains and mountains; sweet potatoes in semi-humid and humid areas; and potatoes in humid mountains. Between 2001 and 2009:

- Production of roots and tubers increased, except for potatoes, which were more stable.
- Production of cassava averaged 391,922 MT per year, ranging from 330,000 MT to 510,300 MT.
- Production of yams increased from 189,700 MT to 313,200 MT, averaging 221,665 MT per year.
- Production of sweet potatoes and potatoes averaged 212,716 MT and 13,636 MT, respectively.

The overall increase in production of roots and tubers is due mainly to increased production of cassava. Production of sweet potatoes has also increased between 2001 and 2009 (see Figure 5), as a result of improved production techniques disseminated by the Ministry of Agriculture with the support of FAO. Nevertheless, on average, cassava production dominated between 2001 and 2009, representing approximately 47% of total root and tuber production, followed by

yams (26%), sweet potatoes (25%), and potatoes (2%). As for the overall production of roots and tubers, the Ministry of Agriculture has reported a significant increase for 2010 over 2009. Production was evaluated at 561,330 MT for cassava, 414,518 MT for sweet potatoes, 344,520 MT for yams, and 25,000 MT for potatoes. These 2010 numbers, coupled with the information contained in Figure 5, demonstrate that sweet potatoes, by volume, have replaced yams as the second most produced roots and tuber crop in the country.

Figure 5. Evolution of Roots and Tuber Production in Haiti



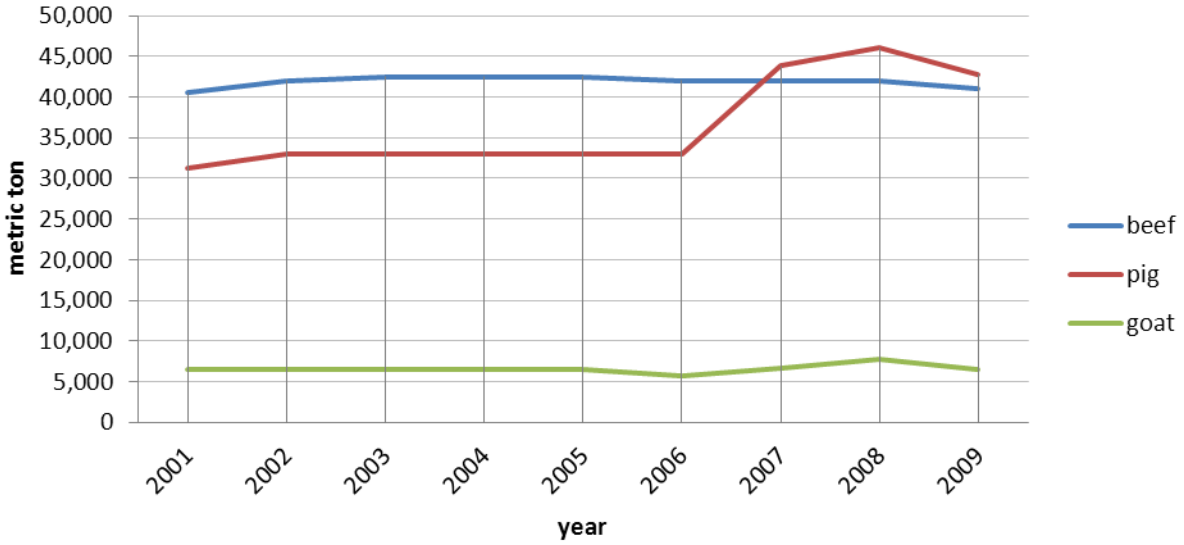
Source: FAO.

II.vi. Other Crops and Meat Production

Fresh fruits and livestock are also important elements of Haiti's agricultural sector. Large quantities of various fresh fruits are produced across all agro-ecological zones. The varieties produced include bananas, mangoes, avocadoes, pineapple, coconut, passion fruit, orange, lemon, grapefruit, and breadfruit. In 2005, total fruit production was estimated at 796,650 MT with mangoes representing approximately 33% (Bellande 2005b). Between 2005 and 2009, fruit production fluctuated. While mango production decreased by 6% (from 261,000 MT in 2005 to 244,607 MT in 2009), orange and lemon production increased by 37% (30,000 MT to 41,249 MT) and 8% (26,000 MT to 28,003 MT), respectively.

Overall production of meat was stable from 2001 to 2009, though a marked increase in pork production was observed in 2007 and 2008. From 2001 to 2009, beef production averaged 41,887 MT per year, pork 36,545 MT, and goat 6,580 MT. The evolution of meat production is shown in Figure 6.

Figure 6. Evolution of Meat Production in Haiti



Source: FAO.

II.vii. Seasonality

Given the diversity of Haiti's agro-ecological zones, crop production is possible all year long in different parts of the country. However, Haiti's agriculture is mostly rain-fed; thus, the main cropping seasons follow the rainfall pattern. Although 70% of the territory receives rains averaging 1200 mm per year (Bellande, 2005a), rainfall is highly variable at different times and in different areas. Moreover, the rainfall pattern has dramatically changed during the past few years. Rains that have normally occurred in February through March—at the beginning of the spring cropping season—now arrive in May, even at the beginning of June in some areas, causing a delay in planting. This phenomenon, observed in both 2010 and 2011, has affected crop yields and production in all agro-ecological zones. Some analysts attribute this altered pattern to climate change.

Beans are cultivated during three main seasons, with harvests in February, May, and September. Beans are produced in humid mountains during spring and summer seasons; during winter, they are cultivated only in irrigated and humid plains. Approximately 48% of the bean crop is produced during the spring season, 22% in summer, and 33% in winter.

Maize is produced in all of Haiti's agro-ecological zones. About 49% of the maize crop is produced during the spring season, 33% in summer, and 18% in winter (FAO/PAM, September 2010). Rice can be produced all year long, but harvests for the two main seasons take place in July/August and November/December. Sorghum is harvested in January/February.

Immediately after harvest, locally produced agricultural commodities are abundant in markets. The abundance may last one to two months, depending on the harvest (which varies with weather conditions). After a good harvest, the markets' supply of local commodities lasts longer.

Seasonality and production aside, Haiti's agricultural sector lacks sufficient post-harvest infrastructure, such as collection points, storage, and processing facilities. These endemic deficiencies often cause major product losses—and food that never makes it to market.

II.viii. Domestic Production and Processing

The agro-industrial sector in Haiti flourished in the early 1980s, with 4 sugar cane companies, 6 pasta and tomato companies, and vibrant dairy and poultry industries. The 1992–1994 embargo destroyed Haiti's agro-industrial base; not only was the export market cut off, but imports of raw materials were constricted. The above-mentioned trade liberalization, which began in in 1995, exacerbated the economic damage: cheap import commodities flooded into the country and competed with local production. As a result of these historic factors, several hurricanes, and the catastrophic 2010 earthquake, Haiti's agro-processing sector is no longer well-developed—-and no longer flourishes. Only a few small, undercapitalized entrepreneurs process specialized commodities such as fruits, sugar cane, milk, and honey.

Before the earthquake, the formal agro-industrial sector, located primarily in the Port-au-Prince area, included 12 mango exporters, 4 producers/exporters of essential oil, and 5 food-processing enterprises (MARNDR/BID, Ocotober 2005). In recent years, farmer associations and cooperatives supported by NGOs have undertaken initiatives such as the processing of milk, fruits, coffee, and honey. Currently, about 13 mini-dairies across the country process milk under the label of Lèt Agogo; through the technical support of the Haitian NGO Veterimed, production of these min-dairies has increased over the past five years. Building on this success, 17 new mini-dairies are under construction and are targeted to start production by the end of 2011.

The fruit processing industry consists of fewer than 10 small enterprises that produce marmalade and jelly, and a single enterprise that produces orange and grapefruit juice. The latter enterprise, on average, produces 150,000 liters of juice over a six-month period.

There are between 450 and 500 small rice mills in the country. More than 80% of those mills are located in the lower Artibonite region, where 60% of the local rice is produced. Most of the mills process parboiled rice (Bayard 2007). A project funded by the Taiwanese Cooperation has recently installed 6 mills in Torbeck (South department) to process white rice. An additional 5 mills will be installed in the next few years. Each mill can process 8 MT of paddy rice per day. The enterprise already has a contract to sell rice to WFP. Two rice importers who have visited the enterprise have also expressed their willingness to buy local rice from the project.

Maize mills are located near markets and frequently grind sorghum as well.

Fundamental impediments to the agro-industrial sector include:

- Deficiencies in infrastructure of communications and basic services (roads, electricity), over and above the noted deficiencies in post-harvest infrastructure.
- Limited access to formal sources of capital.
- Limited access to external markets due to sanitary and phytosanitary barriers.

II.ix. Impacts of Natural Disasters on Agriculture

In recent years, Haiti has experienced severe external shocks, which have stunted its economic growth and consequently exacerbated poverty. In 2008, the country was affected by the food price crisis, political turmoil, and three major hurricanes that caused damage evaluated at US$ 229 million (MARNDR 2011). IHSI estimated negative growth of 7.4% in the agricultural sector during this period. If 2009 could be considered a relatively good year, 2010 brought three major calamities: a powerful 7.0 earthquake, Hurricane Tomas, and a cholera outbreak. Post-earthquake rapid assessment has estimated roughly US$34,275,000 in losses and damage to the agricultural sector. These include damage to the irrigation infrastructure ($2.05 million), agricultural roads ($0.2 million), and food processing infrastructure ($ 0.375 million); loss of crop production ($8.0 million); and damage to office buildings ($23.650 million).

Population displacement following the earthquake has also adversely affected the agricultural sector and increased food insecurity. An estimated 600,000 people left the earthquake-affected areas to settle in other communities. The average number of people living in each household has increased from five to more than 10 in several regions in the country. According to GoH, the population displacement resulted in:

- A food deficit in rural areas, which caused a rise in food insecurity.
- Consumption of seed stocks, which reduces investments in the next cropping season. Along these lines, the CFSAM reported a diminution of the area planted during the spring season.
- A reduction in household livestock holdings and other assets as a response to increased demand for food. This situation was aggravated when formal money transfer systems were closed for during several weeks following the earthquake.

In November 2010, Hurricane Tomas, which hit almost all regions in Haiti, further and extensively damaged an agriculture sector already reeling from the earthquake. Hurricane-related losses were estimated at US$20 (CNSA 2011). At about the same time, the country was affected by a cholera outbreak that killed more than 5,000 people. The impact of the cholera on the agricultural sector has not yet been evaluated.

II.x. Key Constraints on Agricultural Expansion

Despite the documented importance of agriculture to the Haitian economy, the sector has not received adequate support for its development. The key constraints on agricultural development in Haiti include the following.

- **Environmental/land degradation.** Three-fourths of the country is mountainous with slopes greater than 30%; forests cover only 1%–3% of the land. About 85% of Haiti's watersheds are severely degraded, resulting in soil erosion, loss of fertility, and reduced water quantity and quality. Deforestation, inappropriate farming practices, and population growth, are all believed to contribute to the degradation of the environment. Given this scenario, crop yields are low unless fertilizer is used.
- **Lack of irrigation.** Agriculture in Haiti is mainly rain-fed, and consequently is often affected by drought. According to MARNDR, the overall potential for irrigation in Haiti is

between 135,000 ha and 150,000 ha. However, even though 90,000 ha have irrigation infrastructure, only 60,000 ha—well below half of the potential—are currently irrigated. Moreover, existing irrigation systems are not well-maintained and managed because of weak managerial structure and lack of funding. Farmers are simply using the available water freely and inefficiently.

- **Lack of infrastructure.** Lack of transport and communications infrastructure and poor maintenance of physical infrastructure limits access to internal and external markets. Poor infrastructure impedes the availability of market information, ultimately reducing farm prices, producer share, and profitability. In rural areas, poor roads hinder the transport of agricultural products and the marketing of perishables, resulting in significant post-harvest losses and huge marketing margins to cover risks. Lack of post-harvest infrastructure, such as collection points, storage, and processing facilities, increases transaction costs along the chain and is an overall constraint to the agricultural sector.
- **Poor production technologies.** Farmers have limited use of and access to improved technologies. A small number of farmers operating in irrigated areas and humid hillsides, where water is abundant, use mineral fertilizers. An average of 20,000 MT of mineral fertilizers are used each year by about 5% of Haitian farmers, mainly in rice-producing areas and high-elevation humid zones, where vegetable production predominates (CIAT et al. 2010). Farmers typically rely on traditional seeds (those that are not researched/improved) conserved from the previous harvest. Improved seeds are rather scarce and too costly for Haitian subsistence farmers. Most farm operations throughout the country run on manual labor, although ODVA and some farmers' associations and individuals own some mechanized equipment that is mainly used in rice production.
- **Lack of access to credit.** The rural sector does not receive much bank credit, and small farmers generally rely on local moneylenders for high-interest loans. Investment and working capital for agriculture and agro-industry are very scarce. The weakness of the intermediary and processing sector is a handicap to developing linkages between producers and the market.
- **Lack of technical expertise.** Haiti's agricultural sector lacks applied research, training, and appropriate extension for promoting farming systems that efficiently use land and labor resources. Other technical gaps include conservation of the natural resources, and risk-management skills.
- **Lack of support**. Integrated supply chains for crop and livestock production are underdeveloped. This is because:
    - Negligible support services are dedicated to agriculture.
    - The collaborative partnerships between economic agents (producers, public, and private actors) that are necessary to create integrated supply chains do not exist.
    - Producers lack managerial skills and are poorly organized to better develop their processes.

II.xi. Imports

Until the first half of the 1980s, tariff and non-tariff barriers protected Haitian agriculture from foreign competition. Customs duties were relatively high to discourage imports, as shown in the table below. Following the recommendation of IMF and the World Bank to structurally alter this practice, key barriers were removed in 1995, making Haiti the most open economy in the region and tremendously increasing the country's imports of agricultural products. This is especially true for rice, the country's primary imported commodity. In 2007, Haiti's import value was evaluated at US$1,609 million, resulting in a trade deficit of US$1,049 million. Between 2000

and 2007, food imports averaged US$307 million annually, or about 23% of total imports. The food trade deficit increased from US$242 million in 2000 to US$342 million in 2007.

Table 4. Evolution of Tariffs Rates on Selected Commodities

Commodity	Before 1995	1995–2009	2010–July 2011
Rice	50%	3%	3%
Corn	50%	15%	15%
Sorghum	--	0%	15%
Beans	50%	5%	3.5%
Wheat	--	0%	4%
Wheat flour	50%	0%	3.5%
Prepackaged edible oil	--	0%	5%

Source: Iram & Ecosof (1998), AGD (2010).

II.xii. Exports

Coffee, cacao, mangoes, and es sential oils are the main agricultural commodities currently exported by Haiti. Production of those crops has been declining for several decades. Between 15,000 MT and 20,000 MT of fruits are exported every year to the US, the Dominican Republic, and other Caribbean countries. The value of fruit exports amounted to US$10 million in 2005 (Bellande, 2005b). Informal exports of various products in small quantities to the Dominican Republic are pervasive. Between 2000 and 2007, agricultural exports fluctuated, averaging US$ 23.12 million per year during that seven-year period. As of 2007, agricultural exports represent on average 6% of Haiti‘s total exports.

II.xiii. Key Policies/Initiatives Affecting the Agricultural Sector

Economic policy in Haiti is dominated by two structural adjustment programs implemented in 1986 and 1995. These policies removed trade barriers, which led to massive imports of agriculture commodities that competed with local agriculture. This has adversely affected Haiti’s agricultural sector in general and its rural economy in particular: the influx of cheap imports has driven down revenues and even discouraged production altogether. For example, according to a study by Oxfam International, as a result of trade liberalization, rice production decreased by about 42% between 1986 and 1999 (Chery, May 2001; Oxfam International, October 2005).

Despite the appreciable damage (albeit unintended) that trade liberalization inflicted on agriculture, the Haitian Government has not yet implemented a well-articulated agricultural policy to support the sector. In 2004, the interim Government emphasized the following five points to outline its agricultural policy:

1. Restoring a macro-economic framework favorable to the agricultural sector.
2. Investing in key public infrastructures in rural areas and supporting private infrastructure building.
3. Orienting technical support toward the most profitable crops.
4. Developing a well-structured input distribution system.
5. Promoting dialogue and alliances among actors in the agriculture sector.

Although the interim Government called for more support for agricultural development, it did not have the means to implement its policy, especially in a difficult political and economic context.

In March 2011, the Ministry of Agriculture made public a document of agricultural policy aimed at improving food security and economic and social development. This policy is yet to be endorsed by the Government. MARNDR has also elaborated a five-year extension plan (2011–2016) aimed at implementing an extension system with the participation of the private sector. The expected results of the plan are:

- Adaptation of improved technologies, and their adoption by producers.
- Increase in productivity in crops and livestock.
- Improved food security and product quality.
- A strengthened sanitary protection system.

Thus far, economic and monetary policies have not stimulated private investment in Haiti's agriculture. For a relatively long period, investments in the agricultural sector have been primarily supported by international donors, but the results have been less than satisfying. Currently, some 22 projects are being implemented by the MARNDR, with funding from multilateral and bilateral donors. The budget for these projects amounts to US$228.9 million. The MARNDR interventions include:

- Crop intensification
- Development of irrigation
- Food security and environmental management
- Development of aquaculture and fisheries
- Soil erosion control
- Natural disaster mitigation and flood early warning

Other interventions have been initiated by a multitude of NGOs across the country. Nine other projects, totaling US$270 million, are currently in preparation for the next five years.

Some public funds have been injected into the agriculture, but primarily in emergency situations such as after hurricanes and floods.

Annex III. Household Income and Expenditure Patterns

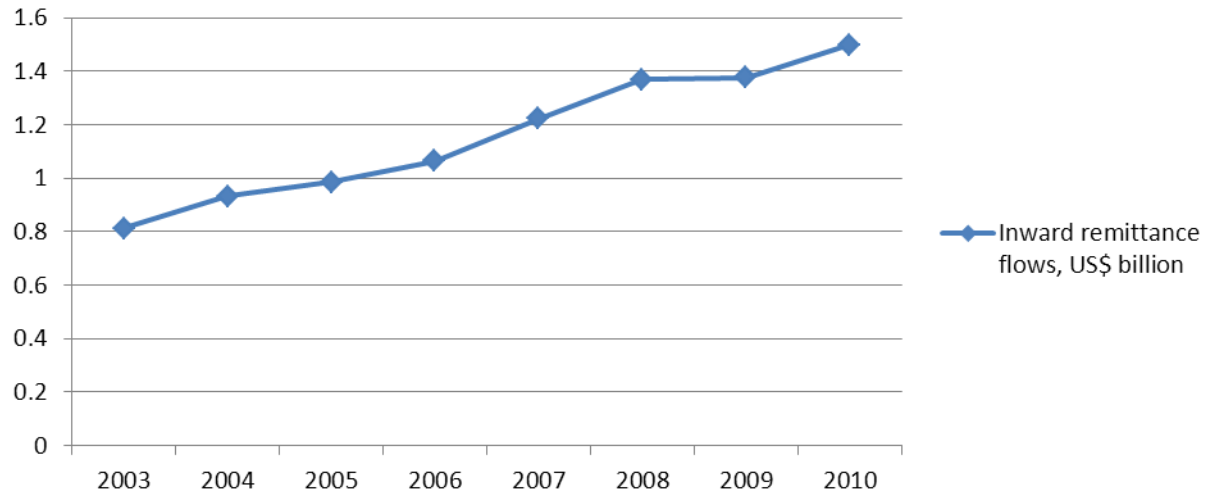
III.i. Introduction

In July 2010, BEST completed a comprehensive Market Analysis, which detailed household income and expenditure patterns in urban and rural areas, as well as inward remittance flows. Since that time, only minimal data and reports have been published on these topics. For the latest information, please refer to the BEST Project's 2010 Haiti Market Analysis Annex, which is available at: http://www.usaid.gov/our_work/humanitarian_assistance/ffp/haitiannex.pdf.

III.ii. Remittances

Since the 2010 Market Analysis was published, the World Bank has updated inward remittance flow figures for 2010. Remittances have increased each year since 2003, as displayed in the figure below. In 2010, inward remittances totaled US$1.5 billion,[5] representing 22 percent of Haiti's GDP.

Figure 7. Inward Remittance Flows, 2003–2010, US$ Billion



Source: Ratha, D., S. Mohapatra, A. Silwal (2011). Migration and Remittances Factbook 2011. World Bank

For additional details on the origin, frequency, and recipients of remittances, please refer to the Fintrac 2010 Haiti Market Analysis Annex, which is available at: http://www.usaid.gov/our_work/humanitarian_assistance/ffp/haitiannex.pdf.

[5] Source: Ratha, D., S. Mohapatra, A. Silwal (2011). *Migration and Remittances Factbook 2011*. World Bank. Available at http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1199807908806/Haiti.pdf.

Annex IV. Food Security Annex

IV.i. Introduction

This Annex provides supplementary information on important factors that affect food security in Haiti. The Annex is organized as follows: (1) identification and description of livelihood zones; (2) a brief overview of the underlying causes of acute and chronic food insecurity, including typical hazards and shocks; (3) a review of the most recent food security assessments; (3) an overview of the seasonality of commodity prices; and (4) a discussion of commodity price trends from January 2010 to June 2011.

IV.ii. Identification and General Description of Livelihood Zones

Livelihood zones are geographic areas in which households share, on average, similar livelihood patterns, or broadly have access to the same set of food and cash income sources and markets.

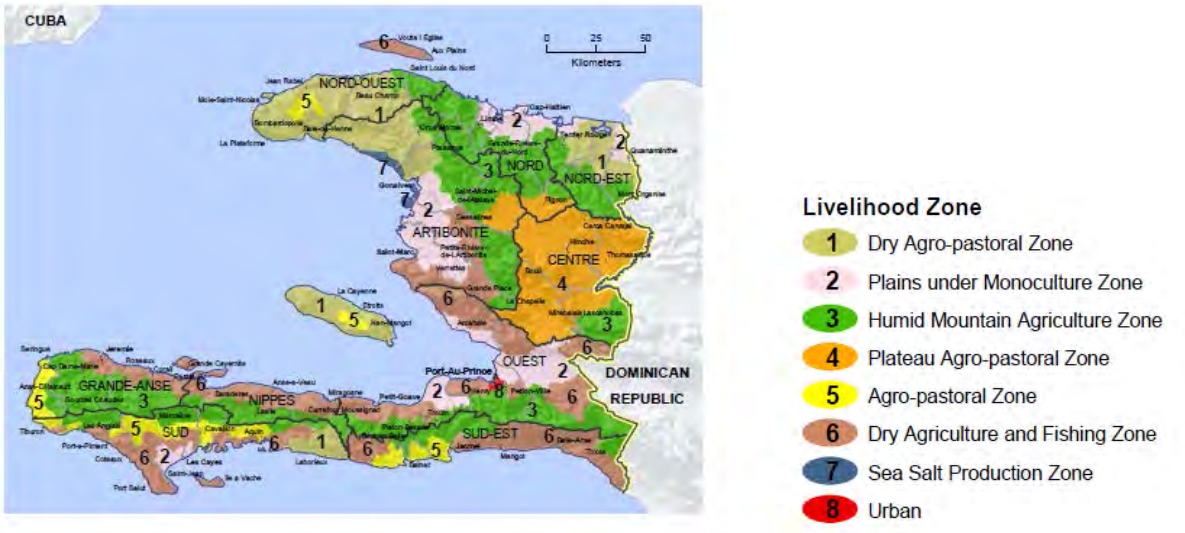
Haiti is divided into 8 livelihood zones (FEWSNET, September 2005):

1. Dry agro-pastoral zone
2. Plains under monoculture zone
3. Humid mountain agriculture zone
4. Plateau agro-pastoral zone
5. Agro-pastoral zone
6. Dry agriculture and fishing zone
7. Sea salt production zone
8. Urban zone

These livelihood zones, which are depicted in the figure below,[6] provide the foundation for household economy analyses.

[6] The map of livelihood zones was created through the combined efforts of the USAID FEWS NET project, *Coordination Nationale de Sécurité Alimentaire du Gouvernement d'Haiti* (CNSA), USAID. CARE, Catholic Relief Services (CRS), Save the Children, and World Vision.

Figure 8. Map of Livelihood Zones



Source: FEWS NET

As shown in the table below, a combination of cereals and vegetables are grown in every livelihood zone (except the sea salt production zone). Average annual rainfall is lowest (600 mm) in the dry agro-pastoral zones and highest (over 2000 mm) in the humid mountain agricultural zone; rainfall in the other regions (except for the sea salt production zone) range from 600-1300 mm. Sharecropping arrangements, whereby landless laborers farm an area of agricultural land in exchange for a certain share of total crop output, are in place in two of the zones.

Table 5. Rural Livelihood Zones

Zone	Average Annual Rainfall (mm)	Sharecropping (x=yes)	Maize	Peas	Millet	Beans	Rice
Dry agro-pastoral zone	600		x	x	x		
Plains under monoculture zone	600–1300						x
Humid mountain farming zone	2000–2500	x	x	x		X	
Agro-pastoral plateau zone	1000–1300	x	x	x	x		
Agro-pastoral zone	1000–1200		x	x		x	
Agriculture and fishing dry zone	800–1100		x	x	x		
Sea salt production zone	..				x		

Source: Compiled by author, based on USAID/FEWS NET, CNSA, USAID Haiti, CARE, CRS, SC, WV (2005). Livelihood Profiles in Haiti. September 2005.

IV.iii. Dominant Livelihood Strategies, by Livelihood Zone

Across most of the livelihood zones, the majority of income earned by poor households is from paid labor, with the exception of households in the sea salt production zone, which earn most of their money from the sale of agricultural products (FEWSNET, September 2005). By livelihood zone, poor households earn most of their income from paid labor (dry agro-pastoral, humid mountain farming, and agro-pastoral zones); a combination of labor and charcoal sales (agro-pastoral plateau and agricultural and dry fishing zones); a combination of labor and crop sales

(plains under monoculture zone); and a gricultural production (sea salt production zone) (FEWSNET, September 2005).

IV.iv. Underlying Causes of Food Insecurity

Food insecurity prevails in various areas of the country. Several factors contribute to food insecurity, including:

- Ecological and climate-related challenges (FEWSNET, September 2005).
- Land ownership arrangements such as sharecropping, where those farming the land are entitled only to a part of the crops they produce (FEWSNET, September 2005).
- Port security issues (FEWSNET, September 2005), including lack of security in unloading zones of Port-au-Prince (i.e., Cité Soleil Port), which hinders channeling food from rural areas to urban markets (FEWSNET, September 2005).
- Price shocks stemming from the food price crisis and the earthquake of January 2010.
- Earthquake-related physical and socio-economic damage.
- Population displacement after the earthquake.
- Difficulties in earning sufficient income to meet household needs as a result of the earthquake.

IV.v. Typical Hazards/External Shocks

Hazards to food security in Haiti, as identified in the 2005 FEWS NET Livelihood Profiles in Haiti, include:

- Sudden increases in the world prices of food commodities.
- Exchange rate fluctuations.
- Changes in trade policies.
- Loss of arable land via erosion, landslides, or sink holes.
- Damage to crops from pests, rodents, and predator birds.
- Climate-related shocks such as droughts, floods, and fires.
- Extended droughts or rainfall deficits during germination periods.
- Hikes in fuel prices, which increase marketing and transportation costs.
- Animal diseases.
- Faltering demand for local labor or migrant labor in traditional migration hubs.
- Poor access to water.
- Poor road infrastructure.
- Illnesses (such as HIV) affecting working household members.

IV.vi. Summary of Recent Food Security Assessments

There are few recent food security assessments for Haiti. In fact, only two have been found: FAO/WFP's CFSAM and the EFSA. The following are summaries of those assessments, and an outline of the key assumptions underlying their findings.

IV.vi.i. Crop and Food Security Assessment Mission (CFSAM)

Objective. A joint FAO/WFP CFFSAM was conducted in 2010 to evaluate food crop production during the 2010 spring season, to forecast the upcoming summer and autumn/winter season harvests, and to forecast the cereal import requirement for the 2010/11 marketing year.

Methodology. The assessment was conducted from June 16 through July 13 2010. The methodology entailed the following:

- A briefing for the study team on the current state of crop production and food security following the 2010 earthquake.
- A two-day training course on CFSAM methodology for representatives of CNSA and Departmental Agricultural Directorates (DDA).
- Splitting the team split into two groups, which travelled extensively for 11 days and covered the 10 departments and 4 geographic sub-departments into which the country is divided.
    - The first group visited the departments of Centre, the Artibonite, and the three departments of Grand Nord.
    - The second group visited the departments in the west and the Grand Suds, as far as Grand Anse.
- Both groups visited markets in their assigned departments to ascertain food availability and price levels.
- Within their assigned departments, both groups travelled to the border with the Dominican Republic to estimate cross-border commodity flows and informal trade between the two countries.

Summary of Key Findings. Key findings of the CFFSAM assessment included the following:

1. The spring rains started at the end of April/beginning of May—about 4 to 6 weeks late.
2. Once the rains began, precipitation was generally above average, except in the North-West department, in a few municipalities of the Artibonite, and near the earthquake epicenter.
3. The delayed onset of the rainy season caused reduction in the area planted during the spring season. This reduction was expected to be partially offset by the 2010 summer season, assuming good precipitation in June and early July.
4. The late and inadequate rainfall, followed by excessive localized water, favored the emergence of the common mosaic virus, which contributed to a reduction in bean production, particularly in the humid mountains of the South-East, South, Centre and North-East departments.
5. Although infested by pests (caterpillars) and damaged by ants, the maize crop reported only minor losses in the dry mountain areas.

Forecast for Spring/Summer 2010. As for the upcoming 2010 spring and summer cropping season, the CFFSAM study team made the following key forecasts:

1. Bean production would decrease by about 17%.
2. Compared with the spring and summer cropping season of 2009, production of maize, sorghum and plantain would decrease slightly—by 8%, 4%, and 5 %, respectively.
3. Total root crop output would be similar to the previous year.
4. Rice production would increase 15%, as a result of input availability and irrigation.

5. The aggregate 2010 crop production, for all seasons, would be:
    - 503,000 tonnes of cereals, representing a 9% reduction compared with 2009.
    - 148,000 tonnes of pulses, representing a 20% reduction compared with 2009.
    - 1,232,900 tonnes of root crops, representing a 12% reduction compared with 2009.
    - 313,200 tonnes of plantains, representing a 14% reduction compared with 2009.

Forecast for 2010/2011 Marketing Year. In its key findings regarding 2010/11marketing year import requirements, the CFFSAM study team expected (1) that cereal, pulses, and banana import requirements would be approximately 711,000 tonnes in cereal equivalent; (2) of this amount, 525,000 tonnes would be obtained through commercial imports; and (3) therefore, based on these estimates, an uncovered deficit of 186,000 tonnes.

Food Security. In its key findings regarding food security, the study team (1) estimated that, after the January 2010 earthquake, about 600,000 people fled the affected urban areas and sought shelter in the countryside; and (2) concluded that this population displacement, together with heavy damage to the infrastructure, caused sharp declines in income and food availability, and caused price hikes.

Key Recommendations. The study team made two key recommendations/observations:

1. Three zones in the country would require close monitoring—specifically, the North-West, the central highlands (Central Plateau), and the West—which are at risk because of poor harvests.
2. Food insecurity in other areas of the country would remain prevalent.

IV.vi.ii. Emergency Food Security Assessments (EFSA) II

Objective. Following the earthquake, a rapid emergence food security assessment (EFSA I) was conducted in February 2010, covering the directly affected communes. The survey was led by CNSA, in partnership with ACF, Oxfam GB, FEWS NET, FAO, and WFP.

This survey was followed up—in more depth—by EFSA II in June 2010. EFSA II was designed to evaluate the extent of change, and the current situation, in the directly affected zones (Pétionville, Delmas, Tabarre, Cité Soleil, Grand Goave, Croix-des-Bouquets, Carrefour, Port-au-Prince, Léogane, Gressier, Jacmel, and Petit Goave) and in three indirectly affected areas: the Commune of Belle Anse, six communes located in the Nord-Ouest/Artibonite, and the urban area of Gonaives.

The commune of Belle Anse and the six communes in Nord-Ouest/Artibonite were selected for current evaluation because they are located in chronically food insecure areas. The urban area of Gonaives was selected because after the earthquake, a dramatic influx of displaced people ensued; the impacts of that influx warranted evaluation.

Methodology. The field visit was carried out from June 14 through June 26 2010. The methodology entailed the following:

- A household questionnaire to provide comparison to EFSA I.
- A key informant questionnaire.

- Household and key informant data were collected in camps and non-camps to provide a representative sample.
- Data from focus groups were also collected in camps.
- Primary data were collected in 141 sites throughout the affected areas (camps and non-camps), and 71 sites in the non-directly affected areas covered by the survey.
- Households were selected randomly within a probability proportional to size sample.
- In all, the study conducted a total of 1,901 household interviews, 200 key informant interviews (approximately one in each site), and approximately 35 in-camp focus groups.
- MUAC (mid-upper arm circumference measurements) were taken of all children 6–59 months of age living in the randomly selected households (in total, 967 children were measured).
- Market visits were conducted to evaluate the current market situation.
- Secondary data were also used to provide further information on food price trends and food insecurity levels in other areas of the country that were not covered in the survey.

Summary of Key Findings

Food Insecurity/Vulnerability. Key findings regarding the number of food insecure or vulnerable people include the following:

1. Approximately 39% of households—about 800,000 to 1.1 million people—were found to be food insecure in the directly affected areas.
2. Approximately 25% to 34 % of households in the indirectly affected areas—about 1.7 to 2.2 million people—were found to be food insecure.
3. Based on the above ranges, approximately 2.5 to 3.3 million people in Haiti were food insecure.
4. According to the IOM camp registration data, in August 2010, about 280,000 families, or 1.2 million people, were living in camps in the directly affected areas.
5. In the directly affected areas, the prevalence of low MUAC among children 6–59 months of age was similar to pre-earthquake levels and to the levels found in February 2010.

Where Food Insecure/Vulnerable People Live. Although the prevalence of food insecurity is higher in the directly affected areas than in the indirectly affected areas, more food insecure people live outside the directly affected areas.

Who the Food Insecure/Vulnerable People Are. Key findings are:

1. Households classified as poor were likely to be food insecure.
2. Households relying on social assistance as their main income source were more food insecure.
3. Households relying on manual labor were more likely to be food insecure.
4. Among households relying on agriculture, 40 % were food insecure.
5. Households in the directly affected zone that were displaced from their neighborhood of origin—the vast majority of which ended up in camps—were more likely to be food insecure.
6. Education level was strongly linked with food security:
    - Forty five percent (45%) of those households with heads having no education were food insecure.
    - Less than 20% of those households with heads having at least some university education were food insecure.

7. Households that reported having a handicapped member were more likely to be food insecure.
8. Households that have a chronically ill member were more likely to be food insecure, and more than one chronically ill member is associated with even greater prevalence of food insecurity.
9. Households with pregnant and lactating were more likely to be food insecure.

Recommendations

General Recommendations

- The April 2010 transition from general food distribution to conditional and targeted food assistance was appropriate, and should be supported and expanded to (1) include the most food insecure, (2) address underlying causes of food insecurity, and (3) continue to provide safety nets to those not covered by other programs.
- Although food security for in-camp households has improved since February 2010, these households are still the most vulnerable and require continued programs to address their specific needs. Households in camps could not afford rentals or reconstruction costs, and needed support to get out of the camps. The need for improved transitional housing and more permanent housing solutions continued to be great in the directly affected areas.
- The large numbers of food insecure located outside the metropolitan zone, and in the rest of the country, require continued and expanded support.
- In general, the focus on initiatives to keep displaced people out of the metropolitan zone should shift to improving food security and access to services and economic opportunities in those areas. Such programs may attract people in the metropolitan zone to other areas, and may help prevent continued migration to the city.

Food and Nutrition Security Program Recommendations

- During the next school year, expand school feeding programs in all areas of the country—whether directly or indirectly affected by the earthquake. Take-home rations should be considered to offset the food security impacts of return-to-school fees in all areas.
- Continue and expand cash/food for work programs in all areas of the country. These programs should:
    - Continue to focus on providing income to the most poor/food insecure households.
    - Focus on building household and community assets, and reducing disaster risk, taking into account land tenure issues in camp settings.
    - Support transitioning households out of camps.
    - In rural areas, be linked to agricultural activities. Medium- and long-term investments in rural agriculture will help provide improved food security to agriculture-reliant households, and may diminish the need to migrate in search of work. Although linking C/FFW activities in the rural areas to programs supporting agriculture will provide improved income to rural households, but should be designed not to interrupt agricultural practices or negatively impact the availability of labor.
- Nutrition programs should:

  - Provide a complete packet of interventions that would help prevent stunting and micronutrient deficiencies in children.
  - Target the directly affected areas, in and out of the camps.
  - In the indirectly affected areas, target zones that have a large influx of displaced people (particularly in the rural areas) and all areas/pockets of food and nutrition insecurity.
- Water and sanitation programs should continue to serve the camp population, by providing not only treated water, but also education on using at-home water treatments.
- Assure security in markets and support traders in expanding their services. Improve infrastructure to provide better physical and economic access to markets and improve market integration.
- Local purchases of agricultural products could provide an opportunity to support agricultural activities.

Continued Contingency Planning and Food Security Monitoring

- Contingency planning and pre-positioning of humanitarian assistance should continue throughout the country, taking into account (1) those living in camps, (2) other populations vulnerable to weather events, (3) increased vulnerability to future shocks because of how the earthquake negatively impacted household resources, livelihoods, and general resilience, and (4) the potential for increased food prices in the coming months/year.
- The need for continued food security monitoring throughout the country, under the coordination of CNSA. Reinforce market price monitoring nationally and internationally
- Update national food security surveys to better assess those areas outside the directly affected locales that are currently in chronic and transitory food insecurity.
- Repeated assessments and surveys to measure the changes in agricultural production between seasons and years are also needed.

IV.vii. Seasonality and Prices

This price analysis update for Haiti has two sections: (i) the price movements overview, and (ii) the seasonality analysis. One and a half years of price data, from January 2010 to June 2011, are used for the price movements overview. The prices, reported in Haitian gourdes (HTG), are analyzed starting from January 2010, in order to capture the impact of the price spikes which immediately followed the earthquake, with the exception of the indicator "Feb2010–Jun2011 % chg", which measures the change in prices, starting from a month after the earthquake (February 2010). Nominal retail price changes for wheat grain and flour, imported and local rice,[7] imported and local ground maize, sorghum, black and red beans,[8] and edible oil[9] (Alberto and Rika oil), are analyzed across five urban locations: Croix des Bossales (Port-au-Prince metropolitan area, located in the West Department), Cap-Haitien (North Department), Cayes (South Department), Hinche (Central Plateau Department), and Jeremie (Grand'Anse Department). The seasonality analysis covers the year of 2010 (January to December). For details on price shocks during the food price crisis and immediately following the January 2010

[7] Food Aid rice price data were available for the period June 2010 to February 2011.
[8] Food Aid beans price data were available for the period June 2010 to June 2011.
[9] Food Aid oil price data were available for the period June 2010 to June 2011.

earthquake, along with seasonal price patterns during 2009, please refer to the Fintrac (2010), Haiti Market Analysis Annex.[10]

IV.vii.i. Overview of Commodity Prices Since the January 2010 Earthquake

Summary. Since the January 2010 earthquake (between February 2010 and June 2011), the only instances in which price increases had been reported for grains were for wheat flour in Cap Haitien; local rice in Croix des Bossales and Cayes; and imported maize in Croix des Bossales. Generally, grain prices post-earthquake declined (for example, see the table below). The largest price declines were: 42% for wheat grain, 24% for wheat flour, 30% for imported rice, 7% for local rice, 30% for imported maize, 28% for local maize, and 27% for sorghum. The steepest price declines occurred mainly in Hinche and Jeremie.

Table 6. Largest Price Declines for Grains, February 2010–June 2011 (%)

Commodity	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Wheat grain			-41%		-42%
Wheat flour			-24%	-24%	
Imported rice				-30%	-30%
Local rice				-7%	-2%
Imported maize				-30%	-25%
Local maize		-28%		-27%	
Sorghum	-27%				

Source: Compiled by Fintrac/BEST, based on calculations from data from USAID/Haiti and CNSA price bulletins.

In contrast to grain prices, prices for beans and oil generally increased between January 2010 and June 2011. Price increases for red beans occurred in all 5 of the cities named in the above table, and for black beans, in Croix des Bossales and Cap Haitien. The steepest price increases for red beans were in Cayes and Cap Haitien (59 and 71 %, respectively), and for black beans in Cap Haitien (63 %). Price increases for edible oil (Alberto and Rika oil) occurred everywhere except in Cap Haitien. Price increases for Alberto oil were highest in Jeremie, Hinche, and Croix des Bossales (17 % in each city), and for Rika oil, in Hinche and Croix des Bossales (20 % in each city).

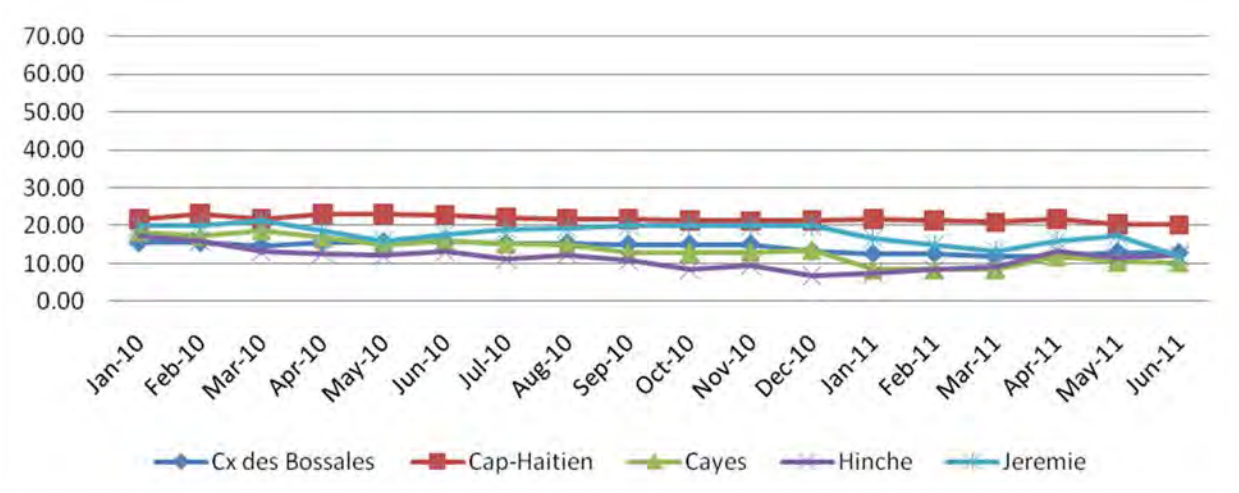
Comparing food aid commodity prices to the prices of imported or local varieties, food aid rice prices were lower than imported and local rice prices in all 5 cities. In 3 out of 5 cities, food aid beans prices were lower than red and black beans prices. As for food aid oil, prices were lower than for Alberto and Rika oil prices in 4 out of 5 cities. The figures, tables and text below describe these price movements in further detail.

Grains.

Wheat grain. Between January 2010 and June 2011, wheat grain prices for the 5 cities analyzed ranged from a minimum of 7 HTG/lb to a maximum of 23 HTG/lb. Average monthly wheat grain prices were highest in Cap Haitien. Since the earthquake (from February 2010 to June 2011), wheat grain prices have fallen in all 5 cities, with the largest declines in Jeremie and Cayes. (See the figure below.)

[10] This Annex is available at http://www.usaid.gov/our_work/humanitarian_assistance/ffp/haitiannex.pdf.

Figure 9. Average Monthly Price of Wheat Grain, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

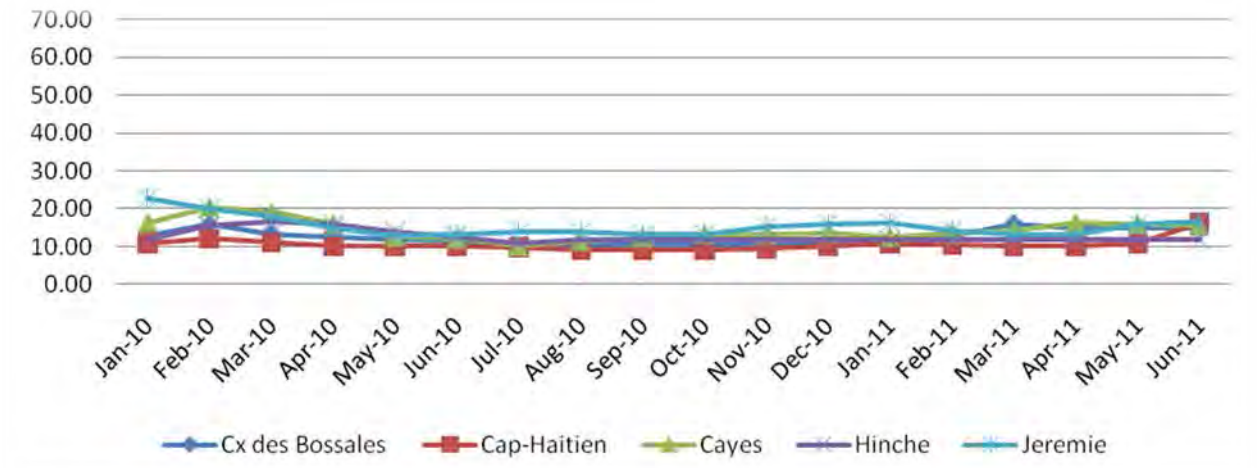
Table 7. Wheat Grain Price Variation, January 2010-June 2011, HTG per 1 lb

Wheat Grain	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	14.19	21.69	13.45	11.34	17.85
Minimum	11.67	20.21	8.33	6.67	11.67
Maximum	15.84	23.08	18.75	17.16	21.33
Feb2010–Jun2011 % chg[11]	-18%	-12%	-41%	-24%	-42%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Wheat flour. Between January 2010 and June 2011, wheat flour prices across the cities ranged from a minimum of 9 HTG/lb to a maximum of 23 HTG/lb. A comparison of average monthly prices during this same period shows that wheat flour prices were highest in Jeremie and Cayes. Since the earthquake (from February 2010 to June 2011), wheat flour prices have fallen everywhere except in Cap Haitien, where they increased by 35%.

Figure 10. Average Monthly Price of Wheat Flour, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 8. Wheat Flour Price Variation, January 2010-June 2011, HTG per 1 lb

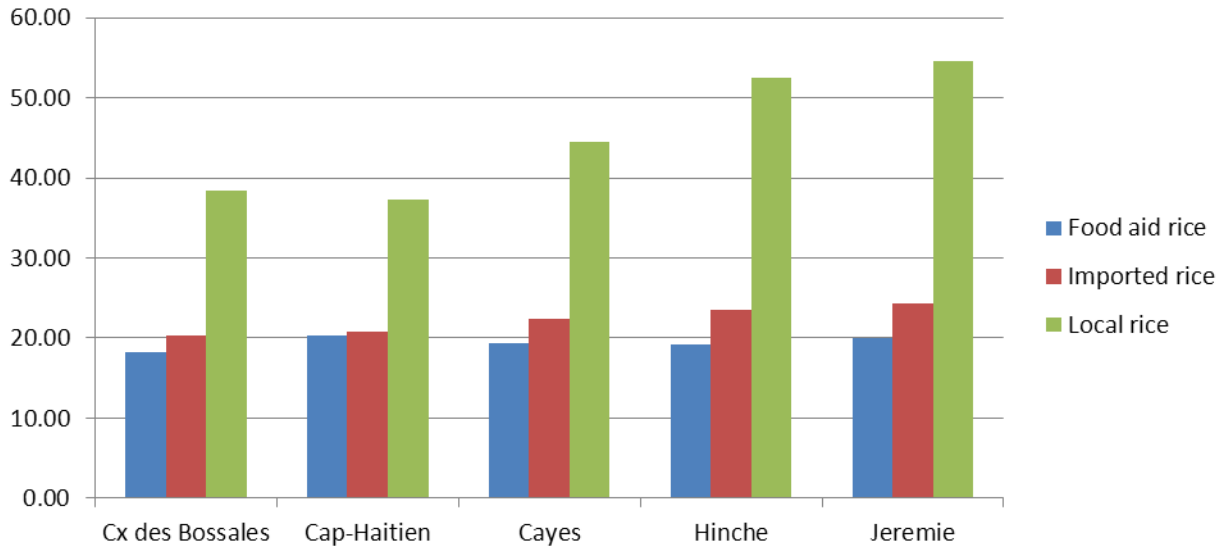
Wheat Flour	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	12.62	10.48	14.35	12.54	15.41
Minimum	10.21	9.17	10.00	10.96	13.00
Maximum	15.84	16.25	20.41	16.66	22.66
Feb2010–Jun2011 % chg	-5%	35%	-24%	-24%	-17%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

[11] The February 2010 to June 2011 period was used to analyze the market conditions immediately after the January 2010 earthquake up through the latest available data.

Food aid rice. Food aid rice remained cheaper than imported and local rice in all 5 cities.

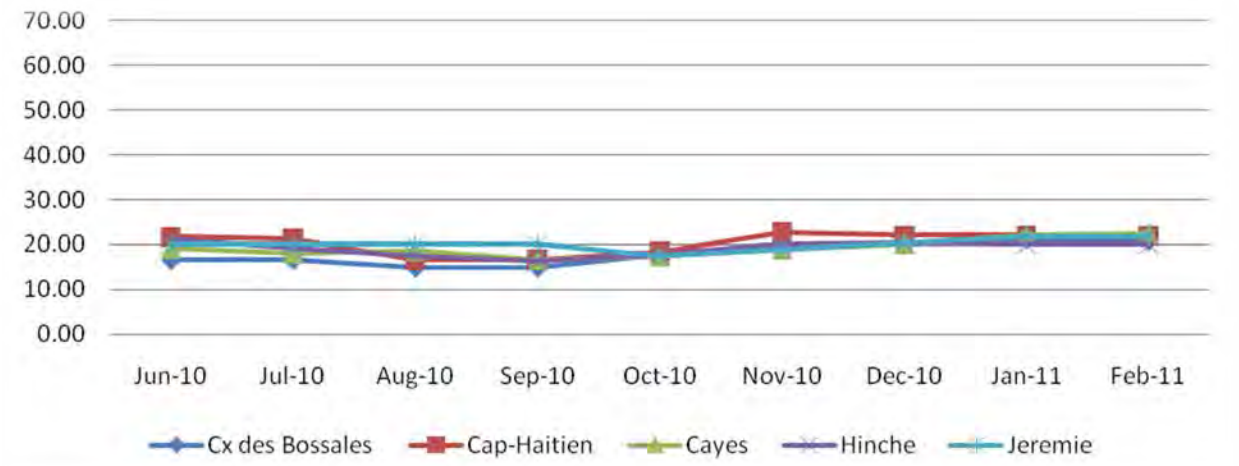
Figure 11. Average Monthly Prices of Rice, by Category, HTG per 1 lb[12]



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Between June 2010 and February 2011, food aid rice prices for the 5 cities ranged from a minimum of 18 HTG/lb to a maximum of 20 HTG/lb. During this same period, average monthly food aid rice prices were only marginally higher in Cap Haitien and Jeremie, relative to the other cities.

Figure 12. Average Monthly Price of Food Aid Rice, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

[12] Food aid rice price data were available only from June 2010 to February 2011.

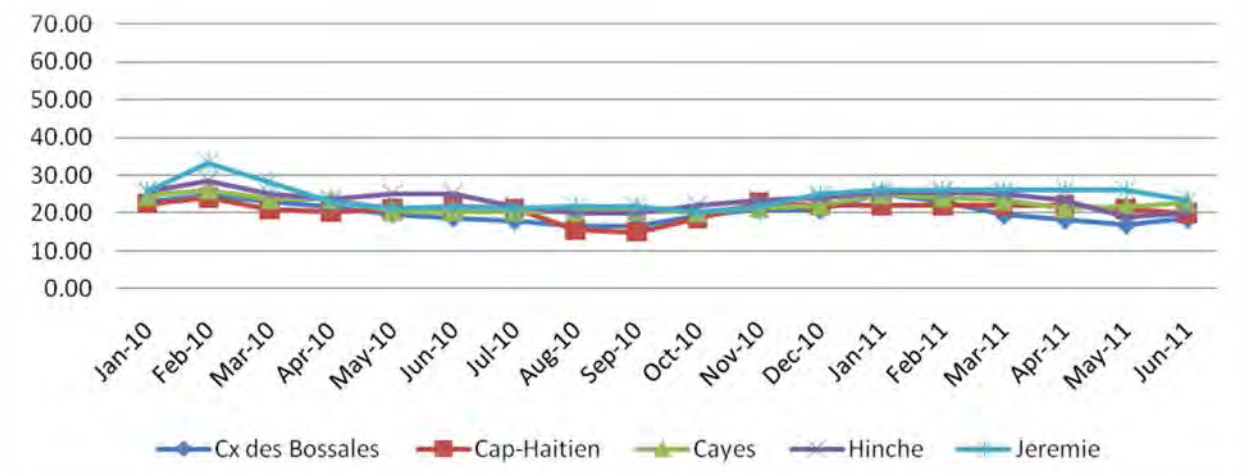
Table 9. Food Aid Rice Price Variation, June 2010–February 2011, HTG per 1 lb

Food Aid Rice	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	18.16	20.36	19.34	19.21	20.02
Minimum	15.00	16.67	16.67	16.25	17.50
Maximum	21.33	22.60	22.50	21.25	21.67

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Imported rice. Between January 2010 and J une 2011, imported rice prices for the 5 c ities ranged from a minimum of 15 HTG/lb to a maximum of 33 HTG/lb. During this same period, average monthly imported rice prices were highest in Jeremie and Hinche. Since the earthquake (from February 2010 to June 2011), imported rice prices have fallen in all 5 cities.

Figure 13. Average Monthly Price of Imported Rice, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

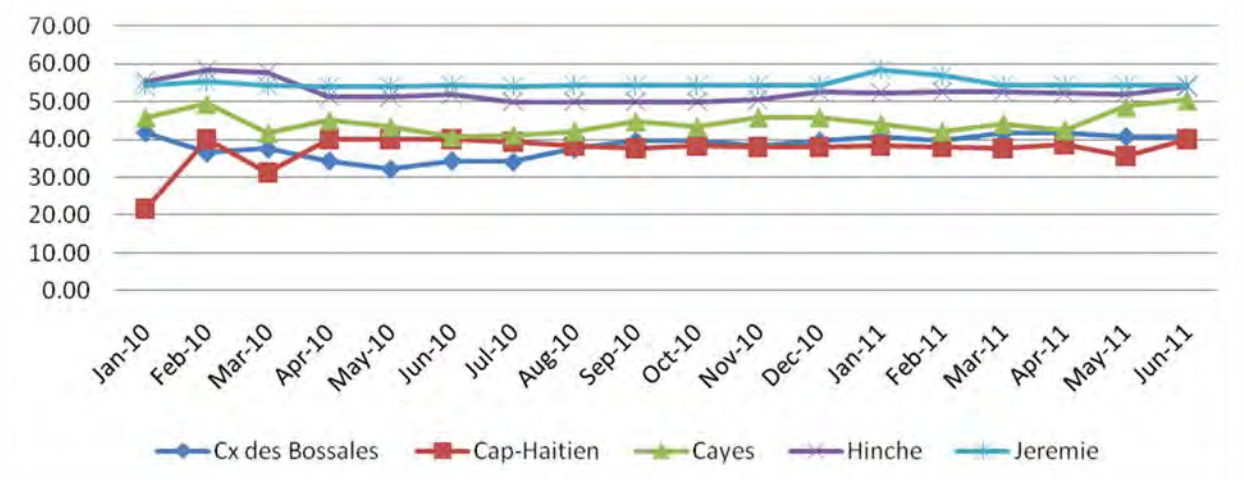
Table 10. Imported Rice Price Variation, January 2010–June 2011, HTG per 1 lb

Imported Rice	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	20.24	20.79	22.37	23.47	24.32
Minimum	16.67	15.00	20.21	18.96	20.22
Maximum	25.00	24.00	26.25	28.54	33.12
Feb2010–Jun2011 % chg	-25%	-17%	-13%	-30%	-30%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Local rice. Between January 2010 and June 2011, local rice prices for the 5 cities ranged from a minimum of 22 HTG/lb to a maximum of 59 HTG/lb. During this same period, average monthly local rice prices were highest in Jeremie and Hinche. Since the earthquake (from February 2010 to June 2011), local rice prices have fallen in 2 cities, but increased in Croix-des-Bossales and Cayes.

Figure 14. Average Monthly Price of Local Rice, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

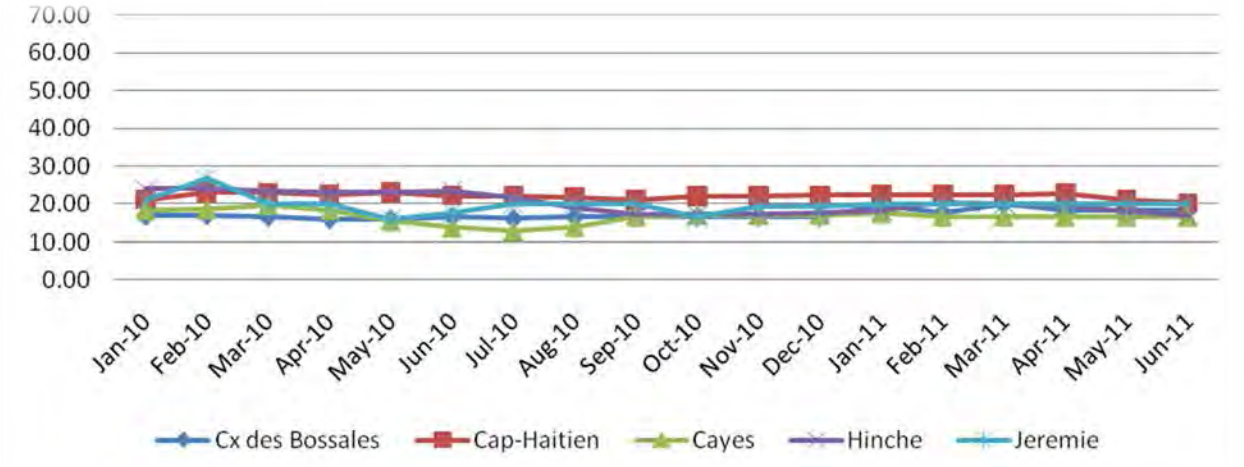
Table 11. Local Rice Price Variation, January 2010–June 2011, HTG per 1 lb

Local Rice	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	38.36	37.25	44.50	52.46	54.59
Minimum	32.20	21.71	40.63	50.00	54.00
Maximum	41.87	40.00	50.42	58.33	58.50
Feb2010–Jun2011 % chg	11%	0%	2%	-7%	-2%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Imported ground maize. Between January 2010 and June 2011, imported ground maize prices for the 5 cities ranged from a minimum of 13 HTG/lb to a maximum of 27 HTG/lb. During this same period, average monthly imported ground maize prices were highest in Cap Haitien and Hinche. Since the earthquake (from February 2010 to June 2011), imported ground maize prices have fallen in all cities, except in Croix des Bossales, where prices increased by 7%.

Figure 15. Average Monthly Price of Imported Ground Maize, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

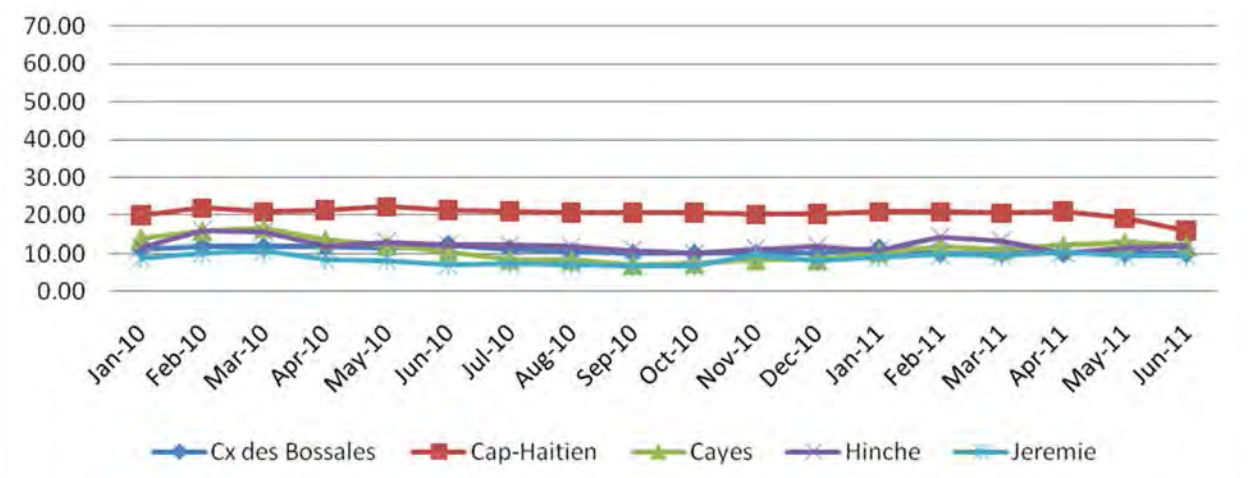
Table 12. Imported Ground Maize Price Variation, January 2010–June 2011, HTG per 1 lb

Imported Ground Maize	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	17.27	22.06	16.64	20.20	19.79
Minimum	16.00	20.21	12.83	16.88	16.00
Maximum	20.00	23.00	19.58	24.08	26.66
Feb2010-Jun2011 % chg	7%	-12%	-10%	-30%	-25%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Local ground maize. Between January 2010 and June 2011, local ground maize prices for the 5 cities ranged from a minimum of 7 HTG/lb to a maximum of 22 HTG/lb. During this same period, average monthly local ground maize prices were highest in Cap Haitien. Since the earthquake (from February 2010 to June 2011), local ground maize prices have fallen in all 5 cities.

Figure 16. Average Monthly Price of Local Ground Maize, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

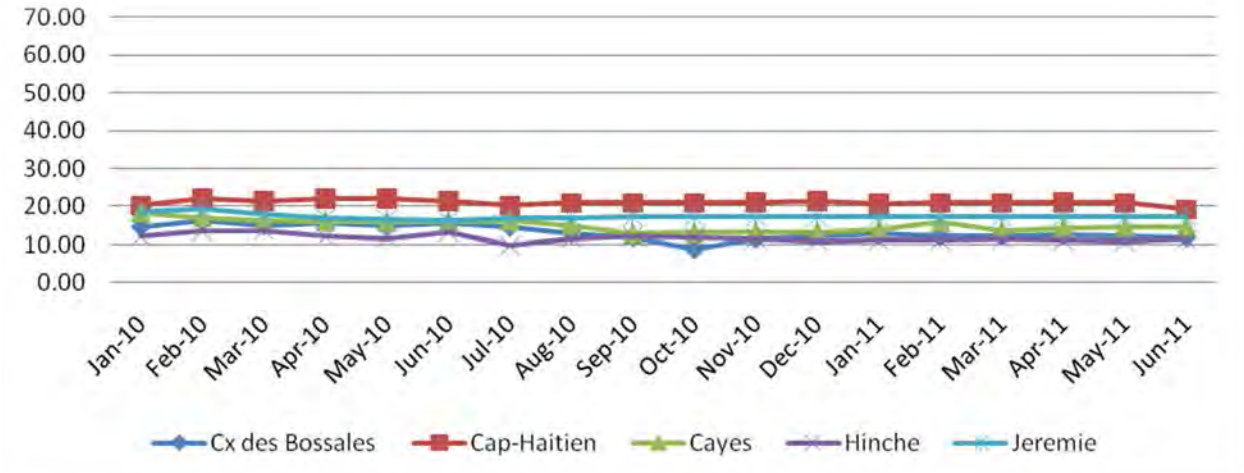
Table 13. Local Ground Maize Price Variation, January 2010–June 2011, HTG per 1 lb

Local Ground Maize	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	10.72	20.53	11.19	12.17	8.65
Minimum	10.00	15.84	7.09	10.00	6.67
Maximum	12.29	22.20	16.67	16.00	10.66
Feb2010–Jun2011 % chg	-16%	-28%	-24%	-27%	-7%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Sorghum. Between January 2010 and June 2011, sorghum prices across the cities ranged from a minimum of 9 HTG/lb to a maximum of 22 HTG/lb. A comparison of average monthly prices during this same period shows that sorghum prices were highest in Cap Haitien. Since the earthquake (from February 2010 to June 2011), sorghum prices have fallen in all 5 cities.

Figure 17. Average Monthly Price of Sorghum, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 14. Sorghum Price Variation, January 2010–-June 2011, HTG per 1 lb

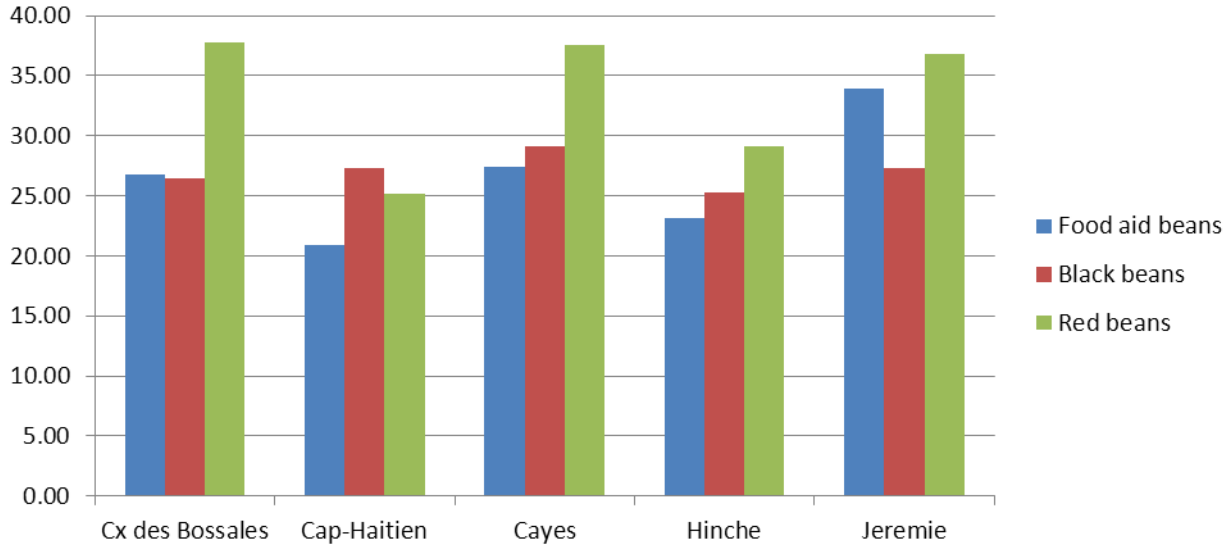
Sorghum	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	13.18	20.96	15.01	11.68	17.40
Minimum	8.75	19.17	12.71	9.67	16.33
Maximum	16.25	22.13	18.33	13.67	19.37
Feb2010–Jun2011 % chg	-27%	-13%	-15%	-15%	-11%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Beans

Food aid beans. In 3 out of the 5 cities, food aid beans prices were lower than black and red beans prices.

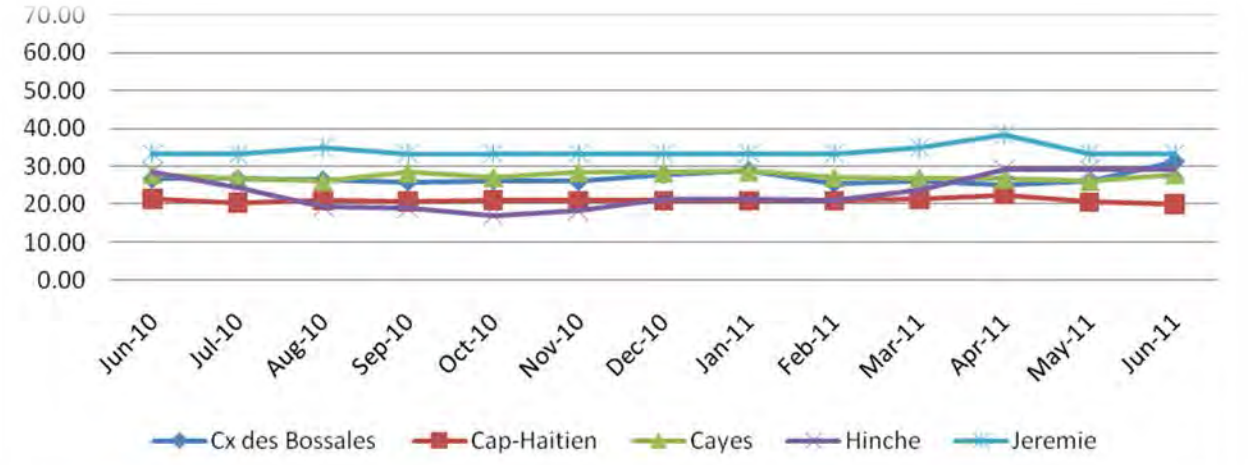
Figure 18. Average Monthly Prices of Beans, by Category, HTG per 1 lb[13]



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Between June 2010 and J une 2011, food aid beans prices for the 5 cities ranged from a minimum of 17 HTG/lb to a maximum of 38 HTG/lb. During this same period, average monthly food aid beans prices were highest in Jeremie.

Figure 19. Average Monthly Price of Food Aid Beans, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 15. Food Aid Beans Price Variation, June 2010–June 2011, HTG per 1 lb

Food Aid Beans	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	26.80	20.92	27.39	23.14	33.95
Minimum	25.00	20.00	26.00	17.09	33.08

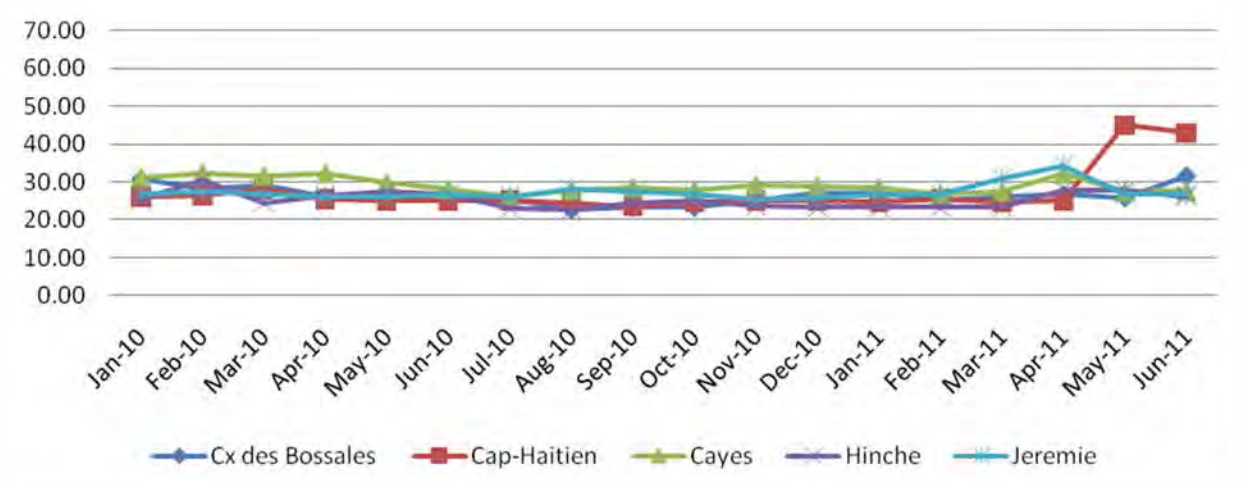
[13] Food aid beans price data were available only from June 2010 to June 2011.

Food Aid Beans	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Maximum	31.25	22.50	28.67	29.17	38.33

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Black beans. Between January 2010 and June 2011, black beans prices for the 5 cities ranged from a minimum of 23 HTG/lb to a maximum of 45 HTG/lb. During this same period, average monthly black beans prices were highest in Cayes. Since the earthquake (from February 2010 to June 2011), black beans prices have fallen in 3 cities, with the exception of Cap Haitien and Croix des Bossales, where prices increased by 63% and 13%, respectively. In May 2011, black bean prices in Cap-Haitien increased 44% compared with the previous month and year.

Figure 20. Average Monthly Price of Black Beans, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

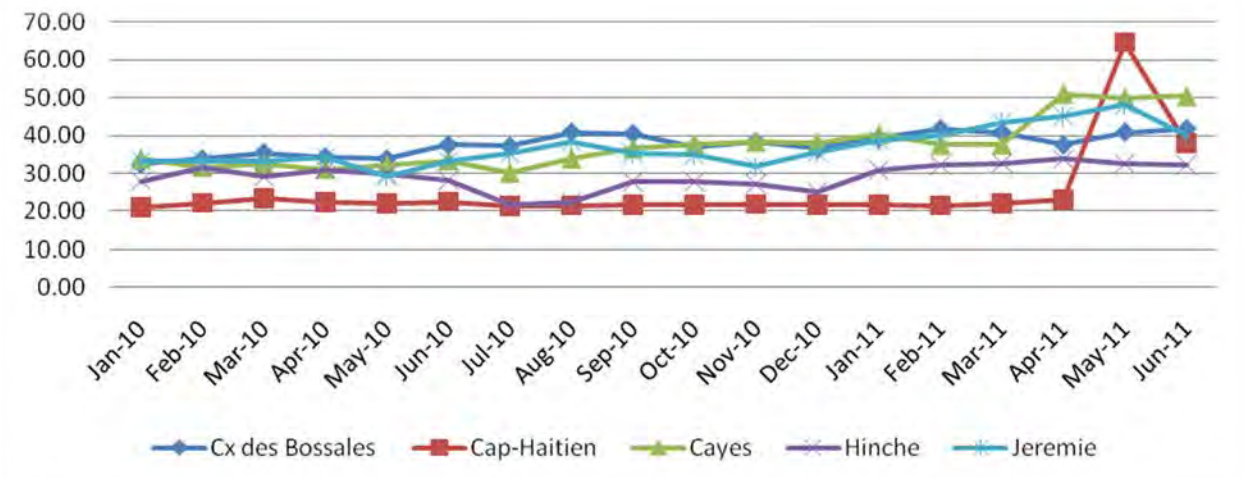
Table 16. Black Beans Price Variation, January 2010–June 2011, HTG per 1 lb

Black Beans	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	26.47	27.30	29.11	25.28	27.26
Minimum	22.67	23.54	26.00	22.66	25.33
Maximum	31.67	45.00	32.33	30.62	34.17
Feb2010–Jun2011 % chg	13%	63%	-14%	-14%	-2%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Red beans. Between January 2010 and June 2011, red beans prices for the 5 cities ranged from a minimum of 21 HTG/lb to a maximum of 65 HTG/lb. Since the earthquake (from February 2010 to June 2011), red beans prices have increased in all 5 cities, with the highest prices and largest percentage increases in Cap Haitien (71%) and Cayes (59%). In May 2011, the data shows a 64 % increase in the price of red beans in Cap Haitien compared to the previous month and a 66 % increase compared the previous year.

Figure 21. Average Monthly Price of Red Beans, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 17. Red Beans Price Variation, January 2010–June 2011, HTG per 1 lb

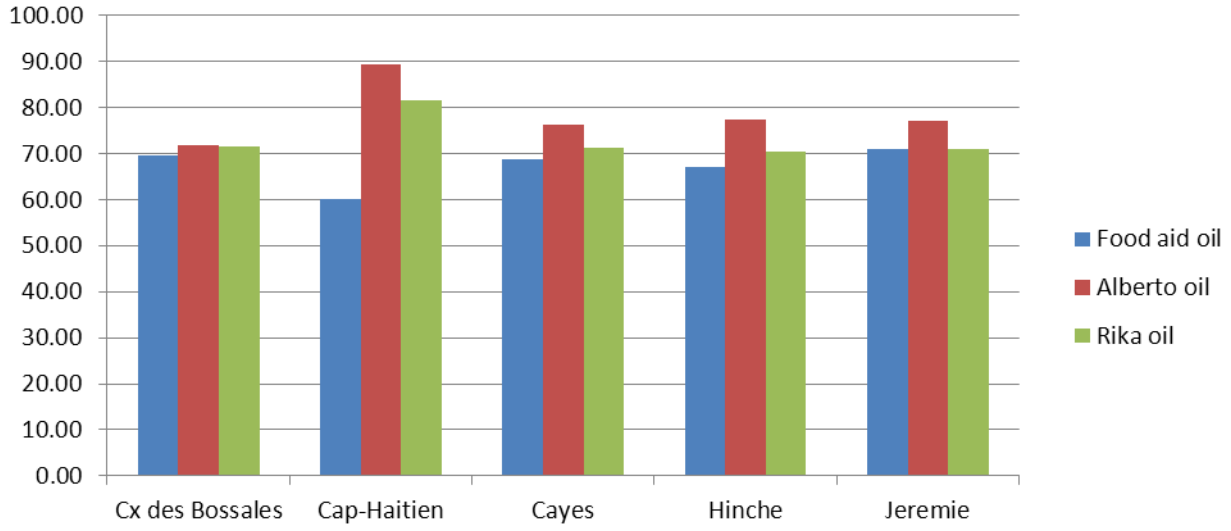
Red Beans	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	37.72	25.20	37.54	29.09	36.85
Minimum	32.50	20.92	30.04	21.58	29.20
Maximum	41.67	64.60	51.04	33.75	48.00
Feb2010–Jun2011 % chg	23%	71%	59%	2%	20%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Edible Oil

Food aid oil. Food aid oil prices were lower than Alberto and Rika oil prices in 4 out of the 5 cities.

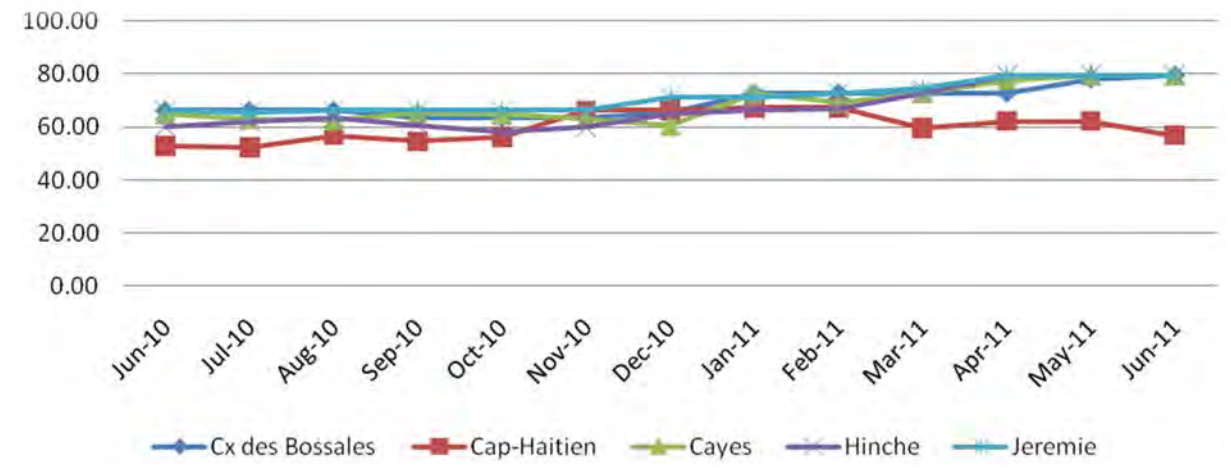
Figure 22. Average Monthly Prices of Edible Oil, HTG per 1 liter[14]



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Between June 2010 and June 2011, food aid oil prices for the 5 cities ranged from a minimum of 52 HTG/liter to a maximum of 79 HTG/liter. During this same period, average monthly food aid oil prices were highest in Jeremie.

Figure 23. Average Monthly Price of Food Aid Oil, HTG per 1 liter



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 18. Food Aid Oil Price Variation, June 2010-June 2011, HTG per 1 liter

Food Aid Oil	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	69.45	60.08	68.86	67.15	71.04

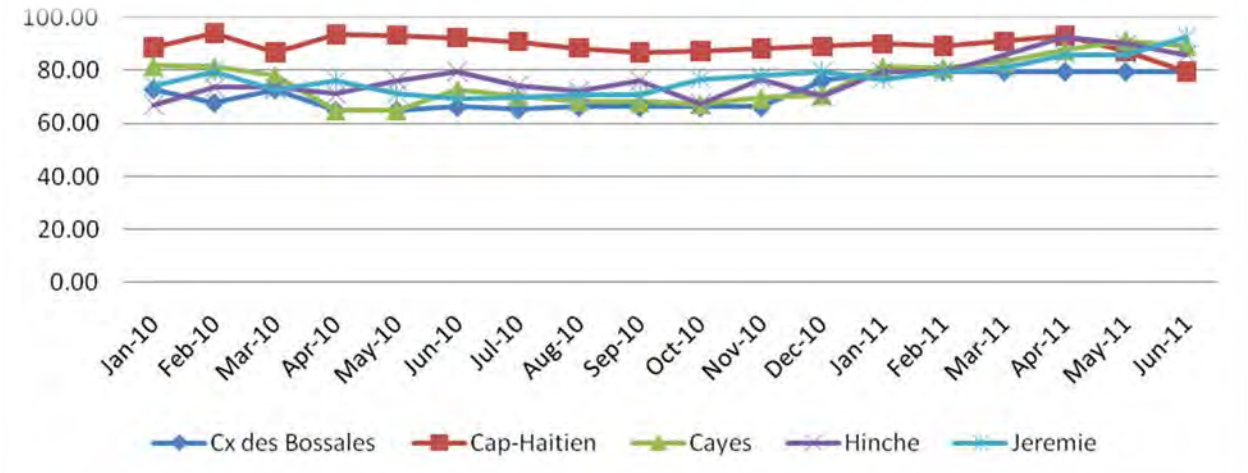
[14] Oil food aid price data were available only from June 2010 to June 2011.

Food Aid Oil	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Minimum	63.49	52.23	60.51	58.20	65.29
Maximum	79.37	67.46	79.37	79.37	79.37

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Alberto oil. Between January 2010 and June 2011, Alberto oil prices for the 5 cities ranged from a minimum of 65 HTG/liter to a maximum of 94 HTG/liter. During this same period, average monthly Alberto oil prices were generally highest in Cap Haitien. Since the earthquake (from February 2010 to June 2011), Alberto oil prices have increased in all cities, except that in June 20011, Alberto oil prices in Cap Haitien fell by 15%.

Figure 24. Average Monthly Price of Alberto Oil, HTG per 1 liter



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

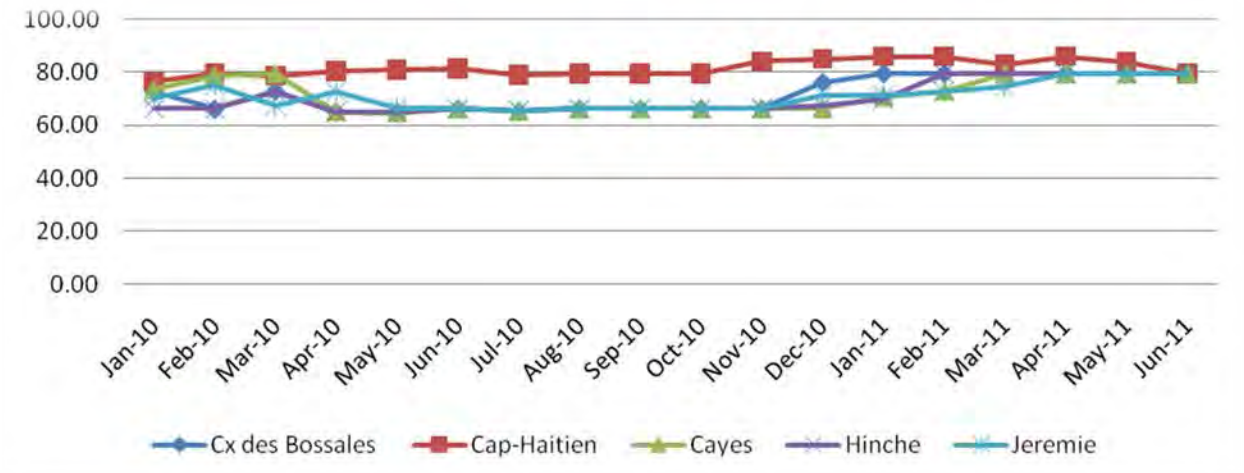
Table 19. Alberto Oil Price Variation, January 2010–June 2011, HTG per 1 liter

Alberto Oil	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	71.75	89.35	76.25	77.24	77.22
Minimum	65.00	79.37	65.00	66.80	69.44
Maximum	79.37	93.91	91.27	92.59	92.59
Feb2010–Jun2011 % chg	17%	-15%	10%	17%	17%

Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Rika oil. Between January 2010 and June 2011, Rika oil prices for the 5 cities ranged from a minimum of 65 HTG/liter to a maximum of 86 HTG/liter. During this same period, average monthly Rika oil prices were highest in Cap Haitien. Since the earthquake (from February 2010 to June 2011), Rika oil prices have increased everywhere except in Cap Haitien, where there was no price change.

Figure 25. Average Monthly Price of Rika Oil, HTG per 1 liter



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Table 20. Rika Oil Price Variation, January 2010–June 2011, HTG per 1 liter

Rika Oil	Cx des Bossales	Cap-Haitien	Cayes	Hinche	Jeremie
Average	71.66	81.53	71.34	70.30	70.84
Minimum	65.00	76.39	64.60	65.00	65.29
Maximum	79.37	85.98	79.37	79.37	79.37
Feb2010–Jun2011 % chg	20%	0%	1%	20%	6%

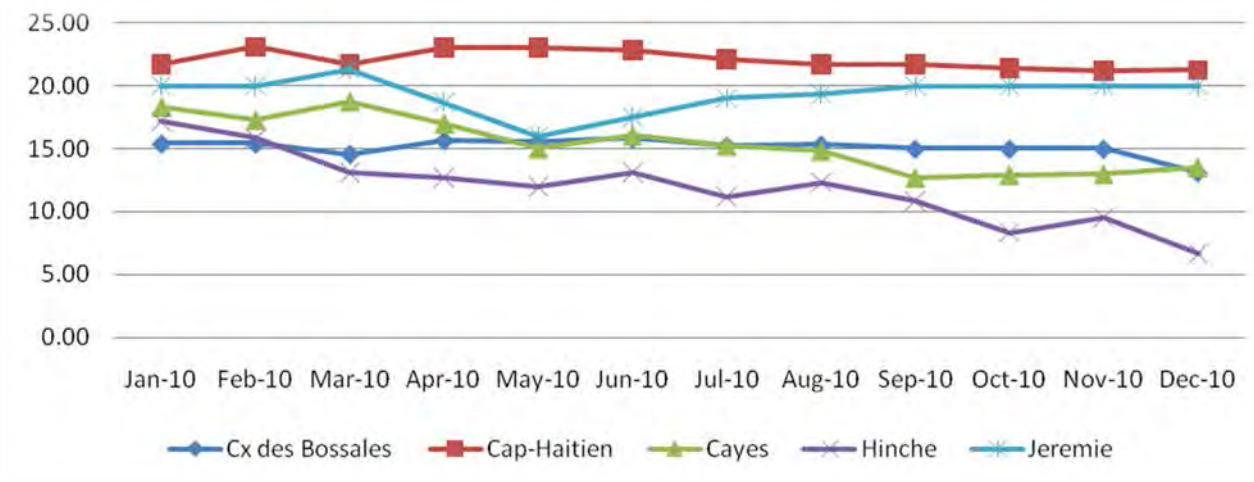
Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

IV.viii. Seasonality in Prices During 2010

Summary. The temporary spike in prices following the January 2010 earthquake had little impact on seasonal price patterns for 2010 as a whole. Similar to seasonal price patterns during 2009, the prices of most commodities during 2010 appeared to be slightly lower during the summer months, around the time of the main summer harvest, with the exception of wheat grain, whose prices were lowest during autumn. For further details, see the figures below.

Wheat grain. With respect to wheat grain specifically, it is difficult to discern seasonality in the 2010 prices. Prices in Cap Haitien and Croix-des-Bossales were relatively constant in 2010. Hinche prices, on the other hand, declined throughout the year. Only Jeremie and Les Cayes markets show some degree of seasonality, with prices lowest in late autumn.

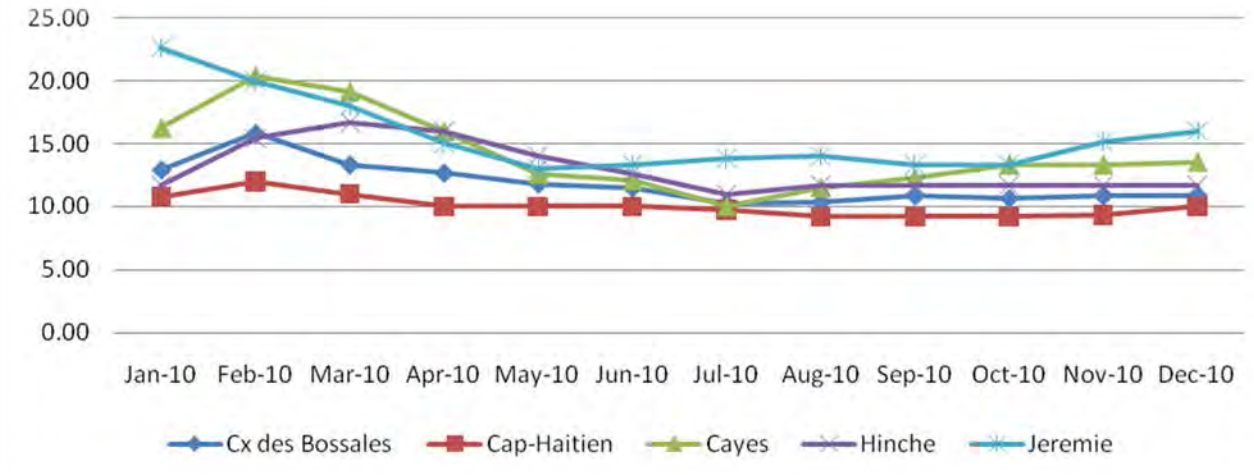
Figure 26. Average Monthly Price of Wheat Grain in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Wheat flour. Wheat flour prices in 2010 were generally lowest during summer.

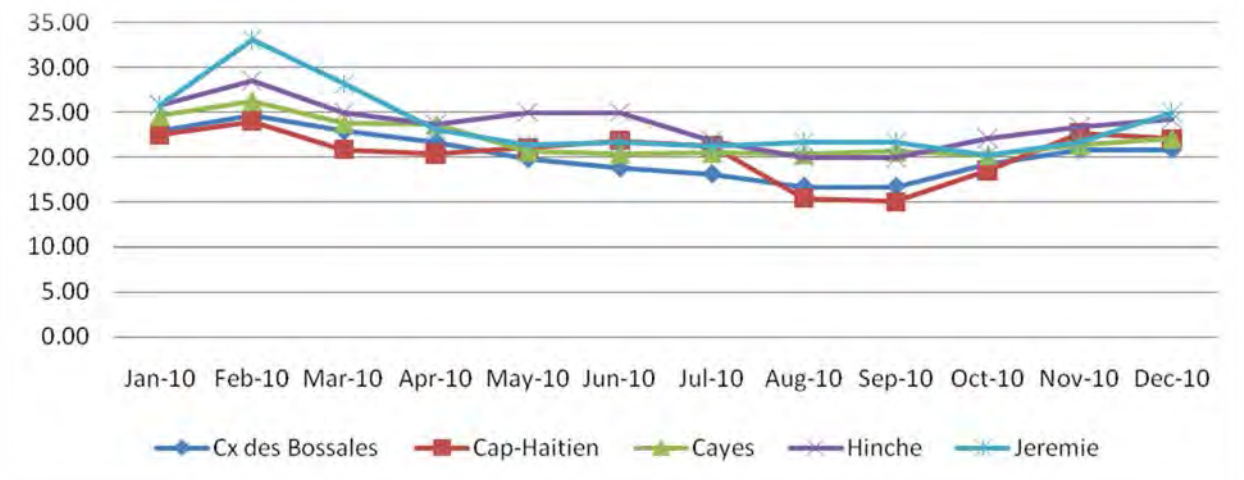
Figure 27. Average Monthly Price of Wheat Flour in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Imported rice. Imported rice prices in 2010 were generally lowest during summer and early autumn.

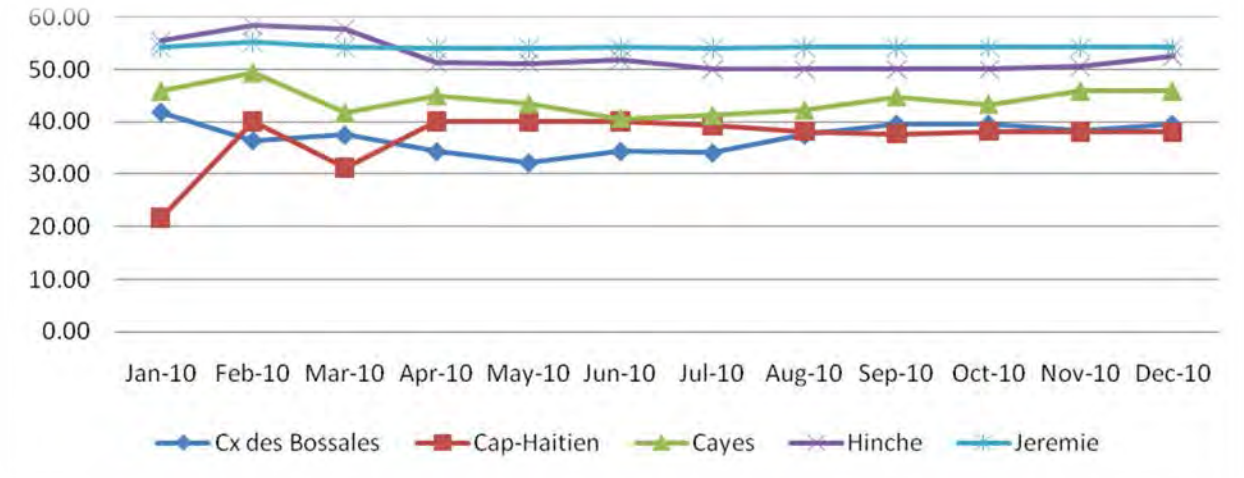
Figure 28. Average Monthly Price of Imported Rice in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Local rice. Generally, local rice prices in 2010 were slightly lower during summer.

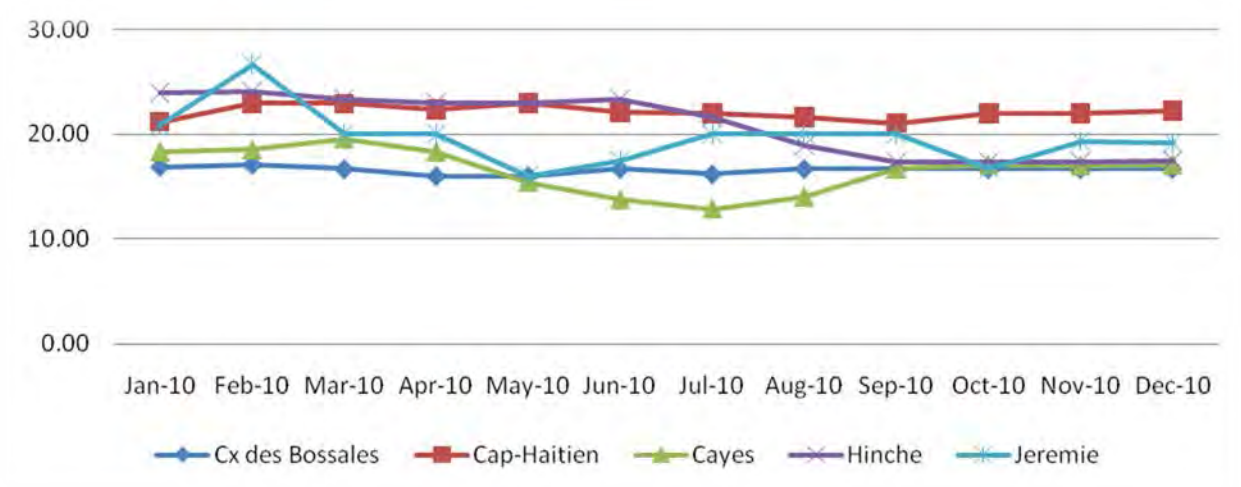
Figure 29. Average Monthly Price of Local Rice in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Imported ground maize. Imported ground maize prices in 2010 were generally lowest during spring and summer.

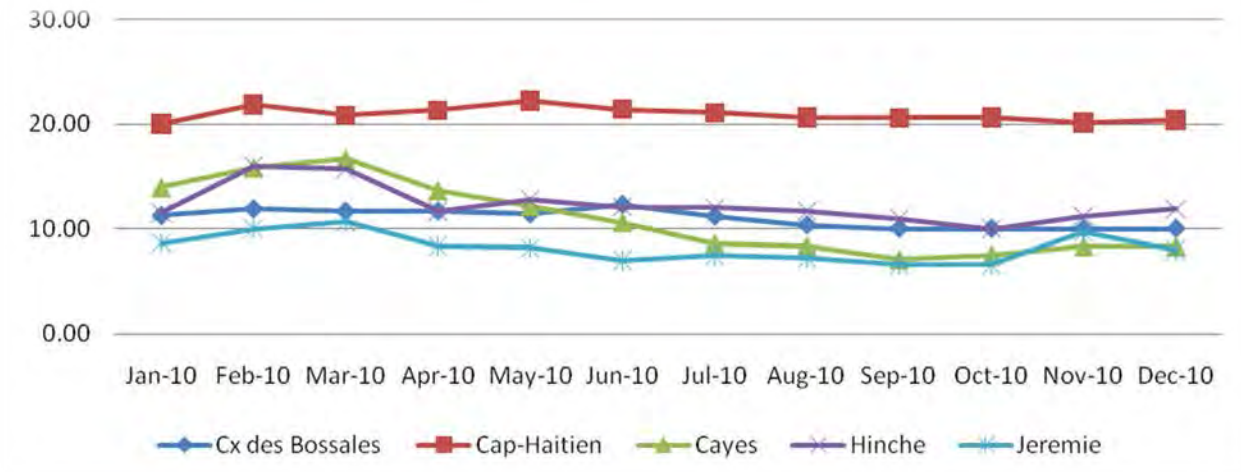
Figure 30. Average Monthly Price of Imported Ground Maize in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Local ground maize. Local ground maize prices in 2010 were generally lowest during summer and autumn.

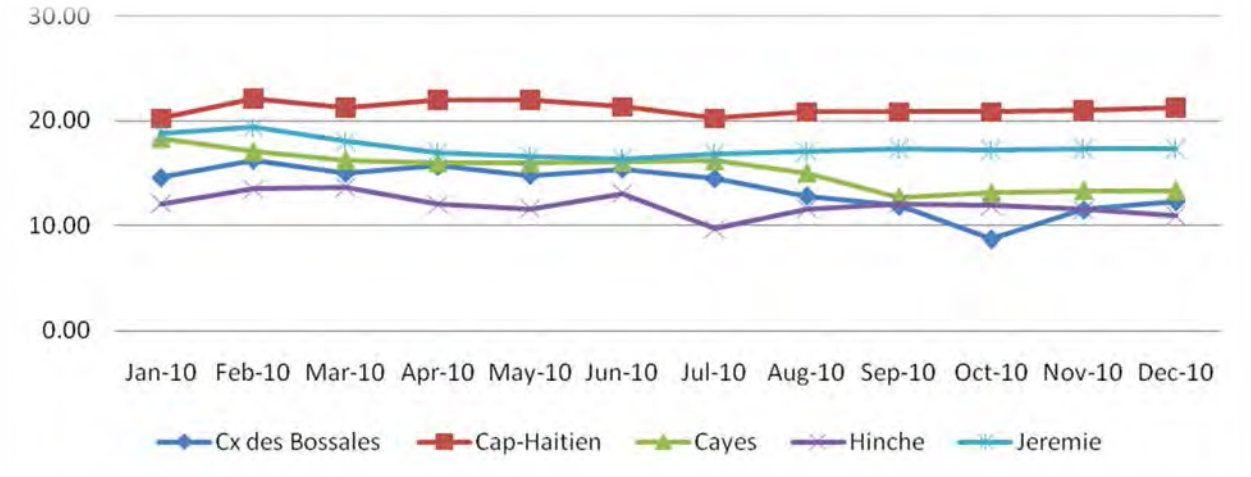
Figure 31. Average Monthly Price of Local Ground Maize in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Sorghum. Sorghum prices in 2010 were generally lowest during summer and autumn.

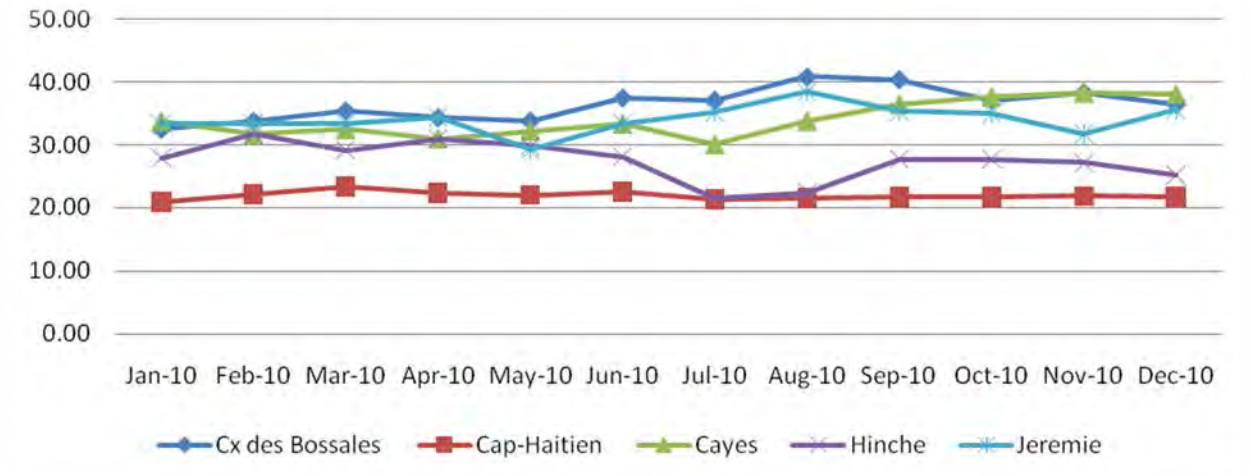
Figure 32. Average Monthly Price of Sorghum in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Red beans. Red beans prices in 2010 were generally lowest during spring and summer.

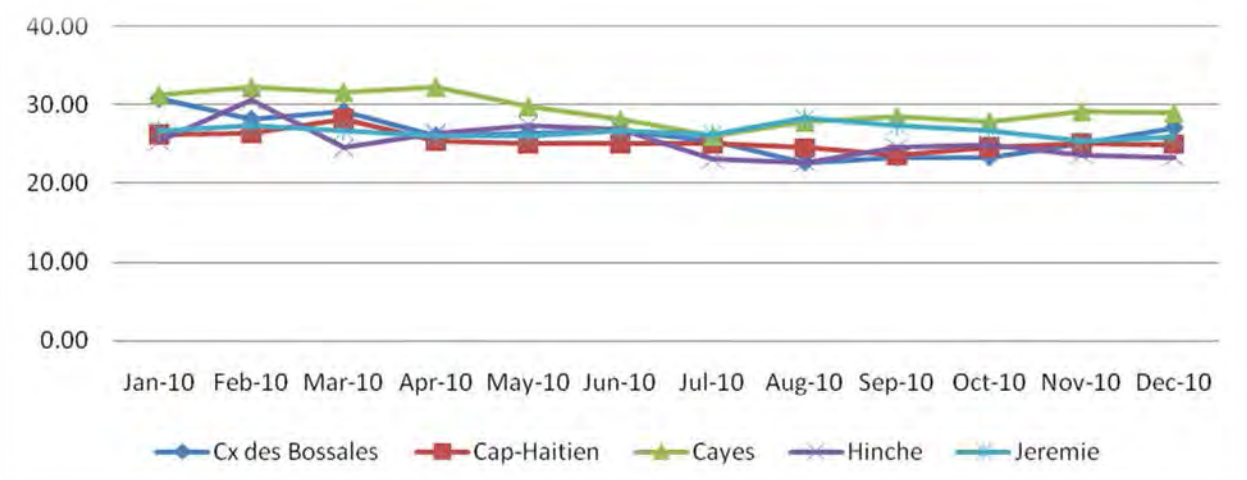
Figure 33. Average Monthly Price of Red Beans in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Black beans. Black beans prices in 2010 were generally lowest during summer and autumn.

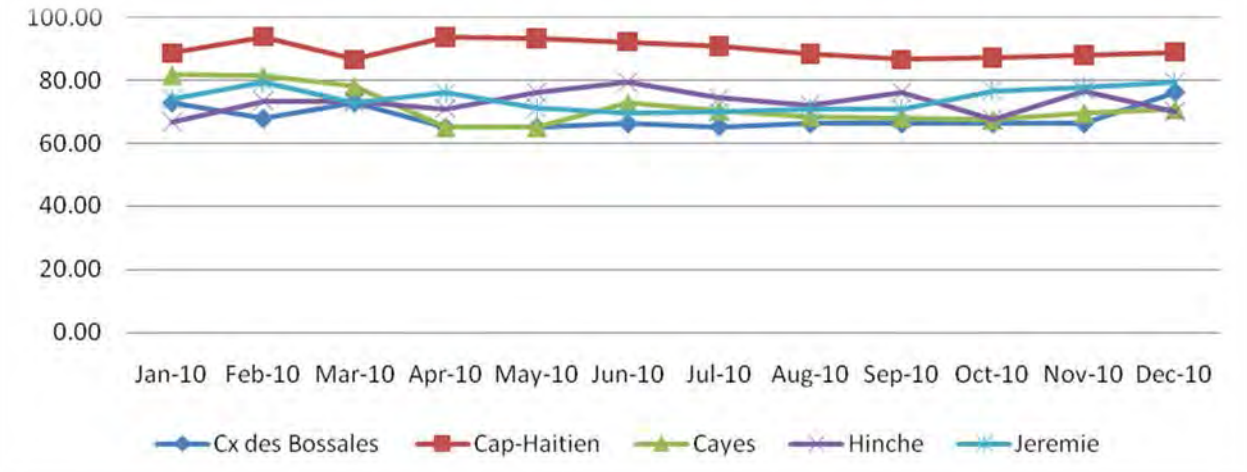
Figure 34. Average Monthly Price of Black Beans in 2010, HTG per 1 lb



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Alberto oil. Alberto oil prices in 2010 did not exhibit any clear pattern.

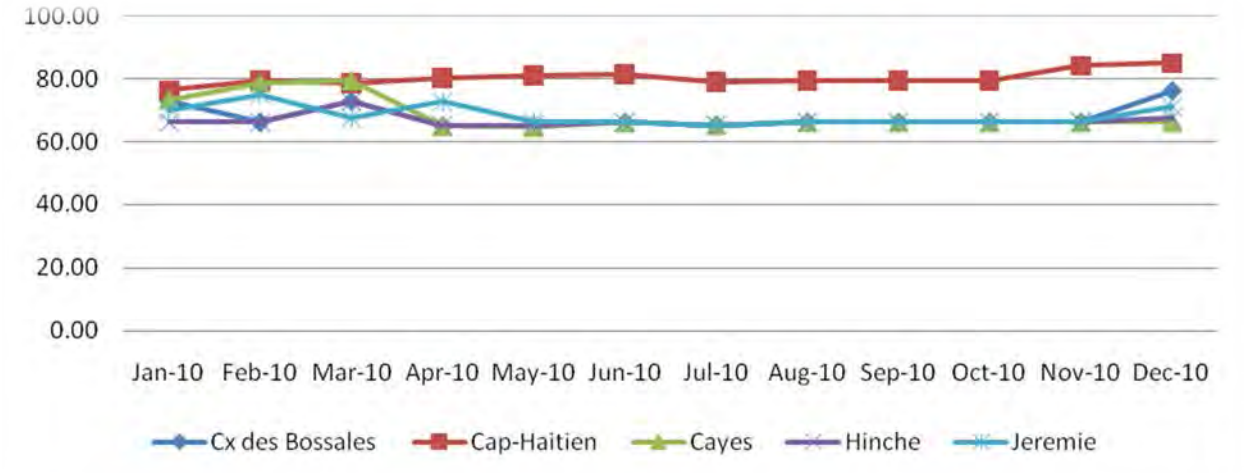
Figure 35. Average Monthly Price of Alberto Oil in 2010, HTG per 1 liter



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

Rika oil. Rika oil prices in 2010 were generally lowest during summer.

Figure 36. Average Monthly Price of Rika Oil in 2010, HTG per 1 liter



Source: Fintrac/BEST's calculations, based on data from USAID/Haiti and CNSA price bulletins.

IV.ix. Malnutrition

In January 2011, chronic malnutrition affected 24% of all children in Haiti, with 5% to 9% considered acutely malnourished (WFP, 2011). From a population perspective, Haiti's total population is about 10 million people—with 1.3 million under the age of five (UNICEF, 2011); therefore, a chronic malnutrition rate of 24% translates into about 300,000 chronically malnourished children. Furthermore, malnutrition is linked to infant mortality, causing up to half of the infant mortality incidence in Haiti (Steinlechner, 2011).

IV.x. Water

Haitian households acquire water from various sources, both protected (public and private pipes, protected wells, and springs) and unprotected (unprotected wells, streams, rainwater harvesting) (CNSA, 2010). In urban areas, water is generally acquired through purchase (Dixon, 2009). For example, wealthy households purchase tankers of water and then re-sell a small share of that water to the poor (Dixon, 2009). A survey of over 3,000 rural households in 2007 showed that close to half of their water supply was obtained from springs (CNSA, 2010). According to the World Health Organization (WHO), in 2009, 45% of Haitians lacked access to safe water sources (CNSA, 2010). A February 2010 survey of 933 households in 11 locales[15] showed that after the earthquake, more households obtained water from piped sources (an increase from 29% to 41%), and fewer purchased bottled water (a decrease from 30% to 22%) (CNSA, 2010). These statistics indicate that more than half of the surveyed population obtained water from either piped or bottled sources.

[15] This survey covered Port-au-Prince and Delmas, Léogâne and Gressier, Jacmel and Petit Goâve, Pétionville and Tabarre, Cité Soleil, Grand Goâve, and Croix-des-Bouquets.

Despite the cholera outbreak in October 2010, the sources of household water have not changed. However, the outbreak has triggered a dramatic increase in the consumption of treated water. More specifically, according to an FAO survey, the percentage of households consuming non-treated water decreased from 84.7% before the cholera outbreak to just 4.2% after it—and further decreased to 2.5% during December 2010, at the time of the survey. For more detail on this phenomenon, see the table below.

Table 21. Treated Water: Post-Cholera Changes in Household Consumption

Treatment/Method	Before Outbreak	Immediately After Outbreak	December 2010
Yes, Aquatabs	5.9%	58.2%	57.3%
Yes, Clorox	7.1%	34.7%	36.9%
Yes, boil	0.2%	0.3%	0.4%
Yes, filter with cloth	0.3%	0.4%	0.5%
Yes, filter with ceramic, sand or other	0.9%	0.4%	0.4%
Yes, other	1.0%	1.9%	2.1%
No, not now	84.7%	4.2%	2.5%
Total	**100.0%**	**100.0%**	**100.0%**

Source: Rapport d'Évaluation de l'Impact du Choléra sur la Sécurité Alimentaire dans les Zones Bas Plateau Central et Bas Artibonite (CNSA).

The highest percentages of households use Aquatabs and Clorox to treat water. During December 2010, 57.3% of households used Aquatabs and 36.9% used Clorox.

IV.x.i. Impact of Cholera on Households

Nine months after the January 2010 earthquake, Haiti faced a new catastrophe: cholera. The outbreak, concentrated in Lower Central Plateau and Lower Artibonite, caused hundreds of deaths. The outbreak has had economic and social consequences within the areas affected and, to an extent, throughout the country.

The outbreak has touched every socioeconomic class, even though its effects are more pronounced in certain groups. According to an FAO report, the household groups most affected are those headed by fishermen, unskilled agricultural workers, transporters, and farmers, because these households consume—and depend on—water from wells, rivers, and canals, and rainwater. These households live primarily in the lowland areas, practicing monoculture, and in the agro-pastoral zones. Among age groups, the most vulnerable to the scourge are people under 25, 50–59, and 70–79 (UNDP/Oxfam/FEWS, January 2011).

From an economic point of view, agriculturalists, fishermen, and small business owners may be considered the most affected. Farmers, in particular those located in the most contaminated zones and who cultivate primarily vegetables, have felt the effects of lower demand and declining prices for their products. The FAO report cited above reflects that because cholera is known to transmit primarily through rivers and irrigation canals, farmers were afraid to work their fields during the rice harvesting season. The report therefore suggests that part of the season's rice harvest would most likely be lost and the farming families in the Artibonite area would likely suffer reduced access to revenue and food in the ensuing months, prolonging the "hunger season" for those families.

The cholera outbreak triggered low demand and declining prices for seafood. In response, fishermen stopped fishing—and therefore, could well have lower revenues. Storeowners and street vendors have also experienced lower demand for their agricultural products and have been forced to lower their prices (UNDP/Oxfam/FEWS, January 2011).

All of these developments jeopardize the food security of affected Haitian households. In many households, the cholera outbreak has not only threatened revenues; it has imposed increased expenses linked to treating and managing the disease. However—and notably—despite these stresses, households tend to maintain their level of food consumption. This scenario is potentially detrimental for the affected households, since it leads to the liquidation of assets as a survival strategy.

Annex V. Detailed IPP Calculations

V.i. Wheat

7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Item	FOB, US Gulf	Ocean Freight	CNF (Cost and Freight)	Insurance	CIF Haiti	Custom Duties	VAT	Verification Tax	Territory Tax	Bagging Costs	Port Charges	Inland Freight	Total Handling	PAP IPP	Exchange Rates	Price Achieved
Currency	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	HTG/USD	USD
Unit	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
Apr-05	148.6	32	180.50	9.03	189.53	5.69	20.47	9.48	-	-	-	-	-	225.16	37.81	
May-05	150.5	31	181.30	9.07	190.37	5.71	20.56	9.52	-	-	-	-	-	226.15	37.75	
Jun-05	148.0	25	172.53	8.63	181.16	5.43	19.56	9.06	-	-	-	-	-	215.21	39.09	
Jul-05	147.6	17	164.93	8.25	173.17	5.20	18.70	8.66	-	-	-	-	-	205.73	39.80	
Aug-05	155.3	15	169.99	8.50	178.49	5.35	19.28	8.92	-	-	-	-	-	212.05	40.22	
Sep-05	166.2	17	182.70	9.14	191.84	5.76	20.72	9.59	-	-	-	-	-	227.90	42.31	
Oct-05	174.5	19	193.20	9.66	202.86	6.09	21.91	10.14	-	-	-	-	-	241.00	43.33	
Nov-05	167.3	19	186.17	9.31	195.48	5.86	21.11	9.77	-	-	-	-	-	232.23	43.17	
Dec-05	167.4	18	185.55	9.28	194.83	5.84	21.04	9.74	-	-	-	-	-	231.46	43.80	
Jan-06	169.5	15	184.90	9.25	194.15	5.82	20.97	9.71	-	-	-	-	-	230.64	43.80	
Feb-06	180.5	13	193.70	9.69	203.39	6.10	21.97	10.17	-	-	-	-	-	241.62	43.83	
Mar-06	180.8	13	194.00	9.70	203.70	6.11	22.00	10.19	-	-	-	-	-	242.00	44.39	
Apr-06	187.0	13	200.20	10.01	210.21	6.31	22.70	10.51	-	-	-	-	-	249.73	43.78	
May-06	199.3	15	214.21	10.71	224.92	6.75	24.29	11.25	-	-	-	-	-	267.21	43.42	
Jun-06	203.8	18	221.95	11.10	233.05	6.99	25.17	11.65	-	-	-	-	-	276.86	42.95	
Jul-06	213.0	19	232.25	11.61	243.86	7.32	26.34	12.19	-	-	-	-	-	289.71	40.53	
Aug-06	199.3	23	222.35	11.12	233.47	7.00	25.21	11.67	-	-	-	-	-	277.36	39.98	
Sep-06	207.4	26	233.80	11.69	245.49	7.36	26.51	12.27	-	-	-	-	-	291.64	40.59	
Oct-06	218.3	29	246.85	12.34	259.19	7.78	27.99	12.96	-	-	-	-	-	307.92	40.08	222.00
Nov-06	218.0	28	245.94	12.30	258.24	7.75	27.89	12.91	-	-	-	-	-	306.79	39.85	

7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Dec-06	216.6	30	246.30	12.32	258.62	7.76	27.93	12.93	-	-	-	-	-	307.23	39.87	
Jan-07	208.5	25	233.58	11.68	245.26	7.36	26.49	12.26	-	-	-	-	-	291.37	39.95	220.00
Feb-07	206.8	26	233.15	11.66	244.81	7.34	26.44	12.24	-	-	-	-	-	290.83	39.25	
Mar-07	209.2	31	240.69	12.03	252.72	7.58	27.29	12.64	-	-	-	-	-	300.23	39.21	
Apr-07	206.3	34	240.08	12.00	252.08	7.56	27.22	12.60	-	-	-	-	-	299.47	39.38	225.00
May-07	203.0	41	243.92	12.20	256.12	7.68	27.66	12.81	-	-	-	-	-	304.27	38.96	225.00
Jun-07	225.2	36	260.95	13.05	274.00	8.22	29.59	13.70	-	-	-	-	-	325.51	37.79	259.00
Jul-07	246.0	42	288.13	14.41	302.54	9.08	32.67	15.13	-	-	-	-	-	359.41	37.40	259.00
Aug-07	273.0	46	318.65	15.93	334.58	10.04	36.13	16.73	-	-	-	-	-	397.48	36.27	277.00
Sep-07	342.5	45	387.60	19.38	406.98	12.21	43.95	20.35	-	-	-	-	-	483.49	35.39	
Oct-07	353.5	55	408.06	20.40	428.46	12.85	46.27	21.42	-	-	-	-	-	509.01	35.50	
Nov-07	334.6	51	385.20	19.26	404.46	12.13	43.68	20.22	-	-	-	-	-	480.50	36.10	
Dec-07	380.7	47	427.95	21.40	449.35	13.48	48.53	22.47	-	-	-	-	-	533.83	36.28	
Jan-08	376.8	40	417.23	20.86	438.09	13.14	47.31	21.90	-	-	-	-	-	520.45	36.74	
Feb-08	438.6	42	480.95	24.05	505.00	15.15	54.54	25.25	-	-	-	-	-	599.94	37.33	
Mar-08	481.5	44	525.09	26.25	551.34	16.54	59.54	27.57	-	-	-	-	-	654.99	37.38	
Apr-08	388.8	46	435.23	21.76	456.99	13.71	49.35	22.85	-	-	-	-	-	542.90	37.77	
May-08	350.2	54	403.83	20.19	424.02	12.72	45.79	21.20	-	-	-	-	-	503.73	38.42	354.00
Jun-08	357.5	52	409.45	20.47	429.92	12.90	46.43	21.50	-	-	-	-	-	510.74	38.85	333.00
Jul-08	342.8	49	392.09	19.60	411.69	12.35	44.46	20.58	-	-	-	-	-	489.09	38.76	354.00
Aug-08	340.8	45	385.49	19.27	404.76	12.14	43.71	20.24	-	-	-	-	-	480.86	39.26	
Sep-08	312.3	39	351.16	17.56	368.72	11.06	39.82	18.44	-	-	-	-	-	438.04	39.45	
Oct-08	260.4	24	284.16	14.21	298.37	8.95	32.22	14.92	-	-	-	-	-	354.46	39.66	
Nov-08	247.3	14	261.41	13.07	274.48	8.23	29.64	13.72	-	-	-	-	-	326.09	39.76	
Dec-08	235.3	11	246.25	12.31	258.56	7.76	27.92	12.93	-	-	-	-	-	307.17	39.96	
Jan-09	256.4	11	267.40	13.37	280.77	8.42	30.32	14.04	-	-	-	-	-	333.55	38.86	
Feb-09	240.8	15	255.33	12.77	268.09	8.04	28.95	13.40	-	-	-	-	-	318.49	38.89	
Mar-09	245.5	18	263.38	13.17	276.54	8.30	29.87	13.83	-	-	-	-	-	328.53	38.93	211.00
Apr-09	241.5	16	257.86	12.89	270.76	8.12	29.24	13.54	-	-	-	-	-	321.66	39.04	191.00
May-09	260.8	20	280.60	14.03	294.63	8.84	31.82	14.73	-	-	-	-	-	350.02	38.99	197.50

7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Jun-09	269.5	21	290.68	14.53	305.21	9.16	32.96	15.26	-	-	-	-	-	362.59	39.05	219.00
Jul-09	233.2	24	257.68	12.88	270.56	8.12	29.22	13.53	-	-	-	-	-	321.42	39.06	
Aug-09	217.8	23	240.30	12.02	252.32	7.57	27.25	12.62	-	-	-	-	-	299.75	39.17	
Sep-09	200.8	24	225.23	11.26	236.49	7.09	25.54	11.82	-	-	-	-	-	280.95	39.08	
Oct-09	208.8	25	234.10	11.71	245.81	7.37	26.55	12.29	-	-	-	-	-	292.02	39.09	
Nov-09	227.5	26	253.35	12.67	266.02	7.98	28.73	13.30	-	-	-	-	-	316.03	39.15	
Dec-09	221.8	26	247.60	12.38	259.98	7.80	28.08	13.00	-	-	-	-	-	308.86	39.21	
Jan-10	214.8	27	241.75	12.09	253.84	7.62	27.41	12.69	-	-	-	-	-	301.56	39.14	
Feb-10	207.0	26	232.58	11.63	244.20	7.33	26.37	12.21	-	-	-	-	-	290.11	39.12	
Mar-10	205.5	29	234.38	11.72	246.09	7.38	26.58	12.30	-	-	-	-	-	292.36	39.06	
Apr-10	200.2	29	228.80	11.44	240.24	7.21	25.95	12.01	-	-	-	-	-	285.41	39.10	
May-10	195.8	30	225.73	11.29	237.01	7.11	25.60	11.85	-	-	-	-	-	281.57	38.99	
Jun-10	182.8	29	211.90	10.60	222.50	6.67	24.03	11.12	-	-	-	-	-	264.32	39.96	
Jul-10	204.6	22	226.85	11.34	238.19	7.15	25.72	11.91	-	-	-	-	-	282.97	38.97	
Aug-10	267.8	22	289.50	14.48	303.98	9.12	32.83	15.20	-	-	-	-	-	361.12	38.94	
Sep-10	303.8	22	326.13	16.31	342.43	10.27	36.98	17.12	-	-	-	-	-	406.81	39.03	
Oct-10	290.0	20	310.38	15.52	325.89	9.78	35.20	16.29	-	-	-	-	-	387.16	39.02	
Nov-10	291.5	19	310.38	15.52	325.89	9.78	35.20	16.29	-	-	-	-	-	387.16	39.13	
Dec-10	319.8	18	338.18	16.91	355.08	10.65	38.35	17.75	-	-	-	-	-	421.84	39.14	
Jan-11	339.8	19	359.00	17.95	376.95	11.31	40.71	18.85	-	-	-	-	-	447.82	39.16	
Feb-11	362.0	19	381.13	19.06	400.18	12.01	43.22	20.01	-	-	-	-	-	475.42	39.63	
Mar-11	332.3	20	352.25	17.61	369.86	11.10	39.95	18.49	-	-	-	-	-	439.40	39.69	
Apr-11	359.4	21	379.90	19.00	398.90	11.97	43.08	19.94	-	-	-	-	-	473.89	39.67	
May-11	361.8	21	382.25	19.11	401.36	12.04	43.35	20.07	-	-	-	-	-	476.82	39.69	
Jun-11	346.8	21	367.25	18.36	385.61	11.57	41.65	19.28	-	-	-	-	-	458.11	39.75	

Notes:

Item	*Detail*
1	*FOB price of US #2 Hard Winter Wheat, Gulf ports has been used (source: International Commodity Prices - FAO).*
2	*Ocean Freight (US Gulf to Mexico rates). Average rates are obtained from US Wheat and International Grain Council.*
3	*Cost and Freight = sum of Items 1 and 2.*
4	*Insurance: 5% of CNF – taken from Schwartz, T.T. (January 2010). Post-Earthquake Wheat Flour Monetization in Haiti. World Vision International.*
5	*CIF = sum of Items 3 and 4.*
6	*Custom Duties: 3% of CIF – obtained from Haiti Customs.*

7 VAT: 10.8% of CIF – obtained from Haiti Customs.
8 Verification Tax: 5% of CIF – obtained from Haiti Customs.
9 CFG (Territory Tax): 0% of CIF – obtained from Haiti Customs.
10 Bagging Costs: not applicable in this case because LMH has their own port and do their own bagging.
11 Port Charges: same as 10 above – LMH has their own port.
12 Inland Freight: same as 9, 10, and 11 above.
13 Total Handling Costs = sum of Items 11 and 12.
14 IPP = sum of CIF, VAT, Custom Duties, Verification Tax, CFG Tax, Bagging Costs, and Total Handling Costs.
15 Exchange rate source: Oanda.com.
16 Price Achieved: recent monetization sale price.

V.ii. Wheat Flour

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Item	Bakery Flour Prices	Ocean Freight	CNF (Cost and Freight)	Insurance	CIF Haiti	Custom Duties	VAT	Verification Tax	Territory Tax	Bagging Costs	Port Charges	Inland Freight	Total Handling	PAP IPP	Exchange Rates	Price Achieved
Currency	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	HTG/ USD	USD
Unit	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
Apr-05	242.3	29	271.29	13.56	284.86	9.97	31.84	14.74	-	7.50	-	15.00	15.00	363.91	37.81	
May-05	255.5	28	283.51	14.18	297.68	10.42	33.27	15.41	-	7.50	-	15.00	15.00	379.28	37.75	
Jun-05	263.2	22	285.52	14.28	299.79	10.49	33.51	15.51	-	7.50	-	15.00	15.00	381.81	39.09	
Jul-05	254.4	16	270.16	13.51	283.66	9.93	31.71	14.68	-	7.50	-	15.00	15.00	362.48	39.80	
Aug-05	247.8	13	261.20	13.06	274.26	9.60	30.66	14.19	-	7.50	-	15.00	15.00	351.21	40.22	
Sep-05	267.6	15	282.62	14.13	296.75	10.39	33.17	15.36	-	7.50	-	15.00	15.00	378.17	42.31	
Oct-05	280.8	17	297.84	14.89	312.73	10.95	34.96	16.18	-	7.50	-	15.00	15.00	397.31	43.33	
Nov-05	290.7	17	307.95	15.40	323.35	11.32	36.14	16.73	-	7.50	-	15.00	15.00	410.04	43.17	
Dec-05	273.1	17	289.63	14.48	304.11	10.64	33.99	15.74	-	7.50	-	15.00	15.00	386.98	43.80	
Jan-06	274.2	14	288.23	14.41	302.64	10.59	33.83	15.66	-	7.50	-	15.00	15.00	385.22	43.80	
Feb-06	258.8	12	270.81	13.54	284.35	9.95	31.78	14.72	-	7.50	-	15.00	15.00	363.30	43.83	
Mar-06	255.5	12	267.51	13.38	280.88	9.83	31.40	14.54	-	7.50	-	15.00	15.00	359.15	44.39	
Apr-06	275.3	12	287.33	14.37	301.70	10.56	33.72	15.61	-	7.50	-	15.00	15.00	384.09	43.78	
May-06	297.4	14	310.96	15.55	326.50	11.43	36.50	16.90	-	7.50	-	15.00	15.00	413.83	43.42	
Jun-06	294.1	17	310.55	15.53	326.08	11.41	36.45	16.87	-	7.50	-	15.00	15.00	413.32	42.95	
Jul-06	297.4	18	314.86	15.74	330.60	11.57	36.95	17.11	-	7.50	-	15.00	15.00	418.73	40.53	
Aug-06	269.8	21	290.82	14.54	305.36	10.69	34.13	15.80	-	7.50	-	15.00	15.00	388.49	39.98	
Sep-06	253.3	24	277.30	13.87	291.17	10.19	32.55	15.07	-	7.50	-	15.00	15.00	371.47	40.59	
Oct-06	284.1	26	310.14	15.51	325.65	11.40	36.40	16.85	-	7.50	-	15.00	15.00	412.80	40.08	
Nov-06	289.6	25	315.05	15.75	330.80	11.58	36.98	17.12	-	7.50	-	15.00	15.00	418.97	39.85	
Dec-06	276.4	27	303.43	15.17	318.60	11.15	35.61	16.49	-	7.50	-	15.00	15.00	404.36	39.87	
Jan-07	281.9	23	304.74	15.24	319.98	11.20	35.77	16.56	-	7.50	-	15.00	15.00	406.00	39.95	
Feb-07	280.8	24	304.84	15.24	320.08	11.20	35.78	16.56	-	7.50	-	15.00	15.00	406.12	39.25	

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mar-07	286.3	29	314.97	15.75	330.72	11.58	36.97	17.11	-	7.50	-	15.00	15.00	418.87	39.21	
Apr-07	308.4	31	339.12	16.96	356.08	12.46	39.80	18.43	-	7.50	-	15.00	15.00	449.27	39.38	
May-07	291.9	37	329.05	16.45	345.50	12.09	38.62	17.88	-	7.50	-	15.00	15.00	436.60	38.96	
Jun-07	332.6	33	365.10	18.25	383.35	13.42	42.85	19.84	-	7.50	-	15.00	15.00	481.96	37.79	
Jul-07	344.7	38	383.01	19.15	402.16	14.08	44.95	20.81	-	7.50	-	15.00	15.00	504.51	37.40	
Aug-07	353.5	42	395.02	19.75	414.78	14.52	46.36	21.46	-	7.50	-	15.00	15.00	519.62	36.27	
Sep-07	405.3	41	446.29	22.31	468.60	16.40	52.38	24.25	-	7.50	-	15.00	15.00	584.13	35.39	
Oct-07	467.0	50	516.56	25.83	542.39	18.98	60.63	28.07	-	7.50	-	15.00	15.00	672.57	35.50	
Nov-07	447.1	46	493.14	24.66	517.79	18.12	57.88	26.80	-	7.50	-	15.00	15.00	643.09	36.10	
Dec-07	571.6	43	614.57	30.73	645.30	22.59	72.13	33.39	-	7.50	-	15.00	15.00	795.91	36.28	
Jan-08	637.7	37	674.47	33.72	708.19	24.79	79.16	36.65	-	7.50	-	15.00	15.00	871.29	36.74	
Feb-08	959.3	39	997.75	49.89	1,047.64	36.67	117.11	54.22	-	7.50	-	15.00	15.00	1,278.13	37.33	
Mar-08	810.6	40	850.20	42.51	892.71	31.24	99.79	46.20	-	7.50	-	15.00	15.00	1,092.44	37.38	
Apr-08	667.4	42	709.65	35.48	745.13	26.08	83.29	38.56	-	7.50	-	15.00	15.00	915.56	37.77	
May-08	595.8	49	644.56	32.23	676.79	23.69	75.65	35.02	-	7.50	-	15.00	15.00	833.66	38.42	
Jun-08	557.3	47	604.49	30.22	634.72	22.22	70.95	32.85	-	7.50	-	15.00	15.00	783.23	38.85	
Jul-08	485.7	45	530.53	26.53	557.06	19.50	62.27	28.83	-	7.50	-	15.00	15.00	690.15	38.76	
Aug-08	528.6	41	569.26	28.46	597.72	20.92	66.81	30.93	-	7.50	-	15.00	15.00	738.89	39.26	
Sep-08	396.5	35	431.85	21.59	453.44	15.87	50.69	23.47	-	7.50	-	15.00	15.00	565.97	39.45	
Oct-08	362.3	22	383.93	19.20	403.13	14.11	45.06	20.86	-	7.50	-	15.00	15.00	505.67	39.66	
Nov-08	417.4	13	430.28	21.51	451.79	15.81	50.50	23.38	-	7.50	-	15.00	15.00	563.98	39.76	
Dec-08	380.0	10	389.96	19.50	409.45	14.33	45.77	21.19	-	7.50	-	15.00	15.00	513.24	39.96	
Jan-09	397.6	10	407.58	20.38	427.96	14.98	47.84	22.15	-	7.50	-	15.00	15.00	535.42	38.86	
Feb-09	382.2	13	395.41	19.77	415.18	14.53	46.41	21.49	-	7.50	-	15.00	15.00	520.10	38.89	
Mar-09	386.6	16	402.81	20.14	422.95	14.80	47.28	21.89	-	7.50	-	15.00	15.00	529.42	38.93	
Apr-09	377.8	15	392.63	19.63	412.26	14.43	46.08	21.33	-	7.50	-	15.00	15.00	516.61	39.04	
May-09	397.6	18	415.58	20.78	436.36	15.27	48.78	22.58	-	7.50	-	15.00	15.00	545.49	38.99	
Jun-09	385.5	19	404.71	20.24	424.95	14.87	47.50	21.99	-	7.50	-	15.00	15.00	531.81	39.05	
Jul-09	345.8	22	368.06	18.40	386.47	13.53	43.20	20.00	-	7.50	-	15.00	15.00	485.69	39.06	
Aug-09	309.5	21	329.97	16.50	346.47	12.13	38.73	17.93	-	7.50	-	15.00	15.00	437.75	39.17	

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sep-09	355.7	22	377.98	18.90	396.88	13.89	44.36	20.54	-	7.50	-	15.00	15.00	498.17	39.08	
Oct-09	324.9	23	347.89	17.39	365.28	12.78	40.83	18.90	-	7.50	-	15.00	15.00	460.30	39.09	
Nov-09	359.0	24	382.53	19.13	401.66	14.06	44.90	20.79	-	7.50	-	15.00	15.00	503.90	39.15	
Dec-09	327.1	24	350.59	17.53	368.12	12.88	41.15	19.05	-	7.50	-	15.00	15.00	463.71	39.21	
Jan-10	338.1	25	362.61	18.13	380.74	13.33	42.56	19.70	-	7.50	30.70	15.00	45.70	509.52	39.14	
Feb-10	375.6	23	398.80	19.94	418.74	14.66	46.81	21.67	-	7.50	30.70	15.00	45.70	555.07	39.12	
Mar-10	364.5	26	390.79	19.54	410.33	14.36	45.87	21.23	-	7.50	30.70	15.00	45.70	544.99	39.06	
Apr-10	366.7	26	392.74	19.64	412.38	14.43	46.10	21.34	-	7.50	30.70	15.00	45.70	547.45	39.10	
May-10	351.3	27	378.57	18.93	397.50	13.91	44.43	20.57	-	7.50	30.70	15.00	45.70	529.62	38.99	
Jun-10	376.7	27	403.15	20.16	423.31	14.82	47.32	21.91	-	7.50	30.70	15.00	45.70	560.55	39.96	555
Jul-10	338.1	22	360.36	18.02	378.37	13.24	42.29	19.58	-	7.50	30.70	15.00	45.70	506.69	38.97	560
Aug-10	392.1	22	413.82	20.69	434.51	15.21	48.57	22.49	-	7.50	30.70	15.00	45.70	573.98	38.94	560
Sep-10	408.6	22	430.97	21.55	452.51	15.84	50.58	23.42	-	7.50	30.70	15.00	45.70	595.55	39.03	560
Oct-10	438.3	20	458.70	22.94	481.64	16.86	53.84	24.92	-	7.50	30.70	15.00	45.70	630.46	39.02	
Nov-10	378.9	19	397.73	19.89	417.62	14.62	46.68	21.61	-	7.50	30.70	15.00	45.70	553.73	39.13	
Dec-10	450.4	18	468.82	23.44	492.26	17.23	55.02	25.47	-	7.50	30.70	15.00	45.70	643.18	39.14	
Jan-11	508.8	19	528.06	26.40	554.46	19.41	61.98	28.69	-	7.50	30.70	15.00	45.70	717.74	39.16	
Feb-11	618.9	19	638.07	31.90	669.97	23.45	74.89	34.67	-	7.50	30.70	15.00	45.70	856.18	39.63	
Mar-11	567.2	20	587.18	29.36	616.54	21.58	68.92	31.91	-	7.50	30.70	15.00	45.70	792.14	39.69	
Apr-11	579.3	21	599.80	29.99	629.78	22.04	70.40	32.59	-	7.50	30.70	15.00	45.70	808.02	39.67	
May-11	642.1	21	662.57	33.13	695.70	24.35	77.77	36.00	-	7.50	30.70	15.00	45.70	887.02	39.69	
Jun-11	603.5	21	624.52	31.23	655.75	22.95	73.30	33.94	-	7.50	30.70	15.00	45.70	839.14	39.75	

Notes:

Item	*Detail*
1	*Minneapolis Bakers standard patent flour $/MT from ERS.*
2	*Ocean Freight (US Gulf to Mexico rates). Average rates are obtained from US Wheat and International Grain Council.*
3	*Cost and Freight = sum of Items 1 and 2.*
4	*Insurance: 5% of CNF – taken from Schwartz (January 2010).*
5	*CIF = sum of Items 3 and 4.*
6	*Custom Duties: 3.5% of CIF –obtained from Haiti Customs.*
7	*VAT: 10.8% of CIF – obtained from Haiti Customs.*
8	*Verification Tax: 5% of CIF – obtained from Haiti Customs.*
9	*CFG (Territory Tax): 0% of CIF – obtained from Haiti Customs.*
10	*Bagging Costs – taken from Schwartz (January 2010).*

11 Port Charges – taken from Schwartz (January 2010): USD$700 per 20ft container.
12 Inland Freight – taken from Schwartz (January 2010).
13 Total Handling costs = sum of Items 11 and 12.
14 IPP = sum of CIF, VAT, Custom Duties, Verification Tax, CFG Tax, Bagging Costs, and Total Handling Costs.
15 Exchange rate source: Oanda.com.
16 Price Achieved: recent monetization sale price at first batch shipped.

V.iii. Maize Flour

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Item	Yellow Corn Meal Price	Ocean Freight	CNF (Cost and Freight)	Insurance	CIF Haiti	Custom Duties	VAT	Verification Tax	Territory Tax	Bagging Costs	Port Charges	Inland Freight	Total Handling	PAP IPP	Exchange Rates
Currency	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD	HTG/ USD
Unit	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT	MT
Aug-05	348.1	13	361.55	18.08	379.63	13.29	42.43	18.98	-	7.50	30.71	15.00	45.71	507.54	40.22
Sep-05	344.2	15	359.19	17.96	377.15	13.20	42.16	18.86	-	7.50	30.71	15.00	45.71	504.58	42.31
Oct-05	340.1	17	357.09	17.85	374.94	13.12	41.91	18.75	-	7.50	30.71	15.00	45.71	501.93	43.33
Nov-05	336.0	17	353.24	17.66	370.90	12.98	41.46	18.54	-	7.50	30.71	15.00	45.71	497.09	43.17
Dec-05	340.3	17	356.81	17.84	374.65	13.11	41.88	18.73	-	7.50	30.71	15.00	45.71	501.58	43.80
Jan-06	342.7	14	356.68	17.83	374.51	13.11	41.86	18.73	-	7.50	30.71	15.00	45.71	501.42	43.80
Feb-06	349.9	12	361.92	18.10	380.01	13.30	42.48	19.00	-	7.50	30.71	15.00	45.71	508.00	43.83
Mar-06	349.6	12	361.56	18.08	379.64	13.29	42.44	18.98	-	7.50	30.71	15.00	45.71	507.55	44.39
Apr-06	354.0	12	366.05	18.30	384.35	13.45	42.96	19.22	-	7.50	30.71	15.00	45.71	513.19	43.78
May-06	365.1	14	378.69	18.93	397.62	13.92	44.45	19.88	-	7.50	30.71	15.00	45.71	529.08	43.42
Jun-06	347.7	17	364.21	18.21	382.43	13.38	42.75	19.12	-	7.50	30.71	15.00	45.71	510.89	42.95
Jul-06	349.5	18	366.98	18.35	385.33	13.49	43.07	19.27	-	7.50	30.71	15.00	45.71	514.36	40.53
Aug-06	341.2	21	362.19	18.11	380.30	13.31	42.51	19.01	-	7.50	30.71	15.00	45.71	508.34	39.98
Sep-06	354.6	24	378.59	18.93	397.52	13.91	44.43	19.88	-	7.50	30.71	15.00	45.71	528.95	40.59
Oct-06	378.8	26	404.83	20.24	425.07	14.88	47.51	21.25	-	7.50	30.71	15.00	45.71	561.92	40.08
Nov-06	409.1	25	434.50	21.72	456.22	15.97	51.00	22.81	-	7.50	30.71	15.00	45.71	599.21	39.85
Dec-06	413.5	27	440.52	22.03	462.54	16.19	51.70	23.13	-	7.50	30.71	15.00	45.71	606.77	39.87
Jan-07	419.0	23	441.76	22.09	463.85	16.23	51.85	23.19	-	7.50	30.71	15.00	45.71	608.34	39.95
Feb-07	430.1	24	454.12	22.71	476.83	16.69	53.30	23.84	-	7.50	30.71	15.00	45.71	623.87	39.25
Mar-07	419.1	29	447.68	22.38	470.06	16.45	52.54	23.50	-	7.50	30.71	15.00	45.71	615.77	39.21
Apr-07	419.0	31	449.78	22.49	472.26	16.53	52.79	23.61	-	7.50	30.71	15.00	45.71	618.41	39.38
May-07	418.3	37	455.50	22.78	478.28	16.74	53.46	23.91	-	7.50	30.71	15.00	45.71	625.60	38.96
Jun-07	415.7	33	448.22	22.41	470.63	16.47	52.61	23.53	-	7.50	30.71	15.00	45.71	616.45	37.79

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Jul-07	392.5	38	430.84	21.54	452.38	15.83	50.57	22.62	-	7.50	30.71	15.00	45.71	594.61	37.40
Aug-07	396.4	42	437.91	21.90	459.81	16.09	51.40	22.99	-	7.50	30.71	15.00	45.71	603.50	36.27
Sep-07	407.5	41	448.49	22.42	470.91	16.48	52.64	23.55	-	7.50	30.71	15.00	45.71	616.79	35.39
Oct-07	406.1	50	455.75	22.79	478.53	16.75	53.49	23.93	-	7.50	30.71	15.00	45.71	625.91	35.50
Nov-07	417.8	46	463.81	23.19	487.00	17.05	54.44	24.35	-	7.50	30.71	15.00	45.71	636.05	36.10
Dec-07	441.1	43	484.12	24.21	508.33	17.79	56.82	25.42	-	7.50	30.71	15.00	45.71	661.56	36.28
Jan-08	466.4	37	503.17	25.16	528.32	18.49	59.06	26.42	-	7.50	30.71	15.00	45.71	685.50	36.74
Feb-08	479.3	39	517.80	25.89	543.68	19.03	60.77	27.18	-	7.50	30.71	15.00	45.71	703.88	37.33
Mar-08	485.9	40	525.56	26.28	551.83	19.31	61.68	27.59	-	7.50	30.71	15.00	45.71	713.63	37.38
Apr-08	516.5	42	558.77	27.94	586.71	20.53	65.58	29.34	-	7.50	30.71	15.00	45.71	755.37	37.77
May-08	520.3	49	569.10	28.45	597.55	20.91	66.79	29.88	-	7.50	30.71	15.00	45.71	768.35	38.42
Jun-08	577.2	47	624.46	31.22	655.68	22.95	73.29	32.78	-	7.50	30.71	15.00	45.71	837.91	38.85
Jul-08	537.8	45	582.65	29.13	611.78	21.41	68.38	30.59	-	7.50	30.71	15.00	45.71	785.38	38.76
Aug-08	494.3	41	534.93	26.75	561.67	19.66	62.78	28.08	-	7.50	30.71	15.00	45.71	725.41	39.26
Sep-08	433.9	35	469.30	23.46	492.76	17.25	55.08	24.64	-	7.50	30.71	15.00	45.71	642.94	39.45
Oct-08	379.5	22	401.12	20.06	421.17	14.74	47.08	21.06	-	7.50	30.71	15.00	45.71	557.26	39.66
Nov-08	358.4	13	371.25	18.56	389.81	13.64	43.57	19.49	-	7.50	30.71	15.00	45.71	519.72	39.76
Dec-08	374.7	10	384.67	19.23	403.90	14.14	45.15	20.20	-	7.50	30.71	15.00	45.71	536.59	39.96
Jan-09	378.9	10	388.85	19.44	408.30	14.29	45.64	20.41	-	7.50	30.71	15.00	45.71	541.85	38.86
Feb-09	368.7	13	381.97	19.10	401.07	14.04	44.83	20.05	-	7.50	30.71	15.00	45.71	533.20	38.89
Mar-09	389.6	16	405.90	20.29	426.19	14.92	47.64	21.31	-	7.50	30.71	15.00	45.71	563.27	38.93
Apr-09	391.2	15	406.06	20.30	426.37	14.92	47.66	21.32	-	7.50	30.71	15.00	45.71	563.48	39.04
May-09	405.5	18	423.51	21.18	444.68	15.56	49.71	22.23	-	7.50	30.71	15.00	45.71	585.40	38.99
Jun-09	395.6	19	414.84	20.74	435.59	15.25	48.69	21.78	-	7.50	30.71	15.00	45.71	574.51	39.05
Jul-09	367.2	22	389.43	19.47	408.90	14.31	45.71	20.45	-	7.50	30.71	15.00	45.71	542.58	39.06
Aug-09	371.8	21	392.31	19.62	411.92	14.42	46.04	20.60	-	7.50	30.71	15.00	45.71	546.19	39.17
Sep-09	370.0	22	392.29	19.61	411.91	14.42	46.04	20.60	-	7.50	30.71	15.00	45.71	546.17	39.08
Oct-09	396.5	23	419.48	20.97	440.45	15.42	49.23	22.02	-	7.50	30.71	15.00	45.71	580.33	39.09
Nov-09	396.9	24	420.42	21.02	441.44	15.45	49.34	22.07	-	7.50	30.71	15.00	45.71	581.51	39.15
Dec-09	398.5	24	421.96	21.10	443.06	15.51	49.52	22.15	-	7.50	30.71	15.00	45.71	583.45	39.21

Item No	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Jan-10	381.5	25	406.00	20.30	426.30	14.92	47.65	21.31	-	7.50	30.71	15.00	45.71	563.39	39.14
Feb-10	372.5	23	395.72	19.79	415.50	14.54	46.44	20.78	-	7.50	30.71	15.00	45.71	550.48	39.12
Mar-10	377.1	26	403.34	20.17	423.51	14.82	47.34	21.18	-	7.50	30.71	15.00	45.71	560.06	39.06
Apr-10	375.1	26	401.11	20.06	421.17	14.74	47.08	21.06	-	7.50	30.71	15.00	45.71	557.25	39.10
May-10	374.7	27	401.92	20.10	422.02	14.77	47.17	21.10	-	7.50	30.71	15.00	45.71	558.27	38.99
Jun-10	369.4	27	395.88	19.79	415.68	14.55	46.46	20.78	-	7.50	30.71	15.00	45.71	550.68	39.96
Jul-10	389.2	22	411.46	20.57	432.03	15.12	48.29	21.60	-	7.50	30.71	15.00	45.71	570.25	38.97
Aug-10	407.5	22	429.24	21.46	450.70	15.77	50.38	22.54	-	7.50	30.71	15.00	45.71	592.60	38.94
Sep-10	448.0	22	470.39	23.52	493.91	17.29	55.21	24.70	-	7.50	30.71	15.00	45.71	644.31	39.03
Oct-10	493.8	20	514.21	25.71	539.92	18.90	60.35	27.00	-	7.50	30.71	15.00	45.71	699.37	39.02
Nov-10	494.3	19	513.15	25.66	538.81	18.86	60.23	26.94	-	7.50	30.71	15.00	45.71	698.04	39.13
Dec-10	509.5	18	527.85	26.39	554.24	19.40	61.95	27.71	-	7.50	30.71	15.00	45.71	716.51	39.14
Jan-11	529.5	19	548.77	27.44	576.20	20.17	64.41	28.81	-	7.50	30.71	15.00	45.71	742.80	39.16
Feb-11	591.9	19	610.98	30.55	641.52	22.45	71.71	32.08	-	7.50	30.71	15.00	45.71	820.97	39.63
Mar-11	605.9	20	625.95	31.30	657.24	23.00	73.47	32.86	-	7.50	30.71	15.00	45.71	839.79	39.69
Apr-11	627.1	21	647.59	32.38	679.97	23.80	76.01	34.00	-	7.50	30.71	15.00	45.71	866.99	39.67
May-11	594.5	21	614.99	30.75	645.74	22.60	72.18	32.29	-	7.50	30.71	15.00	45.71	826.02	39.69

Notes:

Item	*Detail*
1	*Yellow corn meal price (Chicago IL) from ERS.*
2	*Ocean Freight (US Gulf to Mexico rates). Average rates are taken from US Wheat and International Grain Council.*
3	*Cost and Freight = sum of Items 1 and 2.*
4	*Insurance: 5% of CNF – taken from Schwartz (January 2010).*
5	*CIF = sum of Items 3 and 4.*
6	*Custom Duties: 3.5% of CIF – obtained from Haiti Customs.*
7	*VAT: 10.8% of CIF – obtained from Haiti Customs.*
8	*Verification Tax: 5% of CIF – obtained from Haiti Customs.*
9	*CFG (Territory Tax): 0% of CIF – obtained from Haiti Customs.*
10	*Bagging Costs – taken from Schwartz (January 2010).*
11	*Port Charges – taken from Schwartz (January 2010): USD$700 per 20ft container*
12	*Inland Freight – taken from Timothy T. Schwartz's Wheat flour Monetization in Haiti Report.*
13	*Total Handling Costs = sum of Items 11 and 12.*
14	*IPP = sum of CIF, VAT, Custom Duties, Verification Tax, CFG Tax, Bagging Costs, and Total Handling Costs.*
15	*Exchange rate source: Oanda.com.*

Annex VI. Methodology for Determining Impact of Monetized Food Aid[16]

VI.i. Introduction

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.

VI.ii. Analytical Process

VI.ii.i. Step 1: 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 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, outdated, 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.

[16] 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.

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 VI.I). There may also be special policies, such as the FFP Policy on Use of Milk Powder for Monetization (see Annex VI.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.[17]

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

[17] 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% 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.

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 VI.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, traders, and other potential buyers of monetized commodities.

Annex VI.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% 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% of domestic production (averaged over 5 years) per BEST's current guideline.

VI.ii.ii. 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 import parity price (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 IPP 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 import[18]
- Port charges at port of entry (such as taxes, handling, packaging, storage, and agents' fees)
- 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%. Monetized sales transacted at prices above or below the margin of error can be reasonably 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.

[18] BEST will use CIF at port prices whenever they are available.

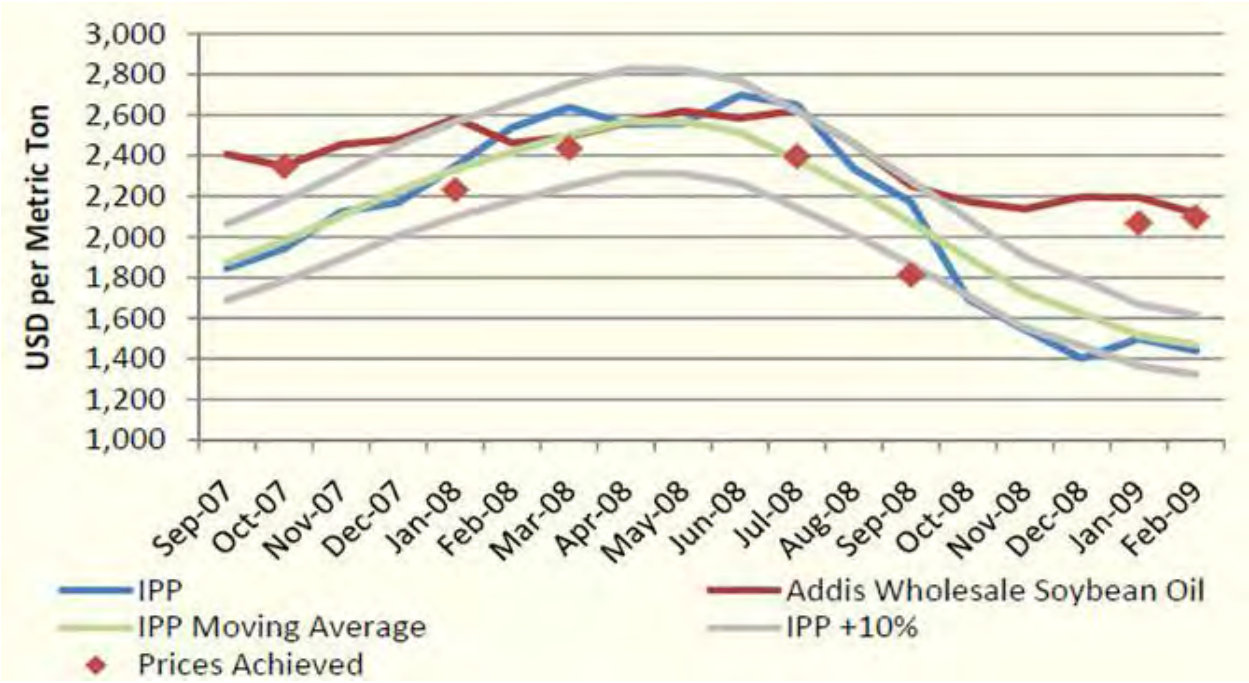
If there is little or no history of monetization sales transactions to compare with IPP, then market structure and conduct must be assessed as indicators of the potential for achieving a fair market price.

Example of IPP calculation and use in monetization analysis: The following is an example of an IPP calculation and a c omparison of achieved sales prices relative to IPP. The table below shows an i ndividual import parity price calculation for soybean oil for possible sale in Addis Ababa. The figure below shows historical IPP charted against actual monetization sales price achievements for soybean oil monetized in Addis Ababa.

Table 22. 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 37. Comparison of Addis Wholesale Soybean Oil Prices and Calculated IPP



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 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 VI.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.[19]

Awardees should demonstrate awareness of any other monetizations planned (e.g., through USDA) during the same season as their proposed monetization, and s hould 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 di sincentive 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 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

[19] 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.

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.

VI.ii.iii. 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% of the commercial import market, or 5% of domestic production, averaged over 5 years, per BEST's current guideline.[20] Anticipated proceeds from such a sale are presented.

Hypothetical Example. The figure below 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, NFDM, rice, and pinto beans.

[20] A threshold of 10% of commercial imports (5% 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.

Figure 38. Decision Tree

5 initial commodities considered for Monetization in Country X:

- CSDO
- HRWW
- NFDM
- Rice
- Pinto Beans

No policy restrictions prevent the importation of HRWW, NFDM, Rice, or Pinto Beans, but there are restrictions for CDSO.

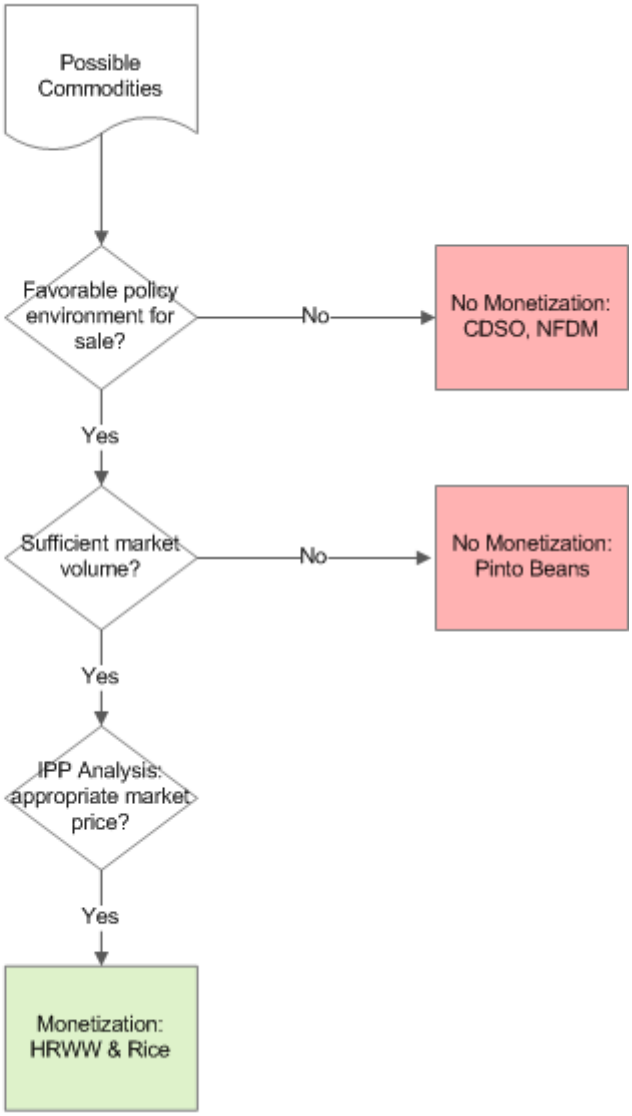
BEST research also indicates that the buyer for NFDM would probably use it to manufacture breast milk substitute, which preclude its monetization.

Based on trade data, HRWW, Rice and NFDM 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.



Annex VI.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
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
Bulk

Grains and Fortified/Blended Food Products
Barley, Steel Cut, Bagged*
Barley, Bulk
Buckwheat, Wheat Blend*
Buckwheat, Frinetta*
Buckwheat, Grits*
Buckwheat, Groats*
Buckwheat, Supreme Flour*
Corn, Bagged*
Corn, Bulk
Corn, Bulk, Bagged*
Cornmeal*
Cornmeal, Soy-Fortified *
Corn Soy Blend*
Corn Soy Masa Flour, Instant *
Corn Soy Milk*
Corn Soy Milk, Instant*
Rice, Bulk, Bagged*
Rice, Bagged*
Sorghum, Bagged*
Sorghum, Bulk
Sorghum, Bulk, Bagged*
Sorghum Grits, Soy-Fortified*

Pulses
Beans, Black*
Beans, Great Northern*
Beans, Kidney (Dark & Light)*
Beans, Navy*
Beans, Pink*
Beans, Pinto *

Beans, Small Red*
Beans, Garbanzo (Chickpeas)*
Lentils*
Peas, Green *
Peas, Split Green *
Peas, Yellow *
Peas, Split Yellow*
Soybeans, Bagged
Soybeans, Bulk
Soybeans, Bulk, Bagged
Soybean Meal, Bulk*

Wheat/Wheat Products
Bulgur*
Bulgur, Soy-Fortified*
Wheat, Hard Red Winter, Bagged*
Wheat, Hard Red Winter, Bulk
Wheat, Hard Red Winter, Bulk Bagged*
Wheat, Hard White, Bagged*
Wheat, Hard White, Bulk
Wheat, Hard White, Bulk, Bagged*
Wheat, Hard Red Spring, Bagged*
Wheat, Hard Red Spring, Bulk
Wheat, Hard Red Spring, Bulk, Bagged*
Wheat, Northern Spring, Bagged*
Wheat, Northern Spring, Bulk
Wheat, Northern Spring, Bulk, Bagged*
Wheat, Northern Spring, Dark, Bagged*
Wheat, Northern Spring, Dark, Bulk
Wheat, Northern Spring Dark, Bulk Bagged*
Wheat, Soft Red Winter, Bagged*
Wheat, Soft Red Winter, Bulk
Wheat, Soft Red Winter, Bulk, Bagged*
Wheat, Soft White, Bagged*
Wheat, Soft White, Bulk
Wheat, Soft White, Bulk, Bagged*
Wheat Flour, All Purpose*
Wheat Flour, Bread*
Wheat Soy Blend
Wheat Soy Milk*

Oil
Vegetable Oil, Crude De-gummed, Bulk
Vegetable Oil, Vitamin A Fortified, Refined, Bulk *
Vegetable Oil, Vitamin A Fortified, Refined, 4 L (Cylindrical Tins/Plastic Pails)*
Vegetable Oil, Vitamin A Fortified, Refined, 20 L (Cylindrical Pails)*

Vegetable Oil, Vitamin A Fortified, Refined, 208 L (Cylindrical Drums)*

Other – Specialty Products
Mainstay 3600*
Mainstay Complete*
Non-Fat Dry Milk
Nutrition Bars*
Peanut Butter Paste*
Potato Flakes, Dehydrated *
Potato Granules*
Potatoes, Canned Sweet *
Raisins, California *
RiceX*
Salmon, Canned *
Soy Flour, Defatted*
Soy Protein, Concentrate*
Soy Protein, Isolate*
Soy Protein, Textured*
Vitameal*
Whole Milk Replacer*

*Value-added food aid commodities processed, fortified, or bagged in the United States

Annex VI.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 sellers 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 manufacture'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 VI.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 1>, 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 VI.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)
    - Which companies import the largest volumes of [cereals], [oil], [commodities on top ten list of commercial imports for country under study]?
9. Which imported and local commodities do FFP commodities compete against?
10. Could you describe the effect in terms of consumer preferences?
11. Are there any policy constraints or political sensitivities?

Annex VI.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 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.*

Barrett, Christopher and Erin Lentz (Dec 2009). *U.S. Monetization Policy: Recommendations for Improvement*.

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 VII. Methodology for Determining Impact of Distributed Food Aid[21]

VII.i. Introduction

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 distributed[22] 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).[23] The provision of in-kind food aid effectively 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;

[21] 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.

[22] 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.

[23] 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.

- 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.
- 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.[24] 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; and (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

[24] For a review of the economic rationale, see Christopher Barrett, 2002, "Food Aid Effectiveness: It's the Targeting, Stupid!"

targeted programs can never prevent all leakage.[25] 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 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.[26] 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.[27] 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

[25] For more background on targeting, see Hoddinott (1999), Barrett (2002), and EU/FAO (2008).

[26] 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).

[27] 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.

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.

VII.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.[28] 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.

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

[28] 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.

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.[29]

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.

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 indicators(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:

[29] 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.

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 are 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 commodities 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 Office, 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 (S-C-P) 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 (S-C-P) model, as adapted by FEWS NET from Industrial Organization Theory[30] to the realities of markets in developing countries.[31]

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 S-C-P concept of market performance.

Within the S-C-P 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.**

[30] See Bain (1959).

[31] 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).

Basic conditions broadly describe basic traits of the country and economy, including seasons and seasonality, infrastructure, consumption characteristics such as elasticities[32] 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 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/VAM 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

[32] 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 I and FEWS NET (2008b).

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 traders[33] 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.

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 11: 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.

[33] 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.

Annex VII.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.[34]

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?

[34] 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.

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?

Annex VII.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 FAO'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 Score[35] (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

[35] 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

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.[36]

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.[37]

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 hungry, and potentially all members are hungry.[38] 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

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.

[36] 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.

[37] 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.

[38] 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.

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

Barrett, Christopher (2002). *Food Aid Effectiveness: It's the Targeting, Stupid!* Cornell University Working Paper No. 2002-43.

FEWS NET(May 2008). *Structure-Conduct-Performance and Food Security*. FEWS NET Market Guidance No. 2.

Hoddinott, John (1999). *Targeting: Principles and Practice.* IFPRI Technical Guidance No. 9.

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Annex IX. Bibliography

USAID (1998). *Monetization Field Manual.*

USAID Office of Food For Peace *(*August 2010*). 2010 Haiti Market Analysis*.

A. Abdulai, C. B. (2005). *Does food aid really have disincentive effects? New evidence from sub-Saharan Africa.* World Development 33:10.

ACDI/VOCA (2011). *Haiti MYAP Annual Results Report.*

AMEX (2011). *ACE Report.*

Azael, A. (1994). *Inventory of Seeds in Haiti.* SEICD and Auburn, Land Use Project.

Barrett, C. A. (Dec 2009). *U.S. Monetization Policy: Recommendations for Improvement.*

Bayard, B. (2007). *La Filiere riz en Haiti: Diagnositc globale et perspecives.*

Bellande, B. (2005a). Systèmes d'exploitation et potentialité pour l'intensification de l'agriculture en Haïti. Banque Mondiale.

Bellande, B. (2005b). Les filières fruits, légumes, plantes ornementales et fleurs coupées en Haïti.

Chery, J. M. (May 2001). *Etude de l'impact de la libéralisation commerciale dans le secteur rizicole.* Oxfam GB.

CIAT, CRS, SNS-MARDNR, UEA, FAO, World Concern, Save the Children, ACDI/VOCA, Save the Children and World Vision (August 2010). *Seed System Security Assessment, Haiti*. A study funded by the United States Agency for International Development, Office of Foreign Disaster Assistance.

CNSA (May 2011). Port-au-Prince: Coordination de la Sécurité Alimentaire.Bilan Alimentaire 2010.

CRS (2011). *Haiti MYAP Annual Results Report.*

D., R., & S. Mohapatra, A. S. (2011). *The Migration and Remittances Factbook 2011.* World Bank.

FAO/PAM (September 2010). *Mission FAO/PAM d'évaluation de la récolte et de la sécurité alimentaire en Haïti.*

FEWS NET Markets Guidance No. 1 (May 2008). *Import/Export Parity Price Analysis.*

IHSI (December 2010). Port-au-Prince: Institut Haitien de Statistique et d'Informatique. Les comptes économiques en 2010. Publication annuelle de l'IHSI #19.

IHSI (May 2008). *Estimations et projections de la population totale, urbaine, rurale et économiquement active.* Port-au-Prince: Institut Haitien de Statistique et d'Informatique.

Isakson, S (2010). *Market Provisioning and the Conservation of Crop Biodiversity: An Analysis of Peasant Livelihoods and miaze Diversity in the Guatemalan Highlands.* Halifax: Saint Mary's University.

Janvry, A. E. (2009). *The Global Food Crisis and Guatemala: What Crisis and For Whom?* Berkeley: University of California at Berkeley.

MARNDR/BID (Ocotober 2005). *Identifications de créneaux potentiels dans les filières rurales : rapport de synthèse.*

Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural [MARNDR] (February 2011). *Bilan des Actions Gouvernementales au Niveau du Secteur Agricole.*

Oxfam International (October 2005). *Kicking the Door Down: how upcoming WTO talks threaten farmers in poor countries.* Briefing Paper No. 7.

Paul, G. (2005). *Identification de crénaux potentiels dans les filières rurales haïtiennes : Filières céréales, riz, mais, sorgho ; Filières des légumineuses, haricot, arachide et pois congo ; Filière banana. Print.*

Schwartz, T. T. (January 2010). *Post-Earthquake Wheat Flour Monetization in Haiti.* World Vision International.

UN Population Fund (January 10 2011). *One Year after the Earthquake, Haiti's Recovery Proceeds Slowly.*

WFP and FAO (2010). *Misión FAO/PMA de Evaluación de cosecha y Seguaridad Alimentaria en Guatemala.* Washington, D.C.: WFP, FAO.

World Bank (2008). *Guatemala Poverty Assessment: Good Performance at Low Levels.* Washington, D.C.: World Bank.

World Vision (2011). *Haiti MYAP Annual Results Report.*

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